

Master Bibliography 2008
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International Society for Environmental Ethics

See the README file that accompanies this bibliography.

This bibliography contains ISEE Newsletter entries, vols. 1-19, 1990-2008, but not 2009 Newsletter entries. They will be merged into this document spring 2010. They can meanwhile be searched in the separate quarterly newsletters at the ISEE website.

Saarinen, K and Jantunene, J; "Grassland Butterfly Fauna under Traditional Animal Husbandry: Contrasts in Diversity in Mown Meadows and Grazed Pastures," Biodiversity and Conservation 14 (no. 13, December 2005): 3201-3213.

Saayman, Graham S., ed., Modern South Africa in Search of a Soul: Jungian Perspectives on the Wilderness Within Boston, MA: Sigon Press, 1990. Ten articles interpreting the psychological and spiritual dimensions of wilderness experience. (v6,#3)

Saayman, M. and E. Slabbert, "A Profile of Tourists Visiting Kruger National Park," Koedoe: Research Journal, South African National Parks, 47/1 (2004):1-8. Kruger is one of the world's best-known, one of the world's largest, and most profitable parks. Negotiations are underway with neighboring countries to form the Limpopo Transfrontier Conservation Area, which would be the largest park in the world. There are approximately 950,000 visitors per year. With shrinking budgets for conservation, and with growth in the number of privately owned parks, however, it is increasingly important to understand whose these tourist are and what they want in park experience. (v. 15, # 3)

Saberwal, Vasant, Rangarajan, Mahesh, and Kothari, Ashish. People, Parks and Wildlife: Towards Coexistence. Hyderabad, India: Orient Longman Limited, 2001 (Tracts for the Times #14). 143 pages. "There are two opposing ways of thinking about conservation. One is an exclusionist policy that seeks to exclude resident people from within protected areas, restrict local human access to them, and prohibit customary use rights; a policy that considers the interests of local residents as irreconcilably opposed to the logic of conservation. There is a contrary way of looking at the question, one that opposes total exclusion, argues for the rights of resident people within the forests, and sees no ineluctable hostility between humans and animals. It is a mode of thinking that considers the politics of total exclusion to be ecologically unsound, practically unviable, and socially unjust. This tract develops the second argument against the first." Focusing on wildlands management in India, the authors saddle "exclusionists" with outmoded or extreme positions (natural systems are always in equilibrium, local interests are necessarily opposed to conservation) and fail to discuss the actual effects of subsistence use on biodiversity in a detailed or objective manner. (Contributed by Phil Cafaro). (EE v.12,#1)

Saberwal, Vasant K., Kothari, Ashish. "The Human Dimension in Conservation Biology Curricula in Developing Countries", Conservation Biology 10(no.5,1996):1328. (v7,#4)

Saberwal, Vasant K. "Pastoral Politics: Gaddi Grazing, Degradation, and Biodiversity Conservation in Himachal Pradesh, India." Conservation Biology 10, no.3 (1996): 741. (v7, #3)

Saberwal, Vasant K. "Saving the Tiger: More Money or Less Power?" Conservation Biology 11 (no.3, 1997): 815-17. Local communities near tiger reserves have great animosity toward state-initiated conservation programs. Decisions must be more local-level, and it is unreasonable to translocate people, who can rather be educated to live with tigers, as they already do with lions. Translocation programs, already associated with dams, do not work in India. Persons in the United States would not be translocated to save mountain lions. Compensation systems for those whose livestock are preyed upon are abused; fatalities from tiger attacks run into the hundreds annually. Saberwal is Indian, currently at the Harvard Center for Population and Development Studies. (v8,#2)

Sachs, Albie, Protecting Human Rights in a New South Africa. Cape Town: Oxford University Press, 1990, 1991. With a chapter on "Rights to the Land," and "Conservation and Third Generation Rights: The Right to Beauty." Sachs is a lawyer and writer, long a member of the African National Congress (ANC) and a member of the ANC Constitutional Committee. (v6,#3)

Sachs, Jeffrey D., *End of Poverty: Economic Possibilities for Our Time*. New York: Penguin, 2005. An economic rescue book. Sachs proposes a much grander project than the UN's Millennium Development Goal of cutting extreme poverty in half by 2015. He wants the global economy totally to eradicate poverty by 2025. He outlines a number of "poverty traps," which doom most development projects to failure, by not considering feedback loops in the local systems. Sachs is director of the Earth Institute at Columbia University.

Sachs, Jeffrey D., "Sustainable Development," Science 304(30 April 2004):649. An editorial. With scientists, there is an overriding concern that the growing human population is putting global-scale processes under increasing strain. Larger global society is caught between competing visions of the future: one of fear and one of hope. Both acknowledge the stress, but the vision of fear sees increasing clashes over resources, with military defenses of natural resources. The vision of hope, offered often by the apprehensive scientists, holds that science and technology offer a suite of options for combining economic well-being and environmental sustainability. Sachs directs the Earth Institute at Columbia University. (v.14, #4)

Sachs, Jeffrey D. *Common Wealth: Economics for a Crowded Planet*. New York: The Penguin Press, 2008. Sachs uses economic data, demographic trends, and climate science to explore how to mitigate global warming and environmental destruction, stabilize the world's population, end extreme poverty, and break barriers such as unilateral, militarized approaches to international problems that hinder global cooperation. He argues that there are concrete, low-cost, and pragmatic remedies with benchmarks and budgets for these problems.

Sachs, Wolfgang, ed., Global Ecology: A New Arena of Political Conflict. Reviewed by Peter Stoett. Environmental Values 5(1996):92-93. (EV)

Sachs, Wolfgang, ed., Global Ecology. London: Zed Books, 1993. 320 pages. Essays with the common theme of the contradictions in the fashionable notion of sustainable development.

(v4,#1)

Sachs, Wolfgang, ed., Global Ecology: A New Arena of Political Conflict. London: Zed Books, 1993. (v5,#1)

Sachs, Wolfgang. Planet Dialectics: Explorations in Environment and Development. London and New York: Zed Books, 1999. Review by Matthew Paterson, Environmental Values 10(2001):521. (EV)

Sack, R.D., "Human territoriality: its theory and history. Commentary 1: John Agnew, Commentary 2: Anssi Paasi, Author's response: R.D. Sack.," Progress In Human Geography 24 (No. 1, 2000): 91- . (v.11,#2)

Safonov, Paul I., Review of: Randal Bluffstone and Bruse A. Larson (eds.), Controlling Pollution in Transition Economies: Theories and Methods, Environmental Values 11(2002):116-118.

Sagoff, "Carrying Capacity and Ecological Economics," BioScience 45(1995):610-620. Sagoff generally argues that ecological economics is not much better than classical economics at forming a basis for environmental conservation. "I cast doubt on hopes that the utilitarian logic of ecological economics is any more able than is the logic of mainstream economics to provide a strong foundation for the claims of environmentalism" (p. 610). Reply: Daly, Herman E., "Reply to Mark Sagoff's 'Carrying Capacity and Ecological Economics,'" BioScience 45(1995):621-624. "After we have recognized the intrinsic value of the natural world, then we have an obligation to protect and increase that value. That realization leads us to pay attention to instrumental value. ... It is a further mistake to identify intrinsic value with morality and instrumental value with prudence and then set up an opposition between them, as Sagoff does." Daly's reply shows that economists, at least ecological economists, are not going to be upstaged by philosophers either on their own turf or with moralist arguments. A spirited exchange that should get the reader (or the classroom) thinking. Sagoff is at the Institute for Philosophy and Public Policy, Daly in economics, at the University of Maryland. (v7,#1)

Sagoff, Mark, "Zuckerman's Dilemma: A Plea for Environmental Ethics." Hastings Center Report 21(September-October 1991):32-40. Zuckerman is the farmer in Charlotte's Web who has to decide whether to put Wilbur, the pig, to economic use or to spare the pig for aesthetic and moral reasons. We can value nature (1) for the pork chops it provides, or (2) as an object of knowledge and perception, or (3) with love and affection. "Maryland's former director of tidal fisheries, recognizing the benefits of genetic engineering, argued that the Chesapeake Bay 'should be run more like a farm than a wilderness'" (p. 35). In such a mariculture, people might want to engineer fish that can stand the pollution and still be edible rather than remove the pollution. This might be more cost effective. A rockfish, already perfected, that does not migrate into toxic areas illustrates the possibilities. Also, fishery biologists have developed an acid tolerant trout that does well in acidified lakes. But, in environmental ethics, "the grand diversity of life, particularly the existence of rare and exotic species, presents a profound moral obligation for civilization, which is to share the earth peaceably with other species" (p. 38). Sagoff is director of the Institute for Philosophy and Public Policy, College Park, Maryland.

Sagoff, Mark, "Has Nature a Good of Its Own?" Pages 57-71 in Robert Costanza, Bryan G. Norton, and Benjamin D. Haskell, eds., Ecosystem Health: New Goals for Environmental Management. Washington, DC: Island press, 1992. If we are to accept the idea that ecosystems may be objects not only of use but also of aesthetic appreciation and moral attention, then we must accept the possibility that these systems have a good of their own we ought to respect and therefore protect. ... Concepts of ecological health and integrity ... make the most sense in relation to the intrinsic--the moral and aesthetic value of ecological communities and systems. Sagoff is at the Institute for Philosophy and Public Policy, University of Maryland. (v5,#4)

Sagoff, Mark, "Four Dogmas of Environmental Economics," Environmental Values 3 (1994): 285-310. Four dogmas have shaped modern neoclassical economics. The first proposes that markets may fail to allocate resources efficiently, that is, to those willing to pay the most for them. The second asserts that choices, particularly within markets, reveal preferences. The third is the assumption that people always make the choices they expect will benefit them or enhance their welfare. The fourth dogma holds that perfectly competitive markets will allocate resources to their most beneficial uses. This is the doctrine of "the invisible hand." Sagoff argues that these dogmas of applied welfare economics should be abandoned. One consequence of doing so will be an increased interest in the institutional context of production. A second will be a turn toward empiricism. (v5,#4)

Sagoff, Mark, "A Noneconomic View of the Value of Biodiversity," in Gary Meffe and C. Ron Carroll, Principles of Conservation Biology (Sunderland, MA: Sinaur Associates, 1997). A box essay. (v8,#2)

Sagoff, Mark, "Population, Nature, and the Environment," Report from the Institute for Philosophy and Public Policy, vol. 13, no. 4, Fall 1993, a special issue on "Ethics and Global Population." While local populations can nibble around the edges of rain forests, it takes enormous capital investments to deforest on a major scale. Nations without the wealth to purchase technology from abroad or to develop it themselves may confront overwhelming difficulties in coping with population growth. In view of the doubling of world population, we must look to changes in policy and more benign technologies if we are to keep any remnants of nature intact for future generations. Sagoff is Director of the Institute. Other papers in this issue on population policy. (v4,#4)

Sagoff, Mark, "Should Preference Count?" Land Economics, 70 (May 1994): 127-44. (v5,#4)

Sagoff, Mark, "Four Dogmas of Environmental Economics." Environmental Values 3(1994):285-310. Four dogmas have shaped modern neoclassical economics. The first proposes that markets may fail to allocate resources efficiently, that is, to those willing to pay the most for them. The second asserts that choices, particularly within markets, reveal preferences. The third is the assumption that people always make the choices they expect will benefit them or enhance their welfare. The fourth dogma holds that perfectly competitive markets will allocate resources to their most beneficial uses. This is the doctrine of the invisible hand. I argue that these dogmas of applied welfare economics should be abandoned. One consequence of doing so will be an increased interest in the institutional context of production. A second will be a turn toward empiricism. KEYWORDS: Choices, externalities, market efficiency, preferences, welfare

economics. Sagoff is at the Institute for Philosophy and Public Policy, University of Maryland. (EV)

Sagoff, Mark, "Why Exotic Species Are Not as Bad as We Fear," Chronicle of Higher Education, Vol. 46, Number 42 June 23, 2000. (v.12,#4)

Sagoff, Mark, "The Greening of the Blue Collars," The Report from the Institute for Philosophy and Public Policy, vol. 10, no.3/4, Summer/Fall 1990. (v2,#2)

Sagoff, Mark, "On the Value of Endangered and Other Species," Environmental Management 20(no. 6, 1996):897-911. Two frameworks--utilitarian and Kantian--are used by society to make decisions concerning environmental management, and, in particular, species protection. The utilitarian framework emphasizes the consequences of choices for prior preferences. A perfectly competitive market, on this model, correctly values environmental resources. The Kantian approach identifies rules appropriate to recognized situations given the identity of the decision maker. It relies on democratic political processes and institutions to provide the means by which citizens determine the identity of their community--its moral character and aspirations--and match appropriate rules to recognized situations. Markets do not fail in any general way in measuring the economic value of plants and animals. Market prices, in general, correctly represent the marginal or exchange value of species. If society legislates against extinction, this must be understood as an exercise in Kantian decision making in view of the moral value of species, not as an attempt to "correct" a market failure or to promote social welfare or utility. Sagoff is at the Institute for Philosophy and Public Policy, University of Maryland. (v8,#2)

Sagoff, Mark, "Genetic Engineering and the Concept of the Natural," Philosophy and Public Policy Quarterly 21(no. 2/3, Spring/Summer 2001):2-10. The food industry in its advertising conspicuously appeals to the image of nature and insists that all its products are natural. This has made it difficult for the industry to embrace, as it wishes, the efficiencies of genetic engineering. (v.13,#1)

Sagoff, Mark, "Muddle or Muddle Through? Takings Jurisprudence Meets the Endangered Species Act" William and Mary Law Review 38 (no. 3, March 1997):825-993. The long article takes up the entire issue and is book-length. "This Article proposes that the Supreme Court, rather than resolving controversies about the fundamental character of property, liberty, nature, ecology, and so on, appropriately limits itself to reigning in regulation at its own frontier. As long as the Court equally threatens opposing positions with utter and devastating defeat--fanning fears that it may vindicate either the libertarian or the environmentalist extreme--it may succeed in restraining the ambitions of both property owners and regulators, who then may recognize that they have more to lose from confrontation than from compromise and accommodation" (pp. 844-845). "This Article argues that no plausible scientific argument at present supports the claim that the extinction of species in the United States courts environmental disaster. It is far more plausible that rare and endangered species have become epiphenomena, affected by the environment but having little effect on it. Moral, aesthetic, and spiritual arguments amply may justify all that we do to protect every species, but an instrumental or economic rationale appears beyond reach" (p. 844). Sagoff is at the Institute of Philosophy and Public Policy at the University of Maryland, and is the former president of the International Society for

Environmental Ethics. (v8,#3)

Sagoff, Mark, "Biodiversity and the Culture of Ecology," Bulletin of the Ecological Society of America 74 (no. 4, December, 1993):374-381). "What may worry us most in the disappearance of species is the prospect, then, of becoming ourselves strangers to the earth, of never quite settling into it, of losing touch with the places that help constitute the identity of our communities, of therefore being at home nowhere. For the sake of our own identities we must maintain the identities of the places where we live--and this entails maintaining its flora and fauna as well as larger landscapes. The motive for saving ecosystems may most fundamentally lie in our need to feel at home where we live--to attach ourselves to what becomes safe and secure because it retains its aesthetic and cultural characteristics in the midst of change." Sagoff is Director of the Institute for Philosophy and Public Policy, University of Maryland, and the newly elected president of ISEE. (v5,#1)

Sagoff, Mark, "Environmentalism vs. Value Subjectivism: Rejoinder to Anderson and Leal," Critical Review 8, no.3 (1994): 447-67. (v5,#4)

Sagoff, Mark, "Can We Put a Price on Nature's Services," Report from the Institute for Philosophy and Public Policy, 17 (no. 3, Summer 1997):7-12. An analysis of Costanza et al, "The Value of the World's Ecosystem Services and Natural Capital," Nature 387(no. 6230, May 15, 1997) and related articles. "The effort Costanza and colleagues undertake to `estimate the "incremental" or "marginal" value of ecosystem services' should be seen as an aberration within the program of ecological economics. It can succeed only in lowering the credibility of the discipline while increasing the legitimacy of the standard cost-benefit analysis policy framework most likely to defeat attempts to protect the natural environment" (p. 12). Sagoff is at the Institute for Philosophy and Public Policy, University of Maryland, College Park. (v9,#1)

Sagoff, Mark, "Environmental Policy and Law," Encyclopedia of Bioethics, revised ed. (New York: Macmillan Library Reference, Simon and Schuster, 1995), 701-7. (v6,#2)

Sagoff, Mark, "On Teaching a Course on Ethics, Agriculture, and the Environment: Part 2", Journal of Agricultural Ethics 1(1988):87-100.

Sagoff, Mark, The Economy of the Earth: Philosophy, Law, and the Environment. Cambridge: Cambridge University Press, 1988. Pp. x, 271. Sagoff is currently Director of the Center for Philosophy and Public Policy at the University of Maryland. He concentrates on the interconnections between environmental policy, law, economics, and environmental ethics. This book is a substantially new work that draws upon many of his published articles from the period of 1974-1986. In my view, it is the single best introduction to environmental policy and environmental ethics, particularly for a sophisticated reader interested in the practical applications of scholarly philosophical thought. Sagoff provides a systematic attack on the basic assumptions of welfare economics and cost-benefit analysis as a basis for environmental policy. The idea that the aggregate of individual human preferences in the market place can serve as the basis for a just social policy is a "category mistake." Values are community based intersubjective goals which evolve throughout the history of the community, state, or nation; they cannot be reduced to consumer preferences. Contemporary policy analysts focus on a

narrow model of rationality, as efficiency; but the fuller sense of rationality focuses on the virtue of deliberation, open-mindedness, and political discourse. The community-based rationality is the source of our values, ends, and goals of society; these form the basis of environmental policy. Environmental policies of preservation and conservation are not absolutes; rather they are the products of an open and rational process of community deliberation. "[E]nvironmental resources ought to be treated not as means to ends...but as ends in themselves. They are essential...to the process by which we create our values" (p. 90). For Sagoff, this process involves understanding our history as a democratic nation and our relationship with the American wilderness. This is an elegantly written book, filled with clear and precise arguments. No bibliography, but extensive notes. Reviewed in Environmental Ethics 10(1988):363-68. (Katz, Bibl # 2)

Sagoff, Mark, "Fact and Value in Ecological Science," Environmental Ethics 7(1985):99-116. An important look at the different roles that ecological science and ecologists can play in human interaction with the environment. Ecological science offers us the choice of managing the environment or preserving it. An increased awareness of ecological process will enable us to respect the integrity and value of the environment. (Katz, Bibl # 1)

Sagoff, Mark, "Animal liberation and environmental ethics: Bad marriage, quick divorce." Osgoode Hall Law Journal 22(1984):297-307.

Sagoff, Mark, "Settling America or the Concept of Place in Environmental Ethics," Journal of Energy, Natural Resources, and Environmental Law (University of Utah College of Law): 12 (no. 2, 1992):349-418. Some section titles: America on the Move; Place and Placelessness; Nature is Not a Place; The Environment is Not a Place; Protectionism; The Country vs. the City; Down on the Farm; Place as Res Publica; The Chesapeake; the North Sea; Have We a Place in Nature?; Nature as Human Habitat; The Great Environmental Awakening; Geography and History; Sustainability and Community; Environmentalism and the Dominant Social Paradigm. Sagoff is Director of the Institute for Philosophy and Public Policy, University of Maryland. Copies are available on request: School of Public Affairs, College Park, MD 20742. Phone 301/405-4753. Fax: 301/314-9346. (v4,#2)

Sagoff, Mark, "Is Big Beautiful?" Journal of Applied Philosophy vol. 1, no. 2 (1984):269-280. A discussion of the threat to democracy posed by large scale technologies and bureaucracies, focusing on public policy in environmental affairs of the United States. (Katz, Bibl # 1)

Sagoff, Mark, "Do We Consume Too Much?" The Atlantic Monthly 279 (No. 6, June, 1997):80-96. With vigorous reply: Ehrlich, Paul R., Daly, Gretchen C., Daly, Scott C., Myers, Norman, and Salzman, James, "No Middle Way on the Environment," 280 (No. 6. December, 1997):98-104. Also see Partridge, Ernest, "How Much is too Much?" listed separately. Sagoff: "It is simply wrong to believe that nature sets physical limits to economic growth. ... The idea that increasing consumption will inevitably lead to depletion and scarcity, as plausible as it may seem, is mistaken both in principle and in fact" (p. 83). Such beliefs come from mistaken beliefs that mineral resources are finite, that we are running out of food and timber, we are running out of energy, and that resource consumption by the wealthy north exploits the poorer nations of south. Although our present consumption patterns cannot be sustained, better technology will help us surmount natural limits without requiring substantial changes beyond

what we are willing to adopt. Shades of Julian Simon!

But Sagoff does not advocate high levels of consumption. The more significant limits to resource use and consumption are inherent in our spiritual needs for affiliation with nature and not in nature itself. "An intimacy with nature ends our isolation in the world. We know where we belong, and we can find the way home" "The question before us is not whether we are going to run out of resources. It is whether economics is the appropriate context for thinking about environmental policy" (p. 96). Sagoff thinks not. He not only has great faith in technology, he has even more faith that a people who discover themselves to be unlimited by nature will voluntarily limit themselves for spiritual communion with nature. "We consume too much when consumption becomes an end in itself and makes us lose affection and reverence for the natural world" (p. 96).

Ehrlich, the Dailys, Myers, and Salzman respond that Sagoff "has done a disservice to the public by promoting once again the dangerous idea that technological fixes will solve the human predicament" (p. 98). Sagoff misperceives his own misperceptions. Resources are finite, nature's services are threatened by consumption, prices are not reliable signals of resource scarcity, technology is no magic solution, and wealthy nations do exploit poorer nations. Sagoff's claims run counter to a statement signed by 1,500 leading scientists, including more than half of all living Nobel laureates in the sciences, as well as another statement issued by fifty-eight scientific academies, representing the global scientific community and including the U.S. National Academy, the British Royal Society, the French, German, Swedish, Russian, and Indian Academies. "Thus the very people who would produce the technological fixes in which Sagoff places such faith do not share his complacency" (p. 99). Middle-ground statements are muddled and encourage the present trajectory. "The temptation to look for the truth 'somewhere in the middle' may be dangerous folly." (EE v.12,#1)

Sagoff, Mark, "Free-Market Versus Libertarian Environmentalism," Critical Review 6, no. 2-3 (1993): 211-30. (v5,#4)

Sagoff, Mark, "Some Problems with Environmental Economics," Environmental Ethics 10(1988):55-74. A comment on the notion of "willingness-to-pay" as a valid method of assessing the economic value of the environment. The argument is based on material from Sagoff's book, The Economy of the Earth. For Sagoff, rationality is not the maximization of utility preferences but the process of deliberation in an open society. Good analogy with the duties of juries: decisions in a court are not based on "willingness-to-pay" but rather on a careful review of the evidence. (Katz, Bibl # 2)

Sagoff, Mark, "Cows are Better than Condos, or How Economists Help Solve Environmental Problems ," Environmental Values 12(2003): 449-470. This essay explores three case studies that illustrate the exemplary use of economic analysis in environmental decision-making. These include: 1) the creation of a market in tradable grazing rights in the American West; 2) a cost analysis that facilitated a negotiated rulemaking at a power plant in Arizona; and 3) a conception of production-based pollution allowances that led to an agreement for regulating Intel microprocessor production plants. The paper argues that cost-benefit analysis may be less useful than other kinds of economic analysis that can guide and inform rather than judge and second-guess the outcome of negotiated and collaborative decision-making. (EV)

Sagoff, Mark, "Ethics, Ecology, and the Environment: Integrating Science and Law," Tennessee Law Review 56(1988):77-229. Book length article, including an excellent (and provocative) treatment of current theory and issues within ecological science, in what might first be thought an unlikely place, a law journal, but this is in anticipation of integrating ecoscience into environmental policy. A nonrealist view of environmental science. Environmental policy looks to ecosystem science for help, but theoretical mathematical ecology is seldom of any use in telling us what we need to know in the complex interactions of ecosystems. Their variability thwarts the application of theory to nature. Ecosystem science does not have the time, knowledge, or resources to learn all about ecosystems, and current science is seldom realist anyway. "Mathematical population ecology has relied on very idealized assumptions that have no real relationship to the phenomena of natural history" (p. 124). Empirical models of ecosystems can be quite useful, but they are not theoretical, and only map the aspects of ecosystems that we pragmatically or practically wish to manage, preserve, or conserve. "The science of ecology finds itself in the midst of an identity crisis" (p. 153).

Objective, absolute theory is impossible and what kind of ecosystem science ecologists get depends on the goals they choose; if ecologists accentuate utilitarian management they get one kind; if they choose to appreciate values in nature ecologists will orient their studies differently and learn other things. "When models, equations, and principles that suggest prudential reasons for environmental protection prove to be unfounded or spurious, those who support them are left with little to contribute to public debate, because they have abandoned the moral and aesthetic rationale which may have motivated the search for the prudential arguments in the first place. It might be better and more honest if ecologists candidly admit the ethical and aesthetic goals that guide their research, rather than hide them under dubious or conjectural prudential and economic arguments" (p. 181). "I argue that estuaries, forests, lakes, and other ecosystems may properly be said to have a life--a natural history--and a good of their own; moreover, they may be studied scientifically in these normative terms. In presenting the thesis that ecological communities have a good of their own, I mean to take a small step toward establishing a basis for an environmental ethic. It seems plausible to argue, at least, that ecosystems may be legitimate objects of moral attention or worth in themselves if they have an objective good of their own--that is, if terms such as 'health,' 'integrity,' 'thriving,' 'well being,' or their opposites can meaningfully be predicated of them" (pp. 191-192). Sagoff is at the Center for Philosophy and Public Policy, University of Maryland. (v1,#4)

Sagoff, Mark, "Process or Product? Environmental Priorities in Environmental Management," Environmental Ethics 8(1986):121-138. Sagoff tries to affect a balance between the criteria of efficiency in the market and of environmental quality. Environmental policymakers must be aware that their decisions involve a set of popular ideals and values which consider the natural environment as an object of love as well as an object of use. A good practical application of Sagoff's well-known theories of environmental ethics, law, and the market. (Katz, Bibl # 1) Surplus--not simply scarcity--provides a reason to preserve the natural environment. Although advances in biotechnology have made it possible to manipulate, alter, and replace ecological and evolutionary processes in order vastly to increase the production of economically valuable commodities, e.g., seafood in estuaries, the huge surpluses likely to result threaten fishing communities with the same economic depression and social dislocation that farming communities have already experienced. In this context, protecting the biological status quo not only expresses an admirable affection and respect for nature, but also makes economic sense by

taking unneeded resources out of production. Sagoff is at the Center for Philosophy and Public Policy and the Center for Environmental and Estuarine Studies, University of Maryland, College Park, MD. (EE)

Sagoff, Mark, Price, Principle, and the Environment. Cambridge: Cambridge University Press, 2004. Economics is helpful in designing institutions and processes through which people can settle environmental disputes. However, economic analysis fails completely when it attempts to attach value to environmental goods. Environmental policy responds to principles best identified and applied through political processes. Sagoff is with the Institute for Philosophy and Public Policy, University of Maryland.

Sagoff, Mark, "Do Non-Native Species Threaten The Natural Environment?," Journal of Agricultural and Environmental Ethics 18(2005):215-236. Conservation biologists and other environmentalists confront five obstacles in building support for regulatory policies that seek to exclude or remove introduced plants and other non-native species that threaten to harm natural areas or the natural environment. First, the concept of harm to the natural environment is nebulous and undefined. Second, ecologists cannot predict how introduced species will behave in natural ecosystems. If biologists cannot define harm or predict the behavior of introduced species, they must target all non-native species as potentially harmful, an impossibly large regulatory task. Third, loss of species richness may constitute harm to an environment, but introduced organisms typically, generally, and significantly add to species richness in ecosystems. If species richness correlates with desirable ecosystem properties, moreover, such as stability and productivity, as some ecologists believe, then introduced organisms, by increasing species richness, would support those desirable properties. Fourth, one may plausibly argue that extinction constitutes environmental harm, but there is no evidence that non-native species, especially plants, are significant causes of extinction, except for predators in certain lakes and other small island-like environments. Fifth, while aesthetic, ethical, and spiritual values may provide a legitimate basis for invasive species policy, biologists often cite concepts such as biodiversity and ecosystem health or integrity to provide a scientific justification. To assert that non-native species threaten biodiversity or undermine ecosystem health, however, may be to draw conceptual entailments or consequences from definitions of biodiversity and integrity that arbitrarily exclude non-native species or make the presence of exotic species a per se indicator of decline. Keywords Biodiversity - ecosystems - invasive species - plant breeding. Sagoff is at the Institute for Philosophy and Public Policy, University of Maryland, College Park, MD. A vigorous reply is: Simberloff, Daniel, "Non-native Species DO Threaten the Natural Environment!," Journal of Agricultural and Environmental Ethics 18(2005):595-607. (JAEE)

Sagoff, Mark, "Locke was Right: Nature Has Little Economic Value," Philosophy and Public Policy Quarterly 25(no. 3, summer 2005):2-11. Economic value is produced by labor; raw materials are of little economic value. If one resource runs out, technologists substitute another. "If optimists are correct--if technology will substitute between resource flows to keep prices low--then we are confronted with a dilemma: Either Nature provides so abundantly for our needs that no scarcity exists and thus no economic value is possible, or Nature provides inadequately and therefore technology develop to relieve scarcity and thus, again, Nature (economic services) has no economic value" (p. 6). Sagoff is at the Institute for Philosophy and Public Policy, University of Maryland.

Sagoff, Mark, "Intellectual Property and Products of Nature," American Journal of Bioethics 2(2002):12-13.

Sagoff, Mark, "On the Economic Value of Ecosystem Services," @ *Environmental Values* 17(2008):239-257. The productive services of nature, such as the ability of fertile soil to grow crops, receive low market prices not because markets fail but because many natural resources, such as good cropland, are abundant relative to effective demand. Even when one pays nothing for a service such as that the wind provides in pollinating crops, this is its 'correct' market price if the supply is adequate and free. The paper argues that ecological services are either too 'lumpy' to price in incremental units (for example, climatic systems), priced competitively, or too cheap to meter. The paper considers counter-examples and objections.

Spash, Clive L., "How Much is that Ecosystem in the Window? The One with the Bio-diverse Trail," @ *Environmental Values* 17(2008):259-284. Ecosystems are increasingly characterised as goods and services to allow their valuation in monetary terms. This follows an orthodox economic approach to environmental values, but is also being undertaken by ecologists and conservation biologists. There then appears a lack of clarity and debate as to the model of human behaviour, specific values and decision process being adopted. Arguments for ecosystem service valuation are critically appraised and the case for a model leading to value pluralism is presented. The outcome is to identify the need for value articulating processes which involve open deliberative judgment rather than instantaneously stated preferences, concealed expert opinion and global cost-benefit analysis.

Sagoff, Mark, *The Economy of the Earth: Philosophy, Law, and the Environment*, 2nd ed. (Cambridge: Cambridge University Press, 2008). Reviewed by Dan Tarlock in *Journal of Agricultural and Environmental Ethics* 21(2008):499-501.

Sagoff, Mark. "Carrying Capacity and Ecological Economics." Bioscience 45, no. 9 (October 1995): 610-20. Reply by Herman E. Daly follows on pp. 621-26. (v6,#3)

Sagoff, Mark. Risk-Benefit Analysis in Decisions Concerning Public Safety and Health. Reviewed in Environmental Ethics 8(1986):277-85.

Sagoff, Mark. "Fact and Value in Ecological Science." Environmental Ethics 7(1985):99-116. Ecologists may apply their science either to manage ecosystems to increase the long-run benefits nature offers man or to protect ecosystems from anthropogenic insults and injuries. Popular reasons for supposing that these two tasks (management and protection) are complementary turn out not to be supported by the evidence. Nevertheless, society recognizes the protection of the "health" and "integrity" of ecosystems to be an important ethical and cultural goal even if it cannot be backed in detail by utilitarian or prudential arguments. It is a legitimate purpose of ecological science, moreover, to describe and help society preserve ecosystem "health" and "integrity," insofar as these are considered as privative qualities. Sagoff is at the Center for Philosophy and Public Policy and the Center for Environmental and Estuarine Studies, University of Maryland, College Park, MD. (EE)

Sagoff, Mark. "Population, Nature and the Environment." In Beyond the Numbers: A Reader

on Population, Consumption and the Environment, ed. Laurie Ann Mazur. Washington, DC: Island Press, 1994. (v6,#1)

Sagoff, Mark. "Some Problems with Environmental Economics." Environmental Ethics 10(1988):55-74. I criticize the contingent valuation method in resource economics and the concepts of utility and efficiency upon which it is based. I consider an example of this method and argue that it cannot--as it pretends--substitute for public education and political deliberation. Sagoff is at the Center for Philosophy and Public Policy and the Center for Environmental and Estuarine Studies, University of Maryland, College Park. MD. (EE)

Sagoff, Mark. Review of Property Rights and Eminent Domain. By Ellen Frankel Paul. Environmental Ethics 11(1989):179-89.

Sagoff, Mark. "Do We Need a Land Use Ethic?" Environmental Ethics 3(1981):293-308. I criticize what many economists recommend: namely, that land use regulations should simulate what markets would do were all resources fully owned and freely exchanged. I argue that this "efficiency" approach, even if balanced with equity considerations, will result in commercial sprawl, an environment that consumers pay for, but one that appalls ethical judgment and aesthetic taste. I show that economic strategies intended to avoid this result are inadequate, and conclude that ethical and aesthetic as well as economic principles are needed to guide policies governing the use of land. Sagoff is at the Center for Philosophy and Public Policy and the Center for Environmental and Estuarine Studies, University of Maryland, College Park, MD. (EE)

Sagoff, Mark. Review of Private Property and the Constitution. By Bruce Ackerman. Environmental Ethics 1(1979):89-96.

Sagoff, Mark. *The Economy of the Earth: Philosophy, Law, and the Environment*, 2nd edition. Cambridge: Cambridge University Press, 2008. This revised edition of Sagoff's book that was first published in 1988 contains the following table of contents: (1) AIntroduction,@ (2) AAt the Shrine of Our Lady of Fatima or Why Political Questions Are Not All Economic,@ (3) AThe Allocation and Distribution of Resources,@ (4) AValues and Preferences,@ (5) ACan We Put a Price on Nature's Services?,@ (6) ADo We Consume Too Much?,@ (7) AIs an Environmental Ethic Compatible with Biological Science?,@ (8) ASettling America or the Concept of Place in Environmental Ethics,@ (9) ANatural and National History,@ and (10) AEnvironmentalism: Death and Resurrection.@

Sagoff, Mark. AEnvironmentalism: Death and Resurrection.@ *Philosophy and Public Policy Quarterly* Vol. 27, no. 3/4 (Summer/Fall 2007): 2-9. ABecause it is now caught up in a debate among environmental scientists, environmentalism has slipped from a popular spiritual or cultural cause and has become an academic research programY. The belief that ecosystems exhibit a hidden designY unites theoretical ecology with the tradition of >Great Chain of Being= cosmology associated with philosophers of nature from neo-Platonic mystics to >deep ecologists todayY. More recently, however, many ecologists have come to question whether the concept >ecosystem or >ecological community= refers to anything that has any general design ecologists can studyY. The environmental movement is dying because it expects science to maintain our faith in the rightness of nature and wrongness of humanity.@ Nevertheless, Sagoff expects a

resurrection when environmentalists reach out to the populist constituencies who gave them support decades ago: birders, hunters, anglers, backpackers, and religious persons who recognize a religious duty to care for creation.

Sagoff, Mark. AEnvironmentalism: Death and Resurrection.@ *Philosophy and Public Policy Quarterly* Vol. 27, no. 3/4 (2007): 2-9. AEnvironmentalism has slipped from a popular spiritual or cultural cause and has become an academic research program.@ ABut the spirit of environmentalism ... might rise again.@ Sagoff is at the Institute for Philosophy and Public Policy at the University of Maryland.

Sagoff, Mark. ACan Environmentalists Keep Two Ideas in Mind and Still Function?@ *Philosophy and Public Policy Quarterly* Vol. 27, no. 1/2 (Winter/Spring 2007): 2-7. AAn intelligent society can hold two opposed ideas of nature Y in mind Y without trying to make them commensurable or reducing or collapsing either into the other.@ One idea is nature as creation, sacred, and a source of meaning; the other idea is nature as resources to be developed for human benefit. Sagoff essentially recreates the debate between Muir and Pinchot. Sagoff is at the Institute for Philosophy and Public Policy at the University of Maryland.

Saha, D., Sen, H.S., Saha, A. 2004. Integral and Differential Analysis of Bioethics in Understanding Agro-environmental Altruism. In *Challenges of Bioethics in Asia* (Ed. Darryl Macer) Eubios Ethics Institute, Japan, pp 450-456

Saha, D., Sen, H.S., Saha, A., 2003. Integrative Human Idea Mapping should include Food, Agriculture and Environment. *Eubios Journal of Asian and International Bioethics*, Japan & New Zealand. 13(2): 43-44. One of the Base Paper for the Global Mental Mapping Programme, Japan.

Saha, D., Sen, H.S., Sinha, M.K. 2004. Bioethics in Intricate Consonance with Biosafety, IPR and Biotechnology : Abstarcting Towards mental Mapping. *Proceedings of Fifth International Conference on Plant Tissue Culture and Biotechnology*, Kluwer Academic Publishers.

Saha,D, Hazra, C.R and Macer, Darryl 2000. Bioethics and Ecosustainability. *Eubios Journal of Asian and International Bioethics*, Japan & New Zealand. 10(6):181-183.

Saha,D; Sen, H.S. and Saha, A. 2004. Integral and Differential Mapping of Human Idea: Structural and Functional Aspects of Altruism and Agroecology in Decision Theory . *Eubios Journal of Asian and International Bioethics*, Japan & New Zealand. 14(1): 81-85. One of the base papers for the Global Mental Mapping Programme, Japan.

Sahn, Jennifer. "Knowledge That Binds: The Orion Society," *Wild Earth* 6(1996):26. (v8,#1)

Sahni, Pragati. *Environmental Ethics in Buddhism: A Virtues Approach*. New York: Routledge, 2007. Sahni discusses the metaphysical and ethical dimensions of early Buddhist literature to show that early Buddhism can best be understood as an environmental virtue ethics.

Saikku, Mikko, "The Extinction of the Carolina Parakeet," *Environmental History Review* 14(#

3, Fall 1990):1-18. (v1,#4)

Saint Scolastica's College, "Lifestyle: The Women and Ecology Wholeness Farm: A Progress Report," Ecotheology Vol 7 (No. 1, July 2002):91-94.

Sairinen, R., "The Politics of Regulatory Reform: `New' Environmental Policy Instruments in Finland," Environmental Politics 12(no. 1, 2003): 73-92. (v 14, #3)

Saito, Yuriko. "Ecological Design: Promises and Challenges." In recent decades, designers, architects, and landscape architects concerned with their contribution to today's ecological problems started formulating a new way of designing and creating artifacts. Called "ecological design" and promoted as a corrective alternative to conventional practice, its basic tenet is to draw from nature a guidance for design, rather than imposing our design on nature. This new approach signifies a welcome change, first by calling attention to the ecological implications of artifacts, a subject matter generally neglected in environmental ethics, and, second, by providing useful, specific suggestions regarding the ecologically responsible way of designing artifacts. However, the conceptual basis and resultant implications of ecological design deserve and need critical analyses. I argue that the basic premise of ecological design that nature should act as the authority is problematic by examining analogous strategies from social, political, moral, and aesthetic realms, as well as by exploring its specific application in the promotion of "native" plants in gardens. I end with another issue often neglected in the practice of ecological design: our aesthetic response to the created objects. Environmental Ethics 24(2002):243-261. (EE)

Saito, Yuriko. "Appreciating Nature on Its Own Terms." Environmental Ethics 20(1998):135-49. I propose that the appropriate appreciation of nature must include the moral capacity for acknowledging the reality of nature apart from humans and the sensitivity for listening to its own story. I argue that appreciating nature exclusively as design is inappropriate to the extent that we impose upon nature a preconceived artistic standard as well as appreciation based upon historical/cultural/literary associations insofar as we treat nature as a background of our own story. In contrast, aesthetic appreciation informed by our attempt to make sense of nature, such as science, mythology, and folklore, is appropriate because it guides our experience toward understanding nature's own story embodied in its sensuous surface. Saito is at the Rhode Island School of Design, Providence, RI. (EE)

Saiz, A. V., "Review of: Jorge Riechmann, Un Mundo Vulnerable. Ensayos Sobre Ecología, Ética Y Tecnociencia," Environmental Politics 12(no. 2, 2003): 173.

Salafsky, N., Cauley, H., Balachander, G., Cordes, B., Parks, J., Margoluis, C., Bhatt, S., Encarnacion, C., Russell, D. and Margoluis, R., "A Systematic Test of an Enterprise Strategy for Community-Based Biodiversity Conservation," Conservation Biology 15(no.6, 2001): 1585-95. (v.13,#2)

Salafsky, N; Margoluis, R, "What Conservation Can Learn from Other Fields about Monitoring and Evaluation", Bioscience 53(no.2, 2003):120-123.

Salazar, Debra J., "Environmental Justice and a People's Forestry," Journal of Forestry 94(Nov.,

11, 1996):32-36. The environmental justice movement asks about the quality of the environment in the underprivileged, especially in cities. Urban forestry has an important role to play in any such quality of life. Salazar is in political science, Western Washington University, Bellingham. (v9,#1)

Salazar, Debra J., Moulds, Lisa A. "Toward an Integrated Politics of Social Justice and Environment: African American Leaders in Seattle", Society & Natural Resources 9(no.6, 1996):617. (v7,#4)

Salazar, Debra J., Hewitt, John Jr. "Think Globally, Secure the Borders: The Oregon Environmental Movement and the Population/Immigration Debate", Organization and Environment 14 (No. 3, September 2001) pp.290-310. The authors examine the debate about the role of population and immigration in the environmental agenda as represented within the Oregon environmental movement, focusing on the role of race in shaping perspectives on immigration. Environmentalist immigration reformers in Oregon have framed the analysis in color-blind terms, but have been dogged by accusations of racism. The authors argue that these accusations can best be understood by examining (a) the broader context of immigration politics, (b) the limitations of color-blind discourse, (c) the incongruity of drawing on a discourse of ecology to make arguments focused on national borders, and (d) immigration reformers' political economic analysis. Salazar is professor of political science at Western Washington University, where Hewitt received his BA in political economy. (v.13,#2)

Salazar, Joanna Gail, "Damming the Child of the Ocean: The Three Gorges Project," The Journal of Environment and Development 9 (No. 2, 2000 June 01): 160- . (v.11,#4)

Sale, Kirkpatrick, "There's no place like home," The Ecologist 31(no.2, MAR 01 2001):40-. What is 'bioregionalism', and could it be the answer to the world problems? Kirkpatrick Sale puts forward his case. (v.12,#4)

Sale, Kirkpatrick, The Ecologist 30 (No. 4, 2000 Jun 01): 52- . A conspiracy is afoot - to deny the native Americans their legacy as stewards of the Earth. It must be resisted. (v.11,#4)

Sale, Kirkpatrick, "Ban Cloning? Not a Chance" New York Times (3/7/97): A35. See under: Kolata, Gina, "With Cloning of a Sheep, the Ethical Ground Shifts," New York Times (2/24/97): A1. (v8,#1)

Sale, Kirkpatrick. "Lessons From The Luddites." The Ecologist 29(No. 5, August 1999):314- . Kirkpatrick Sale recounts the history of the original Luddites, and explains what the modern environmental movement can learn from their stand against destructive "progress". (v10,#4)

Sale, Kirkpatrick. Human Scale. Reviewed in Environmental Ethics 6(1984):181-84.

Salinas, Alfonso. Review of O'Neill, The Market: Ethics, Knowledge and Politics. Environmental Values 9(2000):111

Salisbury, J. E., The beast within: Animals in the middle ages. New York: Routledge, 1994.

Salleh, Ariel, 2001 "Ecofeminism" in V. Taylor and C. Winqvist (eds.), The Postmodern Encyclopaedia. London: Routledge, 2001.

Salleh, Ariel, Review of Merchant, Carolyn, Earthcare: Women and the Environment. (New York: Routledge, 1995). Environmental Values 6(1997):372-373. (EV)

Salleh, Ariel, "In Defence of Deep Ecology." Pages 107-124 in E. Katz and A. Light (eds.), Beneath the Surface: Critical Essays in the Philosophy of Deep Ecology. Boston: MIT Press. 2000.

Salleh, Ariel, "A Green Questionnaire" in J. Birkeland, Design for Sustainability, London: Earthscan, 2002.

Salleh, Ariel, "Global Alternatives and the Meta-Industrial Class", in R. Albritton et al (eds.), New Socialisms: Futures Beyond Globalization. London: Routledge, 2004.

Salleh, Ariel, "Ecofeminism as Sociology," Capitalism, Nature, Socialism 14(2003):61-74.

Salleh, Ariel Kay, "Deeper than Deep Ecology: The Eco-feminist Connection," Environmental Ethics 6(1984):339-345. The first article to appear in this journal on the subject of ecofeminism. Salleh criticizes Deep Ecology for not being radical enough in its attack on the dominant Western attitudes regarding nature; it is grounded in antifeminist patriarchal modes of thought. This is a provocative and interesting idea, as later articles by other authors will show (see Environmental Ethics 1985-87). But Salleh's tone is too stringent and her argument too incomplete to be convincing. (Katz, Bibl # 1)

Salleh, Ariel K., "Epistemology and the Metaphors of Production: An Eco-Feminist Reading of Critical Theory." Studies in the Humanities 15 (1988): 130-139. Examination of the connections between the forces of production, the domination of women, and the ecological crisis. Patriarchal production of objects is, in part, the result of the inability to "reproduce"---this inability leads to an instrumental rationality destructive of the natural world. (Katz, Bibl # 2)

Salleh, Ariel Kay. "The Ecofeminism/Deep Ecology Debate." Environmental Ethics 14(1992):195-216. I discuss conceptual confusions shared by deep ecologists over such questions as gender, essentialism, normative dualism, and eco-centrism. I conclude that deep ecologists have failed to grasp both the epistemological challenge offered by ecofeminism and the practical labor involved in bringing about social change. While convergencies between deep ecology and ecofeminism promise to be fruitful, these are celebrated in false consciousness, unless remedial work is done. Salleh is an ecofeminist activist and theorist in New South Wales, Australia. (EE)

Salleh, Ariel Kay. "Deeper than Deep Ecology: The Eco-Feminist Connection." Environmental Ethics 6(1984):339-45. I offer a feminist critique of deep ecology as presented in the seminal papers of Naess and Devall. I outline the fundamental premises involved and analyze their internal coherence. Not only are there problems on logical grounds, but the tacit methodological approach of the two papers are inconsistent with the deep ecologists' own substantive comments.

I discuss these shortcomings in terms of a broader feminist critique of patriarchal culture and point out some practical and theoretical contributions which eco-feminism can make to a genuinely deep ecology problematic. Salleh is an ecofeminist activist and theorist in New South Wales, Australia. (EE)

Salleh, Ariel Kay. "Class, Race and Gender Discourse in the Ecofeminism/Deep Ecology Debate." Environmental Ethics 15(1993):225-44. While both ecofeminism and deep ecology share a commitment to overcoming the conventional division between humanity and nature, a major difference between the two is that deep ecology brings little social analysis to its environmental ethic. I argue that there are ideological reasons for this difference. Applying a sociology of knowledge and discourse analysis to deep ecological texts to uncover these reasons, I conclude that deep ecology is constrained by political attitudes meaningful to white-male, middle-class professionals whose thought is not grounded in the labor of daily maintenance and survival. At a micro-political level, this masculinist orientation is revealed by an armory of defensive discursive strategies and techniques used in deep ecological responses to ecofeminist criticism. Salleh is an ecofeminist activist and theorist in New South Wales, Australia. (EE)

Salleh, Ariel. Review of Mette Bryld & Nina Lykke, "Cosmodolphins: Feminist Cultural Studies of Technology, Animals and the Sacred", Organization and Environment 14 (No. 1, March 2002) pp.94-7. Salleh is associate professor in social ecology at the University of Western Sydney, and author of numerous papers on ecopolitical thought. (v.13,#2)

Salleh, Ariel. Review of Ecofeminist Philosophy: A Western Perspective on What It Is and Why It Matters. By Karen J. Warren. Environmental Ethics 24(2002):325-330. (EE)

Salleh, Ariel. "Social Ecology and 'The Man Question.'" Environmental Politics 5(no.2, 1996):258. (v7,#4)

Salleh, Ariel. Review of Joni Seager. Earth Follies: Feminism, Politics and the Environment: (London: Earthscan, 1993). (EV)

Salleh, Ariel. Review of Maria Mies and Vandana Shiva. Ecofeminism: (London: Zed Books, 1993). (EV)

Salleh, Ariel. Ecofeminism as Politics: Nature, Marx and the Postmodern. Reviewed in Environmental Ethics 21(1999):437-440.

Salleh, Ariel. Ecofeminism as Politics: Nature, Marx and the Postmodern. Atlantic Highlands, NJ: Humanities Press, Zed Books, 1996. Exploring the philosophical and political challenge of ecofeminism, Salleh shows how the ecology movement has been held back by conceptual confusion over the implications of gender difference, while much that passes in the name of feminism is actually an obstacle to ecological change and global democracy. (v7,#1)

Sallis, John, "Force of Imagination: The Sense of the Elemental," Philosophy and Geography 4 (No. 2, 2001): 248-250. Book reviewed by Linck, Matthew. (P&G)

Salopek, Paul E., "Gorillas and Humans: An Uneasy Truce," National Geographic 188 (no. 4, October, 1995):72-83. Conservationists fear that Rwanda's instability could endanger the gorillas' survival. Others ask: How should the plight of the world's rarest ape be measured against more than half a million human dead? But so far only one of an estimated 300 gorillas has been confirmed killed in the fighting; both sides have pledged to save the gorillas. (v6,#4)

Salt, Henry S. Animals' rights considered in relation to social progress. 1894, rev. ed., 1922. Various other editions. Clarks Summit, PA: Society for Animal Rights, 1980. The latter edition with a preface by Peter Singer.

Salter, Liora, Mandated Science: Science and Scientists in the Making of Standards, Kluwer Academic Press. (v9,#2)

Salthe, Stanley N., and Barbara M. Salthe. "Ecosystem Moral Considerability: A Reply to Cahen." Environmental Ethics 11(1989):355-61. Appeals to science as a help in constructing policy on complex issues often assume that science has relatively clear-cut, univocal answers. That is not so today in the environmentally crucial fields of ecology and evolutionary biology. The social role of science has been as a source of information to be used in the prediction and domination of nature. Its perspectives are finely honed for such purposes. However, other more conscientious perspectives are now appearing within science, and we provide an example here in rebuttal to the claim that there is no warrant from within ecology for ecosystem moral considerability. S. Salthe is at the Biology department, Brooklyn College, Brooklyn, NY. (EE)

Salthe, Stanly N. and Barbara M. Salthe, "Ecosystem Moral Considerability: A Reply to Cahen," Environmental Ethics 11(1989):355-361. This article is a criticism of Harley Cahen, "Against the Moral Considerability of Ecosystems," Environmental Ethics 10 (1988):195-216. Cahen uses only one perspective in ecological theory, the reductionist community school. The authors argue that systems ecology can provide a model for ecosystemic considerability. (Katz, Bibl # 2)

Saltz, David, "Wildlife Management," Encyclopedia of Biodiversity 5: 823-830. Wildlife management is the science of manipulating wild populations to achieve a specific goal. Five major goals of wildlife management can be recognized: 1. Maximizing harvest/yield over time. 2. Preventing extinction and increasing survival probability. 3. Maintaining and managing the integrity of ecosystems and landscapes of which wildlife populations are a part. 4. Controlling wildlife to minimize damage to human crops and assets caused by wild populations. 5. Managing wildlife to return the ecosystem to some predetermined state. (v.11,#4)

Salvo, Mark Kerr, Andy, "Congress Designates First Livestock-free Wilderness Area," Wild Earth 10(no.4, Wint 2000):55-. (v.12,#4)

Salwasser, Hal, MacCleery, Douglas W., Snellgrove, Thomas A. "The Pollyannas vs. the Chicken Littles--Enough Already!," Conservation Biology 11(no.1, 1997):283. (v8,#2)

Salyers, Abigail. "Genetically Engineered Plants Are Safe-and Necessary." The Christian Science Monitor, vol. 89, 28 Jan. 1997, p. 18.

Salzman, J, "Seattle's Legal Legacy and Environmental Reviews of Trade Agreements," Environmental Law 31(no. 3, 2001):501-548. (v.13,#1)

Salzman, James. "Sustainable Consumption and the Law," Environmental Law 27(no.4, 1997):1243- . (v9,#2)

Sam, Corinne, "World Trade Organization Caught in the Middle: Are TEDs the Only Way Out." Environmental Law 29(no. 1, 1999):185- . Ms. Sam discusses the United States implementation of section 609 of the Endangered Species Act and its effect on international trade. She analyzes the dispute before the World Trade Organization involving the United States and several Asian nations, noting that the World Trade Organization has a prime opportunity to reconcile the common goals of environmental conservation and free international trade. (v.11,#1)

Sample, V. A. and Miller, C., "A Transformative Place: Grey Towers and the Evolution of American Conservationism," Journal of Forestry 103(no. 5, July/August 2005): 237-240.

Samson, F. B. and Knopf, F. L., "Archaic Agencies, Muddled Missions, and Conservation in the 21st Century," Bioscience 51(no.10, 2001): 869-73. (v.13,#2)

Samson, Fred B., and Knopf, Fritz L., eds., Prairie Conservation: Preserving North America's Most Endangered Landscape. Washington, DC: Island Press, 1996. (v.10,#3)

Samson, Fred B., and Knopf, Fritz L., eds. Prairie Conservation: Preserving North America's Endangered Ecosystem. Washington, D.C.: Island Press, 1996. 432 pages. \$50 cloth, \$25 paper. A comprehensive examination of the history, ecology, and current status of North American grasslands. The historical, economic, and cultural significance of prairies, their natural history and ecology, threats, and conservation and restoration programs currently underway. (v7, #3)

Samways, David, Ecological Wisdom and the Noble Savage: Assessing the Foundations of Eco-fundamentalism, 1996, University of Essex, UK, Ph.D. thesis in philosophy. 799 pages. Eco-fundamentalism attempts to establish incontestable foundations to environmental ethics, for example mobilizing a conception of human nature as the ultimate ground to ethical discourse. Such thinkers oppose the "ecological wisdom" of primitive peoples and the environmental degradation of civilization, with its anthropocentric orientation. But the simple equation of a certain orientation toward nature and consequent action is naive. Anthropocentrism has not been uniformly despotic, and it represents an unlikely candidate for the root cause of environmental degradation. Further, the ecological harmony of primitive peoples is a myth that owes more to Rousseauian speculation about the Noble Savage than any thoroughgoing anthropology or palaeo-anthropology. The ecological degradation caused by "developed" societies compared to primitive societies is quantitative rather than qualitative. Environmental ethics ultimately are no more than the beliefs and preferences of environmentalists. A pragmatist morality with a "medium strength anthropocentrism" can provide radical environmental ethics. (v.10,#1)

Samways, Michael J., "Bioempathy and Feng Shui Conservation," Environmental Conservation 16(1989):357-60. With attention to the intrinsic value and conservation of insects, also the

compatibility of land use with insect conservation. See also his "Insect Conservation and Landscape Ecology: A Case-history of Bush Crickets (Tettigoniidae) in Southern France," Environmental Conservation 16(1989):217-226. Samways is professor of entomology at the University of Natal, Pietermaritzburg, South Africa (v2,#1)

Samways, Michael J., "The Art of Unintelligent Tinkering," Conservation Biology 10(1996):1307. Will the new self-manipulating human genome slow the natural evolution of biodiversity? Genetic engineering is likely to have unanticipated consequences, whether we are tinkering with other genomes or with our own. "Perhaps the looming issue is how to build into our new genome an environmental ethic." Samways is in zoology at the University of Natal, South Africa, and has written on the ethics of insect conservation. (v8,#1)

Samways, Michael J., "A conceptual model of ecosystem restoration triage based on experiences from three remote oceanic islands," Biology and Conservation 9(2000):1073-1083. Abstract. A conceptual model, that illustrates restoration, ecological landscaping, rehabilitation and greening, is developed. It considers biocentric, historical, aesthetic and engineering aspects. The term, ecosystem restoration triage is used because the first step is to decide whether to 'do nothing' (because, on the one hand, the system is too degraded to warrant restoration, or, on the other, because biological integrity is relatively intact and therefore either none, or minimal, restoration is required) or to 'do something' (because restoration is worthwhile, urgent and feasible). This approach hinges on the definition that restoration in the strictist sense is a biocentric activity that returns the 'original' compositional, structural and functional diversity, along with its dynamics and natural evolutionary potential. 'Original' is a difficult qualifier as it depends on just how far back in time we go. Where human values are involved, this is not restoration in the pure sense of restoring ecological integrity, but is ecological landscaping, rehabilitation or greening. Experience from three remote oceanic islands [Easter Island, Cousine Island (Seychelles), Marion Island (Sub-Antarctic)] and which represent near extremes of this model are used to illustrate it. Key words: conceptual model, ecosystem restoration triage, oceanic islands. Samways is at the Invertebrate Conservation Research Centre, School of Botany and Zoology, University of Natal, Pietermaritzburg, South Africa. (v.13,#1)

Samways, Michael J., Insect Conservation Biology. London: Chapman and Hall, 1994. 358 pages. Global variation in insect variety; historical trends; the development of insect conservation biology; levels of analysis; nature reserves and global warming; the fragmented landscape; the disturbed landscape; rarity; individual insect species and their conservation; insect pest control and insect conservation, with a concluding section on "insect conservation ethics" (intrinsic value of the individual insect and the species; insect utilitarian value; value of the landscape/ecosystem; the land ethic and the entomologist; priority systems). "Concern for landscape is concern for all life and its processes. This landscape approach also creates an awareness and an ethic that all landscapes are linked by biogeocycles. Insects are major interactors in the whole terrestrial biosphere and are therefore party to Gaia maintenance" (pp. 230-231). Samways is at the Invertebrate Conservation Research Centre, Department of Zoology and Entomology, University of Natal, Pietermaritzburg, South Africa. (v7,#1)

Samways, Michael J. "The Art of Unintelligent Tinkering", Conservation Biology 10(no.5,1996):1307. Will the new self-manipulating human genome slow the natural evolution

of biodiversity? Samways is in zoology and invertebrate conservation at the University of Natal, South Africa. (v7,#4)

Samways, Michael J. "A Conceptual Model of Ecosystem Restoration Triage Based on Experiences from Three Remote Oceanic Islands," Biodiversity and Conservation 9(no. 8, 2000):1073-1083. Abstract. A conceptual model, that illustrates restoration, ecological landscaping, rehabilitation and greening, is developed. It considers biocentric, historical, aesthetic and engineering aspects. The term ecosystem restoration triage is used because the first step is to decide whether to "do nothing" (because, on the one hand, the system is too degraded to warrant restoration, or, on the other, because biological integrity is relatively intact and therefore either none, or minimal, restoration is required) or to "do something" (because restoration is worthwhile, urgent and feasible). This approach hinges on the definition that restoration in the strictest sense is a biocentric activity that returns the "original" compositional, structural and functional diversity, along with its dynamics and natural evolutionary potential. "Original" is a difficult qualifier as it depends on just how far back in time we go. Where human values are involved, this is not restoration in the pure sense of restoring ecological integrity, but is ecological landscaping, rehabilitation or greening. Experience from three remote oceanic islands [Easter Island, Cousine Island (Seychelles), Marion Island (Sub-Antarctic)] and which represent near extremes of this model are used to illustrate it. Key words: conceptual model, ecosystem restoration triage, oceanic islands.

Sanchez, R., "From Rio to Johannesburg: The Transition Towards Sustainable Development. Perspectives from Latin America and the Caribbean," Journal of Environment and Development 11(no.3, 2002): 313-15. (v.13,#4)

Sánchez, Vincente, and Calestous Juma, eds., Biodiplomacy: Genetic Resources and International Relations. Nairobi: African Center for Technology Studies (ACTS), 1994. ISBN 9966-41-077-5. 16 articles. 371 pages. The Convention on Biodiversity balances conservation of genetic resources, technological development, regulated access to genetic resources, and international equity. But the issue is how to implement the Convention. Sanchez is a Kenyan diplomat; Juma is director of ACTS. \$ 22 from ACTS. (v6,#3)

Sanchez-Azofeifa, G. Arturo, Quesada-Mateo, Carlos, and Bawa, Kamaljit S., "Protected Areas and Conservation of Biodiversity in the Tropics," Conservation Biology 13(No.2, 1999):407-. (v.10,#2)

Sanchez-Zapata, JA; Anadon, JD; Carrete, M; Gimenez, A; Navarro, J; Villacorta, C; Botella, F, "Breeding waterbirds in relation to artificial pond attributes: implications for the design of irrigation facilities," Biodiversity and Conservation 14 (no. 7, June 2005): 1627-1639.

SanchezZapata, JA; Carrete, M; Gravilov, A; Sklyarenko, S; Ceballos, O; Donazar, JA; Hiraldo, F, "Land use changes and raptor conservation in steppe habitats of Eastern Kazakhstan," Biological Conservation 111(no.1, 2003): 71-77.

Sand, Peter H., ed. The Effectiveness of International Environmental Agreements: A Survey of Existing International Instruments. New York: Cambridge University Press 1992. 548 pages.

\$150 cloth, \$69.95 paper. Brings together thirteen major research papers commissioned for the United Nations Conference on Environment and Development, Rio de Janeiro, June 1992, providing an authoritative and detailed survey and analysis of the effectiveness of 124 existing international agreements and instruments to protect the environment. (v7, #3)

Sandel, Michael. *The Case against Perfection*. Cambridge, MA: Harvard University Press, 2007. Sandel provides a critique of gene enhancement in humans.

Sanders, Eli, "Renaming 'Squaw' Sites Proves Touchy in Oregon," New York Times, December 11, 2004, p. A10. Under complaint from Native Americans the Oregon State Legislature in 2001 passed a law that all 170 places in Oregon that use the word "squaw" must be re-named, to avoid offense to the Native Americans. "Squaw" originally meant "woman" in Algonquin, and only later came to have pejorative meanings. But Native Americans cannot agree on the new names; there are 42 new names proposed for a Squaw Creek, some of them difficult to pronounce, some with sounds that do not exist in English. One tribal spokesman says that ease of pronunciation for English speakers is "not one of our criteria." A simple solution might be to return to original Native American names. But the Native Americans often do not remember what these were. In other cases, different tribes claim different names, and disagree about which tribe controlled the area in pre-European times. (v.14, #4)

Sanderson, EW; Redford, KH; Chetkiewicz, CLB; Medellin, RA; Rabinowitz, AR; Robinson, JG; Taber, AB, "Planning to Save a Species: the Jaguar as a Model," Conservation Biology 16(no.1, 2002):58-72. (v.13, #3)

Sanderson, EW; Jaiteh, M; Levy, MA; Redford, KH; Wannebo, AV; Woolmer, G, "The Human Footprint and the Last of the Wild," Bioscience 52(no.10, 2002): 891-904.

Sanderson, F, "Bio-diversity and Ecological Economics: Participation, Values and Resource Management," Biological Conservation 107(no.2, 2002):259-260. (v.13, #3)

Sanderson, Steven E., "Keynote Address: Yellowstone Biennial Science Conference," Yellowstone Science 12 (no. 1, Winter 2004):5-12. Conference theme and this address compares conservation in Greater Yellowstone Ecosystem and the Serengeti in Africa, with lessons from and for other areas. Sanderson is bleak, especially about Africa. The World Parks Congress in 2003 in Durban, South Africa was "a difficult and troubling exercise, in which conservation was hardly invoked with pride." Formerly effective conservationists have sold out to a policy that insists on "no negative impact on local peoples." Poverty eradication has radically undermined conservation goals of the UN and the World Bank, although the record of such projects is dismal. "Wild nature in our time has been converted into a contested area that is debated, not in terms of nature itself, but purely in terms of economic potential." Conservation is blamed for "keeping people out and keeping people poor" although the supposed "integrated development" programs that follow solve none of the deeper problems." Sanders is President and CEO of the Wildlife Conservation Society, associated with the Bronx Zoo. See also "The Future of Conservation," Foreign Affairs, September 2002.

Sandilands, Catriona, "Lesbian Separatist Communities and the Experience of Nature: Toward a

Queer Ecology", Organization and Environment, 15, (No. 2, 2002): 131-63. Queer ecology is a cultural, political and social analysis that interrogates the relations between the social organization of sexuality and ecology. As a part of this analysis, this article explores the ideas and practices of lesbian separatist communities in southern Oregon. It considers that separatists have, since 1974, developed a distinct political-ecological culture to challenge the heterosexual, patriarchal and capitalist organization of rural North America. Although lesbian separatism was founded on essentialist constructions of gender and nature, the Oregon communities have developed, over time, a blend of lesbian principles and local environmental knowledge. This has produced a complex tradition of lesbian eco-political resistance. Organizing threads of this tradition include opening access to land and transforming relations of rural ownership, withdrawing land from patriarchal-capitalist production and reproduction, feminizing the landscape ideologically and physically, developing a gender-bending physical experience of nature, experiencing nature as an erotic partner, and politicizing rurality and rural lesbian identity. Sandilands is an associate professor in the Faculty of Environmental Studies at York University, Toronto.

Sandilands, Catriona Alison Hayward, The Good Natured Feminist: On the Subject of Ecofeminism and the Quest for Democracy, 1995, York University (Canada), Ph.D. thesis in sociology and women's studies. Ecofeminism embodies both considerable promise and numerous problems, notably its tendency to reduce feminist-ecological collaboration to "identity." This focus causes a number of difficulties, including the reduction of women and nature to their supposed "difference" from male culture. Identity politics, including ecofeminism, are understood as embodying a democratic desire; in light of the critique of identity offered by Laclau and Mouffe, it also becomes possible to retrieve that desire into a more "radical" democratic politics. Ecofeminism has a potential ability to construct a series of democratic conversations about nature, in which identities are seen as performative and potentially subversive. At the core of this democratic possibility lies a Lacanian "ethics of the Real," in which ecofeminism recognizes the unspeakability of nature; this "lack" is not only what keeps radical democratic politics from "getting it right" (thus preserving a desirable openness), but suggests an environmental ethics of human humility toward a partially-enigmatic nature. The advisor was Karen Anderson. (v.10,#1)

Sandilands, Catriona. Review of Undomesticated Ground: Recasting Nature as Feminist Space. By Stacy Alaimo. Environmental Ethics 24(2002):333-334. (EE)

Sandilands, Catriona. The Good-Natured Feminist: Ecofeminism and the Quest for Democracy. Reviewed by Melissa Clarke. Environmental Ethics 22(2000):439-440.

Sandilands, Catriona. Review of Ecocritique: Contesting the Politics of Nature, Economy, and Culture. By Timothy Luke. Environmental Ethics 21(1999):209-211.

Sandilands, Catriona. "Lavender's Green? Some Thoughts on Queer(y)ing Environmental Politics." Undercurrents, May 1994, pp. 20-24. (v7, #3)

Sandilands, Catriona. "Desiring Nature, Queering Ethics: Adventures in Erotogenic Environments." Environmental Ethics 23(2001):169-188. The meaning of sustainability is the

subject of intense debate among environmental and resource economists. Perhaps no other issue separates more clearly the traditional economic view from the views of most natural scientists. The debate currently focuses on the substitutability between the economy and the environment or between "natural capital" and "manufactured capital" a debate captured in terms of weak versus strong sustainability. In this article, we examine the various interpretations of these concepts. We conclude that natural science and economic perspectives on sustainability are inconsistent. The market-based Hartwick-Solow "weak sustainability" approach is far removed from both the ecosystem-based "Holling sustainability" and the "strong sustainability" approach of Daly and others. Each of these sustainability criteria implies a specific valuation approach, and thus an ethical position, to support monetary indicators of sustainability such as a green or sustainable Gross Domestic Product (GDP). The conflict between "weak sustainability" and "strong sustainability" is more evident in the context of centralized than decentralized decision making. In particular, firms selling "services" instead of material goods and regarding the latter as "capital" leads to decisions more or less consistent with either type of sustainability. Finally, we discuss the implications of global sustainability for such open systems as regions and countries. Open systems have not been dealt with systematically for any of the sustainability criteria. (EE)

Sandilands, Catriona. "From Natural Identity to Radical Democracy." Environmental Ethics 17(1995):75-91. Environmentalism is traversed by a dilemma between a movement toward identity politics and the impossibility of a speaking natural subject; this dilemma calls into question both the relevance of identity politics for ecological struggle and dominant classical constructions of the subject itself. Using Lacanian-inspired insights on subjectivity, and the works of Ernesto Laclau and Chantal Mouffe on radical democracy, I investigate the alternative versions of the subject implicit in ecological discourses and suggest that it is through these alternatives that environmentalism can forge necessary alliances with other movements oriented toward human liberation. In particular, the very impossibility of a natural speaking subject suggests that the ecological project of redefining humanity's relationships to nonhuman nature(s) is always contingent on reorienting human subjectivity itself; this fact highlights the centrality of political coalition between ecological and other social movements. Sandilands is in environmental studies, York University, Ontario. (EE)

Sandin, Per, "The Precautionary Principle and the Concept of Precaution," Environmental Values 13(2004):461-475. The precautionary principle is frequently invoked in environmental law and policy, and the debate around the principle indicates that there is little agreement on what 'taking precautions' means. The purpose of the present paper is to provide an improved conceptual foundation for this debate in the form of an explication of the concept of precaution. Distinctions between precaution and two related concepts, prevention and pessimism, are briefly discussed. The concept of precaution is analysed in terms of precautionary actions. It is argued that precautionary actions are implicitly assumed to be precautionary with respect to something, and that this assumption should be made explicit. A definition of a precautionary action involving three necessary and jointly sufficient conditions (intentionality, uncertainty and reasonableness) is proposed, and the implications of this analysis for the debate on the precautionary principle are discussed. Sandlin is in philosophy, Royal Institute of Technology, Stockholm. (EV)

Sandin, Per. Review of *Laws of Fear: Beyond the Precautionary Principle*. By Cass R. Sunstein.

