

Beyond NEPA and Earth Day: Reconstructing the Past and Envisioning a Future for Environmentalism

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It seems opportune, on this the 25th anniversary year for both the first Earth Day as well as the passage of the National Environmental Policy Act, that a meeting of the American Society for Environmental History address the significance of those two threshold events. In doing so, there is the obvious need to look at their immediate historical context; the events, the social movements, and the policy and political debates of the late 1960s that influenced their coming to pass.

For many, there will likely be interest in evaluating what has taken place in the twenty-five years since NEPA was signed into law by a reluctant Richard Nixon and hundreds of thousands of citizens took to the streets in communities across the country to declare their varied commitments to the environment. One such kind of evaluation took place on the occasion of Earth Day 1990, when the press became filled

with stories containing check lists of environmental performance: had the air become dirtier or cleaner; the oceans more or less polluted; were population growth rates climbing or slowing down, and so forth? While NEPA never gained the prominence of Earth Day for the press or the public, the continuous flow of evaluations about NEPA implementation established a minifield of environmental policy analysis.

What this concept of "historical checklist" tends to suggest is that the birth of the contemporary environmental movement and the parallel rise of an environmental policy system should be traced to those turbulent months of 1970 and the series of events both proceeding and immediately following them. Thus stated, we are presented with a kind of environmental demarcation point, a before and after in Environmental History. Through this divide we see a pre-1970 "conservationism" or "preservationism" concerned with protection and/or management of the natural environment and its resource base, and a post-1970 environmentalism concerned with both issues of the natural environment, species protection or wetlands preservation, and urban and industrial pollution, clean air, clean water, and hazardous waste. Similarly, with the passage that year of NEPA, the Clean Air Act, and the Resource Recovery Act as well as the establishment of the Environmental Protection Agency, 1970 is seen by many as the launching date for a federally constructed environmental policy system based on legislation, rule making, enforcement, litigation, and administrative agency activity.

I would suggest that such a view of the environmental movement and of the centrality and significance of the environmental policy system of the past two-and-one-half decades can be misleading about the present, offers too narrow a view in addressing the past, and establishes, at best, only an incrementalist perspective about the future, a perspective that is today set in relief against Gingrichian onslaughts and doomsday scenarios. We need, instead, to think about events such as Earth Day, or legislation such as NEPA, as constituting more complex moments in the evolution of environmentalism. This perspective on NEPA and Earth Day as complex, evolving events also helps situate environmentalism itself as a movement or set of movements with distinctive roots and multiple forms of organization and perspective, both past and present. Each of these, I would argue, are embedded in the social, or the urban and industrial sphere, connecting natural environments, human environments, and daily life.

This view introduces a new set of historical environmental players and movements or reinterprets the actions and perspectives of those long defined as the legitimate "pre-1970" environmentalists. It

includes Bob Marshall, the People's Forester, whose vision of protected wilderness was directly associated with his vision of social justice.¹ It recognizes the contribution of Ellen Swallow Richards, who introduced into this country as early as the 1880s the concept of "ecology", by placing it in its urban and household dimensions, as food and nutrition, air quality and water quality, sewage and sanitation. Richards' "science of controllable environment" also provides direct lineage to those self-defined "municipal housekeeping" movements of the turn of the century who focused on the myriad of urban infrastructure concerns that plagued the Industrial city.²

Within this reconstruction of environmentalism must be located the indomitable Jane Addams, whose 19th ward in Chicago became emblematic of the hazards of the urban and industrial environment. It was Addams who sought to empower working people and community residents suffering in such places as the garment manufacturing "sweats" tucked away in tenements or the foul landscapes bordering areas like Packingtown in the industrial ghettos of Chicago. Addams recognized, in those communities and workplaces, a state of environmental as well as economic immiseration. It was Addams who urged Progressives to recognize the singular importance of such environmental hazards in daily life, and to create programs to ensure what she called the "certain minimal requirements of well-being" in the Industrial City.³

