AMERICAN NATURES: THE SHAPE OF CONFLICT IN ENVIRONMENTAL LAW

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There is a firestorm of political and cultural conflict around environmental issues, including, but running well beyond, climate change. Legal scholarship is in a bad position to make sense of this conflict because the field has concentrated on making sound policy recommendations to an idealized lawmaker, neglecting the deeply held and sharply clashing values that drive, or block, environmental lawmaking. This Article sets out a framework for understanding and engaging the clash of values in environmental law and, by extension, approaching the field more generally. Americans have held, and legislated based upon, four distinct ideas about why the natural world matters and how we should govern it. Each of these conceptions persists in a body of environmental law, a network of interest and advocacy groups, the attitudes and even identities of ordinary citizens, and even the American landscape. The first, providential republicanism, treats nature as intended for productive human use and gives high status to its users: this idea justified the European claim to North America, defined public debates about nature in the early republic, and persists in important aspects of private and public land-use law. The second conception, progressive management, arose in the later nineteenth century as part of a broader legal reform movement and gave its shape to much of federal lands policy, notably creation of the national forests and national parks. In this idea, nature's productive use requires extensive management by public-spirited experts, whom reformers imagined as steering the environmental policy of the administrative state. The third conception, romantic epiphany, concentrates on the aesthetic and spiritual value of nature and has defined national parks policy, spurred creation of the national wilderness system, and lent essential support to the Endangered Species Act. This idea entered environmental politics at the turn of the last century, with the efforts of the Sierra Club and other innovators. The most recent conception of nature, ecological interdependence, arose in the middle of the twentieth century and shaped much of the environmental law of the 1970s and thereafter. This conception treats nature as an intensely inter-permeable web, of which humans are unavoidably a part, to our benefit and hazard. All of these ideas persist in today's environmental law and politics and provide a map of our existing statutes and doctrines, the conflicts around those laws, and emerging issues such as climate change.

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Introduction

Environmental law is now part of the cultural conflict that shapes, or deforms, American public life. In partisan politics, beliefs about climate change are less empirical judgments than badges of cultural identity, signs of who is with you and who is against you.[1] In movement organizing and electioneering, the Endangered Species Act and the Environmental Protection Agency are targets in the Tea Party's political shooting range.[2] Nor are these

[1] *See* Dan M. Kahan et al., *Second National Risk and Culture Study: Making Sense of — and Progress in — the American Culture War of Fact*, 1–2 (Yale Law Sch. Publ. Law Working Paper No. 154, 2007), *available at* http://www.culturalcognition.net/projects/second-national-risk-culture-study.html; *see also* Edward Maibach et al., Yale Project on Climate Change & George Mason Univ. Ctr. for Climate Change Commc'n, Global Warming's Six Americas 2009: An Audience Segmentation Analysis (2009), *available at* http://environment.yale.edu/climate/files/climatechange-6americas; Dan M. Kahan & Donald Braman, *Cultural Cognition and Public Policy*, 24 Yale L. & Pol'y Rev. 149 (2006) (setting out theory of "cultural cognition" of policy-relevant facts).

[2] *See Montana House Votes to Nullify Endangered Species Act*, Bozeman Daily Chron., Feb. 19, 2011, *available at* http://www.bozemandailychronicle.com/news/article_85f9f742-3c64-11e0-a5ec-001cc4c002e0.html (reporting that Tea Party legislators regard the Endangered Species Act as invalid); Ben McGrath, *The Movement: The Rise of Tea Party Activism*, The New Yorker, Feb. 1, 2010 at 40; Diane Roberts, *The EPA: the Tea Party's next target*, The Guardian, Aug. 3, 2011, *available at* http://www.guardian.co.uk/commentisfree/cifamerica/2011/aug/03/epa-republicans-tea-party.

attitudes restricted to the grassroots and hinterlands: Utah's new Senator asserts state sovereignty over federal public lands within Utah's borders, which would upend the country's land-management policy.[3] Taking another step away from empirical verification, Tea Party activists explain that they oppose environmental regulation on biblical authority.[4]

It is tempting to see this thorny bouquet of climate-change skepticism, cultural politics, hostility to national government, and mixing of religion with regulation as adding up to a revolt against reason.[5] This is particularly poignant because, for decades, much environmental law scholarship has been implicitly addressed to an elusive and consummately rational figure we might think of as the Enlightened Policymaker. This welfare-maximizing lawmaker patiently awaits the delivery of a better mousetrap. Law professors have delivered, producing boatloads of work on improved design for air-pollution law, international climate regimes, ecosystem service preservation, and so forth.[6] If implemented, many of these reforms would, as promised, improve national and global welfare, overcome collective-action problems, internalize externalities, and eliminate deadweight loss. Now, in a perfect political, cultural, and religious storm, the boatloads of better ideas are sinking unread. The most ironic victim is the Intergovernmental Panel on Climate Change ("IPCC"), whose conveners have patiently assembled a minimal scientific consensus on global warming and set out a range of cautious forecasts and stylized policy alternatives. This massive tribute to objectivity has become the target of suspicion and denunciation, including politically motivated investigations into climate researchers' methods, even as popular beliefs about climate change fissure.[7] Scientific consensus, meet political cacophony. Reason, meet unreason.

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[3] *See* Phil Taylor, *U.S. Not 'Sovereign' Over Federal Lands, Utah GOP Senate Candidate Says*, N.Y. TIMES, July 2, 2010 (describing constitutional views of now-Senator Mike Lee).

[4] *See* John M. Broder, *Climate Change Doubt Is Tea Party Article of Faith*, N.Y. TIMES, Oct. 20, 2010, at A1.

[5] *See generally* AL GORE, THE ASSAULT ON REASON (2007); CHRIS MOONEY, THE REPUBLICAN WAR ON SCIENCE (2005).

[6] *See, e.g.*, RICHARD B. STEWART & JONATHAN B. WIENER, RECONSTRUCTING CLIMATE POLICY: BEYOND KYOTO (2003) (sketching an interest-mediating structure for future global climate-change policy architecture). Examples are almost quite literally innumerable and impossible to avoid in any glance at the environmental law and policy literature. The most important sub-genre is the interest-based account of collective-action failure that seeks to give a rational-actor explanation of the failure of enlightened policy-makers to emerge or to regulate in an enlightened way. *See, e.g.*, Cass R. Sunstein, *Of Montreal and Kyoto: A Tale of Two Protocols*, 31 HARV. ENVTL. L. REV. 1 (2007) (analyzing the failure of the Kyoto Protocol as a matter of national-interest calculations).

[7] *See, e.g.*, John M. Broder, *Researcher on Climate Is Cleared in Inquiry*, N.Y. TIMES, Feb. 3, 2010, at A10 (noting climate change skepticism and political denunciation in background of inquiry into IPCC climate-change researchers' methods); Editorial, *Harassing Climate-Change Researchers*, WASH. POST, May 29, 2011 (detailing suits and investigations by private organizations and Virginia Attorney General Ken Cuccinelli seeking records of climate researchers); Press Release, Sen. James Inhofe, Climate Change Update (Jan. 4, 2005), *available at* http://inhofe.senate.gov/pressreleases/climateupdate.htm (calling into question IPCC methodology and linking Kyoto Protocol to French government's ambition to "global governance").

This way of seeing the matter has merit and force, to be sure. Willful refusal to confront scientific consensus and rational argument is courting global climate disaster. But doubling down on rationality may not be enough, either to understand environmental challenges or to solve them. At the most basic level, this is because scientific knowledge and rational policy design do not tell us what to value: they give us information about cause and effect, about what event Y is likely to follow from action X, but they do not tell us what we should try to achieve.

The perfectly standard point that neither science nor rational design help in making value judgments would not count for much if there were widespread agreement about the values at stake in how we govern our use of the natural world. The trouble is that the deep political and cultural structure of American environmental law is one of conflict. Americans disagree, and have long disagreed, about how to use and value the natural world. This disagreement is electoral and policy-oriented, of course, but it also goes to the level of personal and political identity: different conceptions of nature have been tied up with, and often are essential to, sources of dignity and meaning in both private and civic life. Therefore, debates about how to use and value the natural world get persistently entangled with questions of honor or status — questions about whose way of life is best.

These conflicts are not just cultural froth. They structure much of existing environmental and natural-resource law. Understanding them provides the key to a map of our statutory framework, an interpretive approach to certain doctrinal disputes, and a picture of the larger cultural frame of today's lawmaking.

Because environmental law is structured by conflict, scholars need a way to grasp and discuss that conflict, rather than ignore it until it blindsides us and makes our policy-engineering proposals irrelevant. We come somewhat late to this game: in areas of public law where scholars have long recognized the legal relevance of deep and persistent conflict, notably constitutional rights, invaluable work has traced the ways that doctrine arises from competing visions of social life, sources of individual dignity, and the innovations of social movements.[8] This Article brings that set of concerns fully into the study of environmental law.

The heart of the argument is this: over more than two centuries Americans have created and acted on four distinct understandings of their place in the natural world. Each of the four involves both factual beliefs about how nature works and closely entwined normative ideas: what is valuable in nature and, accordingly, how we should manage and use it. Each understanding of nature contributed to a major episode of lawmaking, so that all four are now embodied in our historically layered environmental and natural-resource laws. Each one also persists in ideological and interest-based constit-

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[8] *See, e.g.*, Jack M. Balkin & Reva B. Siegel, *Principles, Practices, and Social Movements*, 154 U. PA. L. REV. 927 (2006) (setting out an account of the role of social movements in contesting and contributing to the meaning of basic but underspecified public values).

uencies, and in the ideas that individual Americans carry about their place in the larger natural world.

The oldest of these understandings, the touchstone of the early republic, is *providential republicanism*. In this view, the natural world is made for productive use: nature has a telos, to be fruitful and support human life, and this purpose is realized only through human labor. Moreover, small-scale private ownership of land, the sort associated with the republican thought of the eighteenth and nineteenth centuries, uniquely produces fruitful use, so that political freedom and economic productivity go hand-in-hand. The dignity of the smallholder or pioneer and the progress of a continental "empire of liberty" go hand-in-hand.[9] Much of the continent's private property in land was created under the banner of providential republicanism, and its tropes persist in property-rights movements, calls for local land-use sovereignty, and resistance to regulation as a centralizing, tyrannical, and possibly European scheme against liberty.

The second understanding, which arose in the later decades of the nineteenth century, is *progressive management*. Its crafters and champions included President Theodore Roosevelt, who did much to establish twentieth-century conservation policy, and Gifford Pinchot, architect of the national forest system.[10] In this view, natural systems will reliably serve human ends only with expert governance at the system level: irrigation networks, silviculture, game preserves, and parks administration were early paradigms of this understanding. Progressive management carries its own idea of political community: a form of broadly utilitarian solidarity, in which government has the duty to promote the aggregate interest of Americans across generations. It also introduces a paradigmatic human user of nature: not the individual owner, but the scientifically trained and public-spirited manager. Progressive management is written into the country's public land laws, including the national forests, national parks, and grazing lands. In sum, these principles govern well over a quarter of the acreage of the United States. On a more parochial note, the law professors who write for an Enlightened Policymaker are carrying on the work of progressive management, though they are not always aware that their project is just one of four American attitudes to nature.

The third attitude is *romantic epiphany*. In this view, certain places or qualities in the natural world elicit essential human experiences. Alone in the wilderness, or facing the dramatic vistas that Romantic aesthetics deemed sublime, people could shake off habit and custom, discover their authentic wishes and convictions, and become, in that respect, more free. Romantic epiphany has seemed a way to salvage individuality and meaning from a disenchanted and pervasively managed world. The more than 100

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[9] GORDON S. WOOD, EMPIRE OF LIBERTY: A HISTORY OF THE EARLY REPUBLIC, 1789–1815, 357 (2009).

[10] *See* DOUGLAS BRINKLEY, THE WILDERNESS WARRIOR: THEODORE ROOSEVELT AND THE CRUSADE FOR AMERICA 396–430 (2009) (discussing the development of Roosevelt's conservation policy and his relationship with Pinchot).

million acres of federal land reserved as statutory wilderness form the largest legacy of romantic epiphany in the law.[11] The leading way of talking about the value of national parks, as a kind of secular cathedral, is also a direct legacy of romantic epiphany. So are important advocacy organizations such as the Wilderness Society and the Sierra Club.

The fourth American understanding of nature, *ecological interdependence*, developed within the last half-century and remains the most open-ended in its meaning. The central idea here is that the world is a system of deeply permeable systems, in which environmental effects move through complex, remote, and often invisible pathways — relations that Aldo Leopold popularized as a kind of scientific pastoral, and Rachel Carson as an apocalyptic account of undetectable yet deadly threat.[12] Ecological interdependence has been associated with a blended aesthetic and ethical attitude: the perception that human life is intertwined with a vast web of natural phenomena in which some observers discover inspiration, wonder, or humility. The regulatory statutes that were passed beginning in 1969 and continuing through the 1970s are deeply inflected by the concern with interdependent systems that defines ecological interdependence. The National Environmental Policy Act ("NEPA"), the Clean Air Act, the Clean Water Act, and the Endangered Species Act are the most prominent examples of statutes from this era, which produced much of modern environmental law.[13]

This Article describes the rise and interaction of these four views of the natural world. The story is cumulative: earlier views persist as new ones arise, both through their legislative offspring and as organizing ideas for competing groups. It is thus a story about how political ideas contribute to legal change, and also about how ideas, once established in identities and institutions, can reinforce legal entrenchment and constrain ongoing political debates.

This history makes special use of two concepts: *environmental public language*[14] and the *environmental imagination*.[15] *Public language* is a pol-

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[11] *See* GEORGE CAMERON COGGINS ET AL., FEDERAL PUBLIC LAND AND RESOURCES LAW 24 (6th ed. 2007).

[12] *See* M. Jimmie Killingsworth & Jacqueline S. Palmer, *Millennial Ecology: The Apocalyptic Narrative from* Silent Spring *to* Global Warming, *in* GREEN CULTURE: ENVIRONMENTAL RHETORIC IN CONTEMPORARY AMERICA 21, 27–32 (Carl G. Herndl & Stuart C. Brown eds., 1996) (discussing Carson's rhetorical style and origins); DONALD WORSTER, NATURE'S ECONOMY: A HISTORY OF ECOLOGICAL IDEAS 284–90 (1994) (describing Leopold's development of his mature view on the human relationship to nature and characterizing that view).

[13] *See generally* National Environmental Policy Act of 1969, Pub. L. No. 91-190, 83 Stat. 852 (codified as amended at 42 U.S.C. §§ 4321–4347 (2006)); Clean Air Act Amendments of 1970, Pub. L. No. 91-64, 84 Stat. 1676 (codified as amended in scattered sections of 42 U.S.C. (2006)); Federal Water Pollution and Control Act Amendments of 1972, Pub. L. No. 92-500, 86 Stat. 816 (codified as amended in scattered sections of 33 U.S.C. (2006)); Endangered Species Act of 1973, Pub. L. No. 93-205, 87 Stat. 884 (codified as amended at 16 U.S.C. §§ 1531–1544 (2006)).

[14] This not-very-elegant term is my own, as far as I know, but it has origins in two other major approaches to the study of political language. The first is the serious study of political rhetoric as an aspect of a normative public culture. *See* JEFFREY K. TULIS, THE RHETORICAL PRESIDENCY 14 (1987) ("Political rhetoric is, simultaneously, a practical result of basic doc-

ity's lexicon of political and legal persuasion, the repertoire of its ongoing arguments. Public language encompasses recognized terms of condemnation and exhortation, and the principles, purposes, and dangers that one can credibly invoke in such settings as legislative debate, regulation, or adjudication.[16] *Imagination* refers to what public language typically presupposes, a shared image of the world and our situation in it, a blend of fact and value that includes ideas about both how things work and how they matter. The environmental imagination helps to make ways of valuing and using the natural world self-evident, intelligible, or bizarre categories whose content has changed greatly over two-plus centuries.

The value of attending to environmental language and imagination is not only descriptive and diagnostic, though it most certainly is that. Simply taking the existing contours of environmental law and politics as given and showing their sources in cultural and political conflict can give the impression of merely narrating how environmental law came to seem besieged by unmeritorious passions. Ultimately, the aim of this cultural history is more and different. By showing that today's environmental ideas are the products of the human power to reinterpret our relation to the natural world and create, or discern, new reasons to act in new ways, this history gives a reminder that our future environmental law and politics might look as different from the present as the present does from the past. This will be particularly so if social movements and political leaders formulate creative responses to emerging challenges such as climate change. The lesson of this history, then, is partly to illuminate the way in which we sometimes come to be stuck, but it is also to give a reminder of the power that can set us loose to take new directions.

As the body of this Article indicates, people adopt or create novel ideas about nature for several kinds of reasons, which may overlap in any specific case. First, the idea may unify a variety of phenomena or problems in a way

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trines of governance, and an avenue to the meaning of alternative constitutional understandings."). The second is the careful study of the specific uses to which general terms are put in the context of time and place. Associated with the "Cambridge School" of intellectual historians, this approach is nicely captured in James Tully, *The Pen Is a Mighty Sword: Quentin Skinner's Analysis of Politics*, *in* MEANING & CONTEXT: QUENTIN SKINNER AND HIS CRITICS 7, 7–25 (James Tully ed., 1988).

[15] Lawrence Buell has made this term central to his analysis of the American literary canon. *See* LAWRENCE BUELL, THE ENVIRONMENTAL IMAGINATION: THOREAU, NATURE WRITING, AND THE FORMATION OF AMERICAN CULTURE 2–3, 6–8 (1995) (explaining his investigation of literature as an exercise in interpreting the human relation to the natural world). Where Buell is interested in the view of nature expressed in literary texts, I am concerned with ways of experiencing nature in everyday life that are presupposed by public language. In this respect, my formulation owes a lot to Charles Taylor's discussion of "social imaginaries." *See* CHARLES TAYLOR, A SECULAR AGE 171–76 (2007); CHARLES TAYLOR, MODERN SOCIAL IMAGINARIES 23–30 (2004). I use a similar idea in discussing implicit social visions in the development of property law: JEDEDIAH PURDY, THE MEANING OF PROPERTY: FREEDOM, COMMUNITY, AND THE LEGAL IMAGINATION 9–12 (2010).

[16] As these examples suggest, what counts as public language varies with the context and the problem at hand. I use the same term to organize a companion piece that overlaps with this Article: Jedediah Purdy, *The Politics of Nature: Climate Change, Democracy, and Environmental Law*, 119 YALE L.J. 1122 (2010).

that helps people to grasp and engage them. As Parts II and IV argue, the concepts of *conservation* and *the environment* tied together disparate challenges, making it possible to address them under an organizing label that motivated and shaped responses.[17] Second, the idea may provide a justification for doing something a person is already motivated to do: in the simplest rendering of this version, ideas are ideological tricks for elevating material interests that one would hold regardless. There must be something to this version, even if it is too simple. The story that Part I tells, providential republicanism's justification of the European claim to North America, is the best candidate for this version: there is a plausible case that Europeans, technologically superior and land-hungry, would have found a way to justify (at least to themselves) their taking the continent, no matter the conceptual tools they had for that task. (As I shall argue shortly, however, I think this cannot be the whole story.) Third, ideas may serve a rather different set of human interests, those sometimes called ideal interests: interests in meaning, dignity, recognition, a sense that one's life has value and purpose and that others see it in that light.[18] It is central to the argument here that each of the major versions of environmental imagination has importantly served these latter interests, elevating the status of various groups that adopted them (such as, respectively in Parts I-IV, pioneer laborers and yeomen, experts and administrators, aesthetes and outdoor enthusiasts, and egalitarian skeptics of twentieth-century industrial versions of progress). Some innovations, most prominently romantic epiphany, have also addressed the need for meaning on an individual rather than a social level, assuring their converts that the natural world, properly understood, showed that life in general, and their lives in particular, were valuable and meaningful.[19] This last example shades over into the fourth motive that new ideas serve: they enable people to reinvent themselves, or to be converted, into new kinds of people. They help, in other words, to address the very old question of who to be, a question whose urgency is more widespread and acutely felt in this post-traditional world than in most of history.

As mentioned in the previous paragraph, this Article's history suggests that even when ideas arise to justify or facilitate the pursuit of material interests, this does not mean that ideas can be reduced to interests. This is so for

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[17] This approach to ideas, treating them as tools for organizing and engaging experience, is generally called pragmatic, and is fairly well captured in RICHARD RORTY, CONSEQUENCES OF PRAGMATISM 160–75 (1982) (setting out the pragmatist approach).