Environmental Ethics 29(2007):107-110. (EE)

Sandin, Per. "Naturalness and de minimis Risk." *Environmental Ethics* 27 (2005):191-200. In risk management, de minimis risk is the idea that risks that are sufficiently small, in terms of probabilities, ought to be disregarded. In the context of the distinction between disregarding a risk and accepting it, this paper examines one suggested way of determining how small risks ought to be disregarded, specifically, the natural-occurrence view of de minimis, which has been proposed by Alvin M. Weinberg, among others. It is based on the idea that "natural" background levels of risk should be used as benchmarks and de minimis levels should be derived from those levels. This approach fails even if the doubtful distinction between what is natural and what is not can be upheld. (EE)

Sandler, Ronald, "Culture and the Specification of Environmental Virtue," *Philosophy in the Contemporary World* 10 (no. 2, 2003):63-68.

Sandler, Ronald, Review of: Westra, Laura and Lawson, Bill E., eds., *Faces of Environmental Racism: Confronting Issues of Global Injustice*. 2nd ed. Totowa, NJ: Roman and Littlefield, 2001. *Environmental Values* 12(2003):543-546. (EV)

Sandler, Ronald, "Towards an Adequate Environmental Virtue Ethic," *Environmental Values* 13(2004):477-495. In this article I consider four concerns regarding the possibility of an environmental virtue ethic functioning as an alternative - rather than a supplement - to more conventional approaches to environmental ethics. The concerns are: (1) it is not possible to provide an objective specification of environmental virtue, (2) an environmental virtue ethic will lack the resources to provide critique of obtaining cultural practices and policies, (3) an environmental virtue ethic will not provide sufficient action-guidance, (4) an environmental virtue ethic cannot ground constraints on human activities regarding the natural environment. Each of these concerns makes a claim about the poverty of normative resources at the disposal of environmental virtue ethics. I defend a conception of environmental virtue - as a character virtue with the same normative standing as the conventional personal and interpersonal virtues - that enables an environmental virtue ethic with the wherewithal to address each of the concerns. Sandler is in philosophy and religion, Northeastern University, Boston. (EV)

Sandler, Ronald, Review of: *Vexing Nature? On the Ethical Case Against Agricultural Biotechnology*, by Gary Comstock." *Environmental Values* 12 (no. 3, 2003):403-405.

Sandler, Ronald, and W.D. Kay. *The GMO-Nanotech (Dis)Analogy?*@ *Bulletin of Science, Technology, and Society* Vol. 26, no. 1 (2006): 57-62.

Sandler, Ronald, and Judith Crane, "On the Moral Considerability of *Homo sapiens* and Other Species," *Environmental Values* 15(2006): 69-84. It is sometimes claimed that as members of the species *Homo sapiens* we have a responsibility to promote the good of *Homo sapiens* itself (distinct from the good of its individual members). Lawrence Johnson has recently defended this claim as part of his approach to resolving the problem of future generations. We show that there are several difficulties with Johnson's argument, many of which are likely to attend any attempt to establish the moral considerability of *Homo sapiens* or species generally. Further, even if

Homo sapiens were morally considerable, this would not ground an adequate response to the problem of future generations. The sort of moral considerability that would be appropriate to Homo sapiens, or species generally, would not be as robust nor have the implications that many have supposed. (EV)

Sandler, Ronald, and Emily Volkert, Review of: J. Claude Evans, With Respect for Nature: Living as Part of the Natural World, Environmental Values 15(2006):536-538.

Sandler, Ronald, Review of: Philip Cafaro, Thoreau's Living Ethics: Walden and the Pursuit of Virtue, Environmental Values 15(2006):135-138.

Sandler, Ronald, and Philip Cafaro, eds., Environmental Virtue Ethics, New York and Oxford: Rowman & Littlefield, 2005. Reviewed by Christopher Freiman. Ethics and the Environment 11(2006):133-138. (Eth&Env)

Sandler, Ronald, and Philip Cafaro (eds), Environmental Virtue Ethics, Reviewed by Patrick R. Frierson, Environmental Values 15(2006):258-261.

Sandler, Ronald and Philip Cafaro (eds.). Environmental Virtue Ethics. Lanham, MD: Rowman and Littlefield, 2005. A collection of ten original and four reprinted essays discussing environmental virtue ethics—the first anthology on this topic. Essays discuss the role that virtue and character have traditionally played in environmental discourse and reflect upon the role that it should play in the future. With sections on environmental virtue ethics theory, particular environmental virtues and vices, and applying environmental virtue ethics to particular environmental issues. Contributors include: Philip Cafaro, Geoffrey Frasz, Thomas Hill Jr., Holmes Rolston III, Ronald Sandler, David Schmitz, Bill Shaw, Charles Taliaferro, Louke van Wensveen, Peter Wenz, Laura Westra and Matt Zwolinski.

Sandler, Ronald, Review of Paul B. Thompson, *Food Biotechnology in Ethical Perspective*, Environmental Values 16(2007):544-547.

Sandler, Ronald, and Phaedra C. Pezzullo, eds. *Environmental Justice and Environmentalism: The Social Justice Challenge to the Environmental Movement*. Cambridge, MA: The MIT Press, 2007. Although the environmental movement and the environmental justice movement would seem to be natural allies, their relationship over the years has often been characterized by conflict and division. The environmental justice movement has charged the mainstream environmental movement with racism and elitism and has criticized its activist agenda on the grounds that it values wilderness over people. Environmental justice advocates have called upon environmental organizations to act on environmental injustice and address racism and classism in their own hiring and organizational practices, lobbying agenda, and political platforms. This book examines the current relationship between the two movements in both conceptual and practical terms and explores the possibilities for future collaboration.

Sandler, Ronald L., *Character and Environment: A Virtue-Oriented Approach to Environmental Ethics* (New York: Columbia University Press, 2007). Reviewed by Philip Cafaro, in *Journal of*

Agricultural and Environmental Ethics 21(2008):389-393.

Sandler, Ronald. "Introduction: Environmental Virtue Ethics." In Ronald Sandler and Philip Cafaro (eds.), Environmental Virtue Ethics (Lanham, MD: Rowman and Littlefield, 2005).

Sandler, Ronald. "The External Goods Approach to Environmental Virtue Ethics." Environmental Ethics 25(2003):279-293. If virtue ethics are to provide a legitimate alternative for reasoning about environmental issues, they must meet the same conditions of adequacy as any other environmental ethic. One such condition that most environmental ethicists insist upon is that an adequate environmental ethic provides a theoretical platform for consistent and justified critique of environmentally unsustainable practices and policies. The external goods approach seeks to establish that any genuinely virtuous agent will be disposed to promote ecosystem sustainability on the grounds that ecosystem sustainability is a necessary external good for cultivating the virtues and/or human flourishing. At most the external goods approach is able to provide an environmental ethic that in most contexts will require that any genuinely virtuous agent will have the goal of promoting a weak environmental sustainability. A better approach may be the substantive approach, which incorporates environmental concern and practice into the substance of the virtues, rather than as a boundary condition for any prospective virtue. (EE)

Sandler, Ronald. "On 'Aristotle and the Environment.'" Environmental Ethics 26(2004):223-224. (EE)

Sandler, Ronald. "A Virtue Ethics Perspective on Genetically Modified Crops." In Ronald Sandler and Philip Cafaro (eds.), Environmental Virtue Ethics (Lanham, MD: Rowman and Littlefield, 2005).

Sandler, Ronald. *Character and Environment: A Virtue-Oriented Approach to Environmental Ethics*. New York: Columbia University Press, 2007. Virtue ethics is now widely recognized as an alternative to Kantian and consequentialist ethical theories, but moral philosophers have been slow to bring virtue ethics to bear on topics in applied ethics. Although environmental ethicists often employ virtue-oriented evaluation and appeal to role models for guidance, environmental ethics has not been well informed by contemporary work on virtue ethics. Sandler attempts to remedy these deficiencies by bringing together contemporary work on virtue ethics with contemporary work on environmental ethics. He demonstrates the many ways that any ethic of character can and should be informed by environmental considerations. He also develops a pluralistic virtue-oriented environmental ethic that accommodates the richness and complexity of our relationship with the natural environment and provides effective and nuanced guidance on environmental issues. These projects have implications not only for environmental ethics and virtue ethics but also for moral philosophy more broadly.

Sandler, Ronald. Review of: Comstock, Gary, Vexing Nature: On the Ethical Case Against Agricultural Biotechnology. Environmental Values 12(2003):403-405. (EV)

Sandler, Ronald. "A Theory of Environmental Virtue." Environmental Ethics 28(2006):247-264. If claims about which character traits are environmental virtues are to be more than rhetoric, there must be some basis or standard for evaluation. This naturalistic, teleological, pluralistic,

and inclusive account of what makes a character trait an environmental virtue can be such a standard. It is naturalistic because it is consistent with and motivated by scientific naturalism. It is teleological because character traits are evaluated according to how well they promote certain ends. It is pluralistic because those ends are both agent-relative and agent-independent. It is inclusive because it counts environmentally justified, environmentally responsive and environmentally productive virtues as environmental virtues. This theory of environmental virtue provides the basis for the development of a typology of environmental virtue that includes virtues of sustainability, virtues of communion with nature, virtues of respect for nature, virtues of environmental activism, and virtues of environmental stewardship. (EE)

Sando, Svein. "Should We Consent To an Increase of Non-Fatal Health Hazards If That Reduces Other Risks of Fatality?" Pages 23-27 in Peder Anker, ed., Environmental Risk and Ethics. Oslo, Norway: Centre for Development and Environment, University of Oslo, 1995. (v6,#4)

Sandoe, P., Holtug, N., Simonsen, H.B. "Ethical Limits to Domestication," Journal of Agricultural and Environmental Ethics 9(1996):114-122. Through the process of domestication the genetic make-up of farm animals can be changed by means of either selective breeding or genetic engineering. This paper is about the ethical limits to such genetic changes. It is suggested that the ethical significance of domestication has become clear recently in the light of genetic engineering, but that the problem has been there all along. Two ethical approaches to domestication are presented, genetic integrity and animal welfare. It is argued that the welfare approach is superior. Finally, five ethical hypotheses based on the welfare approach are presented. Keywords: ethics, domestication, animal welfare, genetic engineering. Sandoe and Holtug teach in the Department of Education, Philosophy, & Rhetoric at the University of Copenhagen. Simonsen teaches at the Royal Veterinary and Agricultural University, Denmark. (JAEE)

Sandoe, Peter, Roger Crisp, Nils Holtug, "Animal Ethics," Copenhagen, Denmark: University of Copenhagen, Department of Education, Philosophy, and Rhetorics, 1996. Also forthcoming in Mike Appleby and Barry Hughes, eds., Animal Welfare (Wallingford, Oxfordshire, U.K: C.A.B. International). Views concerning how humans ought to treat animals. The view that animals do not have moral standing is examined, and four different views of the ways that animals may have moral standing: utilitarianism, the animal rights view, the species-integrity view, and the agent-centered view. Sandhoe and Holtug are with the Bioethical Research Group, University of Copenhagen. Crisp is at St. Anne's College, Oxford University. Copies from: Bioethical Research Group, University of Copenhagen, Department of Education, Philosophy, and Rhetorics, Njalsgate 80, DK-2300, Copenhagen S., Denmark. Fax 45 5370 3573. (v7,#2)

Sands, Roger, Forestry in a Global Context. New York: Oxford University Press, 2005. Sands is at the University of Canterbury, UK.

Sandvik, Hanno, "On Human Population Growth, Natural Selection, and the Tragedy of the Commons," Conservation Biology 13(No.2, 1999):447-. (v.10,#2)

Saner, Marc A., Environmental Ethics and Biotechnology: A Test of Norton's Convergence Hypothesis, M. A. thesis in philosophy, Carleton University, Ottawa, Ont. May, 1999. Bryan Norton's convergence hypothesis asserts that environmentalists "of all stripes" can achieve

consensus over environmental policy if only minimal constraints are applied to the dialogue. Norton challenges that his proposition has not been falsified as yet (as of 1997). I test the hypothesis against the dialogue over the environmental use of biotechnology (genetic engineering). I discuss the environmental ethical issues raised by biotechnology and show that the convergence hypothesis is either unreasonable--applying its constraints to a environmental policy dialogue is too restrictive for environmental radicals, or can be falsified --applying its constraints does not lessen the divergence between positions in the dialogue over biotech policy. The convergence hypothesis is an over-generalization: the global claim of "unity among environmentalists of all stripes" cannot be upheld. I discuss practical consequences of this observation--how it affects risk management (and the risk/ethics boundary), biotech risk communication, the comprehensiveness of the ecosystem health concept, and the application to international agreements. The advisor was Jay Drydyk. Marc Saner, Department of Philosophy, DT 2127, Carleton University, Ottawa, Ont. K1S 5B6. Tel: (613) 520-3824, Fax: (613) 520-3962, Tel: (613) 725-5156 [home office]. E-mail: saner@magma.ca (v.10,#2)

Saner, Marc A. "Biotechnology, the Limits of Norton's Convergence Hypothesis, and Implications for an Inclusive Concept of Health." Ethics and the Environment 5(2000):229-242. ABSTRACT: Bryan Norton proposes a "convergence hypothesis stating that anthropocentrists and nonanthropocentrists can arrive (it common environmental policy goals if certain constraints are applied. Within his theory he does not, however, address the consideration of non-consequentialist issues, and, therefore does not provide an argument for the convergence between consequentialist and nonconsequentialist ethical positions. In the case of biotechnology. nonconsequentialist issues can dominate the debate in both the fields of environmental ethics and bioethics. I argue that, the convergence hypothesis must be rejected when tested against the case of biotechnology, and this limitation of convergence applies to any theory. of reconciliation within the "health" concept because the achievement and preservation of "health" emphasizes a consequentialist outlook. I conclude that an inclusive ethics for ecosystem and human health should be explicit about this limitation. (E&E)

Sanford, Melissa, "For Falcons as for People, Life in the Big City Has Its Risks as Well as Its Rewards," New York Times, June 28, 2004, p. A12. Peregrine falcons live in city canyons, as well as wild ones. After all, another name is pigeon hawk, so there is a good food supply. New York City has 15 nests; there are nests in Los Angeles. In Salt Lake City they nest near the Mormon Tabernacle. The week when the fledglings are learning to fly ("Hell Week" for falcons) is especially tough, and volunteer bird-watchers take great care to protect errant fledglings from traffic. (v. 15, # 3)

Santas, Aristotelis, "A Pragmatic Theory of Intrinsic Value," lecture at the Environmental Ethics Certificate Program, University of Georgia, March 12, 1966. An ecosystem is a dynamic, ever-changing process of interactions where parts are not passive recipients, but constantly interact. Individuals of an ecosystem can be instrumental to its growth, but never merely instrumental to the whole, only to the parts. The value of the whole must be seen as inseparable from the value of its constituent parts. No overall value sets a standard to measure all other values. It is absurd to claim, for example, that a salt marsh exists purely for the benefit of the resident crabs any more than it does for the benefit of humans; an ecosystem's value is not relative to its individual parts any more than it should be relative to the demands of a real estate contractor.

John Dewey's concept of value does not destroy intrinsic value. Not until we give up the idea that value can exist outside of all context can we really have intrinsic value. Value is contextual; it exists as a functional relationship. Although understanding those relationships may necessitate a relational look at value, at the same time, value is independent of human existence. For example, fish have value to alligators and the salt marsh has value to the larger environment for its functions. There is no need to appeal to humans for value to exist; whether rational or sensory, value is there. Santas is professor of philosophy and environmental ethics and Coordinator of the Center for Professional and Applied Ethics at Valdosta State University, Valdosta, Georgia. (v7,#1)

Santelmann M.V.; White D.; Freemark K.; Nassauer J.I.; Eilers J.M.; Vache K.B.; Danielson B.J.; Corry R.C.; Clark M.E.; Polasky S.; Cruse R.M.; Sifneos J.; Rustigian H.; Coiner C.; Wu J.; Debinski D., "Assessing alternative futures for agriculture in Iowa, U.S.A.," Landscape Ecology 19(no.4, 2004):357-374(18). (v. 15, # 3)

Santmire, H. Paul, Brother Earth: Nature, God, and Ecology in Time of Crisis. New York: Thomas Nelson, 1970.

Santmire, H. Paul, Nature Reborn: The Ecological and Cosmic Promise of Christian Theology. Minneapolis: Fortress Press, 2000. A re-envisioning of the classic Christian story to identify and celebrate its ecological promise. 1. Revising the Classical Christian Story: The Theological Challenge before us. 2. Reclaiming the Story Historically: Beyond the Ecological Critique. 3. Rediscovering the Story Biblically: Beyond Anthropocentric Interpretation. 4. Retelling the Story Narratively: Beyond Evolutionary Anthropocentrism. 5. Reenvisioning the Story Interpersonally: Beyond Anthropocentric Personalism. 6. Reenacting the Story Ritually: Beyond the Milieu of the Gothic Spirit. 7. Reexperiencing the Story Spiritually: Beyond the Ecology of Death. 8. Reliving the Story Ethically: A Personal Testament of Nature Reborn. Santmire is pastor of Trinity Lutheran Church, Akron, Ohio, with several earlier books in the field. (v.11,#3)

Santmire, H. Paul, Creation and Nature: A Study of the Doctrine of Nature with Special Attention to Karl Barth's Doctrine of Creation. Ph.D. thesis, Harvard University, 1966.

Santmire, H. Paul, The Travail of Nature: The Ambiguous Promise of Christian Theology. Minneapolis: Fortress Press, 1985.

Santmire, H. Paul, "Farming for God: A Religion of the Soil," Christian Century 120 (no. 26, December 26, 2003):23-25. Combined review of: Wirzba, Norman, The Paradise of God: Renewing Religion in an Ecological Age. New York: Oxford University Press, 2003; Hiebert, Theodore, The Yahwist's Landscape: Nature and Religion in Early Israel. New York: Oxford University Press, 1996; and Brown, William P., The Ethos of the Cosmos: The Genesis of Moral Imagination in the Bible. Grand Rapids, MI: Eerdmans, 1999.

Santmire, H. Paul, "Eco-economics," Review of McFague, Sallie, Life Abundant: Rethinking Theology and Economy for a Planet in Peril. Christian Century, Sept. 26-Oct. 3, 2001, pages 33-36. (v.12,#4)

Santos, T., Telleria, J. L. and Carbonell, R., "Bird Conservation in Fragmented Mediterranean Forests of Spain: Effects of Geographical Location, Habitat and Landscape Degradation," Biological Conservation 105(no.ER1, 2002): 113-25. (v.13,#2)

Sapontzis, S. F., Morals, Reason, and Animals. Philadelphia: Temple University Press, 1987.

Sapontzis, S.F., "Animal Liberation and Vegetarianism", Journal of Agricultural Ethics 1(1988):139-154.

Sapontzis, Steve F., Finsen, Susan, Bekoff, Marc. "Perspectives: Predator-Reintroduction Programs," The Animals' Agenda 15, no. 4 (Sept. 1995): 28- . Are there noble experiments in restitution or affirmative action programs that favor some species over others? Animal rights philosophers Steve F. Sapontzis and Susan Finsen, and scientist Marc Bekoff, debate the question. (v6,#4)

Sapontzis, Steve F. "The Moral Significance of Interests." Environmental Ethics 4(1982):345-58. Several philosophers opposed to animal rights have recently sought to justify their opposition by arguing that the epistemic differences between human and animal interests (often referred to as "taking an interest" vs. "having an interest") constitute a morally significant difference. I first detail the various forms of having an interest and of taking an interest. I then evaluate the moral significance of these differences from both utilitarian and deontological viewpoints. The conclusion of this analysis is that the epistemic differences between human and animal interests are not morally significant. Sapontzis is in the philosophy department, California State University, Hayward, CA. (EE)

Sapontzis, Steve F., "We Should Not Manipulate the Genome of Domestic Hogs", Journal of Agricultural and Environmental Ethics 4(1991):177-185. In a debate: Question: Should we manipulate the genome of domestic hogs?

Sapontzis, Steve F., "Predation." Ethics and Animals, Vol. 5, no. 2 (June 1984): 27-38. The reductio ad absurdum of the animal rights position, especially as applied to environmental issues. Sapontzis argues that the prevention of predation is not in itself an "absurd" position. But most of his discussion centers on the meaning of the words "absurd" or "avoidable" or "impractical"--not on the substantive issues. A good lesson in what is wrong with analytical philosophy. (Katz, Bibl # 1)

Sapontzis, Steve F. "We Should Not Allow Dissection of Animals." Journal of Agricultural and Environmental Ethics 8(1995):181-189. This essay argues against routine dissection exercises on animals under three headings. First, attaining goals of general scientific education does not require dissection. The training of specialists, in whose vocations dissection skills are essential, could then be accomplished without killing animals specifically for the purpose of acquiring those skills. Second, killing and dissecting animals for unnecessary exercises teaches students bad attitudes toward animal life. Third, moral principles cannot justify killing and dissecting animals but not humans; consequently, such treatment of animals is prejudiced exploitation of the weak by the strong. (JAEE)

Sapontzis, Steve F. (ed.), Food for Thought: The Debate over Eating Meat, Reviewed by Michael Allen Fox, Environmental Values 15(2006):264-267.

Sapontzis, Steve, *Food for Thought: The Debate over Eating Meat*. Amherst, NY: Prometheus Books, 2004. Reviewed by Richard P. Haynes in *Journal of Agricultural and Environmental Ethics* 21(2008):99-105.

Sapontzis, Steven F. "Reply to Weir: Unnecessary Fear, Nutrition, and Vegetarianism," Between the Species 7, no. 1 (Winter 1991): 27-32. (v8,#1)

Sarewitz, Daniel, Frontiers of Illusion: Science, Technology and the Politics of Progress. Philadelphia: Temple University Press, 1996. 235 pages. Paper, \$ 19.95. An effort to draw science back into social accountability, deflating five myths (pp. 10-11):

(1) the myth of infinite benefits, that more science and more technology will lead to more public good;

(2) the myth of unfettered research, that any scientifically reasonable line of research into fundamental natural processes is as likely to yield societal benefit as any other;

(3) the myth of accountability, that peer review, reproducibility of results, and other controls on the quality of scientific research embody the principal ethical responsibilities of the research system;

(4) the myth of authoritativeness, that scientific information provides an objective basis for resolving political disputes;

(5) the myth of the endless frontier, that new knowledge generated at the frontiers of science is autonomous from its moral and practical consequences in society.

The new paradigm Sarewitz proposes is sustainability, which, despite its flaws, has "conceptual malleability" as "an alternative to the mentality of infinite growth" (p. 193).

Sarewitz, Daniel, "Science and Environmental Policy: An Excess of Objectivity." Pages 79-98 in Frodeman, Robert, eds., Earth Matters: The Earth Sciences, Philosophy, and the Claims of Community. Upper Saddle River, NJ: Prentice-Hall, 2000. Scientists and decision makers alike tend to view the role of science in environmental policy as prescriptive. The goal is to create objective information that can cut through the morass of politics and enable wise decisions. Sarewitz claims that in the real world this happy result rarely emerges. What one finds instead are politicians using science to back their political positions. But rather than seeing this as a problem caused by politicians distorting the scientific facts for partisan purposes, Sarewitz suggests another possibility: that nature itself resists unitary characterization. The appeal to science to resolve our environmental questions thus presents us with an "excess of objectivity." Science can better serve to help us reach solutions we have set adjudicating social goals prior to the science. Sarewitz is with the Center for Science, Policy, and Outcomes, Columbia University, and long worked for the U.S. Congress in science policy. (v.12,#3)

Sarkar, Sahotra, "Thinking of Biology: Ecological Theory and Anuran Declines", Bioscience, 46(No.3, 1996):199- . (v7,#1)

Sarkar, Sahotra, Biodiversity and Environmental Philosophy. Cambridge: Cambridge University

Press, 2005. Sarkar criticizes attempts to attribute intrinsic value to nature and defends an anthropocentric position on biodiversity conservation based on untraditional concepts of transformative value. As much concerned with epistemological issues as with environmental ethics. Sarkar is at the University of Texas, Austin.

Sarkar, Sahotra, "Wilderness Preservation and Biodiversity Conservation--Keeping Divergent Goals Distinct," BioScience 49(no. 5, May 1999):405-412. "In some instances, the tasks of biodiversity conservation and wilderness preservation converge, but at least as often they do not." Wilderness excludes or minimizes people on the landscape; biodiversity conservation need not. Biodiversity conservation can bring local benefits to third world peoples; wilderness seldom does. Biodiversity conservation is politically easier than is wilderness preservation. Wilderness preservation can make biodiversity conservation more difficult on non-wilderness lands. "Wilderness preservation cannot be used as a surrogate for biodiversity conservation. Indeed, wilderness preservation and biodiversity conservation may be in conflict. Biodiversity conservation can avoid contentious political issues while simultaneously promoting long-term conservation by maintaining independence and distance from wilderness preservation." With a reply letter by Philip Cafaro and Warren Platts, forthcoming in BioScience. Sarkar is in philosophy, University of Texas, Austin. (v.10,#2)

Sarkar, Sahotra. *Biodiversity and Environmental Philosophy: An Introduction*. New York and Cambridge: Cambridge University Press, 2005. Attempts to present a coherent anthropocentric position that nevertheless emphasizes biodiversity conservation@ (p. xiii). Sarkar doubts that preservation of biodiversity can be justified economically. But biodiversity provides both aesthetic and intellectual benefits to human beings. This Atransformative value@ best justifies its protection. Sarkar develops a model for systematic conservation planning, with enthusiasm for Ahands on@ management and disdain for wilderness protection.

Sarpong, Daniel Bruce. Growth in Ghana: A Macroeconomic Model Simulation Integrating Agriculture. Brookfield, VT: Ashgate, 1997. Why the Ghanaian economy has failed to achieve sustained high economic growth, and changes needed for the future. (v9,#2)

Sarr D.; Puettmann K.; Pabst R.; Cornett M.; Arguello L., "Restoration Ecology: New Perspectives and Opportunities for Forestry," Journal of Forestry 102(no.5, July/August 2004):20-24(5). (v. 15, # 3)

Sarre, Philip. "Towards Global Environmental Values: Lessons from Western and Eastern Experience." Environmental Values 4(1995):115-127. New environmental values are needed as the advanced industrial economy becomes global. Reviewing a range of values from hunter-gatherer, agricultural and industrial societies, the paper suggests that environmental value systems should ideally satisfy three criteria. They should be consistent with scientific understanding of natural systems, they should lead to practical ethical and political proposals and, crucially, they should inspire aesthetic responses of pleasure and awe. Current global value systems fall short of this ideal: Gaia has the potential to combine science and awe, but lacks humane decision criteria, while sustainable development is pragmatic but environmentally minimalist and lacks aesthetic inspiration. The short term need is to integrate different strands of current positions as Hinduism combined pre-existing views. A sequence of priorities is

suggested: eliminating irreversible environmental change; stabilising population change through more equitable trade; and reconsidering the boundaries, practical and aesthetic, between society and nature. KEYWORDS: Environment, values, globalisation, sustainability, development. Sarre is in social sciences, The Open University, Milton Keynes. UK. (EV)

Sassen, Saskia, Globalization and Its Discontents: Essays on the New Mobility of People and Money. New York: New Press, 1998. 288 pages. \$ 25. Although money and people are more mobile than ever in the globalized economy, the money is really gathered in a rather few cities around the world, and the people who migrate are from developing countries in which rich countries have invested or which with they have had colonial or military dealings. These immigrants, legal and undocumented, commonly enter casual, low-skilled jobs in the U.S., Europe, or Japan in such cities, keeping wages low and providing services to the global cities, feeding a pattern of inequitable income distribution. The process of high-income "gentrification" in such global cities has been made possible by the ready supply of low income workers, especially female workers. Globalization erodes the power of national governments to regulate such developments, but this is too passively accepted. National governments may have more power than they think when they recognize how attached the transnational corporations are to a relatively few cities, where taxes and regulations may be easier to administer, and corporations have less power than supposed to flee somewhere else. (v.10,#1)

Satchell, Michael, "Save the Elephants: Start Shooting Them," U.S. News and World Report 121(no. 21, Nov. 25, 1996):51-53. Animal lovers hail the ivory ban. Many African nations hate it, and say it hurts wildlife. (v7,#4)

Satchell, Michael, "A New Day for Earth Lovers," U.S. News and World Report, April 24, 1995. Republican party efforts to kill environmental laws have galvanized the struggling green movement.

Satchell, Michael, "Any Color but Green," U.S. News and World Report, October 21, 1991, pp. 74-76. The "wise-use" alliance rising to battle the environmental movement, now organized as a coalition, and said by some to be the most serious challenge to environmentalism in two decades. The wise-use movement regards "wilderness, wetlands, and endangered species as an unholy trinity responsible for most of its gut worries." Charles Cushman, a spokesman, says, "The preservationists are like a new pagan religion, worshipping trees and animals and sacrificing people. It's a holy war between fundamentally different religions." (v2,#4)

Satin, Morton , *Death in the Pot: The Impact of Food Poisoning on History* (Amherst, NY: Prometheus Books, 2007). Reviewed by Richard P. Haynes in *Journal of Agricultural and Environmental Ethics* 21(2008):395-400.

Satterfield, Terre, Anatomy of a Conflict: Identity, Knowledge and Emotion in Old-Growth Forests. Vancouver: University of British Columbia, 2002. Reviewed by Kay Milton, Environmental Values 13(2004):118-119. (EV)

Satterfield, Terre, and Scott Slovic, eds., What's Nature Worth? Narrative Expressions of Environmental Values. Salt Lake City: University of Utah Press, 2004. Environmental writers

as "lay ethicists" (p. 2).

Satterfield, Terre, "Emotional Agency and Contentious Practice: Activist Disputes in Old-Growth Forests," Ethos (American Anthropological Association) 32 (no. 2, 2004):233-256. Drawing on theories of identity and agency, emotions, and environmental ethics, this article demonstrates the culturally productive dimensions of emotional agency as it played out in disputes over old-growth logging. This reveals a "hot spot" where new imaginations of the future are creatively generated and explored. The morally persuasive use of emotional language and bodily practice (chaining oneself to a bulldozer) are thrown into relief as changing-inducing discourse that promotes new moral practices. Satterfield is at the Institute for Resources and Environmental Sustainability, University of British Columbia, Vancouver.

Satterfield, Theresa. "In Search of Value Literacy: Suggestions for the Elicitation of Environmental Values," Environmental Values 10(2001):331-360. This paper recognises the many contributions to work on environmental values while arguing that some reconsideration of elicitation practices is warranted. It argues that speaking and thinking about certain environmental values, particularly ethical expressions, are ill-matched with the affectively neutral, direct question-answer formats standard to willingness-to-pay and survey methods. Several indirect, narrated, and affectively resonant elicitation tasks were used to provide study participants with new opportunities to express their values. Coded results demonstrate that morally resonant, image-based, and narrative-style elicitation tasks help respondents articulate a broader range of noncost and nonutilitarian environmental values. However, it was found that elicitations of this kind are most useful when presented in a affectively subtle and noncontroversial form. Several suggestions for synthesising these methods with more structured forms (e.g., surveys, constructed preferences, etc.) are offered. Keywords: Environmental ethics and values, emotion and value, value deliberation, value elicitation methods, noneconomic value, narrative valuation, public participation. Theresa Satterfield is in Decision Research Eugene, OR. (EV)

Sauer, JB, "Renewing a Conversation on Science and Values: Is Science Value Free?" review article, Hugh Lacey, Values and Scientific Understanding, Research in Philosophy and Technology 21(no., 2001): 337-346.

Sauer, Peter, ed., Finding Home: Writings on Nature and Culture from Orion Magazine. Boston: Beacon Press, 1992. \$ 15.00. 293 pages. Essays by Barry Lopez, David Ehrenfeld, David Abram, Gary Nabhan, Terry Tempest Williams, Charles Bergman, and others--all on humans placed in the larger field of natural history. (v3,#3)

Saunders, D. A., A. J. M. Hopkins, R. A. Hau, eds., Australian Ecosystems: 200 Years of Utilization, Degradation, and Reconstruction. 1990, Proceedings of the Ecological Society of Australia. Chipping Norton, N.S.W.: Surrey Beatty and Sons, 1990.

Saunders, DL; Meeuwig, JJ; Vincent, ACJ, "Freshwater Protected Areas: Strategies for Conservation," Conservation Biology 16(no.1, 2002):30-41. (v.13, #3)

Saunders, S. C., Mislivets, M. R., Chen, J. and Cleland, D. T., "Effects of Roads on Landscape

Structure within Nested Ecological Units of the Northern Great Lakes Region, USA," Biological Conservation 103(no.ER2, 2002): 209-25. (v.13,#2)

Saunders, Todd. "Ecology and Community Design: Lessons from Northern European Ecological Communities." Alternatives 22, no.2 (1996): 24. Ten recommendations for community designers and others wishing to translate ecological community theory into practice. (v7, #3)

Saurin, J., "Global Environmental Crisis as the 'Disaster Triumphant': The Private Capture of Public Goods," Environmental Politics 10(no.4, 2001): 63-84. (v.13,#2)

Savage-Rumbaugh, Sue, Shanker, Stuart G., and Taylor, Talbot J., Kanzi: The Ape at the Brink of the Human Mind. New York: Oxford University Press, 1998. A summary is Dreifus, Claudia, "She Talks to Apes and, According to Her, They Talk Back," New York Times, April 14, 1998, B10. At a research facility at Georgia State University, Decatur, bonobos (a kind of chimpanzee) point to printed symbols on a keyboard, and converse about dogs, television that they watch, and pretend gorillas in a game they play. (v9,#2)

Savedge, Jenn. *The Green Parent: A Kid-Friendly Guide to Environmentally-Friendly Living*. Seattle: Kedzie Press, 2008. Savedge's book contains chapters on how parents can teach their children to green a variety of things, such as clothes, gifts, home remodeling, parties, pets, schools, shopping, transportation, workplaces, and vacations.

Savile, Anthony, The Test of Time: An Essay in Philosophical Aesthetics. Oxford: Clarendon Press, 1982. Natural objects should be perceived as though they were works of art (Chapter 8, Sections VI, VII).

Sawyer, Andrew H. "Hydropower Relicensing in the Post Dam-Building Era", Natural Resources & Environment 11(no.2, 1996):12.

Sax, Dov F., John J. Stachowicz, and Steven D. Gaines, eds., Species Invasions: Insights into Ecology, Evolution, and Biogeography. Sunderland, MA: Sinauer Associates, 2005. Sax and Gaines are in biology and ecology, University of California, Santa Barbara. Stachowicz is in ecology, University of California, Davis.

Sax, J. L., "Comment on John Harte's Paper, 'Land Use, Biodiversity, and Ecosystem Integrity: The Challenge of Preserving Earth's Life-Support System'," Ecology Law Quarterly 27(no.4, 2000):1003-1014. (v.12,#4)

Sax, Joseph L. "Takings Legislation: Where It Stands and What Is Next." Ecology Law Quarterly 23, no.3 (1996): 509. (v7, #3)

Sax, Joseph L. Mountains without Handrails: Reflections on the National Parks. Reviewed in Environmental Ethics 4(1982):369-71.

Saxe, Dianne, "The Fiduciary Duty of Corporate Directors to Protect the Environment for Future Generations." Environmental Values Vol.1 No.3(1992):243-252. ABSTRACT: The 'business

judgement rule' requires corporate directors only to act with honesty and reasonable care in the interest of shareholders. A stronger 'fiduciary' duty is required where one party requires protection from another. This paper argues that where corporations take risks with the environment, directors are fiduciaries. Stakeholders are in that case the general public, future generations and other species, which have not voluntarily accepted risk and cannot limit liability. Recognition of fiduciary duty in such cases is consistent with recent trends in the law of equity. It would require all economic activities to move from open to closed (sustainable) systems. KEYWORDS: Corporate responsibilities, fiduciary duties, future generations. 248 Russell Hill Road, Toronto, Ontario, Canada, M4V 2T2.

Say, A., "Review of: Charles Warren, Managing Scotland's Environment (Edinburgh: Edinburgh University Press, 2002)," Biological Conservation 114(no. 1, 2003): 154-155.

Sayen, Jamie. "Limitations of Conservation Easements." Wild Earth 6, no.1 (1996): 77. (v7, #3)

Sayen, Jamie. "A Second Chance for the Northern Forests," Wild Earth 5, no. 4 (Winter 1995): 37- . (v6,#4)

Sayer, Jeffrey A., Caroline S. Harcourt, and N. Mark Collins, eds., The Conservation Atlas of Tropic Forests: Africa. By the World Conservation Union (IUCN). New York: Simon and Schuster, 1991. 256 pages, 62 maps. \$ 95.00. (v3,#4)

Sayre, K. M. et al. Regulation, Values and the Public Interest. Reviewed in Environmental Ethics 6(1984):271-74.

Sayre, Kenneth. "Morality, Energy, and the Environment." Environmental Ethics 3(1981):5-18. Our crises of energy and of social values are causally interrelated. Our energy problems have contributed substantially to our contemporary value problems, as evident, for example, by the institution of the private automobile, which has begun to erode the very values it initially served. That our energy crisis has resulted from problems of value is illustrated by setting up a simple model of producer-consumer interaction, with egoism and hedonism as dominant principles of duty and of good respectively, and by showing that an energy crisis like the one we are currently experiencing is practically inevitable. These discussions lead to an assessment of the possible roles moral philosophy might play in confronting these two crises. Sayre is in the department of philosophy, University of Notre Dame, IN. (EE)

Sayre, Kenneth. "An Alternative View of Environmental Ethics." Environmental Ethics 13(1991):195-213. Environmental ethics continues to be dominated by an inferential view of ethical theory, according to which moral prescriptions and proscriptions are deduced from general principles, which in turn are arrived at intuitively or by some form of induction. I argue that the inferential approach contributes little to the pressing need which environmental philosophers have been attempting to address in recent decades--the need for a set of normative values actually in place within industrial society that will help preserve the environment from human destruction. I propose an alternative view according to which the aim of environmental ethics is (1) a clear understanding of how moral norms actually come to be instituted in a given society, (2) the analysis of the practical effect of such norms from an environmental perspective,

and (3) an examination of the relative desirability of alternative norms in light of their environmental effects. In pursuing this aim, environmental ethics should join forces with anthropology, economics, and other areas of social science in hopes of generating a basis for empirical information about how moral norms actually operate. Such information might help persuade society at large of the importance of being guided by an environmentally sound set of normative values. Sayre is in the department of philosophy, University of Notre Dame, IN. (EE)

Sayre, NF, "Ecological and geographical scale: parallels and potential for integration," Progress in Human Geography 29 (no. 3, June 2005): 276-290.

Scanlan, David, "An Environmental Test Case: New Costa Rican Government to Rule on Building of Chip Mill in Rain Forest," The Christian Science Monitor 86 (26 July 1994): 11. (v5,#3)

Scarce, Rik, Eco-Warriors: Understanding the Radical Environmental Movement (Chicago: Noble Press, 1990). \$ 11.95. 291 pages. (v2,#1)

Scarff, James E. "Ethical Issues in Whale and Small Cetacean Management." Environmental Ethics 2(1980):241-79. Three main ethical issues involved in the management of whales and small cetaceans are examined: ethical values concerning extinction and their implications for consumptive management regimes, the humaneness of current and feasible future harvesting techniques, and the ethical propriety of killing cetaceans for various uses. I argue that objections to human-caused extinction are primarily ethical, and that the ethical discussion must be expanded to include greater consideration of acceptable risks and problems associated with extinction due to human-caused genetic selection. Whaling methods are objectively described including death times for whales. I show that the debate on humaneness is not about the facts of the hunt, but about the appropriate standard for judging whether or not a technique is humane. Economic and ecological arguments which attempt to preempt the ethical questions are discussed and dismissed as specious. Arguments which attempt to distinguish ethically human relations with cetaceans from relations with other wildlife species are reviewed critically. Scarff is an attorney with the Whale Center, Oakland, CA. (EE)

Scatterwaite, David; Hart, Roger; Levy, Caren; Mitlin, Diana; Ross, David; Smit, Jac; Stephens, Carolyn. Published in association with UNICEF. The Environment for Children: The Environmental Hazards that Threaten Children and Their Parents. London: Earthscan Publications Ltd., 1996. 192pp. ,12.95 paper, ,29.95 cloth. Focusing on urban environments, this book analyses the health hazards threatening children and the range of impacts they can have, and explains what can be done to provide safe and healthy environments for children. The books looks at conditions in a range of cities in the developing world, as well as pollutants and other health problems affecting children in the North. (v8,#1)

Schabel, Hans G., Palmer, Siegfried L., "The Dauerwald: Its Role in the Restoration of Natural Forests," Journal of Forestry 97(no. 11, Nov 01 1999):20- . A dramatic shift in silvicultural emphasis is sweeping Europe at the end of more than 200 years of forestry evolution. (v.11,#1)

Schaefer, Jame, Ethical Implications of Applying Aquinas' Notions of the Unity and Diversity of

Creation to Human Functioning in Ecosystems. Ph.D. dissertation at Marquette University, 1994. Aquinas' ideas about the need for a diversity among creatures and how they interact to form a unity have affinity with some ecologists' perception of the makeup and functioning of ecosystems. There is an orderly and hierarchically structured dynamic whole. All creatures, including humans, are both interconnected and related to God as their creator, sustainer, and ultimate end. They are good and ought to be valued for the roles they play; ecosystems are sacramental signs of God's presence; humans ought to use creation virtuously; the misuse of ecosystems is sinful and from this humans need to be redeemed. Aquinas can help Roman Catholics in their search for an environmental ethic. Michael Duffey was the thesis director. Jame Schaefer, 3741 Koehler Drive, Sheboygan, WI 53083. (v6,#1)

Schaefer, Jame, "Appreciating the Beauty of Earth," Theological Studies 62 (March 2001):23-52. Categories used by contemporary environmental philosophers to explore esthetic appreciation for the beauty of the physical world have parallels in reflections by patristic and medieval theologians on the beauty of God's creation. A sampling of the theologians' notions yields a promising foundation for ecological ethics from a theistic perspective, especially when understood from their world view at the time the text was written, reformulated to reflect broad scientific findings about the world today, and worked creatively to identify norms for human behavior. Schaefer is in theology, Marquette University. (v.12,#4)

Schaefer, Jame, "Intrinsic-Instrumental Valuing of Earth: A Theological Framework for Environmental Ethics," Theological Studies 66(no. 4, 2005):783-814. Philosophers have struggled with value theory as one of the most recalcitrant problems for environmental ethics. Theologians can benefit from their efforts when retrieving and reworking notions about the goodness of creation in patristic and medieval texts, particularly those by Augustine, John Chrysostom, and Thomas Aquinas. This process yields a religiously motivated rationale for intrinsic-instrumental valuing of the physical world's constituents for themselves, their relationships to one another, and their common good that can be relevant, meaningful, and helpful for responding to ecological valuation. Schaefer is in theology and directs an interdisciplinary minor in environmental ethics at Marquette University, Milwaukee.

Schaefer, Jame, "Acting Reverently in God's Sacramental World." Pages 37-90 in Eigo, Francis A., ed., Ethical Dilemmas in the New Millennium II. Villanova, Pennsylvania: Villanova University Press, 2001. (v.12,#4)

Schaefer, Jame. "The Virtuous Cooperator: Modeling the Human in an Ecologically Endangered Age," Worldviews: Environment, Culture, Religion 7.1-2 (2003): 171-195. Modeling the human in an age of ecological degradation requires at least four criteria for people who profess a religious faith. The model should be (1) rooted in religious faith tradition, (2) consistent with broad scientific findings, (3) positively relational to other beings and physical systems, and (4) descriptive about the kind of behavior that is needed. Among the works of Thomas Aquinas are various notions about the cooperation of creatures and God and teachings about the chief moral virtues of prudence, temperance, justice and fortitude that provide a starting point for developing a model of the human as a virtuous cooperator. When informed by broad contemporary scientific findings, the virtuous cooperator meets the criteria for modeling the human during our time by offering a realistic way of thinking about our species in relation to the more-than-human

others that constitute our planet, a framework for acting responsibly, and the teleological motivation for making this behavior habitual. (v 14, #3)

Schaefer, Jame. "Grateful Cooperation: Cistercian Inspiration for Ecological Ethics," Cistercian Studies Quarterly 37.2 (2002): 187-203. A 12th century text that describes the site and surroundings of the Cistercian Abbey at Clairvaux conveys the observer's appreciation, respect and gratitude for the cooperative interactivity of the monks, other biota, and abiota that constitute the area. Parallel thinking can be found in contemporary philosophical discourse in which the human is considered a highly specialized, integral and responsible actor within the ecological system. When the human-in-ecosystem approach proceeds from deep faith in God, who empowers the emergence and interactivity of ecosystem interactors, the ethics of grateful cooperation inspired by the medieval text can guide humans to seek the health and well-being of their shared system as a way of cooperating with God. (v 14, #3)

Schaefer, Mark, D. James Baker, John H. Gibbons, Charles G. Groat, Donald Kennedy, Charles F. Kennel, and David Rejeski. AAn Earth Systems Service Agency.@ *Science* Vol. 321, no. 5885 (4 July 2008): 44-45. Already two US federal agencies have missions solely directed to Earth sciencesBBthe National Oceanic and Atmospheric Administration (NOAA) and the US Geological Survey (USGS). The National Aeronautics and Space Administration (NASA) also has many Earth observing systems. These agencies ought to merge to establish an independent Earth Systems Science Agency, which could better address serious environmental and economic challenges facing the United States.

Schaeffer, Francis A. Pollution and the Death of Man: The Christian View of Ecology. Wheaton: Tyndale House, 1970. Refutes the charges of Lynn White, Jr. in "The Historical Roots of our Ecologic Crisis."

Schafer, G. Bioregionalism and Contextual Discourse: Towards a Postmodern Environmentalism in South Africa. M.Phil. thesis, at the University of Stellenbosch, 1998. Promotor: Johan P. Hattingh. (v.10,#1)

Schafer, R. Murray, The Soundscape: Our Sonic Environment and the Tuning of the World. Reviewed by Anthony Weston. Environmental Ethics 18(1996):331-333. (EE)

Schäfer, Lothar, Das Bacon-Projekt: Von der Erkenntnis, Nutzung und Schonung der Natur [in German: The Bacon-project; on the knowledge, use and saving of nature], Frankfurt a.M.: Suhrkamp, 1993. (v.11,#1)

Schaller, George B., "Gentle Gorillas, Turbulent Times," National Geographic 188 (no. 4, October, 1995):65-68. (v6,#4)

Schaller, George B., The Last Panda. Chicago: University of Chicago Press, 1993. 291 pages. \$ 24.95 hardbound. About 1,000 pandas survive. A live panda is worth \$ 112,000 on the black market, a pelt is worth \$ 10,000. Zoos pay millions to rent pandas. Schaller tracks the panda in the wild and wonders if it can survive its popularity. Good intentions go desperately wrong, and greed and poverty prevent conservation. Panda conservation is often a sham. Schaller is with

World Wildlife Conservation International, New York. (v4,#2)

Schalow, Frank, Review of John Barry, *Environment and Social Theory*, *Environmental Values* 16(2007):406-408.

Schalow, Frank. Review of: Brown, Charles S., and Ted Toadvine, eds., Eco-Phenomenology: Back to the Earth Itself. Ethics and the Environment 13(2004):269-271. (EV)

Schalow, Frank. "Who Speaks for the Animals? Heidegger and the Question of Animal Welfare." Environmental Ethics 22(2000):259-271. I address the ethical treatment of animals from a Heideggerian perspective. My argument proceeds in two stages. First, it is necessary to develop a nonanthropocentric concept of freedom which extends beyond the sphere of human interests. Second, it is essential to show that our capacity to speak must serve the diverse ends of "dwelling," and hence can be properly exercised only by balancing the interests of animals with those of our own. Rather than point to naturalistic similarities between humans and animals (e.g., the capacity to feel pain), or even ontological ones (e.g., the shared dimension of "care" [Sorge]), the better strategy lies in expanding the scope of moral agency in a way which allows the differences between humans and animals to suggest guidelines as to why the former should exhibit benevolence toward the latter. In this way, I show that the basic precepts of Heidegger's philosophy support an ethic which can attend to, and speak in behalf of, the welfare of animals. (EE)

Schalow, Frank. *The Incarnality of Being: The Earth, Animals, and the Body in Heidegger's Thought*. Albany: State University of New York Press, 2006. Schalow examines Heidegger's concern for the materiality of the world to explore the ecological dimensions of Heidegger's thought in terms of kinship between humans and animals and the mutual interests that humans and animals have for preserving the environment.

Schama, Simon. Landscape and Memory. New York: Alfred A. Knopf, 1995. 652 pages. "How much more elaborately wrought is the framework through which our adult eyes survey the landscape. For although we are accustomed to separate nature and human perception into two realms, they are, in fact, indivisible. Before it can ever be a repose for the senses, landscape is the work of the mind. Its scenery is built up as much from strata of memory as from layers of rock. Objectively, of course, the various ecosystems that sustain life on the planet proceed independently of human agency, just as they operated before the ascendancy of Homo sapiens. But it is also difficult to think of a single such natural system that has not, for better or worse, been substantially modified by human culture. Nor is this the work of the industrial centuries. It has been happening since the days of ancient Mesopotamia. ... And it is this irreversibly modified world, from the polar caps to the equatorial forests, that is all the nature we have. ... Even the landscapes that we suppose to be most free of our culture may turn out, on closer inspection, to be its product. And it is the argument of Landscape and Memory that this is a cause not for guilt and sorrow but for celebration" (pp 7-9). This work was once lectures at Princeton, also at Cambridge, and has been made into a BBC television series. "The best work I am familiar with describing the cultural role of nature, or the impact of 'place' on the development of a culture" -- William Hoover, Forestry, Purdue. Schama is a historian. (v6,#3)

Scharlemann, Jörn P. W., and William F. Laurance. AHow Green Are Biofuels?@ *Science* Vol. 319, no. 5859 (4 January 2008): 43-44. Many biofuels are associated with lower greenhouse gas emissions but have greater aggregate environmental costs than gasoline.

Scharper, Stephen Bede, A Political Theology of the Environment. New York: Continuum, 1997. Christian theological responses to the ecological crisis. The Gaia hypothesis. Process theology. Ecofeminism. Liberation theology. Contouring a political theology of the environment.

Scharper, Stephen B. and Hilary Cunningham, eds., The Green Bible. Maryknoll, NY: Orbis, 1993. 114 pages. Paper. God's word for people on a planet with dwindling resources. Hebrew and Christian scriptures, religious and political leaders, scientists, environmentalists. (v4,#4)

Schatzki, T., "Options, Uncertainty and Sunk Costs," Journal of Environmental Economics and Management 46(no. 1, 2003): 86-105. (v 14, #3)

Scheffer, Victor B., The Shaping of Environmentalism in America (Seattle: University of Washington Press, 1991), 240 pages. \$ 19.95. A history of the formative years of recent American environmentalism, 1960-1980, with an epilogue highlighting events from 1981-1989. Scheffer has a career in biological research, university teaching, and natural science writing. (v2,#1). Reviewed in Environmental Ethics 13(1991):371-74.

Scheffer, Victor B. "The Olympic Goat Controversy: A Perspective," Conservation Biology 7(no. 4, 1993):916-919. The argument between the Park Managers of Olympic National Park and the Fund for Animals concerning whether the goats should remain in the park, where they are causing soil erosion and changes in floral composition, or be removed.

Schelhas, J, "Race, Ethnicity, and Natural Resources in the United States: A Review", Natural Resources Journal 42(no.4, 2002):723-764.

Schelhas, John, and Max J. Pfeffer. *Saving Forests, Protecting People? Environmental Conservation in Central America*. Walnut Creek, CA: AltMira Press, 2007. Tropical forest conservation is attracting widespread public interest and helping to shape the ways in which environmental scientists and other groups approach global environmental issues. Schelhas and Pfeffer show that globally-driven forest conservation efforts have had different results in different places, ranging from violent protest to the discovery of common ground among conservation programs and the various interests of local peoples. The authors examine the connections between local values, material needs, and environmental management regimes.

Schelhas, John, Jantzi, Terry, Thacher, Tom. "Costa Rica: Meeting Farmers' Needs through Forest Stewardship," Journal of Forestry 95(no.2, 1997):33. (v8,#1)

Schell, Jonathan. The Fate of the Earth. Reviewed in Environmental Ethics 6(1984):181-84.

Schemo, Diana Jean, "Brazil Says Amazon Burning Tripled in Recent Years," New York Times, January 27, 1998, A3. Amazon deforestation, earlier said to be declining, in the days of the Rio Summit, is not. Rather deforestation is sharply up from the previous ten year average. (v9,#1)

Schennach, Susanne M., "The Economics of Pollution Permit Banking in the Context of Title IV of the 1990 Clean Air Act Amendments," Journal of Environmental Economics and Management 40(no. 3, Nov. 1, 2000):189- . (v.12,#2)

Scherer, Donald, ed., Upstream/Downstream: Issues in Environmental Ethics. Philadelphia: Temple University Press, 1990 (November). \$ 37.95. Original essays: Donald Scherer, "The Modeling of Norms and Environments"; Ernest Partridge, "On the Rights of Future Generations"; Dale Jamieson, "Managing the Future: Public Policy, Scientific Uncertainty, and Global Warming"; Kristin Shrader-Frechette, "Models, Scientific Method, and Environmental Ethics"; Daniel Barstow Magraw and James W. Nickel, "Can Today's International System Handle Transboundary Environmental Problems?"; Mark Sagoff, "Takings, Just Compensation, and the Environment"; Bart Gruzalski, "The Consequences of My Action, Your Action, and the Company's Action"; and Alan Gewirth, "Two Types of Cost-Benefit Analysis." Don Scherer is professor of philosophy at Bowling Green State University and co-edited, Ethics and the Environment, one of the first anthologies in this field. (v1,#2)

Scherer, Donald, "Sustainable Resources, Ethics," in Encyclopedia of Energy Technology and the Environment, a four volume set, pp. 2571-77. San Francisco: John Wiley, 1995. Sustainability of choice; sustainability of lifestyles; sustainability of resources; sustainability and substitutability; sustainability and justice; justice and the meaning of opportunity; sustainability and the well-being of ecosystems; the good of a person and the good of an ecosystem compared; ecosystemic goods as public goods; managing common resources; public goods and government involvement; proper resource pricing; justice, opportunity, and public goods; pollution: prevention versus clean-up; sustainability and reusability; reusability and ecosystem sustainability; distributing proven technologies; empowering individuals; reforming management; coping with congestion; the evaluation of sustainability; the ethics of sustainability; the ethics of sustainable energy; and more. A useful introduction, quite suitable for classroom use. Scherer is in philosophy at Bowling Green State University, Ohio, USA. (v6,#2)

Scherer, Donald, ed., Upstream/Downstream: Issues in Environmental Ethics. Philadelphia: Temple University Press, 1990. Pp. 242. This collection of original essays focuses on the combination of theoretical environmental ethics with practical policy issues. Scherer terms environmental problems "upstream/downstream" when they have direct effects on human beings and when current social organizations are unable to resolve value and policy conflicts. An examination of upstream/downstream problems leads to the development of an environmental theory of action rather than a mere theory of environmental value. The philosophers represented here thus discuss problems in the development of environmental policy theory: Ernest Partridge and Dale Jamieson investigate issues regarding future generations; Kristin Shrader-Frechette examines the use of models as a basis for policy; Daniel Barstow Magraw, James W. Nickel, and Mark Sagoff discuss issues in international and constitutional legal theory; and Bart Gruzalski and Alan Gewirth investigate notions of responsibility and assessment, particularly (in Gewirth's article) various kinds of cost-benefit analyses. "The common theme of these essays is that the environments in which we live...have outstripped older conceptions of responsible human living" (p. 18). (Katz, Bibl # 2)

Scherer Donald, and Thomas Attig, eds., Ethics and the Environment. Englewood Cliffs, N. J.: Prentice-Hall, 1983. Reviewed in Environmental Ethics 6(1984):277-82.

Scherer, Donald. "Evolution, Human Living, and the Practice of Ecological Restoration." Environmental Ethics 17(1995):359-379. Critiques of ecological restoration have rested on the human/natural distinction. In opposition to the difficulties involved in that distinction, I provide a sketch of an evolutionary account of human existence. The instability of environments-- beyond individual human control--conditions human life and sets the dynamic for human action. Human interdependence makes human monitoring of human interaction central. I interpret Leopold as concerned about the divergence between ecosystemic and economic value. In the face of reiterative prisoners' dilemmas arising significantly from problems of scale, the moral imperative is the creation of practices that tolerate ecosystemic degradation minimally and those only in the face of threats to human existence. Against this background, I show that the value of ecological restoration is ambivalent. Scherer is in the department of philosophy, Bowling Green State University. (EE)

Scherer, Donald. "Anthropocentrism, Atomism, and Environmental Ethics." Environmental Ethics 4(1982):115-23. By attempting to divorce attributions of value from judgments of the interest of the attributor, developing the concept of a locus of value, exploring the interconnections between the goods of individuals and the goods of populations and species, and suggesting the reasonableness of the attributions of rights to certain sorts of individuals, I try to indicate the degree to which an environmental ethic can be atomistic without being anthropocentric. Scherer is in the philosophy department, Bowling Green State University, Bowling Green, OH. (EE)

Scherer, Donald. "Between Theory and Practice." Restoration and Management Notes 12 (no. 2, Winter 1994): 184-188. Popular views on exotics, intervention, and technology are obscuring important issues in restoration. Not all migrating plant species are exotics; seeds in nature stick to animals and migrate, and one such animal is Homo sapiens. Human intervention has conditioned the character of certain environments in which certain species are well adapted, there is nothing unique about human intervention. The fact that humans use technology is a difference of degree not of kind. Restoration need not be to some pristine ecosystem free of humans, but restoration can be to a world that humans inhabit. Scherer teaches philosophy at Bowling Green State University, Ohio. (v6,#1)

Scherer, Ron, "Recovering After Ban on DDT Use, Osprey Find Urban Waters Good Fishing," The Christian Science Monitor 86 (2 September 1994): 1, 4. (v5,#3)

Scherer, Ron. "Taking Stock in Tobacco: Fight Smolders at Big Pension Fund." The Christian Science Monitor, vol. 88, 23 Sept. 1996, p. 3.

Schwartz, David H. "Phoenix Uses Cleaning Power of Wetlands to Scrub Sewage." The Christian Science Monitor, vol. 89, 16 Jan. 1997. p. 3.

Scherff, Judith S., ed., The Mother Earth Handbook: What You Need to Know and do--at Home, in your Community, and Through Your Church to Help Heal Our Planet Now.

Crossroad/Continuum, 1991. 352 pages. \$ 15.95 paper. Twenty-one contributors. (v1,#4)
(v2,#3)

Scheuplein, Robert J. "Dioxin: How Much Risk?" Journal of Environmental Law & Practice
3(Mar.1996):48. (v7,#2)

Schicktanz, Silke, "Ethical Considerations of the Human-Animal-Relationship Under Conditions of Asymmetry and Ambivalence," Journal of Agricultural and Environmental Ethics 19(2006):7-16. Ethical reflection deals not only with the moral standing and handling of animals, it should also include a critical analysis of the underlying relationship. Anthropological, psychological, and sociological aspects of the human-animal-relationship should be taken into account. Two conditions, asymmetry and ambivalence, are taken as the historical and empirical basis for reflections on the human-animal-relationship in late modern societies. These conditions explain the variety of moral practice, apart from paradoxes, and provide a framework to systematize animal ethical problems in a broader field. This allows the development of ideal relationships as moral orientation across anthropocentric or sentientistic ethical theories. These ideal relationships are called the patronage-model, the friendship-model and the partnership-model. The ethical problem of creating transgenic animals is discussed in the light of these ideal relationships. Keywords: ambivalence - animal biotechnology - animal ethics - human animal-relationship. Silke Schicktanz is at the Institute for Ethics, History and Theory in Medicine, University of Muenster, Germany. (JAEE)

Schimel, David, "Climate Change and Crop Yields: Beyond Cassandra," Science 312(30 June 2006):1889-90. An analysis of recent data from a wide variety of field experiments suggests that previous studies overestimated the positive effects of higher carbon dioxide concentrations on crop yields. Schimel is at the National Center for Atmospheric Research, Boulder, CO.

Schindler, D. W., et al., "Effects of Climatic Warming on Lakes of the Central Boreal Forest," Science, 16 November 1990. A preview of the effects of increased greenhouse warming on boreal lakes. "The disappearance or warming and increased chemical concentrations of boreal freshwaters could cause the extirpation of cold water species assemblages that include some of the world's most valuable fisheries." (v1,#4)

Schindler, Joerg, Zittel, Werner: "Der Paradigmawechsel vom Oel zur Sonne" (in German: Paradigm change from fossil-fuels to solar), Natur und Kultur 1 (No. 1, 2000): 48-69. In this contribution we point out and illustrate with many examples that oil production in non-OPEC countries will soon peak and steadily decrease thereafter. This will give the OPEC countries a great chance to increase prices. But even their oil production will maybe peak within the next ten years. Together with the increasing challenge of climate change and the improvement of renewable energy technologies this will imply a big change of the energy supply structure with influence on the whole economy. (v.11,#2)

Schinkel, Anders, "Martha Nussbaum on Animal Rights." @ *Ethics and the Environment* 13(no. 1, 2008):41-69. There is quite a long-standing tradition according to which the morally proper treatment of animals does not rely on what we owe them, but on our benevolence. Nussbaum wishes to go beyond this tradition, because in her view we are dealing with issues of justice. Her

capabilities approach secures basic entitlements for animals, on the basis of their fundamental capacities. At the same time Nussbaum wishes to retain the possibility of certain human uses of animals, and to see them as morally justifiable. This article shows that these things do not go together with her capabilities approach to animal rights. More specifically, they clash with the attitude towards animals that Nussbaum's approach intends to foster in human beings. Anders Schinkel currently works as a postdoctoral researcher in the philosophy section of the Faculty of Psychology and Education of the Vrije Universiteit in Amsterdam, The Netherlands.

Schlickeisen, Rodger. "Protecting Biodiversity for Future Generations: An Argument for a Constitutional Amendment." Tulane Environmental Law Journal 8 (1994): 181-212. Society's need and duty to protect living nature. The emergence of scientific consensus. Society's moral responsibility to future generations. Lawmaking prejudiced against the future. The limitations of the traditional legal system. A proposed U.S. constitutional amendment: "The living natural resources in the United States are the common property of all the people, including generations yet to come. All persons and their progeny have an inalienable, enforceable right to the benefits of those resources for themselves and their posterity. The United States and every State shall assure that use of those resources is sustainable and that they are conserved and maintained for the benefit of all the people." Constitutional provisions elsewhere. Does the proposed amendment go far enough? The amendment is needed because, to the extent that elected officeholders do enact statutes to protect biodiversity, unless supplemented by a constitutional amendment, enforcement will be slow, unwieldy, and unsuccessful, especially because judicial interpretation of standing and constitutional private property rights will defeat meaningful implementation and enforcement. A plausible case, and one where the author has done his philosophical and legal homework. Schlickeisen is president of the Defenders of Wildlife. (v6,#1)

Schlosberg, D., and Dryzek, J. S., "Political Strategies of American Environmentalism: Inclusion and Beyond," Society and Natural Resources 15(no.8, 2002): 787-804. (v.13,#4)

Schlosberg, David, Environmental Justice and the New Pluralism: The Challenge of Difference for Environmentalism. Oxford: Oxford University Press, 1999. "Critical pluralism" in theory and practice. The environmental justice movement and new pluralist theories now represent a considerable challenge to both conventional pluralist thought and to the practices of the major groups in the U.S. environmental movement. The environmental justice movement, with its base in diversity, its networked structure, and its communicative practices and demands, exemplifies the attempt to design political practices beyond those one would expect from a standard interest group in the conventional pluralist model. Schlosberg is at Northern Arizona University. (v.11,#3)

Schlosberg, David. *Defining Environmental Justice: Theories, Movements, and Nature*. Oxford: Oxford University Press, 2007. Schlosberg has two main tasks: (1) an exploration of how environmental justice movements define justice, and (2) an exploration of how to discuss justice across the species divide. His main argument is that a similar set of languages, tools, and concepts including distributive, participatory, recognition, and capabilities approaches to justice can be used for both environmental justice for people and ecological justice for nonhuman nature.

Schlosberg, David. *Defining Environmental Justice: Theories, Movements, and Nature*. Oxford: Oxford University Press, 2007. Schlosberg has two main tasks: (1) an exploration of how environmental justice movements define justice, and (2) an exploration of how to discuss justice across the species divide. His main argument is that a similar set of languages, tools, and concepts including distributive, participatory, recognition, and capabilities approaches to justice can be used for both environmental justice for people and ecological justice for nonhuman nature.

Schlossberger, Eugene, "Environmental Virtue Ethics: An Aristotelian Approach," Philosophy in the Contemporary World 8 (Number 2, Fall-Winter 2001): 15-26. This paper articulates a framework, "E," for developing ethical claims about environmental issues. "E" is a general framework for constructing arguments and working out disputes, rather than a particular theory. "E" is anthropocentric in the sense that it begins with ideas about human excellence and human interests. Arguments employing "E" suggest that we, as human beings, have certain duties regarding the environment. Since it may also be true that various duties attach to being an organism of any stripe, that nature has intrinsic value, and so forth, arguments employing E can be seen as supplementing, rather than replacing, non-anthropocentric moral arguments. Moreover, "E" is anthropocentric in its methodology but not necessarily in its results. Some accounts of human excellence yield the sorts of obligations that biocentrists advocate. Schlossberger is at Purdue University Calumet, Hammond, Indiana. (v.13,#2)

Schlosser, Eric, Fast Food Nation. New York: Houghton Mifflin, 2001. How the McDonald brothers and Harlan Sanders applied the principles of the factory assembly line to the commercial kitchen, used overworked and underpaid teenagers, created factory farms where the potatoes, beef, and chickens are grown, bypassed most federal oversight of their meatpacking plants, served customers feces with their cholesterol, insinuated itself into all aspects of children's lives, at the same time making them prone to obesity and disease. As an added bonus, strip mall development from Southern California right across the United States. McDonalds is his main focus. Schlosser is a tough critic and, readers may ask, whether he in turn needs his critics. (v.12,#4)

Schlosser, K, "National Security Discourse and the Political Construction of the Arctic Nat'l Wildlife Refuge," Society and Natural Resources 19 (no. 1, January 2006): 3-18.

Schlotterbeck, J, "Preserving Biological Diversity with Wildlife Corridors: Amending the Guidelines to the California Environmental Quality Act", Ecology Law Quarterly 30 (no.4, 2003): 955-990.

Schmidheiny, Stephan, Changing Course: A Global Business Perspective on Development and the Environment. Cambridge, MA: MIT Press, 1992. 374 pages. Paper \$ 16.95, Business edition: hardcover plus executive summary, \$ 35.00. Swiss industrialist Schmidheiny gathered 50 board chairs and CEO's from around the world to work out a business perspective, serving as chief advisor for business and industry to Maurice Strong, planning for the UNCED conference. "The bottom line is that the human species is living more off the planet's capital and less off its interest." Business and sustainable development, pricing the environment, energy and the

marketplace, capital markets and sustainable development, innovative technology, technology cooperation, agriculture and forestry, with dozens of case studies from a diverse array of areas. William Reilly, Director of the Environmental Protection Agency, has told his staff that if they read but one book a year in the field, it ought to be this one. If you haven't got time to read it, there is an executive summary, Changing Course: Executive Summary, also MIT Press, 46 pages, but sold only with the hardcover. Schmidheiny was chief advisor for business and industry to Maurice Strong, planning for the UNCED conference. (v3,#3) (v3,#2)

Schmidheiny, Stephan, Zorraquin, Federico J. L. Financing Change: The Financial Community, Eco-Efficiency, and Sustainable Development. Cambridge, MA: MIT Press, 1996. 232pp. \$20. Largely descriptive, rather than prescriptive, Financing Change is the first study to examine questions that will become increasingly important as populations escalate and the developing countries enter financial markets. These issues are examined in separate chapters covering the viewpoints of the financial market participants: company directors, investors and analysts, bankers, insurers, accountants, and raters. (v8,#1)

Schmidt, C., Review of Jacobs, Michael, The Green Economy. Environmental Values Vol.2 No.1(1993):77.