Advocates addressing the environmental issues of urban form also need to be represented in this reconstructed view. They can be found through such figures as Lewis Mumford, Benton MacKaye, Catherine Bauer and the regional planning movement they founded in the 1920s. Mumford and his colleagues spoke of needing to make the earth more habitable for those who inhabit it. In the process, they distinguished between what they called the "overcity", with its cycles of ecological imbalance, reaching further and further for water, fuel, food, building materials, and areas for waste and sewage disposal, in contrast with what MacKaye called the "cosmopolitan city of scale", where jobs and housing would be in greater balance, where roadless highways would complement recreation trails consisting of wild reservations, and where the potential for community living and cooperative food raising would also suggest a reintegration of city and countryside, or of urban and natural environments.⁴

Advocates addressing the issues of workplace and class, of gender, or of race and ethnicity, also have a central place within this view of environmentalism. Most noteworthy perhaps is the figure of Alice Hamilton, whom I described in my book *Forcing the Spring* as the country's first great urban-industrial environmentalist.⁵

Alice Hamilton has remained, until recently, a nearly invisible figure in environmental movement histories, despite her anticipation of so many contemporary environmental themes. She was a physician who sought to understand the connections between environment and disease. She was a researcher and scientist who defined her field of study as the real conditions and real consequences stemming from hazardous working conditions and the use of hazardous products. She was a woman who helped invent the field of occupational medicine and established the link between industrial activities and worker and environmental health at a time when such a field was seen by the medical establishment as exhibiting feminine "sentimentality or radicalism." In these arenas and others, Alice Hamilton emerged at the forefront of what today would be characterized as struggles over hazardous workplaces, environmental racism, gender discrimination, access to information or a worker's or community's right to know, empowerment strategies based on the necessity of organizing powerless constituencies, and a deep and abiding passion for both the issues of health and environment and the need to build a unified movement to address those questions coherently and collectively.⁶

Hamilton, for example, pushed the concept of "no safe threshold" when she did battle against DuPont and Standard Oil and the Ethyl Corporation in their unrelenting campaign in the 1920s to introduce leaded gasoline onto the market as a "war order priority," as one of the DuPonts put it.⁷ For Hamilton, exposures in the workplace could not be separated from the problem of what was released into the ambient environment, and vice versa, a crucial insight that still eludes many policymakers as well as movement advocates.

These unknown or lesser known figures of environmentalism like Alice Hamilton, Catherine Bauer, Jane Addams or even Bob Marshall, are represented quite differently (or often remain absent) in most environmental histories, in contrast with such well-known, historical icons of environmentalism as John Muir or Gifford Pinchot. Yet Hamilton and the others require recognition for their rightful place in environmental history, not only in terms of their significant views and activities, but as a matter of definition: namely, that U.S. environmentalism, in its more than 100-year history, needs to be seen as a response to and indeed an extension of the changes to landscape and society wrought by urban and industrial forces. Thus, even when exploring the roots of environmentalism exclusively in terms of such conflicts as management or wise use versus protection or preservation, those same movements and ideas can also be seen as having been powerfully influenced and ultimately framed by those same, often

ignored, urban and industrial forces. This included the timber industry's effective depletion of the forests, the technology and market changes in hard rock and metal mining, the management of livestock on the range as an extension of a regional, then national, and ultimately global food system, the building of dams and ditches and power plants that concentrated landholdings and facilitated rapid urban growth, and the emergence of, and eventual industrialization and chemicalization of irrigated agriculture. All these activities and the movements they engendered were responding to many of the same urban and industrial activities and disputes that gave rise to the environmentalism of the Alice Hamiltons and the Jane Addams and the Lewis Mumfords in the early part of the century.⁸