[18] *See* JONATHAN GLOVER, HUMANITY: A MORAL HISTORY OF THE TWENTIETH CENTURY 22–30 (1999) (characterizing human motives rooted in the need for moral meaning and order); ALASDAIR MACINTYRE, AFTER VIRTUE: A STUDY IN MORAL THEORY 204–25 (1984) (characterizing the need for a coherent sense of narrative in one's life); CHARLES TAYLOR, SOURCES OF THE SELF: THE MAKING OF THE MODERN IDENTITY 25–52 (1989) (arguing for the inescapable relevance of meaning and moral considerations to humans' capacity to make sense of their lives and act and choose as agents); H.H. Gerth & C. Wright Mills, *Introduction* to FROM MAX WEBER: ESSAYS IN SOCIOLOGY 3, 61–65 (1948) (setting out the interplay of ideas and interests in the thought of pioneering sociologist Max Weber).

[19] *See* GLOVER, *supra* note 18, at 26–30; MACINTYRE, *supra* note 18, at 204–25.

at least two reasons. First, some "interests" motivate actors only because the actors have already adopted new ideas of nature's value. An interest-based account of twentieth-century public-lands law, emphasizing the influence of groups of well-organized preservationists and their agency allies, can work only because those groups had developed a new view of the value of the landscapes they worked to preserve.

Public language acts as an important filter, allowing some interests to be translated into politically and legally persuasive claims while others are discounted or excluded from the political community. As Part I explains, frontier settlers' interest in access to land and other resources took special force from the influence of providential republicanism. We see in Part II that the introduction of romantic epiphany to public language made a value that would once have seemed personal and effete into a canonical justification of parks and other scenic lands.

The general point, then, is that ideas matter, not only as justifications of things people already wish to do, but as ways of choosing or discerning what is worth doing and even what kind of life is worth living. Even ideas that arguably begin as responses to material interests, such as providential republicanism with relation to European settlers' wish to claim the continent, frame the self-understanding of those who adopt the ideas and the public language in which later arguments take place.

Two clarifying points are essential. First, none of the four understandings of nature is static or monolithic. They were produced as ways of explaining and defending actions people believed important to undertake in a given historical moment, or of engaging keenly felt problems such as a perceived decline in civic virtue or a crisis of religious faith. They persist as elements of environmental imagination and public language because people continue to find occasions to use them, and, in using them, sometimes blend and change them. This Article's ideal-type, or stylized, account of the four understandings unavoidably conceals complexity and variation; on the whole, though, this is a modest price for a gain in clear and tractable descriptions of ideas that have been mainly implicit in environmental law scholarship before now. Second, the list of four understandings leaves out a good deal, notably Native American relations to nature, the slave plantations of the antebellum South (and the semi-free rural labor that often followed it, such as sharecropping), and the experience of contemporary immigrant populations, such as Southern California's Latinos. The logic of the omissions is that this Article is not a cultural or intellectual history of ideas about nature, but an account of language and imagination *that contributed directly to the formation of environmental law*.[20] The larger story must be rich and important, but it is for a different project.

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[20] *See, e.g.*, William Cronon, *The Trouble with Wilderness, or, Getting Back to the Wrong Nature*, *in* THE GREAT NEW WILDERNESS DEBATE 471, 489–90 (J. Baird Callicott & Michael P. Nelson eds., 1998) (discussing the race- and class-specific origins of environmental policy and imagination and their exclusionary effects); Arturo Gomez-Pompa & Andrea Kaus, *Taming the Wilderness Myth*, *in* THE GREAT NEW WILDERNESS DEBATE 293, 293–309 (J. Baird

The body of the Article proceeds as follows. Part I describes how providential republicanism supported a continental program of private-property creation, which dominated United States resource law until the end of the nineteenth century. Part II presents progressive management, explaining how a theory of expert governance over complex systems took natural resources as its paradigm for a larger reform program. Reformers created national forests and parks as models of their touchstone values: intergenerational responsibility, civic virtue, and the enrichment of leisure. Part III turns to romantic epiphany and explains how the Sierra Club and its allies turned an established literary and aesthetic theme — the illuminating and redemptive power of natural beauty — into a form of social life and part of public language that soon became central to environmental politics and lawmaking. Part IV introduces ecological interdependence, which rests on the perception that all parts of the natural world, including human beings, are interdependent and often fragile, and thus vulnerable to environmental crises that could affect whole systems of living things.

Part V sets out some ways that the framework developed earlier in the Article can help to structure understanding of today's environmental law and politics. This Article's typology of conflicting conceptions of nature can organize three kinds of inquiry. First, it provides a map of the various statutes that make up this area of law, showing how each contains the premises of one view (or more) of the natural world, and how courts mediating among conflicting sources of law are also resolving conflicts among basic views of nature. Second, the typology helps to sort the political attitudes that underlie environmental lawmaking and disputes about the application and interpretation of environmental law. This Article gives the basis for a hypothesis that the four competing views of nature may be the bases of disagreements over more specific issues, such as whether climate change is real and human-caused. Third, the Article's typology shows a way of mapping literal landscapes. Much of North America has been physically shaped by legal application of basic and contested premises about the value of nature and how humans should govern it. Both federal public lands and, perhaps more surprisingly, much private land is explicitly or implicitly dedicated to one conception of nature by the operation of law.

I. The Providential Republican Landscape

The term *providential republicanism* names a way of imagining North America that infused much of nineteenth-century law and politics. The continent was empty "wilderness" or "waste," and settling it would "reclaim" the land from this condition.[21] The emptiness had a double sense. Support-

Callicott & Michael P. Nelson eds., 1998) (discussing the exclusion of rural and especially non-white users of land from the development of wilderness concepts).

[21] James Buchanan, President, Second Annual Message to Congress (Dec. 6, 1858) (summarizing the task of territorial settlement as "generally to reclaim the wilderness").

ers of westward settlement imagined and portrayed the continent as thinly populated and uncultivated. They argued that the frontier was also *legally* empty because light and transient land use established, at best, weak and uncertain property rights. Reclaiming the continent meant filling both sorts of emptiness by pressing westward settlement and cultivation, private property, and republican government.[22] In the rhetoric of the time, these touchstones of economic and political progress joined in an image of a free American landscape, orderly and fruitful. This ideal stood in contrast to two alternatives: unredeemed wilderness, alarming but full of promise, and an infertile, withered landscape that was yoked rhetorically to political tyranny. Providential republicanism thus held two tasks to be mutually supporting: fulfilling the purpose of the natural world, which was to support human life amply, and achieving human freedom through self-government by equal citizens. These two tasks might even be identical, if westward settlement indistinguishably advanced both.

In this respect, providential republicanism set a precedent for the development of American environmental imagination by tying a conception of nature's purpose to images of the ideal citizen and the national polity. Providential republicanism associated the dignity of being American with productive labor, particularly the sort that opened the frontier, and with the kind of personal independence that westward settlement ostensibly made possible. Accordingly, the American nation was figured as a community of independent, laboring individuals and their families, and American lawmaking, at least notionally, should secure the conditions for such people to flourish. This ideal was defined in part by a set of personal, political, and ecological counterpoints: personal dependence on social or legal superiors, tyrannical government that interfered with the activity of free individuals, and a landscape allowed to lie fallow rather than bear fruit under labor.

A. The Law and Anthropology of Continental Settlement

To appreciate the idea that the continent, although inhabited by Native Americans, was not used in ways that could support indigenous ownership rights, consider this argument from James Kent, New York's chancellor, lecturer in law at Columbia, and author of the influential *Commentaries on American Law*.[23] Kent took up "the foundation of title to land"[24] in the United States a short time after Chief Justice Marshall had addressed the issue in *Johnson v. M'Intosh*.[25] Marshall, in ruling that citizens of the United States could not acquire title by purchase from Native Americans, expressly sidestepped issues of "abstract justice," such as the claim that farmers en-

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[22] *See infra* Part I.A.
[23] James Kent, Commentaries on American Law Vol. 3 (1828).
[24] *Id.* at 307.
[25] 21 U.S. 543 (1823).

joyed a natural right to expropriate the lands of nomadic hunters.[26] After recounting the essentials of Marshall's reasoning, Kent stepped squarely into the issue that the Court had avoided, arguing that abstract justice did support European expropriation.[27] Kent first argued for the continent's legal emptiness: "[e]rratic tribes" of "hunters" could not acquire lasting title to property, for their transient occupation gave them only "the loose and frail, if not absurd title of wandering savages. . . ."[28] Second was the emptiness of nonuse. This "immense continent" was "evidently designed by Providence to be subdued and cultivated, and to become the residence of civilized nations."[29] Kent embraced "the true principles of natural law" expounded by Emmerich de Vattel, who had "observed[ ] that the cultivation of the soil was an obligation imposed by nature upon mankind . . . ."[30] The continent was devoid of its normative use, which was imparted by God and discernible by natural reason: to be fruitful and support extensive settlement. Native American occupation not only failed to establish property rights, but also violated the duty to cultivate the land.

This theory had roots in the thought of Hugo Grotius and John Locke, but Americans did not simply repeat that natural-law tradition.[31] They emphasized and amplified one strand in a legal tradition that had produced robust debates about the justice of colonial expropriation. The idea that the continent was legally empty was much less influential in England and colonial North America than in the Revolutionary period and the early United States, when westward settlement became a national preoccupation.[32] In keeping with changing legal theory, both popular and legal materials in the

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[26] *Id.* at 572 (declining to base opinion "singly on . . . principles of abstract justice"); *id.* at 588 (declining to decide on "abstract principles" whether cultivators can displace noncultivators). Marshall held that the federal government was the sole source of ownership cognizable in American courts; he reasoned from the custom of Europe's colonial powers and the early United States, with some emphasis on the reliance interest of Americans who had settled the continent deep into the Midwest. *Id.* at 587–604.

[27] KENT, *supra* note 23, at 312 ("If the settled doctrine on the subject of Indian rights and titles was now open for discussion, the reasonableness of it might be strongly vindicated . . . .").

[28] *Id.*

[29] *Id.*

[30] *Id.*

[31] *See* RICHARD TUCK, NATURAL RIGHTS THEORIES: THEIR ORIGIN AND DEVELOPMENT 58–81 (1979) (describing Grotius's theory of the origin and character of property rights); JAMES TULLY, AN APPROACH TO POLITICAL PHILOSOPHY: LOCKE IN CONTEXTS 137–76 (1993) (describing the reception and use of Locke's natural-rights theory in relation to aboriginal land claims); David Armitage, *John Locke, Carolina, and the* Two Treatises of Government, 32 POL. THEORY 602 (2004) (describing the interaction between Locke's involvement in colonial settlement and administration and his writing the *Two Treatises*).

[32] *See* STUART BANNER, HOW THE INDIANS LOST THEIR LAND: LAW AND POWER ON THE FRONTIER 10–48, 121–60 (2005) (on the early belief that Native Americans enjoyed certain claims and the later erosion of this belief); LISA FORD, SETTLER SOVEREIGNTY: JURISDICTION AND INDIGENOUS PEOPLE IN AMERICA AND AUSTRALIA, 1788–1836 13–29, 183–203 (2010) (describing parallel growth of natural-rights claims to settlement in two settler colonies). *But see* ROBERT A. WILLIAMS, JR., THE AMERICAN INDIAN IN WESTERN LEGAL THOUGHT: THE DISCOURSES OF CONQUEST 233–286 (1990) (arguing that the natural-rights theory had a more continuous influence).

early republic increasingly portrayed Native American land use as vagrant and irregular, a departure from earlier recognition that many indigenous peoples did cultivate and permanently occupy their lands.[33] It took work to recast North America as an empty land.

This view of the continent was not monolithic even in its heyday: some colonists and citizens of the early republic defended Native American claims to ownership (sometimes in defense of their own putative purchases from indigenous occupants), and the federal government's practice was to take title to Indian land through the form of voluntary transactions, not by the Vattelian natural-rights claim that Kent endorsed.[34] The doctrine of *Johnson v. M'Intosh* was a hybrid, assigning Native Americans a usufructuary right to occupy and use their traditional lands, which fell well short of ownership.[35] Nonetheless, such halfway positions were routinely hedged around with assertions that Native American land use amounted to profligate waste of a continent.[36] There was widespread and basic agreement with the thrust of John Quincy Adams's rhetorical question:

> Shall the lordly savage . . . . forbid the wilderness to blossom like the rose? Shall he forbid the oaks of the forest to fall before the axe of industry, and rise again, transformed into the habitations of ease and elegance? Shall he doom an immense region of the globe to perpetual desolation . . . . [and] the fields and the vallies, which a beneficent God has formed to teem with the life of innumerable multitudes, be condemned to everlasting barrenness?[37]

The continent belonged to those who could make it bloom.

B. The Language of Wilderness and Waste

These ideas underlay a lexicon for the American landscape. Thus the "wilderness" of the frontier was to be "reclaimed," brought into the right use.[38] President John Tyler praised "our fellow-citizens who press forward

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[33] *See* BANNER, *supra* note 32, at 121–60.

[34] *See id.* at 10–48 (describing purchase practices); TULLY, *supra* note 31, at 148–51 (describing colonial debates).

[35] *See* Johnson v. M'Intosh, 21 U.S. 543, 574 (1823).

[36] *See* JOSEPH STORY, COMMENTARIES ON THE CONSTITUTION OF THE UNITED STATES VOL. 1, 7 (1891) (rejecting the natural-rights theory but characterizing the European view of Native Americans as "a savage race, sunk in the depths of ignorance and heathenism . . . [and] bound to yield to the superior genius of Europe . . . ."); *id.* at 106 ("We have . . . seen that the title of the Indians was not treated as a right of propriety and dominion . . . . As infidels, heathen, and savages, they were not allowed to possess the prerogatives belonging to absolute, sovereign, and independent nations. The territory over which they wandered, and which they used for their temporary and fugitive purposes, was, in respect to Christians, deemed as if it were inhabited only by brute animals." (footnote omitted)).

[37] John Quincy Adams, President, An Oration, Delivered at Plymouth 23–24 (Dec. 22, 1802).

[38] Besides the presidential language cited in the next sentence, *see infra* notes 39–42, this pairing of terms also appeared in judicial language. *See* Green v. Biddle, 21 U.S. 1, 43 (1823) ("Of all the attributes of sovereignty, none is more indisputable than that of its action upon its

into the wilderness and are the pioneers in the work of its reclamation,"[39] and President James Buchanan summarized the task of territorial settlement as "generally to reclaim the wilderness . . . ."[40] Wilderness was not necessarily unpopulated (it might, in particular, be full of Native Americans); rather, what defined it was that it was uncultivated.[41] Thus, for the first half of the nineteenth century, *wilderness* seems to have been synonymous in public language with *waste*, literally empty terrain, but also unproductive land.[42] Thus, while *wilderness* for the earliest New England colonists had a biblical resonance, as a horrid but significant place of sojourn and trial, it now signified land whose destiny was unfulfilled, and which awaited reclamation by the axe and plough.[43]

As we shall see, later changes in the sense of these two words marked significant shifts in the public language of nature. *Waste* came to have something nearer its contemporary meaning, of land ruined by poor use. Cast as a more general idea of incompetent use of resources, it became the defining bête noire of progressive management.[44] *Wilderness* took on a new, positive sense, as the repository of Romantic virtues inhering in untamed nature, and preserving it became a major goal of public-lands management.[45] In the early nineteenth century, however, these two conjoined terms formed a defining contrast to the settled landscape that providential republicanism

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own territory. If that territory happens to be in a waste and wilderness state, it may pass laws to reclaim it; to encourage its population; to promote cultivation; to increase production."). This particular pairing of terms, naturally, stands in for a larger idea, often expressed in different words. Thus, for example, the Tennessee Supreme Court opined in 1835, "[t]hat mere wandering tribes of savages, or such as have a stated place of residence, should claim a vast extent of forest . . . and exclude the cultivation of the earth, is unreasonable and unjust." State v. Foreman, 16 Tenn. 256, 266 (1935). The court continued, "[t]he earth was created for the general benefit of its inhabitants . . . . In order to sustain its vast population the earth must be cultivated; and it is manifestly unjust, that a comparatively small number of its inhabitants should claim an exclusive right to a large portion of its surface . . . ." *Id.* at 340.

[39] John Tyler, President, Third Annual Message to Congress (Dec. 5, 1843).

[40] James Buchanan, President, Second Annual Message to Congress (Dec. 6, 1858).

[41] Thus to remove Indians from lands where they had been settled as cultivators was to "thrust [them] into the wilderness again." Rutherford B. Hayes, President, First Annual Message to Congress (Dec. 3, 1877); *see also* Benjamin Harrison, President, First Annual Message to Congress (Dec. 3, 1889) ("We can no longer push the Indian back into the wilderness . . . .").

[42] *See* Thomas Jefferson, President, Fifth Annual Message to Congress (Dec. 3, 1805) (stating that settled Indian tribes "find it their interest . . . to dispose of parts of their surplus and waste lands" to white settlers); Andrew Jackson, President, Fourth Annual Message to Congress (Dec. 4, 1832) ("[A] portion of the waste lands owned by the States should be ceded to the United States for the purposes of general harmony and as a fund to meet the expenses of the war."); Martin van Buren, President, First Annual Message to Congress (Dec. 5, 1837) (stating that settlers moving westward in rapid and opportunistic fashion left "immense wastes behind them and enlarge[d] the frontier beyond the means of the Government to afford it adequate protection . . . .").

[43] *See generally* PERRY MILLER, ERRAND INTO THE WILDERNESS (1956) (discussing the early New England sense of mission).

[44] *See* discussion *infra* Part II.A.

[45] *See* JOHN MUIR, OUR NATIONAL PARKS 1 (1901) (arguing "wildness is a necessity"); *id.* at 3 (recommending we "take stock of our wildness"); *id.* at 22 (praising the "untrodden wilderness"); *id.* at 94 ("[T]o the north and south you behold a sublime wilderness . . . .").

embraced, a contrast premised on the superiority of settling and using the land: wilderness or waste land was an invitation, even a call, to development.

C. Political Argument and the Ideal Landscape

Providential republicanism established a recurring feature of American environmental argument: the ideal landscape, which visually exemplified the right human relation to nature and was often contrasted to misused or disorderly landscapes. A sort of summation-by-diorama of a theory, the ideal landscape portrayed the fruits of collaboration between human effort and natural design. Such images served as exhortation and reassurance, by portraying nature as the unfailing helpmate of its human inhabitants, and also as warning, by rendering vividly the bad consequences of departing from right use of the natural world.

A fruitful landscape bespoke both freedom and prosperity. It is well known that early Americans linked the prospects of republican freedom to the plenitude of the frontier.[46] In Eric Foner's formulation, free land was the condition for a nation of free men because it made possible widespread and expanding ownership, giving everyone (in theory) the chance to become a proprietor.[47] The social ideal of small-scale ownership helped, in turn, to establish an ideal of personal dignity, *free labor*, in which manual and other productive work was revalued from a mark of low status to an egalitarian emblem of personal worth.[48] The frontier made this ideal a widely shared prospect, and, in rhetoric and to considerable degree in fact, the property-building activity of small-scale labor made the frontier.

What is easy to overlook in this familiar story is how fully its partisans enlisted a vision of American nature in its support. A free people was also a productive people, and nature answered their yeoman labor with fruitfulness. Political rhetoric knitted together freedom and prosperity in an image of the ideal American landscape — and its opposite, an infertile landscape of tyranny. James Wilson gave a model of this rhetoric in a 1788 Independence Day address, contrasting the era of ancient Roman liberty, when "smiling harvests bore testimony to the bountiful boons of liberty," with the present:

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[46] Thomas Jefferson argued in his first inaugural address that the United States could avoid the crowded cities and political tyranny that had shaped European history, thanks to an open continent with enough land to hold a thousand generations of settlers. Thomas Jefferson, President, First Inaugural Address (Mar. 4, 1801).

[47] ERIC FONER, FREE SOIL, FREE LABOR, FREE MEN: THE IDEOLOGY OF THE REPUBLICAN PARTY BEFORE THE CIVIL WAR 9–38 (1970) (describing the interlaced premises of free-labor thought and the program of frontier settlement). *See also* DREW R. MCCOY, THE ELUSIVE REPUBLIC: POLITICAL ECONOMY IN JEFFERSONIAN AMERICA 48–100, 185–208 (1980) (describing "republican" conception of proprietor-based freedom and virtue, and the role of frontier settlement in promoting it); WOOD, *supra* note 9, at 357–99 (discussing the Jeffersonian program of western settlement).

[48] *See* FONER, *supra* note 47, at 1–72 (discussing the dignity of labor); WOOD, *supra* note 9, at 347–56 (discussing the revaluation of labor).

"Waste and barrenness appear . . . in all their hideous forms . . . . With double tyranny the land is cursed."[49] In republican North America, free Rome was reborn ecologically as well as politically: Wilson concluded with an "enrapturing prospect . . . . Placid husbandry walks in front, attended by the venerable plough. Lowing herds adorn our vallies; bleating flocks spread over our hills; verdant meadows, enamelled pastures, yellow harvests, bending orchards, rise in rapid succession from east to west."[50] George Perkins Marsh, the pioneering naturalist whose *Man and Nature* laid the groundwork for progressive management, attributed his paradigmatic case of ecological decline, the Mediterranean, to "the brutal and exhausting despotism [of the Roman imperium and] . . . the host of temporal and spiritual tyrannies which she left in her dying curse."[51] Natural fertility thus went with ordered liberty, waste with unjust government, so that the land itself expressed the character of the polity that inhabited it.