Schmidt, C., "On Economization and Ecologization as Civilizing Processes." Environmental Values Vol.2 No.1(1993):33-46. ABSTRACT: In this article the meaning and main phases of 'economization' as a civilizing process are outlined. It is argued that 'ecologization' of the current political-economic regime can in a certain sense be regarded as a continuation of this development. Due attention is given to social conditions which may be favourable or impedimental to an ecologization of 'the economy.' It is pleaded that environmental policies should use the so-called trickle-down effect to their advantage. KEYWORDS: Ecology, economy, historical-sociological aspects. Graduate School of Social Science, University of Amsterdam, Oude Hoogstraat 24, 1012 CE Amsterdam, The Netherlands.

Schmidt, J. C., et al. "Science and values in the Grand Canyon," BioScience 48(1998):735-748.

Schmidt, Karen F., "Green Education Under Fire," Science 274 (December 13, 1996):1828-30. Conservative critics contend that teachers and texts are feeding children biased and incomplete scientific information about the health of the planet, but advocates say the charges are overblown. Some complain about math texts with word problems about deforestation or fossil fuel use. Some complain the education is flaky: "Recycling is good for the planet." Some complain children are being fed doomsday visions. Some complain children are being made to feel guilty about the American lifestyle, with energy use for hot tubs compared with that in the third world. Environmental advocates reply that their materials are more balanced than the conservative ones, and that education needs to face up to the environmental crisis. The U. S. National Education Act of 1990 is up for renewal this year, and under debate. Short, provocative article could be used in class to stimulate discussion on teaching values and science and advocacy. (v8,#1)

Schmidt, Paul F. Review of Wilderness as Sacred Space. By Linda H. Graber. Environmental Ethics 1(1979):186-88.

Schmidt, Ralph, Berry, Joyce K., and Gordon, John C., eds., Forests to Fight Poverty. New Haven: Yale University Press, 1999. 200 pages. \$ 15.00 paper. The links between poverty and deforestation, and between sustainable forestry and the reduction of poverty. Successes and failures in agroforestry, developing and maintaining national parks, interactions between forests, rural poor, land ownership, and property rights. Schmidt is director of the Program on Forests, Sustainable Energy and Environment Division, United Nations Development Program. Berry is in natural resources at Colorado State University. Gordon is in forestry and environmental studies, Yale University. (v.9,#4)

Schmidt, Robert J., Jr. "International Negotiations Paralyzed by Domestic Politics: Two-Level Game Theory and the Problem of the Pacific Salmon Commission." Environmental Law 26, no.1 (1996): 95. An in-depth look at the failed negotiations between Canada and the United States over the harvesting of Pacific salmon. Relying upon models of two-level game theory in the arena of international negotiations, Schmidt provides insight into the "why" of the current impasse and the "how" of resolving it. Schmidt concludes that resolution of the salmon allocation dispute between the United States and Canada may depend on first resolving domestic disputes between the State of Alaska and the States of Oregon and Washington. (v7, #3)

Schmidtz, David and Willott, Elizabeth, eds., Environmental Ethics: What Really Matters, What Really Works. New York: Oxford University Press, 2001. Sixty two selections, addressing the principal areas of inquiry in the field. 624 pages, a big anthology. I. What Really Matters: Essays on Value in Nature. Animal Liberation and the Land Ethic, Extending the Realm of Rights, Species Equality and Respect for Nature, Environmental Holism, Wildness, Ecofeminism. II. What Really Works: Essays on Human Ecology. Human Population. Preserving Wilderness, Sustainable Use and Institutional Structure, Poverty as an Environmental Problem, Vanishing Resources, Cost-Benefit Analysis, Environmentalism in Practice. Both editors are at the University of Arizona. Adding this to Peter S. Wenz, Environmental Ethics Today, released last year, and Anthony Weston, An Invitation to Environmental Philosophy (1998), Oxford continues a strong tradition, over a decade, of substantial releases in environmental ethics and philosophy. (v.12,#4)

Schmidtz, David and Matt Zwolinski. "Virtue Ethics and Repugnant Conclusions." In Ronald Sandler and Philip Cafaro (eds.), Environmental Virtue Ethics (Lanham, MD: Rowman and Littlefield, 2005).

Schmidtz, David, "When Preservationism Doesn't Preserve," Environmental Values 6(1997):327-340. ABSTRACT: According to conservationism, scarce and precious resources should be conserved and used wisely. According to preservation ethics, we should not think of wilderness as merely a resource. Wilderness commands reverence in a way mere resources do not. Each philosophy, I argue, can fail by its own lights, because trying to put the principles of conservationism or preservationism into institutional practice can have results that are the opposite of what the respective philosophies tell us we ought to be trying to achieve. For example, if the wisest use of South American rainforests is no use at all, then in that case conservationism by its own lights defers to preservationism. Analogously, if, when deprived of the option of preserving elephants as a resource, Africans respond by not preserving elephants at

all, then in that case preservationism by its own lights defers to conservationism. Philosophy Department, University of Arizona, Tucson, AZ, 85721-0027. schmidtz@u.arizona.edu

Schmidtz, David and Matt Zwolinski. Review of Dale Jamieson, ed. A Companion to Environmental Philosophy. Environmental Ethics 25(2003):99-104. (EE)

Schmidtz, David. Review of Nature's Interests? Interests, Animal Rights, and Environmental Ethics. By Gary E. Varner. Environmental Ethics 21(1999):433-436.

Schmidtz, David. "Natural Enemies: An Anatomy of Environmental Conflict." Environmental Ethics 22(2000):397-408. Sometimes people act contrary to environmentalist values because they reject those values. This is one kind of conflict: conflict in values. There is another kind of conflict in which people act contrary to environmentalist values even though they embrace those values: because they cannot afford to act in accordance with them. Conflict in priorities occurs not because people's values are in conflict, but rather because people's immediate needs are in conflict. Conflict in priorities is not only an environmental conflict, but also often an economic conflict, a conflict rooted in differing economic circumstance. Such a conflict cannot be resolved as an environmental conflict unless it is also resolved as an economic one. (EE)

Schmidtz, David. Review of Laura Westra. An Environmental Proposal for Ethics: the Principle of Integrity: (Lanham, Md.: Rowan and Littlefield, 1994). (EV)

Schmidtz, David, "Are All Species Equal?" Journal of Applied Philosophy, 15(1998):57-67. (v.14, #4)

Schmitz, Oswald J. *Ecology and Ecosystem Conservation*. Washington, DC: Island Press, 2007. This is the second volume in the new Island Press series *A Foundations of Contemporary Environmental Studies*.@ Schmitz offers a short introduction to ecological science, with chapters on the science of ecology, climate and biodiversity, population size and carrying capacity, threatened species, biodiversity and habitat fragmentation, temporal and spatial dimensions of ecosystems, ecosystem services, protecting biodiversity and ecological function, and a science-based ecosystem conservation ethic.

Schmitz, Oswald J. *AEffects of Predator Hunting Mode on Grassland Ecosystem Function*.@ *Science* Vol. 319, no. 5865 (15 February 2008): 952-54. Predators, by affecting prey behavior, can change both plant diversity and productivity in an ecosystem. Greenness in a system with only plants is reduced by the herbivores, but carnivores restore the greenness by suppressing herbivores. Further, the degree to which carnivores roam or sit and wait for prey affects herbivore impacts on greenness. For commentary, see *AGreen with Complexity*@ by Shahid Naeem (*Science* Vol. 319, no. 5865 (15 February 2008): 913-14). Schmitz is in forestry at Yale University.

Schmitz, Oswald J. *Ecology and Ecosystem Conservation*. Washington, DC: Island Press, 2007. This is the second volume in the new Island Press series *A Foundations of Contemporary Environmental Studies*.@ Schmitz offers a short introduction to ecological science, with chapters on the science of ecology, climate and biodiversity, population size and carrying

capacity, threatened species, biodiversity and habitat fragmentation, temporal and spatial dimensions of ecosystems, ecosystem services, protecting biodiversity and ecological function, and a science-based ecosystem conservation ethic.

Schmutz, Josef K. "Disciplinary Thinking in Conservation Biology." Conservation Biology 10, no.3 (1996): 698. (v7, #3)

Schneider, Ingrid E., Burnett, Wesley G. "Jordan: Arid-Land Forestry," Journal of Forestry 95(no.2, 1997):16. (v8,#1)

Schneider, Paul, "When a Whistle Blows in the Forest ..." Audubon, January/February 1992. A study of the fates of U. S. Forest Service employees who question the policies of their agency. There are service mandates to cut more trees, but such mandates often conflict with other mandates, in environmental legislation, for sustainable forestry, protection of endangered species, biodiversity, and ecosystem health. Employees who maintain they are obeying the law, or who maintain that they are doing what good scientific management requires, may find they have lost their jobs, or been transferred to harmless positions. The most celebrated such case is that of John Mumma, regional forester in charge of 15 national forests in Montana, northern Idaho, and parts of Washington and the Dakotas, who was forced to resign for his refusal to cut as much timber as was ordered. His resignation provoked a Congressional investigation. "I am in shock at what's happening on the national forests," he told Congress. (v3,#3)

Schneider, Paul. The Adirondacks: A History of America's First Wilderness. New York: Henry Holt and Co., 1997. 365 pages. \$ 25 cloth. Bob Marshall's father, Louis Marshall, fought for the "forever wild" clause of New York State's constitution, the primary precedent for statutory protection of wilderness. A narrative history of the Adirondacks--the fur trade, the French and Indian Wars, land speculation schemes, mining, farming, logging, and the "forever wild" response. Schneider thinks New Yorkers are finally "mature" in their relationship to the Adirondacks. (v.9,#3)

Schneider, Stephen H., ed. Encyclopedia of Climate and Weather. New York: Oxford University Press, 1997. 960pp in two volumes. \$195. Accessible descriptions and illustrations of all of the essentials of meteorology. The many ecological and environmental issues that concern everyone on the planet. A picture of the past, present, and future of our global environment. (v8,#1)

Schneider, Stephen H., Global Warming: Are We Entering the Greenhouse Century? San Francisco: Sierra Club Books, 1989. \$18.95. (v3,#1)

Schneiderman, L. J., Fein, J. E. and Dubler, N., "The Limits of Dispute Resolution," Hastings Center Report 31(no.6, 2001): 10-11. (v.13,#2)

Schnell, Izhak, "Transformations in the Myth of the Inner Valleys as a Zionist Place," Philosophy and Geography 3 (1998): 97-118. Schnell is lecturer in the geography department at Tel Aviv University. (P&G)

Schnitzler, Annik, Jean-Claude Génot, Maurice Wintz and Brack W. Hale, "Naturalness and Conservation in France," *Journal of Agricultural and Environmental Ethics* 21(2008):423-436. This article discusses the ecological and cultural criteria underlying the management practices for protected areas in France. It examines the evolution of French conservation from its roots in the 19th century, when it focused on the protection of scenic landscapes, to current times when the focus is on the protection of biodiversity. However, biodiversity is often socially defined and may not represent an ecologically sound objective for conservation. In particular, we question the current approach to protecting a specific type of biodiversity that is at the basis of traditional landscape but does not value systems that are left to develop naturally (i.e., without significant human intervention). We present several examples of current attempts in France and Europe to managing traditional ecosystems and then discuss the values that exist in systems that develop naturally. We feel the latter systems often have much to offer in terms of biodiversity as well as providing important sites for the study of dynamic ecological communities in an ever-changing world. The lead author is at the Laboratory LIEBE-CNRS UMR 7146, UFR Sci F.A., University Paul Verlaine Metz, Rue du Général Delestraint, F-67070 Metz, France.

Schoeman, MJ 1990. Holisme: die herowering van 'n ou wysheid in 'n moderne konteks. *Hervormde Teologiese Studies* 46, 267-292. (Africa)

Schoen, D. J. and Brown, A. H. D., "The Conservation of Wild Plant Species in Seed Banks," *Bioscience* 51(no.11, 2001): 960-66. (v.13,#2)

Schoen, Deborah. "Primary Productivity: The Link to Global Health," *Bioscience* 47(no.8, 1997):477. A look at how terrestrial ecosystems will respond to changing climate. (v8,#3)

Schoenfarber, Jay, "Capitalizing on Environmental Disasters: Efficient Utilization of Green Capital", *Tulane Environmental Law Journal*, 9(No.1, 1995):147- . (v7,#1)

Schoenfeld, Gabriel, "The Soviet Union: Rad Storm Rising," *Atlantic*, December 1990. A ghastly tour of a land of radioactive sausage, poisoned onions, and bald children. The accident at Chernobyl called world attention to the deficiencies of the Soviet Union's nuclear-energy problem, but few people are yet aware of just how contaminated by radioactivity the Soviet Union is. In several of at least ten major accidents at nuclear power stations there have been significant emissions of radioactivity. Much farmland and food is contaminated. In 1989 there were over 200 unplanned shutdowns or reductions of performance. Schoenfeld is a senior fellow at the Center for Strategic and International Studies, Washington, D.C. (v1,#4)

Schoenhoff, D. The Barefoot Expert: The Interface of Computerized Knowledge Systems and Indigenous Knowledge Systems. Connecticut: Greenwood Press, 1993. (v6,#4)

Schoennagel, Tania, Monica Turner, Daniel Kashian, and Andrew Fall. "Influence of fire regimes on lodgepole pine stand age and density across the Yellowstone National Park (USA) landscape." *Landscape Ecology* Vol. 21, no. 8 (2006): 1281-96.

Schoennagel, Tania; Veblen, Thomas T.; Romme, William H., "The Interaction of Fire, Fuels, and Climate across Rocky Mountain Forests," BioScience 54(no.7, 1 July 2004):661-676(16). (v. 15, # 3)

Schofield, Timothy, "The Environment as an Ideological Weapon: A Proposal to Criminalize Environmental Terrorism." Boston College Environmental Affairs Law Review 26(No. 3, Spring 1999):619- . Global ecosystems are emerging as both targets and conduits of terrorist activity. But available law is quite ineffective here. A new criminal law of ecocide would be more effective. (v10,#4)

Schoijet, Mauricio, "Limits to Growth and the Rise of Catastrophism," Environmental History 4 (No. 4, Oct 01 1999): 515- . (v.11,#2)

Schollmeier, Paul, "Why We Love the Land," Ethics and the Environment 2(1997):53-65. Philosophers today recognize that we love the land, but they do not explain satisfactorily why we do. Holmes Rolston, for example, argues that we find values in nature, but he does not explain why we love them. J. Baird Callicott explains why we love nature, but he does not argue that it has values in itself. I want to suggest that we feel love for the land because it is itself lovable. I agree with Rolston that an ecosystem has properties which are intrinsically valuable and inherent, but I wish to explain why we feel love for these properties. My approach rests on Aristotle's conception of friendship and its object. I argue that much as we love our friends for their sakes, so too we can love ecosystems for their sakes. A friend and an ecosystem can have qualities which are of a similar sort and make them both lovable. And, as we take a mental pleasure in seeing a friend fare well, so too we may take a mental pleasure in seeing an ecosystem function well. Schollmeier is in philosophy at the University of Nevada, Las Vegas. (E&E)

Scholtmeijer, M., Animal victims in modern fiction: From sanctity to sacrifice. Toronto: University of Toronto Press, 1993.

Scholtmeijer, Marian, Animal Victims in Modern Fiction: From Sanctity to Sacrifice. Toronto: University of Toronto Press, 1993. (v7,#1)

Schomberg, Ren von, ed., Contested Technology Ethics, Risk and Public Debate. Tilburg, The Netherlands: International Centre for Human and Public Affairs, 1996. 265 pages, index. ISBN 90-802139-2-6. Dfl 59,- (Dutch guilders). New discursive procedures for technology assessment are introduced and reflected within the framework offered by critical theories such as Ulrich Beck's analysis of the 'risk society,' Jurgen Habermas's theory of communicative action, and Anthony Giddens's approach to late modernity. The papers collected for this volume address the following themes: contested technology: the social-philosophical dimension; public debate and technological innovation, ethics of risk assessment and implications for the legal system. Contributors include Wolfgang van den Daele, Fritz Gloede, Ruth McNally, and Peter Wheale. (v7, #3)

Schönherr, Hans-Martin, Technik und die Schwäche; Ökologie nach Nietzsche, Heidegger, und dem 'schwachen' Denken [in German, Technology and weakness; ecology after Nietzsche, Heidegger and weak thinking], Wien: Passagen 1989.

Schoonmaker, Peter K.; Hagen, Bettina von; and Wolf, Edward C., eds. The Rain Forests of Home: Profile of a North American Bioregion. Washington, D.C.: Island Press, 1996. 480 pages. \$50 cloth, \$27 paper. A diverse array of thinkers present a multilayered, multidimensional portrait of the coastal temperate rain forest and its people. Joining natural and social science perspectives, the authors provide readers with an understanding of the regions natural and human history, along with a vision of its future and strategies for realizing that vision. (v7, #3)

Schoonmaker, Peter, vonHagen, Bettina, Wolf, Edward, eds. The Rain Forest of Home. Covelo, CA: Island Press, 1997. 447 pp. \$50 cloth, \$27 paper. The characteristics, history, culture, economy, and ecology of the U. S. coastal temperate rain forest. (v8,#2)

Schramm, James and Robert Stivers, Christian Environmental Ethics: A Case Method Approach. Maryknoll, NY: Orbis Books, 2003. (v.14, #4)

Schreiner, Susan E., The Theater of His Glory: Nature and the Natural Order in the Thought of John Calvin. Durham, NC: Labyrinth Press, 1991. 164 pages. \$ 30.00. The concept of God's providence is a kind of arch that frames both the concept of nature and of grace in Calvin's thought. With sympathetic attention to Calvin's concept of natural law. (v3,#4)

Schreurs, MA, "Divergent Paths: Environmental Policy in Germany, the United States, and Japan," Environment 45(no.8, 2003):8-17. (v.14, #4)

Schreurs, Miranda A., "Japan's Changing Approach to Environmental Issues," Environmental Politics (Summer 1997):150-. (v.8,#4)

Schrock, John Richard, "Dissection," The Kansas School Naturalist vol 36, no. 3 (February 1990):3-15. "The loss of dissection, vivisection, and experimentation from public school science classes may pose a more serious threat to the intellectual and physical health of the human population than recent challenges to animal use in biomedical research. ... The absolute need for examination of real organisms in the classroom and in other science education settings is not self-evident. Indeed, a shallow and naive understanding of the learning process is used to purvey videotapes, models, computer simulations and stuffed animals as equivalent or superior to real laboratory experiences. The function of this issue of this issue of the Kansas School Naturalist is to clarify how the examination of real material is essential to all students' science literacy, and to help biology teachers 'hang tough.'" Schrock is in the Department of Biology at Emporia State University and directs the biology education program there. See also "Classroom Cut-Ups" under videotapes and item on dissection protested in issues, below. (v1,#4)

Schroeder, Christopher H., "Rights Against Risks," Columbia Law Review 86(1986):495-562. Through "Do no harm" is a basic duty, we permit technology that puts persons at risk, for

example by environmental pollution. The realities of modern technology mean that we must permit some risky action, imposed on individuals who have not consented to it, and also unintentional in the objectives sought by the corporation involved, through action that raises the probability of harm for many and does in fact result in injuring, sometimes killing statistical persons. This can be consistent with a concept of rights that places the utmost importance on the sanctity and autonomy of individuals. "A blunt lesson emerges from this analysis: certain risks can be imposed justifiably on others" (p. 553). "Some nonzero level of risk will almost certainly be taken to be acceptable because of the substantial adverse consequences attendant to any more severe levels of risk prevention" (p. 562). Schroeder is professor of law, Duke University. (v5,#4)

Schroeder, Doris, *APublic Health, Ethics, and Functional Foods,*@ *Journal of Agricultural and Environmental Ethics* 20(2007):247-259. Functional foods aim to provide a positive impact on health and well-being beyond their nutritive content. As such, they are likely candidates to enhance the public health official=s tool kit. Or are they? Although a very small number of functional foods (e.g., phytosterol-enriched margarine) show such promise in improving individual health that Dutch health insurance companies reimburse their costs to consumers, one must not draw premature conclusions about functional foods as a group. A large number of questions about individual products= safety, efficacy, and affordability need to be answered before they might become an important part of the public health agenda. More importantly, though, the costs and benefits of functional foods relative to alternative mechanisms of public health improvement need to be ascertained. Alternative scenarios that warrant investigation are mainly the supply of nutraceutical ingredients in pill form targeting Aat risk@ groups and consumer education on diet and lifestyle. Schroeder is at the Centre for Professional Ethics, University of Central Lancashire, Preston, UK.

Schroeder, H., "Experiencing Nature in Special Places: Surveys in the North-Central Region," *Journal of Forestry* 100(no.5, 2002): 8-15. (v.13,#4)

Schroeder, Richard A., "Geographies of Environmental Intervention in Africa," *Progress in Human Geography* 23(no. 3, 1999):359- . (v.10,#3)

Schrom, D; Bradley, G, "Can We Use Science to Know Our Ends?", *BioScience* 54 (no.4, 2004): 284-285(2).

Schroyer, Trent, ed. *A World That Works: Building Blocks for a Just and Sustainable Society* (New York: Bootstrap Press, 1997). 368 pp. US \$ 19.50. Over thirty-five papers from The Other Economic Summit (TOES) held in June 1997 in Denver, CO. Since 1984, The Other Economic Summit (TOES) has convened to debate alternatives to the official agenda being addressed by the government leaders at the Group of 7 Economic Summit. Trent Schroyer is Director of the Institute for Environment Studies and Professor of Sociology-Philosophy at Ramapo College of New Jersey. (v8,#3)

Schroyer, Trent, *A World That Works: Building Blocks for a Just and Sustainable Society.* New York: Bootstrap Press, 1997. 368 pp., \$ 19.50. The Other Economic Summit (TOES) was held in June 1997 in Denver, CO, on the theme "Working Alternatives: A World That Works." The

Other Summit debates alternatives to the official agenda being addressed by the government leaders at the Group-7 Economic Summit. The key messages from Denver have been compiled into this book, over thirty-five papers. It and several other TOES books are available from Bootstrap Press, 777 UN Plaza, Suite 3C, New York 10017 USA, Tel: 1-800-316-2739, Email: cipany@igc.apc.org. For more information about TOES, contact Betty Little, P.O. Box 292, Killington, VT 07920 USA, Email: BettyLittle.parti@ecunet.org; or Trent Schroyer, Professor of Sociology-Philosophy, Institute for Environmental Studies, Ramapo College of New Jersey, 505 Ramapo Valley Road, Mahwah, NJ 07430 USA, Tel: 201-529-7740, Fax: 201-529-7508, Email: tSchroye@ultrix.ramapo.edu. (v8,#3)

Schueler, Donald G., Incident at Eagle Ranch: Predators as Prey in the American West (Tucson: University of Arizona Press, 1991). \$ 17.95 paper. Shooting of eagles sets the stage for discussion of predator control versus endangered species protection. (v2,#2)

Schuetz, Joachim. "Sustainability, Systems and Meaning." Environmental Values 9(2000):373-382. ABSTRACT: Sustainability calls for the globe as a relevant unit of analysis, and systems thinking is an appropriate theoretical framework for this task. Yet systems thinking is employed in two contrary ways. The 'accommodating' systems approach is closely linked to the classical concept of science. It bases its credibility on the exclusion of values or any other subjective elements. The 'creative' way explicitly requires a subjectively recognised leading principle, according to which the system organises itself. Following the 'creative' approach, the paper argues that sustainability should be interpreted as a quest for conscious adoption of a global systems identity. It is this assigned system purpose that gives single actions and judgements within systems their meaning. Since subjective elements will always remain antagonistic in any classical approach, only a 'creative' approach offers possibilities for integrating cybernetic systems thinking, giving rise to a concept of systems guided by meaning. KEYWORDS: Sustainability, systems identity, meaning, artificial outside position. Schuetz resides at Obere Heslibachstr, 72, CH-8700 Kuesnacht, Switzerland. (EV)

Schull, Jonathan, "Are Species Intelligent?" Behavioral and Brain Sciences 13(1990):63-108. "Plant and animal species are information-processing entities of such complexity, integration, and adaptive competence that it may be scientifically fruitful to consider them intelligent. The possibility arises from the analogy between learning in organisms and evolution in species. Intentional and cognitive ability are now ascribed to animal, human, and artificial intelligence systems that process information adaptively, and that manifest problem-solving abilities. The structural and functional similarities between such systems and species are extensive. As biological entities, and as processors of information, plant and animal species are no less complicated than, say, monkeys. Their adaptive achievements (the brilliant design and exquisite production of biological organisms) are no less impressive, and certainly rival those of the animal and electronic systems to which the term 'intelligence' is routinely applied today. So perhaps we should recognize them as intelligent systems of considerable scope." This is a "target article," and open peer commentary follows by two dozen persons. Schull is in the Department of Psychology, Haverford College, Haverford, PA.

Schullery, Paul, Lewis and Clark Among the Grizzlies: Legend and Legacy in the American West. Helena, MT: Falcon Press, 2002. What Lewis and Clark's experiences revealed

regarding the great bears and the men who encountered them. Schullery, a historian and a naturalist, well-known for his attention to Yellowstone National Park, examines the expedition's rich legacy of grizzly lore in the light of modern scientific knowledge and separates the legends from the still quite thrilling realities. "I suspect that in no other sphere were their perceptions more astute, their imaginations more challenged, and their dreams more vividly fulfilled, than in their dealings with the grizzly bear" (p. 9). (v.13,#4)

Schullery, Paul and Whittlesey, Lee, "Mountain Goats and the Greater Yellowstone Ecosystem: A Prehistoric and Historical Context," Western North American Naturalist 61(no. 3, 2001):289-307. Native mountain goats were near Yellowstone in the past but no authority has located them there previously. Some goats are now found in Yellowstone, presumably migrating from introduced populations in nearby Montana, though possibly from native populations in Idaho further away. Park policy does not welcome the goats. Both authors are with Yellowstone National Park, Yellowstone Center for Resources. (v.12,#3)

Schullery, Paul, Searching for Yellowstone: Ecology and Wonder in the Last Wilderness. Boston: Houghton Mifflin, 1997. An insightful history of trying to figure out the meaning of Yellowstone National Park. Yellowstone's "discovery" by whites followed 10,000 years of occupation and use by native Americans, and Schullery can both say that the native Americans were "very aggressive land managers" (p. 11) and, on the next page, that there is a sense in which "these Indians have left fewer enduring evidences of their occupancy than the beaver, badger, and other animals on which they subsisted" (p. 12). A repeated theme throughout the book is that things are more complex than they seem, whether the biology, the politics, or the history. The park's founding became a creation myth for the conservation movement; the image was composed of equal parts of myth, hype, and rare glimpses of the incredible wonder of the place. Yellowstone's image as a peaceful, unchanging American wilderness is belied by a century of bitter debate over what its real purpose should be, as our continually changing relationship with nature has altered our perceptions about wild country. Now surpassing 100 million visitors, Yellowstone can become a global conscience, a barometer of the health of the planet. Schullery has served Yellowstone Park in several capacities, including park historian, chief of cultural resources, and senior editor in the Yellowstone Center for Resources. (v8,#3)

Schullery, Paul, "Yellowstone's Ecological Holocaust: The Legacy of Market Hunting in the Park's First Decade," Montana: The Magazine of Western History 47(no. 3, Autumn, 1997):16-33. Elk may have always been abundant in Yellowstone National Park; competent authorities are divided over what the pre-European population was. Elk were decimated by first legal and later illegal hunting. Various management strategies have left a wildlife population that is only partially natural, yet also significantly natural, with continuing debate about how natural it is, and ought to be. Article adapted from Schullery, Searching for Yellowstone: Ecology and Wonder in the Last Wilderness, Houghton Mifflin. Schullery is with Yellowstone National Park.

Schullery, Paul, "Theodore Roosevelt: The Scandal of the Hunter as a Nature Lover." Manuscript paper, invited address at the Conference on Theodore Roosevelt and the Birth of Modern America, April 19-21, 1990, Hofstra University, Hempstead, NY. An attempt to evaluate Roosevelt's ethic and practice of hunting and to compare it with shifting attitudes

toward hunting in America today. Contact Paul Schullery, Research Division, Yellowstone Park, WY 82190. Phone 307/344-7381, ext. 2110. (v1,#2)

Schullery, Paul, Real Alaska: Finding Our Way in the Wild Country. Mechanicsburg, PA: Stackpole Books, 2001. The long-time interpreter of Yellowstone National Park visits Alaska, mixes with tourists and bears, and salmon and trout, and tries to make sense of wilderness preservation and our deeply felt need to connect with something truly wild. The dilemmas inherent in managing national parks and wilderness areas. (v.12,#4)

Schullery, Paul, "What is Natural? Philosophical Analysis and Yellowstone Practice," Western North American Naturalist 61(no. 3, 2001):255-256. Introducing a series of articles on exotics in Yellowstone National Park, from the 5th Biennial Science Conference on the Greater Yellowstone Ecosystem. (v.12,#3)

Schullery, Paul, ed., The Yellowstone Wolf: A Guide and Sourcebook. Norman: University of Oklahoma Press, 2003. Wolves in Yellowstone, from prehistoric times, their elimination, and the recent struggle to restore them. What wolves have to offer the human spirit. Schullery is a Yellowstone Park historian. (v.14, #4)

Schultz, Robert C., and J. Donald Hughes, eds. Ecological Consciousness. Reviewed in Environmental Ethics 5(1983):355-59.

Schultz, Robert C., "Thoughts on Ecological Ethics," Illahee: Journal for the Northwest Environment 10(1994):119-122. "Environmental ethics begins with us. We urgently need to learn new ways of thinking, but these cannot be brought in and imposed on people from the outside. Implementing laws has something to do with public will, and public will has something to do with ethical consciousness. All of ethics has a kind of unfinished quality about it; environmental ethics has a not-yet-begun quality. No well ordered textbooks exist in which to seek the distilled truth of centuries. `Nature as dead stuff' is our heritage from the modern era. Alternative visions presume the existence of intrinsic value independent of human desires." Schultz is professor of philosophy in the Liberal Studies Program, University of Washington, Bothell. (v5,#3)

Schumacher, Sabine; et al., "Modeling the Impact of Climate and Vegetation on Fire Regimes in Mountain Landscapes," Landscape Ecology 21 (no.4, May 2006): 539-554.

Schumaker, John R., O'Laughlin, Jay, Freemuth, John C. "Why Don't Federal Employees Use Alternative Dispute Resolution More Often," Journal of Forestry 95(1997):20. (v8,#1)

Schupp, Jonathan. Environmental Guide to the Internet. Rockville, MD: Government Institutes (4 Research Place, Suite 200, Rockville, MD 20850), 1995. 200 pages. \$49. 94 listservs, 11 usenet news groups, 45 electronic journals, 29 bulletin board systems. (v6,#1)

Schuster, Ervin G., and Krista M. Gebert, "Property Tax Equivalency on Federal Resource Management Lands," Journal of Forestry 99(no.5, May 2001): 30-. A look at the relationship

between federal land payments and the likely property taxes those lands would generate if taxed at the same rate as other lands. (v.12,#3)

Schutze, Christian. "The Political and Intellectual Influence of Hans Jonas." The Hastings Center Report 25(no.7, 1995):40. (v7,#1)

Schwab, Jim. Deeper Shades of Green: The Rise of Blue Collar and Minority Environmentalism in America. San Francisco: Sierra Club Room, 1994. 490 pages hardbound, \$30. Schwab, who is with the American Planning Association in Chicago, presents the case that people are fighting for the basic right to participate in decisions about their environment. (v6,#1)

Schwartz, Barry, The Paradox of Choices. San Francisco: HarperCollins, 2004. More options make us less happy, especially in American consumerism. The more choices we ponder or the more time we invest in making a choice, the worse we tend to feel about our decision. The typical supermarket has more than 30,000 items. The author found in the market where he shops: 85 varieties of crackers, 285 of cookies, 230 different soups, 120 pasta sauces and 175 kinds of salad dressing. At some point "choice no longer liberates. It might even begin to tyrannize." Schwartz recommends "satisficing" (following Herbert Simon), choosing any one that is good enough, and forgetting about the best, or the most, or any maximizing. (v. 15, # 3)

Schwartz, Daniel, "A Rabbi's Reply: In God's Green Earth We Trust." The Washington Post, December 1, 1996, p. C2. Reply to Gelernter, David, "In Rats We Trust: Making a Moral Case Against the Tryanny of Environmentalism." The Washington Post, November 17, 1996, p. C1, C5. "Religion and science alike agree that there is a profound integrity to the fabric of life--and when we tear at that fabric, we, in the end, endanger ourselves, especially, all too often, the poor and disenfranchised of the world. There is no escaping it--factually and morally, we are part of, not apart from nature." Schwartz is rabbi at Temple Shalom in Chevy Chase, Maryland, and associate director of the National Religious Partnership for the Environment. (v.7,#4)

Schwartz, Eilon. "Bal Tashchit: A Jewish Environmental Precept." Environmental Ethics 19(1997):355-374. The talmudic law bal tashchit ("do not destroy") is the predominant Jewish precept cited in contemporary Jewish writings on the environment. I provide an extensive survey of the roots and differing interpretations of the precept from within the tradition. The precept of bal tashchit has its roots in the biblical command not to destroy fruit-bearing trees while laying siege to a warring city. The rabbis expand this injunction into the general precept of bal tashchit, a ban on any wanton destruction. Such a precept was interpreted in differing ways, along a continuum whose poles I describe as the minimalist and maximalist positions. In the minimalist position, interpreters limit the application of bal tashchit to only those situations in which natural resources and property are no longer viewed as having any economic or aesthetic worth. In the maximalist position, interpreters expand the application of bal tashchit to any situation in which nature and property are being destroyed for something other than basic human needs. Finally, I compare and contrast the substance and style of the discussion of bal tashchit from within the Jewish tradition with the contemporary discussion of environmental ethics. Schwartz is in the School of Education, Hebrew University, Jerusalem. (EE)

Schwartz, J, "The Impact of State Capacity on Enforcement of Environmental Policies: The Case of China", Journal of Environment and Development 12(no,1, 2003)50-81.

Schwartz, M. W., Jurjavec, N. L., and O'Brien, J. M., "Conservation's Disenfranchised Urban Poor," Bioscience 52(no.7, 2002): 601-06. (v.13,#4)

Schwartz, Mark W., ed. Conservation In Highly Fragmented Landscapes. Washington, D.C.: Smithsonian Institution Press, 1997. 448 pp. \$49.95. The difficulties in making practical decisions regarding conservation when the habitat has been highly fragmented. Illinois as a case study since that state was settled heavily and early and had lost most of its natural habitat before the conservation movement began. (v8,#3)

Schwartz, O. Douglas, "Indian Rights and Deep Ecology: Changing Perspectives and A Modest Proposal," Environmental Ethics 9(1987):291-302. A discussion of the recent tensions between environmentalists and Native American Indians regarding the use of the natural environment, particularly the hunting of endangered species. (Katz, Bibl # 1)

Schwartz, Sandra, Chance, Graham W. "Children First." Alternatives 25(No.3, Summer 1999):20- . Environmental contaminant protection policy needs to be rewritten to reflect the needs of our most vulnerable citizens. (v10,#4)

Schwartz, Sheila. "The Humane Hypothesis: Fostering Nonviolence at Science Fairs," The Animals' Agenda 17(no.4, 1997):35. How the pursuit of science and compassionate values can come together. (v8,#3)

Schwartz, O. Douglas. "Indian Rights and Environmental Ethics." Environmental Ethics 9(1987):291-302. The American environmental movement has a longstanding tradition of respect for American Indians. Recently, however, there has been a noticeable erosion of that tradition. The most volatile issues in the Indian/environmentalist controversy at present are those involving the right of many Indians to hunt and fish unrestricted by state or federal conservation regulations. Especially where endangered species are involved, some environmentalists have been quick to recommend that this unique privilege accorded to Indians be curtailed. While I share a deep concern for the preservation of endangered species and ecosystems, I suggest that the environmental movement has so far been insensitive to the concerns of the American Indian community. Rather than simply seeking to take away rights to which Indians have been entitled for decades, environmentalists should be prepared to negotiate on such matters. As an example, I suggest that--in exchange for the Indians' voluntary surrender of some of their treaty rights--environmentalists might agree to seek legislation opening national forest lands to Indians who wish to live subsistence life styles, as some Alaskan wilderness lands are now open to the Inuit. Schwarz is an independent scholar in Concord, NH. (EE)

Schwartzchild, Steven S., "The Unnatural Jew," Environmental Ethics 6(1984):347-362. A highly controversial, and almost unreadable, essay that asserts that Jewish tradition presents a fundamental dichotomy between humanity and nature. Comments by David Ehrenfeld and Joan G. Ehrenfeld in Environmental Ethics 7 (1985): 93-95, and by Jeanne Kay, pp. 189-191. (Katz, Bibl # 1)

Schwarze, Reimund and Niles, John O., "The Long-Term Requirement for Clean Development Mechanism Forestry and Economic Liability," The Journal of Environment and Development 9(no.4, DEC 01 2000):384- . (EE v.12,#1)

Schwarzschild, Steven S. "The Unnatural Jew." Environmental Ethics 6(1984):347-62. I argue that Judaism and Jewish culture have paradigmatically and throughout history operated with a fundamental dichotomy between nature ("what is") and ethics (i.e., God and man--"what ought to be"). Pagan ontologism, on the other hand, and the Christian synthesis of biblical transcendentalism and Greek incarnationism result in human and historical submission to what are acclaimed as "natural forces." Although in the history of Jewish culture such a heretical, quasi-pantheistic tendency asserted itself, first in medieval kabbalism and then in modern Zionism, from a traditional Jewish standpoint nature remains subject to humanly enacted ends. Evidence for this general thesis can be found in biblical, Talmudic, medieval philosophic, and mystical literature, in modern religious, poetic, and Zionist literature, and in the history of general philosophy. For replies to this article, see: Ehrenfeld, David and Joan G. Ehrenfeld. "Some Thoughts on Nature and Judaism." Environmental Ethics 7(1985):93-95; and: Kay, Jeanne. "Comments on 'The Unnatural Jew.'" Environmental Ethics 7(1985):189-91. Schwarzschild is in the philosophy department, Washington University, St. Louis, MO. (EE)

Schweitzer, Lisa. Review of Road Ecology: Science and Solutions. By Richard T. T. Forman, Daniel Sperling, John A. Bissonette, Anthony P. Clevenger, Carol D. Cutsall, Virginia H. Dale, Lenore Fahrig, Robert France, Charles R. Goldman, Kevin Heanue, Julia A Jones, Frederick J. Swanson, Thomas Turrentine, and Thomas C. Winter.

Schwela, Dieter, Gary Haq, Cornie Huizenga, Wha-Jin Han, Herbert Fabian, and May Ajero. *Urban Air Pollution in Asian Cities: Status, Challenges and Management*. London: Earthscan, 2007. The authors discuss the effects of air pollution on the environment, human health, agriculture, and cultural heritage in twenty Asian cities.

Science, 21 July, 1995, contains fourteen articles on frontiers in ecology, under the theme "Big Questions for a Small Planet." (v6,#3)

Science, 25 July 1997 (vol. 277, no. 5325) is a theme issue on "Human-Dominated Ecosystems."

Contains:

--Vitousek, Peter M., Harold A. Mooney, Jane Lubchenco, and Jerry M. Melillo, "Human Domination of Earth's Ecosystems," (pp. 494-499). Human alteration of Earth is substantial and growing. Between one-third and one-half of the land surface has been transformed by human action; the carbon dioxide concentration in the atmosphere has increased by nearly 30 percent since the beginning of the Industrial Revolution; more atmospheric nitrogen is fixed by humanity than by all natural sources combined; more than half of all accessible surface fresh water is put to use by humanity; and about one-quarter of the bird species on Earth have been driven to extinction. By these and other standards, it is clear that we live on a human dominated planet.

--Chapin, III, F. Stuart, et al., "Biotic Control over the Functioning of Ecosystems," (pp. 500-504). Changes in the abundance of species--especially those that influence water and nutrient dynamics, trophic interactions, or disturbance regime--affect the structure and functioning of

ecosystems. Diversity is also functionally important, both because it increases the probability of including species that have strong ecosystem effects and because it can increase the efficiency of resource use. Differences in environmental sensitivity among functionally similar species give stability to ecosystem processes, whereas differences in sensitivity among functionally different species make ecosystems more vulnerable to change. Current global environmental changes that affect species composition and diversity are therefore profoundly altering the functioning of the biosphere.

--Matson, P. A., et al, "Agricultural Intensification and Ecosystem Properties," (pp. 504-509). Expansion and intensification of cultivation are among the predominant global changes of this century. Intensification of agriculture by use of high-yielding crop varieties, fertilization, irrigation, and pesticides has contributed substantially to the tremendous increases in food production over the past 50 years. Land conversion and intensification, however, also alter the biotic interactions and patterns of resource availability in ecosystems and can have serious local, regional, and global environmental consequences. The use of ecologically based management strategies can increase the sustainability of agricultural production while reducing off-site consequences.

--Botsford, Louis, et al., "The Management of Fisheries and Marine Ecosystems" (pp. 509-515). The global marine fish catch is approaching its upper limit. The number of overfished populations, as well as the indirect effects of fisheries on marine ecosystems, indicate that management has failed to achieve a principal goal, sustainability. This failure is primarily due to incessant sociopolitical pressure for greater harvests and the intrinsic uncertainty in predicting the harvest that will cause population collapse. A more holistic approach incorporating interspecific interactions and physical environmental influences would contribute to greater sustainability by reducing the uncertainty in predictions. However, transforming the management process to reduce the influence of pressure for greater harvest holds more immediate promise.

--Dobson, Andy P., et al., A. D. Bradshaw, and A.J.M. Baker, "Hopes for the Future: Restoration Ecology and Conservation Biology" (pp. 515-522). Conversion of natural habitats into agricultural and industrial landscapes, and ultimately into degraded land, is the major impact of humans on the natural environment, posing a great threat to biodiversity. The emerging discipline of restoration ecology provides a powerful suite of tools for speeding the recovery of degraded lands. In doing so, restoration ecology provides a crucial complement to the establishment of nature reserves as a way of increasing land for the preservation of biodiversity. An integrated understanding of how human population growth and changes in agricultural practice interact with natural recovery processes and restoration ecology provides some hope for the future of the environment.

--Noble, Ian R. and Rodolfo Dirzo, "Forests as Human-Dominated Ecosystems," (pp. 522-525). Forests are human-dominated ecosystems. Many of the seemingly lightly managed or unmanaged forests are actually in use for agroforestry or for hunting and gathering. Agroforestry does reduce biodiversity, but it can also act as an effective buffer to forest clearance and conversion to other land uses, which present the greatest threat to forested ecosystems. In forests used for logging, whole-landscape management is crucial. Here, emphasis is placed on areas of intensive use interspersed with areas for conservation and catchment purposes. Management strategies for sustainable forestry are being developed, but there is a need for further interaction among foresters, ecologists, community representatives, social scientists, and economists.

--Malakoff, David, "Extinction on the High Seas" (pp. 486-488). Biologists have long assumed that the oceans are too vast, and their habitats too prolific, for humans ever to extinguish any marine species. But now that assumption is under attack. At the same time, estimates of the number of marine species are escalating, with new discoveries. Only about 275,000 marine species have actually been described, and but estimates for coral reefs alone are at least a million species, and possibly up to 9 million, with another 10 million on the deep sea's expansive floor. (v8,#3)

Science and Engineering Ethics. An international quarterly launched in January 1995, exploring ethical issues confronting scientists and engineers. Papers are invited. Editors: Stephanie J. Bird, Massachusetts Institute of Technology, Room 12-187, 77 Massachusetts Ave., Cambridge, MA 02139; or Raymond Spier, School of Biological Sciences, University of Surrey, Guildford, Surrey, GU2 5XH, U.K. (v6,#1)

Science, June 25, 1993, is a special issue devoted to "Environment and the Economy." A lead editorial complains of the "pathological growth of [environmental] regulations." Carl Sagan and Edward O. Wilson protest against having (allegedly) been "blacklisted" by Science because their advocacy prejudices their scientific credibility. Articles: "Protecting the Environment with the Power of the Market," "Is Environmental Technology a Key to a Healthy Economy?" "Can Sustainable Farming Win the Battle of the Bottom Line? Few Options for Third World Farmers," "How to Make the Forests of the World Pay Their Own Way," and "Wetlands Trading is a Loser's Game Say Ecologists: Bringing Vanished Wetlands to Life," (i.e. mitigation doesn't work). (v4,#2)

Science of the Total Environment, The, 184, Nos. 1-2 (17 May 1996) is a special issue on "Ethical and Philosophical Issues in Environmental Epidemiology" and was guest edited by Colin Soskolne and Roberto Bertollini. Philosophers with articles in the issue include: Holmes Rolston III, Laura Westra, Dale Jamieson, Earl R. Winkler, and Andrew Light. (v7, #3)

Scientific American. September 1989, vol. 261, no. 3, is a special issue devoted to "Managing Planet Earth." Eleven articles are on atmosphere, climate, water, biodiversity, population, agriculture, manufacturing, sustainable development, and a sustainable world. The issue can be ordered from Scientific American, Dept. MPE, 415 Madison Ave., New York, NY 10017, for \$ 6.00. Phone 212/754-0550. (v1,#1)

Scoones, I., "New Ecology and the Social Sciences: What Prospects for a Fruitful Engagement?" Annual Review of Anthropology 28(1999):279-507.

Scotland's Hills and Mountains: A Concordat on Access, with commentaries by Andrew Raven, A. R. Gillingham, and Nick Kempe. John Muir Trust Journal and News (Edinburgh), no. 21, July 1996, pp. 18-24. The rights and responsibilities of hillwalkers and climbers regarding access to the Scottish hills and mountains is addressed in this concordat, launched by the Scottish Agriculture and Environment Minister and signed last January by various parties. At issue is increasing pressure for public access to the often privately held Scottish lands, including whether current access without the explicit consent of the owner involves trespass under existing law. The Concordat comes in the face of commitment of the Labour Party in England and Wales to

access legislation, where trespass laws are more harsh, and the question whether such legislation is necessary in Scotland or can be addressed by voluntary agreement. "Freedom of access is a moral right and freedom of movement is recognised by the United Nations as a fundamental human right: if it is to mean anything, in this overregulated and frantic society in which we live, it should include the freedom to enjoy the hills and mountains and not be restricted to use of public roads" (Nick Kempe, p. 24). Compare the "everyman's right" of the Scandinavian countries. (v7, #3)

Scott, Ann Tyson. "One Town's Battle With a Swollen River." The Christian Science Monitor, vol. 89, 10 March 1997, pp. 1,4.

Scott, Anthony, and Coustalin, Georgina. "The Evolution of Water Rights." Natural Resources Journal 35, no.4 (1995): 821. (v7, #3)

Scott, Dane, "The Magic Bullet Criticism of Agricultural Biotechnology," Journal of Agricultural and Environmental Ethics 18(2005):259-267. One common method of criticizing genetically modified organisms (GMOs) is to label them as "magic bullets." But this criticism is not very clear. What flaw is this pointing out in GM organisms? Is it some flaw that can be fixed? An analysis to advance deliberation over GM organisms. Scott is in philosophy and religion, Western Carolina University, Collowhee, NC. (JAEE)

Scott, David Clark. "Profiles of Mexicans: Life After NAFTA." The Christian Science Monitor, 17 May 1994, p. 11. (v5,#2)

Scott, J Michael, Janet Rachlow, Robert L. Lackey, Anna Pidgorna, Jocelyn Aycrigg, Gabrielle Feldman, Leona Svancara, David Rupp, David Stanish, and R. Kirk Steinhorst. APolicy Advocacy in Science: Prevalence, Perspectives, and Implications for Conservation Biologists.@ Conservation Biology Vol. 21, no. 1 (2007): 29-35. AWe believe that scientists and professional societies should strive to conduct policy-relevant science, to report it in value-neutral language, to state clearly the policy implications of the findings, and to be vigorous in their efforts to bring that information to the attention of decision makers and all interested parties.@

Scott, Peter, "Types of Ecotheology," Ecotheology 4(1998):8-19. Provincialist (or confessional) ecotheologies draw heavily on Christian doctrinal resources. Secularist (or reconstructive) ecotheologies reinterpret Christianity in terms of new, worldly knowledge. Both can be either modernizing or anti-modernizing, yielding a four-fold typology. This typology can identify the doctrinal resources employed, the importance invested in the core doctrines of Christianity, the issue of "natural theology," the metaphysical issue of the relation between humanity and nature, and the hermeneutical significance of the context of modernity for the interpretation of nature. The typology is applied to various contemporary ecotheologians. Oelschlaeger's typology is found inadequate. Scott teaches theology at Cheltenham and Gloucester College of Higher Education, UK. (v.10,#1)

Scott Peter, "Types of Ecotheology," Ecotheology No 4 (Jan 1998):8-9.

Scott, Peter, "Blessing and Curse: 'The Natural' as a Theological Concept," Modern Believing 38 (no. 4, 1997):15-23. Liberal humanism has lost any sustained sense of human naturalness. Modernism tries to escape the limitations and context of our natural origins. Christianity has been accused of originating this escape from nature. In view of this Christians need, and liberal humanism needs, a recovery of the naturalness in human life. But theologically there are good reasons for both accepting and rejecting the natural as a theological concept. A recovery in theological method of our natural context is important as a part of the affirmation of human flourishing. The task of natural theology is to deny restrictive and false accounts of naturalness. But natural theology cannot succeed without Christology. A viable concept of the natural always begins from God's self-disclosure in Christ. Natural theology never escapes Christological control. Scott teaches theology at Cheltenham and Gloucester College of Higher Education, UK. (v.10,#1)

Scott, Peter, A Political Theology of Nature. Cambridge: Cambridge University Press, 2003. A Christian response to the environmental crisis, arguing that present day environmental problems can only be decisively addressed within a theological world view. A theological rationale for an ecological democracy. Scott is at the University of Gloucestershire, Cheltenham, UK. (v 14, #3)

Scotti, R, Book Review: Traveling Light: New Paths for Ecotourism by Lisa Mastny. Journal of Environment and Development 11(no.2, 2002):193-195. (v.13, #3)

Scoville, Judith N., "Cosmos, Creation and Cows: New Perspectives in a Theological Land Ethic," CTNS (Center for Theology and the Natural Sciences) Bulletin 18 (no. 2, 1999): 1-9. The interdisciplinary dialogue between science and theology has a critical role in developing a satisfactory doctrine of creation. Also especially helpful is sustainable agriculture's view of farming as cooperation--or conversation--with nature, rather than an attempt to conquer nature. Scoville holds the Hulings Distinguished Chair in Humanities at Northland College, Ashland, WI. (v.10,#1)

Scoville, Judith N., "Fitting Ethics to the Land: H. Richard Niebuhr's Ethic of Responsibility and Ecotheology," Journal of Religious Ethics 30(no. 2, 2002):207-229. Much of ecotheology and environmental philosophy has moved deductively from theological and ethical constructs to questions of how we should relate to the natural world. Such approaches are limited in their ability to guide us toward appropriate environmental action for they do not necessarily fit the way the natural world actually functions. Niebuhr's ethic of response, on the other hand, begins with the concrete situation and is inherently ecological for it focuses on interrelationships in an on-going community. It is inductive in character and open to being informed by new findings in the natural and social sciences; thus it is exceptionally well suited to environmental problems, which involve complex scientific, social, and economic questions. Scoville is in religion and philosophy, Northland College, Ashland, WI.

Scoville, Judith N., "Leopold's Land Ethic and Ecotheology," Ecotheology No 8 (Jan 2000):58-70.

Scoville, Judith N. "Value Theory and Ecology in Environmental Ethics: A Comparison of Rolston and Niebuhr." Environmental Ethics 17(1995):115-133. The objective of Holmes

Rolston, III's writings has been the development of an "ecologically formed" environmental ethics based both on environmental values and ecological description. I show how recasting Rolston's value theory in terms of H. Richard Niebuhr's relational value theory can clarify and strengthen this project. Niebuhr developed a theory of value in which value is found in relationships and value systems are constructed in relation to centers of value. Niebuhr's contextual method, with which Rolston's methodology has substantial affinity, is particularly open to the use of such sciences as ecology. I conclude that this recasting of Rolston's important work in terms of relational value and contextual method can clarify the use of ecology in ethics (including the is/ought dichotomy) and can contribute to ethical reflection on such difficult problems as the spotted owl controversy. Scoville is a Ph.D. student at the Graduate Theological Union, Berkeley, and lives in Minneapolis, MN. (EE)

Scrase, J. Ivan, and William R. Sheate, "Re-framing Flood Control in England and Wales," Environmental Values 14(2005): 113-137. Traditionally floods have been understood to be acts of God or nature, with localised impacts afflicting those who choose to live or to invest capital in lowland and coastal locations. This central idea of causation, located outside human agency, survives somewhat precariously today, but is reflected in the lack of any right to protection from flooding in England and Wales. However in 1930 new legislation institutionalised a social framing of the impact of floods as part of a wider national problem. This related the interests of lowland agriculture and land drainage to the national economic and military interest. Modernising and expanding agricultural production was a political priority from the 1930s to the 1980s. The cost of preventing flooding and draining land was transferred from the affected landowners to the nation as a whole. River and coastal engineering was central to the new policy, and by the early 1970s much of the riverine and coastal environment was radically altered by flood defence structures and associated land drainage. As a result of food over-production and conflicts with conservation interests in the early 1980s, the emphasis has shifted from drainage to flood defence, while risk reduction and environmentalist values have also been promoted. The institutional arrangements from 1930 largely survive, however, and a new coherent social framing has failed to emerge. It is argued that for a risk-oriented framing to succeed, new assumptions about causation and a new ethical outlook are now needed. Emphasis on flood 'control' rather than 'defence', and a shift in priorities from economic benefits towards human rights and intrinsic value in nature are proposed as key elements in such a re-framing. Both authors are in environmental science and technology, Imperial College, London. (EV)

Scribner, F. Scott, "A Green Marx?," Philosophy and Geography 5 (No. 1, 2002): 117-119. Book review of John Bellamy Foster's "Marx's Ecology: Materialism and Nature," New York: Monthly Review Press, 2000. (P&G)

Scriven, Tal, Wrongness, Wisdom, and Wilderness. Albany: State University of New York Press, 1997. 352 pages. \$ 20.95 paper. Defends a libertarian social ethic that can support welfare, reverse discrimination, and environmental preservation; biocentrism, Nietzschean utilitarianism, the social contract theory, and legal moralism--all at the same time. The principle of utility should be understood, in judging social policy, through the application of the principle of harm, or wrongness. With analysis of figures as varied as Plato, Hume, Rousseau, Kant, Mill, Schopenhauer, Nietzsche, and Dewey. Part III deals with our relationship, as individuals and societies, to nature. Nothing logically prevents a well-constructed libertarianism from

supporting environmental ethics positions at least as radical as biocentrism, though there are deep problems with going as far as ecocentrism and its postmodern variants. Scriven is in philosophy at California Polytechnic State University, San Luis Obispo. (v7,#4)

Reviewed by Jan Narveson, Dept. of Philosophy, University of Waterloo, Journal of Agricultural and Environmental Ethics 11(1998):58-61. Reviewed in Environmental Ethics 21(1999):105-108.

Scruton, Roger, "From a View to a Death: Culture, Nature and the Huntsman's Art," Environmental Values 6(1997):471-481. ABSTRACT: The division between the natural and the artificial is itself artificial. But we continue to yearn for a homecoming to our natural state which means, to the identity with our environment which was the condition of the hunter-gatherer. Totemism is the thought-process whereby the prey can be simultaneously consecrated as a species, and pursued to the death as an individual. This thought-process has an evident ecological function. The morality of hunting resides in the maintenance of this dual attitude. An anthropological explanation is offered of the perceived rituals of hunting, and of guiltless killing. Sunday Hill Farm, Brinkworth Wilts, SN15 5AS, UK. (EV)

Scudder, G. G. E. "Endangered Species Protection in Canada." Conservation Biology: The Journal of the Society of Conservation Biology 13(No. 5, Oct. 1999):963- . (v10,#4)

Scully, Matthew, Dominion: The Power of Man, the Suffering of Animals, and the Call to Mercy. New York: St. Martins, 2002. We humans may be "of" nature but we are not in it. For better or worse we have dominion over the Earth, and how we manage nature is a moral issue. In our relations to animals we have become insensitive tyrants rather than benign caretakers. It is wrong to be cruel to animals, and when our cruelty expands to the point where we no longer recognize the animals in a factory farm as living creatures capable of feeling pain, or when we insist on an inalienable right to shoot magnificent creatures like elephants for the thrill of it, we debase ourselves. We are called to treat them with kindness, not because they have rights or power or some claim to equality, but in a sense because they don't, because they stand unequal and powerless before us. Until we treat animals with more thoughtfulness, we forfeit the right to call ourselves Homo sapiens. Animals are more than ever a test of our character. Scully is a conservative Republican, one-time speech writer for George W. Bush. Reviewed by Natalie Angier in The New York Times, October 27, 2002. (v.13,#4)

Se Zhengrong, "The axiological foundation of environmental ethics", Science, Technology and Dialectics, 2002(4)

Se Zhengrong, The Explanation and Reconstruction of Chinese Traditions of Ecological Ethics, The People's Publishing House, 2002. Chapters: eco-cultural implication of the viewpoint of the unity of heaven(nature) and human; modern explanations of the Chinese traditions of ecological ethics; western views of the Chinese traditions of environmental ethics; comparisons of western and Chinese ecological ethical thoughts; rational reconstruction of Chinese traditions of ecological ethics; the Chinese paradigm of ecological ethics and the future of civilization. Professor Se is at the Guangdong Administrative Management College.

Sea Turtle's Warning, The, New York Times (4/10/98): A18. Unsigned editorial. World Trade Organization rules against law protecting sea turtles. The WTO has ruled that a U.S. law prohibiting shrimp imports from countries that fail to use turtle-excluder devices violates international trade agreements. The law was designed to protect the competitiveness of U.S. shrimpers who must use these devices in their nets to prevent drowning endangered sea turtles. If an appeal fails, the U.S. will have either to open its markets to turtle-destroying shrimpers, to pay a fine, or to suffer retaliatory restrictions on U.S. exports. The ruling could be a prelude to a broader assault on U.S. environmental laws that authorize economic sanctions to protect endangered species and to prevent overfishing. When the U.S. joined the WTO in 1994, the Clinton Administration assured skeptics that measures to protect the environment were in place. The WTO is required by its charter to consider environmental values, but its central mission to promote free and fair trade appears to win when there is a conflict. (v9,#2)

Seager, Joni, The State of the Earth Atlas, New York: Touchstone Books, Simon and Schuster, 1990. A series of maps with interpretations. \$ 13.95. (v1,#4)

Seager, Joni, Earth Follies: Coming to Feminist Terms with the Global Environmental Crisis. London and New York: Routledge, 1993. 336 pages. \$ 27.50 cloth. Also published as Earth Follies: Feminism, Politics, and the Environment. London, Earthscan, 1993. The environmental crisis is not just a crisis of biophysical ecosystems. It is the product of the dominant culture and of the institutions that set cultural norms. These include, predominantly, the militaries, multi-nationals, and governments, all of which are the products of masculinist culture. Environmental relations are inextricable from the larger gender relations that shape modern life. A feminist analysis is absolutely crucial. (v4,#3)

Seager, Joni. Earth Follies: Feminism, Politics and the Environment: (London: Earthscan, 1993). Reviewed by Ariel Salleh in Environmental Values 4(1995):271-274. (EV)

Seamon, David and Robert Mugerauer, eds., Dwelling, Place and Environment: Towards a Phenomenology of Person and World. New York: Columbia University Press, 1989 edition of a book earlier published by Nijhoff. Reprinted by Krieger, 2000. Seventeen essays, an important collection in the resurgent literature on the sense of dwelling in place. Some sample essays: Michael E. Zimmerman, "The role of spiritual discipline in learning to dwell on earth"; Anne Buttimer, "Nature, water symbols and the human quest for wholeness"; Henri Bortoft, "Counterfeit and authentic wholes: Finding a means for dwelling in nature" Edward Relph, "Geographical experiences and being-in-the-world: The phenomenological origins of geography." (v1,#4)

Seamon, David, "Humanistic and Phenomenological Advances in Environmental Design," The Humanistic Psychologist 17 (no. 3, Autumn, 1989):280-293. The sense of place (genius loci) is receiving increasing academic and professional attention in the literature on environmental design and theory. One of the three leading components that structure a sense of place is the natural setting that establishes a specific physical and ecological context, the nature of which is partly atmospheric and intangible. Seamon is in the Department of Agriculture at Kansas State University. (v1,#4)

Seamon, David, ed., Dwelling, Seeing and Designing: Toward Phenomenological Ecology. Albany, NY: SUNY Press. \$ 19.95 paper, \$ 59.50 cloth. Thirteen essays by architects, philosophers, landscape architects, geographers, and others, who focus on ways that humans might see and understand the natural and built environments in a deeper, more receptive way. This is in a new monograph series, "Environmental and Architectural Phenomenology." Seamon is in architecture at Kansas State University. (v4,#1)

Seamon, David. Review of Rational Landscapes and Humanistic Geography. By Edward Relph. Environmental Ethics 5(1983):181-83.

Searles, Janis. "South Dakota v. Bourland: Another Supreme Court Move Away from Recognition of Tribal Sovereignty." Environmental Law 25 (no. 1, 1995): 209. This recent case continues the Supreme Court's trend of eroding Indian Sovereignty, but Searles suggests ways that the Army Corps of Engineers can protect tribal interests within its current statutory framework. (v6,#1)

Sears, R. R., Davalos, L. M. and Ferraz, G., "Missing the Forest for the Profits: The Role of Multinational Corporations in the International Forest Regime," Journal of Environment and Development 10(no.4, 2001): 345-64. (v.13,#2)

Seddon, George, Landprints: Reflections on Place and Landscape. Cambridge: Cambridge University Press, 1997. Essays. Examples: "The nature of Nature," "Sense of place," "The genius loci and the Australian landscape," "The rhetoric and ethics of the environmental protest movement," and "The perfectibility of nature (A review of John Passmore, Man's Responsibility for Nature)." His conclusion about "the nature of Nature": "Whether or not there is a world out there independent of our perceptions of it, we cannot escape the variability of those perceptions. The ways in which we perceive, imagine, conceptualise, image, verbalise, relate to, behave towards the natural world are the product of cultural conditioning and individual variation" (p. 13). A further conclusion: "Our ethical and our aesthetic pronouncements are probably the most suspect from our present point of view."

One wonders if this statement is self-referential when he also concludes, about environmental ethics: "The despoliation of land is wrong ... But why is it wrong? Surely because it is an infringement of the rights of later generations, and not because the land has some mystical rights of its own. We must take the custodial view. ... It is my feelings that matter, and if they are mean, it is I or my grandchildren who suffer" (p. 197). Seddon is an Australian academic and environmentalist who has variously worked in English, Philosophy, Geology, History, and Philosophy of Science. (v.10,#3)

Sedjo, RA, "Global Agreements and US Forestry: Genetically Modified Trees," Journal of Forestry 103 (no. 3, April/May 2005): 109-133.

Sedjo, Roger A. "Toward an Operational Approach to Public Forest Management." Journal of Forestry 94, no.8 (1996): 24. (v7, #3)

Sedjo, Roger, "The Ethics of Wood Consumption," Proceedings, Society of American Foresters, 2001 National Convention, Denver Colorado. (Bethesda, MD: Society of American Foresters,

2002), pages 242-246. "There is little evidence that current or likely future global consumption of industrial wood is excessive."

Sedjo, Roger A. *From Oilfields to Energy Farms: A Brief Look at the Environmental Consequences of Biofuels.* @ *Resources* (Resources for the Future) Vol. 166 (Summer 2007): 16-19. Rising energy demand for corn has already created serious land-use conflicts in the United States, prompting farmers to shift production of other essential food commodities, like soybeans, to corn. Biofuel from grasses or wood may be less disruptive than from corn.

Sedrez, Lise. Review of Exporting Environmentalism: U.S. Multinational Chemical Corporations in Brazil and Mexico. By Ronie Garcia-Johnson. Environmental Ethics 24(2002):317-320. (EE)

See the README file that accompanies this bibliography.

Seed, John, Joanna Macy, Pat Fleming, and Arne Naess, Thinking Like a Mountain: Towards a Council of All Beings. Philadelphia: New Society Publishers, 1988. Pp. 122. This is a collection of poems, stories, personal reflections, and essays on themes in deep ecology. Seed is a deep ecologist, environmental activist, and Director of the Rainforest Information Centre, Australia. The volume is significant as an introduction to the spirit and methodology of practicing deep ecologists. It also contains a good summary essay by Arne Naess, "Self-Realization: An Ecological Approach to Being in the World," in which he emphasizes the ontological aspects of deep ecology. One disturbing entry in the collection is "Chief Seattle's Message," the alleged pro-environment speech by an American Indian in 1854, which was actually written by a film screenwriter in 1970, and which the authors acknowledge as a fabrication. Why include it? (Katz Bibl)

Seel, Kurt E., Barrett, Joshua M. "How Green Is Green? Partial Ownership Interests under Superfund Laws," Natural Resources & Environment 11(1997):49.

Seel, Martin, Eine Aesthetik der Natur [in German: An aesthetics of nature], Frankfurt: Suhrkamp 1996. An influential study in environmental aesthetics. (v.11,#1)

Seel, Martin Eine Ästhetik der Natur, Frankfurt am Mein: Suhrkamp, 1991.

Seeley, Thomas D., P. Kirk Visscher and Kevin M. Passino, "Group Decision Making in Honey Bee Swarms," American Scientist 94 (May-June 2006): 220-229. When 10,000 bees go house hunting, how do they cooperatively choose their new nesting site? Most of them cluster in a tree with the queen, while several hundred of them scout for a suitable new hollow tree. Over the course of several days, these scouts search and come back to do waggle dances to promote their finds. Scouts can be recruited from one site to a better one and start dancing for it instead. After some 15 or 20 of the scouts are wagging for the same new site, this is judged "a quorum." The rest of the scouts come around to supporting the same site, so a consensus is achieved before flight. Seeley is in neurobiology and behavior at Cornell University.

Seelye, Katharine, "Bush Proposing to Shift Burden of Toxic Cleanups to Taxpayer," New York Times (2/24/02) and Carol Browner, "Polluters Should Have to Pay," New York Times (3/1/02):

editorial page. Giving up on Superfund's polluters pay doctrine. With dwindling resources in the once huge Superfund account, the Bush administration has decided to cut back on the number of sites designated for restoration and shift most of the costs of cleanup from industry to taxpayers. In 1995, Congress ended the corporate taxes that provided the substantial monies necessary to clean up "orphaned" toxic waste sites. In 1994, 20% of the cost of clean up was borne by the taxpayer. President Bush's budget proposal chooses not to try to reauthorize the taxes and proposes that taxpayers pay 50% of the cost in 1993 and 100% in 1994. In an editorial to the New York Times, former Environmental Protection Agency Administrator Carol Browner charges that Bush is abrogating a national promise made in the wake of Love Canal that toxic waste sites would be cleaned up and that "the polluters, not the American people, would pay." (v.13,#1)

Segerdahl, Pär, ACan natural behavior be cultivated? The farm as local human/animal culture,@ *Journal of Agricultural and Environmental Ethics* 20(2007):167-193. Although the notion of natural behavior occurs in many policy-making and legal documents on animal welfare, no consensus has been reached concerning its definition. This paper argues that one reason why the notion resists unanimously accepted definition is that natural behavior is not properly a biological concept, although it aspires to be one, but rather a philosophical tendency to perceive animal behavior in accordance with certain dichotomies between nature and culture, animal and human, original orders and invented artifacts. The paper scrutinizes the philosophy of natural behavior as it developed in the organic movement in response to a perceived contrast between industrialized and traditional agriculture. There are two reasons for focusing on the organic movement: (i) the emphasis on AAthe natural@@ is most accentuated there and has a long history, (ii) everyday life on organic farms presupposes human/animal interplay, which conflicts with the philosophical tendency to separate nature from culture. This mismatch between theory and practice helps us see why, and how, the philosophy of natural behavior needs to be reconsidered. The paper proposes that we understand farms as local human/animal cultures, and asks what we can mean by natural behavior in such contexts. Since domestic animals adapt to agricultural environments via interaction with caretakers, such interplay is analyzed as Ahub@ in these animals== natural behavior.

Keywords: animal caretaker - animal husbandry - animal welfare - domestication - double imprinting - human/animal culture - mutual adaptation - natural behavior - organic movement
Segerdahl is at Department of Public Health and Caring Sciences, Center for Bioethics at Karolinska Institutet and Uppsala University, Uppsala Science Park, Uppsala, Sweden.

Segerstahl, Boris. "The Long Shadow of Soviet Plutonium Production," Environment 39(no. 1, 1997):12. Even though Russia's Mayak facility is no longer being used to produce nuclear weapons, the problems it has caused will plague the country for years to come. (v8,#1)

Seidel, Amy L., and Paul A. Opler. "Uncompahgre Fritillary Butterfly Demographics: Response to Britten et al." Conservation Biology 8(1994):1156-1157. With response by Britten et al. This butterfly, an endangered species, came into controversy when studies showed that it was going extinct naturally, due to changing climate, and scientists recommended taking no heroic actions to save it, since it was a natural extinction. Seidel and Opler claim that the population is stable, since collection pressures have been removed. Britten et al respond that the data are more

equivocal. Seidel is at Rocky Mountain Biological Laboratory, Crested Butte, CO; Opler is with the National Biological Survey, Fort Collins, CO. (v6,#1)

Seidensticker, J., Christie, S., and Jackson, P., eds., Riding the Tiger: Tiger Conservation in Human-Dominated Landscapes. Cambridge, UK: Cambridge University Press, 1999. (v.12,#4)

Seidler, Reinmar, "'Roads and the Land: Two Giants in Uneasy Embrace," Review of Forman, R.T., et al, Road Ecology: Science and Solutions.," Conservation Biology 18(no.3, 2004):850-852. (v. 15, # 3)

Seigfried, Charlene Haddock, Pragmatism and Feminism: Reweaving the Social Fabric. Reviewed by Jennifer G. Jesse. American Journal of Theology and Philosophy 18(no. 1, 1997):91-97.