This perspective on environmentalist roots also provides a framework for rethinking the question of whether NEPA and Earth Day constitute movement and policy points of demarcation. NEPA, for one, was seen by some of its authors and Congressional sponsors as a unique piece of legislation, drawing on a conception of environmental protection as distinct from other policy frameworks, such as cost-benefit analysis, or the intricate political and distributional maneuvers that characterized resource policy. Sen. Henry Jackson's chief advisor on the drafting of NEPA, the University of Indiana's Lynton Caldwell, situated NEPA's origins in the context of what he called "a popular effort to redirect the priorities of the federal agencies—to force them in pursuit of their missions to take account of public concern for the quality of the environment."⁹ Caldwell, in turn, traced these efforts to the 1965 White House Conference on Natural Beauty. For Caldwell, as well as for a number of contemporary environmental analysts like Sam Hays, quality of the environment was at once "aesthetic" and located in the domain of "consumption."¹⁰ In this context, scenic resources could not and should not be quantified in the manner of cost-benefit analysis utilized by agencies such as the Bureau of Reclamation or the Corps of Engineers, whose deliberations were seen as subject to political manipulation. Environmental, that is, "natural environment" values and the corresponding conservation/preservation or "recreation" movements were identified as in the public interest, and thus needed to be evaluated by "scientific analysis," as opposed to a process influenced by interest group politics.¹¹ As a consequence, in the various drafts of NEPA, the need for a Council on Environmental Quality was posed as distinct from, though parallel to, at least in terms of bureaucratic status, the existing Council of Economic Advisors.¹²

NEPA didn't entirely separate issues of natural and human environment, as the concept of "pollution control" figured directly in

the debates that took place prior to its enactment and was ultimately incorporated into the language of the legislation itself. But, in establishing a "national environmental policy," "pollution" issues, that is, impacts on urban and industrial environments, were considered of secondary importance to such questions as the need to protect scenic resources or the need for an appropriate, "scientific" evaluation of any resource development. The crucial debate over "environmental impact statement" requirements that preoccupied the 91st Congress was less over the reach of such statements into the urban and industrial domain than the authority such statements would assume in decision-making by federal agencies whose activities impacted the *natural environment*. Thus, NEPA established a separate domain for "environmental protection," defined as protection of scenic resources, than that for control and management of the urban and industrial environment, situated subsequently in separate and discrete administrative and regulatory units for workplace (through the Occupational Safety and Health Administration), consumer products (through the Consumer Products Safety Commission), and environment (through the Environmental Protection Agency).

This division into separate units for regulation and policymaking paralleled the kinds of distinctions and divisions that emerged between groups and movements. In the congressional hearings that took place in the months before NEPA's passage, for example, nearly all those testifying—whether scientists, agency officials, or conservationists—focused on how to interject into the legislation the environmental values of "protection," or "when to say that there are limits not to be transgressed" ¹³as part of the framework for agency decision-making, as David Brower put it at one Congressional Hearing. The bruising battles over Dinosaur National Monument, passage of the Wilderness Act, and the proposed hydro facility in the Grand Canyon that had been part of the Central Arizona Project package of facilities served as background to the NEPA debates and for a conservationist movement that sought to craft a new identity amidst the activism and social turbulence of the era. These scenic resource protection battles, despite rhetoric about equivalent concerns for "the shape and character of the cities as [much as for] the state of wilderness," as Secretary of Interior Stewart Udall said of NEPA's legislative intent, ¹⁴were driving the legislative process and establishing, for advocacy groups as well, a division of interest in defining what constituted a "national environmental policy."