The optimistic side of this coin ran to outright ecological fantasy, most famously in the theory that "rain follows the plow," that is, cultivation of arid regions would train the atmosphere to moisture, a view whose champions included prominent geologist Ferdinand Hayden and Charles Francis Adams, editor of *The Nation*.[52] On the strength of this idea, the 1869 Report of the Commissioner of Agriculture reported of the Dakota Territory that "[a]pprehensions of drought" had given way to confidence that tree planting and "extension of the area of cultivation" would bring rain to settlers.[53] These forecasts encouraged rapid settlement of High Plains regions that could not sustain farming without irrigation. Disastrous droughts later drove settlers back across the hundredth meridian, the approximate eastern boundary of the arid West.

These theories were sometimes vague on whether republican settlement produced ecological fertility or vice-versa, an ambiguity easy to maintain in the conviction that the two were mutually supporting. William Gilpin, Gov-

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[49] James Wilson, Oration Delivered on the Fourth of July 1788, at the Procession Formed at Philadelphia to Celebrate the Adoption of the Constitution of the United States (Jul. 4, 1788), *in* 1 COLLECTED WORKS OF JAMES WILSON, at 288 (Kermit L. Hall & Mark David Hall eds., 2007). *Double tyranny* referred to the combination of political despotism and Catholicism, a formulation that persisted in these quasi-ecological polemics well into the nineteenth century.

[50] *Id.* at 293.

[51] GEORGE PERKINS MARSH, MAN AND NATURE 11 (David Lowenthal ed., 2003) (1864). With American land use his main concern, Marsh argued, "[m]an cannot struggle at once against crushing oppression and the destructive forces of inorganic nature," and when those burdens are joined, "the fields he has won from the primeval wood relapse into their original state of . . . unprofitable forest growth, or fall into that of a dry and barren wilderness." *Id.* at 11–12. For a brief but provocative sketch of Marsh's New England-based politics, which made him skeptical of rapid westward expansion and supportive of settlement and stewardship in the East, see Steven Stoll, *Farm against Forest*, *in* AMERICAN WILDERNESS: A NEW HISTORY 55, 65–67 (Michael Lewis ed., 2007).

[52] *See* Gary D. Libecap & Zeynep Kocabiyik Hansen, *"Rain Follows the Plow" and Dry-farming Doctrine: The Climate Information Problem and Homestead Failure in the Upper Great Plains, 1890–1925*, 62 J. ECON. HIST. 86, 93–94 (2002).

[53] U.S. DEP'T OF AGRIC., REPORT OF THE COMMISSIONER OF AGRICULTURE 608 (1869).

ernor of Colorado and among the most inspired rhetoricians of manifest destiny, declared that on a uniquely fruitful continent, where every region was suited to support human life, geographic and political forces led to the same end:

> Political societies and empires have in all ages conformed themselves to emphatic geographical facts. This *Democratic Republican empire* of North America is, then, *predestined* to expand and fit itself to the continent. . . .
>
> In geography the *antithesis* of the old world, in society we are and will be the reverse . . . .
>
> Behold, then . . . the empire which industry and self-government create . . . hewed out of the wilderness — its weapons, the axe and plow; its tactics, labor and energy; its soldiers, free and equal citizens.[54]

In this passage, geography is literally destiny, carried out through the labor of agricultural settlement and realized in a political community of equal citizens.

Two rather opposite impulses helped to sustain the vision of a free and dignifying life on an endlessly fruitful continent, with sometimes cruelly paradoxical effect. One was genuine egalitarianism within the polity, radical enough in some hands to make free labor an engine of anti-slavery.[55] The other was refusal to tolerate, and what sometimes seemed incapacity to acknowledge, outside constraints on the expansion of the community — which would, after all, have implied limits to the logic of expanding proprietorship. The refusal of external limits had its most vivid expression in the erasure of Native American rights and, indeed, of many of the facts of Native American land use.

D. The Legal Program and Culture of Providential Republicanism

The providential republican program was to make the continent fruitful by disbursing land to private owners and promoting infrastructure to translate their labors into continental commerce. This is not the place even to summarize the legal details of these policies, which formed much of the federal government's domestic activity in the nineteenth century and persisted until Franklin Roosevelt withdrew the remaining federal lands from

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[54] WILLIAM GILPIN, MISSION OF THE NORTH AMERICAN PEOPLE, GEOGRAPHICAL, SOCIAL, AND POLITICAL 69–70 (2d ed. 1874).

[55] For an example of the mutual support of free-labor ideas and abolitionism, see generally RICHARD HILDRETH, DESPOTISM IN AMERICA: AN INQUIRY INTO THE NATURE, RESULTS, AND LEGAL BASIS OF THE SLAVE-HOLDING SYSTEM IN THE UNITED STATES (1854). By contrast, prominent defenders of slavery were often scornful critics of labor markets as disguised forms of coercion. *See* GEORGE FITZHUGH, CANNIBALS ALL! OR SLAVES WITHOUT MASTERS 218–19 (C. Van. Woodward ed., 1960) (1857).

settlement in 1934.[56] The sweep of the story is susceptible to top-down portrayals, such as Willard Hurst's classic picture of a federal strategy of releasing human energy and initiative through the legal architecture of settlement,[57] and bottom-up accounts emphasizing the settlers' shared conviction in their right to land and their cooperation in arrangements that Washington often ended up having to embrace or, at least, accommodate.[58] That the account runs well with either emphasis bespeaks pervasively shared ideas. Despite disputes about internal improvements and sectional and class conflicts over the terms of expansion, Americans from federal legislators to frontier settlers converged on the program of continental settlement.

We get a sharp expression of the ideas behind this program where they were mobilized in resistance to early proposals that the federal government should retain and manage public lands. The lines of the settler imagination were on vivid display in congressional opposition to federal management of forests and creation of national parks. In 1878, Interior Secretary Carl Schurz took unprecedented action against commercial cutting on public lands, fining and seeking prosecution of those who cut public timber without permission.[59] Traditionalist senators reacted furiously, rallying around the right of settlers to extract wealth from the public domain. They argued that Schurz's policy would turn pioneers in the territories into second-class citizens and establish tyranny and desolation in the West. They linked clearing and using land with inviolable human rights, invoking the Declaration of Independence to compare the policy-makers of Washington, D.C. to the despotic King George portrayed in that document — which had denounced the 1763 prohibition on settlement west of the Alleghenies.[60] Evoking the infertile landscapes of tyranny that were conventional in this rhetoric, they called Schurz's prohibitions an attempt to lock each settler family into primitive autarky,[61] a "spoliation" and "robbery of the poor"[62] that would drive settlers into "barbarism" and end by depopulating the Western lands.[63] They also insisted that, because timbering had been permitted for earlier waves of

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[56] For the best account of this history, see generally PAUL W. GATES, HISTORY OF PUBLIC LAND LAW DEVELOPMENT (1968).

[57] WILLARD HURST, LAW AND THE CONDITIONS OF FREEDOM IN THE NINETEENTH-CENTURY UNITED STATES (1956) (arguing that the federal design of settlement carried out a policy of unleashing human energy and initiative).

[58] *See, e.g.*, GATES, *supra* note 56, at 152–63 (describing informal "claims associations" that often succeeded in allocating frontier land); GARY LIBECAP, CONTRACTING FOR PROPERTY RIGHTS 29–50 (1989) (providing historical and theoretical bottom-up account of Western mineral regimes employing rational-actor model).

[59] *See* GATES, *supra* note 56, at 548 (describing George Perkins Marsh's influence on timbering enforcement).

[60] 7 CONG. REC. 1722 (1878) (statement of Sen. Blaine) ("I know nothing in the world to parallel it except that great assertion in our immortal Declaration of Independence that the King of England 'has erected a multitude of new offices, and sent hither swarms of officers to harass our people, and eat out their substance.'").

[61] *See id.* at 1861 (statement of Sen. Blaine).

[62] *Id.* at 1865 (statement of Sen. Eustis).

[63] *See id.* at 1867 (statements of Sen. Sargent).

settlers in the East and Midwest, regulating Western cutting would deny the latest pioneers equal standing in the polity.[64]

The same ideas figured prominently in the Senate's discussions of Yellowstone National Park, established in 1872, and the 1864 grant of Yosemite Valley to California "for public use, resort, and recreation."[65] The places that those acts set aside are today's paradigms of public-minded preservation and, in particular, touchstones for romantic epiphany. In the original legislative debates, however, even the parks' supporters treated them as anomalous departures from a general practice of disbursing public land for private, economically productive use. Moreover, the aesthetic value that supporters associated with the parks was much narrower than the ideas that would later define the romantic case for preservation. In both respects, these arguments highlight the dominance of providential republicanism and the absence from core land-use politics of ideas that would be conventional two generations later.

In an 1883 debate over administration and funding of Yellowstone, the threshold issue was whether any portion of federal public lands should remain in government ownership or, as Senator Ingalls of Kansas put it, "[t]he best thing that the Government could do with Yellowstone National Park is to survey it and sell it as other public lands are sold."[66] Ingalls's position expressed the larger idea that disbursing public lands to private owners would carry westward the empire of liberty and wealth, while permanent government ownership meant monopoly and potential tyranny. Supporters of the parks did not deny that view as a general matter, but argued instead that the parks should be exceptions. Yosemite was "for all public purposes, worthless,"[67] while Yellowstone beyond its geysers (already recognized as a potentially lucrative tourist destination) was "simply useless . . . 'mere leather and prunella.'"[68] These, it bears repeating, were the parks' *supporters*. Their arguments presupposed that the "public purposes" that defined the "worth" of most federal land were restricted to economic productivity, making the wild high country of the parks an anomaly whose preservation would subtract nothing from the priority of development.

Supporters' praise for the parks expressed the same constraints, falling far short of the fulsome language of later preservationists. Senator Vest called Yellowstone "the great wonder-land of the world," full of "great curiosities that exist nowhere else,"[69] and Senator Conness of California praised Yosemite for "some of the greatest wonders of the world."[70] These phrases, though, should not be mistaken for a senatorial embrace of romantic epiph-

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[64] *See id.* at 1722 (statement of Sen. Teller) ("I claim that nothing is demanded by the people in the Territories now that has not been conceded to all settlers in the new Territories.").

[65] CONG. GLOBE, 38TH CONG., 1ST SESS. 2300 (1864).

[66] 14 CONG. REC. 3453, 3488 (1883).

[67] CONG. GLOBE, 38TH CONG., 1ST SESS. 2300 (1864) (statement of Sen. Conness).

[68] 14 CONG. REC. 3487 (1883) (statement of Sen. Vest).

[69] 14 CONG. REC. 3488 (1883).

[70] CONG. GLOBE, 38th Cong., 1st Sess. 2300 (1864).

any. The stress belongs on *curiosities*. The "republican park[s]"[71] that the Senate was prepared to offer Americans were one part spa, two parts circus, and no part spiritualized nature. Conness emphasized the freakishness of Yosemite's giant sequoias, describing the incredulity that had met a cross-section of one tree at the London World's Fair, where "the English who saw it declared it to be a Yankee invention, made from beginning to end."[72] He also insisted, "[t]here is no parallel, and can be no parallel for this measure, for there is not . . . on earth just such a condition of things."[73] The very oddness of the valley thus made its designation as a park sui generis and compatible with the general principle of privatizing the public domain.

Advocates in these decades were beginning to craft arguments based in progressive management and romantic epiphany, and to find audiences for these understandings of nature, but they were still working against a pervasive backdrop of providential republicanism. President Hayes spoke in favor of Schurz's efforts to regulate timbering, warning that "a country can not [sic] be stripped of its forests [without] the gravest consequences."[74] His successor, Chester Arthur, sounded a similar note.[75] The two presidents introduced conservationist ideas into the heart of political debate and marked the issue as a point of conflict between an executive seeking a new mandate to manage public lands in the name of utilitarian public interest and a Congress defending an older, privatizing conception of the public interest, whose adherents now found themselves redefined as a regional faction. Even earlier, Frederick Law Olmsted had written a report to the California Legislature urging it to accept the grant of Yosemite, in which he argued that by managing the most beautiful tracts of federal land for public recreation, the United States could grant all its "republican" citizens the invigorating benefits of outdoors life and aesthetic contemplation that more hierarchical nations had reserved for their aristocrats.[76] The progressive and romantic understandings of the natural world and the human relation to it were available by the later nineteenth century, but as political language they were first nascent, then embattled, and it was not until the end of the century that their advocates could shape the law and, with it, the landscape.

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[71] 14 CONG. REC. 3488 (1883) (statement of Sen. Vest).

[72] CONG. GLOBE, 38TH CONG., 1ST SESS. 2301 (1864).

[73] *Id.*

[74] Rutherford B. Hayes, President, First Annual Message to Congress (Dec. 3, 1877).

[75] *See* Chester A. Arthur, President, Second Annual Message to Congress (Dec. 4, 1882) ("The condition of the forests of the country and the wasteful manner in which their destruction is taking place give cause for serious apprehension . . . . [T]heir total extinction can not [sic] be long delayed unless better methods than now prevail shall be adopted for their protection and cultivation.").

[76] *See* Frederick Law Olmsted, *The Yosemite Valley and Mariposa Big Tree Grove*, *in* AMERICA'S NATIONAL PARKS SYSTEM: THE CRITICAL DOCUMENTS 12, 20–22 (Larry M. Dilsaver ed., 1994) (1865).

II. Progressive Management

Two statutes, the 1897 organic act of the U.S. Forest Service and the 1916 counterpart for the National Park Service, crystallize the ideas of progressive management.[77] Their instruments are federal retention and administration of land that would previously have been on track for privatization. Their technique is managerial and scientific expertise. Their goal is the greatest good of the greatest number across time. What that good was, and how government should serve it, were the major themes of progressive management. The perspective of progressive management recast the nineteenth century's development policies as anachronistic, if not downright pernicious. The touchstone of progressive management was *conservation*, the rational use of resources to serve social ends; its antithesis was *waste*, which came to mean use that undermined those ends.[78] These ideas tied management of natural resources into broader reform programs; they also made natural resources management a paradigm, sometimes an indispensable one, for those programs.

Progressive management, like providential republicanism, appealed to its adherents on several levels. Its core concepts, conservation and waste, enabled reformers to unite a variety of social and natural-resource problems. This account of problems and the response they required also strengthened the case for an institutional program that many reformers already advocated: a strong regulatory government at both the state and, especially, the national level. Progressive management also appealed to its adherents' search for dignity and meaning: it elevated experts and managers to the status of indispensable guardians of the national interest, which gave them both an urgent purpose and a claim on the regard of their fellows.

Although some of its advocates, such as Theodore Roosevelt, labored to reconcile progressive management with the frontier legacy, in important ways it was a rejection of providential republicanism. Reformers argued that yeoman ownership and private management of natural resources failed to sustain liberty and prosperity, and, in fact, caused crises of waste and depletion. Their reforms took much of the country's natural-resource wealth out of the channels of privatization that had run richly since the end of the eighteenth century and granted government a managerial role that, in the providential republican imagination, looked like resurgent tyranny. Hence the two approaches created and sustained competing constituencies and competing versions of the country, which were on a collision course from the start.

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[77] *See* Sundry Civil Appropriations Act of 1897, 30 Stat. 35 (codified as amended at 16 U.S.C. § 551 (2006)); An Act to Establish a Natural Park Service, Pub. L. No. 64-238, 39 Stat. 535 (codified as amended at 16 U.S.C. § 1 (2006)).

[78] The use of these terms is discussed, with examples, *infra* Part II.A.

A. The Core of Conservation

The National Park and Forest Service organic statutes expressed the core of the idea of conservation. They established guiding purposes and governance frameworks for new categories of land: acreage permanently retained in the federal public domain for production or recreation.[79] According to the statutes, national forests were to provide "a continuous supply of timber" and control downstream erosion and drought.[80] The parks' "fundamental purpose" was to "conserve the scenery and the natural and historic objects and wild life therein . . . ."[81] The land preserved was to be dedicated to "enjoyment . . . such . . . as will leave them unimpaired for the enjoyment of future generations."[82] These statutes expressly aimed to manage present resources for undiminished future benefits, and took federal retention and management as their means to this goal.

On their face, the two statutes' purposes — economic production on the one hand, beauty and recreation on the other — may seem quite distinct. They have sometimes been cast as antagonists in accounts of this period, their conflict crystallized in the famous dispute between the Sierra Club and the Department of Interior over damming Hetch Hetchy Valley in Yosemite National Park.[83] In fact, they were unified by the organizing concept of the Progressive environmental imagination: *conservation*. The word's meaning was built around the core of rational resource management, but was considerably richer than that. Conservation implied ways of imagining both natural and social life as complex systems that required informed and intentional management. It embraced a moral vision of a national community that could meet and match those forces. Its advocates insisted that rational policy could identify and achieve a common, national interest amid the clash of particular interests.[84] As Pinchot put it in a touchstone discussion,

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[79] Before the creation of Yellowstone National Park in 1872, land not retained as military bases was in a steady process of allocation to states, settlers, and industrial interests (such as railroads) under a variety of ongoing and one-off statutes. The President first acquired the power to create federal forest reserves in 1891, by way of a scrap of language inserted into the General Revision Act and discussed mainly after its passage in the fierce controversy that followed President Harrison's exercise of the authority. *See* GATES, *supra* note 56, at 565–69 (describing origin and early implementation of forest reservation power).

[80] *See* 16 U.S.C. § 475 (2006).

[81] *Id.* § 1.

[82] *Id.*

[83] *See, e.g.*, RODERICK NASH, WILDERNESS AND THE AMERICAN MIND 161–81 (3d ed. 1982) (describing the Hetch Hetchy dispute as a signal battle between wilderness-oriented "preservationists" and development-minded "conservationists").

[84] *See* GIFFORD PINCHOT, THE FIGHT FOR CONSERVATION 48–49 (1910). Pinchot explained:

> The conservation idea covers a wider range than the field of natural resources alone. Conservation means the greatest good to the greatest number for the longest time. . . . Conservation advocates the use of foresight, thrift, and intelligence in dealing with public matters. . . . It proclaims the right and duty of the people to act for the benefit of the people. Conservation demands the application of commonsense to the common problems for the common good.

> There is . . . no interest of the people to which the principles of conservation do not apply . . . in the education of our people as well as in forestry . . . to the body politic as well as to the earth and its minerals . . . . It applies as much to the subject of good roads as to waterways, and the training of our people in citizenship is as germane to it as the productiveness of the earth.[85]

Conservation was partly defined by an antithesis, *waste*, an old word to which conservationists gave a new sense.[86] As we have seen, *waste* had been used interchangeably with *wilderness* to mean undeveloped terrain, a sense rooted in its Latin root, vastus, meaning empty or desolate. While use of the word to denote a fruitless expenditure of energy or wealth was already well established, in progressives' hands this latter sense of *waste* became an obsessive indictment of any system or process that failed to make maximally productive use of its materials, whether those were minerals, trees, or human bodies and energy.[87] In progressive accounts, waste arose from a denial of the insights of conservation. The sources of waste were indifference to the complex effects of natural and social systems; defection from national community and purposes in favor of selfish personal interests; and absence of rational public policy.[88] Taken together, these waste-making attitudes represented failure to leave behind the mentality of the frontier or, alternatively, to adapt it to new circumstances. *Wasting* a resource, for progressive reformers, meant using land, forests, or labor in ways that diminished their health and productive activity. Conservation was the principle and technique of eliminating waste.

B. The Natural Resources Paradigm and Its Extension to Public Health

In natural-resource management, the canonical expression of conservation ideas came from Gifford Pinchot.[89] Pinchot was the most visible representative of a network of foresters, engineers, and sportsmen who argued that without rational policy and muscular enforcement, the country's forests would soon be cleared, its mines exhausted, its soil barren, and its rivers

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Id.

[85] Id. at 49–50.

[86] *See id.* at 44 (giving a definition of conservation by its antithesis: "conservation stands for the prevention of waste").

[87] *See id.* at 5–7 (lamenting "waste" in cases where resources are left undeveloped, as with un-mined coal, and in cases where they are inefficiently consumed); *id.* at 7–10 (objecting to "waste" of renewable resources such as soil fertility as well as non-renewable resources such as coal); *id.* at 43 (noting that failure to develop a resource can be as much a source of waste as poor use of it); *id.* at 45 (explaining that proper understanding of "waste" has at last made possible human mastery over uses of resources). For applications of "waste" to human rather than natural resources, see, for example, Woodrow Wilson, President, First Inaugural Address (March 4, 1913), discussed *infra* Part II.B, and IRVING FISHER, REPORT ON NATIONAL VITALITY: ITS WASTES AND CONSERVATION 2 (1909), which was prepared for the National Conservation Commission.