Selcraig, Bruce, "Reading, `Riting, and Ravaging: The Three R's, Brought to You by Corporate America and the Far Right," Sierra, May-June 1998, pp. 6065, 86-92. A corporate backlash has developed against the U.S. National Environmental Education Act, which makes environmental education mandatory in public schools in about 30 states, and is up for reauthorization this year. In the culture war raging over environmental issues, the NEEA spends \$65 million a year to educate students environmentally, but a coalition of corporations and the religious right complain that this is anti-business and pro-environment. Corporations are eager to offer materials (often to cash-starved schools) that set the matter straight, such as an Exxon video now in 10,000 classrooms that describes gasoline as "a form of solar power hidden in decayed organic matter." (v,#2)

Self, Will, Great Apes. New York: Grove Press, 1997. 404 pages. \$ 24. A tale of a parallel universe where chimpanzees rather than humans evolve into the species with advanced culture. One of the chimpanzee psychologists undertakes to study a chimp with the delusion that humans were the species who evolved culture instead of the chimps. Reviewed in New York Times Book Review, Sept. 21, 1997. (v8,#3)

Seligman, Clive, "Environmental Ethics," Journal of Social Issues 45 (no. 1, 1989):169-184. The central question is on what ethical basis should we decide how to deal with nature. Is a human centered, utilitarian perspective sufficient to protect the environment? If not, what alternatives are possible? A key philosophical problem is to what extent inherent value can be ascribed to things that are not human: animals, vegetation, and even land. Philosophers do not agree among themselves on these issues. An environmental ethic should explicitly consider whether our behavior toward nature is consistent with our values, that is, consistent with our "best selves." A psychological theory of how humans value may provide some insights into the way we think about ethical dilemmas. As our personal values deepen, we will be increasingly inclined to do the right thing environmentally. Seligman is in psychology at the University of Western Ontario. (v5,#4)

Selin, S. and Pierskalla, C., "The Next Step: Strengthening the Social Science Voice in Environmental Governance," Society and Natural Resources 18(no. 10, November/December 2005): 933-936.

Sellers, Richard West, Preserving Nature in the National Parks: A History. New Haven: Yale University Press, 1997. 380 pages. The clash between traditional scenery-and-tourism management and emerging ecological concepts in the national parks. There has been "a persistent tension between national park management for aesthetic purposes and management for ecological purposes" (p. 5). Focusing on the decades after the U. S. National Park Service was established in 1916, Sellers reveals the dynamics of policy formulation and change, a Service tangled in conflicting visions, as landscape architects, foresters, wildlife biologists, and other Park Service professionals contended for dominance and shaped the attitudes and culture of the Service, and the attitudes and culture of Americans who visit the parks to see wild nature. Sellers is a historian with the U.S. National Park Service, Santa Fe, NM. (v.11,#1)

Sellers, Richard West, Preserving Nature in the National Parks: A History. New Haven: Yale University Press, 1997. 380 pages. The clash between traditional scenery-and-tourism management and emerging ecological concepts in the national parks. There has been "a persistent tension between national park management for aesthetic purposes and management for ecological purposes" (p. 5). Focusing on the decades after the U. S. National Park Service was established in 1916, Sellers reveals the dynamics of policy formulation and change, a Service tangled in conflicting visions, as landscape architects, foresters, wildlife biologists, and other Park Service professionals contended for dominance and shaped the attitudes and culture of the Service, and the attitudes and culture of Americans who visit the parks to see wild nature. Sellers is a historian with the U.S. National Park Service, Santa Fe, NM. (v10,#4)

Sellers, Richard West, "Creating Tradition: The Roots of National Park Management," Wild Earth 10(no. 2, Summer 2000):26- . (v.12,#2)

Sellers, C, "Review of: Adam Rome, The Bulldozer in the Countryside: Suburban Sprawl and the Rise of American Environmentalism", Environmental History 8(no.1, 2003):141-143.

Sellers, Christopher, "Thoreau's Body: Towards and Embodied Environmental History," Environmental History 4 (No. 4, Oct 01 1999): 486- . (v.11,#2)

Sellman, James D., and Rolston, Holmes, III, "Environmental Ethics in Micronesia, Past and Present," Part I. "Living on the Edge: Traditional Micronesian Environmental Ethics." By James D. Sellmann, Philosophy, University of Guam, from a presentation at the Pacific Science Inter-Congress, June 2000. Part II. "Guam Today: Still 'on the Edge.' Colonial Legacy and American Presence, by Holmes Rolston, III, also at the Pacific Science Inter-Congress. ISEE Newsletter, vol. 12, no. 3, Fall 2001, pp. 11-14. (v.12,#3)

Semlitsch, RD; Bodie, JR, "Biological Criteria for Buffer Zones around Wetlands and Riparian Habitats for Amphibians and Reptiles," Conservation Biology 17(no.5, 2003):1219-1228. (v.14, #4)

Semple, Kirk, "In Adirondacks, Thirst and Preservation Clash," New York Times, October 5, 2004, p. A24. For villages in the Adirondack Park in New York, the surface water is now too polluted to drink and to expensive to purify. Drilling wells is one solution, but presently quite limited in order to preserve the forested areas where the wells must be placed. Also with

unlimited well drilling and more abundant drinking water (over?) development would be encouraged. (v.14, #4)

Sen, Amartya, The Argumentative Indian: Writings on Indian History, Culture and Identity by Amartya Sen (London, UK. Allen Lane, 2005). Reviewed by Amitrajeet A. Journal of Agricultural and Environmental Ethics 19(2006):195-197. Batabyal is in the Department of Economics, Rochester Institute of Technology, Rochester, NY.

Sen, Amartya, "What to Do About Famine." Interview in Newsweek, November 2, 1998. Sen just won the Nobel Prize in Economics. The Indian economist is widely regarded as the conscience of the profession, having devoted his career to "the downside of economics," while other economists analyze how to make a big profit. Sen analyzes the causes of famines and how to prevent them. "Famines have never occurred in democratic countries, even very poor ones, that have regular elections and a free media." Sen was long at Harvard but recently returned to become master of Trinity College at Cambridge, his alma mater. (v.9,#4)

Sen, Amartya. A Why We Should Preserve the Spotted Owl. @ London Review of Books Vol. 26, no. 5 (February 2004). A Our living standards are largely or completely unaffected by the presence or absence of spotted owls, but I strongly believe that we should not let them become extinct, for reasons that have nothing much to do with human living standards. @

Senkowsky, S, "Strengthening Science at the Environmental Protection Agency, Bioscience 51(no, 9, 2001):708. (v.13,#1)

Senkowsky S., "A Tale of Two Commissions: Scientists Seek to Broaden Constituency for Changing US Ocean Policy," BioScience 54(no.6, 1 June 2004):. (v. 15, # 3)

Senkowsky, S., "A Burning Interest in Boreal Forests: Researchers in Alaska Link Fires with Climate Change," Bioscience 51(no.11, 2001): 916-21. (v.13,#2)

Seno, S. K. and Shaw, W. W., "Land Tenure Policies, Maasai Traditions, and Wildlife Conservation in Kenya," Society and Natural Resources 15(no.1, 2002): 79-88. (v.13,#2)

Sensible Species Protection. The Christian Science Monitor, July 6, 1995, p. 20. (v6,#2)

Sepänmaa, Yrjö, ed., Real World Design: The Foundation and Practice of Environmental Aesthetics. Helsinki: University of Helsinki, Lahti Research and Training Centre, 1997. Proceedings, XIII International Congress of Aesthetics, Lahti, Finland, August 1-5, 1995. 134 pages. ISBN 951-45-7646-2. In English and French, one article in German. Short articles. Contains, among many others:

--Park, Ynhui, "The Transfiguration of the World into an Artwork--A Philosophical Foundation of Environmental Aesthetics," pages 13-20.

--Paetzold, Heiz. "How to Fill the Gap Between the Philosophy of Art and the Aesthetics of Nature?", pages 21-25.

--Hepburn, Ronald W., "Aesthetic and Religious: Boundaries, Overlaps, and Intrusions," pages 42-48.

--Eaton, Marcia Muelder, "The Role of Aesthetics in Designing Sustainable Landscapes," pages 51-63.

--Kliver, Miroslav, "Ecological Aesthetics," pages 64-66.

And others. (v.9,#3)

Sepänmaa, Yrjö, ed., Alligaattorin hymy: ympäristöestetiikan uusi aalto (The Alligator's Smile: New Waves in Environmental Aesthetics). Lahti: The University of Helsinki at Lahti, 1994. 208 pages. ISBN 0784-0640-24. The book takes its title from Paul Ziff's consideration of an alligator as an aesthetic object in "Anything Viewed" (1977), an article included in the anthology. Contains R. W. Hepburn's, "Contemporary Aesthetics and the Neglect of Natural Beauty," Allen Carlson's "Environmental Aesthetics," Arnold Berleant, selections from The Aesthetics of Environment, Cheryl Foster, "Aesthetic Disillusionment: Environment, Ethics, Art" (from Environmental Values 1(1992):205-215, and others. (v5,#2) (Finland)

Sepänmaa, Yrjö, Review of: Arnold Berleant, The Aesthetics of Environment, Environmental Ethics 16(1994):437-439.

Sepänmaa, Yrjö, "Experiences of the Bog," Form Function Finland no. 70, 2/1998, pages 32-37. This journal is published by the Finnish Society of Crafts and Design/Design Forum Finland, Unionkatu 14, FIN-00130 Helsinki, Finland. E-mail: form.function@designforum.fi Aesthetic aspects of Finnish boglands. An article in connection with the Third International Conference on Landscape Aesthetics, Aesthetics of Bogs and Peatlands, held in Ilomantsi, Finland, June 1998. (v.9,#4)

Sepänmaa, Yrjö, The Beauty of Environment: A General Model for Environmental Aesthetics. Helsinki: Suomalainen Tiedeakatemia, 1986. ISBN 951-41-0523-0. 184 pages. Reprinted in a slightly modified second edition by Environmental Ethics Books, Denton, Texas, 1993. ISBN 0-9626807-2-9. \$ 14.95. A first major section considers nature offered as a work of art. A second section considers nature as a whole, the environment as a system, and develops fourteen differences between works of art and aesthetic appreciation of nature. Ecology provides the norm for beauty in nature. A third section analyzes the language that criticizes, interprets, and appreciates natural beauty. Sepänmaa was for a number of years a research fellow with the Academy of Finland and held docent positions at University of Helsinki, also at Jyväskylä and Turku, and has recently taken a position at the University of Joensuu, Finland, in comparative literature and aesthetics. He was a Senior Fulbright Scholar at the University of Georgia and a Visiting Research Professor at the University of North Texas. (v5,#2) (Finland)

Sepänmaa, Yrjö. The Beauty of Environment. Reviewed in Environmental Ethics 10(1988):183-86.

Serafin, Rafal. "Noosphere, Gaia, and the Science of the Biosphere." Environmental Ethics 10(1988):121-37. Advances in analytical understanding of the biosphere's biogeochemical cycles have spawned concepts of Gaia and noosphere. Earlier in this century, in concert with the Jesuit paleontologist Pierre Teilhard de Chardin, the natural scientist Vladimir Vernadsky developed the notion of noosphere--an evolving collective human consciousness on Earth exerting an ever increasing influence on biogeochemical processes. More recently, the chemist

James Lovelock postulated the Earth to be a self-regulating system made up of biota and their environment with the capacity to maintain a planetary steady state favorable to life. This is the Gaia hypothesis. To many, Gaia and noosphere represent contradictory interpretations of humanity's relation to planetary ecology. Noosphere emphasizes a free will and obligation to shape the destiny of humanity on Earth through technology and new kinds of social relations. In contrast, Gaia invokes mysterious mechanisms of planetary evolution that lie beyond human control and understanding. I argue that if brought together, noosphere and Gaia can provide a useful symbol for guiding human interventions in global ecology because the contradictions of a nature-centered view of Gaia and a human-centered view of noosphere are coming to be irrelevant with the emergence of an analytical science of the biosphere. Serafin is at the School of Urban and Regional Planning, University of Waterloo, Ontario, Canada. (EE)

Serageldin, Ismail and Andrew Steer, eds., Making Development Sustainable: From Concepts to Action. 1994, 1995. 39 pages. A paper of the World Bank, how it is increasingly supporting sustainable and environmentally sensitive development. With a selected bibliography on environmentally sustainable development projects. 1818 H Street, Washington, DC 20433. (v7,#2)

Serpell, J., In the Company of Animals: A Study of Human-Animal Relationships. Oxford: Basil Blackwell: Oxford, 1986, revised ed. 1996.

Serpell, James, Review of Mighetto, Lisa, Wild Animals and American Environmental Ethics. Environmental Values Vol.2 No.3(1993):276.

Serpell, James, In the Company of Animals: A Study of Human-Animal Relationships, Review by Keith Burgess-Jackson, Ethics and the Environment 3(1998):105-110.

Serrano-Barnett, Teresa, Ethics and Conservation, Master's Thesis, Department of Philosophy, Lancaster University, September 1995.

Serrano-Barnett, Teresa, Ethics and Conservation, Master's Thesis, Department of Philosophy, Lancaster University, September 1995. (v7,#1)

Serres, Michel, The Natural Contract. Ann Arbor: University of Michigan Press, 1995. Originally published as: Le Contrat Naturel. Paris: Editions Françoia Bourin, 1992. Serres wants to insert ethics into the human relation to nature, and vice versa. Hitherto, human relations with other humans have been in the discourse of ethics and politics; human relations with nature in the discourse of science and technology. In an environmental crisis, humans are now racing toward a violent demise, on a course set by Cartesian philosophy, one that is "blind to nature," where nature has been "forgotten" and "lost." "At stake is the Earth in its totality, and humanity, collectively. Global history enters nature; global nature enters humanity; this is something utterly new in philosophy" (p. 4). This is "a time when the old social contract ought to be joined by a natural contract" (p. 20). "Back to nature, then! This means we must add to the exclusively social contract a natural contract of symbiosis and reciprocity in which our relationship to things would set aside mastery and possession in favor of admiring attention, reciprocity, contemplation, and respect; where knowledge would no longer imply property, nor action

mastery" (p. 38). We need a natural contract, as much as a social contract. Mountain climbers are harnessed not only to each other but to the rock face. "The group finds itself bound and submitted not only to itself but to the objective world." That is a metaphor for humans bound both to each other and to the natural world. "A natural contract joins the social contract" (p. 104). We need a hermeneutic interlocking of nature and culture. If there is no attention to the natural contract, we will be like the two men in a painting by Goya who are locked in combat with each other, while neglecting the mud into which they are sinking and which can defeat them both (pp 1-2). Modern philosophy has supposed that humans form a social contract and leave the state of nature, as if the human race "casting off from the world, were no longer rooted in anything but its own history" (p. 34). Such philosophy is so humanistic that it becomes locked and lost within a realm of human consciousness and society, free-floating outside the realm of nature. It has the "weakness of thinking 'only men,' or men alone. We have not yet set up a scale in which the world is taken into account in the final balance sheet" (p. 37). This will require the natural contract joined with the social contract. "In fact, the Earth speaks to us in terms of forces, bonds, and interactions, and that's enough to make a contract. Each of the partners in symbiosis thus owes, by rights, life to the other, on pain of death" (p. 39). Serres is especially impressed with the globalization of the environmental threat. "Now we must learn and and teach around us the love of the world, of our Earth, which we can henceforth contemplate as a whole" (p. 49). "Today the global power of our new tools is giving us the Earth as a partner, one whom we ceaselessly inform with our movements and energies, and who, in turn, informs us of its global change by the same means. ... We've been living contractually with the Earth for only a little while. A new revolution, in the Copernican sense, for our grandeur and our responsibilities. ... Curiously, it is only in this century that nature has been born, really, before our eyes, at the same time as a humanity bound in real solidarity" (pp. 109-111). "Cast off far enough from Earth, we can finally look at her whole. ... Here is a hazy ball surrounded by turbulence. Planet Earth as satellites photograph her. Whole. ... For the first time, philosophy can say man is transcendent: before his eyes, the whole world is objectifying itself, thrown before him, object, bond, gear, or craft ... the most beautiful sphere" (pp. 120-121). Often cryptic and difficult to read, but frequently insightful and always passionate. This book puts an end to the lament that there is no French environmental philosophy. Serres teaches philosophy at the Sorbonne, and at Stanford University. (v6,#4)

Serres, Michel. The Natural Contract. Review by Patrick Hayden, Environmental Ethics 20(1998):433-36.

Service, Robert F., "'Combat Biology' on the Klamath," Science 300(4 April 2003):36-39. Biologists charged with protecting endangered species are caught in a battle over water rights; a critical National Academy of Sciences report has exposed them to heavy fire. The Klamath River basin is in southern Oregon and northern California. Issues about how much water is enough for endangered salmon. Also issues about which side to err on when the science is uncertain.

Service, Robert F., "Microbiologists Explore Life's Rich, Hidden Kingdoms," Science 275(21 March, 1997):1740-1742. Microbial biodiversity. Recent studies, using DNA analysis, have found that there is staggering diversity among the microbes, who seem to outdo the insects

considerably in their numbers of species. Also microbes may be more endemic to particular areas and microhabitats than previously thought, and more disrupted by pollution and oilspills. (v8,#1)

Service, Robert F. AA Growing Threat Down on the Farm.@ *Science* Vol. 316, no. 5828 (25 May 2007): 1114-17. Farmers have become dependent on an herbicide called glyphosate (tradename ARoundup@) and on crops engineered to resist itso-called ARoundup Ready crops.@ The herbicide kills all the weeds but the resistant crops grow unaffected by it. Over 50% of all soybeans and about 40% of all corn in the U.S. are modified as Roundup Ready crops. But their weeds are rapidly becoming resistant, and researchers are scrambling for new alternatives. Glyphosate is claimed to be environmentally friendly; it doesn=t readily leach into water systems. Instead it latches tightly to soil particles and degrades within weeks into harmless byproducts. Also farmers who use it plow less, with less soil erosion.

Sessions, George, "Postmodernism, Environmental Justice, and the Demise of the Ecology Movement?" Wild Duck Review, Literature and Letters of Northern California, 5th Issue, June/July 1995. (v6,#2)

Sessions, George, "The Age of Ecology," in Resurgence, No. 161, 1993. Deep ecology provides a philosophical basis for the Green movement. (v4,#4)

Sessions, George, "Ecocentrism and the Anthropocentric Detour," Revision 13(1991):109-115. Sessions is preparing an anthology, Deep Ecology for the 21st Century (Boston: Shambhala, 1994). Sessions teaches philosophy at Sierra College, Rocklin, California. (v4,#4)

Sessions, George, ed., Deep Ecology in the 21st Century (Boston: Shambhala Publications, 1994). 1994. appr 450 pp., \$20 pb. The anthology is divided into six parts: What Is Deep Ecology? Historical Roots of Deep Ecology; Arne Naess on Deep Ecology and Ecosophy; Deep Ecology and Ecofeminism, Social Ecology, the Greens, and the New Age; Wilderness, the Wild, and Conservation Biology; and Toward the 21st Century and Beyond: Social and Political Implications. Included are 39 articles by 21 authors and extensive bibliographies. This is a major new anthology interpreting deep ecology. Sessions teaches philosophy at Sierra College, Rocklin, CA. (v5,#3)

Sessions, George, "Reinventing Nature: The End of Wilderness? A Response to William Cronon's Uncommon Ground," Wild Duck Review vol. 2, no. 1, November 1995, pp. 13-14. (v6,#4) Also in The Trumpetr 13(no.1, Winter, 1996):33-38.

Sessions, George, ed., Deep Ecology for the 21st Century. Boston: Shambhala Publications, 1995. 488 pages. 39 selections, 13 by Arne Naess. Others: Gary Snyder, Fritjof Capra, Thomas Berry, Dave Foreman, Paul Shepard, John Rodman, Thomas Birch, Donald Worster, Stephan Bodian, Chellis Glendinning, Jack Turner, Delores LaChapelle, Andrew McLaughlin, Del Ivan Janik, Wayland Drew, Richard Langlais, Warwick Fox, Jerry Mander, Ed Grumbine, Wolfgang Sachs. Sessions teaches philosophy at Sierra College, Rocklin, CA, USA. (v6,#2)

Sessions, George, "The Deep Ecology Movement: A Review." Environmental Review 11 (1987):105-125. As the title indicates, this is a "history" of the literature of the Deep Ecology movement. It is valuable mainly for the extensive notes which list hundreds of primary sources. (Katz, Bibl # 1)

Sessions, George and Bill Devall. "The Development of Natural Resources and the Integrity of Nature." Environmental Ethics 6(1984):293-322. During the twentieth century, John Muir's ideas of "righteous management" were eclipsed by Gifford Pinchot's anthropocentric scientific management ideas concerning the conservation and development of Nature as a human resource. Ecology as a subversive science, however, has now undercut the foundations of this resource conservation and development ideology. Using the philosophical principles of deep ecology, we explore a contemporary version of Muir's "righteous management" by developing the ideas of holistic management and ecosystem rehabilitation. Sessions is in the philosophy department, Sierra College, Rocklin, CA. Devall is in the sociology department, Humboldt University, Arcata, CA. (EE)

Sessions, George, "Deep Ecology in California." To appear in a special California issue of Dialectics and Humanism (Polish International Philosophical Journal), 1990-91. Sessions traces the distinctive development of deep ecology in California, acknowledging important roots outside California (Leopold, the Transcendentalists, Muir in Wisconsin, Naess in Norway, others in Australia). "It would be safe to say that the rebirth of radical ecology in the 1960's was largely a California phenomenon." He closes with California at crisis point. "The ultimate fate of California, in all likelihood, will be decided in the coming decade or two." Copies from George Sessions, Department of Philosophy, Sierra College, Rocklin, CA 95677-3397. (v1,#3)

Sessions, George, AReply to Rothenberg=s and Crowley=s Replies to Quick=s, Drengson=s, Sessions=s, and Devall=s Replies to Crowley=s Report on a Visit with Arne Naess,@ *Newsletter, International Society for Environmental Ethics*, vol 19, no. 2, Spring/Summer 2008, pp.39-50. AArne Naess= Complex Legacy,@ a report on a visit with Arne Naess by Yale undergraduate student Thomas Crowley, was published in the Fall 2006 ISEE Newsletter. In the Winter 2006-2007 ISEE Newsletter, Tim Quick, Alan Drengson, George Sessions, and Bill Devall replied to Crowley=s report. In the Fall 2007 ISEE Newsletter, David Rothenberg and Thomas Crowley replied to Quick=s, Drengson=s, Sessions=s, and Devall=s replies. The dialogue continues here with a further reply by George Sessions, Sierra College in Rocklin, California.

Online at: <http://www.cep.unt.edu/ISEE/index.htm>.

Sessions, George. Review of The Soul of the World. By Conrad Bonifazi. Environmental Ethics 3(1981):275-81.

Sessions, George. "Reinventing Nature? The End of Wilderness?," Wild Earth 6(1996)46. (v8,#1)

Sessions, George. Review of Eco-Philosophy: Designing New Tactics for Living. By Henryk Skolimowski. Environmental Ethics 6(1984):167-74.

Sessions, George. "Postmodernism, Environmental Justice, and the Demise of the Deep Ecology Movement?" Wild Duck Review: Literature and Letters of Northern California, vol. 1, no. 5, June/July 1995, pages 14-16. Sessions reviews some current trends, with particular attention to Michael Zimmerman, Contesting Earth's Future. Zimmerman, now rejecting the Heidegger he earlier followed, has gone too far in holding that all positions are power-positions "contesting Earth's future," each promoting its own interests; he cannot consistently say this and hold that nature in itself has intrinsic value or that the integrity of ecosystems should be preserved. The power position account erodes the intrinsic value account. Deep ecology is not one more power position, among others. Sessions teaches philosophy at Sierra College, Rocklin, CA. For copies, contact: Wild Duck Review, 419 Spring Street, Suite D, Nevada City, CA 95959 USA. (v6,#3)

Sessions, George. "Wildness, Cyborgs, and Our Ecological Future: Reassessing the Deep Ecology Movement," The Trumpeter 22,2, (2006): 121-182 (online)
<http://trumpeter.athabascau.ca/>.

In light of the new environmental awakening over global warming and Al Gore's new video, in contrast with the world's scientists and religious leaders, Sessions asks where the new generation of post modernist environmental historians and ecophilosophers (the Neo-Pragmatists) are in this new awakening? In reassessing the deep ecology movement, he critiques John Clark's version of social ecology, the ecofeminism of Val Plumwood and Karen Warren, Baird Callicott's interpretation of Leopold, the deconstruction of wilderness from Guha to Cronon, and Michael Zimmerman's endorsement of Donna Haraway's postmodernist cyborgian technotopian future. He claims that the attempt to establish a cyborgian / nanotechnology / technotopia, as opposed to the protection of a wild Earth, will result in the final sealing of the fate of both humanity and the Earth. Sessions is philosophy emeritus, Sierra College, Rocklin, CA.

Sessions, George. "Political Correctness, Ecological Realities and the Future of the Ecology Movement." Wild Duck Review: Literature and Letters of Northern California, vol. 1, no. 6, September 1995, pp. 10-13. Sessions continues his review of current trends, with particular attention to Gregg Easterbrook, A Moment on the Earth. In his positive account of the environment, Easterbrook selects certain environmental indices that, while perhaps true, ignore other indices that are ecologically more significant. For copies, contact: Wild Duck Review, 419 Spring Street, Suite D, Nevada City, CA 95959 USA. (v6,#3)

Settle, Tom. "Farm Animals' Challenge to Ecological Thinking: Skepticism about the Prospects for an Inclusive Ethics of Health." Ethics and the Environment 5(2000):243-252. (E&E)

Seventeen, "Earth SOS," April 1991. Get ecological. How you can protect the planet. Green behavior for teens, all the way from environmentally safe cosmetics, to actors who support conservation, to a the famous Bentham quotation about animals, "Can they suffer?" (v2,#2)

Sexton, Sarah. "Transnational Corporations and Food," The Ecologist 26(no.6, 1996):256. (v8,#2)

Sexton, Sarah. "A Woman's Work is Never Done", The Ecologist (1979) 26(no. 4,1996):138.

Seyfang, Gill, *Cultivating Carrots and Community: Local Organic Food and Sustainable Consumption*, @ *Environmental Values* 16(2007): 105-123. This paper examines the social implications of sustainable consumption through an empirical study of a local organic food initiative. It sets out an analytical framework based upon Douglas's Cultural Theory to categorise the range of competing value perspectives on sustainable consumption into 'hierarchical', 'individualistic' and 'egalitarian' worldviews, and considers how these various worldviews might each adopt locally-grown organic food as a sustainable consumption initiative. Tensions between the paradigms are evident when attention is turned to a case study of a local organic food producers' cooperative. Research with both producers and consumers reveals that the values embedded in its practice are both partisan and pluralistic, but are principally 'Egalitarian'. Its interactions with policy regimes and social and economic institutions are examined, to illustrate the value conflicts inherent, and understand the barriers it faces in operation and the institutional factors inhibiting the growth of grassroots 'bottom-up' sustainable food initiatives of this kind. In addition to addressing these barriers, the policy implications of these findings for sustainable consumption policy and practice are discussed. Seyfang is at the centre for Social and Economic Research on the Global Environment, University of East Anglia, Norwich, UK.

Seymour, Mike, "Partnerships to Support Sustainable Development and Conservation: the West-East Pipeline Project, China," *Conservation Biology* 18(no.3, 2004):613-615. (v. 15, # 3)

Shabecoff, Phillip, *A Fierce Green Fire: The American Environmental Movement*. New York: Hill and Wang, 1993. 352 pages. Shabecoff covered the environmental beat for the *New York Times* for 14 years. Historical figures as well as contemporary figures. Shabecoff projects an all inclusive environmentalism capable of achieving real power, primarily through electoral means. He wants to close the gap between the mainstream environmentalist organization and the grassroots groups "whose members comprise an army of millions ready to be mobilized in the war for political power." (v4,#1)

Shafer, Craig L., "The Northern Yellowstone Elk Debate: Policy, Hypothesis, and Implications," *Natural Areas Journal* 20(no. 4, 2000):342-359. Intervention versus non-intervention in management of the northern Yellowstone National Park elk herd. Historical facts reviewed and the value judgments with which such facts were discovered and interpreted. National park size influences the need for management intervention because of alteration of natural processes outside park boundaries. Is the need for intervention increasing as large spatial scale natural processes are progressively impeded outside the park? A mixture of intervention and nonintervention may be the best approach to keep the park most "natural." Shafer is with the George Wright Society, Hancock, MI. (v.13,#1)

Shafer, Craig L., "A Geography of Hope: Pursuing the Voluntary Preservation of America's National Heritage," *Landscape and Urban Planning* 66(no. 3, 2004):127-171. A review of the National Natural Landmarks program, administered by the National Park Service, and designed to encourage the voluntary preservation of nationally significant examples of various ecological and geological features. There are today 587 such areas on lands of every ownership category. But the program has suffered from being perceived as a threat to private landowner rights. To provide for significant increase in the program's effectiveness, private landowners should be

offered substantial economic incentives for protecting their property's natural values. Shafer is with the George Wright Society, Hancock, MI.

Shafer, Elwood L. and James B. Davis, "Making Decisions about Environmental Management When Conventional Economic Analysis Cannot Be Used," Environmental Management, vol. 13, no. 2 (1989):189-197. A process is described for making comparative valuations of a wide range of environmental management activities when the combined social, economic, managerial, and political benefits of some (but not all) of these activities cannot be adequately described in economic terms and when budgetary constraints do not permit funding of all activities under consideration. The process accounts for subjective judgment and contains a formal rigorous decision strategy that takes the place of intuition when quantitative and qualitative values of environmental activities need to be evaluated. Shafer is in the Department of Recreation and Parks, Pennsylvania State University. Davis is at the Pacific Southwest Forest and Range Experiment Station, Riverside, CA. (v2,#2)

Shaffer, ML; Casey, F; Scott, JM, "Noah's Options: Initial Cost Estimates of a National System of Habitat Conservation Areas in the United States," Bioscience 52(no.5, 2002):439-443. (v.13, #3)

Shafqat, S, "Review of: Tussie, Diana, ed. The Environment and International Trade Negotiations: Developing Country," Society and Natural Resources 14(no.8, 2001): 732-33. (v.13,#2)

Shah, A.M., B.S. Baviskar and E.A. Ramaswamy, eds. Development and Ethnicity. Reviewed by Gisli Palsson. Environmental Values 8(1999):409. (EV)

Shah, Anup. Ecology and the Crisis of Over Population: Future Prospects for Global Sustainability. Cheltenham: Edward Elgar, 1998. Review by Carl McDaniel, Environmental Values 10(2001):265. (EV)

Shah, NJ, "Eradication of alien predators in the Seychelles: an example of conservation action on tropical islands," Biodiversity and Conservation 10(no. 7, 2001):1219-1220. (v.13,#1)

Shah, S., "Where Have All the Tigers Gone?," Ecologist 31(no.7, 2001): 52. (v.13,#2)

Shaikh, Sobia Shaheen, "Ideas," Environments 28(no.2, 2000): 77-. Conceptualizing Linked Social and Ecological Injustice. (v.12,#3)

Shaiko, Ronald G., "Religion, Politics, and Environmental Concern," Social Science Quarterly 68(1987):244-262. (v8,#3)

Shaltout, K.H., El-Halawany, E.F., El-Kady, H.F., "Consequences of Protection From Grazing on Diversity and Abundance of the Coastal Lowland Vegetation in Eastern Saudi Arabia", Biodiversity and Conservation 5(No.1, 1996):27- . (v7,#1)

Shand, Hope, "Terminator Seeds: Monsanto Moves to Tighten Its Grip on Global Agriculture," Multinational Monitor, November 1998, pp. 13-16. Seeds that work once and produce plants

that produce only sterile seeds, forcing farmers worldwide to return to Monsanto to purchase new seeds each season. Critics call them terminator seeds; Monsanto says it is a "technology protection system." Such seeds are some time off but under development. Monsanto, now the world's largest seed company, says farmers will not buy such seeds unless it is to their advantage; they will just continue to use the old ones. Farmers have been saving seeds for next year for 12,000 years, selecting for better crops. Various hybrids have been in use for many decades that are sterile, although the hybrids have increased vigor and crop yield. Critics say the farmers will get hooked on the terminator seeds. Others worry about environmental spillover. Monsanto now advertises Monsanto's Law: The ability to identify and use genetic information is doubling every 12 to 24 months--analogously to Moore's law (predicted in 1965) that the computing power of computer chips would double every 18-24 months. (v.10,#1)

Shand, Hope, "There is a Conflict Between Intellectual Property Rights and the Rights of Farmers in Developing Countries", Journal of Agricultural and Environmental Ethics 4(1991):131-142. In a debate: Is there a conflict between intellectual property rights and the rights of farmers in developing countries?

Shaner David Edward, and R. Shannon Duval, "Conservation Ethics and the Japanese Intellectual Tradition," Environmental Ethics 11(1989):197-214. Well-documented article discussing the connections between American philosophy, Japanese philosophy, and a holistic environmental ethic. The crucial concept is the cultivation of a sensitivity to nature; this idea is traced through the Zen philosophy of Nishida Kitaro, the radical empiricism of William James, and the natural science methodology of Louis Agassiz. (Katz, Bibl # 2)

Shaner, David Edward, and R. Shannon Duval. "Conservation Ethics and the Japanese Intellectual Tradition." Environmental Ethics 11(1989):197-214. A systematic philosophy that presupposes an ecocentric world view, rather than a homocentric or egocentric world view, can be a viable resource for investigating issues in environmental philosophy and conservation ethics. Generally speaking, the Japanese philosophical and religious tradition represents a commitment to ecocentrism. This philosophical orientation is in concert with the world view of many naturalists. We explore one example of ecocentrism by unveiling the crosscultural connection between the naturalistic philosophy of Louis Agassiz, a nineteenth-century French-American biologist, and the early writings of Nishida Kitaro, a twentieth-century Japanese philosopher. We suggest that the central player in understanding the ecocentric connection between Agassiz and Nishida is American philosopher/psychologist William James. James was once a student of Agassiz and his writings influenced Nishida's early work. Related issues concerning conservation ethics and the Japanese intellectual tradition are also addressed. Shaner is in the philosophy department, Furman University, Greenville, SC. Duval is a Dana Foundation Research and Teaching Assistant at Furman University, Greenville, SC. (EE)

Shanley, P., and L. Luz, "The Impacts of forest Degradation On Medicinal Plant Use and Implications for Health Care in Eastern Amazonia," Bioscience 53(no. 6, 2003). (v 14, #3)

Shannon, Daniel E., "A Criticism of a False Idealism and Onward to Hegel: Objections to the Gaia Hypothesis," The Owl of Minerva 27(no. 1, Fall 1995):19-36. An argument against the Gaia hypothesis as formulated by James Lovelock, who offers a scientific explanation for it, and

by Peter Russell, who offers an idealistic system in order to accommodate the theory (in The Awakening Earth: The Global Brain, Routledge, 1982). An argument for an alternative account, one which Hegel presented in his Philosophy of Nature, which Shannon calls the "ecological hypothesis." If the Gaia hypothesis is taken as the claim that the Earth is somehow alive, the answer is decidedly no. But a more modest proposal is still possible that views the Earth as a complexity of processes that engender life. Hegel supports a theory that offers such a proposal. These are fundamental claims about the planet, but in Hegel's system, they involved an essential insight into nature as a whole, showing how the Earth yields life, though it is not itself alive. Shannon is at Depauw University. (v7,#1)

Shantz, J, "Green Syndicalism: An Alternative Red-Green Vision," Environmental Politics 11(no.4, 2002): 21-41.

Shantz, J, "Solidarity in the Woods: Redwood Summer and Alliances Among Radical Ecology and Timber Workers", Environments 30(no.3, 2002):79-94.

Shaoul, Jean, "Mad Cow Disease: The Meat Industry is Out of Control," The Ecologist 27 (Sept. 1997):182-. Both the UK Conservative and the New Labour governments have been more concerned with defending the interests of a powerful and inherently unhealthy meat industry than with protecting the health of the British public. (v.8,#4)

Shapiro, J. A. (James A.), "A 21st Century View of Evolution," Journal of Biological Physics 28(2002):745-764. In contrast to the Darwinian view of evolution as a random walk, undirected mutations and contingent evolution, Shapiro and other complex systems theorists are now interpreting these processes as a form of natural genetic engineering. Genomes are hierarchically organized as systems assembled from DNA modules. There are various routines for re-arranging these genetic modules and using other mobile genetic elements, often in times of stress, that are better seen as natural genetic engineering than as a random walk. Many of the enzymes that geneticists now use to cut and splice and re-arrange genes were already doing this for millennia in the natural history of the genome. A similar article is James A. Shapiro: "A 21st Century View of Evolution: Genome System Architecture, Repetitive DNA, and Natural Genetic Engineering," Gene 345(2005):91-100. "These developments ... suggest some new ways of thinking about genomes as sophisticated informatic storage systems and about evolution as a systems engineering process" (Abstract, p. 91). Shapiro is in biochemistry and molecular biology, University of Chicago.

Shapland, Greg. 1997. Rivers of Discord: International Water Disputes in the Middle East. New York: St. Martin's Press, 1997. (v.9,#3)

Sharma, Narendra P., Managing the World's Forests: Looking for Balance between Conservation and Development. Kendall/Hunt Publishing Co., 1992. By distorting the true cost of forest resources, perverse public policies have encouraged short-term exploitation of forests. Sharma is an economist at the World Bank and an adjunct professor in the School of the Environment, Duke University. (v3,#3)

Sharma, Shalendra. "Building Effective International Environmental Regimes: The Case of the Global Environment Facility," The Journal of Environment and Development 5(no.1, 1996):73. (v8,#2)

Sharma, Subrat, Hem C. Rikhari, and Palni, Lok Man S. "Conservation of Natural Resources Through Religion: A Case Study from Central Himalaya." Society & Natural Resources 12(No. 6, Sept. 1999):599- . (v10,#4)

Sharp, Liz, "Local Policy for the Global Environment: In Search of a New Perspective," Environmental Politics 8 (No. 4, 1999 Winter): 137- . (v.11,#4)

Sharpe, R., The cruel deception. Wellingborough, Northants, Thorsons, UK, 1988.

Sharpe Studies in Environmental Ethics is a new series of books published by M. E. Sharpe, and designed to provide contemporary introductions to classic problems, current developments, and emerging domains of inquiry. The series editor is James E. Huchingson, Dept. of Religious Studies, Florida International University, Miami, FL 33199. (v8,#1)

Sharpe, Virginia A., Norton, Bryan, Donnelley, Strachan. Wolves and Human Communities: Biology, Politics, and Ethics. 280 pages. Cloth \$65. Paper \$30. Contributors address the complex ethical, biological, legal, and political concerns surrounding wolf reintroduction. The social, cultural, and ecological values that come into play in the debate. (v.11,#4)

Sharpe, Virginia A., Bryan Norton, and Strachan Donnelley, eds. Wolves and Human Communities: Biology, Politics, and Ethics. Reviewed in Environmental Ethics 25(2003):207-210. (EE)

Shaver, Gaius R., Canadell, Josep, and Rustad, Lindsey, "Global Warming and Terrestrial Ecosystems: A Conceptual Framework for Analysis," Bioscience 50(no. 10, Oct. 1, 2000):871- .

Shaw, Bill. "A Virtue Ethics Approach to Aldo Leopold=s Land Ethic." Reprinted in Ronald Sandler and Philip Cafaro (eds.), Environmental Virtue Ethics (Lanham, MD: Rowman and Littlefield, 2005).

Shaw, Bill. "A Virtue Ethics Approach to Aldo Leopold's Land Ethic." Environmental Ethics 19(1997):53-67. I examine "The Land Ethic" by Aldo Leopold from a virtue ethics perspective. Following Leopold, I posit the "good" as the "integrity, stability, and beauty" of biotic communities and then develop "land virtues" that foster this good. I recommend and defend three land virtues: respect (or ecological sensitivity), prudence, and practical judgment. Shaw is in the Department of Management Science and Information Systems, University of Texas, Austin. (EE)

Shaw, Derek, Owning the Natural World, 1996, University of Colorado, Boulder, Ph.D. thesis in philosophy. 263 pages. Philosophical reflections on property explain how our property institutions enable us to achieve valued goals, such as maximizing satisfied preferences. Many philosophers assume that the normative conclusions of property theory are universally valid. This is mistaken. Liberal philosophical justifications of private property are based on values and

intuitions that are created within the context of private property-based societies. Our relations to the natural world, which are often assumed to be only mediated by property, are in fact determined and limited by the "nature" of our property regime. The ownership conventions (and land rights) of many native peoples have been overlooked and/or destroyed. Property theory can never be used to justify the imposition of Western-style ownership conventions onto native societies. Broader perspectives on property result from investigating the phenomenology and genealogy of property. The advisor was James Nickel. (v.10,#1)

Shaw, J., "Review of: Robbins, William G., and Foster, James C., Land in the American West: Private Claims and the Common Good (Seattle: University of Washington Press, 2000)," Land Use Policy 20(no. 3, 2003): 291-292.

Shaw, J., "Irrigated Eden: The Making of an Agricultural Landscape in the American West," Land Use Policy 18(no.ER4, 2001): 365-66. (v.13,#2)

Shaw, Marvin C., Nature's Grace: Essays on H. N. Wieman's Finite Theism. Reviewed by Emanuel S. Goldsmith. American Journal of Theology and Philosophy 18(no. 1, 1997):97-100.

Shaw, R. Paul, "Warfare, National Sovereignty, and the Environment," Environmental Conservation 20 (no. 2, Summer 1993):113-121. A sobering article. Armed conflict does enormous damage to the environment, which may take decades and centuries to recover, if recovery is possible at all. Combined shooting and silent wars cripple the capacity of governments to raise funds for environmental investments and undercut prospects for sustainable development, especially in Third World countries. The enduring relationship between war proneness and nation-building shackles efforts by the international community to protect the global commons. Unfortunately, this runs deep in human nature. The evolutionary process produced, in the interests of ethnic self-defense, a human disposition to nationalism that is largely incompatible with protecting the global commons. For ninety-nine percent of our heritage, protecting the global environment was not a perceived problem. There is some hope, however, in the concept of a homeland, as distinct from that of a nation state, toward which humans do have an innate disposition to care. Perhaps we can come to see Earth as a homeland, or, more realistically, to see how global trends may affect our homelands adversely. This could help to enable diverse peoples to act in concert globally and to protect their environments regionally. Shaw is an economist with the World Bank. (v5,#4)

She, Zhengrong, "Tuoshan shengtai lunlixue di wenhua jing yu (Extend the Domain of Ecological Ethics)," Zi Ran Bian Lun Fa Yet Jiu (Studies in Dialectics of Nature) 15(no. 2, February, 1999):56-60. ISSN 1000-8934. (China). (v.10,#1)

She Zhengrong. AMoral Objects and Justice Orientation in Environmental Ethics@ *Modern Philosophy* No. 4 (2003): 76-79.

She Zhengrong. *An Exploration and Reconstruction of the Chinese Tradition of Ecological Ethics*. Beijing: Renmin Press, 2002.

She Zhengrong. AWhy Humans Have Duties to Nature.@ *Jiangnan Forum* No. 10 (2007): 42-

44.

She Zhengrong. AHow to Derive Environmental Ethics from Axiology.@ *Guangdong Social Sciences* No. 5. (2003): 24-28.

She Zhengyong, "Deepening the Cultural Dimension of Eco-ethics," Ziran Bianzhengfa Yanjiu (Studies in Dialectics of Nature) 2(1999):56-60. In Chinese. (v.11,#1)

Shea, Nancy Huffman, The Status of Ecophilosophy and the Ideology of Nature. Ph.D. thesis, University of Massachusetts, 1991. Ecophilosophy is an attempt to render a new philosophy of nature, generated by the need to liberate nature from the inherently domineering disposition of humankind. Although I am sympathetic to this effort, I believe that the current ambiguity of its content (who or what is to survive) carries with it the potentiality for new forms of oppression. I argue that ecophilosophy suffers from a kind of Habermasian self-deception, taking on a vague concept of nature that deceptively appears to do the philosophical work of healing the epistemological gap between nature and humans. My reconstruction unifies this loosely-defined vision along the lines of an equivocal use of two key concepts, the domination of nature and nature itself, revealing the potentially subversive character of its implicitly universalist philosophy of nature.

Ecophilosophers, rather than distinguishing themselves, fail to improve upon Francis Bacon's suggestion that attention to nature will liberate us. Their satisfaction with ecological solutions indicates that they miss the essential ideological consequence of the modern project: the domination by some humans over others has been covered over by a self-deceptive belief in the liberating character of scientific methodology. By arguing for the emancipatory capacity of ecology, they get themselves into a Marcusian-like bind, advocating this new science while at the same time rejecting scientific rationality as a pivotal component of their notion of the domination of nature. Because of this they are forced to argue that ecology is qualitatively different, offering a new kind of rationality that contains the necessary ingredients for radically changing society.

Ecophilosophers must reconsider the epistemologically naive and ideologically negative repercussions of this position as I demonstrate with an analysis of the potentially repressive relationships that exist between fourth world cultures and the environmental community. I conclude by subjecting the Habermasian universalist framework to revision as indicated by the possibilities of a new eco-vision, emerging from the contextual episteme of a reworked ecofeminist perspective. The advisor was Robert Paul Wolff. Shea is now director of the Murie Center in Grand Teton National Park. (v10,#4)

Shea, William R. and Beat Sitter, eds., Scientists and their Responsibility. Canton, MA: Watson Publishing International, 1989. Hardbound. 348 pages. The first section is "Human Responsibility and the Natural Order," and includes (among others) the following papers: Jürgen Mittelstrass, "Ethics of Nature" (mostly our responsibilities toward nature as a whole with reference to the dependence of future generations on an intact nature); Kristin Shrader-Frechette, "Ecological Theories and Ethical Imperatives: Can Ecology Provide a Scientific Justification for the Ethics of Environmental Protection?" (anticipating the argument of Shrader-Frechette and McCoy, Method in Ecology); Beat Sitter, "In Defence of Nonanthropocentrism in Environmental Ethics" (seven ways of using "anthropocentrism," five aspects of "nature"; four principles for environmental ethics; there is an obligation to respect all beings, with a reply to Shrader-

Frechette). Shea is professor of history and philosophy of science at McGill University, Montreal. Beat Sitter (now Sitter-Liver) is Secretary General of the Swiss Academy of the Humanities and the Swiss Academy of Sciences. (v4,#4)

Shea, William R. and Beat Sitter, eds., Scientists and Their Responsibility. Canton, MA: Watson, 1989. This collection has several chapters dealing with environmental ethics. Kristin Shrader-Frechette, "Ecological Theories and Ethical Imperatives," pp. 73-104, argues that the science of ecology will not provide the necessary support for either a holistic environmental ethic nor a "balance of nature" environmental ethic. Beat Sitter, "In Defense of Nonanthropocentrism in Environmental Ethics," pp. 105-145, answers Shrader-Frechette in a wide-ranging defense of nonanthropocentrism, including the claim that the weakness of ecological science insures its ethical relevance (p. 126). Also chapters by Robert K. Colwell, "Natural and Unnatural History: Biological Diversity and Genetic Engineering," pp. 1-40, and Jurgen Mittelstrass, "Ethics of Nature," pp. 41-57. (Katz, Bibl # 2)

Sheaffer, J. R., Mullan, J. D. and Hinch, N. B., "Encouraging Wise Use of Floodplains with Market-Based Incentives," Environment 44(no.1, 2002): 32-43. (v.13,#2)

Sheail, John, "Ecology - A science put to use," Biology and Conservation 9(2000):1099-1113. Abstract. There is no lack of pretext for reviewing historically how ecologists have striven to gain the respect of scholars in their own and other fields, and to demonstrate the wider public-utility of their science. If self-serving, in terms of securing the scope and resources required to advance their studies in ecology, such activities have also been encouraged; and indeed commissioned, in the belief that a greater awareness and understanding of the natural world is essential for human wellbeing. Illustrative material is drawn from the British experience. Key words: government research, nature conservation, plant and animal ecology, research councils, United Kingdom. Sheail is at the Institute of Terrestrial Ecology, (Natural Environment Research Council), Huntingdon, Cambridgeshire, UK. (v.13,#1)

Sheail, John. "Ecology--A Science Put to Use," Biodiversity and Conservation 9(no. 8, 2000):1099-1113. Abstract. There is no lack of pretext for reviewing historically how ecologists have striven to gain the respect of scholars in their own and other fields, and to demonstrate the wider public-utility of their science. If self-serving, in terms of securing the scope and resources required to advance their studies in ecology, such activities have also been encouraged, and indeed commissioned, in the belief that a greater awareness and understanding of the natural world is essential for human wellbeing. Illustrative material is drawn from the British experience. Key words: government research, nature conservation, plant and animal ecology, research councils, United Kingdom.

Sheard, Murray. "Sustainability and Property Rights in Environmental Resources." Environmental Ethics 29(2007):389-01. How do we weigh the claims of current and future people when current exercise of rights to property conflict with sustainability? Are property rights over these resources more limited due to the claims of posterity? Lockean property rights allow no right to degrade resources when doing so threatens the basic needs of future generations. A stewardship conception of property rights can be developed, providing a justification for sustainable management legislation even when such law conflicts with the rights an owner would have, were the resource under more full-blown ownership. A protection

indicator can be developed that is sensitive to a range of empirical factors such as scarcity, renewability, importance of the resource, and seriousness and reversibility of potential harm. The stewardship conception of rights over environmental resources can be applied in policy settings, for example, in decisions over emissions limits and land-use patterns. Such harnessing of Lockean intuitions to argue for environmental protection is in sharp contrast to Locke's usual employment by those keen to show that such protection violates owners' rights. (EE)

Shearer, C. Russell H. "Protecting Audit Confidentiality", Natural Resources & Environment 11(no.2, 1996):50.

Shearman, Richard, "Can We Be 'Friends of the Earth'?" Environmental Values 14(2005): 503-512. Reasons for protecting biodiversity are usually defined in terms of its instrumentality. Although there may be a number of ways to seek an alternative non-anthropocentric approach, I have chosen to develop an Aristotelian response that draws upon his conception of friendship and self-love. In doing so, I argue that a person living according to moral virtue will recognise that the nonhuman world should be valued and thus protected (at least in part) for its own sake. Shearman is in science, technology, and society, Rochester Institute of Technology, Rochester, NY. (EV)

Shearman, Richard, "The Meaning and Ethics of Sustainability," Environmental Management 14(1990):1-8. Some have argued that the meaning of sustainability varies according to context. Shearman disputes this. It is not the meaning of sustainability that changes but our understanding of the context itself. Contradictions arise when conceiving each context in terms of sustainability. We should be concerned not with the meaning of sustainability but with the implications of sustainability as they affect the status quo. We must be prepared to answer the question: Why is sustainability desirable. This approach is applied to ecologically sustainable development. Shearman is in the program in Environmental Science, State University of New York, Syracuse. (v2,#1)

Sheasby, Walt Contreras. Extended book review essay on Joel Kovel, "The Enemy of Nature: The End of Capitalism or the End of the World", Organization and Environment, 15, (No. 4, 2002): 485-489. Sheasby is in sociology at the University of Phoenix, Southern California.

Sheehan, John F. "Acid Rain Still a Scourge in Adirondacks." Wild Earth 6, no.1 (1996): 34. (v7, #3)

Sheehan, Kathryn and Mary Waidner, Earth Child: Games, Stories, Activities, Experiments and Ideas About Living Lightly on Planet Earth. 328 pages. \$ 16.95. With an extensive bibliography of other sources. Council Oak Books, 1350 East 15th St., Tulsa, OK 74120. Phone: 800-247-8850. (v5,#3)

Shelden, K. E. W., De Master, D. P. , Rugh, D. J. and Olson, A. M., "Developing Classification Criteria under the U.S. Endangered Species Act: Bowhead Whales As," Conservation Biology 15(no.5, 2001): 1300-07. (v.13,#2)

Sheldon, J. Wood, Balick, M.J., Laird, S. Medicinal Plants: Can Utilization and Conservation Coexist? Bronx, NY: The New York Botanical Garden, 1997. \$12.95 paper. Several medicinal plant species, their value to traditional and contemporary medicine, and how over-harvesting of these plants impacts natural and human forest communities. An account of how the herbal and pharmaceutical industries have discovered and used medicinal plants the impact of this on forest communities. (v7,#4)

Sheldon, Joseph K., Rediscovery of Creation: A Bibliographical Study of the Church's Response to the Environmental Crisis. Metuchen, N. J., American Theological Library Association and Scarecrow Press, 1992. 300 pages. \$ 35.00. There are 1,700 references, dealing with religion and the environment, also ecofeminism, ecojustice, economics, wilderness, biotechnology. There is a long introductory essay, beginning with the 1967 attack by Lynn White and following the churches in their response. There are a number of typographical errors. (v3,#3)

Sheldrake, Rupert, The Rebirth of Nature: The Greening of Science and God (New York: Bantam Books, 1991). \$ 21.95. 260 pages. An iconoclastic scientist takes a look at the regenerative power of nature and offers his own controversial theory of a living Earth, Gaia, that is far from its end. Sheldrake also takes a religious turn. After several years in India, Sheldrake reports, "Much to my surprise, I found myself being drawn back to Christianity." Nor does he mind including many New Age ideas. Sheldrake is a maverick biochemist and cell biologist at Cambridge University and sometime philosophy student at Harvard University. (v2,#1)

Sheldrake, Rupert, The Rebirth of Nature: The Greening of Science and God. London: Rider, 1990, 1991. An imprint of Random Century Group, Ltd, 20 Vauxhall Bridge Road, London SW1V 25A, and available in several other nations. Our earlier ancestors took it for granted that the world was "alive," but the official view of nature as a mechanistic, inanimate storehouse of riches and resources to be exploited for human gain has dominated for the past several hundred years and brought with it unprecedented abuse of the living world. Now there are new developments in science that make such a viewpoint no longer valid. We are on the threshold of a new understanding of nature in which traditional religious wisdom, personal experience, and scientific insight can be mutually enriching, and produce a society in which humans are in harmony with living nature. (v3,#3)

Shellenberger, Michael and Ted Nordhaus, "The Death of Environmentalism: Global Warming Politics in a Post-Environmental World." Breakthrough Institute, 2005. Online: <http://thebreakthrough.org/images/Death%5Fof%5FEnvironmentalism.pdf>. Claims vociferously that old-time environmentalism--a la Sierra Club, Wilderness Society, Audubon Society--is dead, because it became a special interest group, with narrow focus. Meanwhile issues have become global, comprehensive, with activities in government, society, commerce thoroughly merged with concerns about nature, best illustrated in global warming. Much of the booklet is based on interviews with 25 of the environmental communities' top leaders. "Modern environmentalism is no longer capable of dealing with the world's most serious ecological crisis." "Not one of America's environmental leaders is articulating a vision of the future commensurate with the magnitude of the crisis." (from the Introduction). Shellenberger is with the Breakthrough Institute. Nordhaus is with Evans McDonough Company.

Shen Litian, "From anthropocentrism to open environmental ethics", Science, Technology and Dialectics, 2001(5)

Shepard, Lyn. "Environmentalists 'Davids' Oppose Goliath Dam Projects." The Christian Science Monitor, vol. 89, 27 Feb. 1997, p. 7.

Shepard, Paul, and McKinley, Daniel, The Subversive Science: Essays Toward an Ecology of Man. Boston: Houghton Mifflin, 1969.

Shepard, Paul, The Tender Carnivore and the Sacred Game. New York: Scribners, 1973).

Shepard, Paul, Man in the Landscape: A Historic View of the Esthetics of Nature. College Station, TX: Texas A&M Press, 1991. 336 pages. \$ 24.50. 2nd edition. The first was in 1967. The traditions created from landscape painting, literature, gardening, and the notion of paradise, reconciled in an ecological perspective. "We may come to see the landscape as the story of our being. It represents the idea of a context once described as the ground of a gestalt in which being alive and being human is the figure. But that metaphor relies on a static contrast or opposition. New and better metaphors are emerging. To this creativity, Man in the Landscape is rededicated" (p. xxviii). (v6,#4)

Shepard, Paul (1925-1996), Nature and Madness, with foreword by C. I. Rawlins. The Tender Carnivore and the Sacred Game, with foreword by George Sessions. Thinking Animals: Animals and the Development of Human Intelligence, with foreword by Max Oelschlaeger. All reprinted in paperback, 1998, by the University of Georgia Press, Athens, GA. Shepard was professor of natural philosophy and human ecology at Claremont College, Claremont Graduate University, and Pitzer College for more than twenty years. (v9,#1)

Shepard, Paul, The Only World We've Got. San Francisco: Sierra Club Books, 1995. Shepard, who died in 1966, was a noted human ecologist who taught at Dartmouth University and at Pitzer College, Claremont, CA, where he held the Avery Chair in Human Ecology. A critical assessment of his work is Oelschlaeger, Max, ed., The Company of Others: Essays in Celebration of Paul Shepard (Durango, CO: Kivaki Press, 1995).

Shepard, Paul and McKinley, Daniel, Environ/mental: Essays on the Planet as a Home. Boston: Houghton Mifflin, 1971.

Shepard, Paul, Thinking Animals: Animals and the Development of Human Intelligence. New York: Viking Press, 1978.

Shepard, Paul, The Others: How Animals Made Us Human. Washington, DC: Island Press, 1995. 357 pages. \$ 24.95. "We are space-needing, wild-country, Pleistocene beings, trapped in overdense numbers in devastated, simplified ecosystems. We project our problems onto mythic forms of barbarism. Whereas the sanctity of nonhuman life was a normal part of small-scale societies for thousands of years, the 'world religions' with their messianic, human-centered, and otherworldly emphasis, trampled those traditions and now is beginning to realize what it lost: sensitivity to human membership in natural communities and affirmation of and compliance with the biological framework of life." Concerning the human relation with animals, neither "logic

nor charity can deal with what is, beyond pets and chicken factories, a mystery and an ecology: the ambiguity of life living on death, the spiritual nature of nonhuman life, traditions of human membership in natural communities embedded in place and ancestry. Earth history places us among the animals, as one of them, in food chains and other symbioses which we do not invent, but inherit, and which set our limitations among the Others."

Shepard, Paul, and Sanders, Barry, The Sacred Paw: The Bear in Nature, Myth and Literature. New York: Viking Press, 1985.

Shepard, Paul. Nature and Madness. San Francisco: Sierra Club Books, 1982.

Shepard, Paul. Traces of an Omnivore. Washington, D.C.: Island Press, 1996. 307 pages. \$24.95 cloth. Countering the relativist, the skeptic, and the cynic, Shepard argues for a deeper appreciation of "primitive life". (v7, #3)

Shepard, W. Bruce, "Seeing the Forest for the Trees: 'New Perspectives' in the Forest Service" Renewable Resources Journal, Summer 1990. The USDA Forest Service, in the face of mounting criticism from both without and within, has recently announced a "New Perspectives" program. Earlier, the Forest Service had believed that rational management and scientific expertise could replace politics but when asking how and for whom the forests ought to be managed "answers to those questions come not from science but from values and interests." "New perspectives" "goes against the grain of foresters who are comfortable with questions that can be answered on the basis of 'fact,' but who are uncomfortable with questions that can only be answered by reference to values and interests. (v1,#4)

Shepherdson, David J., Mellen, Jill D. Hutchins, Michael, eds. Second Nature: Environmental Enrichment for Captive Animals. Washington, D.C.: Smithsonian Institution Press, 1997. 336 pp. \$32.50. Moving beyond the usual studies of primates, contributors argue that whether an animal forages in the wild or plays computer games in captivity, the satisfaction its activity provides--rather than the activity itself--determines its level of physical and psychological well-being. (v8,#3)

Sheppard, Hale E., "Native Forest Protection in Chile: The Inadequacies of the Recent Environmental Framework Law and Relevant Multilateral Instruments," Journal of Environmental Law and Litigation 14 (No. 1, 1999): 225- . (v.11,#4)

Sheppard, James, Metropolitan Environmental Ethics: Toward Flourishing Human and Ecological Communities, Ph.D. thesis, Department of Philosophy, SUNY Binghamton, 2002. The dissertation is the first comprehensive argument for an environmental ethic extended to cover cities and urban areas. The thesis was directed by Andrew Light (Applied Philosophy, NYU) and the committee included Dale Jamieson (Environmental Studies and Philosophy, Carleton), Bill Lawson (Philosophy, Michigan State), and Max Pensky (Philosophy, Binghamton). Sheppard begins a new tenure track position as Assistant Professor of Philosophy at the University of Missouri at Kansas City in July 2002. (v.13,#1)

Sheppard, James W. "Overcoming Obstacles to Sustainability: Can Liberal Democracy Help?", Organization and Environment, 16, (No. 2, 2003): 248-54. An extended book review essay on John Barry and Marcel Wissenburg's edited essay compilation Sustaining Liberal Democracy: Ecological Challenges and Opportunities. Sheppard is assistant professor in philosophy at the University of Missouri-Kansas City, specialising in environmental ethics and policy, urban theory and pragmatism, as well as being a member of the University of Missouri-Kansas City's Centre for the City Urban Taskforce.

Sheppard S.R.J.; Achiam C.; DEon R.G., "Aesthetics: Are We Neglecting a Critical Issue in Certification for Sustainable Forest Management?," Journal of Forestry 102(no.5, July/August 2004):6-11(6). (v. 15, # 3)

Sherbinin, Alex. "Human Security and Fertility: The Case of Haiti," The Journal of Environment and Development 5(no.1, 1996):28. (v8,#2)

Sherkat, Darren E., and Christopher G. Ellison. A Structuring the Religion-Environment Connection: Identifying Religious Influences on Environmental Concern and Activism. @ *Journal for the Scientific Study of Religion* Vol. 46, no. 1 (2007): 71-85. Recent research on the connection between religion and environmental concern and activism has led to divergent conclusions, with some studies finding a negative effect of religious factors, and others finding no influence or a positive effect. Using a conceptual apparatus of structuration theory, we explain how these divergent findings might be reconciled. We examine data from the 1993 General Social Survey to elaborate how religious affiliation, participation, and beliefs influence environmental concern and private and political environmental activism.

Sherlock, Kirsty, Review of: Kasemir, Bernd, Jull Jager, Carlo C. Jaeger and Matthew T. Gardners, eds., Public Participation in Sustainability Science: A Handbook. Environmental Values 13(2004):415-417. (EV)

Sherlock, Richard, and Morrey, John D., eds., Ethical Issues in Biotechnology. Lanham, MD: Rowman and Littlefield, 2002. With a general introduction to moral theory, the basics of genetics, and the science of biotechnology. Sections reviewing specific moral issues. Case studies. Readings by scientists, philosophers, government regulators, lawyers, and religious leaders. Sherlock is in philosophy, Morrey in animal, dairy, and veterinary sciences at Utah State University, and the two team teach an undergraduate course in ethical issues in biotechnology. (v.13,#4)

Sherman, Kenneth, Lewis M. Alexander, and Barry D. Gold, eds., Large Marine Ecosystems (Washington, DC: American Association for the Advancement of Science, 1990). 242 pages, \$ 39.95. Concepts in marine ecology, with implications for conservation. (v2,#1)

Sherman, Thomas Fairchild. A Place on the Glacial Till: Time, Land, and Nature Within an American Town. New York: Oxford University Press, 1996. 244pp. \$22. Sherman writes about the history of the life and land around his long-time home in Oberlin, Ohio, with the message that all time and nature abide within the rocks and soil, with connections, beauty, and meaning as deep as history and as broad as human understanding. (v8,#1)

Shermer, Steven D., "The Efficiency of Private Participation in Regulating and Enforcing the Federal Pollution Control Laws: A Model for Citizen Involvement," Journal of Environmental Law and Litigation 14(no.2, 1999):461- . (EE v.12,#1)

Sherry, C. J., Animal rights. Santa Barbara, CA: ABC-Clio, Inc., 1995.

Sherry, E; Myers, H, "Traditional Environmental Knowledge in Practice," Society and Natural Resources 15(no.4, 2002):345-358. (v.13, #3)

Sherry, Patrick, Spirit and Beauty: An Introduction to Theological Aesthetics. London, SCM Press, 2002 (originally published 1992). Includes but is not limited to beauty in nature. Sherry is in philosophical theology, Lancaster University, UK. (v.13,#2)

Shi Yuanbo. AThe Basis of Being of Theory of Right of NatureAn Analysis of the View of Heidegger=s Ecological Ethics.@ *The Northern Forum* No. 5 (2006): 32-35.

Shields, Deborah J., and E. T. Bartlett, "Applicability of Montreal Process Criterion 6 - Long-term Socio-economic benefits - to Rangeland Sustainability," International Journal of Sustainable Development and World Ecology 9(no 2, 2002):95-120. Following the UNCED Statement of Forest Principles and Agenda 21, there was formed an international effort, the Working Group on Criteria and Indicators for the Conservation and Sustainable Management of Temporal and Boreal Forests, known as the Montreal Process. Criterion 6 calls for the long-term sustainability of social and economic benefits. Shields and Bartlett apply this criterion to rangelands, in addition to forests. They develop some 19 indicators of rangeland condition and benefits--social, economic, ecological, cultural, and spiritual. They discuss measurement of these benefits, notice that some are more easily measured than others, but those that escape quantification may nonetheless be quite significant. Numerous concrete examples of a broad range of rangeland benefits, and suggestions for their conservation. Shields is at the Rocky Mountain Research Station, USDA Forest Service, Fort Collins, CO. Bartlett is in Rangeland Ecosystem Science, Colorado State University, Fort Collins.

Shiell, L., "Equity and Efficiency in International Markets for Pollution Permits," Journal of Environmental Economics and Management 46(no. 1, 2003): 38-51. (v 14, #3)

Shifferd, KD, "Hal K. Rothman, Saving the Planet: The American Response to the Environment in the Twentieth Century," Environmental History 6(no.2, 2001):312- (v.12,#4)

Shillinger, Kurt. "Property Rights Becomes Hot Battle." The Christian Science Monitor, 2 March 1995, p. 4. Concerns "takings" and includes an interesting case, the John and Josephine Bronczyk Farm, in Minnesota. (v6,#1)

Shindler, Bruce, Steel, Brent, List, Peter. "Public Judgments of Adaptive Management: A Response from Forest Communities." Journal of Forestry 94(Jun.1996):4. (v7,#2)

Shindler, Bruce, Neburka, Julie. "Public Participation in Forest Planning: Eight Attributes of Success," Journal of Forestry 95(1997):17. (v8,#1)

Shine, C., N. Williams, et al., A Guide to Designing Legal and Institutional Frameworks on Alien Invasive Species. Gland, Switzerland: World Conservation Union (IUCN), 2000. (v. 15, #3)

Shine, R.; Harlow, P. S.; and Keogh, J. S. "Commercial Harvesting of Giant Lizards: The Biology of Water Monitors *Varomus Salvator* in Southern Sumatra." Biological Conservation 77, no.2 (1996): 125. (v7, #3)

Shinn, Roger L. Forced Options: Social Decisions for the Twenty-First Century. 3rd ed. Cleveland: Pilgrim Press, 1991.

Shinn, Roger L., "The Mystery of the Self and the Enigma of Nature." pages 96-120 in Deborah A. Brown, ed., Christianity in the 21st Century (New York: Crossroad Publishing Co., 2000). "As Christians enter the third millennium, we find ourselves rethinking our relation to the realm of nature around us and within us. First, the discoveries of modern science demolish many traditional understandings of nature and confer on humanity new powers, benevolent or threatening. ... Second, ecological perils, some local and some planetary, warn us that our present ways of dealing with nature, while destroying much of what we call the environment, are also self-destructive, potentially on a grand scale." The effort to separate the self from nature "gets less and less persuasive."

"In this essay I resist two broad tendencies of our time: (1) those that neglect nature, depreciate it, or regard it as a warehouse of materials for human exploitation, and (2) those that cultivate pleasant illusions about nature or idealize it as a norm for human living. And I seek some 'theological pointers' as guides to responsible living" (pp. 97-97). Shinn is professor of ethics, emeritus, Union Theological Seminary in New York. (v.14, #4)

Shinn, Terry, Spaapen, Jack, Krishna, Venni, eds. Science and Technology in a Developing World. Hingham, MA: Kluwer Academic Publishers, 1997. 420 pp. \$190. By grasping the epistemologies held or fostered in the south toward science and technology, the actions of southern peoples and their dealings with the north acquire more intelligibility. (v8,#3)

Shippard, James W., Review of Gandy, Matthew, Concrete and Clay: Reworking Nature in New York City. Cambridge, MA: The MIT Press, 2002. Environmental Values 12(2003):397-400. (EV)

Shirk, Evelyn, "New Dimensions in Ethics: Ethics and the Environment." Journal of Value Inquiry 22 (1988): 77-85. According to the author, environmental ethics "is a discipline with few precedents and less history" (p. 85). Clearly the author has read nothing about environmental ethics or environmental history: her major insight is that environmental ethics involves consideration of the group, not the individual---but she means the human group! An article to be avoided. (Katz, Bibl # 2)

Shiva, V., "Self-Imposed Sanctions. India Wants More Market Controls, Not Fewer, If It Is to Survive," Ecologist 31(no.9, 2001): 53.