One of the few voices to explore an urban and particularly an industrial focus in the NEPA debates was Anthony Mazzochi, then the legislative director of the Oil, Chemical, and Atomic Workers Union

(OCAW). Mazzochi argued that one could not confront “the environmental problem without dealing with the place from which the contaminants emanate.”¹⁵ Referring to OCAW’s series of conferences held during 1969 which sought to provide a forum for workers to identify the kinds of hazards they experienced on the job, Mazzochi defined the framework for a new environmental policy in two crucial ways: the centrality of the industrial experience in the development of environmental *contamination* problems, and that any such policy required a shift in the burden of proof in assessing the environmental *and* health impacts of any new substance introduced by industry.¹⁶

Six months later, in November 1969, Mazzochi testified again at congressional hearings, this time regarding proposed legislation that was subsequently passed the next year as the Occupational Safety and Health Act. At these Hearings, Mazzochi sought to shift the debate from the preoccupation with occupational hazard (primarily defined in terms of “worker safety” and accident prevention) to the question of *environmental hazard*, which, according to Mazzochi, represented the “more profound problem.” In discussing the environment, Mazzochi insisted, the workplace could not be “separated from the community at large,” since the pollutants created inside the workplace, as Alice Hamilton had noted more than forty years previously, also found their way into the environment at large.¹⁷

Mazzochi’s arguments, in both the OSHA and particularly the NEPA deliberations, were never pursued, either by congressional sponsors or by most of the advocates then engaged in efforts to pass such legislation. At the OSHA hearings, in fact, not one representative from any of the major conservationist groups, nor any from the newly formed professional, staff-based environmental organizations such as the Environmental Defense Fund and the Natural Resources Defense Council, gave testimony nor demonstrated significant interest in workplace environment issues. Environment remained a divided concern in the policy realm and among environmental advocates who continued to distinguish between *protection* and *contamination*. Such divisions became a bit more problematic with the sudden explosion of media interest, grassroots activity, and symbolic action that culminated with the events of April 22, 1970.

Twenty-five years later, the first Earth Day remains a bit opaque and somewhat contradictory in terms of identifying its role in the evolution of environmentalism, despite its considerable status as a presumed demarcation point in environmental history. For example, Gaylord Nelson’s frame of reference, in initially proposing the concept of a national environmental teach-in, was more directly associated with

conservationist/protectionist discourse. A Senator and former governor of Wisconsin, the state that produced Aldo Leopold and John Muir, who had seen his place as champion of environmental protection largely eclipsed by the intrigue and maneuvering over NEPA by Senators Muskie and Jackson, Nelson wished to channel the activism of the period towards what he characterized as the "most critical issue facing Mankind," one which Nelson saw as clearly dwarfing such issues as Vietnam, racism, nuclear war, decaying cities, or hunger.¹⁸ The Harvard law student he hired, Denis Hayes, was also preoccupied with the activism of the period, and wished to promote an event that was at once tamer and potentially more consensus-building than Vietnam-style protests, but which nevertheless evoked the rhetoric and concerns of the 60s movements. "Our goal is not to clean the air while leaving slums and ghettos, nor is it to provide a healthy world for oppression and war. We wish to make the probability of life greater, and the quality of life higher," Hayes proclaimed at a press conference promoting Earth Day events.¹⁹

The term "quality of life" was key to the discourse associated with the unfolding events leading up to and taking place on Earth Day itself. For a number of '60s activists, "quality of life" signified problems of daily life, whether related to the job, to community life, to consumption, to social or race and gender relations, or to the environment as a broader category encompassing such arenas as work, home, community, or extraurban "Nature." Late 1960s environmental activists could be found, not in the Sierra Club or the National Wildlife Federation or even the Environmental Defense Fund which employed some of the hothouse rhetoric of the period ("sue the bastards" was an early EDF battle cry)²⁰, but in local "Ecology Action" groups, or communal "affinity groups," or, to use Newt Gingrich's favorite expression, in the "counterculture." "Where there's pollution there's profit," the '60s activists insisted,²¹ arguing that changes needed to occur both in terms of values as well as institutions. As one example, hundreds of recycling or ecology centers were established literally overnight as cultural places, where ideas and practice—elaborating the new life style—could be joined.²² The environment didn't need protection, the activists asserted, it needed transforming.