[88] *See generally infra* Part III.C.1–3.

[89] *See* PINCHOT, *supra* note 84, at 43–50 (setting out principles of conservation).

clogged with the sediment of erosion. The same arguments, as to forests in particular, were presented to Congress as early as 1890 in a memorial from the American Forestry Association, a critical body in the interlocking public and professional development of these ideas.[90] Already in 1891, the Interior Department's annual report to Congress announced the urgency of avoiding upstream erosion in irrigation systems, warned that without timbering limits "there will be little timber left to protect," and urged that the President's new power to reserve timberlands be used to these aims.[91]

Conservation implied rational management of human beings as well as nature. Theodore Roosevelt declared, "the health and vitality of our people are at least as well worth conserving as their forests, waters, lands, and minerals,"[92] and Charles Van Hise, a leading Progressive scholar of regulation, concluded his landmark study entitled *Conservation of Natural Resources* with a discussion of "The Conservation of Man Himself," which focused on public health.[93] The 1909 National Conservation Commission report to Congress and the President, which unified a sweeping conservation agenda, included a *Report on National Vitality: Its Wastes and Conservation*, which opened with this assertion: "the problem of conserving our natural resources is part of another and greater problem — [sic] that of national efficiency [which] depends not only on physical environment, but on social environment, and most of all on human vitality."[94] These formulations cast light on the moral gravamen of conservation and its antithesis, waste. What the Progressives warred against was not just failure to optimize use of the marginal unit of wood or coal, but spoliation of human bodies and energies.

Conservationists' interest in human health made natural beauty and vigorous outdoor recreation essential elements of their program. As sanitation laws saved Americans from the medical hazards of urban crowding, so parks could preserve them from the mental strains and abrasions of loud, fast-paced neighborhoods and workplaces. From Frederick Law Olmsted in 1865 to John Muir in 1901, reformers argued that laborers and city dwellers could repair themselves in restfully contemplating gorgeous landscapes.[95]

The management of nature and of society came together vividly in Woodrow Wilson's first inaugural address. Picking up the core themes of

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[90] *See* 21 CONG. REC. 2537 (1890).

[91] DEP'T OF THE INTERIOR, REPORT OF THE SECRETARY OF THE INTERIOR 14 (1891).

[92] Theodore Roosevelt, The New Nationalism, Speech at Osawatomie (Aug. 31, 1910), *reprinted in* Theodore Roosevelt, THE NEW NATIONALISM 22 (1910).

[93] *See* VAN HISE & LOOMIS HAVEMEYER, CONSERVATION OF OUR NATIONAL RESOURCES 514–23 (2d ed. 1930).

[94] FISHER, *supra* note 87, at 2.

[95] *See* Olmsted, *supra* note 76, at 20–22 (describing benefits to public mental health from access of beauty). Muir documented a concomitant shift in public perception:

> Thousands of tired nerve-shaken, over-civilized people are beginning to find out that . . . parks and reservations are useful not only as fountains of timber and irrigating rivers, but as fountains of life. . . . [T]hey are trying . . . to mix and enrich their own little ongoings with those of Nature, and to get rid of rust and disease.

MUIR, *supra* note 45, at 1.

conservation, Wilson described the nineteenth century's legacy as both "riches" and "inexcusable waste," the latter in failure "to conserve the . . . bounty of nature" and in "the human cost . . . of lives snuffed out, of energies overtaxed and broken."[96] Throughout the speech, images of neglected forests and waters and "waste places unreclaimed" are interwoven with those of sick, exhausted, and vulnerable bodies.[97] The progressive responses to such social waste — resource conservation, public-health regulation, and labor laws — figured in Wilson's language as forming a single remedy: "to purify and humanize every process of our common life" by replacing short-sighted self-interest with a commitment that law shall "keep sound the society it serves."[98]

C. Three Varieties of Moral Reform

Visions of moral renovation suffused reformers' programs. Natural resources policy figured in distinct ways in Pinchot's utilitarian rationality, Roosevelt's civic nationalism, and Weyl's agenda of consumer uplift. For each, the use of nature was a key to national character and a reference point for larger political ideas.

1. *The Humanitarianism of Utilitarian Rationality*

For Pinchot, conservation of natural resources was part of a program of moral reform that aimed at persuading Americans to look beyond selfish interests and pursue the prosperity of the present national community and future generations. Written into both the Forest Service and Park Service organic acts, this idea animated Pinchot's argument, which was built around denunciation of "short-sighted[ness]"[99] and a call to "make ourselves . . . responsible for [the country's] future."[100] "The conservation movement," Pinchot wrote, "is calling the attention of the American people to the fact that they are trustees."[101] Conservation policy aimed to serve all Americans' interest in material well-being, making "the difference between prosperity and poverty, health and sickness, ignorance and education, well-being and misery."[102] Identifying with this collective interest required what Pinchot called public spirit, which he defined, in opposition to selfishness, as "patriotism in action [and] the application of Christianity to the commonwealth."[103] Conservation was both a technocratic agenda and the touchstone

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[96] Wilson, *supra* note 87.
[97] *Id.*
[98] *Id.*
[99] PINCHOT, *supra* note 84, at 4.
[100] *Id.* at 20.
[101] *Id.* at 75–76.
[102] *Id.* at 88.
[103] *Id.* at 96.

of an ethic in which the good of all would become the object of each citizen's patriotic loyalty.

There were two distinct moral standpoints in Pinchot's account. The first was that of the citizen devoted to the common good. But this was necessarily an abstract loyalty, because Pinchot believed that serving the public interest demanded regulatory expertise that ordinary citizens lacked, and a scale of decision-making that only large institutions achieved. In practice, the commonweal required the engineering of systems, whether forests, schools, or markets. Thus Pinchot's account implied a second moral standpoint, that of the public-spirited expert manager qualified to interpret and implement the public interest. Conservation of natural and human resources was both a reformist program and a call for renovation of the national spirit, a new moral regard for all one's fellow citizens and for future generations. It uneasily united two constituencies: the democratic public that progressive conservationists urged to embrace the common good and the elite managers whom conservationists expected to identify and pursue that good.

2. *The Conservation of Civic Virtue*

Conservationists such as Roosevelt wanted citizens to be committed to the long-term interest of the whole country, and they wondered whether that civic spirit was possible in their time. An anxiety rippled through their cohort of elite reformers: that a prosperous, peaceful, and sanitary democracy would prove self-undermining because citizens would grow indifferent to national ideals, the public interest, and the well-being of future generations.[104] Such small-spirited Americans might hurry to consume the country's natural resources, leaving it geopolitically vulnerable, as Pinchot warned;[105] they might fall into the interest-driven class conflict that Roosevelt feared;[106] or they might simply give up all great initiative, whether political or industrial, and "rot by inches, like China."[107] What united these concerns was not so much a theory as a mood and a pattern of fears, but those, at least, are fairly clear. For these reformers, the United States had been built in a spirit of individualism that was not simply selfish, but also daring and oriented to high ideals. The decline of that spirit would mean the end of American greatness and might even make national unity impossible.

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[104] *See* RICHARD HOFSTADTER, THE AGE OF REFORM FROM BRYAN TO FDR 196–212 (1955) (describing contemporary journalists' focus on pervasive selfishness, corruption, and indifference to ideals and the public interest); ROBERT H. WIEBE, THE SEARCH FOR ORDER 1877–1920, at 56–66 (1967) (describing anxiety over loss of imagined "purity" and "unity" and wish to reclaim them).

[105] *See* PINCHOT, *supra* note 84, at 17–20 (writing on the threat of national decline from heedless consumption).

[106] *See* THEODORE ROOSEVELT, *Fellow-Feeling as a Political Factor*, *in* THE STRENUOUS LIFE 58, 66–68 (1901) (portraying class and occupational segregation as a source of civic division).

[107] THEODORE ROOSEVELT, *The Strenuous Life, in* THE STRENUOUS LIFE, *supra* note 106, at 3, 7.

Some, Roosevelt among them, saw answers in war and imperial projects.[108] At the same time, the search was on for civilian modes of character-building adventure, the famous moral equivalents of war.[109] Already established in Roosevelt's call for a "strenuous life" lived in search of adventure, this ideal was soon worked into the defense of outdoor recreation. According to the 1928 Report of the National Conference on Outdoor Recreation, with the closing of the frontier and rise of industry, "the individualism of the pioneer has been submerged in collective enterprise."[110] In such circumstances, recreation was "a needful social force" and source of "physical vigor, moral strength, and clean simplicity of mind."[111] Nature, then, could be the ligament that joined American life across its eras, giving access to old qualities in new times. For the American landscape to play this role, however, it would have to be managed appropriately: individual daring and adventurousness were to be, just a bit paradoxically, products of an age of planning and administration, "needful social forces" to be husbanded like bodily health, timber stocks, and fossil fuel.

Roosevelt also saw forests and parks as civic commons where Americans could overcome the class segregation of urban, industrial life, which he believed exacerbated pernicious social conflict. In these commons, Americans could mingle and share projects across their divisions, developing the quality that Roosevelt called "fellow-feeling," the germ of the utilitarian public spirit that he and Pinchot both praised as a patriotism for their time.[112] This was the civic value of the "free camping grounds for the ever-increasing numbers of men and women who have learned to find rest, health, and recreation in the splendid forests and flower-clad meadows of our mountains."[113]

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[108] *See id.* at 20–22. In describing the war in the Philippines, Roosevelt wrote:

> [I]f we do our duty aright in the Philippines, we will add to that national renown which is the highest and finest part of national life . . . [I]f we seek merely swollen, slothful ease and ignoble peace . . . then the bolder and stronger peoples will pass us by, and will win for themselves the domination of the world. . . . [I]t is only through strife, through hard and dangerous endeavor, that we shall ultimately win the goal of true national greatness.

Id. at 19–21.

[109] *See generally* WILLIAM JAMES, *The Moral Equivalent of War*, *in* WRITINGS, 1902–1910, at 1281, 1281–93 (1987).

[110] Chauncy Hamlin, *Introduction*, *in* REPORT OF THE NATIONAL CONFERENCE ON OUTDOOR RECREATION 1, 1 (1928).

[111] *Id.* at 2–3.

[112] *See* ROOSEVELT, *supra* note 106, at 78–80. Roosevelt argued:

> The only way to avoid the growth of these evils [class conflict] is . . . the creation of conditions which will permit mutual understanding and fellow-feeling between the members of different classes . . . if the men can be mixed together in some way that will loosen the class or caste bonds and put each on his merits as an individual man, there is certain to be a regrouping independent of caste lines.

Id.

[113] *See* Theodore Roosevelt, President, Message Communicated to the Two Houses of Congress at the Beginning of the First Session of the Fifty-Seventh Congress (Dec. 3, 1901), *in*

3. *The Humanism of Socialized Consumption*

Progressive conservation took a different direction in Walter Weyl's argument for "the socialization of consumption."[114] As Eric Foner notes, "during the Progressive era . . . a consumer definition of freedom — access to the cornucopia of goods made available by modern capitalism — began to supplant an older version centered on economic and political sovereignty."[115] In contrast to Roosevelt, Weyl was sharply critical of individualism and the frontier ethos, which he portrayed not as virtues to be transformed for new circumstances, but as defects to be overcome. Indeed, he seized on the providential republican trope that geography was destiny, but reversed the value of the plenteous frontier, arguing: "It made America atomic. It led automatically to a loose political coherence and to a structureless economic system."[116] Thus the symptoms of exploitation and inequality, "[t]he trust, the hundred-millionaire, and the slum were latent in the land which the American people in their first century of freedom were to subjugate."[117] For Weyl, the Progressive embrace of social regulation, "an energetic campaign of human conservation,"[118] brought not the potential enervation that Roosevelt feared, but pure progress from the destructive chaos of the frontier.[119]

For Weyl, "the socialization of consumption" had a qualitative goal: to improve the character and experience of citizens by guiding their consumption. This implied social provision of public goods was to offer experiences that Americans could not have enjoyed individually. Parks were a key example for Weyl; but here, in contrast to Roosevelt's thinking, parks mattered for the satisfaction they provided for individuals, not for their capacity to support civic virtues.[120] Regulated consumption should also enable ordinary Americans to explore a new dimension of satisfactions: the leisure and self-cultivation previously reserved to elites would now be available to every-

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ADDRESSES AND PRESIDENTIAL MESSAGES OF THEODORE ROOSEVELT, 1902–1904, at 284, 310 (1904).

[114] WALTER E. WEYL, THE NEW DEMOCRACY: AN ESSAY ON CERTAIN POLITICAL AND ECONOMIC TENDENCIES IN THE UNITED STATES 320 (1912).

[115] ERIC FONER, THE STORY OF AMERICAN FREEDOM 146–47 (1998).

[116] WEYL, *supra* note 114, at 23.

[117] *Id.*

[118] *Id.* at 323. Weyl also wrote of his social vision, "the democracy," that "[t]he most elemental phase of this social policy is conservation," *id.* at 320, and, "[t]he conservation of human resources is a step towards [sic] the equalization of the chances of life and health of the citizens," *id.* at 326. Weyl, unlike some progressives, was skeptical of the concept's value, arguing that it took currency from "the vogue of the analogous policy of the conservation of natural resources" but was too narrow to describe the social policy's goal of improving the population. *See id.* at 320.

[119] Weyl wrote acidly of the time when "the struggle for money and land waxed fiercer and fiercer . . . and men wasted and garnered and laughed and fought, as the continent was conquered." *Id.* at 28–29.

[120] *See id.* at 332 ("The state can also socialize consumption by furnishing a larger number of . . . those commodities and services which are furnished to the citizens in their individual capacity freely, though the citizens pay for them in their collective capacity.").

one.[121] This was no simple gain; Americans would have to learn to use leisure well, developing their minds and character free of the immediate need to support life and provide shelter. Leisure thus presented a cultural challenge.[122]

D. Conservation and the Claims to Public Interest in the New Nationalism

Conservation was central to Theodore Roosevelt's New Nationalism. Roosevelt called for recovering, in a large-scale and complex economy, the distributive ideal of rewarding effort, talent, and initiative, all qualities that he associated, at least rhetorically, with frontier settlement. Roosevelt's vision of economic regulation aimed at "national efficiency," which he called "the principle of conservation widely applied."[123] Elaborating on the central place of conservation in his program, Roosevelt explained in his presidential introduction to the massive 1909 report of the National Conservation Commission, that "[t]he policy of conservation is perhaps the most typical example of the general policies which this government has made peculiarly its own."[124] Roosevelt's examples of conservation-modeled regulatory policy included antitrust, control of corporate involvement in politics, and, above all, laws to deny corporations "unregulated control of the means of production and the necessaries of life."[125]

The aim of "national efficiency" was to deploy all productive forces, human beings above all, without waste. This included a principle of distributive fairness: each person's success should correspond to (1) her effort and talent and (2) her contribution to the public welfare. A proper regulatory regime would calibrate reward by these principles. Roosevelt called this principle "freedom of opportunity" or "equality of opportunity," and invoked it throughout his account of the relation between conservation and the larger ideal of national efficiency.[126]

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[121] *See id.* at 332.

[122] *See id.* at 333.

[123] Roosevelt, *supra* note 92, at 26. He also wrote that "conservation is the great fundamental basis for national efficiency." Theodore Roosevelt, *Special Message of the President*, *in* 1 REPORT OF THE NATIONAL CONSERVATION COMMISSION 1, 4 (1909). In the same message, Roosevelt explained that "[n]ational efficiency is the result of natural resources well handled, of freedom of opportunity for every man, and of the inherent capacity, trained ability, knowledge, and will, collectively and individually, to use that opportunity." *Id.*

[124] *Id.* at 3.

[125] *Id.*

[126] *Id.* at 3–4; *see also* Roosevelt, *supra* note 92, at 9–11 ("[E]very man will have a fair chance to make of himself all that in him lies; to reach the highest point to which his capacities, unassisted by special privilege of his own and unhampered by the special privileges of others, can carry him, and to get for himself and his family substantially what he has earned."). In his 1901 annual address to Congress, Roosevelt declared that "[t]he chief factor in the success of each man — wage-worker, farmer, and capitalist alike — must ever be the sum total of his own individual qualities and abilities." Roosevelt, *supra* note 113, at 300. In his "Special Message," Roosevelt also proposed that "[t]he man who serves the community greatly should be greatly rewarded by the community; as there is great inequality of service, so

Achieving "national efficiency" was imperative for Roosevelt not just because reconciling distributive justice with aggregate productivity was theoretically attractive, but also because it promised a solution to labor strife and political division. In "The New Nationalism" and other conservation addresses, national efficiency and equality of opportunity were protagonists on a landscape of brutally clashing interests, labor and capital above all.[127] Roosevelt was personally horrified by class conflict and saw in it a basic threat to social order.[128] He insisted that, for all the inequity and social waste of industrial capitalism, an ideal reconciliation of interests was achievable within that economic order.[129]

Conservation of natural resources served as synecdoche for this larger ideal. Renewable resources such as forests seemed to embody the gains to be won from expert public management relative to the hurried clear-cuts of the mid-nineteenth century. Private extractions from the public domain presented a concrete picture of selfish exploitation, a vivid antithesis to public-spirited management. In contrast to the notorious difficulties of economic regulation, such as formally reconciling free choice with substantive opportunity and distinguishing distributive fairness from rent-seeking politics,[130] the efficient management of natural resources in the national interest seemed exactly the example to persuade the reformer and his audience alike that conservation, generalized as "national efficiency," could reconcile competing interests and produce a just version of industrial, democratic capitalism.

The paradigm of natural resources may have had another, related advantage for the idea of national efficiency. It is often observed of progressive reformers, Roosevelt in particular, that while the public interest was their touchstone, fractious partisan politics left them impatient or dis-

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there must be great inequality of reward; but no man and no set of men should be allowed to play the game of competition with loaded dice." Roosevelt, *supra* note 123, at 3.

[127] In his 1901 annual address to Congress, Roosevelt declared:

> The most vital problem with which this country . . . has to deal, is the problem which has for one side the betterment of social conditions, moral and physical, in large cities, and for another side the effort to deal with that tangle of far-reaching questions which we group together when we speak of 'labor.'

Roosevelt, *supra* note 113, at 299–300.

[128] *See* ROOSEVELT, *supra* note 106, at 66-68.

[129] *See* ERIC FONER, RECONSTRUCTION: AMERICA'S UNFINISHED REVOLUTION 1863–1877 469–80 (1989) (discussing role of the idea of public interest among progressive reformers); SAMUEL P. HAYS, CONSERVATION AND THE GOSPEL OF EFFICIENCY: THE PROGRESSIVE CONSERVATION MOVEMENT 1890–1920, at 261–76 (1959) (discussing the role of natural resources in the progressive ideal of public interest).

[130] *See, e.g.*, MORTON KELLER, REGULATING A NEW ECONOMY: PUBLIC POLICY AND ECONOMIC CHANGE IN AMERICA, 1900–1933, at 7–11 (1990) (discussing competing ideas of the nature of the industrial economy and the appropriate role of government in its management); ROBERT J. STEINFELD, COERCION, CONTRACT, AND FREE LABOR IN THE NINETEENTH CENTURY 290–314 (2001) (surveying the persistent normative complexity and ambiguity in legal regulation of labor contracts in the northern United States).

gusted.[131] They nonetheless confronted a politics riven by clashes of economic interest and social vision. These always threatened to confound the New Nationalist ideal of an all-reconciling public interest. Resource conservation was a paradigm case in which expert managers could preside over mute landscapes, seemingly achieving governance without politics, in the name of a public interest that they had considerable liberty to define. The model of government as benign and fully informed manager was easier to maintain in proprietorship of land than as mediator of always-clashing economic interests and ideological programs.

Progressive conservationists' commitments were shaped by ambivalence about democracy's fidelity to popular will and utilitarianism's egalitarianism of satisfactions. Their thought had a recurrent double character. On the one hand, their lodestar was the greatest good for the greatest number. On the other, they believed that only individuals of refined judgment and strong character could be expected to embrace this principle and support a government that promoted it. Democratic will might set the direction of national life, but only experts in natural and social systems could steer the course. Ordinary people were pervasively crude in their tastes and judgment, but access to the experience that conservationists most valued, such as outdoor adventure and appreciation of beauty, might make Americans more worthy of the democracy whose final law they, unsettlingly, represented. This double character seems to have helped conservation to be at once two things: a practical program of reform for a newly complex social and economic order and a vehicle for a status-marking version of refined taste, which gave cultural authority to a certain upper-class attitude toward the outdoors. Those who devised this marriage of scientific and aesthetic management thus created an account of industrial, democratic modernity, and of the role of government in responding to it, in which they played an indispensable role as both manipulators and interpreters of nature. The conservation movement advanced a democratic ideal that kept a central place for an elite of both knowledge and taste.