Shiva, Vandana and Ingunn Moser, eds. Biopolitics: An Ecofeminist Reader on Biotechnology. Atlantic Highlands, NJ: Humanities Press, Zed Books, 1995. This reader assembles some of the most important work from feminists and environmentalists critical of the headlong rush into what is likely to prove a technological minefield. Contributors present frameworks for understanding and contextualizing the debates on biotechnological development. Shiva is director of the Research Foundation on Science and Technology, Dehradun. Moser is at the Centre for Technology and Culture, University of Oslo. (v7,#1)

Shiva, Vandana and Emmott, Bill, "Is 'Development' good for the Third World?," The Ecologist, 30 (No. 2, 2000 Apr 01): 22- . Environmentalist Vandana Shiva and Economist editor Bill Emmott go head to head. (v.11,#4)

Shiva, Vandana, "Stolen Harvest: The Hijacking of the Global Food Supply," Philosophy and Geography 4 (No. 1, 2001): 127-129. Book reviewed by Maskit, Jonathan. (P&G)

Shiva, Vandana, Stolen Harvest: The Hijacking of the Global Food Supply. Cambridge, MA: South End Press, 2000. The values of traditional agriculture are being undermined by the corporate interests behind the latest revolutions in agricultural technology. The interests of corporations are now starkly in contrast with the interests of the people who need to eat and of the farmers, especially the women farmers. "The notion of rights has been turned on its head. ... The right to produce for oneself or consume according to cultural priorities and safety concerns has been rendered illegal according to the new trade rules. The rights of corporations to force-feed citizens of the world with culturally inappropriate and hazardous foods has been made absolute. The right to food, the right to safety, the right to culture are all being treated as trade barriers that need to be dismantled" (p. 18) The Indian cow--integrated into the life of the people spiritually, physically, and emotionally--is better than the "mad cow," a cow fed on animal carcasses, an artifact of animal agriculture (p. 75). (v.13,#1)

Shiva, Vandana, The Violence of the Green Revolution: Third World Agriculture, Ecology, and Politics. Cloth and paper. 264 pages. London: Zed Books; Penang, Malaysia, Third World Network, 1991. An examination of the Green Revolution on the breadbasket of India. The quick fix promise of large gains in output pushed aside serious pursuit of an alternative agricultural strategy grounded in respect for the environmental wisdom of peasant systems and building an egalitarian, needs-oriented agriculture, consistent with the village-based, endogenous political traditions of Gandhism. There was destruction of genetic diversity and soil fertility, and the Green Revolution contributed to the acute social and political conflicts now tearing the Punjab apart. Shiva argues in critique of the privileged epistemological position alleged by modern science which allows it both to claim to provide technological solutions for social and political problems while at the same time disclaiming responsibility for the new problems that it creates in its wake. Further, there has been a continuing ripoff as the industrialists and geneticists of the First World have stolen Third World genetic resources. "The US ... has freely taken the biological diversity of the Third World to spin millions of dollars of profits, none of which have been shared with Third World Countries, the original owners of the germplasm" (p. 260). Shiva is a philosopher and feminist, and director of the Research Foundation for Science, Technology and Natural Resource Policy, Dehradun, India. (v3,#3)

Shiva, Vandana, "The Seed and the Earth: Women, Ecology, and Biotechnology," The Ecologist 22(no. 1, January/February 1992):4-7. Western society gives a high value to scientific creation and a correspondingly low value to natural procreation. It thus legitimates the encroachment of technological development into both the female body and the seed. Shiva is director of the Research Foundation for Science, Technology and Natural Resource Policy, Dehra Dun, India. (v5,#2)

Shiva, Vandana, Biopiracy: The Plunder of Nature and Knowledge. Boston: South End Press, 1997. (v.9,#3)

Shiva, Vandana, ed., Close to Home: Women Reconnect Ecology, Health and Development Worldwide. Philadelphia: New Society Publishers, 1994. \$ 12.95. Twelve essays by women working largely in Asia on the impact of industrial and agricultural development on women's lives. Experiences of women in Thailand, in the Philippines, as well as in the United States, show that what we do to the Earth, we do to our bodies. (v5,#3)

Shiva, Vandana. Monocultures of the Mind: Biodiversity, Biotechnology and 'Scientific' Agriculture. Atlantic Highlands, NJ: Humanities Press, Zed Books, 1993. Shiva examines the current threats to the planet's biodiversity and the environmental and human consequences of its erosion and replacement by monocultural production. Shiva is director of the Research Foundation on Science and Technology, Dehradun. (v7,#1)

Shiva, Vandana. "Reversing Globalisation: What Gandhi Can Teach Us." The Ecologist 29(no. 3, May 1999):224- . (v.11,#1)

Shiva, Vandana. "The Two Fascisms." The Ecologist 29(no. 3, May 1999):198- . (v.11,#1)

Shiva, Vandana. "Now Monsanto Is After Our Water." The Ecologist 29(No. 5, August 1999):297- . (v10,#4)

Shiva, Vandana. *Soil Not Oil: Environmental Justice in an Age of Climate Crisis*. Cambridge, MA: South End Press, 2008. Shiva condemns industrial agriculture because of its dependence on fossil fuels and globalization and its contribution to climate change. She uses the Himalayan organization Navdanya as a model for championing the small, independent farm that is biologically more diverse, puts more resources into the hands of the poor, and replaces corporate power and profits with community, self-organization, and community. Shiva argues that the solution to poverty is the solution to climate change.

Shivik, John A., "Tools for the Edge: What's New for Conserving Carnivores," BioScience 56 (no.3, March 2006): 253-259 (7). The loss of large carnivores at the edges of parks, preserves, and human habitations threatens the conservation of many species. Thus, effective predation management is a conservation issue, and tools to mitigate conflicts between humans and predators are required. Both disruptive-stimulus (e.g., fladry, Electronic Guards, radio-activated guards) and aversive-stimulus (e.g., electronic training collars, less-than-lethal ammunition) approaches are useful, and technological advances have led to many new, commercially

available methods. Evaluating the biological and economic efficiency of these methods is important. However, social and psychological effects should also be considered.

Short, Frederick T., and Wyllie-Echeverria, Sandy. "Natural and Human-Induced Disturbance of Seagrasses." Environmental Conservation 23, no.1 (1996): 17. (v7, #3)

Short, John Rennie, Imagined Country: Environment, Culture, and Society. London: Routledge, 1991. 253 pages. What do we really mean when we use the term "environment"? What social values are embedded in environmental attitudes? How are environmental ideas expressed in literature, film, and painting? Societies invest the physical environment with cultural values. As cultural perception shifts, altered by location and time, its representations of the physical environment change. The social meanings of wilderness, countryside, and city. How and why they are used in the construction of national identity. The environmental myths used in American westerns, English novels, and Australian landscape painting. "My aim is simple, to identify and decode the major sets of ideas about the wilderness, country and city in the belief that there is nothing so social as our ideas about the physical environment" (p. xviii). Short teaches geography at Syracuse University. (v6,#4)

Shotwell, Thomas K., "An Essay on Beauty: Some Implications of Beauty in the Natural World," Zygon 27(1992):479-490. The beauty of the universe presented by modern science under the positivist approach is sufficiently great that human contemplative capabilities are exceeded. Our religious propensities need extensive rehabilitation and appreciation of the beauty revealed by the positivists is likely to result in a cosmic paradigm shift that could destabilize traditional views of human identity. Shotwell specializes in the development of medical products. (v4,#4)

Shrader-Frechette, Kristin S. Review of Unpopular Essays on Technological Progress. By Nicholas Rescher. Environmental Ethics 4(1982):363-67.

Shrader-Frechette, Kristin. "Throwing out the Bathwater of Positivism, Keeping the Baby of Objectivity: Relativism and Advocacy in Conservation Biology." Conservation Biology 10, no.3 (1996): 912. (v7, #3)

Shrader-Frechette, Kristin. "Ethical Dilemmas and Radioactive Waste." Environmental Ethics 13(1991):327-43. The accidents at Three Mile Island and Chernobyl have slowed the development of commercial nuclear fission in most industrialized countries, although nuclear proponents are trying to develop smaller, allegedly "fail-safe" reactors. Regardless of whether or not they succeed, we will face the problem of radioactive wastes for the next million years. After a brief, "revisionist" history of the radwaste problem, I survey some of the major epistemological and ethical difficulties with storing nuclear wastes and outline four ethical dilemmas common to many technological and environmental controversies. I suggest two solutions to these ethical dilemmas and show why they are also economical and realistic proposals. Shrader-Frechette is in the philosophy department, University of South Florida, Tampa, FL. (EE)

Shrader-Frechette, Kristin S. Review of Taking Sides: Clashing Views on Environmental Issues. Edited by Theodore Goldfarb. Environmental Ethics 8(1986):89-90.

Shrader-Frechette, Kristin S. Risk Analysis and Scientific Method. Reviewed in Environmental Ethics 8(1986):277-85.

Shrader-Frechette, Kristin. "Environmental Impact Assessment and the Fallacy of Unfinished Business." Environmental Ethics 4(1982):37-47. Nearly all current attempts at environmental impact analysis and technology assessment fall victim to an ethical and methodological assumption that Keniston termed "the fallacy of unfinished business." Related to one version of the naturalistic fallacy, this assumption is that technological and environmental problems have only technical, but not social, ethical, or political solutions. After using several impact analyses to illustrate the policy consequences of the fallacy of unfinished business, I suggest how it might be overcome. Next I present three standard arguments, repeatedly used in technology and environmental impact assessments, by those who subscribe to this "fallacy." I briefly examine the logical, consequentialist, and historical reasons for rejecting all three arguments in favor of this assumption. If my suggestions are correct, then environmental impact analysis is not only a matter of discovering how to finish our technological business, but also a question of learning how to recognize the ethical and epistemological dimensions of our assessment tasks. Shrader-Frechette is in the philosophy department, University of Louisville, Louisville, KY. (EE)

Shrader-Frechette, Kristin, "Parfit, Risk Assessment, and Imperceptible Effects." Public Affairs Quarterly 2:4 (October 1988): 75-96. Second in a continuing dialogue between Shrader-Frechette and Derek Parfit on problems with the assessment of moral actions over long periods of time. The first paper was "Parfit and Mistakes in Moral Mathematics," Ethics 97 (1987): 50-60. Three of Parfit's arguments for not ignoring imperceptible effects are challenged, although Shrader-Frechette agrees with the conclusion. She suggests instead a framework of probabilistic risk assessment. (Katz, Bibl # 2)

Shrader-Frechette, Kristin and McCoy, Earl D. "Molecular Systematics, Ethics, and Biological Decision Making under Uncertainty." Conservation Biology : The Journal of the Society of Conservation Biology 13(No. 5, Oct. 1999):1008- . (v10,#4)

Shrader-Frechette, Kristin S., and Earl D. McCoy, "Ecology and Environmental Problem-Solving," The Environmental Professional 16(1994):342-347. Contemporary community ecology has neither precise foundational concepts dealing with stability or community structure nor a developed general theory yielding precise predictive power. As a consequence, it has no exceptionless empirical laws useful to environmental problem-solving. Despite these deficiencies, ecology can provide a foundation for environmental policy by means of autecology, natural history, and detailed case studies. By focusing on less theoretical and more practical scientific work, ecologists have been able to guide conservation decisions in cases such as controlling the vampire bat and protecting the red-cockaded woodpecker. Shrader-Frechette is in philosophy and McCoy in biology at the University of South Florida. (v5,#4)

Shrader-Frechette, Kristin S. Review of Beyond Spaceship Earth. Edited by Eugene C. Hargrove. Environmental Ethics 10(1988):187-89.

Shrader-Frechette, Kristin S. Environmental Ethics. Pacific Grove, CA: Boxwood Press, 1981, 2nd edition, 1984. Reviewed in Environmental Ethics 6(1984):175-79.

Shrader-Frechette, Kristin S. Nuclear Power and Public Policy. Reviewed in Environmental Ethics 4(1982):261-71.

Shrader-Frechette, K. S. and McCoy, Earl D., "How the Tail Wags the Dog: How Value Judgments Determine Ecological Science." Environmental Values 3 (1994):107-120.

Philosophers, policymakers and scientists have long asserted that ecological science - and especially notions of homeostasis, balance, or stability - help to determine environmental values and to supply imperatives for environmental ethics and policy. We argue that this assertion is questionable. Using examples related to preservation versus development, hunting versus animal rights, and controversies over pest control, we show that, because ecology is conceptually and theoretically underdetermined, environmental values often influence the practice of ecological science. KEYWORDS: animal rights, balance of nature, community, ecology ecosystem, pest control, science, stability, values. Shrader-Frechette is in philosophy at the University of South Florida. McCoy is in biology at the University of South Florida, Tampa. (EV)

Shrader-Frechette, Kristin, "Individualism, Holism, and Environmental Ethics," Ethics and the Environment 1(no.1, 1996):55-69. Neoclassical economists have been telling us for years that if we behave in egoistic, individualistic ways, the invisible hand of the market will guide us to efficient and sustainable futures. Many contemporary Greens also have been telling us that if we behave in holistic ways, the invisible hand of ecology will guide us to healthy and sustainable futures. In this essay, I argue that neither environmental individualism nor first-order environmental holism--to which many ecologists and environmentalists appear to subscribe--will provide environmental sustainability. There is no invisible hand, either in economics or in ecology. Humans have no guaranteed "tenure in the biosphere" (Passmore 1974, 75-96). Likewise there is no philosophical "quick fix" for planetary problems, either through the environmental individualism of Feinberg, Frankena, and Regan, or through the first-order environmental holism of Callicott and Leopold. The correct path is more complex and tortuous than either of these ways. I argue that the most ethically defensible way to reach planetary protection and a sustainable environmental future probably is through a middle path that I describe as "hierarchical holism." Shrader-Frechette teaches philosophy at the University of South Florida, Tampa. (E&E)

Shrader-Frechette, Kristin and Earl McCoy, "What Ecology Can Do for Environmental Management," Journal of Environmental Management 41(1994). (v5,#3)

Shrader-Frechette, Kristin S. and Earl D. McCoy, Method in Ecology: Strategies for Conservation. Cambridge University Press, 1993. 350 pages. Hardcover \$ 69.95. Paper, \$ 29.95. Philosopher Shrader-Frechette and ecologist McCoy examine the practical contributions ecology can and cannot make to applied science and environmental problem solving. Section I. Conceptual problems that have often prevented the formulation and evaluation of powerful, precise, general theories; why island biogeography is still beset with controversy; and the ways that science is value laden. "We are unable to define 'natural' in a way free of categorical values.

We are unable to define it in a way recognized as part of science. Yet, it is part of science" (p. 103).

Section II. How ecology can give specific answers to practical environmental questions posed in individual case studies, and a new way to look at scientific error. A case study using the Florida panther is examined. There is a bright future for the important, but relatively underdeveloped task of applying ecology to practical environmental problem solving. Both authors are at the University of South Florida. (v4,#4)

Shrader-Frechette, Kristin and Earl McCoy, "Theory Reduction and Explanation in Ecology," Oikos 58 (no. 1, 1990):109-114. How ecology could benefit from incorporating some formal tools of philosophy. The reduction of ecological theories is premature. Some nonfalsifiable ecological principles are not scientific laws, subject to testing. Statistical laws and stochastic processes might provide the best grounds for the scientific stature of ecology. (v2,#3)

Shrader-Frechette, Kristin, "Review of Callicott, In Defense of the Land Ethic," Between the Species 6, no. 4, (Fall 1990): 185-189. With reply by Callicott, pp. 193-195, and reply by Shrader-Frechette, pp. 195-196. Argument and counterargument about whether ecosystems are communities with enough definiteness to serve as the object of moral duty, whether moral norms can be derived from behaviors to which humans are disposed by evolutionary heritage, and whether the extent of change of historical time prevents considering the stability of an ecosystem as a norm in environmental ethics. (v2,#3)

Shrader-Frechette, Kristin, "Risky business: nuclear workers, ethics, and the market-efficiency argument," Ethics and the Environment 7(no. 1, 2002):1-23. Workers generally face higher levels of pollution and risk in their work-place than members of the public. Economists justify the double standard (for workplace versus public exposures to various pollutants) on the grounds of the compensating wage differential (CWD). The CWD, or hazard-pay premium, is the increment in wages, all things being equal, that workers in hazardous environments receive, as compared to other workers. Economists defend the CWD by asserting that workers willingly trade safety for extra money. This essay (1) examines the theory behind the CWD, (2) presents and evaluates economists' Market-Efficiency Argument for the CWD (3) offers several reasons for questioning the CWD, and (4) applies the Market-Efficiency Argument to a real-world case, that of U.S. nuclear workers. The essay concludes that this argument fails to justify the CWD, at least in the case of U.S. nuclear workers. (E&E)

Shrader-Frechette, Kristin S., Burying Uncertainty: Risk and the Case Against Geological Disposal of Nuclear Waste. Berkeley: University of California Press, 1993. 326 pages. \$ 15.00 paper. \$ 40.00 cloth. Argues that the current U.S. government policy of burying radwastes is profoundly misguided on both scientific and ethical grounds, because we cannot trust the precision of 10,000 year predictions and promise containment of the waste, and because geological disposal ignores the rights of present and future generations to equal treatment, due process, and free informed consent. The argument is focused on the world's first proposed high-level radioactive waste facility at Yucca Mountain, Nevada. Shrader-Frechette is professor of philosophy at the University of South Florida. (v4,#4)

Shrader-Frechette, Kristin, Environmental Justice: Creating Equality, Reclaiming Democracy. New York: Oxford University Press, 2002. (v.14, #4)

Shrader-Frechette, Kristin, and Westra, L., eds. Technology and Values. Lanham, MD: Rowman & Littlefield, 1997. 356 pp. A collection of reprinted articles; intended as a textbook. (v8,#2)

Shrader-Frechette, Kristin, Environmental Justice: Creating Equality, Reclaiming Democracy. New York: Oxford University Press, 2002. Reviewed by Avner De-Shalit, Ethics and the Environment 9(no. 1, 2004):140-144. (E&E)

Shrader-Frechette, Kristin, Nuclear Energy and Ethics. Geneva: WCC Publications, 1991. 233 pp, paper. \$ 17.90. (v3,#2)

Shrader-Frechette, Kristin, Review of Brown, Jennifer, ed., Environmental Threats: Perception, Analysis and Management. Environmental Values Vol.2 No.4(1993):367.

Shrader-Frechette, Kristin, Review of Jeanes, Ike, Forecast and Solution: Grappling with the Nuclear. Journal of Agricultural and Environmental Ethics 10(1997):82-84. (JAEE)

Shrader-Frechette, Kristin, and Westra, Laura, eds., Technology and Values. Lanham. MD: Rowman and Littlefield, 1997. Includes Pimentel, David, "Assessment of Environmental and Economic Impacts of Pesticide Use." (v9,#2)

Shrader-Frechette, Kristin, "Organismic Biology and Ecosystem Ecology: Description or Explanation." In Current Issues in Teleology, ed., Nicholas Rescher (Lanham: University Press of America, 1986): 77-92. An examination of the controversy in ecological explanation between the "reductionistic paradigm" and holistic teleological paradigm. Since both seem to have problems, Shrader-Frechette urges a compromise, or at the very least, a reconsideration of the reductionist a priori rejection of holistic teleology. (Katz, Bibl # 1)

Shrader-Frechette, Kristin, Review of Beck, Ulrich, Risk Society: Towards a New Modernity. Environmental Values Vol.2 No.4(1993):367.

Shrader-Frechette, Kristin and Earl McCoy, "Biodiversity, Biological Uncertainty, and Setting Conservation Priorities," Biology and Philosophy 9(1994);167-195. Shrader-Frechette is in philosophy, McCoy in biology at the University of South Florida, Tampa. (v5,#3)

Shrader-Frechette, Kristin, "Equity and Nuclear Waste Disposal", Journal of Agricultural and Environmental Ethics 7(1994):133-156. The US Department of Energy has proposed Yucca Mountain, Nevada as the site for the world's first permanent repository for high-level nuclear waste. This essay argues that considerations of equity (safer for whom?) undercut the safety rationale. The article surveys some prima facie arguments for equity in the distribution of radwaste risks and then evaluates four objections that are based, respectively, on practicality, compensation for risks, skepticism about duties to future generations, and the uranium criterion. The conclusion is that, at least under existing regulations and policies, permanent waste disposal

is highly questionable, in part, because it fails to distribute risk equitably or to compensate, in full, for this inequity. Shrader-Frechette is in philosophy at the University of South Florida, Tampa.

Shrader-Frechette, Kristin S., "Environmental Risk and the Iron Triangle," Business Ethics Quarterly 5(1995):753-777. There appears to be an iron triangle of industry, government, and consultant/contractors promoting the siting of the first permanent geological repository of high-level nuclear waste and spent fuel proposed for Yucca Mountain, Nevada. The iron triangle has ignored important epistemological and ethical difficulties with the proposed facility.

Shrader-Frechette, Kristin, Scientific Method, Anti-Foundationalism, and Public Decisionmaking," I RISK--Issues in Health and Safety 23(Winter, 1990):23-41. Examines the failure of foundationalist positivism, how the experts are often wrong, and what lessons are to be learned from the experts' errors. (v2,#3)

Shrader-Frechette, Kristin, "Hazardous Wastes and Toxic Substances," Encyclopedia of Bioethics, revised ed. (New York: Macmillan Library Reference, Simon and Schuster, 1995), 1026-32. (v6,#2)

Shrader-Frechette, Kristin and Earl D. McCoy, "Applied Ecology and the Logic of Case Studies," Philosophy of Science 61(1994)228-249. Because of the problems associated with ecological concepts, generalizations, and proposed general theories, applied ecology may require a new "logic" of explanation characterized neither by the traditional concepts of confirmation nor by the logic of discovery. Building on the works of Grünbaum, Kuhn, and Wittgenstein, the authors use detailed descriptions from research on conserving the Northern Spotted Owl, a case typical of problem solving in applied ecology, to (1) characterize the method of case studies; (2) survey its strengths; (3) summarize and respond to its shortcomings; and (4) investigate and defend its underlying "logic." Ecology is too complex to have many, or any, exceptionless laws, and there is no strict logic here, but there is a method of case study that makes sense of a situation, intelligently finding out such things as habitat characteristics required for nesting, owl population sizes able to withstand environmental fluctuations and genetic depression, and so forth. We can understand a local situation even though we cannot make scientific generalizations. Shrader-Frechette is in philosophy, McCoy in biology at the University of South Florida at Tampa. (v5,#2)

Shrader-Frechette, Kristin S., "Agriculture, Ethics, and Restrictions on Property Rights", Journal of Agricultural Ethics 1(1988):21-40. The argument is twofold. (1) Procedural justice requires, in particular cases, that we restrict property rights in natural resources, e.g., California agricultural land or Appalachian coal land. (2) Conditions imposed by Locke's political theory and by dense population require, in general, that we restrict property rights in finite or non-renewable natural resources such as land. If these arguments are right, then we have a moral imperative to use land-use controls in a far more radical way than has been done in the past. Shrader-Frechette is in philosophy at the University of South Florida, Tampa.

Shrader-Frechette, Kristin, Risk and Rationality: Philosophical Foundations for Populist Reforms (Berkeley: University of California Press, 1991). 272 pages. \$ 39.95 cloth. \$ 15.95 paper.

Neither charges of irresponsible endangerment nor countercharges of scientific illiteracy in the public frame risk issues properly. Risk evaluation as a social process can be rational and objective, even though all risk-evaluation rules are value-laden. Shrader-Frechette defends "scientific proceduralism," a new paradigm for assessment when acceptance of public hazards is rational, recognizing that laypersons are often more rational in their evaluation of scientific risks than either experts or governments have acknowledged. Science need not preclude democracy. (v2,#3)

Shrader-Frechette, Kristin, Environmental Justice: Creating Equity, Reclaiming Democracy. New York: Oxford University Press, 2002. Fundamental ethical concepts such as equality, property rights, procedural justice, free informed consent, intergenerational equity, and just compensation. How these core concepts have been compromised for a large segment of the global population, among them Appalachians, African-Americans, workers in hazardous jobs, and indigenous people in developing nations. Burdens like pollution and resource depletion need to be apportioned more equally, and there are compelling ethical grounds for remedying our environmental problems. Those affected by environmental problems must be included in the process of remedying those problems; all citizens have a duty to engage in activism on behalf of environmental justice. Shrader-Frechette is in philosophy, University of Notre Dame.

Shrader-Frechette, Kristin, "Ecological Explanation and the Population-Growth Thesis," PSA 94, ed. Peter Asquith. East Lansing, MI: Philosophy of Science Association, 1994. Many ecologists have dismissed alleged ecological laws as tautological, trivial, circular, or nontestable. This essay investigates the status of one of the most prominent such "laws," the population-growth thesis. The essay argues that some interpretations of the thesis are not obviously a priori, trivial, definitional, or tautological, although the thesis itself may be used in some context that are a priori. The essay closes with several observations about what the epistemological status of the population-growth thesis, as a schematic law, might tell us about explanation in ecology. Shrader-Frechette is in philosophy at the University of South Florida, Tampa. (v5,#3)

Shrader-Frechette, Kristin, Ethics of Scientific Research. Lanham, Md: Rowman and Littlefield, 1994. 208 pages. \$ 54.50 cloth; \$ 21.95 paper. Chapters: Importance of Research Ethics; The Duty to Do Research; Basic Principles of Research Ethics; Objectivity; Promoting the Public Good; Handling Conflicts; Research and Uncertainty; Uncertain Science in Controversial and Litigious Times. With three concluding chapters by other authors: Helen Longino, "Gender and Racial Biases in Scientific Research"; Carl Mitchem, "Engineering Design Research and the Public Good"; Carl Cranor, "Public Health Research and Uncertainty." Shrader-Frechette is in philosophy at the University of South Florida, Tampa. (v5,#3)

Shrader-Frechette, Kristin. Review of Laura Westra. An Environmental Proposal for Ethics: The Principle of Integrity (Lanham, Md.: Rowman and Littlefield, 1994). (EE)

Shrader-Frechette, Kristin. "Policy Forum: Science Versus Educated Guessing: Risk Assessment, Nuclear Waste, and Public Policy", Bioscience 46(no.7, 1996):488. (v7,#4)

Shrader-Frechette, Kristin. *Taking Action, Saving Lives: Our Duties to Protect Environmental and Public Health*. Oxford: Oxford University Press, 2007. Shrader-Frechette argues that the United States government has failed to protect its citizens from industrial and agricultural

toxins that disproportionately poison children, the poor, and minorities because campaign contributors, lobbyists, and politicians and their power over advertising, media, and public relations, along with well-funded polluters and special interests that capture science and regulators themselves, have conspired to cover up environmental disease and death. She claims, however, that the blame for this should be placed upon ordinary citizens that in a democracy have duties to remain informed about and involved in public health and environmental decision-making and to help prevent avoidable environmental deaths. She calls for a new democratic revolution to accomplish this.

Shrader-Frechette (Shrader-Frechette), Kristin, "Ethical Theory Versus Unethical Practice: Radiation Protection and Future Generations," Ethics and the Environment 3(1998):177-195. The main international standard-setting agencies for ionizing radiation, the International Atomic Energy Agency (IAEA) and the International Commission on Radiological Protection (ICRP) both subscribe to principles which (they claim) lead to equitable protection for all generations exposed to radioactive pollution. Yet, when one examines the practices both groups support, it is clear that these practices discriminate against future generations with respect to radioactive pollution. After showing (1) that the IAEA and ICRP rhetoric of equity does not match their policies and practices, the essay argues (2) that current people ought to try to treat members of future generations equitably with respect to protection from radioactive pollution. The essay also argues (3) that current policies of permanent disposal of high-level radioactive waste do not meet the second criterion, and therefore (4) that society ought to investigate whether another strategy for managing the waste would provide better equal protection among all generations. Shrader-Frechette is in philosophy, University of Notre Dame, Notre Dame, IN. (E&E)

Shreeve, James, "Machiavellian Monkeys," Discover, June 1991. A close look at our close relatives shows how important sneakiness and deceit have been in human evolution. Richard Byrne and Andrew Whitten, Scottish psychologists at the University of Saint Andrews, claim that nearly all primates practice tactical deception, some elaborately. Except for lemurs, the primate species are "a simian rogues' gallery of liars and frauds." "The sneakier the primate ... the bigger the brain." A conclusion is that the human brain evolved as an organ of deceit. With chimpanzees there are episodes where one chimpanzee uses deceit to expose the deceit of another. "Society, sneakiness, brain size, and intelligence are intimately bound up with one another." Deceptive episodes often involve hiding food or mating with females. Critics reply that the primates may be naturally selected for such behaviors, but that there is less intentionality than supposed by transference from apparently similar human behavior. (v2,#3)

Shrivastava, P., "The Role of Corporations in Achieving Ecological Sustainability," Academy of Management Review 20(no. 4, 1995):936-960.

Shrybman, Steven. "A Global Economic Constitution?" The Ecologist 29(no. 3, May 1999):160-

Shrybman, Steven. "The WTO and Agriculture." The Ecologist 29(no. 3, May 1999):185- .

Shugart, Herman H. Terrestrial Ecosystems in Changing Environments. New York: Cambridge University Press, 1997. 524pp. \$68. The fundamental ecological concepts, theoretical

developments, and quantitative analyses involved in understanding the responses of natural systems to change. (v8,#3)

Shugart, Herman H., Terrestrial Ecosystems in Changing Environments. Cambridge: Cambridge University Press, 1998. Change is pervasive in ecosystems but difficult to predict in complex regional ecosystems, and all the more so with human-introduced changes, which may differ from naturally introduced changes. How far can key ecological concepts be used to predict how terrestrial ecosystems will respond to large-scale human-introduced changes? The ecosystem paradigm, niche theory, vegetation-climate relationships, landscape ecology, ecological modelling. Terrestrial landscapes and their feedback with their climatic settings. Shugart is in environmental sciences, University of Virginia. (v.14, #4)

Shulman, Seth. The Threat at Home: Confronting the Toxic Legacy of the U. S. Military. Boston: Beacon Press, 1992. 254 pages. (v6,#1)

Shultis, John, "Social and Ecological Manifestations in the Development of the Wilderness Area Concept in New Zealand," International Journal of Wilderness 3 (no. 3, 1997):12-16. As opposed to wilderness in the United States, Canada, and Australia, wilderness areas in New Zealand have become much more stringently defined: areas designated as such "will not have developments such as huts, tracks, bridges, signs, nor mechanized access." Shultis is recreation and tourism, University of Northern British Columbia. (v.8,#4)

Shultis, John. "The Duality of Wilderness: Comparing Popular and Political Conceptions of Wilderness in New Zealand." Society & Natural Resources 12(no. 5, July 1999): 389- . (v.11,#1)

Shute, Sara. Review of Why the Green Nigger? By Elizabeth Dodson Gray. Environmental Ethics 2(1980):187-91.

Shutkin, William A., The Land that Could Be: Environmentalism and Democracy in the Twenty-first Century. Cambridge, MA: The MIT Press, 2000. (v.13,#1)

Shutte, Augustine, Philosophy for Africa. Milwaukee, WI: Marquette University Press, 1996. 184 pages. \$ 20. Published by arrangement with the University of Cape Town Press. Has philosophy anything of value to offer contemporary Africa? Has Africa anything of value to offer contemporary philosophy? The answer is yes, to both questions. Human freedom, liberation, the struggle to overcome the predicament that European colonialism and apartheid has left. Traditional African thought contains insights into the nature of persons and community that scientific and technological culture has lost, but which could be of the utmost importance in dealing with these issues. Shutte is in philosophy at the University of Cape Town. (v7,#2)

Shyamsundar, Priya. "Constraints on Socio-buffering Around the Mantadia National Park in Madagascar." Environmental Conservation 23, no.1 (1996): 67. (v7, #3)

Sibary, Scott and Jane Kerlinger, "Pollution Control and Free Trade," Illahee: Journal for the Northwest Environment 10 (no. 3, fall 1994):181-191. Excellent introduction to the issues of

fairness in the free trade - environmental regulations debate. Free trade allows unfair competition, if one considers the distribution of harms resulting when national standards of environmental protection differ. A polluting business in a lesser regulated nation can shift the costs of its production onto other persons in that nation, not party to the business transaction, and gain relatively to businesses in regulated (often developed) countries that, owing to environmental regulation, do internalize the costs of pollution. Also, this is market inefficiency. With application to NAFTA and GATT, somewhat dismaying. The authors recommend a scheme of countervailing duties, but they realize the many complexities. A good article to introduce these issues to students, if not to yourself. Sibary is an attorney and professor of management at California State University, Chico. Kerlinger is an engineer in geosciences, also at Chico. (v5,#4)

Sibold, Jason S., Thomas T. Veblen, and Mauro E. González. ASpatial and Temporal Variation in Historic Fire Regimes in Subalpine Forests across the Colorado Front Range in Rocky Mountain National Park, Colorado, USA. @ *Journal of Biogeography* Vol. 32, no. 4 (2006): 631-47. The expected findings for lodgepole forests, stand replacement fires. Surface fires are unimportant. Perhaps unexpected is that fire suppression seems to have made no difference in fire frequency. The most unexpected finding is that in half the spruce-fir stands there is no evidence of fire occurrence at all during at least the last 600-800 years. Sibold is a Ph.D. candidate in geography, University of Colorado, Boulder.

Sidamon-Eirstoff, Constantine. "New York-New Jersey Harbor: A Dredging Dilemma." *Journal of Environmental Law & Practice* 4(1997):36. East Coast harbors must be dredged to allow use by modern container shipping. What do you do with the dredged material? (v8,#1)

Siddaway, Roger, *Resolving Environmental Disputes*, Reviewed by Tim O'Riordan, *Environmental Values* 15(2006):532-533.

Siddaway, Roger. *Resolving Environmental Disputes: From Conflict to Consensus*. London: Earthscan, 2005. Failures in the usual consultation processes, which often pay attention to the noisiest participants and overlook the silent, who lose faith in the process. Case studies in conflict resolution, with suggestions on how to build better consensus, reflecting more inclusive values.

Sider, Ronald J., *Rich Christians in an Age of Hunger*. Downer's Grove, IL: InterVarsity Press, 1984.

Sideris, Lisa, "Bodies of Knowledge: Fact-Facing and Humility in the Writings of Rachel Carson," *Reflections* 9 (Number 2, Spring, 2002):21-24. Explores "the subtleties and creative tensions" of Carson's environmental ethics. (v.13,#2)

Sideris, Lisa H., *Environmental Ethics, Ecological Theology, and Natural Selection*. New York: Columbia University Press, 2003. A searching critique of ecological theologies, particularly of their compatibility with Darwinian evolutionary natural history. Examines the works of such influential thinkers as James Gustafson, Sallie McFague, Rosemary Radford Ruether, John Cobb, Peter Singer, and Holmes Rolston. Sideris argues for a more realistic (and less romantic)

ethic that combines evolutionary theory with theological insight. She engages an impressive array of contemporary thinkers, with a constructive agenda: to balance scientific, philosophical, and theological concerns. This book was featured in an "Author Meets Critics" session at APA, Pasadena, March 2004. Sideris is at the McGill School of Environment and the Faculty of Religious Studies, McGill University, Montreal. (v. 15, # 3)

Sideris, Lisa H., The Limits of Theodicy: Ecological Theology, Natural Selection, and the Problem of Suffering in Nature, Ph.D. dissertation, Department of Religious Studies, Indiana University, 2000. A critical examination of Christian environmental ethics. Much ecological theology has ignored natural science, particularly evolutionary perspectives. This neglect produces practical and theoretical problems, many of which revolve around the problem of suffering in nature, and whether it can and ought to be eradicated. Invoking an ecological model of nature that resembles pre-Darwinian and Romantic views, such ethicists issue an imperative to love and liberate nature from a suffering which is, in fact, integral to nature. Sideris proposes an alternative approach that incorporates elements of science and theology, arguing that it is possible to extend a qualified, less-interventionist, and more discriminating ethic of love to nature. The advisor was Richard B. Miller. (v.12,#3)

Sideris, Lisa H., and Kathleen Dean Moore, eds. *Rachel Carson: Legacy and Challenge*. Albany: State University of New York Press, 2008. Contents include: (1) An Introduction@ by Lisa Sideris, (2) A One Patriot@ by Terry Tempest Williams, (3) A Rachel Carson=s Scientific and Ocean Legacies@ by Jane Lubchenco, (4) A Rachel Carson and George J. Wallace: Why Public Environmental Scientists Should be Advocates for Nature@ by Peter C. List, (5) A Rachel Carson=s Environmental Ethics@ by Philip Cafaro, (6) A Thinking Like a Mackerel: Rachel Carson=s Under the Sea-Wind as a Source for a Trans-Ecotonal Sea Ethic@ by Susan Power Bratton, (7) A The Conceptual Foundations of Rachel Carson=s Sea Ethic@ by J. Baird Callicott and Elyssa Back, (8) A Rachel Carson=s The Sea Around Us, Ocean-Centrism, and a Nascent Ocean Ethic@ by Gary Kroll, (9) A The Ecological Body: Rachel Carson, Silent Spring, and Breast Cancer@ by Lisa H. Sideris, (10) A Science and Spirit: Struggles of the Early Rachel Carson@ by Maril Hazlett, (11) A >Silence, Miss Carson!=: Science, Gender, and the Reception of Silent Spring@ by Michael Smith, (12) A After Silent Spring: Ecological Effects of Pesticides on Public Health and on Birds and Other Organisms@ by David Pimentel, (13) A Contested Icons: Rachel Carson and DDT@ by Steve Maguire, (14) A In Her Footsteps@ by Christopher Merrill, (15) A Living Downstream of Silent Spring@ by Sandra Steingraber, (16) A The Secular and Religious Sources of Rachel Carson=s Sense of Wonder@ by Lisa H. Sideris, (17) A How to Value a Flower: Locating Beauty in Toxic Landscapes@ by Vera Norwood, and (18) A The Truth of the Barnacles: Rachel Carson and the Moral Significance of Wonder@ by Kathleen Dean Moore.

Sidwell, Linda, An Examination of the Transformative Effects of New Social Movement Activity upon the Individual: A Qualitative Approach, Master's Thesis, Department of Philosophy, Lancaster University, September 1991.

Smith, F. Russell, The Value of Ferns and the Problem with Bracken, Master's Thesis, Department of Philosophy, Lancaster University, September 1992.

Sidwell, Linda, An Examination of the Transformative Effects of New Social Movement Activity upon the Individual: A Qualitative Approach, Master's Thesis, Department of Philosophy, Lancaster University, September 1991.

Siebert, Charles, "An Elephant Crackup?" New York Times Magazine, October 8, 2006. Elephants have been showing more aggressive behavior not only against humans but against other animals. Some researchers think this shows signs of stress in the elephant populations, declining and with degrading habitat.
<http://www.nytimes.com/2006/10/08/magazine/08elephant.html?pagewanted=print>

Siegel, James J. "Subdivision versus Agriculture: From False Assumptions Come False Alternatives", Conservation Biology 10(no.5,1996):1473. (v7,#4)

Siegel, Paul B., Review of Rogers, Lesley J., The Development of Brain and Behaviour in the Chicken. Journal of Agricultural and Environmental Ethics 9(1996):88. (JAEE)

Sierra, March/April 1994 features an ecosystem approach to biological conservation, outlining twenty-one eco-regions in North America: Alaska Rainforest, American Southwest, Arctic, Atlantic Coast, Boreal Forest, Central Appalachia, Colorado Plateau, Great Basin/High Desert, Great Lakes, Great North American Prairie, Great Northern Forest, Hawaii, Hudson Bay/James Bay Watershed, Interior Highlands, Mississippi Basin, Pacific Coast, Pacific Northwest, Rocky Mountains, Sierra Nevada, Southern Appalachian Highlands, and Southwest Deserts. Introductory articles by notable authors on some, but not all of these. With a pull-out map that can be made into an overhead (at Kinko's), this can be useful for an introductory discussion of an ecosystem approach to living on the North American continent. (v5,#1)
Sierra, Rodrigo, and Stallings, Jody. "The Dynamics and Social Organization of Tropical Deforestation in Northwest Ecuador, 1983-1995," Human Ecology 26(no.1, Mar. 1998):135- . (v9,#2)

Sierra, vol. 81, no. 1, January/February 1996, contains four useful articles on endangered species legislation now pending in the U.S. Paul Rauber, "An End to Evolution: A Killer Asteroid Called Congress"; Ted Williams, "Defense of the Realm: The Thin Green Line Protecting Endangered Species"; Susan Middleton and David Littschwager, "Parting Shots? Formal Portraits of Species on the Brink"; Douglas Chadwick, "Strength in Humility: Something Has to Give, and This Time It Has to Be Us." Effective counters to many popular press objections: Sample: The poor Taiwanese immigrant farmer (Tang Lin) harassed by U. S. Fish and Wildlife when his tractor ran over a kangaroo rat, and whose treatment provoked a mass rally and much press coverage, had been warned repeatedly, was plowing his fields provocatively to make a point, shows bank deposits of \$ 2,670,400 in 1991, though he filed no tax return, and fled Taiwan after a 1989 scam in which he is accused of beguiling investors of some \$ 18 million. (v6,#4)

Sigman, Hilary, "Liability Funding and Superfund Clean-Up Remedies," Journal of Environmental Economics and Management 35(no.3, 1998), p. 205. (v.9,#4)

Siipi, H., Naturalness, Unnaturalness and Artifactuality in Bioethical Argumentation. Turku, Finland: University of Turku, 2005.

Siipi, Helena, Review of: Aitken, Gill, A New Approach to Conservation: The Importance of the Individual through Wildlife Rehabilitation. Aldershot: Ashgate, 2004. Environmental Values 14(2005):527-529.

Siipi, Helena, "Naturalness in Biological Conservation," Journal of Agricultural and Environmental Ethics 17(2004):457-477. Conservation scientists are arguing whether naturalness provides a reasonable "imperative" for conservation. To clarify this debate and the interpretation of the term "natural," I analyze three management strategies - ecosystem preservation, ecosystem restoration, and ecosystem engineering - with respect to the naturalness of their outcomes. This analysis consists in two parts. First, the ambiguous term "natural" is defined in a variety of ways, including (1) naturalness as that which is part of nature, (2) naturalness as a contrast to artifactuality, (3) naturalness as an historical independence from human actions, and (4) naturalness as possession of certain properties. After that, I analyze the different conceptions with respect to their implications for the three management strategies. The main conclusion is that there exists no single conception of naturalness that could distinguish between the outcomes of the three management methods. Therefore, as long as the outcomes of the different methods are regarded as being of a different value in conservation, we should either abandon the idea of naturalness as the guiding concept in conservation or use the term "natural" only in the ways that take both its historical and feature dependent meanings into consideration. Keywords: conservation, restoration, unnaturalness. Keywords: ecosystem engineering, naturalness, preservation. Siipi is in the Department of Philosophy, University of Turku, Finland. (JAEE)

Siipi, Helena, "Artefacts and Living Artefacts," Environmental Values 12(2003): 413-430. The concept of an artefact is central to several bioethical arguments. In this paper, I analyse this concept with respect to living and also non-living entities. It is shown that a close relationship between bringing an entity into existence and its intentional modification is necessary for its artifactuality. The criterion is further improved by analyses of the nature of intentionality in artefact production and the differences between artefacts and their side-effects. Further, in order to clarify the meaning of the term 'bring into existence', issues related to sortal terms and functions of artefacts are considered. As the result of these analyses, the criterion for being an artefact is founded on the following double condition: (1) An entity x is an artefact only if x has been intentionally brought into existence by intentionally causing the coming artefact x to have certain properties. (2) An entity x is an artefact only if causing x to have certain properties has led x to have some new functions - that is, functions that are not present in the raw materials of x. The double condition is used for clarifying the status of several biotic entities such as gardens, commercial fields, polluted natural areas, ecosystems including alien species, restored ecosystems and transgenic organisms. (EV)

Siipi, Helena, and Susanne Uusital, "Consumer Autonomy and Sufficiency of GMF Labeling," Journal of Agricultural and Environmental Ethics 21(2008):353-369. Individuals' food choices are intimately connected to their self-images and world views. Some dietary choices adopted by consumers pose restrictions on their use of genetically modified food (GMF). It is quite generally

agreed that some kind of labeling is necessary for respecting consumers= autonomy of choice regarding GMF. In this paper, we ask whether the current practice of mandatory labeling of GMF products in the European Union is a sufficient administrative procedure for respecting consumers= autonomy. Three issues concerning this question are discussed. First, we argue that labeling needs to be accompanied by relevant and understandable information on genetic modification, genetically modified food, and the European practice of GMF labeling. Second, we claim that this type of informing makes it less likely that consumers start to avoid GMF products just because labels make them suspicious of the products. It is further noted that even though some consumers may react to labels this way, labels do not restrict their autonomy of choice. Third, a need for more precise labels indicating the source of the transferred gene is considered. It is found out that such labels are not morally necessary when also non-GMF products are available and no relevant differences (such as differences in price and healthiness) exist between them and GMF products. However, in some other cases more precise labels may be needed for respecting consumers= autonomy of choice. The authors are in the Department of Philosophy, University of Turku, Turku, Finland.

Siipi, Helena, *ADimensions of Naturalness*, @ *Ethics and the Environment* 13(no. 1, 2008):71-103. This paper presents a way of classifying different forms of naturalness and unnaturalness. Three main forms of (un)naturalness are found as the following: history- based (un)naturalness, property-based (un)naturalness and relation-based (un)naturalness. Numerous subforms (and some subforms of the subforms) of each are presented. The subforms differ with respect to the entities that are found (un)natural, with respect to their all-inclusiveness, and whether (un)naturalness is seen as all-or-nothing affair, or a continuous gradient. This kind of conceptual analysis is needed, first, because discussion concerning (un)naturalness is common in current bioethics and environmental ethics, and second, because the terms natural and unnatural are highly ambiguous. Thus, the lack of an exact definition of the type of (un)naturalness may lead into equivocation, other forms of bad argumentation, or at least vagueness. Helena Siipi earned her doctorate in philosophy in 2005. She now works as a researcher in University of Turku, Finland.

Siitonen, P., Tanskanen, A., and Lehtinen, A., "Method for Selection of Old-Forest Reserves," *Conservation Biology* 16(no.5, 2002): 1398-408. (v.13,#4)

Sikora, R. I. and Brian Berry, eds. *Obligations to Future Generations*. Reviewed in *Environmental Ethics* 1(1979):371-74.

Sikorski, Wade, "Building Wilderness." Pages 24-34 in Bennett, Jane, and Chaloupka, William, eds., *In the Nature of Things*. Minneapolis, MN: University of Minnesota Press, 1993. "The wilderness ... is not the opposite of civilization, as it has long been characterized in the Western tradition, virginal, unhandled, inhuman, untouched, but rather a building that we dwell in, that we have built because of what we, as earthly and mortal beings, are. ... In going into the wilderness, which is as easily found in the city as in the vast rain forest, we are going home because wilderness is the place where we recover the things that are most ourselves" (p. 29). Sikorski lives in Montana and is the author of *Modernity and Technology: Harnessing the Earth to the Slavery of Man* (University of Alabama Press, 1993).

Silbergeld, Ellen K. "The Risks of Comparing Risks," New York University Environmental Law Journal 3(no.2, 1995):405- . (v6,#4)

Silman, Janet and McKellar, Melody, "Aboriginal Ceremonies and Teachings: A Woman's Perspective," Ecotheology No 3 (July 1997):39-49.

Silori, Chandra Shekhar, "Socio-economic and ecological consequences of the ban on adventure tourism in Nanda Devi Biosphere Reserve, western Himalaya", Biodiversity and Conservation 13(no.12,November 2004):2237-2252(16).

Silva Matos, D. M., and Bovi, M. L., "Understanding the Threats to Biological Diversity in Southeastern Brazil," Biodiversity and Conservation 11(no.10, 2002): 1747-58. (v.13,#4)

Silva, Patricia and Sefano Pagiola. "A Review of the Valuation of Environmental Costs and Benefits in World Bank Projects." World Bank: World Bank Environmental Economics Series, 2003.

Silvard, Ruth Leger, World Military and Social Expenditures, 1996. 16th edition. Washington, DC: World Priorities (Box 25140, Washington, DC 20007), 1996. 50 pages. A slim book packed with statistics, graphs, documenting the lunacy of arms races. (v.9,#3)

Silver, Cheryl Simon and Ruth S. DeFries, One Earth, One Future: Our Changing Global Environment (Washington, DC: National Academy Press, 1990). \$14.95. 196 pages. Features the basic science behind global environmental problems and the policy implications of this science. A report from the National Academy of Sciences. (v2,#1)

Silver, Lee M., Challenging Nature: The Clash of Science and Spirituality at the New Frontiers of Life. New York: Ecco (Harper Collins), 2006. An unabashed sales pitch for our biotechnological future. "Human nature will remake all of Mother Nature. The ultimate question--the very asking of which strikes fear into the hearts of many people--is whether or not the human spirit or soul will stay the same or be remade in the process as well." Humans will increasingly have no need of original nature, since they have remade nature. There are no anthropocentric reasons for saving nature, but, interestingly, Silver does think there may be moral reasons. In fact, he holds, there is no defensible reason for the conservation of species except because we think species preservation is a moral imperative. Silver is in molecular biology at Princeton University. His field, he declares is, "compared with every other field of scholarship and science ... the least compatible with spiritual beliefs."

Silver, Lee M., Remaking Eden: Cloning and Beyond in a Brave New World. New York: Avon Books, 1997. Will there be a "homo supergeneticus." (v9,#2)

Silver, T., "Review of: John F. Reiger, American Sportsmen and the Origins of Conservation," Environmental History 7(no.3, 2002): 525. (v.13,#4)

Silverman, Victor, "Green Unions in a Grey World: Labor Environmentalism and International Institutions," Organization and Environment 19 (no. 2,June 2006): 191-209. International labor environmentalism, a significant innovation in global politics, centers on the role of the

International Confederation of Free Trade Unions at the United Nations Commission on Sustainable Development and other bodies. Unions face multiple challenges in international institutions, for example, from partnerships that privatize government functions and from disagreements within unions, but this article nonetheless finds that environmentalism arising from the character of trade unions and the ideology of leaders has great potential. Silverman is associate professor of history at Pomona College, Claremont, California.

Silvertown, Jonathan, Demons in Eden: The Paradox of Plant Diversity. Chicago: University of Chicago Press, 2006. A survey of plant biodiversity and the reasons why. The paradox is that, on Darwinian natural selection, one might suppose that ever fewer plants (the "demons in eden") would get ever better at outcompeting the others and displace them. But that does not happen; rather the other way round: there is steady increase of biodiversity. Although plants may go through a demon phase, they have to cope with many factors, the costs of growth and reproduction, limited resources, competition from and dependence on others, predation, and the result is vast diversity.

Silvey, Rachel, "Power, difference and mobility: feminist advances in migration studies", Progress in Human Geography 28(no.4, 1 August 2004):490-506(17).

Silvius, John E.; Holtzman, Lynn T., "Leopold Appealed to Conscience," BioScience 56 (no.5, May 2006): 373-373 (1).

Simberloff, D, "A Rising Tide of Species and Literature: A Review of Some Recent Books on Biological Invasions", BioScience 54 (no.3, 2004): 247-254(8).

Simberloff, D., Stiling, P. "Risks of Species Introduced for Biological Control", Biological Conservation 78(no.1/2, 1996):185.

Simberloff, Daniel, Scmitz, Don C., Brown, Tom C., eds. Strangers in Paradise: Impact and Management of Nonindigenous Species in Florida. Covelo, CA: Island Press, 1997. 480 pp. \$50 cloth, \$29.95 paper. An examination of the Florida severe exotic species problems and of the ongoing efforts to eradicate or manage introduced species covering millions of acres of land and water. (v8,#2)

Simberloff, Daniel, "Biological Invasions--How Are They Affecting Us, and What Can We Do about Them?" Western North American Naturalist 61(no. 3, 2001):308-315. Nonindigenous species affect native ecosystems, communities, and populations in myriad ways, from plants (and a few animals) that overgrow entire communities, to plants and animals that hybridize individual native species to a sort of genetic extinction. Further, nonindigenous species sometimes interact to worsen each other's impact. These impacts are commonly seen in national parks throughout the United States.

The key policy change required to alleviate this threat is a shift from blacklists of prohibited species and a presumption of harmlessness to a combination of white and blacklists and a presumption that any species may be damaging. This new guiding philosophy must be inculcated at international and national levels, which will not be easy during a period when free trade is seen as an unmitigated blessing. Within the United States, enhanced cooperation and coordination will be required among all parties (i.e. federal, state, and local agencies as well as

private entities) charged with managing invasions. Internationally, the key forum is the World Trade Organization.

Various management tools available to combat nonindigenous species have produced some striking successes, but new research could improve their effectiveness and reliability. There is a particular need for research on ecosystem management to control introduced species. In the face of the increasingly publicized onslaught of invaders, there is a widespread tendency to view increased biotic homogenization as inevitable. However, advances in both policy and technology could greatly slow this process and perhaps (in consort with restoration measures) even reverse it. The necessary pressure and resources to effect these changes must come from an increasingly alarmed and vocal public. Simberloff is in ecology and evolutionary biology, University of Tennessee, Knoxville. (v.12,#3)

Simberloff, Daniel, and Stiling, Peter, "Risks of Species Introduced for Biological Control," Biological Conservation 78(1996):185-192. Also: "How Risky is Biological Control?" Ecology 77(1996):1965-1974. Numerous biological control introductions have adversely affected non-target native species. Cost-benefit analysis for conservation are difficult because it is difficult to assign values to the various tradeoffs. Risk assessment is difficult because it is difficult to predict outcomes. Better consideration is needed to myriad factors that now often receive cursory attention. Simberloff is in biology, Florida State University, Tallahassee. Stiling is in biology, University of South Florida, Tampa. (EE v.12,#1)

Simberloff, Daniel and Betsy Von Holle, "Positive Interactions of Nonindigenous Species: Invasional Meltdown?," Biological Invasions 1(1999):21-32. There are many studies of interactions between invasive species and indigenous species, but few studies of interactions between invasive species themselves. In this study, invasive species are found seldom to compete with each other detrimentally and frequently to facilitate each other. "There is little evidence that interference among introduced species at levels currently observed significantly impedes further invasions, and synergistic interactions among invaders may well lead to accelerated impacts on native ecosystems - an invasional 'meltdown' process." The authors are in ecology, University of Tennessee, Knoxville.

Simberloff, Daniel, "Non-native Species DO Threaten the Natural Environment!," Journal of Agricultural and Environmental Ethics 18(2005):595-607. Sagoff [Journal of Agricultural and Environmental Ethics 18 (2005), 215-236] argues, against growing empirical evidence, that major environmental impacts of non-native species are unproven. However, many such impacts, including extinctions of both island and continental species, have both been demonstrated and judged by the public to be harmful. Although more public attention has been focused on non-native animals than non-native plants, the latter more often cause ecosystem-wide impacts. Increased regulation of introduction of non-native species is, therefore, warranted, and, contra Sagoff's assertions, invasion biologists have recently developed methods that greatly aid prediction of which introduced species will harm the environment and thus enable more efficient regulation. The fact that introduced species may increase local biodiversity in certain instances has not been shown to result in desired changes in ecosystem function. In other locales, they decrease biodiversity, as they do globally. Keywords biodiversity - ecosystem function - introduced species - invasion - non-native species - prediction - risk assessment - Sagoff.

Simberloff is in the Department of Ecology and Evolutionary Biology, University of Tennessee, Knoxville. (JAEE)

Simmons, Aaron. "A Critique of Mary Anne Warren's Weak Animal Rights View." *Environmental Ethics* 29(2007):267-278. In her book, *Moral Status*, Mary Anne Warren defends a comprehensive theory of the moral status of various entities. Under this theory, she argues that animals may have some moral rights but that their rights are much weaker in strength than the rights of humans, who have rights in the fullest, strongest sense. Subsequently, Warren believes that our duties to animals are far weaker than our duties to other humans. This weakness is especially evident from the fact that Warren believes that it is frequently permissible for humans to kill animals for food. Warren's argument for her view consists primarily in the belief that we have inevitable practical conflicts with animals that make it impossible to grant them equal rights without sacrificing basic human interests. However, her arguments fail to justify her conclusions. In particular, Warren fails to justify her beliefs that animals do not have an equal right to life and that it is permissible for humans to kill animals for food. (EE)

Simmons, I, "Review of: John Sheail, An Environmental History of Twentieth Century Britain", *Environmental History* 8(no.2, 2003):321.

Simmons, I. G. Interpreting Nature: Cultural Constructions of the Environment. London: Routledge, 1993. Simmons is in the Department of Geography, University of Durham, UK.

Simmons, I.G., "Bach's Butterfly Effect: Culture, Environment and History," Environmental Values 6(1997):483-497. ABSTRACT: The basic thesis that environmental values must spring from the economic relations of human societies is examined and it is suggested that although such connections are never absent, they do not account for the totality of values. Rather, they interact with other values in a kind of helical strand which is open-ended and self-organising. In such a context, sustainability, for example, becomes a rather time-limited idea. Our present ways of describing such evolution and interactions are also briefly examined. Department of Geography University of Durham, Science Labs, South Road, Durham DH1 3LE, UK. (EV)

Simmons, Pam, "'Women in Development': A Threat to Liberation," The Ecologist 22(no. 1, January/February 1992):16-21. The call to integrate women into development has been taken up by the international development institutions to suit their own purposes. Adopted, as it invariably has been, in a simplistic form, it is a dangerous slogan that threatens to reduce Third World Women to "resources" for the international economy. It also wrongly implies that women in industrialized countries are progressing to a position of equality. Simmons works with women's issues through NGO's in Australia and Thailand. Also Simmons in this issue reviews ten books on feminism, environment, development, and technology. (v5,#2)

Simmons, Steven I., "Toward Kinship 'Respect for All Life is the Real Cure'", The Animals' Agenda 16(no.4, 1996):42. Why animal activists and AIDS activists belong on the same side of the picket line against mutual foes. When experimentation and exploitation go hand in hand, there are more victims than victors. Simmons is with People for the Ethical Treatment of Animals and an AIDS activist. (v7,#4)

Simms, A., "Think Small: As an Alternative to Ever Increased Globalisation." The case for a return to localisation," Ecologist 33(no. 5, 2003): 58-59. (v 14, #3)

Simon, Anne E., "Valuing Public Participation," Ecology Law Quarterly 25(No.4, 1999):757-. (v.10,#2)

Simon, David R. "Corporate Environmental Crimes and Social Inequality: New Directions for Environmental Justice Research," American Behavioral Scientist 43(No.4, 2000). (v.11,#1)

Simon, Julian L. Population Matters: People, Resources, Environment, and Immigration. New Brunswick, NJ: Transaction Publishers, Rutgers, 1996. 591 pp. \$28.95 paper. Fifty-eight essays, on population, raw materials, energy, food supply, and pollution, by perhaps the worlds most optimistic developmentalist. (v7,#4)

Simon, Julian L. *Hoodwinking the Nation*. New Brunswick, NJ: Transaction Publishers, 2006. The now-late Julian Simon continues to make his case that population growth is not a problem, we are not running out of natural resources, and the environment is not becoming more polluted. His goal in this final book is to examine why the media reports so much false and bad environmental news. Simon argues that government reports are often the basis for doomsday analyses and environmental news scams, biologists tend to become falsely and overly alarmed about mythical environmental scares, and politicians misuse statistics in the service of their own political and policy goals. All of this is compounded by the facts that cultural and psychological mechanisms make people receptive to bad news instead of good news and that most people have too positive a view about the past and too negative a view about the future.

Simon, Noel, Nature in Danger: Threatened Habitats and Species. New York: Oxford University Press, 1996. Written in association with the World Conservation Monitoring Center. 240 pages. \$ 35.00 A detailed picture of the many threatened habitats--rain forests, wetlands, grasslands, mountain ranges, reefs and islands, deserts, Antarctica. (v7,#2)

Simon, Thomas W., "Varieties of Ecological Dialectics," Environmental Ethics 12(1990):211-231. One of the few articles to appear in this journal that uses Marxist analysis---dialectics---to understand environmental thought. Simon looks at Marxist, anarchist, and Native American approaches to solving the environmental crisis. He argues for a synthesis using the dialectical frameworks of politics, history, ethics, ecology, and spirituality. (Katz, Bibl # 2)

Simon, Thomas W. "Varieties of Ecological Dialectics." Environmental Ethics 12(1990):211-31. A hierarchical ordering of approaches afflicts environmental thinking. An ethics of individualism unjustly overrides social/political philosophy in environmental debates. Dialectics helps correct this imbalance. In dialectical fashion, a synthesis emerges between conflicting approaches to dialectics and to nature from: Marxism (Levins and Lewontin), anarchism (Bookchin), and Native Americanism (Black Elk). Conflicting (according to Marxists) and cooperative (according to anarchists) forces both operate in nature. Ethics (anarchist), political theory (Marxist), and spirituality (Native American) constitute the interconnected interpretative domains of a dialectically informed ecophilosophy. In a world

painted too often in blacks and whites, ecological dialectics colors the picture a more realistic gray. Simon is in the philosophy department, University of Illinois at Urbana-Champaign, Urbana, IL. (EE)

Simon, Thomas W. Review of The Dialectical Biologist. By Richard Levins and Richard Lewontin. Environmental Ethics 10(1988):279-84.

Simonis, Udo Ernst, Beyond Growth: Elements of Sustainable Development. Published through the Science Centre, Berlin. They have a list of other publications available. Most, but not all, are in German. Their address is: Wissenschaftszentrum Berlin für Sozialforschung, gGmbH, D-1000, Berlin, Reichpietschuter 50. Director: Dr. Bernard Glaeser. (v1,#3)

Simonis, Udo E. "Internationally Tradeable Emission Certificates: Efficiency and Equity Linking Environmental Protection with Economic Development." Ethics and the Environment 5(2000):61-76. Abstract: 1. THE IDEA AND ITS POLITICAL CONTEXT: With respect to the formulation and implementation of a global climate policy, the "Berlin Mandate," the most important concluding document of the first Conference of the Parties to the Framework Convention on Climate Change, adopted on 7 April 1995, says the following: The Parties should protect the climate system for the benefit of present and future generations of humankind. on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities ... The global nature of climate change calls for the widest possible cooperation by all countries ... ; developed countries [should] set quantified target limitation and reduction objectives within specified time frames, such as 2005, 2010, and 2020. Finally, it states that "the process should begin without delay" (Berlin Mandate 1995, italics added). As regards "joint implementation," an instrument which affects both industrialized and developing countries, the Conference of the Parties decided to establish a pilot phase for activities implemented jointly among Annex I Parties and, on a voluntary basis, with non-Annex I Parties that so request internationally tradeable emission certificates. During this pilot phase, a framework should be established "for reporting." (E&E)

Simonis, Udo E., Die Rousseau-Frage - ökologisch definiert. Berlin: Edition sigma, 2002. Eighteen essays in German selected in a prize competition from forty entries in a contest by Munich publishers C. H. Beck and the Heidelberg-based Günter-Altner Foundation to celebrate ten years of successful publication of the Jahrbuch Ökologie. Both arts and sciences. Many of the more important environmental thinkers in Germany are referenced. Much on aesthetics of nature. Sustainable development. Rousseau commonly serves as a starting point. Reviewed by Axel Goodbody, Environmental Values 13(2004):123-125. (EV)

Simonis, Udo E. "Global Governance and Sustainable Development," Environmental Values 10(2001):285-287. Nearly a decade has passed since the UN Conference on Environment and Development at Rio. This guest editorial takes stock of what has been achieved, and looks forward to the 2002 World Summit on Sustainable Development in Johannesburg. Keywords: UNCED, Millennium Declaration, Agenda 21, World Summit on Sustainable Development. Udo E. Simonis is at the Science Centre, Berlin. (EV)

Simonis, Udo E., Review of: Board on Sustainable Development, Our Common Journey: A Transition toward Sustainability, Environmental Values 11(2002):247-248.

Simonis, Udo E., Review of: Speth, James Gustave, Red Sky at Morning: America and the Crisis of the Global Environment. Environmental Values 13(2004):406-409. (EV)

Simonis, Udo E., Review of: Meadows, Donella, Jorgen Randers, and Dennis Meadows, Limits to Growth - The 30-Year Update. White River Junction, Vermont: Chelsea Green Publishing Co, 2004. Environmental Values 14(2005):274-276.

Simonis, Udo E., Review of: Geoffrey Murray and Ian G. Cook, Green China: Seeking Ecological Alternatives, Environmental Values 15(2006):127-129.

Simonis, Udo E., Review of: Claus Wepler, Europäische Umweltpolitik [European Environmental Policy], Environmental Values 11(2002):525-528.

Simonis, Udo E., Review of *Jared Diamond, Collapse: How Societies Choose to Fail or Succeed*, Environmental Values 16(2007):133-135.

Simonis, Udo, E. Review of Hinshaw, Robert, *Living within Nature=s Extremes: The Life of Gilbert F. White* (Boulder, CO: Johnson Books, 2006), Environmental Values 17(2008):117-118.

Simonis, Udo. Review of Joachim Radkau, Natur und Macht: Eine Weltgeschichte der Umwelt [Nature and Power: A World History of the Environment], Munich: C.H. Beck Verlag, 2000, Environmental Values 10(2001):274. (EV)

Simonis, Udo. review of Norman Myers. Ultimate Security: (New York: W.W. Norton & Co., 1993). (EV)

Simons, John, "The Longest Revolution: Cultural Studies after Speciesism," Environmental Values 6(1997):483-497. ABSTRACT: This article is a provisional exploration of the field of cultural studies from a committed animal rights perspective. It argues that cultural studies will need to be reformed in response to increasing public concern about animal welfare issues and the growth of environmental consciousness. A number of critical readings of literary texts are employed to exemplify how this reformation might manifest itself in practice. It includes a review and critique of some current work in the field and suggests that cultural theory is presently unable to respond fully to the place of animals in cultural production. (EV)

Simonsen, Kenneth H. "The Value of Wildness." Environmental Ethics 3(1981):259-63. In his article, "The Nature and Possibility of an Environmental Ethics," Tom Regan says that the fitting attitude toward nature "is one of admiring respect." What follows is an attempt to discover what in nature should impel us to respond in this way. Ultimately I argue that the value of wild nature is found in the fact that it has emerged spontaneously, independent of human designs. Simonsen is in the department of philosophy, College of Lake Country, Grayslake, IL. (EE)

Simplicity; the simple life. A selection of recent books, often arguing that keeping it simple incorporates religious values. A website is:

www.sl.net.com (The Simple Living Network).

--Andrews, Cecile, The Circle of Simplicity: Return to the Good Life. New York: Harper Collins, 1998. 256 pages.

--Clapp, Rodney, ed., The Consuming Passion: Christianity and the Consumer Culture. Downer's Grove, IL: InterVarsity, 1998. 223 pages.

--Schor, Juliet B., The Overspent American: Upscaling, Downshifting and the New Consumer. New York: Harper Perennial, 1998. 253 pages.

--Shi, David E., The Simple Life: Plain Living and High Thinking in American Culture. New York: Oxford University Press, 1986. 322 pages.

--Luhrs, Janet, The Simple Living Guide. New York: Broadway Books, 1997. 444 pages.

--Saint James (St. James), Elaine, Simplify Your Life: 100 Ways to Slow Down and Enjoy the Things that Really Matter. New York: Hyperion, 1994. 256 pages.

--Schut, Michael, Simpler Living, Compassionate Life: A Christian Perspective. Ridgefield, CT: Morehouse Publishing, 1999. 256 pages. Includes Frederick Buechner, Henri Nowen, John Cobb, Wendell Berry, and Richard Foster.

--Marty, Martin, and Marty, Micah, When True Simplicity is Gained: Finding Spiritual Clarity in a Complex World. Grand Rapids, MI: Eerdmans Publishing Co., 1998. 110 pages.