For the conservationists, the media interest in environment as pollution or as quality of life, and particularly the association of '60s-style activism and concerns with what was being called the new environmental or ecology movement, was disturbing, if not threatening. These were groups whose members ("consumers of the natural environment," as the National Wildlife Federation's Thomas Kimball

put it)²³ wanted to *protect* a life style based on appreciation of scenic resources or untouched wilderness. For the conservationists, Earth Day was at best an ambiguous event, welcomed because it appeared to reinforce, in light of NEPA's passage, the concept of an environment needing protection, but troublesome because it also drew attention to "approaches other than those the traditional movement has pioneered and knows best," as a Sierra Club vice president put it.²⁴

The conservationists, David Brower's letter writing and ad campaigns notwithstanding, were also not activists; that is, they were not concerned with social action, nor did they see themselves as constituting a social movement. Thus, the form as well as the content of Earth Day activities suggested differences, differences which also extended among participants as well as interpreters of the events. For those who sought a consensus-building action, Earth Day was like a parade, filled with color and pageantry, bringing together citizen, public official, and corporate executive alike. For those who saw Earth Day as heralding a new movement, or at least one associated with or drawing inspiration from already existing movements, Earth Day represented a form of direct action, such as the sit-ins at the University of Oregon that fused anti-war and environmental protests and ultimately led to the university administration's commitment to seek environmental innovation on as well as off campus.²⁵

In this intense period of activism and social movement birth and/or redefinition, the debate over how to interpret the significance of Earth Day ultimately came to overshadow the significance of the event itself in helping define the evolution of environmentalism. The fear of environmentalism defined as social movement, shared by the Sierra Club, *Time Magazine*, and Richard Nixon, among others, helped promote an interpretation of Earth Day as "problem solving" rather than as transformative; consensus-building rather than as challenging or change-oriented; technically rather than socially focused. In Nixon's environment-oriented January 1970 State of the Union message and in the administration's subsequent legislative initiatives, the president embraced the notion that environmental problems were interconnected contamination problems, but then framed them as discrete or media-specific problems requiring management and control strategies, particularly through what later came to be called an "end-of-pipe," technology-based approach.²⁶ *Time Magazine*, similarly, in its special feature on the environment prior to Earth Day, defined environmental problems as "technical and mechanical problems that involve processes, flows, things." "And the American genius seems to run that way," the magazine happily announced, while decrying efforts that sought to link

those problems to such factors as race, class, or industry structure.²⁷ Thus, by placing environmental action within this technical domain, Earth Day became, through this interpretation, a call for attention to *technique*, in arenas where scientists and engineers prevailed, and where, as my colleague Margaret FitzSimmons once put it, you needed to be an expert to be an environmentally concerned citizen.²⁸

It was when environment became technique and environmentalism became an association of experts or professionals, as it was increasingly defined during the 1970s and 1980s, that the view of Earth Day (and, parenthetically, of NEPA) as constituting a point of demarcation in both movement and policy terms, also took hold. Pollution as well as protection were now a part of the accepted terrain of environmental activity, but it was activity framed by expertise. Within a decade, each of the major environmental organizations, whether the traditionalists like the Sierra Club or the National Audubon Society or Bob Marshall and Aldo Leopold and Benton MacKaye's Wilderness Society, or the new lawyer/scientist/lobbying groups like EDF, NRDC, or the Environmental Policy Institute, or even such a movement-oriented group (and original Earth Day sponsor) like Environmental Action, were reconstituted into professional, staff-based, policy-system oriented organizations, all too often engrossed in the details of science and technique and the forms of environmental management that treated contamination or protection issues as problems to be solved, not institutions or values to be changed.

This professional, or mainstream environmentalism, as I call it in *Forcing the Spring*, did not, by any means, fully constitute what was considered environmentalism. Local, issue-oriented, citizen-based groups still proliferated, whether focused on questions of contamination or protection. Efforts were also made to continue the traditions of 1960s activism and the development of social movements, whether concerned with nuclear power, toxics in the community, occupational health, or right-to-know and democratic participation concerns.