III. Romantic Epiphany

Beauty and outdoor recreation figured in progressive management as means to public health, civic virtue, and "socialized consumption." In the same period, natural beauty played a much more central role in another addition to public language: the attitude of romantic epiphany. Its core idea was that certain encounters with nature were revelatory, disclosing essential but obscured facts about one's identity and place in the world. This intuition had long been around as a literary, aesthetic, or sentimental delectation, but two changes helped bring it into environmental public language. One was fed-

[131] Eric Foner quotes approvingly H.L. Mencken's quip about Roosevelt: "He didn't believe in democracy; he believed simply in government." Foner, *supra* note 115, at 154–55 (1998).

eral retention of public lands, including national forests and the first parks, which created a forum in which arguments about beauty figured in concrete management decisions. The other was the rise of the Sierra Club, a romantic social movement with an agenda for management of public lands.

A. Personal Epiphany and Mutual Education

The Sierra Club transformed the literary and personal register of romantic epiphany into a form of sociability and, through the social movement that shared it, a public and political language. In this project, Club members made good use of their organization's icon, the nature writer and parks publicist John Muir, who was president of the Club from its founding in 1892 until his death in 1914. The Club's approach to the California high country was composed around Muir's writings, which formed a kind of field guide to epiphany.

Muir wrote travel narratives centering on description of landscapes, particularly those of the Sierra Nevada. At reliable intervals, the prose broke into soaring evocations of delight in nature's beauty and announcements that this delight was morally instructive, even a form of revelation. These passages conveyed a cluster of ideas. Everyday life was spilled out in instrumental activity and drab settings, which left the eyes dull and the mind blunt.[132] In the most spectacular natural settings — mountain peaks, endless vistas, and sheer rock faces — something entirely different broke through in the mind: wonder, awe, even ecstasy.[133] This experience revealed, by a kind of overwhelming intuition, that both the world and the human mind that could be moved by it were morally good, formed to harmonies that Muir frequently compared to mystical intuitions of divinity.[134] Encounters with nature's most dramatic landscapes restored the harmony and vitality of the mind and brought a feeling of fraternity with all living things.[135] These ex-

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[132] *See* MUIR, OUR NATIONAL PARKS, *supra* note 45, at 3–5 (describing the parks' beneficiaries as "tired, nerve-shaken, over-civilized," suffering from "the stupefying effects of the vice of over-industry," and "choked with care like clocks full of dust").

[133] *See* JOHN MUIR, MY FIRST SUMMER IN THE SIERRA 153 (1911) ("Never before had I seen so glorious a landscape, so boundless an affluence of sublime mountain beauty . . . . I shouted and gesticulated in a wild burst of ecstasy . . . ."); *id.* at 175 ("[T]he whole body seems to feel beauty when exposed to it as it feels the camp-fire or sunshine, entering not by the eyes alone, but equally through all one's flesh like radiant heat, making a passionate ecstatic pleasurable glow not explainable.").

[134] *See id.* at 129 ("South Dome . . . seems full of thought, clothed with living light, no sense of dead stone about it, all spiritualized, neither heavy looking nor light, steadfast in serene strength like a god."); *id.* at 169–70 (exclaiming that droplets of water passing from "form to form, beauty to beauty, ever changing, never resting, all are speeding on with love's enthusiasm, singing with the stars the eternal song of creation"); *id.* at 124 ("The whole landscape glows like a human face in a glory of enthusiasm, and the blue sky, pale around the horizon, bends peacefully down over all like one vast flower.").

[135] *See* John Muir, *A Wind Storm in the Forests*, *reprinted in* AMERICAN EARTH: ENVIRONMENTAL WRITING SINCE THOREAU 93–95 (Bill McKibben ed., 2008) (reporting as the epiphany of a morning spent in a wind-lashed treetop that relations among all things in nature are "no struggle . . . but rather an invincible gladness as remote from exultation as from fear"); *id.*

periences were, in a sense, the birthright of sentient beings, but everyday life cast them in shadow and worse.

Such ideas had enjoyed wide literary circulation for more than a century, accompanied by various philosophical apparatuses, not least in three figures whom Muir expressly treated as forebears: Wordsworth, Emerson, and Thoreau.[136] Public receptivity was also prepared by the prominence in visual culture of spectacular landscape paintings that explicitly invoked the sublime, aesthetic touchstone of romantic epiphany.[137] Nineteenth-century American literature featured a line of quasi-pantheist poets running back from Walt Whitman to William Cullen Bryant, who declared "[t]he groves were God's first temples."[138]

Muir's widely read books and magazines worked these ideas, and accompanying styles of nature description, into instruction in experience: Muir's writing enacted a journey on foot over spectacular landscapes; a precise, appreciative, even reverent way of seeing the landscape as one moved across it; and a register of overwhelming yet exquisite emotional response with a benign interpretation latent in it. For example, in his major work of publicity for parks preservation and tourism, *Our National Parks*, Muir devoted a number of pages to detailing the access trail to Yosemite's Glacier Monument, including details appropriate to a trail guidebook.[139] After considerable detail on the route to the peak of this granite dome and a detailed account of the view one might see from the top, he proposed that "[t]o an observer . . . in the midst of such scenery, getting glimpses of the thoughts of

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at 97 ("After tracing the Sierra streams . . . learning their language and forms in detail, we may at length hear them chanting all together in one grand anthem, and comprehend them all in clear inner vision.").

[136] *See* MUIR, *supra* note 45, at 131–36 (describing a visit with Emerson in Yosemite, suggesting that New England transcendentalism was exhausted and must be renewed in the West, and ending with a recollection of a later visit to Emerson's grave); DONALD WORSTER, PASSION FOR NATURE: THE LIFE OF JOHN MUIR 160–61, 336–37 (2008) (describing Muir's relation to Wordsworth, including a pilgrimage to the poet's grave at Grasmere).

[137] *See* Angela Miller, *The Fate of Wilderness in American Landscape Art: The Dilemmas of 'Nature's Nation'*, *in* AMERICAN WILDERNESS: A NEW HISTORY 91 (Michael Lewis ed., 2007) (describing American landscape painters' treatments of wilderness in the nineteenth century); *see generally* SIMON SCHAMA, LANDSCAPE AND MEMORY (1995) (discussing the European development of sublimity as a feature of landscape aesthetics); *see also* EDMUND BURKE, A PHILOSOPHICAL INQUIRY INTO THE ORIGIN OF OUR IDEAS OF THE SUBLIME AND BEAUTIFUL 39–40, 64–70 (James T. Boulton ed., 1958) (1757) (discussing the visual characteristics tending to induce sublimity); IMMANUEL KANT, THE CRITIQUE OF JUDGMENT 109–14 (James Creed Meredith trans., 1952) (1790) (describing sublimity as providing a glimpse of the rational will's freedom from physical determination).

[138] WILLIAM CULLEN BRYANT, *A Forest Hymn*, *in* POEMS 39, 39 (1836).

[139] Muir wrote:

> At first sight it seems sternly inaccessible, but a good climber will find that it may be scaled on the south side . . . . [Y]ou pass through a dense bryanthus-fringed grove of mountain hemlock . . . and . . . step abruptly out of the tree shadows and mossy leafy softness upon a bare porphyry pavement . . . . In making the ascent, one finds that the curve of the base rapidly steepens, until one is in danger of slipping; but feldspar crystals, two or three inches long, that have been weathered into relief, afford slight footholds.

MUIR, *supra* note 45, at 87–88.

God, the day seems endless, the sun stands still. . . . One day is as a thousand years, a thousand years as one day, and while yet in the flesh you enjoy immortality."[140] This prescription for rapture was followed immediately by a recommended route for descending from the peak.[141] To read Muir was to begin learning to make such experience one's own. It was nature writing as both aesthetic and practical instruction for a social movement of heartfelt high-country tourism.

The Club's members continued that education for one another. They pursued epiphany en masse, in summertime high-country camps of hundreds, from which smaller expeditions set out for nearby peaks.[142] They understood Muir's accounts of backcountry tourism to have inducted them into a new way of experiencing nature. Admirers described him as "a prophet[ ] and interpreter of nature," who had trained others, as the favored metaphor had it, to see through his eyes.[143] In addition to their annual expeditions, Club members' great vehicle of mutual education was the *Sierra Club Bulletin*, which published continuously from 1895. It featured vivid and often emotional accounts of large, small, and solo expeditions, and spectacular photographs of the Sierra Nevada.

Contributors to the *Bulletin* described their high-country expeditions as full of small epiphanies and glimpses of the sacred. The vitality and moral clarity that natural beauty disclosed restored them for ordinary life.[144] Marion Randall, a longtime club member, wrote in a typical passage that, on an outing, "[f]or a little while you have dwelt close to the heart of things . . . and in the whispering silences of the forest you have thought to hear the voice of Him who 'flies upon the wings of the wind.' "[145] Much more than Muir, whose frequent solitude was part of his charisma, Club members in these early writings presented Sierra Club expeditions as enabling uniquely authentic social relations, unburdened by the conventional roles and the so-

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[140] *Id.* at 92–93.

[141] *Id.* at 93–95.

[142] *See* Marion Randall, *Some Aspects of a Sierra Club Outing*, 5 SIERRA CLUB BULL., 1905, at 221, 221–28 (describing the logistics of a Sierra Club expedition).

[143] *See* William Frederic Bade, *To Higher Sierras*, 10 SIERRA CLUB BULL., 1916–1919, at 38, 40 (counting Muir among "prophets and interpreters of nature" and predicting that "[t]housands and thousands, hereafter, who go to the mountains, streams, and canons of California will choose to see them through the eyes of John Muir, and they will see more deeply because they see with his eyes"); *Notable Books in Brief Review: John Muir's Account of His Historic Thousand-Mile Walk to the Gulf and Other Recent Publications*, N.Y. TIMES, Jan. 21, 1917, at BR4 ("[M]any who have sought a vision of truth beneath the surface of nature have found it through the eyes of John Muir."); Benjamin Ide Wheeler, *John Muir, Doctor of Laws, University of California*, (honorary degree), *reprinted in* 10 SIERRA CLUB BULL., 1916–1919, at 24, 24 (calling Muir "uniquely gifted to interpret unto other men [nature's] mind and ways").

[144] *See* Helen M. Gompertz, *A Tramp to Mt. Lyell*, 1 SIERRA CLUB BULL., 1893–1896, at 136, 141 (referring to "[h]ours pass[ing] like moments" in "this sacred spot"); John R. Glascock, *A California Outing*, 1 SIERRA CLUB BULL., 1893–1896, at 147, 161 ("We . . . learned to interpret and love the 'various language' in which nature speaks to the children of men . . . . We were acolytes in the grand temple of the eternal.").

[145] Randall, *supra* note 142, at 227–28.

cial and ideological divisions of everyday life.[146] It was a convention of *Bulletin* writing that, in the mountains, individuals could see one another face to face, their genuine qualities shining through the detritus of habit that obscured them in the lowlands.[147] In contrast to more civic ambitions of progressive management, the Sierra Club's members sought perfect respite from an imperfect world, not civic renewal but personal restoration, in which the projects and distinctions of ordinary life fell away for a few days or weeks.

B. The Appeal of Romantic Epiphany

Each version of environmental imagination took some of its power from what it helped its adherents to deny. Providential republicanism rejected "tyranny" from above the community of political equals and constraints from the outside, such as indigenous land claims. Progressive conservationists defined themselves against selfishness, the fissure of social life into competing classes and interest groups, and the lassitude of prosperous ease. Adherents of both camps interpreted the natural world as inviting, even demanding, their moral stance. Nature needed to be developed by free settlers, its boundless potential brought to fruit under their tools, or it needed experts to manage its complex systems.

Romantic epiphany offered its adherents an identity defined by two contrasts. First, it offered an escape from feeling that the world was drab and wearying, gray and flat, in a word, disenchanted. This is how Muir often portrayed life's less charismatic places and tasks. Muir was at pains to contrast the experience of the mountains with the dominant tone in "these hot, dim, strenuous times . . . [when people are] choked with care like clocks full of dust, laboriously doing so much good . . . they are no longer good for themselves."[148] In the mountains was "[n]o pain . . . no dull empty hours, no fear of the past, no fear of the future."[149] Those who sought solace in the mountains often sought what they found lacking in ordinary life: something transcendent, benign, and both immanent in nature and accessible in themselves. The "holier spirit" that Robert Sterling Yard identified with the parks was haunted by contrast with the profane world;[150] without a view of nature that gave its "temples" near-mystical significance, only the profane might have remained.

Romantic epiphany's portrayal of nature also denied another image of "Nature," as "red in tooth and claw,"[151] a scene of a relentless struggle for

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[146] *See* Glascock, *supra* note 144, at 161 ("The varnish of civilization was rubbed off, and the true strata of individual organism developed.").

[147] *See, e.g., id.*

[148] MUIR, *supra* note 45, at 3.

[149] MUIR, *supra* note 133, at 91.

[150] ROBERT STERLING YARD, THE BOOK OF THE NATIONAL PARKS 20–21 (1919).

[151] LORD ALFRED TENNYSON, IN MEMORIAM A.H.H. 60 (1900). The poet contrasts a view of nature as a chaotic and violent struggle for survival with one that finds divine meaning in it. The deceased friend to whom the poem is dedicated was one "Who trusted God was love

survival. This latter view, which was often taken to be Darwin's, threatened to extend to social life and make traditional moral views of either nature or society obsolete and naïve. Moral and natural harmony was the great lesson of Muir's intuition. Describing a morning spent atop a Douglas spruce that he had climbed to observe the drama of a windstorm, Muir reflected of this natural violence: "We hear much nowadays concerning the universal struggle for existence, but no struggle in the common meaning of the word was manifest here . . . but rather an invincible gladness as remote from exultation as from fear."[152] Violence might be one of nature's basic facts, but its *meaning* resided in a larger harmony that an attuned observer could perceive.

The engagement with evolutionary theory was even more explicit in the work of Sierra Club co-founder and longtime officer Joseph Le Conte. A professor of geology at Berkeley, Le Conte devoted much of his career to arguing that evolution was compatible with theism because nature's patterns bespoke the orderly mind of God, with its highest expression in the human capacity to appreciate the beauty and harmony of all lesser forms.[153] The world was thus at once natural and divine, and humanity both continuous with nature and apart from it, our special status exemplified in the aesthetic experience that brought nature, through its highest expression in the human mind, to self-consciousness and to consciousness of God.[154] Le Conte answered an atheistic interpretation of evolution with "a God *immanent*, a God resident *in* Nature" so that "the phenomena of Nature are . . . objectified modes of divine thought."[155] Apprehending this relation, he contended, would enable believers to "return *home* to our inner higher life."[156] It was by understanding themselves as the highest expressions of Nature, "gestative mother of spirit,"[157] that people could turn to their role as "interpreter[s] of Nature."[158] Le Conte's highest human activity, to apprehend and interpret the beauty of nature, had unmistakable harmony with the Club's merger of aesthetic and spiritual concerns and Muir's promise of a

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indeed/And love Creation's final law/Tho' Nature, red in tooth and claw/With ravine/shriek'd against his creed." *Id.*

[152] MUIR, *supra* note 135, at 89, 95.

[153] *See* JOSEPH LE CONTE, RELIGION AND SCIENCE 269–81 (1875) (arguing that divinity expresses itself throughout nature, with increasing individuation, culminating in human consciousness).

[154] Le Conte explained:

> [I]n plants and animals, spirit is deeply submerged, and, as it were, drowned in Nature, and in perfect darkness. In man alone, spirit appears above the surface and emerges into the light. It looks downward upon Nature; it looks around upon other entities like itself; it looks upward to the heavens above. It rises out of Nature, above Nature, and becomes the interpreter of Nature.

Id. at 281.

[155] JOSEPH LE CONTE, EVOLUTION AND ITS RELATION TO RELIGIOUS THOUGHT 282–83 (1888) (emphasis in original).

[156] *Id.* at 285.

[157] *Id.* at 306.

[158] LE CONTE, *supra* note 153, at 281.

this-worldly homecoming for those haunted by the suspicion that life was an arena of meaningless struggle.

C. Public Lands and Public Language

Despite its members' ambivalence about whether their high-country "socialist's Utopia"[159] had bearing on the world below, the Club was intensely worldly in working for preservation of the open lands where expeditions and epiphanies happened. Sierra Club meetings were devoted as early as 1895 to support for national forests, and, in the decade before World War One, the *Bulletin* dedicated increasing space to forest management and parks policy.[160] In 1912, it ran a series of technical reports on prospects for increased parks funding and unified management of the parks system under a single federal agency (which Congress created in 1916).[161] Editorials in the same year placed the Club squarely in the midst of public-lands politics, staking out positions on creation of a Bureau of National Parks (for), expansion of Sequoia National Park (for), increased funding for Yosemite National Park (for), and development of Hetch Hetchy Valley for San Francisco's municipal water supply (emphatically against).[162] A movement founded in devotion to aesthetic and spiritual experiences of nature had become a major participant in land-use politics.

From its early years, the Club's leaders worked to set their views about the value of nature in productive relation to the utilitarian language of progressive management. In a representative missive to state governors attending a 1908 presidential conference on natural resource conservation, they presented:

> [O]ur strong sense of the paramount value of scenic beauty among our natural resources. The moral and physical welfare of a nation is not dependent alone upon bread and water. Comprehending these primary necessities is the deeper need for recreation and that which satisfies also the esthetic sense . . . an ever present human desire. Our . . . wealth of natural beauty . . . is an untaxed heritage . . . whose influence upon the life of the nation, physi-

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[159] Randall, *supra* note 142, at 222.

[160] *See, e.g.*, F.E. Olmsted, *Fire and the Forest — The Theory of "Light Burning,"* 8 SIERRA CLUB BULL., 1911–1912, at 43, 43–47 (discussing methods of fire control on public lands); J. Horace McFarland, *Are National Parks Worth While?* 8 SIERRA CLUB BULL., 1911–1912, at 236, 236–39 (praising the parks as balm for "times when the tired spirit seeks a wider space for change and rest" but lamenting the absence of any unified policy or federal body devoted to management of the parks).

[161] *See National Parks*, 8 SIERRA CLUB BULL., 1911–1912, at 217–36 (collecting various updates on parks management, funding, and prospects for legislation establishing a unified management system).

[162] *See Editorials*, 8 SIERRA CLUB BULL., 1911–1912, at 205–07.

> cally, morally, mentally, is inestimable, and whose preservation is the greatest service that one generation can render to another.[163]

All the themes of conservation are present in this passage: treating beauty as an aspect of resource management; promoting the public welfare; and honoring trusteeship across generations. At the same time, the Club's utilitarian language does not subsume its distinctly Romantic perspective. Material welfare figures here as an incident of a "deeper need" for recreation and "esthetic" satisfaction, which for Club members meant the experiences they described as spiritually revelatory and restorative. In this context, the "mental" and "moral influence" that the letter ascribes to natural beauty also evokes the benefits of epiphany. This is a departure from the public-health arguments of reformers such as Olmsted, who had praised Yosemite for the mental relaxation it brought overstressed visitors.[164]

The distinctive language that the Club pioneered was soon at the center of public conversation about the parks. Romantic epiphany joined and frequently superseded the language of conservation and recreation. While serving as director of public education for the recently formed National Park Service, Robert Sterling Yard argued that while all manner of outdoors spaces provided recreational opportunity,

> the national parks are far more than recreational areas. They are the supreme examples. They are the gallery of masterpieces. Here the visitor enters in a holier spirit. Here is inspiration . . . . The spirit of the great places brooks nothing short of silent reverence . . . . It is the hour of the spirit. One returns to daily living with a springier step, a keener vision, and a broader horizon for having worshipped at the shrine of the Infinite.[165]

This is not the language of Roosevelt, Pinchot, or Weyl. It is John Muir's account of nature's meaning (or, more exactly, the meaning of nature's most spectacular places), carried through the social movement of the Sierra Club, and serving here as public justification and guiding principle for a major area of public lands policy. A new language was in place, distinct from progressive management and a world away from the Senate's parks debates fifty years earlier. For nearly fifty years following its ascendance, romantic epiphany shared dominance of environmental language and imagination with providential republicanism and progressive management. Then came the changes that ushered in the modern era of environmental lawmaking.

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[163] Sierra Club statement submitted to Presidential Conference on the Conservation of Natural Resources, reprinted in 6 SIERRA CLUB BULL., 1906–1908, at 318.

[164] Depending on their purpose, Club advocates could shift registers: Muir's account of the benefits of the national parks at the opening of his book-length promotion, *Our National Parks*, had as much of Olmsted as, one might say, of Muir. *See* MUIR, *supra* note 45, at 1–6.