--Dominguez, Joseph R. and Robin, Vicki, Your Money or Your Life. New York: Penguin Books, 1993. 350 pages. (v.10,#2)

Simpson, Annie, "The Global Invasive Species Information Network: Whats in It for You?," BioScience 54(no.7, 1 July 2004):613-614(2). (v. 15, # 3)

Simpson, Juanita Mae, The Theoretical Foundations for an Environmental Ethic (Intrinsic Value), 1997, University of Arizona, Ph.D. thesis. 223 pages. An analysis of the concept of intrinsic value as a foundation for an environmental ethic. Distinguishes between a metaphysical conception of intrinsic value, having to do with its ontological status, and a normative conception which pertains solely to questions of normativity and moral obligation. There is a symmetry between certain earlier metaethical dialogues (Sidgwick and Moore) and the recent debates in environmental value theory. The latter-day Last Person thought experiment mirrors the challenge given by Sidgwick to which Moore responded with his Beautiful World analysis. Theorists have conflated a requirement for a noninstrumentalist (intrinsic) value with the requirement for a strongly objectivist ontology for value. Hence, theorists believed that what was required was a nondispositionalist, internal notion of value, abstracted from any possible evaluative stance. This confusion is expressed in the contemporary environmental ethics. Quinn offers a revised theoretical framework for an environmental ethic. The advisor was Joel Feinberg. (v.10,#1)

Simpson, R. David, Roger A. Sedjo, and John W. Reid, "Valuing Biodiversity for Use in Pharmaceutical Research," Journal of Political Economy 104 (no. 1, February 1996):163-185. The expected value of a new species for pharmaceutical purposes is very low, so low as to make it unlikely that private firms will have much economic incentive to protect species. Also, the loss--measured in human illness or death--caused by the loss of a species is likely to be small. Even under the most optimistic assumptions, the economic value of saving one species is

unlikely to be more than about \$ 10,000, and under typical assumptions the probability that a given species will yield useful discoveries drops its expected value to less than \$ 100. Issues of ecological, moral, or aesthetic values are not here considered. (v8,#3)

Simpson, R. David, "Biodiversity Prospecting: Shopping the Wilds Is Not the Key to Conservation," Resources (Resources for the Future), Winter, 1997, pp. 12-15. Studies show that losses in biological diversity have little bearing on whether the next miracle drug will be found. There are so many wild plants and animals that can be used by researchers that sources of useful products are either so common as to be redundant or so rare as to make discovery unlikely. The reasons for saving biodiversity can include such uses, but need to emphasize even more how biodiversity provides the basic life support system for society, and the aesthetic, ethical, and spiritual benefits. Simpson is an RFF fellow, writing a book in this area. (v8,#1)

Simpson, R. David, Sedjo, Roger A., and Reid, John W., "Valuing Biodiversity for Use in Pharmaceutical Research," Journal of Political Economy 104(1996):163-185. (v8,#1)

Simpson, Steven, "The Intrinsic Value of Minimum Impact," Journal of Experiential Education 16(no. 2, Summer, 1993):34-37. Why minimum impact camping is morally required. To view the practice solely as a way to keep primitive areas primitive is to ignore minimum impact's intrinsic worth. Simpson is currently on a Fulbright at National Taiwan University. (Thanks to Kevin Eddings, Harrison, NY.) (v4,#4)

Simsic, Wayne, Natural Prayer: Encountering God in Nature. Mystic, CT: Twenty-Third Publications, 1991. 101 pages. Wonder, reverence, and praise in encounter with the beauty of nature. (v3,#4)

Simus, Jason. "Environmental Art and Ecological Citizenship." *Environmental Ethics* 30(2008):21-36. Environmental artworks are not an aesthetic affront against nature because the aesthetic qualities of artworks are to some extent a function of other sorts of qualities, such as moral, social, or ecological qualities. By appealing to a new ecological paradigm, we can characterize environmental artworks as anthropogenic disturbances and evaluate them accordingly. Andrew Light's model of ecological citizenship emphasizes public participation in ecological restoration projects, which are very similar to environmental artworks. Participation in the creation, appreciation, and criticism of environmental art can count as a form of ecological citizenship when these practices provoke public deliberation about environmental and other community-regarding values.(EE)

Sinclair, A.R.E., Arcese, Peter, eds. Serengeti II: Dynamics, Management, and Conservation of an Ecosystem. Chicago: University of Chicago Press, 1995. 680 pp. \$90 cloth, \$34 paper. Follows a previous Serengeti, with twenty years of research by leading scientists and provides a sophisticated study of the Serengeti-Mara ecosystem in East Africa, home to one of the largest and most diverse populations of animals in the world. There are studies of the ecosystem at every level from the plants at the bottom of the visible food chain, to the many species of herbivores and predators, to the system as a whole. (v8,#2)

Sinclair, Patti K., E for Environment: An Annotated Bibliography of Children's Books with Environmental Themes. R. R. Bowker. 292 pages, \$ 39.95. Of special interest to elementary school teachers, environmental educators, librarians, parents, and those interested in teaching environmental ethics to children. Covers a wide range of material, from picture books that help instill in young readers a sense of wonder at the natural world, on through meatier nonfiction and fiction for older children. Author, title and subject indices, as well as a list of environmental classics for older students and adults. Harcourt Brace Jovanovich has launched a series of children's books dedicated to promoting ecological awareness: Gulliver Green Books. (v3,#4)

Sinclair, Peter R. "Perceptions of a Fishery in Crisis: Dragger Skippers on the Gulf of St. Lawrence Cod Moratorium." Society and Natural Resources 9, no.3 (1996): 267. (v7, #3)

Sindab, Jean. "Economics Justice for a Just World Order," Theology and Public Policy 4(no. 1, 1992).

Singer, Brent A., "An Extension of Rawls' Theory of Justice to Environmental Ethics," Environmental Ethics 10(1988):217-231. An attempt to use a Rawlsian theory of justice to develop specific moral duties of an environmental ethic---the protection of essential elements (such as air, water, and land), and the consideration of animal interests. The approach is highly anthropocentric, based on human interests and what humans would require for a good society. (Katz, Bibl # 2)

Singer, Brent A. "An Extension of Rawls' Theory of Justice to Environmental Ethics." Environmental Ethics 10(1988):217-31. By combining and augmenting recent arguments that have appeared in the literature, I show how a modified Rawlsian theory of justice generates a strong environmental and animal rights ethic. These modifications include significant changes in the conditions of the contract situation vis-a-vis A Theory of Justice, but I argue that these modifications are in fact more consistent with Rawls' basic assumptions about the functions of a veil of ignorance and a thin theory of the good. Singer is in the philosophy department, University of Maine, Orono, ME. (EE)

Singer, F. J., Zeigenfuss, L. C. and Spicer, L., "Role of Patch Size, Disease, and Movement in Rapid Extinction of Bighorn Sheep," Conservation Biology 15(no.5, 2001): 1347-54. (v.13,#2)

Singer, Peter, ed., A Companion to Ethics (Colchester, VT: Basil Blackwell, 1991). 560 pages. \$ 79.95 cloth. Contains sections on environmental ethics and animals. Forty seven entries by some distinguished philosophers. Another very expensive British book. (v2,#2)

Singer, Peter, "Heavy Petting," Review of Midas Dekkers, Dearest Pet: On Bestiality, in Nerve. Peter Singer on having sex with animals. Not natural, not normal, perhaps, but not undignified. In the online sex magazine Nerve, with the title "Heavy Petting," Singer reviews Dearest Pet: On Bestiality, by Midas Dekkers, a Dutch biologist, and suggests that the next taboo that should crumble is that against having sex with animals. He concludes: "This does not make sex across the species barrier normal, or natural, whatever those much-misused words may mean, but it does imply that it ceases to be an offense to our status and dignity as human beings." Consistent in his utilitarianism, what counts is pleasure or pain. Singer condemns sex with animals that

pains them, for example copulating with a chicken, using the hen's cloaca and decapitating the hen. But then he doubts whether this is really worse (causing more suffering) than the routine practice of keeping hens in battery cages and eating them. Singer is in ethics at Princeton University. The review is online at:

<http://www.nerve.com/Opinions/Singer/heavyPetting/> A scathing criticism by Peter Berkowitz, "Puppy Love," is in The New Republic. Berkowitz is at George Mason University Law School. (v.12,#3)

Singer, Peter, One World: The Ethics of Globalization. New Haven: Yale University Press, 2002. "The thesis of this book is that how well we come through the era of globalization (perhaps whether we come through it at all) will depend on how we respond ethically to the idea that we live in one world. For the rich nations not to take a global ethical viewpoint has long been seriously morally wrong. Now it is also, in the long term, a danger to their security" (p. 115). Reviewed by Philip Cafaro in Conservation Biology 18(2004):585-586. (v. 15, # 3)
Singer, Peter, Animal Liberation, 2nd ed., New York: New York Review of Books, 1990

Singer, Peter, One World: The Ethics of Globalization. New Haven: Yale University Press, 2002. For rich nations taking a global viewpoint is not only the moral thing to do; it is also a prudent security measure. Summary, "Navigating the Ethics of Globalization," Chronicle of Higher Education, Oct. 11, 2002, B7-B10. (v.13,#4)

Singer, Peter, ed., A Companion to Ethics. Oxford: Basil Blackwell, 1991. Contains two articles of relevance here:

--Elliot, Robert, "Environmental Ethics," pages 284-293.

--Gruen, Lori, "Animals," pages 343-353.

Both are short, introductory articles. (v.9,#4)

Singer, Peter, ed., In Defense of Animals. New York: Harper and Row, 1986.

Singer, Peter, ed., Ethics. Oxford: Oxford University Press, 1994. 415 pages. An anthology in the Oxford Readers series. This one, advertised as "not a conventional reader in moral philosophy," has a novel section, "Common Themes in Primate Ethics," with subsections on kinship, reciprocity, and sex, including such readings as Frans de Waal, "Chimpanzee Justice" and "The Social Rules of Chimpanzee Sex"; Jane Goodall, "Helping Kin in Chimpanzees"; Lorna Marshall, "Adultery among the !Kung"; Jesus on turning the other cheek, and Hillel on the whole Torah standing on one foot. Singer says, "In bringing together, as forms of 'primate ethics', observations of the social behaviour of human beings and nonhuman animals, I am suggesting that we abandon the assumption that ethics is uniquely human" (p. 6). Ninety readings, with Mary Midgley's, "Duties Concerning Islands," in conclusion, although environmental ethics is otherwise missing. Nothing seems morally considerable except us moral primates. Singer teaches philosophy at Monash University, Melbourne, Australia. (v5,#1)

Singer, Peter, "Equality for Animals?" (trans. by Yu Jing). Huanjing yu Shehui, a Quarterly, (Environment and Society), vol.3, no.1 (March 30, 2000). In Chinese. (EE v.12,#1)

Singer, Peter, One World: The Ethics of Globalization. New Haven, CT: Yale University Press. 2002. Changes are posing new ethical and organizational challenges that push moral thought and human institutions in unprecedented directions, involving the economy, the environment, international law, and community. Complex environmental questions are not confined to individual nations and cannot be addressed effectively within nation states. On the principle that "he who harms pays," "the United States and other rich nations should bear much more of the burden of reducing greenhouse gases than the poor nations--perhaps even the entire burden."

We need to "think about developing institutions or principles of international law that limit national sovereignty." The World Trade Organization is much to be faulted but something like a transformed version of it may be necessary. It is "possible to imagine a reformed WTO in which the overwhelming commitment to free trade is replaced by a commitment to more fundamental goals." Something like a democratic concept of a sovereign state has evolved: "the 'democratic concept of legitimate government' in which the concept of national sovereignty carries no weight if the government rests on force." "A global ethics should not stop at, or give great significance to, national boundaries. National sovereignty has no intrinsic moral weight." Singer is in ethics at Princeton University.

Singer, Peter, "Rights and Wrongs," interview by Erika Check, Nature 437(1 Sept. 2005):21, in a section "What the Chimp Means to Me," accompanying an issue announcing the sequencing of the chimpanzee genome. One of four who so reflect there. With half a dozen other related articles. Singer advocates (with the Great Ape Project) three "human" rights also to be granted to apes, the right to life, to liberty, and to protection from torture. (Singer, a utilitarian, seems to use "rights" language here more freely than elsewhere.) He also thinks that our human respect for life is not based on our genetic similarity with them. "I don't think that knowing which genes chimps share with us actually determines anything about their moral status in any meaningful way." Gary Marcus, in another interview, insists that there be great respect for chimps, but not under the pretense that they have language. "Chimpanzees may be many things, but linguists they are not."

Singer, Peter, "Ethics and Climate Change: A Commentary on MacCracken, Toman and Gardiner," Environmental Values 15(2006): 415-422. Climate change is an ethical issue, because it involves the distribution of a scarce resource - the capacity of the atmosphere to absorb our waste gases without producing consequences that no one wants. Various principles might be used to decide what distribution is just. This commentary argues that on any plausible principle, the industrialised nations should be doing much more than they are doing now, and much more than they are required to do by the Kyoto protocol, to reduce their greenhouse gas emissions. The commentary also responds specifically to some issues raised by MacCracken, Toman and Gardiner, including feasibility, the discount rate, and grounds for pessimism. (EV)

Singer, Peter. Practical Ethics. Reviewed in Environmental Ethics 4(1982):281-84.

Singer, Peter. "The Great Ape Project." The Animals' Agenda 16(Jul. 1996):12. (v7,#2)

Singer, Peter. Animal Liberation. (New York: New York Review of Books, 2nd ed., 1990). Reviewed in Environmental Ethics 1(1979):365-70.

Singer, Peter. The Expanding Circle: Ethics and Sociobiology. Reviewed in Environmental Ethics 6(1984):91-94.

Singer, Peter. The Singer Solution to World Poverty: A Contentious Ethicist Explains Why Your Taste for Foie Gras is Starving Children. New York Times Magazine. 6 September 1999. Reviewed by Richard A. Watson. Environmental Ethics 22(2000):327-328.

Singer, Peter. *Animal Liberation*. Translator: Zhu Shuxian. (Qingdao: Qingdao Press, 2004). (in Chinese)

Singer, S. Fred, ed., Global Climate Change: Human and Natural Influences. Paragon House/An ICUS Book, 1989. \$ 34.95. (v1,#2)

Singh, Billy Arjan, Watching India's Wildlife: The Anthology of a Lifetime. New York: Oxford University Press, 2004. (Oxford India Paperbacks). The problems afflicting efforts to create national parks in a developing country. Difficulties in implementing conservation measures.

Singh, Nandita, "Indigenous Water Management Systems: Interpreting Symbolic Dimensions in Common Property Resource Regimes," Society and Natural Resources 19 (no.4, Number 4/April 2006): 357-366 (10).

Singh, Rana P. B., ed., The Spirit and Power of Place: Human Environment and Sacrality. Varanasi, India: National Geographic Society of India, 1994. 352 pages. Indian Rs 500/-. US\$ 70.00. ISBN 81-86187-41-3. Simultaneously published as the National Geographic Journal of India, vol. 40, 1994 (ISSN 0027-9374). Over two dozen articles. Examples: J. Donald Hughes, "The Integrity of Nature and Respect for Place"; Amos Rapoport, "A Critical Look at the Concept of `Place'"; O. F. G. Sitwell, "Sacred Space Reconsidered"; Amita Sinha, "Pilgrimage--Journey to the Sacred Landscape of Braj"; Alec Paul and Paul Simpson-Housley, "The Manitoba Landscape of Martha Ostenso's Wild Geese"; and many others. Inquiries to Dr. Rana P. B. Singh, Executive Editor, NGJI, No. B 29 / 12 A Lanka, Varanasi, UP 221005, India. (v5,#2)

Singh, Rana P. B., the executive editor of the National Geographical Journal of India, is producing a special volume of that journal, volume 39, Environmental Ethics and the Power of Place: Festschrift to Arne Naess, expected January 1994, and hoped to be presented to Arne Naess on his 82nd birthday, January 27, 1994. 440 pages. ISSN 0027-9374/1993/0905-0943. Rs. 600. U.S. \$80.00. There are thirty nine articles. Samples: J. Baird Callicott, "International Environmental Ethics"; Max Oelschlaeger, "Ecofeminist Discourse on Place"; Andrew Brennan, "Challenges in the Foundations of Environmental Policy"; Holmes Rolston, "Down to Earth: Persons in Place in Natural History"; John E. Carroll, "Ecology and Moral Choice: Bias, Prejudice, and Ecology"; William Vitek, "Cultural Context and Historicity. From Genesis to Garbage: The Conceptual Roots of our Solid Waste Crisis"; Erwin H. Zube, "Cross-Cultural Landscape Studies: Review and Assessment"; J. Hansford Vest, "The Wild and the Tame: Understanding Wilderness and Agriculture in Native America"; J. Donald Hughes, "The Integrity of Nature and Respect for Place"; and many more, with a fine distribution of authors from many nations. For a full description contact: Dr. Rana P. B. Singh, Executive Editor, NGJI, No. B 29/12 A Lanka, Varanasi, UP 221005, India. Place direct orders with the Secretary,

National Geographical Society of India, Banaras Hindu University, Varanasi, UP 221005, India. (v4,#3)

Singh, Rana P.B., ed. The Spirit and Power of Place: Human Environment and Sacrality: Essays dedicated to Yi-Fu Tuan. Varanasi, India: National Geographical Society of India, 1994. 364 pages \$70, Rs. 500/-. A multidisciplinary perspective toward the idea of "environmental sensitivity"--searching and understanding the meanings with reference to human identity in the cosmos and human reflection on the earth. Samples: J. Donald Hughes (U.S.), "The Integrity of Nature and Respect for Place"; O. F. G. Sitwell (Canada), "Sacred Space Reconsidered"; Ramesh C. Dhuss, "Phenomenology of Place in Indian Culture--Case of Delhi." Contributors are from diverse disciplines and from diverse cultures. However, at some level there appears similarity in their approaches and expositions. (v6,#1)

Singh, Rana P. B., ed., Environmental Ethics: Discourses, and Cultural Traditions: A Festschrift to Arne Naess. Varanasi, India: The National Geographic Society of India, Banaras Hindu University, 1993. 256 pages, cloth. Rs. 500/-; US \$ 70.00. This volume is now published and available. All articles are in English. Also published as The National Geographic Journal of India, vol. 39, parts 1-4. Twenty articles by international authors and fourteen book reviews. Singh is Reader in Geography, Banaras Hindu University, Varanasi, UP 221005, India. See more details in Newsletter, vol. 4, no. 3. (v5,#1)

Singh, Satyajit, Taming the Waters: The Political Ecology of Large Dams in India. New York: Oxford University Press, 1998, 2002. Singh is at the University of Sussex, UK.

Singleton, S, "Collaborative Environmental Planning in the American West: The Good, the Bad and the Ugly," Environmental Politics 11(no.3, 2002): 54-75.

Singleton, Sara, "Co-operation or Capture? The Paradox of Co-management and Community Participation in Natural Resource Management and Environmental Policy-Making," Environmental Politics 9(no. 2, Summer 2000):1- . (v.12,#2)

Sinha, A and Brault, S, "Assessing Sustainability of Nontimber Forest Product Extractions: How Fire Affects Sustainability," Biodiversity and Conservation 14 (no. 14, December 2005): 3537-3563.

Sinha, Rajiv K., Margaret Greenway, Green Technologies for Environmental Management and Sustainable Development. New Delhi, Akhil Books, 2004. Website: www.akhilbooks.com E-mail: info@akhilbooks.com. Technologies of the 20th century promoted rapid socio-economic development and improved the quality of life of the people. But it was not without a price. All the basic life-support systems on earth--air, water and food--started getting poisoned in the wake of material development threatening our sustainability and survival. This called for a change in the strategy of development and the technologies applied. Sustainable human society on earth with "good quality of life for all" can be achieved either by persuading people to change their behaviour and attitude to life and give up the culture of consumerism or by promoting sustainable development programmes with appropriate environmental technologies. Rajiv K. Sinha is teaching environmental science/technology at the School of

Environmental Engineering, Griffith University, Brisbane, Australia. He was formerly teaching similarly in India. Margaret Greenway is Associate Professor and an Ecological Engineer, School of Environmental Engineering at Griffith University, Australia.

Sinha, Rajiv K., "Embarking on the Second Green Revolution for Sustainable Agriculture in India: A Judicious Mix of Traditional Wisdom and Modern Knowledge in Ecological Farming," Journal of Agricultural and Environmental Ethics 10(1997/1998):183-197. ABSTRACT: The Green Revolution in India which was heralded in the 1960's was a mixed blessing. Ambitious use of agro-chemicals boosted food production but also destroyed the agricultural ecosystem. Of late Indian farmers and agricultural scientists have realized this and are anxious to find alternatives--perhaps a non-chemical agriculture--and have even revived their age-old traditional techniques of natural farming. Scientists are working to find economically cheaper and ecologically safer alternatives to agro-chemicals. BlueGreen Algae Biofertilizers, Earthworm Vermicomposts (Vermiculture), biological control of pests and herbal biopesticides are showing promise. Saline agriculture and sewage farming are also being promoted in India to augment food production in the face of water scarcity. There is a move to search for alternative foods, which are more nutritious, cheaper and have shorter harvest cycles. Farm and food policy in India has to change its outlook before there can be a second green revolution. KEY WORDS: BGA biofertilizer, vermicompost, biological pest control, saline agriculture, sewage farming, Spirulina algal food, traditional agriculture. (JAEE)

Sippola, Anna-Lisa, Pirho Alaraudanjoki, Bruce Forbes, and Ville Hallikainen, eds., Northern Wilderness Areas: Ecology, Sustainability, Values. Rovaniemi, Finland: Arctic Centre, University of Lapland (P. O. Box 122, 96101 Rovaniemi, Finland), 1995. 438 pages. \$ 30. One emphasis is that what seems a remote wilderness to outsiders was home to various aboriginal peoples and other residents. Such regions are now frequently under threat by development interests; the threats are unevenly distributed but the impact can be heavy. 44 authors. (v8,#2)

Sirico, Robert A., "The False Gods of Earth Day," Wall Street Journal, April 22, 1994. Environmentalism has become a religion, infecting the churches, and it worships false gods, with many followers in mainstream churches, also including Albert Gore, Vice-president of the United States. One result is to undermine the positive result that economic growth has played in achieving the goals of religious ethics and concern for persons, and the role of religion in reforming persons in these economic and political systems and keeping them moral. "To make Earth Day a religious holiday forgets the primary purpose of traditional faith: to avoid personal sin and to attain salvation. To do this, man must obey God's law, as found in the 10 Commandments. There is no commandment against littering, but there is a very straightforward one about worshipping false gods." A good discussion editorial for classes in religion and environment. Paulist Father Sirico is with the Study of Religion and Liberty, Grand Rapids, Michigan. (v5,#2)

Sirmon, Jeff M. "Facing Tomorrow: Brazil's Difficult Forestry Choices", Journal of Forestry 94(no. 10, 1996):9. (v7,#4)

Sisk, T. D., et al., "A Landscape Perspective for Forest Restoration," Journal of Forestry 103(no. 6, July/August 2005): 319-320.

Sitter, Beat, "The New Categorical Imperative: The Ethical Principle for a Technological Age." Pages 205-220 in William R. Shea, ed., Revolutions in Science: Their Meaning and Relevance. Canton, MA, Science History Publications, Watson Publishing International, 1988. "Act in such a way: That you can want the attitudes and rules that you follow to become a general law. That you always respect the inherent worth of everything affected by your actions (nonhumans no less than human beings) and consider it in a fair way. That you never regard and use anything in the world as a means only." (v4,#4)

Sitter-Liver, Beat: "Tiefen-Oekologie: Kontrapunkt im aktuellen Kulturgesehen" (in German: Deep Ecology. A Counterpoint in Today's Mainstream Culture), Natur und Kultur 1 (No. 1, 2000): 70-88. Deep ecology aims at a change of our self-consciousness, beyond technical environmentalism. We gain our self from interrelations with other beings. Therefore, the ruling exploitation of nature should give way to a moderate and fair dwelling in the world. The practical principle of dignity of all creatures asks for a cultural change that places market and profit ideas on a subordinate level. Knowing that we cannot exist without harming and consuming other beings, we still accept the challenge of promoting life, wherever possible. Culture stands for the constructive coping with this existential tension. (v.11,#2)

SitterLiver (Sitter-Liver), Beat and Beatrix Sitter-Liver, eds. Culture within Nature, Culture dans la Nature. Basel, Switzerland: Swiss Academy of Humanities and Social Sciences, 1995. ISBN 3-090164-22-6. Contributions from about twenty authors, about half in English, half in French, the text complemented with visual arts. This volume was produced with the assistance and co-operation of UNESCO. Sample chapters: Carmina Virgili, Paris, "L'Etre humain et la planète Terre"; Beat Sitter-Liver, "La nature - une cité. Vers une constitution politique de la nature"; Nicolas M. Sosa, Salamanca, "Ecological Ethics as an Ethics of Physical and Moral Survival. Towards Morality of All-Embracing Communication and Solidarity"; Peter Saladin, Berne, "L'aspect temporel de la protection de la nature. La dimension juridico-politique"; Juan Diez Nicolas, Madrid, "Postmaterialism and the Social Ecosystem." Beat Sitter-Liver is professor of philosophy, University of Fribourg and Secretary-General of the Swiss Academy of Humanities and Social Sciences, Berne. Beatrix Sitter-Liver is an artist. (v6,#3) Reviewed by Catherine Larrère. Environmental Ethics 19(1997):433-435. (EE)

Sittler, Joseph. "Ecological Commitment as Theological Responsibility." Zygon 5 (June 1970): 172-181.

Siurua, Hanna, "Nature above People: Rolston and "Fortress" Conservation in the South," Ethics and the Environment 11(2006):71-96. Holmes Rolston III has argued that in some situations where the needs of starving people come into conflict with the protection of natural values, "we" ought to prioritize the latter. Focusing on the threat to pristine ecosystems and endangered species posed by overpopulation in developing countries, Rolston advocates the exclusion of human settlement and activity from the most fragile and valuable wild areas--a strategy sometimes termed "fortress conservation." This approach suffers from at least three serious faults. First, fortress conservation is regarded as an illegitimate imposition by many of the local people on whose cooperation the success of conservation initiatives depends, often leading to failure in terms of conservation objectives. Second, the assumption that conservation and the

satisfaction of basic human needs are largely incompatible ignores evidence of widespread environmentally sustainable patterns of resource use. Finally, Rolston's appeal to "us," referring variously to concerned North Americans and to humanity as a whole, implicitly universalizes the preservationist value system of a Northern minority while excluding the values and voices of the people directly affected by the proposed conservation measures. Siurua is a graduate student in philosophy, Lancaster University, UK. (Eth&Env)

Sivaraksa, Sulak, "Development and Environment in Southeast Asia." Zygon 24 (1989): 429-436. Western-style development and modernization is destroying the environment of Southeast Asia. A convergence of core Asian traditions with a new non-mechanistic paradigm of science offers the best hope for a spiritual basis for development. (Katz, Bibl # 2)

Sivaramakrishnan, K., "Forest Co-management as Science and Democracy in West Bengal, India," Environmental Values 11(2002):277-302. This essay argues that important development and natural resource management initiatives that seek to expand meaningful participation by rural communities directly affected by such ventures can be usefully examined as democratic technologies. Drawing upon nearly two decades of experience designing, implementing, and researching forest co-management programs in India, the essay examines the analogous practices through which democracy and forest management science become contested regulatory ideals while creating the deliberative spaces in which post-Habermasian public spheres can be constructed. The analysis of disciplinary tendencies, bureaucratic transition, and emerging solidarities among historically marginalised groups responding to the performance of democracy and scientific forest management is used to offer revisions to the more sweeping critiques of technology as fundamentally anti-democratic. (EV)

Sivard, Ruth Leger, World Military and Social Expenditures, 15th, 1993 edition. 56 pages, a slim book with a lot of information in it. This document is produced annually by the independent research organization World Priorities, Inc., Box 25140, Washington, DC 2007. Published in translations in eight languages. Some findings: The developed countries spend as much on military power in a year as the poorest 2 billion people on Earth earn in total income. The developed countries in 1990 provided \$ 56 billion in economic aid to the poorer countries and sold \$ 36 billion worth of arms to them. At a cost of less than half their military expenditures, the developing countries could provide a package of basic health care services and clinical care that would save 10 million lives a year. World military spending in 1992 exceeded \$ 600 billion. U. S. military spending accounted for nearly half this amount, despite the fact that in the U.S. one person in seven lives below the poverty line and over 37 million people lack any form health care coverage. In his foreword, John Kenneth Galbraith writes, "With the end of the Cold War, military expenditure on the present scale is patently ridiculous." But, Garrett Hardin reminds us (see previous entry), it costs money to protect your lifeboat. And with all that money spent, there is precious little left for conservation. (v4,#4)

Sive, David, "Standing, Sprawl, and More Stringent Emissions Limitations via the Clean Air Act," Journal of Environmental Law & Practice 7 (No. 3, 2000 Winter): 6- . (v.11,#4)

Sixel, Freidrich W., in cooperation with Luther, Bladev R., Nature in Our Culture: A Study in the Anthropology and Sociology of Knowing. Lanham, MD: University Press of America, 2001. Environmental problems are not a consequence of incorrect science but of the history of

Western society. The dominant culture that has developed in modernity serves, primarily, the dominance of that culture. An egoistic instrumentalism forces the modern individual to view everything in terms of its usefulness. Only a culture that resurrects in itself its own "Nature-ness" will rectify our present problematic Nature. With particular attention to Goethe. (v.12,#3)

Siy, E., L. Koziol, and D. Rollins, The State of the States: Assessing the Capacity of States to Achieve Sustainable Development through Green Planning. San Francisco: Resource Renewal Institute, 2001. (Fort Mason Center, Pier One, San Francisco, CA 94123). (v. 15, # 3)

Sizer, Nigel. Profit Without Plunder: Reaping Revenue From Guyana's Tropical Forests Without Destroying Them. Washington, D.C.: World Resource Institute, 1995. 46pp. \$14.95 paper. This report, developed at the request of Guyana's President, Dr. Cheddi Jagan, explains how the country can reap revenue from its forests without destroying them. Identifying seven key steps Guyana can take for sustainable forestry management, author Nigel Sizer provides both concrete proposals for immediate and long-term action and a comprehensive analysis of the country's forestry programs to date. (v8,#1)

Sjolander-Lindqvist (Sjölander-Lindqvist), Annelie, "Conflicting Perspectives on Water in a Swedish Railway Tunnel Project," Environmental Values 14(2005):221-239. The building of a railway tunnel through the Hallandsas ridge in the southwest of Sweden resulted in sinking groundwater levels and a toxic spill for the local community. As a result, this highly technological project expanded from the addressing of technological and economic issues of rail traffic and tunnel building to include issues of environmental harm and how to assess and manage the geology of the ridge. A central concern for local residents as well as for the developer has been how to view and interpret the resource of groundwater. This article focuses on groundwater as a boundary object, bordering the domains of the technologists and the local community. In this situation, technological understanding and knowledge confronts an experience-based understanding and a symbolic interpretation of the water resource. Sjölander-Lindqvist is at Göteborg University, Göteborg, Sweden. (EV)

Sjosted, Gunnar, Review of Pritchard, Roger, International Environmental Negotiation. Environmental Values 3(1994):183. (EV)

Skagen Ekeli, Kristian, "Environmental Risks, Uncertainty and Intergenerational Ethics," Environmental Values 13(2004):421-448. The way our decisions and actions can affect future generations is surrounded by uncertainty. This is evident in current discussions of environmental risks related to global climate change, biotechnology and the use and storage of nuclear energy. The aim of this paper is to consider more closely how uncertainty affects our moral responsibility to future generations, and to what extent moral agents can be held responsible for activities that inflict risks on future people. It is argued that our moral responsibility to posterity is limited because our ability to foresee how present decisions and activities will affect future people is limited. The reason for this is primarily that we are in a situation of ignorance regarding the pace and direction of future scientific and technological development. This ignorance reduces our responsibility in a temporal dimension because in most areas it is impossible to predict the interests and resource needs of future generations. In one area, however, we have fairly reliable knowledge about future people. It is reasonable to assume that

future human beings will have the same basic physiological (physical and biological) needs as we have. On this basis, it is argued that we can be held responsible for activities causing avoidable damage to critical resources that are necessary to provide for future physiological needs. Furthermore, it is suggested that it is prima facie immoral to impose risks upon future generations in cases where the following conditions are fulfilled: (1) the risk poses a threat to the ability of future generations to meet their physiological needs, and (2) the risk assessment is supported by scientifically based harm scenarios. Ekeli is in philosophy, Norwegian University of Science and Technology, Trondheim, Norway. (EV)

Skakoon, Elizabeth. "Nature and Human Identity." *Environmental Ethics* 30(2008):37-49. In opposition to modernist conceptions of the Aself, some environmental philosophers argue that human identity is first and foremost wild and natural because it is a product of an ontologically independent nature. They use evolutionary theory to create and maintain a division between our wild, natural human identity and our artifactual culture. Their position is supported by a misunderstanding of both early hominid evolution and artifacts. Artifacts are not the neutral instruments of human will, but exist with us in Aeconomies that constantly create unintended consequences. In terms of recent work in the field of philosophical anthropology, a reexamination of the evolutionary evidence suggests that our identity is not natural but completely artifactual. This artifactual identity provides us with new ways of conceptualizing our present ecological problems. (EE)

Skelton, William H., ed., Wilderness Trails of Cherokee National Forest. Knoxville: University of Tennessee Press, 1992. 323 pages. Over a hundred trails in this 625,000 acre national forest, along the Tennessee-North Carolina State line, accessible within a day's drive by most of the Eastern United States and surrounding the Great Smoky Mountains National Park, one of the most visited parks in the world. This is a fine example of a University Press contributing to local environmental appreciation and conservation. Skelton is a Knoxville, Tennessee attorney. (v4,#3)

Skinner, M. W., Kuhn, R. G. and Joseph, A. E., "Agricultural Land Protection in China: A Case Study of Local Governance in Zhejiang Province," Land Use Policy 18(no.ER4, 2001): 329-40. (v.13,#2)

Skirbekk, Gunnar, Manuscripts on Rationality (Bergen: Ariadne Forlag, 1992). (in English) Paper, 241 pages. ISBN 82-90477-22-8. Includes: "Technological Expertise and Global Ethics in an Age of Scientization and Ecological Crisis"; "The Beauty and the Beast: Ethical Reflections on the Borderline between Humankind and Beasthood"; "Property and Interdependence: Remarks on the Notion of Ownership in the Borderline between Economy and Ecology" (asking "To what extent is man entitled to treat nature as his private property; what can and cannot be owned?"; and "Ethical Gradualism." The last essay presents arguments in favor of an ethical gradualism between humans and other mammals and between humans and nature. Humans do have a paradigmatically different identity owing to their social nature and to their discursive rationality; nevertheless "there is no sharp borderline between man and higher mammals and some ethical gradualism is therefore called for." Extending this to plants, species, and ecosystems is more problematic. (Norway)

Skirbekk, Gunnar, Eco-Philosophical Manuscripts (Bergen: Ariadne forlag, 1992) (in English). 98 pages. Paper. ISBN 82-90477-27-9. Six essays: "Ecological Crisis and Technological Expertise"; "Science and Ethics"; "A Crisis in the Humanities"; "Political Culture"; "Eco-Crisis and the Welfare State"; "A Pragmatic Notion of Nature." The last is "an essay on the Norwegian way of life, in regard to the rapport between nature and national identity." "Norwegians are not very exciting, except for their relation to nature." Unlike most Europeans, further south, that relation is neither one of domination nor of aesthetic appreciation. Norwegian children grow up with more exposure to nature than most; there is a long history of a close relation between people and nature. "Thus nature, together with history and peasantry, became the foundation of national consciousness. This is a rapport to nature which is not grasped in terms of resources for material exploitation, or as an object for aesthetic contemplation. This is nature as the foundation for self-respect and self-understanding." "The Norwegian ideology of open-air life is ... saturated by caution and piety toward nature by some sort of eco-philosophic reverence for life." "This way of understanding nature, and of living with it, transcends the ethical dimension and points towards the dimension of metaphysics." There is a similar essay in his Rationality and Modernity (forthcoming). (Norway)

Skirbekk, Gunnar, ed., The Notion of Sustainability and its Normative Implications. Oslo: Scandinavian University Press, 1994. 193 pages. Six articles, all in English: Michael Ruse (Philosophy, University of Guelph), "Sustainability"; Jorgen Randers (Economics, Norwegian School of Management, Oslo), "The Quest for a Sustainable Society A Global Perspective"; Peter B. Sloep (Biology, Dutch Open University at Heerlen), "The Impact of 'Sustainability' on the Field of Environmental Science"; Kristin Shrader-Frechette (Philosophy, University of South Florida), "Sustainability and Environmental Ethics"; Gunnar Skirbekk, "Ethical Gradualism, beyond Anthropocentrism and Biocentrism?"; Georgios Anagnostopoulos (Philosophy, University of California, San Diego), "Sustainability and Ways of Achieving It." The authors claim to defend a "reasonable radicalism," avoiding the Scylla of soft eco-holism and the Charybdis of shortsighted scientism. Skirbekk is in philosophy at the University of Bergen. (v5,#4)

Skjaerseth, JB; Wettestad, J, "Understanding the Effectiveness of EU Environmental Policy: How Can Regime Analysis Contribute?," Environmental Politics 11(no.3, 2002): 99-120.

Sklar, Holly. "Scapegoating and Slander: Blaming the Poor for Poverty", The Ecologist 26(no. 4,1996):187. To deflect blame from the economic policies which are creating poverty and unemployment, many local and national leaders are scapegoating those most impoverished by such policies: principally single mothers, ethnic minorities, and the poor themselves. Such scapegoating is being used to divide and rule opposition to globalization: instead of working together across racial lines and gender divides to transform society, people are being turned against each other. (v7,#4)

Skoch, Edwin A., "Personal Injury Liability Coverage for Environmental Contamination under the Comprehensive General Liability Policy: Is Migrating Pollution A 'Wrongful Entry or Eviction or Other Invasion of the Right of Private Occupancy'", Tulane Environmental Law Journal, 9(No.1, 1995):37- . (v7,#1)

Skog, Kenneth E. and Ince, Peter J., "Industrial Ecology and Sustainable Forestry," Journal of Forestry 98(no.10, OCT 01 2000):20- . Tracing the flow of materials through production and consumption is a useful but limited approach to determine the most effective ways to conserve forests and their benefits. (EE v.12,#1)

Skogen, K., "Adapting Adaptive Management to a Cultural Understanding of Land Use Conflicts," Society and Natural Resources 16(no. 5, 2003): 435-450. (v 14, #3)

Skolimowski, Henryk, "Ecology and the Sanctity of Life." 1992. Publication no. 7. Available from Eco-Philosophy Centre, 1002 Granger, Ann Arbor, MI 48104. (v6,#4)

Skolimowski, Henryk, The Participatory Mind: A New Theory of Knowledge and of the Universe. Reviewed by Noel Charlton. Environmental Values 5(1996):183-186. (EV)

Skolimowski, Henryk. Eco-Philosophy: Designing New Tactics for Living. Reviewed in Environmental Ethics 6(1984):167-74.

Skolimowski, Henryk. "In Defence of Sustainable Development." Environmental Values 4(1995):69-70. Wilfred Beckerman, of Balliol College, Oxford has written a crisp essay attempting to undermine the meaning of the concept of 'Sustainable Development'. As I read his first arguments, I couldn't agree with him more that the concept is excessively stretched, that there is a lot of sloppy usage, and indeed that a spurious intellectual industry has been created in manufacturing various by-products of Sustainable Development. But ... Skolimowski is in ecological philosophy in Poland. (EV)

Skolimowski, Henryk. "The Dogma of Anti-Anthropocentrism and Ecophilosophy." Environmental Ethics 6(1984):283-88.

Skolnikoff, Eugene B. The Elusive Transformation: Science, Technology, and the Evolution of International Politics. Princeton University Press, 1993. 320 pages. \$39.50. A professor of political science at MIT and White House advisor under several administrations, Skolnikoff argues that the most powerful and persistent forces in societal change are science and technology. Included are TV, nuclear weapons, global warming, and the green revolution. This book is the first comprehensive attempt to show the interrelationship of international political systems and science and technology. Based on extensive research and the author's accumulated experience. "... a tour de force" --Ted Greenwood, Sloan Foundation. (v5,#2)

Skorupinski, Barbara, et al., AConsensus Conferences - A Case Study: Publiforum in Switzerland with Special Respect to the Role of Lay Persons and Ethics,@ Journal of Agricultural and Environmental Ethics 20(2007):37-52. This paper focuses on experiences from a case study dealing with the Swiss type of a consensus conference called APubliForum@ concerning AGenetic Technology and Nutrition@ (1999). Societal and ethical aspects of genetically modified food meanwhile can be seen as prototypes of topics depending on the involvement of the public through a participatory process. The important role of the lay perspective in this field seems to be accepted in practice. Nevertheless, there is still some theoretical controversy about the necessity and democratic legitimacy of participatory processes

in general, and especially about those dealing with technological or environmental problems (sustainable development) concerning society. From an ethical point of view, a lot of heterogeneous problems concerning contents and procedures of public participation can be pointed out, not only on the theoretical level but also in practice, e.g., concerning the communication process between laypersons and experts. The intention of our paper is to give hints and to clarify criteria that support the communication process leading to a dialog of autonomous citizens and which especially consider ethical aspects in the field. One important result is that there must be an orientation for all members of a consensus conference having clear rules and knowing their different roles that support transparency, credibility, and fairness of the whole procedure and a good product: a substantial final document or citizens' report. This paper presents results of the project Ethical Bio-TA Tools as funded by the European Commission, DG Research, under FP5, Quality of Life Programme.

Keywords: autonomy - consensus conferences - GM food - lay persons - publiForum.
Skorupinski is in the Unit für Ethics in Biosciences, University of Basel, Switzerland.

Skorupinski, Barbara, "Putting Precaution to Debate - about the Precautionary Principle and Participatory Technology Assessment," Journal of Agricultural and Environmental Ethics 15(no. 1, 2002):87-102. Technology assessment (TA) as an institution was introduced nearly thirty years ago as an instrument to render possible the making of responsible decisions concerning new technological options. Another recent development however has been the introduction of participatory technology assessment (pTA), mainly connected to the growing insight that the evaluation of technological options with respect to their risks and benefits, is not--only--a scientific question. This paper will focus on the questions, to what degree the ideas of technology assessment and the Precautionary Principle are connected and how. Without naming it explicitly, the Precautionary Principle is put to debate in the "TA-arrangement on the cultivation of transgenic herbicide resistant crops," organized by the Science Centre, Berlin. From the perspective of ethical clarification, some unique features concerning the conceptualization of the discursive procedure and reconstruction of the argumentation process in order to come to results have to be analyzed. Finally the performance and results of the pTA-arrangement are reflected in the light of the Precautionary Principle and conclusions are drawn. KEY WORDS: discourse, participatory technology assessment, precautionary principle, risk assessment, transgenic plants. Skorupinski is with the Institute für Social Ethics, Zurich, Switzerland. (JAEE)

Slattery, D, "Resistance to Development at Wilsons Promontory National Park (Victoria, Australia)," Society and Natural Resources 15(no.7, 2002): 563-80. (v.13,#4)

Slesser, Malcolm, King, Jane, and Crane, David C., The Management of Greed: A Bio-Physical Appraisal of Environmental and Economic Potential. Edinburgh: RUI Publishing Co., 1997. (12, Findhorn Place, Edinburgh Scotland, EH9 2JP) ISBN 1-872579-07-8. 327 pages. , 12.00. Greed is not entirely bad. It is a motivating force for creativity. It is a spur to endeavor. But where greed becomes an obsession with material acquisition, it can become a cancer. Unconstrained and thoughtless consumption is driving our humanly designed economy and society into an unsustainable state because it is overtaxing nature's ability to cope. We humans need to defend nature, not just for her sake, but for ours as well. Nature is infinitely more

durable than the human race. Greed is but a fact of the life force. In the management of greed towards positive ends hope can be found. (v.8,#4)

Slicer, Deborah, Review of: Greta Gaard, ed., Ecofeminism: Women, Animals, Nature, Environmental Ethics 16(1994):315-319.

Slicer, Deborah. "Is There an Ecofeminism Deep Ecology `Debate'?" Environmental Ethics 17(1995):151-169. I discuss six problems with Warwick Fox's "The Deep Ecology-Ecofeminism Debate and Its Parallels" and conclude that until Fox and some other deep ecologists take the time to study feminism and ecofeminist analyses, only disputes--not genuine debate--will occur between these two parties. An understanding of the six issues that I discuss is a precondition for such a debate. Slicer is in the philosophy department, University of Montana. (EE)

Slicer, Deborah. Review of The Sexual Politics of Meat: A Feminist-Vegetarian Critical Theory. By Carol J. Adams. Environmental Ethics 14(1992):365-69.

Slicer, Deborah. "Obligations to Animals Are Not Necessarily Based on Rights." Journal of Agricultural and Environmental Ethics 8(1995):161-170. I offer a very qualified argument to the effect that rights are grounded in a certain sort of prejudice that privileges individualistic and perhaps masculinist ways of thinking about moral life. I also propose that we look carefully at other conceptions of social ontology and moral life, including the much discussed care conception. (JAEE)

Sloan, D., "A Postmodern Vision of Education for a Living Planet." In D. R. Griffen and R. Falk, ed., Postmodern Politics for a Planet in Crisis. Albany: State University of New York Press, 1993. (v6,#2)

Sloan, Gail L., and Welton, Bill, "Haskell Indian Nations University: Holistic Education in the Natural Resources," Journal of Forestry 95(Nov. 1997):37-. (v.8,#4)

Sloan, NA, "History and Application of the Wilderness Concept in Marine Conservation," Conservation Biology 16(no.2, 2002):294-305. (v.13, #3)

Sloan, Phillip R., ed. Controlling Our Destinies. Notre Dame: University of Notre Dame Press, 1997. 400pp. \$28.95 cloth, \$16 paper. Contributors have taken seriously the mandate, as expressed when the U.S. Congress approved funding for the Human Genome Project, to conduct an ongoing assessment of the ethical, legal and social implications of this scientific enterprise. Their essays include discussions of the historical background of the project, issues behind the concepts of "code" and "genes", the implicit reductionism in contemporary human genetics, and an examination of the nagging issues surrounding potential new forms of positive "eugenics". (v7,#4)

Slobodkin, Lawrence B., A Citizens Guide to Ecology. New York: Oxford University Press, 2003. Slobodkin is at SUNY, Stony Brook.

Slocombe, D. Scott, ed. Tools for Sustainability: Explorations and Prospects, proceedings of a workshop held at Wilfred Laurier University, October 1991 (Waterloo, Ontario: Wilfrid Laurier University Cold Regions Research Centre, 1991), 156 pages. Also Working Paper No. 2 of the Commission on Environmental Strategy and Planning of the International Union for Conservation of Nature and Natural Resources (IUCN). Fifteen papers: sample topics: bioregionalism, adaptive management in the Canadian north, information technology as an enabling tool, sustainability in indigenous systems, integrating populations and nature conservation. Canadian \$ 10, plus \$ 2 shipping, from Cold Regions Research Centre, address above. (v4,#1)

Slocombe, D. Scott, Julia K. Roelof, Lirondel C. Cheyne, Susan Noalani Terry, and Suzanne den Ouden, eds., What Works: An Annotated Bibliography of Case Studies of Sustainable Development. Sacramento: International Center for the Environmental and Public Policy, 1993. (v5,#1)

Slocombe, D. Scott, Ecosystem Approaches: An Annotated Multidisciplinary Bibliography (Waterloo, Ontario: Wilfred Laurier University Cold Regions Research Centre, 1991), 58 pages. Also Working Paper No. 1 of the Commission on Environmental Strategy and Planning of the International Union for Conservation of Nature and Natural Resources (IUCN). A bibliography for ecosystem approaches to environmental planning and management, with a keyword index. 207 annotated items, selected as the key references in the field. Slocombe is a geographer at Wilfred Laurier University. Canadian \$ 5 plus \$ 2 shipping, from Cold Regions Research Centre, Wilfred Laurier University, Waterloo, Ont. N2L 3C5, Canada. Phone: 519/884-1970. (v4,#1)

Slovic, Scott H. and Terrell H. Dixon, eds., Being in the World: An Environmental Reader for Writers. New York: Macmillan, 1993. 704 pages. Eighty-five selections, with a wide diversity. Includes multiple selections by ten noted writers. A general introduction to environmental writing, for use in nature writing courses. Discussion topics and writing assignments designed to encourage students to explore their own relationship to nature as a way of strengthening their writing. Readings are grouped thematically moving from detached observation of nature into direct contact to familiarity and internalization. Sample sections: Encounters with the Otherness of Nature; Fecundity and Mortality; Walking: On the Trail and Off; Water: Water Narratives; Birds and Beasts; Nearby Nature; Climbing: Mountain Narratives; A Sense of Place; Spiritual and Aesthetic Responses to Nature; Visual Representations of Nature (with four color prints); Nature and the Mind. Slovic is at Southwest Texas State University, Dixon is at the University of Houston. (v4,#1)

Smail, J. Kenneth, "Beyond Population Stabilization: The Case for Dramatically Reducing Global Human Numbers," Politics and the Life Sciences 16(1997):183-192. There is a growing tension between two apparently irreconcilable trends: (1) demographic projections that world population size will reach 10 to 11 billion by the middle of the next century; and (2) scientific estimates that the Earth's long-term sustainable carrying capacity (at an "adequate to comfortable" standard of living) may not be much greater than 2 to 3 billion. It is past time to develop internationally coordinated sociopolitical initiatives that go beyond slowing the growth or stabilizing global human numbers. After "inescapable realities" that humans must soon confront, and notwithstanding the considerable difficulties involved in establishing "global

population optimums," I conclude with several suggestions how best to bring about a very significant reduction in global population over the next two to three centuries (to perhaps 75 percent of the present population). Smail is an anthropologist at Kenyon College, Gambier, Ohio. With commentaries by 16 critics, including Norman Myers, "The Population/Environment Problem: Even more Urgent than Supposed; Timothy F. Flannery, "Australia: Overpopulated or Last Frontier?"; Charles F. Westoff, "Population Growth: Large Problem, Low Visibility; and others.

Smale, M., ed., Valuing Crop Biodiversity: On-Farm Genetic Resources and Economic Exchange, New York: Oxford University Press, 2006. Challenges involved in maintaining local crop biodiversity within a rapidly changing global food system. Policy debates related to the Convention on Biological Diversity. Smale is with the International Food Policy Research Institute, Washington, DC.

Small, Bruce H., and Mark W. Fisher, "Measuring Biotechnology Employees Ethical Attitudes towards a Controversial Transgenic Cattle Project: The Ethical Valence Matrix," Journal of Agricultural and Environmental Ethics 18(2005):495-508. Employees of a New Zealand company, AgResearch Ltd., were surveyed regarding a project to create transgenic cattle containing a synthetic copy of the human myelin basic protein gene (hMBP). They were generally: in favor of the project, believed that it should be allowed to proceed to completion, and that it is acceptable to use transgenic cattle to produce medicines for humans. Scales were developed to measure respondents beliefs about the moral outcomes of the project for identified stakeholders in terms of the four principles of common morality (benefit, non-harm, justice, and autonomy). We propose that the Ethical Valence Matrix may be used as a tool to measure ethical attitudes towards controversial issues, Key words attitudes - autonomy - benefit - ethical valence - genetic engineering - harm - justice - principles - research - stakeholders. The authors are in the Social Research Unit, Ruakura Research Centre, AgResearch Ltd, Hamilton, New Zealand. (JAEE)

Smeloff, Ed, and Asmus, Peter. Reinventing Electric Utilities. Washington, D.C.: Island Press, 1996. 165 pages. \$34.95 cloth, \$16.95 paper. Through an in-depth case study of the Sacramento Municipal Utility District, a once troubled utility that is now widely regarded as a model for energy efficiency and renewable energy development, the authors explore the changes that have occurred in the utility industry, and the implications of those changes for the future. (v7, #3)

Smil, Vaclav, The Bad Earth: Environmental Degradation in China. Armonk, NY: M. E. Sharpe, Inc. and London: ZED Press, 1984. 245 pages. Extensive account of serious environmental degradation and highly critical of the Maoist government and massive, bumbling Chinese bureaucracy. Deforestation and resulting erosion and flooding is China's most serious environmental problem. Much of this results from Marxist idealism about growing grain in unsuitable areas. The land use mistakes, when coupled with population, growth, have China on a disaster course. The silting of the Huang (Yellow) River is one of the most intractable environmental problems on Earth. The most fundamental problem is not population size, or relative poverty, or political instability; it is a staggering mistreatment of the environment, which

will prove the most serious check on China's reach toward prosperity. Smil is a geographer at the University of Manitoba. (China)

Smil, Vaclav, Global Ecology: Environmental Change and Social Flexibility. New York: Routledge, 1993. 256 pages. Paper, , 13.99. The magnitude and rapidity of global environmental change threatens the perpetuation of life on Earth, yet we avoid the underlying challenge of a rapidly deteriorating ecological system. The breadth and complexity of responses demanded require a flexible social response. Smil is at the University of Manitoba. (v5,#1)

Smil, Vaclav, Feeding the World: A Challenge for the Twenty-First Century. Cambridge, MA: The MIT Press, 2000. Neither the catastrophic view that widespread starvation is imminent, nor the cornucopian view that welcomes more population confident that human inventiveness can feed them. Rather, if we increase farming efficiency, reduce waste, and transform our diets, prospects are not as bright as we would like, but the outlook is not disheartening. (v.12,#4)

Smil, Vaclav, Enriching the Earth: Fritz Haber, Carl Bosch, and the Transformation of World Food Production. Cambridge, MA: MIT Press, 2001. The industrial synthesis of ammonia from atmospheric nitrogen and hydrogen, making possible large amounts of nitrogen rich fertilizer, has been of greater fundamental significance to the modern world than the invention of the airplane, nuclear energy, space flight, or television. The expansion of the world's population from 1.6 billion in 1900 to today's six billion would not have been possible without the synthesis of ammonia and the resulting fertilizer. One is left wondering whether any comparable technologies might be forthcoming. (v.11,#4)

Smil, Vaclav, China's Environmental Crisis: An Inquiry into the Limits of National Development. London and Armonk, NY: M. E. Sharpe, 1993. ISBN 0-87332-819-0 cloth. 1-56324-041-6 paper. A fine analysis, and a good reality check for those who think that environmental ethics or environmental legislation is a priority in China. By a long-term China scholar, at the University of Manitoba.

Smil, Vaclav, "China Shoulders the Cost of Environmental Change" Environment 39 (no. 6, 1997):6-9, 33-37. As demographic growth and industrial expansion continue to transform the world's most populous nation, the price China will pay for degrading its air, water, and land grows. Although complete data are difficult to obtain, there can be no doubt that recent environmental changes in China already carry economic costs roughly an order of magnitude higher than the country's annual spending on environmental protection. Even if the government tripled or quadrupled its outlays, they could easily meet the strictest benefit-cost criteria. Smil teaches geography at the University of Manitoba, Winnipeg. See also a similar item in "Issues." (v8,#3)

Smil, Vaclav. *Energy in Nature and Society: General Energetics of Complex Systems*. Cambridge, MA: The MIT Press, 2008. Smil uses fundamental unifying metrics to analyze the study of natural and anthropogenic energy flows and their transformations from hunter-gatherer and agricultural societies through modern-day industrial civilization. Topics include heterotrophic conversions, traditional agriculture, preindustrial complexification, fossil fuels,

fossil-fueled civilization, the energetics of food, and the implications of energetics for the environment.

Smil, Vaclav. *Global Catastrophes and Trends: The Next Fifty Years*. Cambridge, MA: The MIT Press, 2008. Smil examines rare, cataclysmic events (natural and anthropogenic) and trends of global importance including the transition from fossil fuels to other energy sources, political and demographic shifts, battles for global primacy, and growing social and economic inequality. He argues that relying upon long-term historical perspectives of change can help us reverse negative trends and minimize the risk of catastrophe.

Smith, A., "Review of: Clark A. Miller and Paul N. Edwards (Eds.), Changing The Atmosphere: Expert Knowledge and Environmental Governance," Environmental Politics 12(no. 1, 2003): 257-258. (v 14, #3)

Smith, A., "Review of: Brian Doherty, Ideas and Actions in the Green Movement," Environmental Politics 12(no. 2, 2003): 161.

Smith, Adrian. Integrated Pollution Control: Change and Continuity in the UK Industrial Pollution Policy Network. Brookfield, VT: Ashgate, 1997. 264 pp. \$68.95. Policy network analysis is used to explain why the Integrated Pollution Control came about in 1990, and how its implementation has failed to meet initial aspirations.

Smith, Adrian. Integrated Pollution Control: Change and Continuity in the UK Industrial Pollution Policy Network. Brookfield, VT: Ashgate, 1997. 264 pp. \$68.95. Policy network analysis is used to explain why the Integrated Pollution Control came about in 1990, and how its implementation has failed to meet initial aspirations.

Smith, and H. Gene Blocker, eds., Applied Social and Political Philosophy. Englewood Cliffs, NJ: Prentice-Hall, 1994. 608 pages. Paper. A new text in applied philosophy. Contains Henry Shue, "Basic Rights. The Rights and Welfare of the Environment, Animals, and Future Generations"; David G. Ritchie, "Why Animals Do Not have Rights"; Joel Feinberg, "The Rights of Animals and Unborn Generations"; Tom Regan, "The Moral Basis of Vegetarianism"; Christopher D. Stone, "Earth and Other Ethics." Both authors are in philosophy at Ohio University. (v4,#4)

Smith, Andrew A., Moote, Margaret A. and Schwalbe, Cecil R., "The Endangered Species Act at Twenty: An Analytical Survey of Federal Endangered Species Protection," Natural Resources Journal 33(1993):1027-1075. The Endangered Species Act of 1973 is both praised and criticized for its efforts to protect species from extinction. Its stringent provisions spark controversies pitting species preservation against economic and other concerns. An analysis of issues central to debate of the ESA as it faces congressional reauthorization. Questions focus on measures that form the basis for species preservation under the ESA, federal government's role in its implementation, funding problems, conflicts with private property rights, and the ESA's basic approach to conservation. Preservation policy must evolve with societal and scientific change, shifting its focus toward implementing ecosystem management techniques. The authors are at the School of Renewable Natural Resources, University of Arizona, Tucson. (v.10,#1)

Smith, April A., Campus Ecology: A Guide to Assessing Environmental Quality and Creating Strategies for Change. Los Angeles: Living Planet Press, 1993. 130 pages. \$ 17.95. Waste reduction, energy efficiency, water conservation, environmental justice, transportation alternatives, recycling, green investment strategies, environmental education and careers. April Smith is an environmental planner based in Los Angeles. (v4,#1)

Smith, Bruce D. AThe Ultimate Ecosystem Engineers.@ *Science* Vol. 315, no. 5820 (30 March 2007): 1797-98. AEcosystems engineers@ has become a buzzword for animals that behave in ways that result in changes in their surrounding environment, such as beavers and their ponds. Here humans are called the ultimate ecosystem engineers, due to their management of wild plantssowing, burning, weeding, irrigation, transplanting, mulching, and also their use of dogs. But the word Aultimate@ is a considerable overstatement, since humans often modified landscapes only locally, often failed, often did not realize the results of that they were doing, and often had to abandon landscapes they had modified and degraded. Also, it is difficult for landscapes to recover from the remaining effects of human modification in the remote past.

Smith, C., "Revisiting Solar Power's Past. Technology Review 98 (no. 5, 1995), 38-47. (v7,#4)

Smith, C., Review of Shattering: Food, Politics and the Loss of Genetic Diversity, by Gary Fowler and Pat Mooney, Journal of Agricultural and Environmental Ethics 6(1993):216.

Smith, Craig S., "Rain on Sahara's Fringe Is Lovely Weather for Locusts," New York Times, July 21, 2004. The western Sahara, long in the midst of a drought, is as green as it has been for sixty years, and this has brought locust hordes, the worst infestation since the 1980's. Locusts can ride fifty miles a day in the winds, in hordes that can be seen from satellites. They devastate crops. A serious part of the problem is a contested border, 20-30 miles wide, long claimed by both Morocco and Algeria, and which neither side wishes to enter to treat for fear of hostilities. This has become an unintended breeding ground for locusts. (v. 15, # 3)

Smith, D., "Garden Game: Shifting Cultivation, Indigenous Hunting and Wildlife Ecology in Western Panama," Human Ecology 33(no. 4, August 2005): 505-537.

Smith, Daniel S. and Paul Cawood Hellmund, eds., Ecology of Greenways: Design and Function of Linear Conservation Areas. 308 pages. hardbound, \$ 39.95. Minneapolis: University of Minnesota Press, 1993. Greenways are naturally vegetated corridors to maintain biological diversity on otherwise fragmented landscape ecosystems, as well as to provide recreational and other benefits. (v4,#2)

Smith, David M., "American Chestnut: Ill-fated Monarch of the Eastern Hardwood Forest," Journal Of Forestry 98 (No. 2, Feb 01 2000): 12- . Among the most prolific and important of eastern hardwood species at the dawn of the 20th century, the blighted American chestnut now persists mostly as understory saplings and poles. (v.11,#2)

Smith, David M., "Moral progress in human geography: transcending the place of good fortune," Progress In Human Geography 24 (No. 1, 2000): 1- . (v.11,#2)

Smith, David M., "Geography and Ethics: Progress, or More of the Same?," Progress In Human Geography 25(no.2, 2001): 261-. (v.12,#3)

Smith, DW; Peterson, RO; Houston, DB, "Yellowstone after Wolves", Bioscience 53(no.4, 2003):330-340.

Smith, Elizabeth; McKinnis, Peter; Tran, Liem; O'Neill, Robert, "The Effects of Uncertainty on Estimating the Relative Environmental Quality of Watersheds Across a Region," Landscape Ecology 21 (no.2, February 2006): 225-231 (7).

Smith, Eric R.A.N. and Marquez, Marisela, "The Other Side of the NIMBY Syndrome," Society & Natural Resources 13 (No. 3, Apr 01 2000): 273- . (v.11,#2)

Smith, F. Russell, The Value of Ferns and the Problem with Bracken, Master's Thesis, Department of Philosophy, Lancaster University, September 1992. (v7,#1)

Smith, G, "Review of: Felix Dodds (ed.) (with Toby Middleton), Earth Summit 2002: A New Deal," Environmental Politics 11(no.4, 2002): 139.

Smith, G., "Review of: John Barry and E. Gene Frankland (Eds.), International Encyclopedia of Environmental Politics," Environmental Politics 12(no. 2, 2003): 157.

Smith, Graham Martin, Pluralism, Deliberative Democracy and Environmental Values, 1997, University of Southampton (United Kingdom), Ph.D. thesis in political science. 532 pages. How contemporary democratic decision making processes might more adequately attend to environmental values, connecting environmental politics and ethics. Humans value the nonhuman world in diverse ways. Value pluralism challenges moral philosophy and environmental ethics where the aim is to develop a monistic ethical theory. Decision making techniques such as cost-benefit analysis are insensitive to such value pluralism and misrepresent the values we associate with the nonhuman world. Liberal theory and liberal representative institutions fail to attend to environmental value pluralism. Two potential models of deliberative institutions are investigated--citizen panels and mediation--which might increase the ecological quality of political decisions. (v.10,#1)

Smith, Graham. "Towards Local Sustainability," Environmental Politics 4(no.3, Fall 1995):492-. (v6,#4)

Smith, Gregory A. Education and the Environment: Learning to Live with Limits: (Albany: State University of New York Press, 1992). Reviewed by John F. Disinger in Environmental Ethics 17(1995):107-108. (EE)

Smith, Herbert F. Review of Speaking for Nature. By Paul Brooks. Environmental Ethics 3(1981):371-73.

Smith, J. A., and Boyd, K. M., eds., Lives in the balance: The ethics of using animals in biomedical research. New York: Oxford University Press, 1991.

Smith, J. Brian. "Western Wetlands: The Backwater of Wetlands Regulation." Natural Resources Journal 39(No. 2, Spring 1999):357- . (v10,#4)

Smith, J. Andy, III. "Corporate Public Accountability and the Environment: Approaches and Guidelines," Theology and Public Policy 5(no. 1, 1993).

Smith, Jesse, Stone, Richard, and Fahrenkamp-Uppenbrink, Julia, "Trouble in Polar Paradise," Science 297(30 August 2002):1489. With an accompanying set of articles on science at both poles revealing troubles at the poles, disintegrating ice shelves, melting sea ice, glaciers, which affect both wildlife and ecosystems there, such as seabird populations and bears, and also will affect conditions over the globe. (v.13,#4)

Smith, Jo, Review of Lipietz, Alain, Towards a New Economic Order: Postfordism, Ecology, and Democracy (Cambridge, Polity Press, 1993) 2nd ed.; Beck, Ulrich, Ecological Politics in an Age of Risk (Cambridge: Polity Press, 1995); Hayward, Tim, Ecological Thought: An Introduction (Cambridge: Polity Press, 1995); Goldblatt, David, Social Theory and the Environment (Cambridge: Polity Press, 1996). Environmental Values 6(1997):239-241. (EV)

Smith, Jonathan M. and Light, Andrew and Roberts, David, "Philosophies and Geographies of Place," Philosophy and Geography 3 (1998): 1-19. Smith is associate professor of geography at Texas A&M University. Light is in the Applied Philosophy Group at New York University. Roberts is a Ph.D. student in the department of philosophy at the University of Alberta. (P&G)

Smith, Joseph Wayne, The Australia That Can Say "No!". The Multifunction Polis Project, Asia-Pacific Millenarianism and the Tyranny of Technology. 1990. A criticism of the idea of constructing in Australia a joint Japanese-Australian high technology city, which will be a prototype of 21st century cities. Analysis of the concepts of society and nature that inspire the project. Analysis of environmental impact of such a city. Joseph Wayne Smith is Research Fellow, School of Humanities, The Flinders University of South Australia, Bedford Park, 5042, Australia. (v1,#2)

Smith, Joseph M. "The Lost World," The Animals' Agenda 17(no.4, 1997):29. Smith points out how some of the film's deeper messages relate to animal rights. (v8,#3)

Smith, Kimberly K., "Natural Subjects: Nature and Political Community," Environmental Values 15(2006):343-353. Environmental political theory poses new challenges to our received political concepts and values. Increasingly, we are reconceptualising nature as a subject rather than solely an object of politics. On one front, we are being challenged to think of natural entities as subjects of justice - as bearers of rights or interests that the political system should accommodate. On a second front, we are being challenged to see nature as a subject of power, constructed and ordered through scientific and political practice. These reconceptualisations have significant implications for our political practices and institutions. (EV)

Smith, Kimberly K. "What is Africa to Me? Wilderness in Black Thought, 1860-1930." *Environmental Ethics* 27 (2005):279-297. The concept of wilderness found in the black American intellectual tradition poses a provocative alternative to the preservationist concept. For black writers, the wilderness is not radically separate from human society but has an important historical and social dimension. Nor is it merely a feature of the external landscape; there is also a wilderness within, a vital energy that derives from and connects one to the external wilderness. Wilderness is the origin and foundation of culture; preserving it means preserving not merely the physical landscape but our collective memory of it. But black writers also highlight the racial essentialism that infuses both their own and traditional American concepts of the wild, giving us greater insight into why the wilderness celebrated by preservationists can be a problematic value for racial minorities. (EE)

Smith, Kimberly K. *African American Environmental Thought: Foundations*. Lawrence: University of Kansas Press, 2007. Beginning with environmental critiques of slave agriculture in the early nineteenth century and evolving through critical engagements with scientific racism, artistic primitivism, pragmatism, and twentieth-century urban reform, Smith highlights the continuity of twentieth-century black politics with earlier efforts by slaves and freedmen to possess the land. Her analysis focuses on the importance of freedom in humans' relationship with nature. According to black theorists, the denial of freedom can distort one's relationship to the natural world, impairing stewardship and alienating one from the land. Smith links the early conservation movement to black history, black agrarianism, and scientific racism. She offers a normative environmental theory grounded in pragmatism and aimed at identifying the social conditions for environmental virtue.

Smith, Kimberly K. Review of *To Love the Wind and the Rain: African Americans and Environmental History*. Edited by Dianne D. Glave and Mark Stoll. *Environmental Ethics* 29(2007):317-318. (EE)

Smith, Kimberly K. "Animals and the Social Contract: A Reply to Nussbaum." *Environmental Ethics* 30(2008)195-207. In *The Frontiers of Justice*, Martha Nussbaum argues that social contract theory cannot accommodate political duties to animals because it requires the parties to the contract to enjoy rough physical and mental equality. Her interpretation of the social contract tradition is unpersuasive; social contract theory requires only that the parties be equally free and deserving of moral consideration. Moreover, social contract theory is superior to her capabilities approach in that it allows us to limit the scope of the community of justice to animals we are capable of recognizing as subjects of justice and with whom we have a political relationship. (EE)

Smith, Kimberly. "Black Agrarianism and the Foundations of Black Environmental Thought." *Environmental Ethics* 26(2004):267-286. Beginning with the nineteenth-century critiques of slave agriculture, African American writers have been centrally concerned with their relationship to the American landscape. Drawing on and responding to the dominant ideology of democratic agrarianism, nineteenth-century black writers developed an agrarian critique of slavery and racial oppression. This black agrarianism focuses on property rights, the status of labor, and the exploitation of workers, exploring how racial oppression can prevent a community from establishing a responsible relationship to the land. Black agrarianism serves as an important

starting point for understanding black environmental thought as it developed in the twentieth century, and for illuminating the connections between social justice and environmental stewardship. (EE)

Smith, M, "Review of: Allen Carlson, Aesthetics and the Environment: The Appreciation of Nature, Art and Architecture," Environmental Politics 11(no.4, 2002): 132.

Smith, M, "Environmental Policy and Political Economy," Environmental Politics 12(no.3, 2003):155-159. (v.14, #4)

Smith, M., "Negotiating Nature: Social Theory at Its Limits?," Environmental Politics 11(no.2, 2002): 181-86. Review essay of Blühdorn, Ingolfur. Post-Ecologist Politics: Social Theory and the Abdication of the Ecologist Paradigm; Brulle, Robert J., Agency, Democracy, and Nature: The U.S. Environmental Movement from a Critical Theory Perspective; and Hornberg, Alf and Pálsson, Gísli, eds., Culture, Power, and Environmental Argument. (v.13,#4)

Smith, M., "Bioregional Visions," Environmental Politics 10(no. 2, 2001):140-144. (v.13,#1)

Smith, M. Estellie. "Chaos, Consensus and Common Sense," The Ecologist 25(no.2/3, Mar. 1995):80- . Fishery scientists and fishermen often hold radically different view of nature, and hence, radically different approaches to management policies; the unpredictability of fish stocks; local knowledge versus expert knowledge. (v6,#4)

Smith, Mark J., Ecologism: Towards Ecological Citizenship. Milton Keynes, UK: The Open University Press, 1998.