By the 1980s, the locals were becoming increasingly alienated from, and even hostile to the activities of the mainstream groups, despite earlier affinities and a presumed common environmental agenda. This was particularly true in the area of anti-toxics activity where the community-based groups, addressing directly issues of place, were often hostile to the search for new techniques (for example, high temperature incineration facilities) when such techniques became themselves the source of environmental protest.²⁹ This division was further intensified by issues of gender, race, and class, where movements of housewives, or of poor rural residents, or from communities of color

were finding less and less common ground with the big, national organizations who spoke the language of policy and expertise, while also claiming to speak on behalf of the locals as well. There were also those, like Ralph Nader and his associations of public interest students and professionals or the direct action commandos of Greenpeace, who sought to bridge the gulf between citizen engagement and professional, expertise-oriented activity. But the Naders and the Greenpeaces were the exception rather than the rule and never fully succeeded in overcoming the growing mistrust. Environmentalism increasingly came to represent a divide between groups, issues, and levels of participation.

This current divide in environmentalism has, to be sure, some historical reference. During the progressive era, as Samuel P. Hays and others have shown us, conservationism itself divided along lines concerning the role of expertise and the crafting of technical solutions in managing environmental problems.³⁰ But within the discourse of progressivism, there also resided a powerful *democratic* impulse associated with concepts like empowerment and social reform. The expert is the citizen, proclaimed those like Jane Addams and Alice Hamilton who saw solutions based on the capacity of citizens to organize into social movements. Both Hamilton, a physician, and Addams, the social reformer, were wedded to the uses of science to identify and better understand the nature of environmental hazards present in everyday life. Like the environmental justice activists today, Hamilton and Addams believed that change was a community function, and that environmentalism, as they situated it, was not about technique, but the intersection of science, policy, and democratic action.³¹

The importance of understanding such roots in sorting out today's complex and increasingly divisive environmentalism represents more than what is often derisively and unfortunately called an "academic exercise." As I've argued, there are today essentially two broad categories of environmental activity, a mainstream and an alternative environmentalism. Mainstream environmentalism remains focused on policy and power, on accomplishing change by helping construct, influence, and watchdog the environmental policy system it has become so much a part of since the days of NEPA. Mainstream environmentalism is national and global in its reach, and as a professional movement of experts who are advocates—lawyers, scientists, lobbyists, economists, policy people—it has also tended to remain white and comfortable in addressing the centers of power, whether in the executive branch, Congress, the courts, or the press. Alternative environmentalists, on the other hand, focus on people and on place. They accomplish change by

being ornery, argumentative, mistrustful, and by mobilizing their base, often against one or another dimension of that same environmental policy system. As locals, they are often neighborhood-oriented in their reach, and have been episodic or single issue-oriented, at least in their origins. Alternative environmentalists are often led by women. Many have assumed the mantle of environmental justice, including, notably, those who are environmentalists of color. The greatest concern of the alternative environmentalists has not been the shifting vagaries of policy, as with the "unholy trinity" of unfunded mandates, risk assessment, and takings that dominate the Washington scene today, but with the very act of survival itself. This survival strategy, in turn, stems from limited resources and the powerful tendencies in the society to marginalize grass roots mobilization.³²