[165] YARD, *supra* note 150, at 20–21.

IV. Ecological Interdependence

In the early 1960s, a new view of the natural world began to gain prominence, and soon defined an era of lawmaking, environmental politics, and public debate. This was ecological interdependence, an image of nature in which all natural systems, including the bodies of human beings and other living things, are intensely interconnected and even inter-permeable. Like progressive management before it, ecological interdependence helped lawmakers, reformers, and ordinary citizens make sense of and organize a tangle of new problems, most of them rooted in pollution and, especially, toxic contamination. Preserving and restoring nature's delicate balance formed a new goal for resource managers, although the goal soon proved elusive both conceptually and practically.

The landmark statutes of this era established a new model of environmental governance, embodied in such laws as NEPA, the Clean Air Act, and the Clean Water Act. Major legislation from 1785, the date of the first law for public disposal of frontier lands,[166] through the 1964 Wilderness Act,[167] shared an operational principle: geographic dedication, or, perhaps better, continental zoning. They allocated tracts of land to private ownership or public management, the latter by creating parks, national forests, and wilderness, and, finally, by closing the remainder of the public domain to privatization. Each vision of nature thus claimed its acreage, dedicated to favored uses, and relatively little thought went into the connections among uses and regions. By contrast, the anti-pollution statutes set out to govern, in the ungainly term of the field, "media" such as air and water that cut across and connect all places. In the same spirit, NEPA directed the federal government to consider the ecological effects of *all* its "major . . . actions,"[168] from building a road in a national park to approving a nuclear power plant. The new model of governance sought principles (substantive in the anti-pollution statutes, procedural in courts' construction of NEPA) to govern systems that crossed and confounded the borders that geographic dedication had established. This meant direct and extensive regulation of both public and private actors with an eye to systems that respected no jurisdictional boundaries.

The perspective of ecological interdependence is the most difficult of the four to characterize in summary fashion. This is partly because it describes an all-pervading situation, a general condition of human action, and so, unlike the earlier viewpoints, it is hardest to confine, either spatially or topically. It is also the most fully contemporary of the four. Although all four perspectives continue to interact and develop, the meaning of ecological interdependence remains markedly open-ended. This is as true of its moral

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[166] *See generally* Gates, *supra* note 56, at 59–74 (discussing the Land Ordinance of 1785).

[167] Pub. L. No. 88-577, 78 Stat. 890 (codified as amended at 16 U.S.C. §§1131–1136 (2006)).

[168] 42 U.S.C. § 4332(2)(C) (2006).

appeal as its practical consequences. For some adherents, ecological awareness deepens and generalizes the romantic perspective: nature's complexity humbles human ambition, while the inherent richness of the natural world provides a deeper meaning than material progress can.[169] For others, the ecological perspective simply provides a vast new frontier of information for technocratic management, increasing the sophistication and flexibility required of policy design, but making no change to its basic purposes, and adding nothing to the moral dimension of the human relation to nature. Because the diverse meanings of ecological interdependence could fill a long article, this Part presents the viewpoint in relative schematic fashion and concentrates on the circumstances in which it arose and the appeals that made it attractive, particularly its promise to enrich the moral relationship to nature and provide a source of meaning and identity in a time when many felt disenchanted with technological mastery and material progress.

A. *Ecological Interdependence: Natural and Human*

The institutional developments of this period were interwoven with the era's defining view of the human place in nature, ecological interdependence. This was founded in an image of the physical world as composed of complex, long-distance, and frequently invisible webs of cause and effect, forming an interdependent whole rather than a collection of relatively free-standing parts. The most salient implication of interdependence was that people and natural systems alike were vulnerable to the effluents of industrial technology: once released, wastes could return in unexpected and undetectable ways, through wind, rivers, food chains, and bloodstreams. Rachel Carson's *Silent Spring* is a polemical poetics of interdependent systems, treating the passage of pesticides through air, water, and land, plants and animals, and, finally, human bodies.[170] By the end of the 1960s, it had become standard to say that industrial society endangered everyone in novel ways, and that ecology, the science of interdependent relations, was the key to understanding this.[171]

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[169] *See infra*, Part IV.B.

[170] *See* RACHEL CARSON, SILENT SPRING 39–83 (1962) (detailing ecological interactions that form channels for the passage of pesticides from organism to organism); *id.* at 189 (connecting these same dynamics to human vulnerability and arguing that "[f]or each of us, as for the robin in Michigan or the salmon in the Miramichi, this is a problem of ecology, of interrelationships, of interdependence"); *id.* at 199–216 (describing the internal activity of the human organism as a quasi-ecological system displaying the same sorts of vulnerability as other such systems).

[171] In this period, one finds liberal-establishment voices assessing the crisis of "technological man" and forecasting a basic change in values, anchored in ecology. *See The Age of Effluence*, TIME, May 10, 1968, at 52, 52 ("[T]echnological man, master of the atom and soon the moon, is so aware of his strength that he is unaware of his weakness — the fact that his pressure on nature may provoke revenge."); *id.* at 53 ("The biggest need is for ordinary people to learn something about ecology, a humbling as well as fascinating way of viewing reality . . . . [Modern man] could do with some of the humility toward animals that St. Francis tried to graft onto Christianity."); *see also Fighting to Save the Earth from Man*, TIME, Feb. 2, 1970,

These images contributed to the signal innovation of the period, one so pervasive and taken-for-granted today that it is easy to miss. This is the idea of *the environment*, an encompassing fact integrating many issues that might otherwise have seemed disconnected.[172] This idea made possible new kinds of public assertions. Consider, for instance, *Time* magazine's 1968 warning of "an ecological crisis that ranges from the lowly litterbug to the lunacy of nuclear proliferation."[173] This is familiar, perhaps banal today, but then it was new: it would not have occurred to early conservationists or wilderness advocates that a single concept — the environment — unified invisible chemical pollution and the beauty of an undeveloped landscape, the problems of the fossil-fuel economy, and the prospect of a species' extinction.

The idea that everything in the natural world, including its human inhabitants, is connected in consequential and potentially very dangerous ways helped to frame two newly powerful motives for environmental concern. First was the widespread fear of an unfolding public-health disaster, in which a "poisoned world" would sicken ecosystems and people alike.[174] The second was mainstream embrace of the idea that environmental threats were apocalyptic, threatening to produce a world "as devoid of life as are now the mountains of the moon."[175] Both ideas, which arose and captured public imagination over just a few years, borrowed plausibility from the perception that what harmed one part of an interdependent network of systems would also harm the rest, gravely weakening a planet that could be portrayed, for the first time in American public life, as a sort of meta-organism.

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at 56, 62 (portraying "technological man as the personification of Faust, endlessly pursuing the unattainable").

[172] *See* DONALD WORSTER, NATURE'S ECONOMY, *supra* note 12 at 350–59 (explaining that earlier twentieth-century uses of "environment" referred to social influences in the nature-versus-nurture debate; a use referring instead to the natural setting began to arise around and after World War Two, and the contemporary sense, linked to ecological crisis and the vulnerability of the planet, came into flower in the 1960s and 1970s).

[173] *The Age of Effluence*, *supra* note 171, at 53.

[174] *See Fighting to Save the Earth from Man*, *supra* note 171, at 56 ("What Americans now breathe is closer to ambient filth than to air."); *Menace in the Skies*, TIME, Jan. 27, 1967, at 48, 52 (noting UCLA meteorologist Morris Neiburger's warnings that "all of civilization will pass away . . . from gradual suffocation by its own effluents"); *'Now or Never'*, N.Y. TIMES, Jan. 21, 1970, at 46 ("[C]ommunities and campuses across the nation will observe 'Earth Day' by committing themselves to reclaim an already dangerously poisoned world.").

[175] *Earth Day and Space Day*, N.Y. TIMES, Apr. 19, 1970, at 174; *see also The Age of Effluence*, *supra* note 171, at 53 ("[M]any scholars of the biosphere are now seriously concerned that human pollution may trigger some ecological disaster."); *Americans Rally to Make It Again Beautiful Land*, CHI. TRIB., Apr. 23, 1970, at 3 (referring to "pollution which, according to the warnings of some scientists, threatens the very existence of life on this planet"); *Earth Week*, WASH. POST, Apr. 20, 1970, at A20 ("American air, land, and water . . . has become . . . the world's most expensive monument to pollution . . . . [M]an is running out of soons faster than he runs out of issues."); Gladwin Hill, *Activity Ranges from Oratory to Legislation*, N.Y. TIMES, Apr. 23, 1970, at 1 (referring to "ecological problems, which many scientists say urgently require action if the earth is to remain habitable").

B. Ecological Interdependence and the Moral Image of Nature

The new image of nature as "the environment," then, helped to highlight and integrate — and, in cases, exaggerate — the importance of a set of practical problems. It was also the vehicle for a new view of nature's moral significance. The idea was that accurately perceiving the interconnections between organisms and their environments, and among nature's many life-sustaining processes, was morally educative. It became almost commonplace to assert that seeing the natural world in this way created respect for it by revealing value inherent in the integrity, resilience, and complexity of life.[176] Apprehending this value was said to impart humility, a byword of the period, which typically meant denying that nature should be valued exclusively for human needs, in favor of a willingness to adjust goals and priorities to natural patterns and constraints.[177] As a contributor to the *Sierra Club Bulletin* argued in 1969, the only way to avert ecological disaster was "to recognize that we are not masters of the living system on which we depend for our life but parts of it, just as much as cells are part of the body."[178]

This blend of prudential warnings and calls for respect and humility toward nature kept company with another idea, that ecologically sensitive perception brought positive human goods. In the early 1970s, environmentalists increasingly asserted that "ecology [which yesterday] was a science . . . had better become something like a religion,"[179] and called for a "cultural transformation" marked by "personal commitment to a new philosophy and poetry of ecology."[180] This seems to have implied a form of self-knowledge and enriched personal experience that grew from awareness of being embedded in a web of ecological relations. Paul Shepard wrote in *The Subversive Science*, a 1969 treatment of the political and ethical meaning of ecology, "we must . . . affirm [nature's] metabolism as our own — or, rather, our own as part of it. To do so means . . . a wider perception of the landscape as a creative, harmonious being . . . . [W]e must affirm that the world is a being, a part of our own body."[181] In the same spirit, Buddhism popularizer Alan Watts argued that continuity among all things, joined with the role of perception in generating experience, meant that "[o]ur whole knowledge of the world is, in one sense, self-knowledge," a conclusion he

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[176] *See The Age of Effluence*, *supra* note 171, at 53 ("The biggest need is for ordinary people to learn something about ecology, a humbling as well as fascinating way of viewing reality . . . ."); Irving S. Bengelsdorf, *Dear Students: Our Spaceship Earth's in Trouble; So Are We*, L.A. TIMES, Apr. 16, 1970, at B7 ("[T]o survive on our spaceship, we must learn to do as nature does . . . .").

[177] *See, e.g.*, *The Age of Effluence*, *supra* note 171, at 53 (describing ecology as humbling); Bengelsdorf, *supra* note 176 at B7.

[178] Gordon Harrison Ford, *An Ecological Primer*, 54 SIERRA CLUB BULL., Oct.–Nov. 1969, at 18.

[179] Elizabeth Rogers, *Protest*!, 54 SIERRA CLUB BULL., Dec. 1969, at 11, 20.

[180] Connie Flateboe, *Environmental Teach-In*, 55 SIERRA CLUB BULL., Mar. 1970, at 14, 15.

[181] Paul Shepard, *Ecology and Man—A Viewpoint*, *in* THE SUBVERSIVE SCIENCE (1969), *reprinted in* THE ECOLOGICAL CONSCIENCE at 56, 59 (Robert Disch ed., 1970).

claimed should be deeply reassuring.[182] If the world were "creative, harmonious" and continuous with the body and mind of a fully alert human being, then one should find those same qualities in one's self. Such instincts about enriched personal experience seemed to lie behind pronouncements that ecology could found a "religion" or "poetry," a new form of identity anchored in living within the larger living world.

These formulas were in the line of romantic epiphany, but markedly extended its scope. The emotionally vivifying, morally clarifying connection to an immanent "divine" that John Muir and Joseph Le Conte taught Sierra Club members to seek in spectacular places was now relocated to the whole natural world. Nature's contribution to human consciousness came not through the spiritual re-broadcast towers of Half Dome and El Capitan, but in the circuitry of everyday complexity and interdependence. The basic sense of a world saved from drabness and moral flattening, though, was much the same: ecological nature, like romantic nature, seemed to provide a response to disenchantment. If there was something to T.E. Hulme's dismissal of romanticism as "spilt religion," the positive good that some environmentalists now found in ecology was religion soaked through and saturating the natural world. Because this moral and aesthetic legacy rapidly became part of environmentalism's culture, it was possible in 1982 for a contributor to *Sierra* (and chancellor of Sloan-Kettering) to invoke Le Conte's themes (without naming Le Conte, and probably unaware of him) more explicitly than the original *Bulletin* had ever done: "[I]t is up to us . . . to become the consciousness of the whole earth. We are the planet's awareness of itself."[183]

This moralized picture supported assertions that the widely perceived "ecological crisis" could be traced to Americans' failure to value nature in the right way, and that adopting a different moral relation to the non-human world could be the key to ecological restoration. So *Time* ascribed the "ecological crisis" to "[t]he false assumption that nature exists only to serve man"[184] and the *Washington Post* warned that "blind technology and arrogant abuse of Nature" had produced the "deep horror . . . that we live with the [environmental] horror so calmly."[185] The *Sierra Club Bulletin* and many activists claimed that the Vietnam War was a symptom of the wish for technocratic mastery.[186] Sounding a note of eco-moral restoration, *Time* pre-

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[182] Alan Watts, *The World Is Your Body*, *in* THE ECOLOGICAL CONSCIENCE, *supra* note 181, at 181, 188.

[183] Lewis Thomas, *Are We Fit to Fit in?* SIERRA, Mar.–Apr. 1982, at 49, 52. The *Sierra Club Bulletin* was renamed *Sierra* in 1977 and continued publishing without interruption.

[184] *The Age of Effluence*, *supra* note 171, at 53.

[185] Editorial, *The Environment: Clean Up or Patch Up?*, WASH. POST, Feb. 11, 1970, at A20.

[186] For example, one article in the *Sierra Club Bulletin* retold the story of the Vietnam War as one of a self-destructive American fascination with technology:

> Sadly, America had one fatal flaw—its inhabitants were in love with technology and thought it could do no wrong. A visitor to America . . . would probably have guessed [the war's] outcome after seeing how its inhabitants were treating their own country. The air was mostly foul, the water putrid, and most of the land was either

dicted that "[b]y changing national values, [environmentalism] may well spur a profound advance in U.S. maturity and harmony with nature,"[187] while the columnist Flora Lewis, a stalwart of liberal-establishment commentary, concluded that environmental ideas were "so fundamentally new, so drastically opposed to the heritage of many centuries, they are painful to absorb" but nonetheless utterly necessary.[188]

Both the practical and the moral dimensions of the new environmentalism appeared in congressional debates on the anti-pollution statutes. Some legislators described the statutes as addressing a potentially cataclysmic public-health crisis, even the threat of human extinction.[189] They described the legislation under debate as establishing categorical principles of respect for the natural world.[190] They asserted that those principles were dictated by recognition of ecological principles.[191] It is not necessary to speculate about the sincerity or consistency of these views to note that they had already — which is to say, rapidly — entered the repertoire of public argument about American environmental commitments.

To be sure, the conceit that new moral insights emancipated nature from "serv[ing] man"[192] was severely incomplete. It would be more illuminating

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> covered with concrete or garbage. But Americans . . . set out to save Vietnam with the same enthusiasm and determination their forefathers had displayed in conquering the frontier. They bombed . . . . Thousands of herbicide and defoliant missions were flown before anyone seriously questioned their long-range effect on humans and animals . . . By the time deformed fetuses began appearing and signs of lasting ecological damage were becoming increasingly apparent . . . Vietnam had been saved. But the country was dead.

A Fable for Our Times, 55 SIERRA CLUB BULL., Mar. 1970, at 16, 16–18.

[187] *Issue of the Year: The Environment*, TIME, Jan. 21, 1971, at 21; *see also*, *e.g.*, Joseph Shapiro, Imperialism, Earth Day Address at Fordham University, New York, NY (Apr. 22, 1970) *in* EARTH DAY—THE BEGINNING 86, 86 (Envtl. Action ed., 1970) ("The Vietnam war and the ecological crisis have the same roots. Both are products of a highly technological, mechanistic, dehumanized society . . . .").

[188] Flora Lewis, *Instant Mass-Movement*, L.A. TIMES, Apr. 29, 1970, at B7.

[189] *See* 118 CONG. REC. 33,693 (1972) (statement of Sen. Muskie) ("[T]his is literally a life or death proposition for the Nation."); 117 CONG. REC. 38,801 (1971) (statement of Sen. Muskie) ("Man . . . is an endangered species.").

[190] *See* 118 CONG. REC. 36,873 (1972) (statement of Sen. Muskie) ("These policies [of the bill] simply mean that streams and rivers are no longer to be considered part of the waste treatment process."); *id.* at 10,259 (statement of Rep. Vanik) ("The basic concept of the Senate bill is that: 'The use of any river, lake, stream, or ocean as a waste treatment system is unacceptable.' In other words, no one has the right to pollute."); 117 CONG. REC. 38,798 (1971) (statement of Sen. Muskie) ("The use of any river, lake, stream, or ocean as a waste treatment system is unacceptable."); *id.* at 38,819 (statement of Sen. Cooper) ("[T]he bill declares that no one has the right to use the Nation's waters as a waste disposal mechanism; that there is . . . rather an obligation to maintain the quality of those resources traditionally looked upon as free to all, but which we now wish to protect for all.").

[191] *See* 117 CONG. REC. 38,800 (1971) (statement of Sen. Muskie) ("The stated objective of the act reflects the committee's decision to recognize fundamental principles of ecology."); *id.* at 38,819 (statement of Sen. Cooper) ("[T]he bill and its purpose goes even further than asserting that a public right resides in clean water. In a way, it recognizes an even more fundamental condition. It asserts the primacy of the natural order, on which all, including man, depends.").

[192] *The Age of Effluence*, *supra* note 171, at 53.

to say that ideas of nature had once again been enlisted to help furnish a language and imagination in which (some) Americans could navigate the crosscurrents of their time. As commentators observed, both the acute anxiety and the spirit of moral revival that gathered around the new environmentalism took energy from the wishes of a trying time. The Vietnam War and the threat of nuclear annihilation had convinced many Americans that something in technocratic mastery of nature had turned destructive and self-consuming.[193] Many felt beset by political and cultural divisions around the war, civil rights struggles, riots, and a youth culture of stylized dissent, and environmental restoration was openly embraced as a unifying principle in an otherwise fractured country.[194] This appeal to an idea of nature to resolve a difficulty in broader themes of politics, values, and identity was not new. As we have seen, the Sierra Club's appreciation of spectacular and "divine" features of nature helped salve a crisis of faith that affected some in the later nineteenth century, while the conservation agenda helped its adherents to define themselves against selfishness and lassitude and create a version of national greatness in which their sensibilities and expertise played a central role.[195] Such multiple motives are typical of the ways that new environmental values have entered American public language.

These new ideas, though, were hardly spun from whole cloth for the cultural and psychic demands of the moment. The moral themes of ecological interdependence were also continuous in ways with earlier accounts of humanity and nature. Progressive conservationists saw the laissez-faire eco-

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[193] *See* RICHARD N.L. ANDREWS, MANAGING THE ENVIRONMENT, MANAGING OURSELVES: A HISTORY OF AMERICAN ENVIRONMENTAL POLICY 217–26 (2006) (connecting rise of environmentalism with discrediting of expert management, opposition to Vietnam War, and perception of both big business and big government as destructive); *A Fable for Our Times*, *supra* note 186, at 16–18; *Issue of the Year*, *supra* note 187, at 21 (tracing the sudden interest in the environment to two sources, "[o]n the one hand . . . the response to a problem which American skills, including technology, might actually solve, unlike the immensely more elusive problems of race prejudice or the war in Viet Nam" and "[o]n the other hand . . . a creeping disillusionment with technology, an attempt by individuals to reassert control over machine civilization").

[194] *Issue of the Year*, *supra* note 187, at 21. Two scholars characterized environmental politics, from a radical perspective, as distinctively open to co-optation as an object of mainstream consensus:

> [A] new consensus . . . consistent with the logic of technological society . . . around which the hippies and the Hickels [Nixon's Secretary of the Interior] might unite . . . in common cause with the power elite . . . . It is the kind of issue which is particularly appealing when the disappointments and abrasions of political encounters become too much, for it permits a full catharsis of moral indignation without seriously altering the structure of power or the logic of the system.

John H. Schaar & Sheldon S. Wolin, *Where We Are Now*, N.Y. REV. OF BOOKS, May 7, 1970.