Smith, Mark J., ed., Thinking through the Environment: A Reader. London: Routledge, 1999. Anthology initially prepared for a course, "Ecology, Social Justice and Citizenship" at The Open University, based at Milton Keynes, UK. Fifty contributors, familiar names in classical environmental ethics and philosophy, but in the concluding parts the emphasis is on political ecology, or ecological citizenship. Smith is in social sciences at The Open University.

Smith, Maureen. The U.S. Paper Industry and Sustainable Production: An Argument for Restructuring. Cambridge, MA: MIT Press, 1997. 300 pp. \$30. Smith shows how industrial and environmental analysis can be synthesized to clarify and produce solutions to the complex problems recyclers face with wastepaper connected to the issues addressed by forest advocates, as well as to the difficulties confronted by those involved with industrial pollution from the paper industry. (v8,#1)

Smith, Maureen. The U.S. Paper Industry and Sustainable Production: An Argument for Restructuring. Cambridge, MA: MIT Press, 1997. 300 pp. \$30. Smith outlines the basic structural characteristics of the U.S. pulp and paper industry and its relationship to the larger forest products sector, as well as its patterns of domestic and global fiber resource use. She reviews core technologies employed in virgin pulp production. She then reveals structural barriers within the industry that have impeded positive change and shows how these barriers are reinforced by the traditional isolation of environmental policy domains. (v.9,#4)

Smith, MB, "Review of: Andrew Jamison, The Making of Green Knowledge: Environmental Politics and Cultural Transformation", Environmental History 8(no.2, 2003):335-336.

Smith, Michael, "Environmentalism: Spiritual, Ethical, Political," Environmental Values 15(2006): 355-363. The normative foundations of the environmental movement can be thought of in a range of different ways. The present paper is a commentary on very interesting papers by Thomas Dunlap, Thomas Hill and Kimberly Smith, who take up the spiritual, ethical and political perspectives respectively. Their accounts are described and evaluated. (EV)

Smith, Mick, Review of Political Theory and the Ecological Challenge. Edited by Andrew Dobson and Robyn Eckersley. *Environmental Ethics* 30(2008):93-96 (EE)

Smith, Mick, An Ethics of Place: Radical Ecology, Postmodernity, and Social Theory. Albany: State University of New York Press, 2001. Reviewed by Brook, Isis, Environmental Values 12(2003):542-543. (EV)

Smith, Mick, An Ethics of Place: Radical Ecology, Postmodernity, and Social Theory. Albany, SUNY, State University of New York Press, 2001. The ecological self and an environmental ethos--an ethics of place--as a way to re-engage the moral concerns of radical ecological theories. Current debates about the status of moral values and theories, the social construction of nature, deep ecology. Smith is in sociology at the University of Albertay, Dundee, Scotland. (v.12,#2)

Smith, Mick, "The State of Nature: The Political Philosophy of Primitivism and the Culture of Contamination," Environmental Values 11(2002):407-425. The "state of nature" could be understood in two senses; both in terms of its nature's current (sorry) condition and of that unmediated and pre-contractual relation between humanity and the environment posited by political philosophers like Locke and Rousseau and now championed by anarcho-primitivism. Primitivism is easily dismissed as an extreme, naive and impractical form of radical environmentalism but its emergence signifies contemporary disaffection with the ideology of "progress" so central to modernity and capitalism. This paper offers an ethico-political interpretation of primitivism's critical relation to modernity in terms of the dialectic between amorality (innocence) and immorality (guilt) within what is characterized as modernity's "culture of contamination". (EV)

Smith, Mick, Review of Johnson, Lawrence, A Morally Deep World. Environmental Values Vol.1 No.1(1992):88.

Smith, Mick, "What's Natural? The Socio-political (De)construction of Nature," Environmental Politics (Summer 1997):164-168. Critical review of Dickens, Peter, Reconstructing Nature: Alienation, Emancipation and the Division of Labour (London: Routledge, 1996) and Eder, Klaus, The Social Construction of Nature: A Sociology of Ecological Enlightenment (London: Sage, 1996). Smith is at the University of Abertay Dundee, U.K. (v.8,#4)

Smith, Mick, "Citizens, Denizens and the Res Publica: Environmental Ethics, Structures of Feeling and Political Expression," Environmental Values 14(2005): 145-162. Environmental

ethics should be understood as a radical project that challenges the limits of contemporary ethical and political expression, a limit historically defined by the concept of the citizen. This dominant model of public being, frequently justified in terms of a formal or procedural rationality, facilitates an exclusionary ethos that fails to properly represent our concerns for the non-human world. It tends to regard emotionally mediated concerns for others as a source of irrational and subjective distortions in an otherwise rationally ordered ethico-political community. In doing so it underestimates the important role played by "structures of feeling," those culturally variable patterns of emotionally mediated responses, that provide the (shifting) grounds for all ethical experience, motivation, communication and interpretation. An alternative model of political expression more suitable to an environmental ethic, the *denizen*, is suggested. Smith is in environmental studies, Queen's University, Kingston, Ontario. (EV)

Smith, Mick. "Cheney and the Myth of Postmodernism." Environmental Ethics 15(1993):3-17. I draw critical parallels between Jim Cheney's work and various aspects of modernism, which he ignores or misrepresents. I argue, first, that Cheney's history of ideas is appallingly crude. He amalgamates all past Western philosophical traditions, irrespective of their disparate backgrounds and complex interrelationships, under the single heading, modern. Then he posits a radical epistemological break between a deluded modernism--characterized as foundationalist, essentialist, colonizing, and totalizing--and a contextual postmodernism. He seems unaware both of the complex genealogy of postmodernism and of those aspects of modern traditions that prefigure his own thesis. Second, Cheney's account of primitive peoples is both ethnocentric (though positively so) and inaccurate. Third, Cheney reduces context or place to a concept of bioregionality. In this way, he reinstates a privileged foundationalism which, by his own definitions, makes his philosophy modernist. I develop these criticisms in order to suggest a less restricted contextual approach to environmental values. Smith is in the philosophy department, University of Stirling, Scotland. (EE)

Smith, Mick. "Terra Nova: Nature and Culture." Environmental Politics 7(no.1, Spring 1998):237-240. A review essay of the contents of the journal Terra Nova, edited by David Rothenberg. Terra Nova claims to be the journal to dissolve the "polarity" between nature and culture. "Terra Nova could be seen as expression of the need for a green poetics, a psycho-social alchemy, which might escape the all too narrow confines of normal academic journals. It tries to be 'extra' rather than 'inter' disciplinary and for that reason often seems extra-ordinary. ... Not long ago a journal like Environmental Ethics was regarded by serious (that is to say 'staid') philosophers as a wacky irrelevance. Today not least due to the efforts of the editors of Environmental Ethics, environmental issues have begun to enter the philosophical mainstream and the journal's primogeniture carries with it a certain academic cachet." The mantle of the marginal has passed to Terra Nova, the only journal that can put Wordsworth together with Wittgenstein. Smith is at the University of Abertay, Dundee, Scotland. (v10,#4)

Smith, Mick. "To Speak of Trees: Social Constructivism, Environmental Values, and the Future of Deep Ecology." Environmental Ethics 21(1999):359-376. The power and the promise of deep ecology is seen, by its supporters and detractors alike, to lie in its claims to speak on behalf of a natural world threatened by human excesses. Yet, to speak of trees as trees or nature as something worthy of respect in itself has appeared increasingly difficult in the light of social constructivist accounts of "nature." Deep ecology has been loath to take constructivism's insights

seriously, retreating into forms of biological objectivism and reductionism. Yet, deep ecology actually has much in common with, and much to gain from, some varieties of constructivism and can add a new dimension to constructivism's own critique of current ideologies. (EE)

Smith, Mick. "Environmental Anamnesis: Walter Benjamin and the Ethics of Extinction." Environmental Ethics 23(2001):359-376. Environmentalists often recount tales of recent extinctions in the form of an allegory of human moral failings. But such allegories install an instrumental relation to the past's inhabitants, using them to carry moralistic messages. Taking the passenger pigeon as a case in point, I argue for a different, ethical relation to the past's inhabitants that conserves something of the wonder and "strangeness of the Other." What Walter Benjamin refers to as the "redemptive moment" sparks a recognition of the Other that allows us to engage in heartfelt mourning for them, rather than falling into the repetitive self-absorption characteristic of Freudian melancholy. This redemptive moment changes forever our relations to the world around us. (EE)

Smith, Mick. "Avalanches and Snowballs: A Reply to Arne Naess." Environmental Ethics 23(2001):223-224. (EE)

Smith, Mick. "Worldly (In)Difference and Ecological Ethics: Iris Murdoch and Emmanuel Levinas." *Environmental Ethics* 29(2007):23-41. The natural world's myriad differences from human beings, and its apparent indifference to human purposes and ends, are often regarded as problems an environmental ethics must overcome. Perhaps, though, ecological ethics might instead be re-envisaged as a form of other-directed concern that responds to just this situation. That is, the recognition of worldly (in)difference might actually be regarded as a precondition for, and opening on, any contemporary ethics, whether human or ecological. What is more, the task of ethics might be regarded as one of conserving (at least some) such differences. The work of Iris Murdoch and the Adifference ethics@ of Emmanuel Levinas seem to offer possible ways to express such understandings. However, their ecological potential and theoretical limits, especially in terms of their metaphysical presuppositions, remain relatively under-explored. A closer examination of their work is presented in order to illustrate some of the possibilities and difficulties facing an ecological form of difference ethics. (EE)

Smith, Mick. "Environmental Antinomianism: The Moral World Turned Upside Down?" Ethics and the Environment 5(2000):125-139. ABSTRACT: In rejecting the ethical authority of those social institutions that attempt to define and impose norms of belief and behavior, radical environmentalism has many parallels with past antinomian protests. It is characterized by a 'hermeneutics of suspicion' directed towards the establishment in all its forms and extending to all its attempts to 'lay down the law.' Those nomothetic models which represent environmentalists as (a) seeking to extend current legal/bureaucratic frameworks to 'nature', or (b) drawing moral conclusions from 'natural laws' are guilty of ignoring radical environmentalism's antinomian ethos. (E&E)

Smith, Mick. "Against the Enclosure of the Ethical Commons: Radical Environmentalism as an 'Ethics of Place.'" Environmental Ethics 19(1997):339-353. Inspired by recent anti-roads protests in Britain, I attempt to articulate a radical environmental ethos and, at the same time, to produce a cogent moral analysis of the dialectic between environmental destruction and protection. In this

analysis, voiced in terms of a spatial metaphoric, an "ethics of place," I seek to subvert the hegemony of modernity's formal systematization and codification of values while still conserving something of modernity's critical heritage: to reconstitute ethics in order to counter the current enclosure of the moral field within economic and legal bureaucratic frameworks and institutions. Smith is in sociology, University of Abertay Dundee, Scotland. (EE)

Smith, Mick. "Lost for Words? Gadamer and Benjamin on the Nature of Language and the 'Language' of Nature," Environmental Values 10(2001):59-75. Language is commonly regarded as an exclusively human attribute and the possession of the word (logos) has long served to demarcate culture from nature. This is often taken to imply that nature is incapable of meaningful expression, that any meaning it acquires is merely bestowed upon it by humanity. This anthropic logocentrism seriously undermines those forms of "environmental advocacy" which claim to find and speak of the meaning and value of nature per se. However, shorn of their own anthropocentric presuppositions, the expressivist hermeneutics of Hans-Georg Gadamer and Walter Benjamin might offer an alternative understanding of the nature of language and the language of nature. Keywords: Expressionism, Gadamer, hermeneutics, nature, language. Mick Smith is at the University of Abertay, Dundee, Scotland. (EV)

Smith, Mick. An Ethics of Place: Radical Ecology, Postmodernity, and Social Theory. Reviewed in Environmental Ethics 25(2003):417-420. (EE)

Smith, Mick. "Environmental Risks and Ethical Responsibilities: Arendt, Beck, and the Politics of Acting into Nature." Environmental Ethics 28(2006):227-246. The question of environmental responsibility is addressed through comparisons between Hannah Arendt's and Ulrich Beck's accounts of the emergent and globally threatening risks associated with acting into nature. Both theorists have been extraordinarily influential in their respective fields but their insights, pointing toward the politicization of nature through human intervention, are rarely brought into conjunction. Important differences stem from Beck's treatment of risks as systemic and unavoidable side effects of late modernity. Arendt, however, retains a more restrictive anthropogenic view of political action which, while recognizing its unpredictable consequences for human (and nonhuman) others, includes a direct link between individually initiated acts and the taking of ethical responsibility. This latter account best explains the ethical motivations behind much environmental activism. (EE)

Smith, Neil, "Antinomies of Space and Nature in Henri Lefebvre's *The Production of Space*," Philosophy and Geography 2 (1998): 49-69. Smith is a professor in the Department of Geography and acting director of the Center for the Critical Analysis of Contemporary Culture at Rutgers University, New Brunswick. (P&G)

Smith, Neil, "Ashes and aftermath," Philosophy and Geography 5 (No. 1, 2002): 9-12. Contribution to a symposium on the events of September 11, 2001 in New York City. Smith is Director of the Center for Place, Culture and Politics at City University of New York Graduate Center. (P&G)

Smith, P., B. Chhetri and B. Regmi, "Meeting the Needs of Nepal's Poor: Creating Local Criteria and Indicators of Community Forestry," Journal of Forestry 101(no. 5, 2003): 24-30. (v 14, #3)

Smith, Pamela A., Aquinas and Today's Environmental Ethics: An Exploration of How the Vision and the Virtue Ethic of "Ecothomism" Might Inform a Viable Eco-Ethic. Ph.D. Dissertation, Duquesne University, 1995.

Smith, Pamela A., "The Ecotheology of Annie Dillard: A Study in Ambivalence," Cross Currents 45(1995):341-358.

Smith, Pamela, What Are They Saying About Environmental Ethics? Mahwah, NJ: Paulist Press, 1997. 122 pages. \$ 10.00 paper. Chapters: 1. Deep Ecology and Its Radical Vision. 2. The Ethics of Ecofeminism. 3. Animal "Rights" and Questions of Human Behavior. 4. The "Naturalists" and Leopoldian Ethics. 5. Liberation Ecotheology. 6. Eco-Ethics and the World's Religions. 7. Eco-Ethics and the Catholic Magisterium. "An ethic of respect, if not of widespread 'rights,' seems to be arising from a conviction that some sort of 'intrinsic value' can be posited for all sorts of lifeforms and their support systems. The basis for claiming such 'intrinsic value' may be a religious one--a sense that creation, in all its diversity, is revelatory, bearing a 'trace of the Trinity' (St. Thomas Aquinas) or God's 'insignia,' the 'marks of his glory' (John Calvin). Or it may be an intuition of a kind of 'spirit' or sacrality present in living creatures beyond the human. In a more philosophical vein, 'intrinsic value' can be claimed on the basis of the directionality, the impetus to survival and continuation and proliferation which is observed among a wide array of living beings. Perception of 'kinship' among the diversity of beings and of 'interrelatedness' implicit in ecosystemic processes lend support to more evolutionary and cosmogenetic theories of 'intrinsic value' (p. 98). Smith teaches systematic theology at SS. Cyril and Methodius Seminary in Orchard Lake, Michigan. (v9,#2)

Smith, Patrick D. McDonough, Maureen H., "Beyond Public Participation: Fairness in Natural Resource Decision Making," Society & Natural Resources 14(no.3, MAR 01 2001):239-. (v.12,#4)

Smith, Patrick D., Maureen H. McDonough, and Mang, Michael T. "Ecosystem Management and Public Participation: Lessons from the Field." Journal of Forestry 97(No. 10, Oct. 1999):32-. Although ecosystem management has opened the door for greater public participation, a study of professional and public perceptions highlights remaining barriers. (v10,#4)

Smith, Philip M. and Richard A. Watson. "New Wilderness Boundaries." Environmental Ethics 1(1979):61-64. Wilderness is not a simple geographic concept and the boundaries of wilderness can never be simple geographic lines. Wilderness boundaries depend on attitudes and appearances as much as on the physical environment. Many areas and forms of wilderness should be protected and included within the National Wilderness Preservation System with specialized designations in terms of wilderness experience. Watson is in the philosophy department, Washington University, St. Louis, MO. Smith was formerly with the Office of Science and Technology Policy, Executive Office of the President, Washington, DC. (EE)

Smith, R. B. W. and Shogren, J. F., "Voluntary Incentive Design for Endangered Species Protection," Journal of Environmental Economics and Management 43(no.2, 2002): 169-87. (v.13,#2)

Smith, R. G. B., Nichols, J. D. and Vanclay, J. K., "Dynamics of Tree Diversity in Undisturbed and Logged Subtropical Rainforest in Australia," Biodiversity and Conservation 14(no. 10, October 2005): 2447-2463.

Smith, Raymond C., Ainley, David, and Domack, Eugene, "Marine Ecosystem Sensitivity to Climate Change," Bioscience 49(No.5, 1999):393-. Historical observations and paleoecological records reveal ecological transitions in the Antarctic Peninsula region. (v.10,#2)

Smith, Richard, "Getting Rich is Glorious." The Ecologist 25 no. 1 (January 1, 1995): 14-). China's market economy has increased insecurity and environmental degradation. (v6,#2)

Smith, Rob Roy, "Standing on Their Own Four Legs: The Future of Animal Welfare Litigation After Animal Legal Defense Fund, Inc. v. Glickman," Environmental Law 29 (No. 4, 1999): 989- . Government action regulating the lives of animals and determining the experience of people who view them was unchallengeable for decades. With sweeping legal and political ramifications, Animal Legal Defense Fund v. Glickman revolutionized standing doctrine to allow animal welfare plaintiffs their first access to the courts. Mr. Smith argues that this case is no aberration; rather, it represents the culmination of years of struggle to achieve standing on behalf of animals and fashions a precedent to allow just that. (v.11,#2)

Smith, S; Jacob, S; Jepson, M; Israel, G, "After the Florida Net Ban: The Impacts on Commercial Fishing Families," Society and Natural Resources 16(no.1, 2003): 39-60.

Smith, SC; Yates, AJ, "Optimal pollution permit endowments in markets with endogenous emissions," Journal of Environmental Economics and Management 46(no.3, 2003):425-445. (v.14, #4)

Smith, Steven G., "Sympathy, Scruple, and Piety: The Moral and Religious Valuation of Nonhumans," Journal of Religious Ethics 21 (no. 2, 1993):319-342. Our moral valuation of nonhuman and human beings alike may arise in sympathy, the realization in feeling of a significant commonality between self and others; in scrupulous observance of policy, the affirmation in practical consistency of a system of relations with others; and in piety, the attitude of boundless appreciation and absolute scruple with respect to objects as sacredthat is, as valued for the sake of adequate valuation of the holy. Differences between the moral status of humans and that of nonhumans are to be explained not by any single criterion such as the capacity to suffer or to make contracts, but rather by finding the relative position of humans and nonhumans on continua of feelable commonality, policy considerateness, and sacredness. Investigation of these differences must take into account the way basic religious apprehensions (or the absence thereof) organize these frames of reference. Smith is in religious studies at Millsaps College, Jackson, MS. (v5,#4)

Smith, Ted, David A. Sonnenfeld, and David Naguib Pellow, eds. *Challenging the Chip: Labor Rights and Environmental Justice in the Global Electronics Industry*. Philadelphia: Temple University Press, 2006. Contents include: (1) AThe Quest for Sustainability and Justice in a High-Tech World@ by Ted Smith, David A. Sonnenfeld, and David N. Pellow, (2) AThe

Changing Map of Global Electronics: Networks of Mass Production in the New Economy@ by Boy Lüthje, (3) Occupational Health in the Semiconductor Industry@ by Joseph LaDaou, (4) Double Jeopardy: Gender and Migration in Electronics Manufacturing@ by Anibel Ferus-Comelo, (5) A>Made in China=: Electronics Workers in the World=s Fastest Growing Economy@ by Apo Leong and Sanjiv Pandita, (6) ACorporate Social Responsibility in Thailand=s Electronics Industry@ by Tira Foran and David A. Sonnenfeld, (7) AElectronics Workers in India@ by Sanjiv Pandita, (8) AOut of the Shadows and into the Gloom? Worker and Community Health in and around Central and Eastern Europe=s Semiconductor Plants@ by Andrew Watterson, (9) AFrom Grassroots to Global: The Silicon Valley Toxics Coalition=s Milestones in Building a Movement for Corporate Accountability and Sustainability in the High-Tech Industry@ by Leslie A. Byster and Ted Smith, (10) AThe Struggle for Occupational Health in Silicon Valley: A Conversation with Amanda Hawes@ by Amanda Hawes and David N. Pellow, (11) AImmigrant Workers in Two Eras: Struggles and Successes in Silicon Valley@ by David N. Pellow and Glenna Matthews, (12) AWorker Health at National Semiconductor, Greenock (Scotland): Freedom to Kill?@ by James McCourt, (13) ACommunity-Based Organizing for Labor Rights, Health, and the Environment: Television Manufacturing on the Mexico-U.S. Border@ by Connie García and Amelia Simpson, (14) ALabor Rights and Occupational Health in Jalisco=s Electronics Industry (Mexico)@ by Raquel E. Partrida Rocha, (15) ABreaking the Silicon Silence: Voicing Health and Environmental Impacts within Taiwan=s Hsinchu Science Park@ by Shenglin Chang, Hua-Mei Chiu, and Wen-Ling Tu, (16) AHuman Lives Valued Less Than Dirt: Former RCA Workers Contaminated by Pollution Fighting Worldwide for Justice (Taiwan)@ by Yu-Ling Ku, (17) AUnionizing Electronics: The Need for New Strategies@ by Robert Steiert, (18) AThe Electronics Production Life Cycle. From Toxics to Sustainability: Getting Off the Toxic Treadmill@ by Leslie A. Byster and Ted Smith, (19) AHigh-Tech Pollution in Japan: Growing Problems, Alternative Solutions@ by Fumikazu Yoshida, (20) AHigh-Tech=s Dirty Little Secret: The Economics and Ethics of Electronic Waste Trade@ by Jim Puckett, (21) AHi-Tech Heaps, Forsaken Lives: E-Waste in Delhi@ by Ravi Agarwal and Kishore Wankhade, (22) AImporting Extended Producer Responsibility for Electronic Equipment into the United States@ by Chad Raphael and Ted Smith, (23) AInternational Environmental Agreements and the Information Technology Industry@ by Ken Geiser and Joel Tickner, (24) ADesign Change in Electrical and Electronic Equipment: Impacts of Extended Producer Responsibility Legislation in Sweden and Japan@ by Naoko Tojo, and (25) AToxicDude.com: The Dell Campaign@ by David Wood and Robin Schneider.

Smith, Ted, David A. Sonnenfeld, and David Naguib Pellow, eds. *Challenging the Chip: Labor Rights and Environmental Justice in the Global Electronics Industry*. Philadelphia: Temple University Press, 2006. Contents include: (1) AThe Quest for Sustainability and Justice in a High-Tech World@ by Ted Smith, David A. Sonnenfeld, and David N. Pellow, (2) AThe Changing Map of Global Electronics: Networks of Mass Production in the New Economy@ by Boy Lüthje, (3) Occupational Health in the Semiconductor Industry@ by Joseph LaDaou, (4) Double Jeopardy: Gender and Migration in Electronics Manufacturing@ by Anibel Ferus-Comelo, (5) A>Made in China=: Electronics Workers in the World=s Fastest Growing Economy@ by Apo Leong and Sanjiv Pandita, (6) ACorporate Social Responsibility in Thailand=s Electronics Industry@ by Tira Foran and David A. Sonnenfeld, (7) AElectronics Workers in India@ by Sanjiv Pandita, (8) AOut of the Shadows and into the Gloom? Worker and

Community Health in and around Central and Eastern Europe=s Semiconductor Plants@ by Andrew Watterson, (9) AFrom Grassroots to Global: The Silicon Valley Toxics Coalition=s Milestones in Building a Movement for Corporate Accountability and Sustainability in the High-Tech Industry@ by Leslie A. Byster and Ted Smith, (10) AThe Struggle for Occupational Health in Silicon Valley: A Conversation with Amanda Hawes@ by Amanda Hawes and David N. Pellow, (11) AImmigrant Workers in Two Eras: Struggles and Successes in Silicon Valley@ by David N. Pellow and Glenna Matthews, (12) AWorker Health at National Semiconductor, Greenock (Scotland): Freedom to Kill?@ by James McCourt, (13) ACommunity-Based Organizing for Labor Rights, Health, and the Environment: Television Manufacturing on the Mexico-U.S. Border@ by Connie García and Amelia Simpson, (14) ALabor Rights and Occupational Health in Jalisco=s Electronics Industry (Mexico)@ by Raquel E. Partrida Rocha, (15) ABreaking the Silicon Silence: Voicing Health and Environmental Impacts within Taiwan=s Hsinchu Science Park@ by Shenglin Chang, Hua-Mei Chiu, and Wen-Ling Tu, (16) AHuman Lives Valued Less Than Dirt: Former RCA Workers Contaminated by Pollution Fighting Worldwide for Justice (Taiwan)@ by Yu-Ling Ku, (17) AUnionizing Electronics: The Need for New Strategies@ by Robert Steiert, (18) AThe Electronics Production Life Cycle. From Toxics to Sustainability: Getting Off the Toxic Treadmill@ by Leslie A. Byster and Ted Smith, (19) AHigh-Tech Pollution in Japan: Growing Problems, Alternative Solutions@ by Fumikazu Yoshida, (20) AHigh-Tech=s Dirty Little Secret: The Economics and Ethics of Electronic Waste Trade@ by Jim Puckett, (21) AHi-Tech Heaps, Forsaken Lives: E-Waste in Delhi@ by Ravi Agarwal and Kishore Wankhade, (22) AImporting Extended Producer Responsibility for Electronic Equipment into the United States@ by Chad Raphael and Ted Smith, (23) AInternational Environmental Agreements and the Information Technology Industry@ by Ken Geiser and Joel Tickner, (24) ADesign Change in Electrical and Electronic Equipment: Impacts of Extended Producer Responsibility Legislation in Sweden and Japan@ by Naoko Tojo, and (25) AToxicDude.com: The Dell Campaign@ by David Wood and Robin Schneider.

Smith, Tony. "The Case Against Free Market Environmentalism." Journal of Agricultural and Environmental Ethics 8(1995):126-144. Free market environmentalists believe that the extension of private property rights and market transactions is sufficient to address environmental difficulties. But there is no invisible hand operating in markets that ensures that environmentally sound practices will be employed just because property rights are in private hands. Also, liability laws and the court systems cannot be relied upon to force polluters to internalize the social costs of pollution. Third, market prices do not provide an "objective measure" of environmental matters. Finally, there is a right to a livable environment that justifies regulations protecting the public from unreasonable environmental risks. (JAEE)

Smith, Tony. "Biotechnology and Global Justice," Journal of Agricultural and Environmental Ethics 11(1999):219-242. I explore two questions regarding agricultural biotechnology, one descriptive and one evaluative. What role is agricultural biotechnology likely to play in globalization? And is the diffusion of agricultural biotech likely to move us closer to a just global order? Before we can consider such questions, however, we must come to an understanding and assessment of globalization. Unfortunately, this too is an immensely complicated and controversial topic. In order to make things a bit more manageable I shall drastically oversimplify matters, restricting the debate to just two competing accounts of globalization. The first of these accounts, termed "neoliberalism," is familiar, consisting of a set of ideas circulating

constantly in the business press, trade publications, the popular media, and mainstream academic discourse. Its main conclusion in the present context is reassuring: social mechanisms are in place to ensure that global justice is more or less automatically furthered by the diffusion of agricultural biotechnology. The second perspective, which I shall term the "heterodox" or "critical" perspective, is in contrast relatively unfamiliar. It leads to the disturbing conclusion that under present circumstances the rational development of biotechnology may contribute to results that are irrational from a social and ethical perspective. (JAEE)

Smith, Tony. Response to Jan Narveson. Journal of Agricultural and Environmental Ethics 8(1995):157-158. (JAEE)

Smith, V. Kerry, Estimating Economic Values for Nature: Methods for Non-Market Valuation. Brookfield, VT: Edward Elgar Publishing Co., 1996. 640 pages. \$ 98.00! A collection of Smith's papers over 25 years. Indirect methods as detective work. Travel cost recreational demand models. Hedonic models--property and labor markets. Household production models. Contingent valuation methods. (v7,#2)

Smithers, J; Furman, M, "Environmental farm planning in Ontario: exploring participation and the endurance of change," Land Use Policy 20(no.4, 2003):343-356. (v.14, #4)

Smithsonian, April 1990, vol. 21, no. 1, is a special issue devoted to the environment. Articles on conservation history, current successes in conversation, clean water, endangered raptors, nature artists, alternative agriculture, rails-to-trails, garbage, trees in cities, urban wildlife, the glare of wasted light on the night sky, and radical environmentalists (principally Dave Foreman and Earth First, but also citing George Sessions and Bill Devall). (v1,#2)

Smolin, Lee, The Life of the Cosmos. New York: Oxford University Press, 1997. Claims that the universe, cosmology, is to be understood more as a living system than a mechanism. The world is a network of self-organizing relations. Natural selection needs to be extended beyond biology to the universe as a whole. (Such natural selection is the selection of the stablest systems. Smolin does not seem to realize that "the stablest survive" is even more subject to the charge of being a tautology than "the fittest survive." Also, concepts analogous to genetic information transfer and cumulation, over which natural selection can operate, are difficult to extrapolate to astronomical systems.)

Smolková, Eva, "K Problému Vztahu Hodnotenia a Poznania v Environmentálnom-myslení (Towards the Relationship between Evaluation and Knowledge in Environmental Thinking)," Filozofia 55(no. 7, 2000):545-556. In Czech. This paper examines the importance of the relationship between evaluation and knowledge in environmental thinking. It focuses on the impact of scientific knowledge on value structures, as well as on the process of creating acceptance of values, especially those having existential meaning and ontological status. The author sheds light also on the separation of facts from values and on the distinction between knowledge and evaluation as taking place in modern culture. She analyses particularly the impact of these processes on creating and accepting values in environmental issues. Smolková is in philosophy, Slovak Academy of Science, Bratislava, Slovakia.

Smolková, Eva, "K otázke limitov environmentálnej etiky (Limits of Environmental Ethics)" Filozofia 54(no. 8, 1999):569-579. In Czech. Why some problems in environmental ethics remain unresolved. Limits of our ethical thinking as well as the possibility of a new ethics. Ways of making anthropocentric and environmental values equal. Presuppositions of the practical acceptance of environmental values. The possibility of an applied ethics offered by the concept of sustainable development. Smolková is in philosophy, Slovak Academy of Science, Bratislava, Slovakia.

Smolková, Eva, "K Otázke Vystavby Hodnotových Systémov V Environmentálnej Etike (Problems of Value Hierarchies in Environmental Ethics)," Filozofia 52(no. 2, 1997):73-80. In Slovakian. How traditional value hierarchies are altered in constructing environmental ethics. The ethical status of such revised moral systems and their impact on societies. With attention to the English language literature. Smolkova is in philosophy, Slovak Academy of Sciences, Bratislava, Slovakia. (v.13,#2)

Smyth, A. V., "Foresters and the Land: The Evolution of SAF's (Society of American Foresters') Land Ethic," Journal of Forestry 93(no. 9, 1995):22-25. (v.12,#3)

Smyth, Frank, "A New Game: The Clinton Administration on Africa," World Policy Journal 15(no.2, 1998), p.82. (v.9,#4)

Snarey, John, "The Natural Environment's Impact upon Religious Ethics: A Cross-Cultural Study." Journal for the Scientific Study of Religion 35 (no. 2, 1996):85-96.

Sneath, David, "State Policy and Pasture Degradation in Inner Asia," Science 281(1998):1147-1148. Much of inner Asia is rolling grassland, used since ancient times for raising livestock. Over 6% of the world's grassland is here. Compared to massive degradation (50% - 75%) of arable land in northern China, Inner Mongolia, and southern Siberia, there is relatively little pasture degradation in the independent state of Mongolia (about 9%). These dramatic differences result from very different state policies. Sneath is in social anthropology, Cambridge University. (v.9,#3)

Snedden, Simon. Review of Dragun and Jakobsson, Sustainability and Global Environmental Policy: New Perspectives. Environmental Values 9(2000):256.

Sneddon, C., Harris, L., Dimitrov, R., and Ozesmi, U., "Contested Waters: Conflict, Scale, and Sustainability in Aquatic Socioecological Systems," Society and Natural Resources 15(no.8, 2002): 663-76. (v.13,#4)

Sneddon, Christopher, "'Sustainability' in ecological economics, ecology and livelihoods: a review," Progress in human geography 24(no.4, 2000):521- . (EE v.12,#1)

Snedden, Simon. Review of Gauci, Oil Pollution at Sea: Civil Liability and Compensation for Damages. Environmental Values 9(2000):252.

Sneddon, Simon. Review of Robert V. Percival and Dorothy C. Alevizatos, eds., Law and the Environment: A Multidisciplinary Reader; Prue Taylor, An Ecological Approach to International

Law: Responding to Challenges of Climate Change; and Emmanuel Agius, and Salvino Busuttil, eds. Future Generations & International Law, London: Earthscan, 1998. In Environmental Values 10(2001):127. (EV)

Sneddon, Simon. Review of Robert V. Percival and Dorothy Alevizatos. Law and the Environment: A Multidisciplinary Reader, Philadelphia, PA: Temple University Press 1997, Simon Sneddon, Environmental Values 10(2001):127. (EV)

Sneider, Daniel, "Saving Siberia's Unique Lake Baikal Region," The Christian Science Monitor 86 (2 August 1994): 12. (v5,#3)

Sneider, Daniel. "A Soggy California Examines Its Flood-Control Performance." The Christian Science Monitor, vol. 89, 7 Jan. 1997, p. 3.

Sneider, Daniel. "On a Nebraska Cornfield, Birdwatchers Respond to the Call of the Cranes." Christian Science Monitor 89 (31 July 1997): 10-11. Excellent story on the crane sanctuaries on the Platte River in Nebraska. Impact of dams and irrigation has caused birds to concentrate in two small stretches of the river. (v8,#3)

Sneider, Daniel. "Where Meetings on Recycling Can Last Until 3 A.M." The Christian Science Monitor, vol. 89, 12 Feb. 1997, p. 4.

Sneider, Daniel. "Behind 'Christmas Rush' to Cut West's Scrap Trees." The Christian Science Monitor, vol. 89, 27 Dec. 1996, p. 4.

Sneider, Daniel. "Tale of Fur Seals and an Island Croft." The Christian Science Monitor, vol. 88, 10 Oct. 1996, p. 1, 14.

Sneider, Daniel. "Species Act Survives Challenge-For Now." The Christian Science Monitor, vol. 89, 21 Feb. 1997. p. 3.

Sneider, Daniel. "\$11.5 Million Big Sur View May be a Bargain." The Christian Science Monitor, vol. 89. 13, Dec. 1996, p. 1-9.

Sneider, Daniel. "Smaller Congregation for 'Temple of Nature.'" The Christian Science Monitor 89.75 (14 March 1997): 1.

Sneider, Daniel. "Deal to Save Redwood Forest Raises Hopes--and Doubts." The Christian Science Monitor, vol. 88, 30 Sept. 1996, p. 3.

Snell, Marilyn Berlin. ABulldozers and Blasphemy: In Latin America, Catholics Are Standing Up to those who Covet their Gold and Timber.@ *Sierra* Vol. 92 (October 2007): 36-43, 63, 76. Latin American rural peoples and villagers are being displaced by large mines, often operated by Canadian firms and sometimes by U.S. firms. Latin American governments may be as interested in the tax and other income from the mines as they are the welfare of local peoples. But there is a Aliberation ecology@ movement, similar to the liberation theology movement. A growing

number of Catholic clergy throughout Latin America have come to see protection of the land and water as God=s work, their duty to the region=s 500 million Catholics. They are often quite effective in organizing protests, so much so that one priest in Honduras requires bodyguards.

Snider, Daniel. "Blueprint for a Green Compromise: Forest Gumption." Christian Science Monitor 89 (18 July 1997): 1, 8. (v8,#3)

Snider, Gary, P.J. Daugherty, and D. Wood. AThe Irrationality of Continued Fire Suppression: An Avoided Cost Analysis of Fire Hazard Reduction Treatments Versus No Treatment.@ *Journal of Forestry* Vol. 104 (2006): 431-37.

Snoeyenbos, Milton H. "A Critique of Ehrenfeld's Views on Humanism and the Environment." Environmental Ethics 3(1981):231-35. David Ehrenfeld argues that humanism emphasizes reason at the expense of emotion, and that its narrow focus on the use of reason to serve human interests leads to a dichotomy between man and nature in which ecological factors are subordinated to the satisfaction of human wants. In response, I argue that: (1) humanists stress employment of reflective reason and reason's interrelations with other aspects of the human personality, (2) humanism's typical commitment to naturalism locates man as part of nature and does not entail an exclusive focus on human interests, and (3) humanism's commitment to the legitimate sphere of human interests does not entail indifference to nonhuman nature, for a healthy environment is necessary for the long-term satisfaction of human interests. Snoeyenbos is in the philosophy department, Georgia State University, Atlanta, GA. (EE)

Snow, Allison A., Palma, Pedro Moran. "Commercialization of Transgenic Plants: Potential Ecological Risks," Bioscience 47(no.2, 1997):86. Will evolutionary effects of engineered crops exacerbate weed and pest problems? (v8,#1)

Snow, Donald, Inside the Environmental Movement: Meeting the Leadership Challenge. Covelo, CA: Island Press, January, 1992. 260 pages. \$ 34.95. \$ 19.95 paper. Leadership development needs among U. S. conservation groups. Some findings: budgetary concerns distance leaders from their members, mainstream conservation-environmental groups fail to work effectively with people of color, the rural poor, and other disenfranchised groups, leaders do not allow enough time for long-range planning. The next century will demand leadership of a kind seldom seen so far in the American conservation community. (v2,#3)

Snow, Donald, ed., Voices from the Environmental Movement: Perspectives for a New Era. Covelo, CA: Island Press, 1991. \$ 34.95 cloth, \$ 19.95 paper. Nine articles on conservation as a political force, the role of women and minorities, conservation in academia, volunteerism, and international leadership. (v2,#3)

Snyder, B., "Book Review: Desert Puma: Evolutionary Ecology and Conservation of an Enduring Carnivore by Kenneth A. Logan & Linda L. Sweanor," Natural Resources Journal 42(no.1, 2002): 226-29. (v.13,#4)

Snyder, Gary, A Place in Space. Reviewed by J. Baird Callicott. Environmental Ethics 18(1996):321-326. (EE)

Snyder, Gary, The Practice of the Wild. San Francisco: North Point Press, 1990. The important lessons nature teaches along with a sense of larger themes rising out of the Earth. (v1,#4)
Reviewed in Environmental Ethics 14(1992):185-90.

Snyder, Gary, Dimensions of a Life, edited by John Halper. San Francisco: Sierra Club Books, 1991. 464 pages. \$ 17.00 paper. Memories of Snyder by friends and colleagues, on the occasion of his sixtieth birthday. (v2,#3)

Snyder, Gary. "Nature As Seen from Kitkitdizze Is No `Social Construction,' Wild Earth 6(1996):8. (v8,#1)

Snyder, Gary. Mountains and Rivers Without End. Washington: Counterpoint, 1996. 176 pages. \$ 20.00. A volume by the most celebrated environmental poet. Think of the earth turning under our feet as we walk, of arriving at mountains and rivers, so opposite from each other, never staying the same, ever before us. "I came to see the yogic implications of `mountains' and `rivers,'" writes Snyder in an afterword, "as a play between the tough spirit of willed self-discipline and the generous and loving spirit of concern for all beings: a dyad presented in Buddhist iconography as the wisdom-sword-wielding Manjurshi, embodying transcendent insight, and his partner, Tara, the embodiment of compassion, holding a lotus or a vase. I could imagine this dyad as paralleled in the dynamics of mountain uplift, subduction, erosion, and the planetary water cycle." (v8,#1)

Snyder, Howard A. Liberating the Church: The Ecology of Church and Kingdom. Downers Grove, IL: InterVarsity Press, 1983.

Snyder, Howard A. Earth Currents: the Struggle For the World's Soul. Nashville: Abingdon Press, 1995. 334 pages, hardbound, \$19. Global culture, world economy, the feminist revolution, the environment at risk, western decline, Gaia, God in the shadows, determinism revisited, postmodernism, the ecology of meaning: story, history, and truth. Snyder lives in Dayton, Ohio. (v6,#1)

Snyder, Katherine A. "Agrarian Change and Land-Use Strategies Among Iraqw Farmers in Northern Tanzania." Human Ecology 24, no.3 (1996): 315. (v7, #3)

Snyder, Robert A., ed., Environmental Aesthetics, theme issue of Essays in Philosophy, Vol 3, No 1, online journal at: <http://www.humboldt.edu/~essays/>
For further information contact Michael Goodman, journal editor. E-mail: mfg1@humboldt.edu.
Contents:

--Brady-Haapala, Emily, "Interpreting Environments",
--Matthews, Steve, "A Hybrid Theory of Environmentalism",
--Heyd, Thomas, "Nature Restoration Without Dissimulation: Learning from Japanese Gardens and Earthworks",
--Saito, Yuriko, "Scenic National Landscapes: Common Themes in Japan and the United States".
--Cussen, Ken, "Aesthetics and Environmental Argument",
Thanks to Ned Hettinger. (v.13,#1)

Soares Filho, B. S., Assuncao, R. M. and Pantuzzo, A. E, "Modeling the Spatial Transition Probabilities of Landscape Dynamics in an Amazonian Colonization Frontier," Bioscience 51(no.12, 2001): 1059-68. (v.13,#2)

Sobel, David, Review of: Kahn, Peter and Stephen Kellert, Children and Nature: Psychological, Sociocultural and Evolutionary Investigations. Environmental Values 13(2004):409-412,

Sobel, David, *Beyond Ecophobia: Reclaiming the Heart in Nature Education*. Great Barrington, MA: Orion Society and Myrin Institute, 1996. In a Nature Literacy Series. School children learn a debilitating fear for the future of the planet (ecophobia) from what they hear in the media. Meanwhile they learn little about the joys to be had in the forests and meadows just outside the classroom door. The remedy for environmental despair is as close as the front door. Leave no child inside. Sobel codirects Center for Place-Based Education at the Antioch New England Institute.

Sober, Elliott, and Wilson, David Sloan, Unto Others: The Evolution and Psychology of Unselfish Behavior. Cambridge, MA: Harvard University Press, 1998. A pioneering and highly readable analysis of the evolution and psychology of cooperation, understood from an evolutionary perspective. Part I of the book argues that group selection is important in evolution, and has been unjustifiably dismissed by evolutionary theorists, blinded by their insistence on selection at the individual level. In group selection, animals can evolve behaviors that are for the good of the group, though to the detriment of the individual (without any reference to intentions and without moral import). Part II argues that group selection in humans can lead to genuinely altruistic behavior, and examines the psychological evidence for such behavior. People (and perhaps other species) evolved the capacity to care for others as a goal in itself. Sober is in philosophy at the University of Wisconsin, Madison, and a well-known philosopher of biology. Wilson is in biology, Binghamton University, State University of New York. (v.10,#1)

Social Learning Group, Learning to Manage Global Environmental Risks. Volume 1: A Comparative History of Social Responses to Climate Change, Ozone Depletion, and Acid Rain. Volume 2: A Functional Analysis of Social Responses to Climate Change, Ozone Depletion, and Acid Rain. Cambridge, MA: The MIT Press, 2001. A team of 37 scholars from ten different countries argues that we need to develop a long-term comparative perspective on the evolution of social responses to global environmental risks, and especially the role of learning in that evolution. Decision-making on transnational environmental issues can and ought improve through reasoned dialogue and the increasing inter-dependency between countries. It is legitimate to frame engagement with global environmental problems in terms of risk management rather than in terms of global governance or environmental politics.

Society and Natural Resources is an international journal for the conservation, preservation, and management of natural resources. Some forthcoming article titles: Robert D. Bullard and Beverly H. Wright, "The Quest for Environmental Equity: Mobilizing the African-American Community for Social Change"; Keith Hollinshead, "The Ethics of Ennoblement: A Review of Leopold on Leisure and of Callicott on Leopold"; John Wargo, "Science, Values, Control, and Equity: Foundations of Multiple Use Resource Policy"; Bill Devall, "Deep Ecology and Radical Environmentalism." Vol. 4, no. 1 is a special issue on "Women and Natural Resources in Developing Countries," Nancy Lee Peluso, guest editor.

Society and Natural Resources, Vol. 15, No. 3, 2002 is a theme issue on environmental sociology, with particular focus on the sociology of natural resources, wondering about the differences between rural sociology, natural resource sociology, and environmental sociology. (v.13,#2)

Society for the Protection of Nature in Israel. The Role of Non-Governmental Organizations in Protecting the Environment: Proceedings. Tel Aviv, Israel: Society for the Protection of Nature in Israel (SPNI), 1995. 215 pages. Proceedings from their 40th anniversary Conference, March 1994 at Eilat. A section on "Ethics and Ideology," contains: Andrew Brennan (University of Western Australia), "Placing Ourselves in Nature: Philosophy, Public Policy, and the Environment"; Eitan Tchernov (Hebrew University, Jerusalem), "Increase in Complexity, Exploitation of the Environment and Human Responsibility"; Luke Ivuru Agwe and Alfred A. R. Latigo (African Biodiversity Institute, Nairobi), "Ethical and Ideological Foundation for Environmental Conservation: A Pragmatic Approach for Africa"; Edgar Roy Ramirez (University of Costa Rica), "Ethical Principles for Ecodevelopment: A Concrete Case (the TEPROCA farmers of Costa Rica)." Another paper is Sara Parkin (former chair of the UK Green Party), "The Role of Politics and NGOs in Environmental Protection." (Israel)

Society for the Protection of New Hampshire Forests. The Careful Harvest. \$10. A video guide to Logging Aesthetics.

Society of American Foresters, "Conservation Easements: Permanent Shields against Sprawl," Journal of Forestry 100(no.3, 2002):8-12. Extracts from a position paper of the SAF on conservation easements. Online at:
www.safnet.org/policy/psst/conservation.html(v.13, #3)

Society of American Foresters, The Land Ethic: Meeting Human Needs for the Land and its Resources. No editor listed. Bethesda, MD: Society of American Foresters, 1998. About fifteen reprints, largely from the Journal of Forestry, dealing with the land ethic. Leopold and his critics. J. Baird Callicott and his critics. Laura Westra on integrity. James Coufal. Jack Ward Thomas. And others. (v.12,#3)

Socolow, R., C. Andrews, F. Berkhout, and V. Thomas, eds., Industrial Ecology and Global Change. Cambridge, UK: Cambridge University Press, 1994. 532 pages. ,35.00. How can the Earth become fully industrialized without overwhelming natural systems? Recycling, solar energy, chemicals in agriculture, industrial innovation, international cooperation. About three dozen contributors. Berkhout is at the University of Sussex, the other editors are at Princeton University. (v6,#4)

Soden, Dennis L., ed., At the Nexus: Science Policy, Nova Science Publisher's, Inc. (v9,#2)

Soderbaum, Peter, "Economics, Ethics, and Environmental Problems," Journal of Interdisciplinary Economics 1(1986):139-153 (Great Britain). Peter Soderbaum is at the Swedish University of Agricultural Sciences, Uppsala. (v1,#2)

Soderbaum, Peter. Review of Loehman, Kilgour, eds., Designing Institutions for Environmental and Resource Management. Environmental Values 9(2000):538.

Lowe, Philip and Ward, Stephen, eds. British Environmental Policy and Europe: Politics and Policy in Transition. London, Routledge, 1998, 326pp. Reviewed by Mikael Skou Andersen. Environmental Values 9(2000):258.

Soderholm (Söderholm), Patrick, and Thomas Sundqvist, "Pricing Environmental Externalities in the Power Sector: Ethical Limits and Implications for Social Choice," Ecological Economics 46(no. 3, 2003):333-350. The ethical limits of the economic valuation of environmental impact of various power generation sources. The economic valuation can only partly model moral values, although these values are essential in the preferences that people make. The challenge lies not in discovering what private preferences are, but in promoting a public discourse in which such values are formed and registered. Such economic valuation needs to be set in a more comprehensive non-market valuation framework. The authors are in economics, University of Luleå, Sweden.

Soderholm, P., "Environmental Policy in Transition Economies: Will Pollution Charges Work?," Journal of Environment and Development 10(no.4, 2001): 365-90. (v.13,#2)

Soelle, Dorothee with Shirley A. Cloyes. To Work and to Love: A Theology of Creation. Philadelphia: Fortress Press, 1984.

Soifer, Eldon, ed., Ethical Issues: Perspectives for Canadians. Peterborough, Ontario: Broadview Press, 1992. An anthology with a Canadian focus: the distribution of scarce resources, the animal rights debate, and the foundations of environmental law and social policy. The standard positions and counter-positions of Garret Hardin, Peter Singer, Joel Feinberg, and R. G. Frey appear on these topics, but other angles are presented as well. Roger Crispin argues that a utilitarian ethic favors a "humane" exploitation of animals over vegetarianism, provided that the animals are well-cared-for before the slaughter. J. Baker documents the anti-fur lobby and its impacts, which he argues are harmful to aboriginal cultures and the protection of natural ecosystems. Most interesting are the approaches to environmental law and policy. The Canadian Law Reform Commission rejects both deep ecology and property law in favor of defending the environmental commons for reasons of human welfare, with a priority of health over amenity values. Paul Emonds reflects on the legal and policy implications of a shift in world view from dominating nature to cooperation. Charles Taylor discusses both the necessity and extreme difficulty of making the shift to a steady state economy for a society in which issues of self-identity, welfare, and justice are resolved on the premise of growth. (Thanks to Peter Miller, University of Winnipeg.)

Sokstad, Erik, "Engineered Fish: Friend or Foe of the Environment?" Science 297(13 Septembner 2002):1797-1799. With the world's fish consumption rising, transgenic fish might alleviate pressure on wild stocks. But researchers worry that genetically engineered fish, if they escaped, could wreak ecological havoc.

Solbrig, Otto T., Solbrig, Dorothy J., So Shall You Reap: Farming and Crops in Human Affairs. Reviewed by E.G. Beauchamp. Journal of Agricultural and Environmental Ethics 9(1996):86-87. (JAEE)

Solomon, Rabbi David, et al., Eichut Hasviva ba Yahadut (Environmental Quality in Judaism). Tel-Aviv: Bar-Ilan University Press, 1990. In Hebrew. Perhaps the best of many academic publications in Hebrew about the environment in the Bible and in Talmudic literature. With many quotations. (v5,#1)

Solomon, Steven, The Confidence Game: How Unelected Central Bankers Are Governing the Changed World Economy. New York: Simon and Schuster, 1995. 606 pages. From behind the walls of the U.S. Federal Reserve Bank, the German Bundesbank, the Bank of Japan, the Bank of England, and the enigmatic Bank for International Settlements in Switzerland, the world economy and politics have been transformed by the eruption of high-speed, volatile global money flows, a global monetary system that has often teetered on the brink of catastrophe. Solomon was formerly with Forbes magazine. (v.9,#4)

Solow, Andrew, Stephen Polasky, and James Broadus, "On the Measurement of Biological Diversity," Journal of Environmental Economics and Management 14(1993):60-68. To ensure an efficient allocation of conservation resources, we need to define fairly precisely what biological diversity we hope to conserve, but that requires better measures of biological diversity. The authors present a general, and rather mathematical, approach to optimizing the conservation of qualities that, like species, change only with extinction. We have no good models for large scale problems, but this one may be useful for small scale problems, like the selection of conservation sites. The model measures diversity but does not indicate how to value it. Their model is applied to crane species. Solow and Broadus are at Woods Hole Oceanographic Institution, Polasky is in economics at Boston College. (v5,#1)

Soltis, Pamela S. and Gitzendanner, Matthew A., "Molecular Systemics and the Conservation of Rare Species." Conservation Biology: The Journal of the Society for Conservation Biology 13(No. 3, June 1999):471- . (v10,#4)

Soma, Katrine, "Natura economica in Environmental Valuation," Environmental Values 15(2006): 31-50. Cost-benefit analysis is widely acknowledged to be an appropriate tool for providing advice to policy makers on the optimal use and management of natural resources. However, a great deal of research has indicated that the assumptions made in cost-benefit analysis concerning the natural environment diverge from real world observations. In this paper I discuss these observed divergences. To do so, I introduce the concept of Natura economica. Natura economica is the environment as it is understood in economic analysis in general, and cost-benefit analysis in particular, namely as a bundle of commodities with potential market value. I argue that if this understanding of nature and its value is very different from what is generally observed, it reduces the value of the resulting policy recommendations. I then suggest four questions that policy makers should ask when they evaluate their choice of appraisal methods. If the answer is 'yes' to all of them, then cost-benefit analysis can provide valid information. However, if the answer to any of these questions is 'no', other methods, such as multicriteria analysis and participatory processes, should be considered in order to arrive at better-founded policy recommendations. (EV)

Somach, Stuart L., Hitchings, Andrew W. "Antitrust Considerations in Water Marketing",

Natural Resources & Environment 11(no.2, 1996):26.

Sombke, Laurence R. . The Solution to Pollution: 101 Things You Can Do to Clean Up the Environment, New York: Master Media Limited, 1990. \$ 7.95. (v1,#2)

Songorwa, Alexander N., Buhrs, Tom and Hughey, Ken F.D., "Community-Based Wildlife Management in Africa: A Critical Assessment of the Literature," Natural Resources Journal 40(no.3, Sumr 2000):603- . (EE v.12,#1)

Sonneborn, Carrie, "Generating Jobs," Alternatives 26 (No. 2, Sprg 2000): 30- .Sustainable energy initiatives deliver more jobs and lower greenhouse gas emissions. (v.11,#2)

Sonnekus, L. P., and Breytenbach, G. J., "Conservation Business: Sustaining Africa's Future," Koedoe (Research Journal, South African Parks) 44, no. 1, 2001, pp. 105-123. Protected areas in Africa suffer from a lack of funds and are often surrounded by extremely poor communities. Many conservation staff assume that business and profitability are unethical and will destroy natural resources. But there are ways to integrate entrepreneurial thinking with conservation principles and ethics. This is illustrated from a workshop that assisted conservationists at the South African Wildlife College (near Kruger National Park). The group involved identified many innovative ways in which they could derive sustainable income from natural resources while simultaneously achieving their conservation objectives. Sonnekus is in education, University of South Africa, Pretoria. Breytenbach is with the South African Integrated Development Initiative, Cramerview, R.S.A. (v.12,#3)

Soos, Frank. Bamboo Fly Rod Suite. Athens, GA: University of Georgia Press, 1999. 80 pp. \$18.95. Living simply and well with reflections on fishing and the geography of grace. (v.10,#1)

Soper, Kate, What Is Nature? Culture, Politics and the Non-Human. Cambridge, MA: Blackwell's, 1995. The politics of nature; the demarcations drawn through the concept and its currently contested status. An encounter between "nature-endorsing" and "nature-skeptical" perspectives, the one associated with the ecological advocacy of nature and the request to respect and conserve it, the other with a post-structuralist focus on the "cultural construction" of nature. Soper hopes to pose the question of nature anew in ways that allow for a resolution of these contrary impulses. Postmodernists must accept a form of realism about nature, admitting that it is not completely a social construct. Environmentalists must attend to the oppressive uses to which the ideas of nature, the natural, wilderness, among others, continue to be put. Soper holds an anthropocentric view of our obligations to nature. Soper is in philosophy at the University of North London. (v8,#1)

Soper, Kate, What Is Nature? Culture, Politics and the Non-Human. Reviewed by Wayne Ouderkirk. Environmental Ethics 20(1998):105-08.

Soper, Kate. What is Nature? Review by Jane Howarth, Environmental Values 7(1998):360.

Sorabji, Richard, Animal Minds and Human Morals. Ithaca, NY: Cornell University Press,

1995. 267 pages. The crisis: the denial of reason to animals. Concepts and perceptual appearance without reason or belief. Memory, preparation and emotion without rational belief. Forms, universals, and abstraction in animals. The shifting concept of reason. Speech, skills, inference and other proofs of reason. Oikeiosis and bonding between rational beings. Did the Greeks have the idea of human or animal rights? Anarchy and contracts between rational beings. Religious sacrifice and meat-eating. Augustine on irrational animals and the Christian tradition. One-dimensionality of ethical theories. (v.9,#3)

Sorabji, Richard. Animal Minds and Human Morals: The Origins of the Western Debate. Ithaca: Cornell University Press, 1993. 267 pages. \$39.95 cloth. Tracing the roots of our thinking about animals to Aristotelian and Stoic beliefs, Sorabji shows that today's controversies about animal rights represent only the most recent chapter in millennia-old debates. Some chapters: "The crisis: The denial of reason to animals." "Plants and animals." "Did the Greeks have the idea of human or animal rights?" (v6,#1)

Soran, Viorel, Jozsef Biro, Oana Moldovan, and Aurel Ardelean. "Conservation of Biodiversity in Romania," Biodiversity and Conservation 9(no. 8, 2000):1187-1198. Abstract. This paper briefly discusses the history and development of nature protection in Romania. It summarises the current situation of protected areas, and discusses the ecological, ethical and philosophical ideas concerning biodiversity conservation in the country.
Key words: biodiversity, ecoethics. ecosophy, nature protection, Romania.

Soran, Viorel, Biro, Jozsef, Moldovan, Oana, and Ardelean, Aurel, "Conservation of biodiversity in Romania," Biology and Conservation 9(2000):1187-1198. Abstract. Discusses the history and development of nature protection in Romania. Summarises the current situation of protected areas, and discusses the ecological, ethical and philosophical ideas concerning biodiversity conservation in the country. Key words: biodiversity, ecoethics, ecosophy, nature protection, Romania. The lead author is in the Department of Ecology and Environmental Protection, Faculty of Sciences, 'Lucian Blaga' University, Sibiu, Romania. (v.13,#1)

Sorensen, Merete, Arler, Finn, and Ishoy, Martin, eds., Mijo og etik (Environment and Ethics). Arhus, Denmark: NSI Press (Nordisk Sommeruniversitet), 1997. 303 pages. The first environmental ethics anthology in Danish, with most articles by Scandinavian authors, two translated from English. Nordic Summer University is an organization operating both summer institutes and a press with the purpose of increasing mutual understanding between the Nordic countries. There are abstracts of the articles in English.
Contents: (With apologies for not being able to reproduce all the Scandinavian diacritical marks in English wordprocessing!)
--Rolston, Holmes, "Vaerdi i naturen og vaeridens natur" ("Value in Nature and the Nature of Value")
--Einarsson, Niels, "Naturens rettigheder og det islandske fiskeris realiteter," ("The rights of nature and the realities of Icelandic fishery")
--Sorensen, Merete, "Xenotransplantation: Respekt, sympati eller mangel pa samme?" ("Xenotransplantation: Respect, sympathy or lack of such?")
--Forsgard, Nils-Erik, "'Rattvisa at alla'--Zacharias Topelius och djurskyddet," ("Justice for all"-Zacharias Topelius and animal protection") (In Swedish, though the author is Finnish)

--Ishoy, Martin, "Kristen miljoetik. Kristendommens slægtskab med dybøkologien," ("Christian environmental ethics. The affinity between Christianity and Deep Ecology")
--Gram-Hanssen, Kirsten, "Naturesyn--etik-praksis," ("Views of nature--ethics--practice")
--Kaltoft, Pernille, "Ingeniører og naturetik," ("Engineers and environmental ethics")
--Zeitler, Ulli, "Miljøetik og miljøkonsekvensvurderinger," ("Environmental ethics and environmental impact assessment")
--Arler, Finn, "Renere teknologi--hvor rent skal det være?" ("Cleaner technology--how clean ought it to be?")
--Ingimundarsson, Einar Valur, "Bæredygtig udvikling," ("Sustainable development")
--Ranum, Morten, "Naturpraksis--mod et ikke-dualistisk naturbegreb," ("Nature practice--toward a non-dualistic concept of nature")
--Vogel, Steven, "Habermas og naturetik," ("Habermas and ethics of nature")
Sorensen and Arler are in philosophy at the University of Aarhus, Denmark. Ishoy is a Ph.D. candidate in theology there. (v9,#1)

Sorlin, S, "Review of: Alf Hornborg and Gisli Palsson, eds., Negotiating Nature: Culture, Power, and Environmental Argument", Environmental History 8(no.1, 2003):132-134.

Soromenho-Marques, Viriato, "The Portuguese Environmental Movement." Pages 85-127 in Vasconcelos, Lia and Baptista, Idalina, eds., Environmental Activism in Society: Proceedings of a Workshop on the Role of Environmental Activism in Society: Environmentalism in 2020. Lisbon: Luso-American Foundation, 2002. In English. Environmentalism in Portugal, with comparisons to Germany and to the United States, differences and similarities, and ways in which Germany with its Green Party is a bridge between the environmental movement as a social movement in Portugal and in the U.S. Also attention to how Portuguese environmental interest was delayed by nearly a half century of dictatorship, prior to the contemporary democracy. With an extended discussion following. Soromenho-Marques is in philosophy Cidade Universitaria, Lisboa, Portugal. For a web copy, inquire of him at: e-mail: vsmarques@mail.telepac.pt. (v.13,#4)

Soromenho-Marques, Viriato, "O Problema da Decisao em Política de Ambiente (The Problem of Decision in Environmental Policy)," In Portuguese. Revista Crítica de Ciências Sociais, no. 36, February 1993, pp. 27-40. The problem of decision-making in the field of environmental policy, with all the complexity of its causes, is perhaps the principal task of environmental policy, which is here understood as Realpolitik for the present crisis of modern society. The argument tries to clarify some aspects of that decisive and vital question. Soromenho-Marques is professor of philosophy at Cidade Universitaria, Lisboa, Portugal, and the chair of Quercus, Portugal's National Association for Conservation of Nature. Address: Departamento de Filosofia, Cidade Universitaria, 1699, Lisboa Codex, Portugal. (v4,#3)

Soromenho-Marques, Viriato, O Futuro Frágil: Os desafios da crise global do ambiente (The Fragile Future: The Challenges of the Global Environmental Crisis). Mira-Sintra (near Lisbon), Portugal: Publicações Europa-América, Lda, 1998. (Apartado 8, 2726 Mem Martins Codex, Portugal). 226 pages. ISBN 972-1-04435-0. In Portuguese. The first systematic work on environmental ethics in Portugal. Part I. The State of the Environmental Problem. First Essay: The Environmental Cause: Toward an Overview. Second Essay: Politics of the Environment in

Portugal: Balance and Perspectives. Part II. Environment, Citizenship, and Values. Third Essay: Environment, Culture, and Citizenship: Five Fundamental Questions. Fourth Essay: Environmental Crisis: Ethics and Values. Part III. United by the Threat: In Search of Common Solutions. Fifth Essay: War, Environment, and Forced Cooperation. Sixth Essay: Environmental Crisis and International Politics. Soromenho-Marques is Associate Professor in the Faculty of Letters, University of Lisbon, and chairs the sections Philosophy of the History of Culture, and Philosophy of Politics and Law. He coordinates the Faculty of Nature and the Environment, and is a founder of Quercus, a leading conservation movement in Portugal. (v9,#2)

Soromenho-Marques, Viriato, Regressar à Terra: Consciência Ecológica e Política de Ambiente (Return to Earth: Ecological Conscience and Environmental Policy). Lisbon: Fim de Século Edições, Lda., 1994. 151 pages. Paper. ISBN 972-754-073-2 Twelve essays (all in Portuguese): Part I. Ecological Conscience: Emerging Aspects of a New World Vision. 1. "Ecologia, saber e crise contemporânea" ("Ecology, Knowledge and the Contemporary Crisis"). 2. "Seis reflexões sobre o ambiente" ("Six Reflection on the Environment"). 3. "Economia, ecologia e rigor" ("Economics, Ecology and Methodological Rigor") 4. "Tecnocracia ou economia global? Duas notas críticas" ("Technology or Global Economy? Two Critical Notes"). 5. "Justiça e sentido da Terra" ("Justice and the Sense of the Earth"). 6. "Cidadania, democracia e crise ambiental" ("Citizenship, Democracy and the Environmental Crisis"). Part II. Environmental Policy: The Difficult Apprenticeship of a New Way to Inhabit the Earth. 7. "1972-1992. Vinte anos entre o perigo e a esperança" ("1972-1992: Twenty Years Between Danger and Hope"). 8. "O problema de decisão em política de ambiente" ("The Problem of Decision in Environmental Policy"). 9. "Política de ambiente em Portugal. Condições, critérios e perspectivas" ("Environmental Policy in Portugal: Conditions, Criteria, and Perspectives"). 10. "Política de ambiente e política externa: Notas para uma leitura de conjunto de situação portuguesa" ("Environmental Policy and Foreign Policy: Notes for a Reading of the Totality of the Portuguese Situation"). 11. "Política de ambiente e desenvolvimento sustentável em Portugal: Problemas e perspectivas" ("Environmental Policy and Sustainable Development in Portugal: Problems and Perspectives"). 12. "Ecopolítica e destino histórico" ("Ecopolitics and Historical Destiny"). Soromenho-Marques is professor of philosophy at Cidade Universitária, Lisboa, Portugal, and the chair of Quercus, Portugal's National Association for the Conservation of Nature. (v5,#4)

Soroos, Marvin S. The Endangered Atmosphere: Preserving a Global Commons. Columbia, SC: University of South Carolina Press, 1997. (v8,#3)

Soros, George, The Crisis of Global Capitalism [Open Society Endangered]. New York: Public Affairs, 1998, and London: Little, Brown and Co., UK, 1998. The endangered open society, following Karl Popper. The conflict of global capitalism with democracy, since the 1970's, especially pp. 109-112, "Capitalism Versus Democracy." "Truth be told, the connection between capitalism and democracy is tenuous at best" (p. 111). Natural sciences are amenable to Popper's philosophy of science, but social sciences are not. Despite Popper's conviction that open, pluralist societies are closest to any possible ideal, in contrast to totalitarian societies, in the new global capitalism the open society can be threatened by the lack of social cohesion and absence of government. Soros is an internationally known money manager and philanthropist, reared in Hungary. (v.10,#2)

Sorrensen, Cynthia, "Contributions of Fire Use Study to Land Use Cover Change Frameworks: Understanding Landscape Change in Agricultural Frontiers", Human Ecology 32(no.4, August 2004):395-420(26).