This categorization into mainstream and alternative environmentalism can also be useful in helping describe what is lacking in both sets of movements and in locating the intersections where a broader and more compelling environmentalism could conceivably take root. Mainstream environmentalists need to connect with experience and community. Expertise needs to flow both ways and be embedded in the conditions of daily life. Alternative environmentalists, on the other hand, need to draw on and connect with the resources of mainstream environmentalism and understand that the "local" cannot stand in isolation from movements for change as a whole. Environmental justice must also be affirming a vision, and broaden its agenda to be able to include such crucial concerns as community food security or industrial restructuring. Linkages are needed between issues of human and natural environments, between workplace and community, between mainstream and alternative, between different parts of a complex movement. Finally, environmentalism needs to reclaim a history that provides continuity, that doesn't create demarcation points which only reinforce division, and that allows environmentalism to pursue its own "long march through the institutions"³³ as German Green founder and 1960s activist Rudi Dutschke once proclaimed. It needs to challenge, at each stage of such a journey, the conditions and the structures and the environmental miseries that laid the groundwork for the emergence of environmentalism in the first place. To paraphrase a slogan from the era of Earth Day, "The struggle to remake the movement has just begun."

¹ Bob Marshall, *The People's Forests* (New York: Harrison Smith and Robert Haas, 1933); James M. Glover, *A Wilderness Original: The Life of Bob Marshall* (Seattle: The Mountaineers, 1986); Robert Gottlieb, "Reconstructing Environmentalism: Complex Movements, Diverse Roots" *Environmental History Review*, Vol. 17, No. 4, Winter 1993, pp. 1-19.

2 Ellen H. Richards, *The Science of Controllable Environment* (Boston: Whitcomb & Barrows, 1904); Ellen H. Richards, *Sanitation in Daily Life* (Boston: Whitcomb & Barrows, 1907); Ellen H. Richards and Alpheus G. Woodman, *Air, Water, and Food: From a Sanitary Standpoint* (New York: John Wiley & Sons, 1901); Martin Melosi, ed., "'Municipal Housekeeping': The Role of Women in Improving Urban Sanitation Practices, 1880-1917," in *Pollution and Reform in American Cities, 1870-1930* (Austin: University of Texas Press, 1980).

3 See, Allen F. Davis, *Spearheads for Reform: The Social Settlements and the Progressive Movement* (New Brunswick, N.J.: Rutgers University Press: 1984); Jane Addams, *Twenty Years at Hull House: With Autobiographical Notes* (New York: New American Library, 1960); *Hull House Maps and Papers*, (New York: Thomas Y. Crowell, 1895).

4 Benton MacKaye, *The New Exploration: A Philosophy of Regional Planning* (Urbana: University of Illinois Press, 1962); Benton MacKaye, "Regional Planning," *The Sociological Review*, Vol. 20, No. 1, January 1928, pp. 18-33; Carl Sussman, ed., *Planning the Fourth Migration: The Neglected Vision of the Regional Planning Association of America*, (Cambridge: MIT Press, 1976).

5 *Forcing the Spring*, 47.

6 *Exploring the Dangerous Trades: The Autobiography of Alice Hamilton, M.D.*, (Boston: Little, Brown, 1943); Barbara Sicherman, *Alice Hamilton: A Life in Letters* (Cambridge: Harvard University Press, 1984).

7 Alice Hamilton, "What Price Safety? Tetra-ethyl Lead Reveals a Flaw in our Defenses," *The Survey* *Midmonthly*, Vol. 54, no. 6, June 15, 1925; Testimony of Alice Hamilton in *Proceedings of a Conference to Determine Whether or Not There is a Public Health Question in the Manufacture, Distribution, or Use of Tetraethyl Lead Gasoline*, Public Health Bulletin No. 158 (Washington DC: Government Printing Office, 1925), 98-99; Graham D. Taylor & Patricia E. Sudnick, *DuPont and the International Chemical Industry* (Boston: Twayne Publishers, 1984), 84.

8 *Forcing the Spring*, 19-26.

9 See Lynton Caldwell's Forward in Richard N. L. Andrews, *Environmental Policy and Administrative Change: Implementation of the National Environmental Policy Act* (Lexington, MA: Lexington Books, 1976), xi.

10 See Samuel P. Hays, *Beauty, Health, and Permanence: Environmental Politics in the United States, 1955-1985* (Cambridge: Cambridge University Press, 1987).