[195] *See* HOFSTADTER, *supra* note 131–72 (arguing that status politics played a critical role in motivating and shaping the progressive agenda); Joseph Le Conte, Brief Address to the Sierra Club (Nov. 23, 1895) *in* 1 SIERRA CLUB BULL., 1896, at 270 (noting that "[i]f we compare the cultured man with the uncultured man . . . the most striking difference" is that "the uncultured man is trying to live for the interests of the 'now,' but the cultured man — and in proportion as he is cultured — looks to the future as well as to the present" and supports federal reservation and management of forests).

nomic and natural-resource policies of the nineteenth century much as the new environmentalists saw technological mastery: as a form of self-immolating hubris. In the conservation era, though, the prescription was to perfect technological mastery by replacing a (partly imagined) legacy of laissez-faire with public-spirited expert management, creating conditions in which wealth and liberty would remain viable. The doubts of 1960s environmentalism were more basic. Skeptics questioned not just an approach to public policy, but an entire ethos, asking whether pursuing wealth and liberty through technological mastery might be, in principle, unsustainable. The new environmentalism thus promised, or threatened, a basic challenge to a civilization's material aspiration, as progressive management never had.

The positive side of the new ecological language also departed from older forms. For the Muir-inspired Romantics of the Sierra Club and later wilderness advocates, the key to nature's instructiveness was the extremity of the highest and most dramatic terrain and the solitude of trackless wilderness. That extremity elicited the highest qualities of its devotees: originality, individuality, vitality, and a sense of being washed clean of the habits of everyday life. Now, at least notionally, it was precisely everyday life that had to be understood and reformed in light of ecological insight. Whatever it meant for one's awareness to be enriched by knowledge of interdependent natural processes, it did not seem to sanction periodic shuttling between the High Sierras of insight and an everyday life basically untouched by that elevated experience. Nature was no longer a treasure house for a smarter kind of resource user, nor was it simple balm for the Romantic tourist. Progressive management and romantic epiphany each prescribed an ideal interaction between human beings and the natural world. Ecological interdependence described not a kind of action, but a condition, a predicament that promised to inform and constrain how people would act and how they would understand themselves.

The era of ecological interdependence remains very much with us. The gains in scientific insight that underlie it are almost certainly irreversible. Emerging issues, from climate change to political interest in food systems, would be impossible to describe without a full appreciation of the long-distance and complex interaction of interdependent systems. Moreover, as the next Part shows, many of today's legal and political conflicts are best described as lying on the fault line between ecological interdependence and other perspectives that it threatens to displace, especially providential republicanism. Developments in environmental law and politics today are almost inevitably also developments in the meaning of ecological interdependence.

V. Using the Map

A. Interpretive Review of the Argument

Each approach to nature describes an ideal relationship between people and the natural world, which fits into a larger ideal human activity. This works in several ways. For one, each approach to nature helps to power an image of personal dignity: the free self-governance and producerist competence of the settler in providential republicanism; the rationality, humanitarianism, and mastery over complex systems of the progressive manager; the spontaneity, capacity for aesthetic delight, and potential self-knowledge of the seeker after romantic epiphany; and the intense awareness of interwoven living systems that marks the condition of ecological interdependence, which many have claimed induces the wish to act in a way that maintains the health of all. Second, each approach sets its representative person in an ideal relation to social life: the egalitarianism of settlement on an open continent; the elite public service of the progressive manager, which at once makes him the instrument of the authoritative public interest or democratic will and designates him its authoritative interpreter and executive; the Romantic's freedom to depart for a time into the wild, a concept that has always described both a region of the continent and one of the mind, without which "this country would become a cage"[196]; and, perhaps more vaguely, the ideal of healthful belonging that accompanies ecological interdependence — and has as its shadow the threat of invisible streams of poison or of systems driven past cataclysmic tipping points. In each case, the image of personal dignity and that of social relations are parts of a single picture.

Each approach has also been associated with a style of environmental governance that promises to uphold an ideal human-nature relationship. The major United States land policy of the nineteenth century, to create private property and spur development of the continent, was providential republicanism in action. Progressive management brought the second paradigm regime, in which large tracts of land remained in federal ownership to be managed for dedicated uses — sustainable production, recreation, aesthetics — while the two-thirds of the continent already in private hands continued under mainly common-law regulation.[197] In a geographic division of labor and jurisdiction, the latter lands were mainly untouched by the ambitions of progressive management.

As for romantic epiphany, it is best understood as having introduced new goals for expert public lands managers to pursue, but not a new style of governance. The institutional innovation in the politics of romantic epiphany took the form of social movements that could help to carry personal and aesthetic experience into public language. By contrast, the language of eco-

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[196] 107 Cong. Rec. 18,365 (1961) (statement of Sen. Church).

[197] *See* Gates, *supra* note 56, at ii (noting that "about one-third of the Nation's total land area" is in federal ownership).

logical interdependence did accompany a new model of governance, the far-reaching regulation of the anti-pollution statutes and the Endangered Species Act, which aimed to maintain the health of systems with no neat spatial bounds. Instead of allocating acreage among competing uses and governance regimes, this new generation of statutes sought to change the environmental consequences of production and consumption at large, from power plants to tailpipes.

Each approach to the natural world, then, persists in a set of laws and on specific acreage dedicated to favored purposes such as private use, public commodities production, and publicly accessible recreation or aesthetics. Each approach also persists in today's environmental politics. In some instances, the means of this political persistence is easy to trace: groups such as the Sierra Club have cultivated intergenerational constituencies around their ideals of human-nature interaction, even as they increasingly integrated the Romantic themes of their founders with the imagery of ecological interdependence. In other cases, the passage of attitudes through time requires more detailed attention than I have yet been able to give it. The language of providential republicanism — linking liberty and dignity to productive resource use, and linking the abuse of power to the regulation or prohibition of such use — has recurred in the justification of continental settlement, nineteenth-century political resistance to timber management on public lands, and the Sagebrush Rebellion and Counties Movements that attacked federal lands policy and denied federal supremacy in the 1980s and 1990s.[198] At this stage, this Article does not attempt to connect these various uses of providential-republican language, but only observes that the same versions of personal dignity, political liberty, anti-managerial sentiment, and the purpose of the natural world have often formed a single constellation.

B. Three Levels of the Map

This Article's account of four understandings of nature provides a way of organizing and expanding what we know about environmental law. The four conceptions of nature provide the key to new maps of this area of law. These maps can work at four levels (if not more). First, they can sort the *statutes and doctrines* that make up environmental law according to the conception of nature that each is premised upon. In important respects, our laws are providential, progressive, romantic, or ecological, and where they blend, the same distinctions serve to identify and disentangle their elements. Second, courts' treatment of overlapping and divergent statutes provides a deeper map, one of *conflict and synthesis* among statutes embodying the

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[198] *See* R. McGreggor Cawley, Federal Land, Western Anger: The Sagebrush Rebellion and Environmental Politics 71–91 (1993) (outlining sources and formulations of Western objections to federal policy around the Sagebrush Rebellion); Tom Kenworthy, *Blazing Utah Trails to Block a Washington Monument*, Wash. Post, Nov. 30, 1996, at A1 (describing Western members of County Movement engaged in efforts to assert local control over federal land).

premises of the different eras of environmental lawmaking. Third, the four conceptions of nature suggest a way of enriching knowledge of the *political* conflict around environmental lawmaking. Specifically, they suggest an important complement to certain social-psychological methods that are prominent in accounts of environmental politics, notably cultural cognition theory and behavioral theories of cognitive bias. Fourth, this Article's approach points toward a way of mapping the *landscape* itself, showing concretely how the premises and priorities of an area of law find expression in the shape of the physical terrain that the law governs.

1. *A Map of Conflicts and Synthesis*

Environmental and natural-resource scholars have long lacked a general picture of the range of values and interests that the laws they study serve. Efforts to borrow from environmental ethics are not always helpful, because philosophers' distinctions concerning the nature and sources of value do not track the conflicting ideas that have informed American environmental lawmaking.[199] A complementary approach would recognize that four partly overlapping generations of lawmaking have infused the law with the respective premises of four versions of environmental imagination. These laws coexist and interact today, and the competing values they embody help to structure legal conflict over the governance of nature.

The legacy of providential republicanism is, above all, the private land ownership that dominates the United States east of the Rocky Mountains.[200] Disbursed under policies aimed at settling the continent as an agrarian republic, this acreage lies under the strong premise of owners' authority to develop or otherwise extract value from it. Other than reciprocal limits on owners' rights, such as the nuisance doctrine, most legal regulation of the uses of this land is relatively new, a product of environmental laws passed in the 1970s or thereafter.[201] These strong private rights, deeply associated with images of self-reliance and autonomy, are the legal basis, and the moral and political subtext, of several lines of resistance to federal environmental regulation, particularly the post-1990 expansion of Takings Clause jurisprudence[202] and restriction of the Commerce Power.[203] In these cases, courts

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[199] *See, e.g.*, JAMES RASBAND ET AL., NATURAL RESOURCES LAW & POLICY 19–36 (2d ed. 2009) (setting out theoretical approaches to environmental and natural resource values).

[200] From the beginning of the Rockies westward, the share of federal land is vastly greater. *See id.* at 141 (showing share of acreage in public hands state by state, with rates almost uniformly below ten percent from the Rocky Mountain eastward, and ranging from thirty to eighty percent from Colorado westward).

[201] The exception, of course, is zoning, pervasive since the early twentieth century in relatively developed areas. *See* Village of Euclid v. Ambler Realty Co., 272 U.S. 365 (1926) (establishing constitutionality of most ordinary zoning practice).

[202] *Compare* Lucas v. S.C. Coastal Council, 505 U.S. 1003, 1031 (1992) (referring to "erection of . . . habitable or productive improvements on . . . land" as "the 'essential use' of land" and thus presumptively privileged under the common-law baseline established in this case as the reference point for takings claims under the U.S. Constitution), *with id.* at 1069–70 (Stevens, J., dissenting) (insisting on the importance in the history of property law of changes

have asked what accommodation the law will reach between providential-republican rights of use, enshrined in ownership, and the potentially all-embracing constraints of laws from the era of ecological interdependence.

Providential republicanism aimed to produce not just an agrarian republic, but an extractive one. Thus it also left a network of private legal claims on lands later (or previously) reserved for the public, notably hundreds of thousands of mining claims established under the General Mining Law of 1872,[204] and rights of road access that arose before 1976 under a provision of the 1866 Mining Law known as R.S. 2477.[205] Both kinds of claims are threaded across the public lands.[206] In some cases, mining dramatically disrupts recreational or conservation use, as with a spate of new uranium claims on land controlled by the Bureau of Land Management ("BLM") near the Grand Canyon during the second George W. Bush administration.[207] In other cases, road access thwarts designation of public lands as wilderness, and for this reason asserting and denying R.S. 2477 claims becomes a key tactic in determining whether a tract of land is dedicated to populist use, such as off-road vehicle recreation, or the romantic ideal of remote soli-

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in rights driven by "constant learning and evolution — both moral and practical," and that in environmental regulation "[n]ew appreciation of the significance of endangered species, the importance of wetlands, and the vulnerability of coastal lands shapes our evolving understandings of property rights" (internal citations omitted)).

[203] *Cf.* Solid Waste Agency of N. Cook Cnty. v. U.S. Army Corps of Eng'rs, 531 U.S. 159, 174 (finding Army Corps of Engineers exceeded authority granted by Congress in Clean Water Act in interpreting the Act as extending to isolated bodies of water used by migratory birds); *id.* at 174–75 (Stevens, J., dissenting) (invoking burning of Cuyahoga River as backdrop to Clean Water Act and claiming majority's opinion "needlessly weakens our principal safeguard against toxic water"). *Compare* Rapanos v. United States, 547 U.S. 715, 721 (2006) (ascribing to the Army Corps of Engineers the "discretion of an enlightened despot" in ruling on "a broad range of ordinary industrial and commercial [land-use] activity"), *with id.* at 780 (Kennedy, J., concurring in the judgment) (criticizing the plurality's reasoning and arguing that the term "navigable" in the Clean Water Act should be read as referring to waters sharing an "ecologic interconnection" with classically navigable water).

[204] *See* 30 U.S.C. § 22 (2006) ("[A]ll valuable mineral deposits in lands belonging to the United States, both surveyed and unsurveyed, shall be free and open to exploration and purchase, and the lands in which they are found to occupation and purchase, by citizens of the United States . . . .").

[205] R.S. 2477, which was recodified as 43 U.S.C. § 932 and repealed in 1976 with the passage of the Federal Lands Policy and Management Act, provided: "That the right of way for the construction of highways over public lands, not reserved for public uses, is hereby granted." 14 Stat. 253 (1866); 43 U.S.C. §§ 1701(a), 1701(h), 1769(a) (2006) (protecting valid existing rights of access).

[206] The Bureau of Land Management reports about 1.1 million active mining claims on the federal lands, ranging from 20 to 160 acres in size, with significant environmental effects. *See* CHARLES F. WILKINSON, CROSSING THE NEXT MERIDIAN: LAND, WATER, AND THE FUTURE OF THE WEST 33 (1992). In 2003, a pair of scholars reported that the State of Utah and its counties had claimed between 10,000 and 20,000 roads across federal land, and that Alaska and some California counties had begun making similar claims. *See* Stephen H.M. Bloch & Heidi J. McIntosh, *A View from the Front Lines: The Fate of Utah's Redrock Wilderness Under the George W. Bush Administration*, 33 GOLDEN GATE U. L. REV. 473, 489–90 (2003).

[207] *See* John M. Broder, *Uranium Mine Moratorium Extended at Grand Canyon*, N.Y. TIMES, Jun. 20, 2011 at A16 (noting that the Obama administration would continue an administrative moratorium after a Bush administration policy permitted thousands of new mining claims near the Grand Canyon in 2006 and 2007).

tude.[208] In deciding whether R.S. 2477 claims are present on public lands, courts have inevitably had to choose between the procedures of the different eras: Does primary jurisdiction to determine the status of such a claim fall to courts using the common-law standard for acquisition of an easement, the way such rights were defined when the main purpose of public land was economic development, or does it fall to the BLM, administering its progressive-managerial judgment among conflicting land-use priorities?[209] When the Tenth Circuit ruled in 2005 that the governing criterion should be that of the common law, it chose among eras, handing a victory to the premises of providential republicanism.[210]

The governance strategy that arose from progressive management is the dominant legal framework for nearly a third of the nation's land, the federal acreage permanently reserved and managed as national parks, forests, wilderness, wildlife refuges, national monuments, and so forth. From the Forest Service Organic Act of 1897 to the Federal Land Policy and Management Act of 1976,[211] the basic premise has held: these lands are to be managed by independent (though ultimately politically accountable) experts, according to a rational planning system designed to serve a conception of the public interest that the governing statute sets out in broad and pluralist terms.[212] Within their broad zone of expert discretion, resource managers are perennially hemmed in by rights and duties arising from the other three sources of environmental lawmaking. As discussed in the previous paragraph, private rights of use and access arising under providential-republican statutes harry and sometimes confound coherent policy-making under the progressive-management statutes.

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[208] For a sample of the tone of exchange, see *Phantom Roads*, S. UTAH WILDERNESS ALLIANCE, http://www.suwa.org/issues/phantom-roads-r-s-2477 (last visited January 3, 2012) (on file with the Harvard Law School Library) (describing R.S. 2477 as "highway robbery," a scheme based on "bogus roads," and a "nightmare" for administrative agencies).

[209] *See* S. Utah Wilderness Alliance v. BLM, 425 F.3d 735, 750–57 (10th Cir. 2005) (concluding that district court abused its discretion in concluding that primary jurisdiction over question of the validity of an R.S. 2477 claim lay with the BLM); *id.* at 762–67 (holding that the proper criteria for determining validity of an R.S. 2477 claim are those articulated in state law of rights-of-way).

[210] *Id.* at 768–84 (articulating the substance of state common-law bases for R.S. 2477 rights, the products of a pro-development era in federal public lands law).

[211] Pub. L. No. 94-579, 90 Stat. 2743 (codified as amended at 43 U.S.C. 1701–1782 (2006)).

[212] *See* 43 U.S.C. § 1732(a) (2006) (directing the BLM to manage public lands for "multiple use and sustained yield"); 43 U.S.C. § 1702(c) (2006) (defining "multiple use" to include "a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and non-renewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values"); 43 U.S.C. § 1702(h) (defining "sustained yield" as "achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple use"); 16 U.S.C. § 1604 (2006) (directing the Forest Service, *inter alia*, to "use a systematic interdisciplinary approach to achieve integrated consideration of physical, biological, economic, and other sciences" to assign forest areas for timber harvests "in a manner consistent with the protection of soil, watershed, fish, wildlife, recreation, and esthetic resources, and the regeneration of the timber resource").

The romantic conception of nature has its dedicated terrain, as mentioned earlier in this Article, in more than 100 million acres of statutory wilderness. Unlike other land under federal management, wilderness is governed by categorical statutory prohibitions: no roads, no permanent structures, no travel by motorized vehicles, and no commercial activity other than limited expedition services.[213] We may expect to see these restrictions come into question in the next few decades as climate change induces ecological shifts that undermine the implied baseline of a "natural" state that the Wilderness Act preserves. Managers and courts will have to decide whether to pursue more active forms of management to preserve species and habitat that might otherwise yield to climate-induced stress, or to take literally the Act's prohibitions and impose passive management as the "natural" area changes under the managers' gaze.[214] At a conceptual level, these challenges reflect the fact that the dynamics central to the ecological-interdependence view of nature have eroded the premise of the romantic view — that there exists a subsistent, pristine nature that humans can preserve — and confronted the law with the problem of what kind of nature to preserve, or to create.

The statutes from the era of ecological interdependence, beginning with NEPA, implement a new model of governance. Above all, the ambition to govern such ubiquitous, jurisdiction-spanning phenomena as air, water, and biodiversity confounds all previous rights to determine the use of a local resource, whether the right belongs to a private landowner or a federal management agency. In federal resource management, for instance, NEPA's application to federal grazing management between 1974 and 1976 disrupted decades of management catering to grazers and helped to spur Western resistance that became the Sagebrush Rebellion, ancestor of the Western Tea Parties.[215] The Endangered Species Act, which requires that federal actions neither jeopardize threatened or endangered species nor compromise their designated "critical habitat,"[216] has significantly limited traditional discretion in resource management.[217]

These conflicts are perhaps most interesting when they involve higher-order law, such as constitutional doctrine, in the task of mediating between the imperatives of two eras of lawmaking. Consider standing. Recent stand-

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[213] See 16 U.S.C. § 1133 (2006); Wilderness Soc'y v. U.S. Fish & Wildlife Serv., 353 F.3d 1051, 1062–67 (9th Cir. 2003) (en banc) (finding an agency-authorized salmon-stocking program in a wilderness area illegal as a violation of the Wilderness Act's prohibition of "commercial activity").

[214] For a discussion of very similar challenges that climate change poses to management of endangered species, see J.B. Ruhl, *Climate Change and the Endangered Species Act: Building Bridges to the No-Analog Future*, 88 B.U. L. Rev. 1 (2008).

[215] *See* Natural Res. Def. Council v. Morton, 388 F.Supp. 829 (D.D.C. 1974), *aff'd per curiam*, 527 F.2d 1386 (D.C. Cir.), *cert. denied*, 427 U.S. 913 (1976); Wilkinson, *supra* note 206, at 98–100 (attributing the rise of the anti-regulatory and anti-federal Sagebrush Rebellion to increased federal oversight arising from *Natural Resources Defense Council v. Morton*).

[216] *See* 16 U.S.C. § 1536(a) (2006).

[217] *See, e.g.*, Sw. Ctr. for Biological Diversity v. U.S. Bureau of Reclamation, 143 F.3d 515 (9th Cir. 1998) (addressing a series of Endangered Species Act impediments to Bureau of Reclamation water-management decisions).

ing decisions crystallize a conflict between at least two conceptions of nature, made operational in law, and each conflict has produced an attempt at synthesis or balance. These superficially disparate examples, that is, express a more general logic: a challenge arises from the coexistence of competing, legally operational conceptions of nature and invites persistent judicial attempts at resolution.