11 See Lynton K. Caldwell, *Science and the National Environmental Policy Act: Redirecting Policy Through Procedural Reform* (University, Alabama: University of Alabama Press, 1982).

12 See Richard A. Liroff, *A National Policy for the Environment: NEPA and its Aftermath* (Bloomington, Indiana: Indiana University Press, 1976); Also, Andrews, *Environmental Policy and Administrative Change*.

13 See the Testimony of David Brower at Hearings on "Environmental Quality," before the Subcommittee on Fisheries and Wildlife Conservation of the Committee on Merchant Marine and Fisheries, House of Representatives, Ninety-First Congress, First Session on H.R. 12143, May 26, 1969, 132.

14 See Stewart Udall's testimony on H.R. 12143, May 7, 1969, 16.

15 See testimony of Anthony Mazzochi, Hearings on H.R. 12143, May 26, 1969, 123.

16 Mazzochi testimony on H.R. 12143, May 26, 1969, 124-125; The issue of burden of proof was subsequently elaborated in some of the language and provisions of the 1976 Toxic Substances Control Act.

17 See the testimony of Anthony Mazzochi at the Hearings on the Occupational Safety and Health Act of 1969, before the Select Subcommittee on Labor of the Committee on Education and Labor, House of Representatives, 91st Congress, First Session, on H.R. 843, H.R. 3809, H.R. 4294, and H.R. 13373, November 18, 1969, 1195.

18 Author's personal communication with Gaylord Nelson, 1991. See also Edward E.C. Clebsch, "The Campus Teach-in on the Environmental Crisis," *The Living Wilderness*, Spring 1970, 34 (109): 10.

19 Hayes' press statement is reproduced in *The Living Wilderness*, Spring 1970 issue, 12-13.

20 See Marion Lane Rogers, *Acorn Days: The Environmental Defense Fund and How it Grew*, (New York: Environmental Defense Fund, 1990).

21 "Where There's Pollution, There's Profit" was the name of a publication produced for the Earth Day events by one of the environmental-oriented affinity groups of the period. (Los Angeles: Los Angeles Power and Light Collective, 1970).

22 See Neil Seldman, "The United States Recycling Movement, 1968 to 1986: A Review," (Washington D.C.: Institute for Local Self-Reliance, October 1986).

23 Author's personal communication with Thomas Kimball, 1991.

24 Edgar Wayburn, "Survival is not Enough," *Sierra Club Bulletin*, March 1970, 55 (3): 2.

25 See "The Oregon Experiment After Twenty Years," *RAIN*, Winter-Spring 1991, 14 (1): 32-41

26 Nixon's state of the union message is reprinted in *Environmental Quality: The First Annual Report of the Council on Environmental Quality*, (Washington D.C.: Government Printing Office, 1970), Appendix B; See also "Summons to a New Cause," *Time*, February 2, 1970, 7-8.

27 "Summons to a New Cause," *Time*, 7.

28 Margaret FitzSimmons and Robert Gottlieb, "Environmental Planning and Policy in the Los Angeles Region: Openings and Opportunities," Paper presented by Margaret FitzSimmons, at the Conference on Policy Options for Southern California, Lewis Center for Regional Policy Studies, University of California, Los Angeles, November 19, 1992.

29 See Louis Blumberg and Robert Gottlieb, *War on Waste: Can America Win its Battle with Garbage?* (Washington D.C.: Island Press, 1989).

30 Samuel P. Hays, *Conservation and the Gospel of Efficiency*,

31 See Alice Hamilton, *Exploring the Dangerous Trades*; Allen Davis, *Spearheads for Reform*.

32 *Forcing the Spring*, 117-204.

33 The term "long march through the institutions" was first used by German activist Rudi Dutschke in 1967. Dutschke later became one of the founders of Die Grunen, the German Green Party.



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