The issue in standing cases is whether the Article III terms "Cases" and "Controversies" give federal courts jurisdiction over claims by plaintiffs with remote connections to the problems whose governance they seek to affect.[218] The Supreme Court has held that, to bring an Article III claim, a plaintiff must have a legal injury that is concrete and particularized, actual or imminent, fairly traceable to the act she complains of, and likely to be redressed by the relief she seeks.[219] In *Lujan v. Defenders of Wildlife* (involving a claim under the Endangered Species Act), plaintiffs claimed standing on the basis of previous visits to regions inhabited by the species they claimed would be affected by the actions they sought to challenge, but plaintiffs lacked specific plans to return to those areas.[220] In denying standing, the Court belittled arguments that standing should be available through an "ecosystem nexus," for any user of an ecosystem that provides habitat for a species listed as endangered or threatened, or an "animal nexus" or "vocational nexus" for anyone who works with or otherwise demonstrates interest in an endangered species, anywhere in the world.[221] In *Massachusetts v. EPA*[222] (involving the Clean Air Act), the Court found standing for the state of Massachusetts, but did not decide the status of standing for non-sovereign plaintiffs had Massachusetts not been in the case.[223] Addressing whether an injury linked to climate change, a phenomenon thoroughly dispersed through the global atmosphere, could provide the basis for standing, the Court ruled that Massachusetts could rely on its position as a sovereign coastal landowner to satisfy the Article III requirements.[224] Specifically, loss of coastal land from a rising sea was sufficiently concrete and traceable to climate change, and the relief sought (directing the EPA to regulate greenhouse gas emissions in new vehicle fleets) would contribute sufficiently to the prospect of redress.[225] In a vehement dissent, Chief Justice Roberts and three others argued that climate change is so diffuse, remote, complex, and uncertain a phenomenon that it defies specific proof that any plaintiff's injury is fairly traceable to a specific violation of law and likely to be redressed by a remedy the court can provide — the constitutional core of a justiciable claim.[226]

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[218] *See* U.S. CONST. art. III, § 2, cl.1.
[219] Lujan v. Defenders of Wildlife, 504 U.S. 555, 560-61 (1992).
[220] *See id.* at 562–64.
[221] *See id.* at 565–67.
[222] 549 U.S. 497 (2007).
[223] *See id.* at 526.
[224] *See id.*
[225] *See id.* at 516–26.
[226] *See id.* at 535–49 (Roberts, C.J., dissenting).

The point to appreciate here is that these cases adjudicate between competing paradigms of the human relation to nature. These controversial standing claims rested on underlying causes of action that were paradigmatic of the problems their respective statutes sought to address, and for the era of ecological interdependence that produced them. The Endangered Species Act established a legally protected interest in "any person" to seek assurance of survival for a species the plaintiff might never see.[227] The Clean Air Act established a legally protected interest in the operation of regulatory apparatus that would reduce risk of harm from remote, complex, and obscure atmospheric interactions among pollutants.[228] The conceptions of injury, causation, and redressability that justified denial of standing, by contrast, rested on interests in nature paradigmatic of earlier episodes of lawmaking: those of owners and public-lands resource users. Justice Scalia has argued for putting at the center of standing doctrine the private owner with an economic interest that motivates an anti-regulatory legal claim.[229] Individual users of dedicated public lands have undoubted standing to challenge land-use decisions,[230] but the presence of such individuals, with concrete aesthetic and recreational interests of the kind the Sierra Club helped bring to the center of public-land policy, also remains necessary for standing.[231] The claimants that standing doctrine favors are the model citizens of providential republicanism and progressive management, respectively: the owners of nature and the recreational users of publicly managed nature. The citizen who remains shut out of court by standing doctrine (unless represented by her state government, as in *Massachusetts*) is the model subject of ecological interdependence, whose physical interdependence with, or moral and aesthetic valuation of, a faraway part of nature runs beyond simple forms of causation. The heart of ecological interdependence, and the premise of the laws it shaped, was that such interests are not less real for being more complex and remote. The implicit view of standing doctrine so far is that the constitutional concept of justiciability does, in fact, regard them as less real, and remains attached exclusively to the paradigmatic interests of older conceptions of nature.

One might look at this example in at least two ways. It might seem, on the one hand, to be an exercise in intergenerational synthesis. Courts often labor to integrate the premises of different jurisprudential eras or episodes of

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[227] *See* 16 U.S.C. § 1540(g) (2006) (authorizing "any person" to bring suit to enforce the requirements of the Endangered Species Act).

[228] *See* 42 U.S.C. § 7604 (2006) (authorizing "any person" to bring suit to enforce the requirements of the Clean Air Act).

[229] *See* Lujan v. Defenders of Wildlife, 504 U.S. 555, 561–62 (1992) (distinguishing between the unproblematic case in which plaintiff is "himself" the object of regulation and the much more vexed case where plaintiff complains of government's failure to regulate a third party); 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, with assertion of property rights against regulation being paradigmatic).

[230] *See* Sierra Club v. Morton, 405 U.S. 727, 734 (1972).

[231] *See* Summers v. Earth Island Inst., 555 U.S. 488, 492–500 (2009).

lawmaking.[232] The disputes in these standing cases arise from the sharpness of the departure that the era of ecological interdependence marked from earlier periods of environmental language and imagination. It should not be a surprise, then, that when justices weighed the new statutes alongside traditional suppositions about what constituted a justiciable claim, some found it necessary to trim the courts' role in citizen suits for environmental enforcement, to bring it closer to a traditional function infused with pre-ecological ideas of injury, causation, and redressability.[233] By contrast, one might instead take these cases as a more straightforward political defeat for the premises of ecological independence. On this view, the restrictive standing doctrine articulated in *Lujan* and subsequent cases is not necessary to preserve any essential feature of the judicial role as traditionally understood. Rather, the judicial role is quite compatible with the premises of ecological interdependence — or would be, if not for its politically motivated circumscription to impose pre-ecological constraints ex post on the enforcement of ecologically oriented statutes.[234]

Whatever view one takes of the standing cases, they highlight the layered character of the environmental imagination and its practical expressions in law. All four ways of approaching the natural world remain active, in statutes and doctrines and in the political constituencies that put legislators in office and, ultimately, judges on the bench.

2. *A Map of Politics*

There is an obvious sense in which important interest and advocacy groups in environmental lawmaking and litigation map onto the typology developed here. The Sierra Club, the Wilderness Society, Defenders of Wildlife, the Center for Biological Diversity, and other established environmentalist groups carry forward some combination of the romantic and ecological conceptions of nature's value. (Many are, after all, institutionally descended from those who helped create and spread those conceptions.) Providential ideas continue in traditional resource users' resistance to regulation, whether among mining, timber, grazing, or other interests, and coalesce into general movements of resistance such as the Sagebrush Rebellion and, in some aspects, the Tea Party. Progressive attitudes to nature persist in the

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[232] *See* BRUCE ACKERMAN, 1 WE THE PEOPLE: FOUNDATIONS 140–62 (1991) (describing Supreme Court's activity of intergenerational synthesis, in which substantive principles and ideas of judicial role from multiple eras are adjusted and partly reconciled).

[233] Although he does not say it in as many words, this seems a reasonable characterization of the approach to the issue that Justice Scalia takes in *The Doctrine of Standing*, where he argues for a view of standing that restricts judicial involvement in environmental enforcement suits according to criteria that maintain traditional separation-of-powers principles as he understands them. Scalia, *supra* note 229, at 881–82.

[234] I take it this is the view of Cass R. Sunstein. *See generally* Cass R. Sunstein, *Standing and the Privatization of Public Law*, 88 COLUM. L. REV. 1432 (1988); Cass R. Sunstein, *What's Standing after* Lujan*? Of Citizen Suits, "Injuries," and Article III*, 91 MICH. L. REV. 163 (1992).

federal agencies themselves, policy-oriented groups such as the Environmental Defense Fund, and, not least, among law professors. Our profession's habit of writing for an idealized enlightened policy-maker, or providing rational-actor explanations of why no such policy-maker has yet appeared, flies the flag of progressive management in a time when its expansionist hopes are somewhat diminished.

There is, though, a subtler and more interesting way that the competing conceptions of nature explored in this Article may shape environmental politics, even among those not engaged in explicit ideological argument. Recent work in social psychology has highlighted that perceptions of the reality and severity of environmental problems, along with perceptions of other policy-relevant factual matters, are strongly affected by a range of cognitive factors. In a provocative body of work, Dan Kahan and various collaborators have shown that broadly defined cultural worldviews correspond to perceptions of policy-relevant facts.[235] These worldviews deeply affect individual assessments of empirical questions, such as whether climate change is real and, if so, whether it is caused by human activity.[236]

People who dislike regulation, mistrust "big government," and get their sense of worth from traditional hierarchies tend to doubt climate change is real — though they sometimes feel differently when they are told that it could be fought with heroic technologies like nuclear power and geo-engineering.[237] Those who believe in regulation, mistrust markets and individualism, and would like to make social life more egalitarian tend to believe climate change is real and human-caused — though they are more likely to doubt it if they think it requires heroic technologies rather than virtuous emissions control.[238] Libertarians and cultural conservatives are more likely to find evidence of climate change persuasive when it is presented as implying market-based responses, less so when it comes with a call for regulation.[239] The reverse holds for government-friendly egalitarians.[240]

It is fair to say that none of this reflects the merits of the science. Some of it has to do with what kinds of governance respondents feel comfortable or uncomfortable with: they resist believing in problems that seem to require regulation or other interventions (such as geo-engineering) that they dislike. These, in turn, seem connected with status: a certain version of the problem and its solutions makes me right, and people like you, wrong.

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[235] *See* Kahan et al., *supra* note 1, at 1–6.

[236] *See id.* at 4; *see also* ANTHONY LEISEROWITZ ET AL., YALE PROJECT ON CLIMATE CHANGE COMMC'N, GLOBAL WARMING: DEMOCRATS, REPUBLICANS, INDEPENDENTS, AND THE TEA PARTY 7 (2011), *available at* www.environment.yale.edu/climate/files/PoliticsGlobalWarming2011.pdf (finding that Democrats are most likely, Tea Party members least likely, to believe climate change is real, human-caused, and requires response and also finding that Tea Party members tend to be hierarchical individualists within the cultural-cognition scheme).

[237] *See* Kahan et al., *supra* note 1, at 4–5.

[238] *See id.* at 5–6.

[239] *See id.*

[240] *See id.*

The working hypothesis of the cultural cognition school has been that views about the empirical foundations of environmental issues are epiphenomena of the same general search for identity-reinforcement as views about other issues, such as the safety of abortions or the effect that widespread gun ownership has on crime.[241] The unifying variable is whether one feels affronted or affirmed by the kinds of policies the facts imply, and the type of social order such policies would tend to produce.

This Article's account of the American environmental imagination, with its connections to both lawmaking and the dignity-conferring aspects of personal identity, suggests an alternative hypothesis. What if, like views about one's place in the social order, views about one's place in the order of nature also work as independent variables in judgments of fact? What if people cleave to views of the natural world that reinforce their sense that their own relation to nature is righteous, without necessary mediation through types of government policy that they like or dislike? One gets a hint that this might be so in Tea Party activists' religious explanations of their climate-change skepticism: if the continent's resources were placed here for our use, how could it be that, by using them, we could undermine our form of life?[242] A natural order that works so as to turn human consumption of fossil fuels and other resources into tragedy rather than comedy refutes the providential-republican commitment to the fruitful use of all that nature gives. It suggests that extractive labor and prosperity based on it are not heroic and dignified but clownish and villainous. Archetypically, every honest man in a truck becomes a goon in a Hummer. Perhaps the problem with climate change is not that higher gas taxes or fuel-efficiency standards would undermine a hierarchical and individualist view of the world, but that nature itself would seem to abandon its support for that view.

Every era of environmental lawmaking has portrayed an exemplary human relation to nature at the heart of its story: the sturdy settler or landowner, the rational and public-spirited manager, the romantic seeking solitude and insight, and the aware and integrated (but endangered) subject of ecological interdependence. These self-images, and the experiences that came with them, were essential to many who helped establish these forms of imagination and drive forward the eras of lawmaking that put them into effect. The forms of language they established now have wide currency. It is well worth trying to establish whether judgments about environmental issues

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[241] *See* Donald Braman & Dan M. Kahan, *Overcoming the Fear of Guns, the Fear of Gun Control, and the Fear of Cultural Politics: Constructing a Better Gun Debate*, 55 EMORY L.J. 569 (2006); Dan M. Kahan & Paul Slovic, *Cultural Evaluations of Risk: "Values" or "Blunders"?* 119 HARV. L. REV. 166 (2006) (stating and applying the cultural cognition methodology); Dan M. Kahan, *Two Conceptions of Emotion in Risk Regulation*, 156 U. PA. L. REV. 741 (2008) (same); Dan M. Kahan et al., *Who Fears the HPV Vaccine, Who Doesn't, And Why? An Experimental Study of the Mechanisms of Cultural Cognition,* 34 LAW & HUM. BEHAV. 501 (2010) (same).

[242] *See* Broder, *supra* note 4.

today refer directly to these worldviews, to specifically *environmental* imagination.

3. *A Map of the Land*

Environmental lawmaking literally shapes the land in keeping with an idea. For one example, the wilderness idea, enshrined in more than 100 million acres of statutorily protected land, is an invention of romantic thought: a land without human inhabitants or the marks of human passage (other than a few foot trails). When created, this idea was something new in the world. Now it describes the terrain it governs and has created, land open to people seeking kinds of rugged adventure and quasi-religious solitude that were also invented, or at least re-inflected, by the same romantic developments that created the wilderness idea itself. The national parks, too, are a thoroughly artificial kind of natural terrain, administered to make as real as possible Olmsted's paradoxical thought that any American should be able to find glorious and restorative vistas within reach of home and work. Theirs is a landscape architecture of accessible wildness, short-order solitude.

The national forests and BLM lands are less unified in their statutory aims because they are dedicated to the idea of multiple use: one big idea that contains several conflicting ideas. They are landscape-scale essays in balancing very different kinds of public and private benefits, from grazing and timbering to off-road vehicle use and wilderness management. The massive documents that govern these lands are literally zoning plans, designations of smaller and larger parcels committed to one or another statutorily permitted use, or some hierarchical combination of several.[243] All these lands, each intensively managed in its own way, are a physical expression of the way a statute embodies an idea about how Americans should use the natural world.

What is less obvious, and maybe more valuable to see for just that reason, is that private lands are also shaped by the way the law expresses underlying ideas about humanity and nature. The shaping of private land is less direct and comprehensive than the shaping of public land, but it is pervasive. The farmland of the Midwest, for example, takes the physical shape of the rectangular land grants distributed by the General Land Office, the flagship bureaucratic avatar of providential republicanism.[244] What grows on those squares, in turn, has much to do with an extensive subsidy system that, as Henry David Thoreau might have written, makes the land say corn and soybeans.[245] An appropriately fine-tuned satellite map would show the property lines and flora of the region as, importantly, a product of the law that made it and continues to make it. (Most readers will recognize that taking a window

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[243] *See, e.g.*, U.S. DEP'T OF AGRIC., CORONADO NATIONAL FOREST PLAN (2005), *available at* http://www.fs.fed.us/r3/coronado/plan-revision/plan-revision-documents.shtml.

[244] *See* GATES, *supra* note 56, at 65 (summarizing this mode of designating lands to be distributed by the federal government).

[245] *Cf.* HENRY DAVID THOREAU, WALDEN *in* WALDEN AND OTHER WRITINGS 105, 220–21 (Joseph Wood Krutch ed., 1981) (describing his work in a bean field as "making the earth say beans instead of grass").

seat on a flight over the same region gets across much of the same information.)

The most illuminating product of this landscape mapping is a category of landscape entailed by our legal design, and the commitments behind it, but not usually named or recognized as such. This is the *sacrifice zone*,[246] the repository of negative externalities, the harms the law assigns to no one with the power to do anything about them. The Appalachian hills that mountaintop-removal strip-mining turns into tree-poor and nearly level plateaus, burying hundreds of miles of streams in the process, are one example: governing interpretations of the Clean Water Act and Surface Mining and Reclamation Act impose only modest limits on the practice, meaning the irreversible transformation of the landscape is a mostly invisible side-effect of a commitment to inexpensive energy and easy extraction of coal.[247] The hypoxic "dead zone" in the Gulf of Mexico, a product of fertilizer runoff from the farmland along the tributaries of the Mississippi (that is, most of the country's farmland outside California), is another sacrifice zone, much less famous than the 2010 Gulf oil spill, but almost certainly more harmful.[248] (It is, moreover, only the best known of many such hypoxic zones in coastal waters around the world.)[249] Laws that promote cheap and plentiful food, in an ideological marriage of providential republicanism and progressive management, with a cynical overlay of modern public-choice theory, do not only produce the corn-and-soybean terrain of the Midwest.[250] They also produce the aquatic sacrifice zone that it feeds.

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[246] This term has a fair amount of traction in environmental conservation. *See*, *e.g.*, Dave Foreman, *Wilderness Areas for Real*, *in* THE GREAT NEW WILDERNESS DEBATE, *supra* note 20, at 395, 397 (criticizing the dichotomous view in which natural places must be either preserved as wilderness or designated "sacrifice zones where industrialism can run rampant").

[247] *See generally* JEDEDIAH PURDY, FOR COMMON THINGS 129–60 (1999) (describing the practice of mountaintop removal strip-mining). The most important decisions on the environmental laws governing the practice are Ohio Valley Envtl. Coalition v. Aracoma Coal Co., 556 F.3d 177 (4th Cir. 2009) (rejecting challenge to hydrological and biological methodology of Army Corps of Engineers' analysis of impacts of permitted surface mines); Ohio Valley Envtl. Coalition v. Bulen, 429 F.3d 493 (4th Cir. 2005) (rejecting challenge to analysis supporting Army Corps of Engineers' nationwide permit for valley fills, where mining debris is deposited); Kentuckians for the Commonwealth, Inc. v. Rivenburgh, 317 F.3d 425 (4th Cir. 2003) (rejecting a challenge to Army Corps of Engineers' issuance of valley-fill permits under section 404 of Clean Water Act); Bragg v. W. Va. Coal Ass'n, 248 F.3d 275, 297–98 (4th Cir. 2001) (holding citizen-suit provision of Surface Mining Conservation and Reclamation Act inapplicable to state surface-mining program on federalism grounds).

[248] *See 2011 Gulf of Mexico 'Dead Zone' Could Be Biggest Ever*, SCIENCE DAILY, Jul. 18, 2011, http://www.sciencedaily.com/releases/2011/07/110718141618.htm (reporting an average size of 5800 square miles, approaching 9400 square miles in severe years).

[249] *See* Roger Highfield, *Ocean Dead Zones Free of Oxygen Double Every Decade*, THE TELEGRAPH (London), Aug. 14, 2008 (noting that scientists are presently aware of 405 hypoxic dead zones totaling 95,000 square miles and estimate that the actual total may be much greater).

[250] *See* JASON CLAY, WORLD AGRICULTURE AND THE ENVIRONMENT: A COMMODITY-BY-COMMODITY GUIDE TO IMPACTS AND PRACTICES 421 (2004) (linking United States corn production to Gulf of Mexico's hypoxic "dead zone"); MICHAEL POLLAN, THE OMNIVORE'S DILEMMA 35–79 (2006) (summarizing American agricultural policy and its effect on crop-production decisions).

These terrains give concrete expression to law, which in turns gives life to background ideas about the value of nature, the human place in it, and the right way to use it — or permissible ways to neglect or harm it. Seeing the American landscape in these terms is a way to appreciate both the material and the ideological content of environmental law, and how deeply the two are entwined in a system that uses law to inscribe ideas in the shape of the land. A map, literal or metaphoric, that can capture these relations will add something to our understanding of what environmental law does.

Conclusion

The natural world is a plain and obdurate fact of American life and also an object of rich imagination. Through ideas such as wilderness, waste, conservation, and even the concept of the environment, Americans have re-envisioned the continent while we have physically remade it. Many of the interests our laws serve depend on ways of seeing and using the natural world, from settler dignity to the paradoxically elevating humility of the wilderness. Each statutory episode that this Article describes helped to create a landscape in keeping with the vision behind it and continues to structure American interaction with nature. These laws also express persistent disagreement about nature's value, disagreement that touches both material interests and the environmental imagination. Once established, modes of environmental public language become focal points for further conflict and also sources of new ideas and appeals. We can enrich our map of both history and contemporary disputes by beginning to locate environmental law in the longer story of American environmental imagination and public arguments about the natural world.

As for the future, we should ask an open-ended question: how might we re-imagine our relationship to the natural world and put that new imagination into practical effect, as the movements, thinkers, and leaders of the past did when they created the terms of today's environmental debate? Answers will come from the practical character of new problems, such as climate change,[251] and new cultural commitments around the human use of nature, like those that have recently arisen around growing and eating food.[252] The next environmental imagination will be continuous in ways with what we know now, but we should also expect it to be surprising, because innovation is surprising. Our inherited environmental imagination frames our debates, but it does not chain them. Each generation makes its own relation to the natural world, though in circumstances it does not choose, and yet must understand, in order to change them.

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[251] I have speculated elsewhere about how environmental imagination might develop in the face of climate change. *See* Purdy, *supra* note 16.

[252] *See, e.g.*, Pollan, *supra* note 250 (describing and instancing a fascination with the sources of food, the environmental implications of food systems, and participating in producing one's own food).