Sosa, Nicholas M., "The Ethics of Dialogue and the Environment: Solidarity as a Foundation for Environmental Ethics." In Callicott, J. Baird, and da Rocha, Fernando J. R. Earth Summit Ethics: Toward a Reconstructive Postmodern Philosophy of Environmental Education. Albany, NY: State University of New York Press, 1996. (v7, #3)

Sosa, Nicolás M., ed., Educacion Ambiental: Sujeto, Entorno y Sistema. Salamanca, Spain, Amarú Editions, 1989. 175 pages, paper. An anthology of seven essays on environmental education and philosophy. Sosa is professor of moral and political philosophy at the University of Salamanca, Spain. (v3,#2)

Sosa, Nicolás M., Ética Ecológica: Necesidad, posibilidad, justificación y debate. Madrid: Libertarias/Prodhufo, S.A., 1990. Publisher's address: Calle de Lérida, 80-82, 28020 Madrid, Spain. 150 pages, paperback. This is the first book in Spanish to treat environmental problems from the standpoint of ethics. Chapter titles: The concept of ecology; social ecology; analysis of the ecological crisis; birth of the ecological conscience, antecedents of environmental ethics; the Club of Rome and work during the 1970's, worldwide meetings and conferences, work during the 1980's; animals and future generations, interests and values, the debate over anthropocentrism, the necessity, possibility, and justification of an environmental ethic. An appendix deals with religious foundations of an environmental ethic. There is also a bibliography. Sosa is professor of moral and political philosophy at the University of Salamanca, Spain. (v3,#1)

Soskolne, Colin L., and Light, Andrew. "Towards Ethics Guidelines for Environmental Epidemiologists." The Science of the Total Environment 184, nos. 1-2 (May 1996): 137-47. Over the past 5 years, several epidemiology organizations have published draft ethics guidelines for epidemiologists in general, without regard to sub-speciality. The authors review these various guidelines and extract the most salient of their principles to formulate a unified set of ethics guidelines for environmental epidemiologists. (v7, #3)

Soskolne, Colin L., and Bertollini, , Global Ecological Integrity and 'Sustainable Development': Cornerstones of Public Health, 74-page document which can be accessed on the World Wide Web from the home page of the WHO Centre in Rome at:

<http://www.who.it>. Click on "What's New". The document can be accessed for downloading more directly by going to:

<http://www.who.it/docs/Ecorep5.pdf>. Soskolne is an epidemiologist who spent a sabbatical leave with the European Centre for Environment and Health, World Health Organization, Rome Division. Colin L. Soskolne, Ph.D., F.A.C.E. Department of Public Health Sciences Faculty of Medicine and Dentistry, 13-103 Clinical Sciences Building, University of Alberta, Edmonton, Alberta, Canada, T6G 2G3 ph: (780)492-6013; fax: (780)492-0364; e-mail: colin.soskolne@ualberta.ca (v.10,#2)

Soskolne, Colin L., ed. *Sustaining Life on Earth: Environmental Health through Global Governance*. Blue Ridge Summit, PA: Lexington Books, 2007. Contents include: (1) *Institutions for Global Governance* by Klaus Bosselmann, (2) *Covenant of Covenants: A Federal Vision of Global Governance for the Twenty-first Century* by J. Ronald Engel, (3) *Market Society and Ecological Integrity: Theory and Practice* by Richard Westra, (4) *Full Spectrum Integrity Index of Nations* by Helmut Burkhardt, (5) *Linkages among Globalization, Human Rights, and Health* by Maud Huynen and Pim Martens, (6) *Toward Sustainability with Justice: Are Human Nature and History on Side?* by William E. Rees, (7) *Protecting Society from Itself: Reconnecting Ecology and Economy* by James R. Karr, (8) *Strong Sustainability and Environmental Policy: Justification and Implementation* by Konrad Ott and Ralf Döring, (9) *Toward Sustainable Environmental Governance in South Africa: Cooperative Environmental Governance and Integrated Environmental Management as Possible Solutions to Fragmentation* by Louis J. Kotzé, (10) *Collective Decision-Making Bridging Public Health, Sustainability Governance, and Environmental Management* by Valerie Brown, (11) *Evolution of the Ecological Integrity Debate* by David Manuel-Navarrete, James J. Kay, and Dan Dolderman, (12) *A Sense of Possibility: What Does Governance for Health and Ecological Sustainability Look Like?* by Daniel Rainham, Ian McDowell, and Daniel Krewski, (13) *The Earth Charter, Ethics, and Global Governance* by Brendan Mackey, (14) *The Copenhagen Consensus: A Global Public-Good Perspective Comparing the Earth Charter with Other Recent Declarations* by Philippe Crabbé, (15) *Intergenerational Sustainability and Traditional Knowledge in Africa: The Natural Resource Management Perspective* by Yemi Oke, (16) *The Ominous Rise of Ideological Think Tanks in Environmental Policy-Making* by Donald A. Brown, (17) *Cutting CO2 Emissions in the Atmosphere: A Realistic Goal or a Mere Utopian Ideal?* by Giulio De Leo and Marino Gatto, (18) *Ecological Governance at Work: A Community Challenge to Genetically Modified Organisms* by Prue E. Taylor, (19) *The Future: World Population and Food Security* by David Pimentel and Marcia Pimentel, (20) *Refining International Water Law* by Joseph W. Dellapenna, (21) *Water as a Human Right: The Sri Lankan Experience* by Ruana Rajepakse, (22) *Cooperation in Promoting Ecological Integrity and Socioeconomic Justice in Marine Fisheries: European Community-West African Relations* by Emma Witbooi, (23) *The Institutionalized Use of Force in Economic Development: With Special References to the World Bank* by Robert Goodland, (24) *Globalization and the Degradation of Rural Livelihoods: A Comparative Study of Mexico and Vietnam under Trade Liberalization* by Jack P. Manno and Thanh Vo, (25) *Toolkit for Ecoepidemiological Enquiry under Global Ecological Change* by Brian D. Ladd and Colin L. Soskolne, (26) *The Culture Environment: Implications for Public Health, Human Rights, and Ecological Sustainability* by Rose A. Dyson, and (27) *The Child's Rights to Health and the Role of the World Health Organization* by Laura Westra.

Souffrant, Eddy, "Multinational Ethics at Work in Nigeria," *Philosophy in the Contemporary World* 4 (no. 4, winter, 1997):34-41. Cases of intervention in international affairs are often thought justifiable if the intervention is exercised against rogue political leaders and delinquent nation-states. Analogously, one ought also to include an increasingly ubiquitous international agent, the profit generating corporation. A cosmopolitan ethics of responsibility renders corporations accountable in the international environment. This ethics of responsibility is applied to British/Dutch Shell, Inc., in Nigeria to argue the merits of international intervention. Souffrant is in philosophy at Marquette University. (v.9,#3)

Soule (Soulé), Michael, and Terborgh, John, eds., Continental Conservation: Scientific Foundations of Regional Reserve Networks. Washington, DC: Island Press, 1999. The complex issue of scale in designing reserves. Whether ecosystems are regulated by top down or bottom up forces, the role of ecological restoration, the critical importance of connectivity, core and buffer areas, an integrated system of reserves. Conservation must be pursued at spatial and temporal scales never before attempted. Some of these questions are difficult to answer, given the present state of science. (v.12,#4)

Soule (Soulé), Michael E., and Terborgh, John, eds., Continental Conservation: Scientific Foundations of Regional Reserve Networks. Washington, DC: Island Press, 1999. 227 pages. Reflects efforts of The Wildlands Project to think big about conservation. "The goal is to restore, over large portions of the continent, the abiotic and biotic processes that sustain biodiversity. Essential processes include fire and flooding that shape the physical environment, predation, [and] movements such as migration and dispersal. ... Beyond science, what we need most is the political will to succeed in an exciting venture that will ensure a better future for all." Reviewed by Bill McKibben, New York Review of Books 46 (no. 13, Aug. 12, 1999):44-45. (v.10,#3)

Soule (Soulé), Michael, "Does Sustainable Development Help Nature?," Wild Earth 10(no.4, Wint 2000):56-. (v.12,#4)

Soule, Judith D. and Jon. K. Piper, Farming in Nature's Image: An Ecological Approach to Agriculture. Covelo, CA: Island Press, January, 1992. \$ 34.95 cloth, \$ 19.95 paper. 290 pages. A detail look at the pioneering work of The Land Institute, the leading educational and research organization for sustainable agriculture. Forward by Wes Jackson. (v2,#3)

Soule, ME; Estes, JA; Berger, J; DelRio, CM, "Ecological Effectiveness: Conservation Goals for Interactive Species," Conservation Biology 17(no.5, 2003):1238-1250. (v.14, #4)

Soule, Michael, "An Unflinching Vision: Networks of People for Networks of Wildlands," Wild Earth 9 (No. 4, Wint 1999): 38- . (v.11,#2)

Soule, Michael E., Lease, Gary, eds., Reinventing Nature: Responses to Postmodern Deconstruction. Reviewed by Raymond Aaron Younis. Ethics and the Environment 2(1997):203-206. (E&E)

Soulé, Michael E., "Conservation: Tactics for a Constant Crisis," Science, August 16, 1991, The fundamental factors that erode biological diversity are: population growth, poverty, misperception, anthropocentrism, cultural transitions, economics, and policy implementation failure. "Many conservationists argue that current cultural values are antithetical to effective conservation policies, and that a new ethic or a revolutionary change in human consciousness is necessary, before significant progress is made" (p. 746). (v2,#3)

Soulé, Michael E. and Gary Lease, eds. Reinventing Nature? Responses to Postmodern Deconstruction. Island Press, 1995. 186 pages. The rhetorical storm over "nature," and the practical consequences. "A wave of relativistic anthropocentrism originating in the humanities

and social sciences with clear implications for a wide range of biodiversity conservation policies and actions." An interdisciplinary investigation of how perceptions and conceptions of nature affect both the individual experience and society's management of nature.

Chapter One: "Nature Under Fire" by Gary Lease. The boundary between the world and human beings is under fire. On the one hand nature is personified; on the other hand the idea that nature needs protection from humankind's onslaught begs the definition of the boundary and turns our attention to contesting constructions of nature and to competition among human groups for access to resources and power.

Chapter Two: "Virtually Hunting Reality in the Forests of Simulacra" by Paul Shephard. The postmodern constructionist view is that all texts, reports, narratives are but descriptions--focused chatter about an unknowable external world, psychobabble, webs of words that serve as ammunition in struggles over who dominates whom.

Chapter Three: "The Nature of Reality and the Reality of Nature" by Albert Borgmann. The substitute for the dualism of natural and artificial is a new continuum: reality--hyperreality. And even if nature (reality) is to some extent a human invention, it still can be eloquent and inspiring and still can invigorate the notion of excellence.

Chapter Four: "Searching for Common Ground" by N. Katherine Hayles. The notions of interactivity and positionality enliven the stakes in contesting for the integrity of the environment. Those in power, therefore, should consider marginal points of view, including those of other species.

Chapter Five: "Nature and the Disorder of History" by Donald Worster. A less extreme interpretation of contemporary history and ecology might stress two principles: one is social and biological interdependence; the other is successful adaptation to situation and place by human groups and species.

Chapter Six: "Cultural Parallax in Viewing North American Habitats" by Gary Paul Nabhan. The polarized debate about aboriginal impacts obscures the complexity and diversity of old cultures in North America and ignores cultural adaptation and change.

Chapter Seven: "Concepts of Nature East and West" by Stephen R. Kellert. Even though nature evokes common emotional and intellectual structures in humans (evidence for a shared understanding), cultures are heterogeneous in how they value nature.

Chapter Eight: "Resolute Biocentrism: The Dilemma of Wilderness in National Parks" by David M. Graber. National parks (and wilderness in general) are by default the sites where the values of solitude, wildness, and otherness reside. Yet the baseline criteria for original, natural, or pristine states still elude managers.

Chapter Nine: "The Social Siege of Nature" by Michael E. Soulé. Humanity entertains manifold representations of living nature--from quite pagan/spiritual views to the more utilitarian (Judeo-Christian) and scientific conceptions displayed on television documentaries.

Soulé is in environmental studies at the University of California, Santa Cruz; Lease is dean of humanities there. (v6,#1)

Soulé, Michael E. and Gary Lease, eds. Reinventing Nature? Responses to Postmodern Deconstruction. Reviewed by Robert Blondeau. Environmental Ethics 19(1997):105-108. (EE)

Soulé, Michael E., and Press, Daniel, "What Is Environmental Studies?" BioScience 48(1998):397-405. The origins and development of environmental studies. Emerging themes, problems, and conflicts. Ideological conflicts. Institutional problems. Multidisciplinary

illiteracy and solutions. Recommendations for environmental studies to include: ecology and environmental policy analysis; literature and philosophy; social criticism and critical theory. But a major conclusion is that the increasing disciplinary diversity of faculty who are contributing to environmental studies is causing crises of vision and curricular development, leading to both a paralysis of program planning and hyper-diverse, shallow curricula--"the environmental studies problem". Worth reading. Soulé and Press are both in Environmental Studies, University of California, Santa Cruz. (v9,#2)

Soulé, Michael E. "Are Ecosystem Processes Enough?" Wild Earth 6, no.1 (1996): 61. (v7, #3)

Soulé, Michael, "A Conservation Biologist's Dilemma: "Does Boycotting South Africa Constitute Human Chauvinism?" Earthwatch, April 1988, pp. 12-13. Soulé first accepted, then declined a consulting trip to South Africa, protesting apartheid. "Clearly, in this case `humanism' (or is it `specism'?) triumphed over biological egalitarianism and whatever obligations I have to other species. This realization that I am, after all, a human chauvinist, came as a shock." (v3,#3)

Soulé, Michael E. and Terborgh, John. "Roundtable: Conserving Nature at Regional and Continental Scales--A Scientific Program for North America. Bioscience 49(No.10, Oct. 1999):809- . (v10,#4)

Soules, M. C., "An Analysis of Northwest Forest Plan Land Use Allocations," Natural Resources Journal 42(no.2, 2002): 353-84. Soules is a J. D. candidate at Yale Law School. (v.13,#4)

Southern Forest Sustainability, study released. A draft of the Southern Forest Resource Assessment (SFRA) was released on November 26 by the U.S. Forest Service. The SFRA, a two-year study of the health and future prospects of forests in the southern U.S., can be viewed at www.srs.fs.fed.us/sustain. The study was undertaken by federal agencies at the urging of the Dogwood Alliance and other organizations (www.dogwoodalliance.org.) Forest protection groups have been generally unsatisfied with both the draft and the "spin" given it by the Forest Service and the timber industry. Most media reports stated that the report listed urban development as the leading threat to the future of the region's forests, while downplaying the impacts of industrial forestry, which often relies on extensive clearcuts and conversion of native forests to mono-culture pine plantations. The actual text, a long and detailed document, gives a more complex picture. While urban development is certainly a leading cause of forest loss in many areas, projections showing a dramatic rise in consumption of paper and other wood products on the global and national level are also troubling. Pulp and paper production is currently the leading use for wood harvested from the south, and a major use of forests elsewhere. ISEE members and others in the academic community and university systems, all major consumers of paper, have an important role to play by getting their institutions to increase their use of post-consumer recycled and/or alternative fiber papers. While many universities have recycling programs, most have not focused on the other side of the equation, which is the kind of paper they consume. Rethink Paper (www.rethinkpaper.org), a project of EarthIsland Institute, is one of the organizations that can provide valuable information on options for sustainable paper use. (v.12,#4)

Southgate, Christopher, "Peter Murage and the MOOF Project, Nanyuki, Kenya," Ecotheology

No 10 (Jan 2001):111-112.

Southgate, Christopher, "God and Evolutionary Evil: Theodicy in the Light of Darwinism," Zygon: Journal of Religion and Science 27(2002):803-824. Southgate's evolutionary theodicy (going beyond his evaluation of accounts of Thomas Tracy, Holmes Rolston, Arthur Peacocke, and John Haught) explores whether Christians in their environmental ethics ought to become redeemers of the evils in evolutionary nature. Rolston finds a "cruciform nature," but it is not enough (as with Rolston) for nature to be regenerated and to evolve higher forms; all the "victims" that have suffered during evolutionary development need also to be redeemed. Nor is it sufficient to have all these myriads of creatures caught up in the evolutionary struggle merely remembered by God.

"Humans have a calling, stemming from the transformative power of Christ's action on the Cross, to participate in the healing of the world" (p. 817). "A calling to be co-redeemers offers humans a more positive role than most proposals in environmental ethics, which tend to emphasize the need for humans to back off from nature. ... Perhaps it is only in being involved, in however deep a humility, in the healing of nature that we can become human beings fully alive. ... Here I postulate that it is humanity that contains the seeds of nature's transformation. ... A redeemed humanity transcends its nature and can thus act on nature to assist in its healing" (pp. 818-819).

Southgate wonders also if the non-human victims of the evolutionary process in the past might not also be redeemed. Christians may need to posit a "pelican heaven" (Jay McDaniel), in which the lives sacrificed in the evolutionary struggle can fulfil their being. Southgate is in theology, University of Exeter, Exeter, UK.

Southgate, Christopher. *The Groaning of Creation: God, Evolution and the Problem of Evil*. Louisville, KY: Westminster John Knox Press, 2008. Southgate develops an extended inquiry into the suffering of nonhuman creatures and discusses how an openness to evolutionary science can deepen and enliven Christian theology=s understanding of nature and nature=s God. Pain, suffering, and extinction are intrinsic to the evolutionary process. The world that is Avery good@ (Genesis) is also Agroaning in travail@ (in a phrase from the Apostle Paul recalling a woman giving birth) and subjected by God to that travail. This ambiguity in creation is essential for accomplishing God=s purposes. Southgate interprets this in terms of God=s self-emptying and human beings= special responsibilities as created co-creators to care for creation. Southgate is in theology at the University of Exeter (UK).

Southwick, Charles H., "The Biology and Psychology of Crowding in Man and Animals," Ohio Journal of Science 71(no. 2, March 1971):65- . Crowded populations of animals often show a breakdown of normal behavior, with increased aggression and violence, aberrant sexual activity, improper parental care, and abnormal states of activity, aggression, or social withdrawal. A variety of stress-related diseases and mortality patterns may follow. Southwock taught pathobiology, Johns Hopkins University, Baltimore.

Southwick, Charles H. Global Ecology in Human Perspective. New York: Oxford University Press, 1996. 416 pp. \$39.95 cloth, \$21.95 paper. The scope and meaning of global ecology and a brief review of ecological principles relevant to global concerns. How humans affect global ecosystems and how these changes impact human health, behavior, economics, and politics. (v7,#4)

Southworth, Jane, "Conserving Biodiversity in Agricultural Landscapes: Model-based Planning Tools," Landscape Ecology 21 (no.2, February 2006): 309-310 (2).

Soutter, Di and Dave Mohr, Environmental Management and Auditing: Guidelines for South African Managers. Report prepared for the Southern African Nature Foundation and endorsed by the Department of Environment Affairs, 1993. ISBN 0-620-17324-6. 91 pages. Available from Russell Friedman Books, P. O. Box 73, Halfway House 1685, South Africa. (v6,#3)

Soward, AM, "Review of: James Kates, Planning a Wilderness: Regenerating the Great Lakes Cutover Region", Environmental History 8(no.1, 2003):147.

Sowards, Stacey K., "Identification through Orangutans: Destabilizing the Nature/Culture Dualism," Ethics and the Environment 11(2006):45-61. The nature/culture dualism has long been criticized for constructing social beliefs, attitudes, and behaviors that fail to respect and value the natural world. One possible way to bridge the divide between the human and non-human worlds is the process of identification. Orangutans, an endangered species found in Indonesia and Malaysia, enable individuals to bridge, connect, and identify with a seemingly separate natural world. Through identification with orangutans, humans come to reevaluate their own perspectives and dichotomous ways of thinking about their relationships with nature. Sowards is in communications at the Sam Donaldson Center at the University of Texas, El Paso. (Eth&Env)

Spaargaren, G, "Sustainable Consumption: A Theoretical and Environmental Policy Perspective," Society and Natural Resources 16(no.8, 2003):687-702. (v.14, #4)

Spaargaren, Gert, Arthur P. J. Mol, and Frederick H. Buttel, eds. *Governing Environmental Flows: Global Challenges to Social Theory*. Cambridge, MA: The MIT Press, 2006. Globalization and the changing role of the nation state call for new approaches to environmental governance. Recent developments in sociology show how social theory can be made less static, more fluid, and more directed toward flows and networks.

Spahn, Elizabeth. "Feeling Grounded: A Gendered View of Population Control," Environmental Law 27(no.4, 1997):1295- . (v9,#2)

Spaid, Elizabeth Levitan. "Minority Farmland Eroded by USDA Discrimination." The Christian Science Monitor, vol. 89, 31 Dec. 1996, p. 3.

Spaid, Elizabeth Levitan. "Tobacco Industry on Topes? Not on These Kentucky Farms." The Christian Science Monitor, vol. 89. 23 Jan. 1997, p. 9.

Spaid, Elizabeth Levitan. "Atlanta: Growth vs. Clean Air." The Christian Science Monitor, vol. 89, 14 January 1997, p. 3.

Spaid, Elizabeth Levitan, "Shoring Up the Future of Vermont's Old Barns," The Christian Science Monitor 86 (20 September 1994): 10-11. (v5,#3)

Spaid, Levitan Elizabeth. "Tracking Bobby Jo and Her Bottle-Nosed Gang." The Christian Science Monitor, vol. 89, 20 Feb. 1997, p. B2.

Spaid, Sue, "A political life: Arendtian aesthetics and open systems," Ethics and the Environment 8(no. 1, 2003):93-101. Since the 1990s, artists have broken ground by producing works that are "open systems." That is, they are incomplete, participatory, and elastic. In this paper, I will argue that open systems exemplify Hannah Arendt's conception of *vita activa*, in contrast to art's traditional role as inspiring *vita contemplativa*. Such works accommodate Arendt's notion of the political life, since they incorporate process, durability, pluralities of spectators, and unpredictability. Echoing Diotima's interest in immortality, Arendt links beauty to durability. Open systems are particularly durable because we remember them as a public experiences that include participants and spectators. Such performative and pleasurable worldly actions entail aesthetic engagements that are very much in line with Arendt's description of the political life. Spaid is an independent curator. (E&E)

Spalding, Mark J. "Resolving International Environmental Disputes: Public Participation and the Right-to-Know." The Journal of Environment and Development 4 (no. 1, 1995): 141-

Spalding, Mark J. "Lessons of NAFTA for APEC," The Journal of Environment and Development 6(no.3, 1997):252. (v8,#3)

Spaling, Harry, Dekker, Annette. "Cultural Sustainable Development: Concepts and Principles", Perspectives on Science and Christian Faith 48(no.4,1996):230 (v.7,#4)

Spaling, Harry, and Dekker, Annette, "Cultural Sustainable Development: Concepts and Principles," Perspectives on Science and Christian Faith 48 (no., 4, Dec. 1996):230-240.

Spaner, D. Review of F. Magdoff, F.H. Buttel and J.B. Foster, Hungry Profit: Agriculture, Food and Ecology, Journal of Agricultural and Environmental Ethics 11(1999):252-254. (JAEE)

Spaner, Dean, Review of Kneen, Brewster, Invisible Giant: Cargill and its Transnational Strategies. Journal of Agricultural and Environmental Ethics 10(1997):92-95. (JAEE)

Sparrow, Robert. "The Ethics of Terraforming." Environmental Ethics 21(1999):227-245. It has been argued that human restoration of nature is morally problematic because artificially restored natural entities are artifacts, which are ontologically different from natural entities and hence essentially devoid of the moral standing that natural entities have. I discuss the alleged assimilation of restored natural entities to artifacts, and argue that it does not follow from the ontological differences, if any, between the artifactual and the natural that the former is morally inferior to the latter. This defense against the devaluation of restored natural entities is aimed at narrowing the ethical gap between the wild and the tamed, which is often endorsed by ecocentric environmental ethics. (EE)

Spash, Clive L. "Economics, Ethics, and Long-Term Environmental Damages." Environmental Ethics 15(1993):117-32. Neither environmental economics nor environmental philosophy have adequately examined the moral implications of imposing environmental degradation and

ecosystem instability upon our descendants. A neglected aspect of these problems is the supposed extent of the burden that the current generation is placing on future generations. The standard economic position on discounting implies an ethical judgment concerning future generations. If intergenerational obligations exist, then two types of intergenerational transfer must be considered: basic distributional transfers and compensatory transfers. Basic transfers have been the central intergenerational concern of both environmental economics and philosophy, but compensatory transfers emphasize obligations of a kind often disregarded. Spash is in the department of Economics, University of Stirling, Scotland. (EE)

Spash, Clive, L. "Ethical Motives and Charitable Contributions in Contingent Valuation: Empirical Evidence from Social Psychology and Economics." Environmental Values 9(2000):453-479. Abstract: Contingent valuation of the environment has proven popular amongst environmental economists in recent years and has increased the role of monetary valuation in public policy. However, the underlying economic model of human psychology fails to explain why certain types of stated behaviour are observed. Thus, good scope exists for interdisciplinary research in the area of economics and psychology with regard to environmental valuation. A critical review is presented here of some recent research by social psychologists in the US attempting to explain stated behaviour in contingent valuation. Attitudinal scales have been used to analyse the role of ecocentric, biocentric and altruistic motives for giving. However, the research is shown to draw some potentially misleading conclusions and be unrepresentative of contingent valuation. Two recent economic studies using contingent valuation are then reported and shown to have identified non-economic motives for WTP. The complexity of value formation and expression is found to go far beyond that generally accepted by economic models. Greater consideration of the role played by attitudes and ethical considerations then becomes relevant to the interpretation of results being used in standard cost-benefit analysis and environmental policy. Keywords: Attitudes, behaviour, contribution model, contingent valuation, environmental ethics, rights, social psychology.

Clive L. Spash is at the Cambridge Research for the Environment Department of Land Economy, University of Cambridge, 19 Silver Street, Cambridge CB3 9EP, UK. (EV)

Spash, Clive L. "Human-Induced Climate Change: The Limits of Models", Environmental Politics 5(no.2, 1996):376. (v7,#4)

Spash, Clive L. "The Development of Environmental Thinking in Economics." Environmental Values 8(1999):413-435. ABSTRACT: There has always been a sub-group of established economists trying to convey an environmental critique of the mainstream. This paper traces their thinking into the late 20th century via the development of associations and journals in the USA and Europe. There is clearly a divergence between the conformity to neo-classical economics favoured by resource and environmental economists and the acceptance of more radical critiques apparent in ecological economics. Thus, the progressive elements of ecological economics are increasingly incompatible with those practising neo-classical environmental economics who try to reduce all concepts to fit within the confines of their models. A group of people can be identified who teach that ecological economics is nothing more than a name for the link between mainstream economics and ecology. A new movement and paradigm are unnecessary for such ends. This viewpoint is argued to be inconsistent with the roots and ideas of the ecological economics movement. Ecological economics is seen here to be synthesising various types of economics (e.g., socialist, institutional, environmental) and moving back to explicit inclusion of

ethical issues in the mode of classical political economy. This inevitably means rediscovering neglected past works and exploring new ways of thinking about socio-economics and the environment. KEYWORDS: Ecological economics, environment, ethics, history of thought, political economy. Clive L. Spash, Cambridge Research for the Environment Department of Land Economy University of Cambridge 19 Silver Street, Cambridge CB3 9EP, UK. (EV)

Spash, Clive L., Review of Malnes, Raino, Valuing the Environment. Environmental Values 5(1996):270-273. (EV)

Spash, Clive L., Review of Nicholas Stern, *The Economics of Climate Change*, Environmental Values 16(2007):532-536.

Spash, Clive, Economics of Natural Resources and the Environment. Reviewed in Environmental Values 3(1994):86-87. (EV)

Spash, Clive L., AEditorial: A Worthwhile Academic Life (Alan Holland),@ Environmental Values 17(2008):?? ??

Spash, Clive. Review of M. Grubb, M., C. Vrolijk and D. Brack. The Kyoto Protocol: A Guide and Assessment, London: Earthscan and Royal Institute of International Affairs, 1999, Environmental Values 10(2001):556. (EV)

Spash, Clive. Review of M. Patterson, Global Warming and Global Politics. Environmental Values 8(1999):407. (EV)

Spash, Clive. Review of Robert Costanza, Frontiers in Ecological Economics: Transdisciplinary. Environmental Values 9(2000):398.

Spash, Clive. Review of John Houghton, Global Warming: The Complete Briefing, Cambridge: Cambridge University Press, 1997, Environmental Values 10(2001):131. (EV)

Spash, Clive. Review of Robert Nau, Erik Gronn, Mark Machina and Olvar Bergland, eds., Economic and Environmental Risk and Uncertainty: New Models and Methods. Environmental Values 8(1999):283. (EV)

Spash, Clive. Review of C. Perrings, Economics of Ecological Resources: Selected Essays, Cheltenham: Edward Elgar, 1997, Environmental Values 10(2001):125. (EV)

Spash, Olive, Review of K.T. Pickering and L.A. Owens, An Introduction to Global Environmental Issues, Environmental Values 7(1998):493.

Spash. Clive. Review of Peter Calow, ed. Handbook of Environmental Risk Assessment and Management. Environmental Values 9(2000):109.

Spear, John R., "Conservation Medicine: The Changing View of Biodiversity," Conservation Biology 14(no.6, 2001): 1913-. (v.12,#3)

Specter, Michael, "The Dangerous Philosopher (Peter Singer)" The New Yorker, Sept. 6, 1999, pp. 46-55. Peter Singer has become director of the Princeton University Center for Human Values, but not without controversy. He couldn't be located in the philosophy department, and the biology department had reservations. Perhaps not without some warrant, since he is said to be "the most controversial philosopher alive." But this is not so much for his ethical views on animals as his views on people, which critics complain is a reckless utilitarianism. Singer argues that the two-thousand year old system of ethics protecting the sanctity of life has collapsed and that "it is ridiculous to pretend that the old ethics still make sense when plainly they do not." He argues that a human life is not necessarily more sacred than a dog's, and that it might be more compassionate to carry out experiments on seriously disabled, unconscious orphans than on rats. He argues that parents should kill a disabled infant if they can replace it with one who will be happier.

"Singer's philosophy condemns people for caring more about their families than about strangers." "Singer believes we are obliged to give money away until our sacrifice is of comparable moral importance to the agony of people starving to death. ... One should reduce oneself to very nearly the material circumstances of a Bengali refugee." He also holds "that heroin should be legal since its prohibition has done more harm than good."

Critics also argue that no one can live by Singer's ethics, including Singer himself, since, although he lives modestly and is charitable, has daughters who live comfortably as beneficiaries of a trust fund. Singer's mother, tragically, is in the advanced stages of Alzheimer's disease, and he has employed, with compassion, a team of health care aides to look after her. Critics say that he is doing the right thing, but that this cannot be justified with Singer's professed ethics.

One Princeton alumnus wrote that, although Singer complains that moral degeneration in the U.S. is worse than anywhere else, in fact Singer's appointment at Princeton is a symptom of, not a cure for, this moral degeneration! On the first day of classes at Princeton, 250 protesters rallied at Princeton's main administration building. Some disabled persons handcuffed their wheelchairs together to block two doors of Nassau Hall, keeping administrators out of their offices until early afternoon. Campus police officers removed the handcuffs and arrested 14 protesters, who were charged with trespassing and disorderly conduct. Steve Forbes, a Republican Presidential candidate who is on Princeton's Board of Trustees, announced that he would not give money to the university until it rescinded Mr. Singer's appointment.

See also Will, George F., "Life and Death at Princeton," Newsweek, September 13, 1999, pp. 80, 82. Will comments that Singer will stimulate serious reflection, and be largely unpersuasive. "Singer does not deny that killing a fetus involves killing life. But he says some infanticide is not even as important as, say, killing a happy cat." George Will himself has a child with Down's syndrome, a child that, in the early stages of its life, Singer might have recommended replacing with another, normal child.

Meanwhile Singer's Practical Ethics has sold 120,000 copies, the best selling book ever published by Cambridge University Press. (v.10,#3)

Specter, Michael, "The World's Oceans Are Sending an S.O.S.," New York Times, May 3, 1992. Full page story. You will probably learn something from this one. "Drift nets can be forty miles long, or large enough to catch Manhattan." "An area of ocean the size of Ohio is swept by high seas fleets each night, and the nets catch virtually everything down to a depth of 30 feet." "The seas are eternal, but so is the river of pollutants." (v3,#2)

Spector, S, "Biogeographic Crossroads as Priority Areas for Biodiversity Conservation," Conservation Biology 16(no.6, 2002): 1480-1487.

Spector, Tom. "Does the Sustainability Movement Sustain a Sustainable Design Ethic for Architecture?" Environmental Ethics 28(2006):265-283. The sustainability movement, currently gathering considerable attention from architects, derives much of its moral foundation from the theoretical initiatives of environmental ethics. How is the value of sustainability to mesh with architecture's time-tested values? The idea that an ethic of sustainability might serve architects' efforts to reground their practices in something that opposes consumer values of the marketplace has intuitive appeal and makes a certain amount of sense. However, it is far from obvious that the sustainability movement provides a strong enough conceptual framework for an entire design philosophy. This issue is complicated by two different sustainable design outlooks which parallel two conceptions of environmental ethics: the practical and the radical. Nevertheless, sustainability need not resort to the philosophical excess of its radical branch to help foster a new public-spiritedness. (EE)

Spedding, C.R.W., "Animal Welfare Policy in Europe", Journal of Agricultural and Environmental Ethics 6(1993). Few European countries have a clear policy on animal welfare, specifying objectives and a strategy for achieving them. The U.K. has a policy of promoting high standards of farm animal welfare by legislation, advice, education and training. The Farm Animal Welfare Council (FAWC) is responsible for defining welfare standards and advising the Minister of Agriculture on appropriate action. A major current constraint on progress is the need to achieve uniformity of standards and practice across the European Community, in order to minimize unfair competition. A range of conventions and other agreements constitute the basis of a common welfare policy throughout Europe, but legislation varies from one country to another. Not all European countries have a body equivalent to FAWC but an attempt is now being made to establish liaison and information exchange between those that exist. This could lead to more effective examination of major welfare problems and better co-ordinated research programs. Spedding is with The UK Farm Animal Welfare Council, Tolworth Tower Surbiton, Surrey, KT6 7DX England.

Spedding, Colin. *Animal Welfare*. Translator: Chui Weiguo. (Beijing: Chinese Politics and Law University Press, 2005). (in Chinese)

Speight, Laurence, The Case for an Ecocentric Consciousness, Master's Thesis, Department of Philosophy, Lancaster University, September 1994. (v7,#1)

Speight, Laurence, The Case for an Econcentric Consciousness, Master's Thesis, Department of Philosophy, Lancaster University, September 1994.

Spellerberg, I. E., "Ecological Effects of Roads and Traffic: A Literature Review," Global Ecology and Biogeography Letters 7(1998):317-333. The ecological consequences of roads and road construction.

Spellerberg, Ian, Review of Ecological Integrity and the Management of Ecosystems.

Environmental Values 3(1994):274-275. (EV)

Spellerberg, Ian. Review of Rapport, Costanza, Epstein, Gaudet, and Levins, Ecosystem Health. Environmental Values 9(2000):389.

Spellman, Frank R. *Ecology for Non-Ecologists*. Blue Ridge Summit, PA: Government Institutes, 2007. Spellman's book is organized into three parts: the fundamentals of ecology, the role of biodiversity, and the practical side of ecology.

Spencer, Daniel T., Gay and Gaia. Cleveland, OH: Pilgrim Press, 1996. 464 pages. \$ 19.95 paper. The author claims we need to rethink our fundamental assumptions about the sacred, ecology, and sexuality. Ecological ethics must become the grounding for all ethics, and genuine justice requires right relations among all of creation, not simply among human beings. We ought to reject a human-centered worldview in favor of an ecocentric worldview. Only when we are able to integrate our sexuality with our spirituality will we fully experience the divine, and fully live out our ethical values. (v7,#4)

Spencer, Gary, New York Law Journal (12/18/98). Rivers and Private Property Rights: Recreational Use Prevents Closing. In a major case that greatly expands the public's right to use rivers on private land, a New York Court of Appeals adopted a new "recreational use" test for when a waterway is navigatable and thus beyond a private landowner's power to close. The Court replaced the old common law standard of a river's capacity for "commercial use" in bringing goods to market with a new test according to which recreational boating alone gives the public a right to use the river. The case dealt with a 12-mile stretch of the South Branch of the Moose River that crosses a 60,000 acre private preserve. The owners of the preserve had kept the river closed to public use for over a century. The ruling also recognized the public's right to portage around obstacles in a stream. (v.9,#4)

Spencer, Stuart, Eddy Decuypere, Stefan Aerts and Johan De Tavernier History and Ethics of Keeping Pets: Comparison with Farm Animals," Journal of Agricultural and Environmental Ethics 19(2006): 17-25. Perhaps the commonest reasons for the keeping of pets are companionship and as a conduit for affection. Pets are, therefore, being used for human ends in much the same way as laboratory or farm animals. So shouldn't the same arguments apply to the use of pets as to those used in other ways? In accepting the rights of farm animals to fully express their natural behavior, one must also accept the right of pets to express their intrinsic natural behavior. Dogs kept in houses for most of the day are being kept in an unnatural environment. So are rabbits kept in hutches, and guinea-pigs or birds in cages. These conditions infringe the animals telos. Dogs are naturally pack animals, so is a dog in isolation being denied its telos? Other actions more deliberately infringe telos and autonomy. Enforced shampooing or even exercise; hair-cutting of poodles; putting animals in clothes; and tail-docking. If de-beaking of chickens is considered wrong, then the same must be true for tail-docking of dogs. One should also question the ethics of specialist breeding especially when that results in physiological disadvantages (boxers with breathing troubles). There would appear to be no advantage to the animals in having such health problems and when these are the direct result of the breeders desire for specific cosmetic traits, we should question the ethics of the practice at least as much as when animals are bred for specific agricultural traits. Keywords: companion

animals - ethics - pets - speciesism The authors are at the Centre for Agricultural Bio- and Environmental Ethics, Katholieke Universiteit Leuven, Leuven-Heverlee, Belgium. (JAEE)

Spiering, L., "The effect of the civil war on Rwanda's bean seed systems and unusual bean diversity," Biodiversity and Conservation 10(no. 6, 2001):989-1009. (v.13,#1)

Spiering, S., *Animal liberators: Research & morality*. Berkeley: University of California Press, 1988.

Speth, J. G., "A New Green Regime: Attacking the Root Causes of Global Environmental Deterioration," Environment 44(no.7, 2002): 16-25. (v.13,#4)

Speth, James Gustave, and Peter M. Haas. *Global Environmental Governance*. Washington, DC: Island Press, 2006. This is the first volume in the new Island Press series *Foundations of Contemporary Environmental Studies*.@ Speth and Haas present an introduction to global environmental politics and international environmental law by focusing on the problems of acid rain, regional air pollution, ozone depletion, climate disruption, deforestation, land degradation and desertification, freshwater degradation and shortages, marine fisheries decline, toxic pollutants, biodiversity loss, and excess nitrogen. The authors discuss the Stockholm, Rio, and Johannesburg conferences and treaty regimes, and sort through the United Nations system as it pertains to the environment.

Speth, James Gustave, Red Sky at Morning: America and the Crisis of the Global Environment. New Haven: Yale University Press, 2004. Reviewed by Udo E. Simonis. Environmental Values 13(2004):406-409. (EV)

Speth, James Gustave, and Peter M. Haas. *Global Environmental Governance*. Washington, DC: Island Press, 2006. This is the first volume in the new Island Press series *Foundations of Contemporary Environmental Studies*.@ Speth and Haas present an introduction to global environmental politics and international environmental law by focusing on the problems of acid rain, regional air pollution, ozone depletion, climate disruption, deforestation, land degradation and desertification, freshwater degradation and shortages, marine fisheries decline, toxic pollutants, biodiversity loss, and excess nitrogen. The authors discuss the Stockholm, Rio, and Johannesburg conferences and treaty regimes, and sort through the United Nations system as it pertains to the environment.

Speth, James Gustave. *The Bridge at the Edge of the World: Capitalism, the Environment, and Crossing from Crisis to Sustainability*. New Haven: Yale University Press, 2008. Drawing from nearly four decades of environmental work with NGOs, the United States government, and the UN Development Programme, Speth, now Dean of the Yale School of Forestry & Environmental Studies, begins with the observation that if we continue to do exactly what we do on Earth with no economic or population growth, Earth will soon be an unfit planet on which to live. While the environmental community has continued to grow in strength and sophistication, the environment has continued to decline, and we are now on the edge of catastrophe. Speth argues that the root cause of this is the economic and political system of modern capitalism, and we must turn this system around by developing a new consciousness and new politics that makes the

market work for the environment, changes the fundamental dynamics of the corporation, and moves us to a post-growth society that actually promotes the well-being of people and nature.

Speth, James Gustave, Red Sky at Morning: America and the Crisis of the Global Environment. New Haven: Yale University Press, 2004. Economics has been largely detached from environmental issues; nature is at best a backdrop to economic activity. But now we are in crisis. Sustainable development involves the maintenance of wealth, where the required measure of wealth includes not only manufactured capital (buildings and machinery) and human capital (knowledge, skills, and health) but also natural capital (ecosystems). The natural capital has been to often been unpriced or underpriced without incentive to economize on its use. Speth argues for a new international organization that would act on behalf of the environment in much the way that the World Trade Organization acts on behalf of a rational trading order. Speth is dean of the School of Forestry and Environmental Studies, Yale University. Reviewed by Partha Dasgupta in Science 305(17 September 2004):1716. (v.14, #4)

Speth, JG, "Perspectives On The Johannesburg Summit," Environment 45(no.1, 2003): 24-29.

Spezio, Teresa Sabol. *Mountains in Every Direction: A Place-Based History of the Selway-Bitterroot Wilderness Area*. M.S. Thesis, University of Oregon, 2000. In Chapter III, AThe Nimípu (Nez Perce) Relationship with Their Homeland,@ Spezio does extensive interviews with Native American elders and finds that, although they do not consider themselves Avisitors@ on the landscape they regularly inhabited, they do recognize "*titoqanót wétes*, peopleless land or wilderness,@ a pre-contact word that has kept the same meaning throughout the years. The word has many parallels with the definition of wilderness in the U.S. Wilderness Act, Awhere man is a visitor who does not remain.@ Such lands were often those high and relatively difficult to reach for the Nimípu for the much of the year. Young men were often sent into this wilderness for a week as a rite of passage to maturity to show their competence on their own. Spezio also cites Haruo Aoka, *Nez Perce Dictionary* (Berkeley: University of California Press, 1994), p. 763. Spezio is currently a Ph.D. student in environmental history at the University of California, Davis.

Spies, L 1991. Lelies en 'n lamp. In: Vos, C & Müller, J (eds): *Mens en omgewing*. Halfway House: Orion, 9-20. (Africa)

Spies T.A., "Ecological Concepts and Diversity of Old-Growth Forests," Journal of Forestry 102(no.3, April/May 2004):14-20(7). (v. 15, # 3)

Spinelli, EL, "Review of: Unnatural Disasters by Janet N. Abramovitz," Journal of Environment and Development 11(no.4, 2002): 446-447.

Spitler, Gene. "Sensible Environmental Principles for the Future." Environmental Ethics 2(1980):339-52. The attitudes of the American public toward the environmental movement may be undergoing change as the economic crunch continues and energy shortages reoccur. The principles underlying the environmental movement need to be defined and examined carefully to determine what makes sense for our changing conditions. An attempt is made to express the two primary ethical principles which have evolved from environmental thinking and, in turn, have

influenced the directions taken by the movement. It is argued that these principles must not be accepted uncritically, but rather must be analyzed and subsequently modified to become compatible with more traditional ethical thinking. Such a synthesis is attempted. The modified principles can provide valuable guidance as we make difficult decisions which can influence the future path of life on Earth. Spitler is an Assistant Secretary of Standard Oil Co., Navoto, CA. (EE)

Spitler, Gene. "Justifying a Respect for Nature." Environmental Ethics 4(1982):255-60. Paul W. Taylor has proposed a foundational structure for developing a respect for nature. This structure appears to go well beyond what is needed to justify such respect. The intricacies and nuances of life on Earth can gain our respect without attempting the impossible task of abandoning our human perspective or a particular interest in our own species. Spitler is in Diversification Research at Chevron Research Co., Navoto, CA. (EE)

Spitler, Gene. "Do We Really Need Environmental Ethics?" Environmental Ethics 7(1985):91-92.

Splash, Clive L. and Clayton, Anthony M. H., "The Maintenance of Natural Capital: Motivations and Methods," Philosophy and Geography 1 (1997): 143-173. Splash is a faculty member in the Department of Land Economy at the University of Cambridge. (P&G)

Sponberg, Adrienne Froelich. A Supreme Court Ruling Leaves Future of Clean Water Act Murky. @ *BioScience* Vol. 56, no. 12 (2006): 966.

Sponberg, Adrienne Froelich, "Environmental Science Sacrificed in Latest US Budget", BioScience 55(no.1, January 2005):16-16(1).

Sponberg, Alan. Review of Dharma Gaia: A Harvest of Essays in Buddhism and Ecology. Edited by Allan Hunt Badiner. Environmental Ethics 14(1992):279-82.

Spongberg, Stephen A., A Reunion of Trees: The Discovery of Exotic Plants and their Introduction into North America. Cambridge: Harvard University Press, 1990. Trees and shrubs as introduced into North America and their environmental effects. (v1,#4)

Sponsel, Leslie E., Headland, Thomas N., Bailey, Robert C., eds. Tropical Deforestation: The Human Dimension. New York: Columbia University Press, 1996. 352pp. \$49.50 cloth, \$19.50 paper. Looks at the insights local people have into conservation of their ecosystems, the effects of habitation on those ecosystems, and the impact of development and natural resource depletion on their lives in Central and South America, Africa, the Philippines, Indonesia, and Indian subcontinent. (v7,#4)

Spotte, Stephen, *Zoos in Postmodernism*. Reviewed by Elisa Aatola, *Environmental Values* 16(2007):536-539.

Spotts, N. Peter and Marguand, Robert. "A Lamb Ignites a Debate on The Ethics of Cloning." The Christian Science Monitor, vol. 89, 26 Feb. 1997, p. 3.

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Spotts, Peter N. "High Tech Water Worlds Slosh to Stardom." The Christian Science monitor, vol. 88, 25 Sept. 1996, p 1, 10-11.

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Spotts, Peter. "Dams Disrupt a Key Balance in Sea." The Christian Science Monitor 89.84 (27 March 1997): 1.

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Spragg, Mark, ed., Thunder of the Mustangs: Legend and Lore of the Wild Horses. Photos and essays by mustang lovers. San Francisco: Sierra Club Books, 1998. (v9,#2)

Spretnak, Charlene, The Resurgence of the Real: Body, Nature and Place in a Hypermodern World. London: Routledge, 1999. An ecological postmodern ethics, replacing the modern, mechanistic worldview with Homo economicus at its center. The ideologies of modernity have

devalued "the knowing body, the creative cosmos, and the complex sense of place." The modern crisis is being challenged by an impressive network of corrective efforts. (v10,#4)

Spretnak, Charlene, The Resurgence of the Real, Chinese translation, translator: Zhang Nini. Publisher: Central Compilation & Translation Press, 2001 .

Spretnak, Charlene. *The Resurgence of the Real: Body, Nature, and Place in a Hypermodern World*. Translator: Zhang Nini. (Beijing: The Central Translation Press, 2001). (in Chinese)

Sprigge, T. L. S. Review of Of Mice, Models and Men. By Andrew W. Rowan. Environmental Ethics 8(1986):83-87.

Sprigge, T. L. S., "Some Recent Positions in Environmental Ethics Examined," Inquiry 34(1991):107-28. An examination of three recent books advocating beliefs about, and attitudes toward, wild or semi-wild nature, characteristic of those in eco-philosophy today. Paul Taylor, Respect for Nature; Holmes Rolston, Environmental Ethics; Andrew Brennan, Thinking about Nature. Taylor and Rolston are seen as forms of deep ecology; Brennan's position is humanistic ecology, a middle way between shallow and deep ecology. These authors are interpreted through Sprigge's panpsychism, in which he is sympathetic to the idea that there is value in nature apart from the life of humans and animals. Though Rolston and Taylor disclaim being panpsychists, it is hard to make sense of their claims without moving toward panpsychism, or at least broadening our conception of the distribution of sentience. Even for the panpsychist, however, where it is not the welfare of individual organisms that is in question, but the alleged value of units such as total ecosystems, species, or terrains, appeal must be mainly to aesthetic value. For even if there is a world of inner feeling in nature, we must remain so ignorant of its character, except when it rises to the animal or human level, that we cannot do very much about it. The best answer to the question of the human role in nature lies in a special sense of oneness with the wider system of things which humans can obtain when away from human restrictions, even though nature is just as much there in much of the apparently humanized world. Sprigge is emeritus in philosophy at the University of Edinburgh. (v.8,#4)

Sprigge, T. L. S., "Idealism, Humanism, and the Environment," in Coates, Paul and Hutto, Daniel D., eds., Current Issues in Idealism. Bristol, England: Thoemmes Press, 1996), pp. 267-302. "My main conclusion is that absolute idealism, conceived as the view that Reality is 'a single Experience, superior to relations and containing in the fullest sense everything which is' (quoting Bradley), need not be, and should not be, in any way metaphysically humanist or vitalist, and that there is no reason therefore for those, like the deep environmentalists who are repelled by ethical humanism or even vitalism, and by metaphysical humanism or vitalism as implying it, to regard absolute idealism in general with suspicion; indeed they should recognize it as rather their best metaphysical friend, since it gives ground for recognizing as cognitively valid the pantheistic feelings towards nature which often inspire them. Sprigge is emeritus in philosophy at the University of Edinburgh. (v.8,#4)

Sprigge, T. L. S., "Non-human Rights: An Idealist Perspective," Inquiry 27(1984):439-461. The question whether an entity has rights is identified with that as to whether an intrinsic value resides in it which imposes obligations to foster it on those who can appreciate this value. There

should be no difficulty in granting that animals have rights in this sense, but what of other natural objects and artifacts. It seems that various inanimate things, such as fine buildings and forests, often possess such intrinsic value, yet since they can only be fully actual in an observing consciousness the most basic such right is that of being observed from time to time. That at least is true of them as phenomenal objects. There must, however, be a thing in itself behind the phenomenal object and sometimes this may possess an intrinsic value which gives rise to rights, not a matter of the need to be actualized in an observing consciousness, though it is extremely difficult to reach reliable conclusions here. Sprigge is emeritus in philosophy at the University of Edinburgh.

Sprigge, T. L. S. (Philosophy, University of Edinburgh, Scotland), "Some Recent Positions in Environmental Ethics Examined: a Review" in Inquiry 34(1)(1991):107-128. Critiques Holmes Rolston, Environmental Ethics; Paul Taylor, Respect for Nature, and Andrew Brennan, Thinking about Nature: An Investigation of Nature, Value and Ecology.

Sprigge, T.L.S., "Are There Intrinsic Values in Nature?" Journal of Applied Philosophy 4, no. 1 (1987): 21-28. Sprigge argues that all value must be appreciated by a conscious evaluator, and thus, that if there are intrinsic values in nature we must subscribe to a panpsychist metaphysics, such as we discover in Royce, Fechner, or Whitehead. But his argument rests on the trivial point that if we imagine a nature without any conscious human valuers, we are conscious of it in our imagining. "I cannot make sense of [the world's] existing in some unexperienced manner" (p. 25). (Katz, Bibl # 1)

Sprigge, Timothy L. S. Review of Environmental Ethics and Process Thinking. By Clare Palmer. Environmental Ethics 22(2000):191-194.

Sprigge, Timothy, Review of Mathews, Freya, The Ecological Self. Environmental Values Vol.1 No.4(1992):365.

Springer, Allen L. "International Law After Rio: The Continuing Search for Equity," Ethics and International Affairs, 1993. 7:115-129. (v8,#3)

Springer, Allen L. "The Canadian Turbot War with Spain: Unilateral State Action in Defense of Environmental Interests," The Journal of Environment and Development 6(1997):26.

Sprouse, T, "Review of: Alternate Futures for Changing Landscapes: The Upper San Pedro River Basin in Arizona and Sonora by Carl Steinitz, Hector Arias, Scott Bassett, Michael Flaxman, Tomas Goode, Thomas Maddock III, Dave Mount, Richard Peiser & Allen Shearer", Natural Resources Journal 43 (no.3, 2003): 918-920.

Sprugel, D. G., "Disturbance, Equilibrium, and Environmental Variability: What is 'Natural' Vegetation in a Changing Environment?" Biological Conservation 58(1991):1-18. On human scales many landscapes appear little changing. Early ecologists supposed that, despite disturbances, natural ecosystems reached a stable climax. More recently, scientific studies have discovered that many of these landscapes are non-equilibrium. They do change over hundreds of years. Examples: African savannas, the Big Woods of Minnesota, the lodgepole forests of

Yellowstone National Park, and possibly the old-growth Douglas-fir forests of the Pacific Northwest. The changes are introduced by climate change, by erratic storms, by periods of drought. "The notion of 'natural' vegetation or ecosystem processes need not be abandoned as a goal for park or reserve management, even though it must be revised to recognize that there is a range of ecosystems that can legitimately be considered 'natural' (p. 15). Sprugel is in forestry, University of Washington, Seattle.

Spurway, Neil, ed., Humanity, Environment and God. Cambridge, MA: Blackwell Publishers, 1993. 240 pages. \$ 49.95. A collection of essays by eminent theologians, historians, and scientists reexamining the world we live in. The Glasgow Centenary Gifford Lectures. (v4,#4)

Spurway, Neil, ed., Humanity, Environment and God. Cambridge, MA: Blackwell's, 1993. 240 pages. Hardcover. \$ 49.95. What are the conditions in which humankind finds itself and what should our response to those conditions be? Answers by the physicist-cosmologist John Barrow, the evolutionary biologist Richard Dawkins, the historian John Roberts, the philosopher Anthony Kenny, and the theologians Don Cupitt and Archbishop John Habgood. A reexamination of the world we live in, and the impact of our physical, biological, social, and spiritual environment on modern thought. Spurway is at Glasgow University. (v5,#2)

Squadrito, Kathleen M. "Locke's View of Dominion." Environmental Ethics 1(1979):255-62. I examine the extent to which Locke's religious and political ideology might be considered to exemplify values which have led to environmental deterioration. In the Two Treatises of Government, Locke appears to hold a view of dominion which compromises humanitarian principles for economic gain. He often asserts that man has a right to accumulate property and to use land and animals for comfort and convenience. This right issues from God's decree that men subdue the Earth and have dominion over every living thing. Although abuse of the environment appears to be justified in Locke's political works, I argue that there are many passages in this work that cast doubt on such an interpretation. Further, the view of dominion adopted in Locke's educational work is one of responsible stewardship. On the whole, his view stresses man's duties and obligation towards all creation. Squadrito is in the philosophy department, Indiana University-Purdue University, Fort Wayne, IN. (EE)

Squatriti, P, "Offa's Dyke between Nature and Culture", Environmental History 9 (no.1, 2004): 37-56.

Squiers, Edwin, ed., The Environmental Crisis: The Ethical Dilemma. Mancelona: MI: Ausable Trails Institute of Environmental Studies, 1982.

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Srinivas, K. R., "Bt Cotton in India: Economic Factors Versus Environmental Concerns," Environmental Politics 11(no.2, 2002): 154-58. (v.13,#4)

Srinivas, KR, "Demystifying Dams and Development: The World Commission on Dams and Development," Environmental Politics 10(no, 3, 2001):134-138. (v.13,#1)

Stackhouse, Max L., Dennis P. McCann and Shirely Roels, with Preston N. Williams, eds. On Moral Business: Classical and Contemporary Resources for Ethics in Economic Life. Grand Rapids, MI: Eerdmans, 1996. 979 pages. \$ 35.00 paper. The primary editors believe that we today live in a global, post-socialist economy, and that the Soviet bloc's collapse thoroughly disposed of any naive belief in socialism. At the same time, all too many religious leaders and other ethicists cling to the belief that capitalism is greedy, individualistic, exploitative and also failing. What is needed is a post-socialist faith that can transform the contemporary business corporation, for this peculiarly modern and increasingly powerful human organization holds both promise and threat to humanity. In the U.S. at least, Christians are a sizeable enough force within corporations--as managers at all levels--that the work of making business a positive and creative force is both feasible and necessary. With articles by Wendell Berry and James A. Nash making strong claims about the coming environmental crisis. Reviewed by Daniel Finn in Christian Century, April 24, 1996, who replies, "No matter how dead socialism looks in the U.S., it would be good to invite some debate about it."

Stackhouse, Max L., with Paris, Peter J., eds., God and Globalization, Volume 1: Religion and the Powers of the Common Life. With Browning, Don S., eds., God and Globalization, Volume 2: The Spirit and the Modern Authorities. With Obenchain, Diane B., God and Globalization, Volume 3: Christ and the Dominions of Civilization. Harrisburg, PA: Trinity Press International, 2001, 2002. Thinking globally and trying to make sense of a shrinking world. Ecumenical and interfaith movements constitute a religious dimension of globalization. Religion in various forms is--and should be--an actor in globalization. Globalization should neither be welcomed uncritically nor dismissed as wholly deleterious. We need better conceptions of global justice and of human redemption.

Stackhouse, Max. *God and Globalization: Volume 4, Globalization and Grace*. New York: Continuum Books, 2007. God's loving mercy is manifest in globalization, though many pastors and secularists see globalization as a soulless mechanism. Globalization holds unparalleled opportunities and responsibilities for Christian believers and world citizens. Globalization is creating a new transnational kind of affiliation--a global civil society--that will simultaneously fulfill and modify core Christian ideals. It is creating an expanded political public, a morally enriched domain of free association. Globalization has already lifted hundreds of millions out of poverty and created newly empowered middle classes throughout the developing world.

Staebler, Rebecca N., "Forestry and Foresters: Looking Back 100 Years," Journal of Forestry 98(no.11, NOV 01 2000):4- . In 1903 Theodore Roosevelt told a gathering of the Society of American Foresters that there were no greater body "who have in their power to do greater service to the country". This commemorative issue shows how well foresters and SAF have lived up to Roosevelt's charge during our first 100 years. (EE v.12,#1)

Stafford, Barbara Maria, "Toward Romantic Landscape Perception: Illustrated Travels and the Rise of 'Singularity' as an Aesthetic Category," The Art Quarterly 1(no. 1, 1977):89-124. Scientific travel literature in the eighteenth century gave rise to an interest in lone, visually distinctive landscape configurations. "The dominant natural configuration, demanding

immediate respectful attention, became a potent feature of scientific travel literature and created an aesthetic category of its own: that of singularity" (p. 89). This "relates to the voyager's absorption in what he sees to such a point that the obliteration of his own identity results. The becoming one with the singularity beheld is a riveting of the imagination to its object in a passionate identification with it" (pp. 113-114).

Stafford, Barbara Maria, "Toward Romantic Landscape Perception: Illustrated Travels and the Rise of 'Singularity' as an Aesthetic Category," The Art Quarterly 1(no. 1, 1977):89-124. Scientific travel literature in the eighteenth century gave rise to an interest in lone, visually distinctive landscape configurations. "The dominant natural configuration, demanding immediate respectful attention, became a potent feature of scientific travel literature and created an aesthetic category of its own: that of singularity" (p. 89). This "relates to the voyager's absorption in what he sees to such a point that the obliteration of his own identity results. The becoming one with the singularity beheld is a riveting of the imagination to its object in a passionate identification with it" (pp. 113-114).

Stafford, S. L., "The Effect of Punishment on Firm Compliance with Hazardous Waste Regulations," Journal of Environmental Economics and Management 44(no.2, 2002): 290-308. (v.13,#4)

Stafford, Tim, "Are People the Problem?" Christianity Today, October 3, 1994. A special report funded by the Pew Charitable Trust. Christians have a vital stake in the population debate, since population concerns cover areas that Christians deeply care about, the meaning of persons and families, the role of women, the use of population controls, coercion, persuasion, abortion, and related issues. Paul Ehrlich's views are contrasted with Julian Simon's, and evangelical Christians come out in between, but nearer to Simon, provided that resources are used with justice and love, and the cornucopian argument must not become a substitute for these concerns. In a way, what Christians now urge ought to urge in developing countries is what the best in Protestant Christian missions has been urging for the last century: hard work, thrift, modern scientific methods, limited family size, justice, love, and charity, honest, democratic government, contentment with enough. With boxes by Andrew Steer, Director of the World Bank with responsibilities for environmental and social policies, and a Christian who is rather more concerned with the adverse results of escalating populations. (v5,#3)

Stager, Curt. "Update on the Ecological Condition of Adirondack Lakes." Wild Earth 6, no.1 (1996): 29. (v7, #3)

Stamand, MG; Merriam, DH, "Defensible Moratoria: The Law Before and After the Tahoe-Sierra Decision", Natural Resources Journal 43 (no.3, 2003): 703-752.

Stamps, AE; Smith, S, "Environmental Enclosure in Urban Settings," Environment and Behavior 34(no.6, 2002): 781-794.

Stanfield, BJ;Bliss, JC; Spies, TA, "Land ownership and landscape structure: a spatial analysis of sixty-six Oregon (USA) Coast Range watersheds", Landscape Ecology 17(no.8,2002):685-697.

Stanford, Craig B., The Hunting Apes: Meat Eating and the Origins of Human Behavior. Princeton, NJ: Princeton University Press, 1999. 262 pages. \$ 25. What made humans unique was meat, the desire for meat, the eating of meat, the hunting of meat, the sharing of meat. Being a "clever, strategic, and mindful sharer of meat is the essential recipe that led to the expansion of the human brain." From analyses of the behavior of chimps and other great apes, and existing human hunting and gathering societies, Stanford claims that meat eating has been central to human evolution. Meat provides a highly concentrated source of protein, essential for the development and health of the brain, and is craved by many primates, including humans. This craving has given meat genuine power--the power to cause males to form hunting parties and organize entire cultures around hunting. And it has given men the power to manipulate and control women in these cultures. Steven N. Austad comments in Natural History: "I justify my meat eating by tradition. As Craig Stanford's book makes abundantly clear, my ancestors have been killing and eating meat for more than five million years. What kind of egotist would it take to break a tradition like that?" (Perhaps Austad continues to dominate his women too!) Although Stanford portrays "the roots of human behavior as manipulation and cunning that arise from the use of meat by our ancestors," he, at least, concludes that we are not biologically driven to do any of these things and that we are not innately aggressive demons. Stanford is in anthropology at the University of Southern California. (v10,#4)

Stange, Mary Zeiss. Woman the Hunter. Boston: Beacon Press, 1997. A reintroduction of women as hunters can defy traditional stereotypes of man the hunter and woman the gatherer. Hunting "encapsulates a worldview that locates humans in the natural scheme of things in a markedly different way from agriculture or industry. It affords a mode of conscious participation in natural life that is unavailable elsewhere" (p. 124). Woman the Hunter understands that "everything that lives will die. And out of its dying others will live" (p. 176). Reviewed by Greta Gaard, Environmental Ethics 22(2000):203-207. (v.11,#3)

Stange, Mary Zeiss. Woman the Hunter. Reviewed by Greta Gaard. Environmental Ethics 22(2000):203-206.

Stanisci, A., Pelino, G; Blasi, C, "Vascular plant diversity and climate change in the alpine belt of the central Apennines (Italy)," Biodiversity and Conservation 14 (no. 6, June 2005): 1301-1318.

Stankey, George H., "Wilderness around the World," Journal of Forestry 91 (no. 2, February, 1993):33-36. Protection efforts are expanding, despite varying definitions of "wilderness," typically an area not substantially modified by modern human activity and reflecting primarily a natural character. A preliminary survey by UNEP, the World Bank, the World Resources Institute, and the Sierra Club finds that perhaps one-third of the terrestrial Earth is in this condition. Outside the U.S., wilderness areas exist by legislation in Australia, Canada, Finland, New Zealand, and South Africa; and administratively in Zimbabwe, Sweden, and Kenya. The Mavuradonha Wilderness in Zimbabwe is the first such area designation in a developing nation, managed for a variety of activities with resulting economic benefits to local villagers and farmers. Stankey is in the Department of Forest Resources, Oregon State University. This whole issue of the Journal of Forestry is on wilderness management. (v5,#4)

Stankey, GH; Bormann, BT; Ryan, C; Shindler, B; Sturtevant, V; Clark, RN; Philpot, C, "Adaptive Management and the Northwest Forest Plan: Rhetoric and Reality," Journal of Forestry 101(no.1, 2003): 40-46.

Stanley, Emily H., Fisher, Stuart G., Grimm, Nancy B. "Ecosystem Expansion and Contraction in Streams," Bioscience 47(no.7 1997):427. Desert streams vary in both space and time and fluctuate dramatically in size. (v8,#3)

Stanley, Jr., Thomas R., "Ecosystem Management and the Arrogance of Humanism," Conservation Biology 9 (1995): 255-62. There are two fundamentally different views of ecosystem management: biocentric, considering human uses of resources to be constrained by the primary goal of maintaining ecological integrity; and anthropocentric, centering on human resources and including ecological and social considerations. The anthropocentric view is uppermost, tacitly in the logic of ecosystem management, and ecosystem management is, in its usual manifestations, another example of the arrogance of humanism. Stanley is with the U.S. National Biological Survey, Fort Collins, CO, USA. (v6,#2)

Stanners, David, Bourdeau, Phillippe, The European Environment Agency, eds. Europe's Environment: The Dobris Assessment. London: Earthscan Publications Ltd., 1995. 712pp. ,47. This provides a comprehensive guide to the state of the environment in 46 countries and is based on data from a wide range of sources. It is a unique source of information on Europe's cities by examining all the pressures, such as energy, transport, tourism, air, and water, on a highly urbanised continent. (v8,#1)

Stanton, Mark and Dennis Guernsey, "The Christian's Ecological Responsibility: A Theological Introduction and Challenge," Perspectives on Science and Christian Faith, March 1993. (v4,#3)

Stanturf, John A., Gardiner, Emile S., and Warren Jr., Melvin E., "Restoring Bottomland Hardwood Ecosystems in the Lower Mississippi Alluvial Valley," Journal of Forestry 98(no. 8, Aug. 1, 2000):10- . Because of concerns for wildlife habitat and water quality protection, the valley is now the site of the most extensive forest restoration effort in the United States. (v.12,#2)

Star, L., E. D. Ellen, K. Uitdehaag and F. W. A. Brom, AA plea to implement robustness into a breeding goal: poultry as an example, @ *Journal of Agricultural and Environmental Ethics* 21(2008):109-125. The combination of breeding for increased production and the intensification of housing conditions have resulted in increased occurrence of behavioral, physiological, and immunological disorders. These disorders affect health and welfare of production animals negatively. For future livestock systems, it is important to consider how to manage and breed production animals. In this paper, we will focus on selective breeding of laying hens. Selective breeding should not only be defined in terms of production, but should also include traits related to animal health and welfare. For this we like to introduce the concept of robustness. The concept of robustness includes individual traits of an animal that are relevant for health and welfare. Improving robustness by selective breeding will increase (or restore) the ability of animals to interact successfully with the environment and thereby to make them more able to adapt to an appropriate husbandry system. Application of robustness into a breeding goal

will result in animals with improved health and welfare without affecting their integrity. Therefore, in order to be ethically acceptable, selective breeding in animal production should accept robustness as a breeding goal. The authors are at the Animal Breeding and Genomics Centre, Wageningen University, Wageningen, The Netherlands.

Starik, Mark, "Should Trees Have Managerial Standing? Toward Stakeholder Status for Non-Human Nature," Journal of Business Ethics 14(1995):207-217. Most definitions of the concept of "stakeholder" include only human entities. The non-human world can be integrated into the stakeholder management concept. The natural environment is finally becoming recognized as a vital component of the business environment; the stakeholder concept is more than a human political/economic one, and non-human nature currently is not adequately represented by other stakeholder groups. In addition, any of several stakeholder management processes can readily include the natural environment as one or more stakeholders of organizations. This integration would provide a more holistic, value-oriented, focused and strategic approach to stakeholder management, potentially benefiting both nature and organizations. Starik is professor of strategic management and public policy, The George Washington University.

Starik, Mark, "Should Trees Have Managerial Standing? Toward Stakeholder Status for Non-human Nature," Journal of Business Ethics 13(no. 3, 1995):207-217.

Starik, Mark, and G. P. Rands, "Weaving an Integrated Web: Multilevel and Multisystem Perspectives of Ecologically Sustainable Organizations," Academy of Management Review 20(no., 4, 2000):313-329.

Starik, Mark. Review of R.E. Freeman, J. Pierce, & R. Dodd, "Environmentalism and the New Logic of Business: How Firms Can Be Profitable and Leave Our Children a Living Planet", Organization and Environment 14 (No. 2, June 2001) pp.248-51. Starik is associate professor of business and public management at George Washington University. (v.13,#2)

Stark, Bennett. "Uncommon Ground Needing to be Re-trodden," Wild Earth 6(1996):53. (v8,#1)

Stark, Judith, "Ethics and ecotourism: connections and conflicts," Philosophy and Geography 5 (No. 1, 2002): 101-113. In this essay the author examines the burgeoning industry of ecotourism, analyzing definitions of "ecotourism" and exploring a number of compelling issues raised by the recent trend in worldwide tourism. She then examines three sample codes of ecotourism: one site-specific (Antarctic Traveler's Code), one from a major environmental group (National Audubon Society, and one developed by a consultant for a travel research firm (Code for Leisure Destination Development). The presuppositions, value and limitations of these codes are then analyzed. On the basis of this analysis, the author proceeds to a discussion of the frameworks for negotiating discourses about ecotourism. Stark argues that the limitations detected in the sample codes of ethics for ecotourism would be fruitfully addressed by Jürgen Habermas's discourse ethics augmented by the feminist ethical and political theories of Seyla Benhabib who draws on the work of Hannah Arendt. While bracketing the debates surrounding the justification of Habermas's principle of universalizability, the author argues that the over-emphasis on the rational aspects both of the principle itself and on the notion of "rational trust" stand in need of a corrective if discourse ethics is to be used successfully in negotiating real-life

conflicts. Stark argues for a kind of "application discourse" using the feminist ethical and political theories of Benhabib drawn from Arendt's work in which "associational public spaces" are created through relational processes in the acts themselves of meeting and discourse. The author claims that Benhabib and Arendt's works contain fruitful theoretical approaches that also leave room to deal with policies and practical applications as debates about ecotourism increase around the world. Far from exhausting the possibilities, this essay opens up the connections between these theoretical approaches and a new area of environmental concern: ecotourism. Stark is an associate professor of philosophy at Seton Hall University in New Jersey. (P&G)

Starr, Christopher, Are Native Species Always Best?: A Discussion of the Scientific, Cultural and Ethical Issues Surrounding the Native Species Debate, With Particular Reference to Forest and Woodland Trees in the United Kingdom, Master's Thesis, Department of Philosophy, Lancaster University, September 1995. (v7,#1)

Starr, Christopher, Are Native Species Always Best?: A Discussion of the Scientific, Cultural and Ethical Issues Surrounding the Native Species Debate, With Particular Reference to Forest and Woodland Trees in the United Kingdom, Master's Thesis, Department of Philosophy, Lancaster University, September 1995.

Starrs, Paul F., Let the Cowboy Ride: Cattle Ranching in the American West. Baltimore: Johns Hopkins University Press, 1998. (v.9,#3)

Staten, Mike, Hodges, John. "An Industrial Approach to Managing for Wildlife and Timber," Journal of Forestry 95(no.8, 1997):35. (v8,#3)

Staudt, Kathleen, ed. Women, International Development, and Politics: The Bureaucratic Mire. Updated and expanded edition. Philadelphia: Temple University Press, 1997. 312pp. \$24.95 paper. This new edition reflects the intensified interest in women's empowerment in developing countries demonstrated by the Beijing Conference. (v8,#1)

Staus, NL; Strittholt, JR; DellaSala, DA; Robinson, R, "Rate and pattern of forest disturbance in the Klamath-Siskiyou ecoregion, USA between 1972 and 1992," Landscape Ecology 17(no.5, 2002): 455-470.

Staver, K. W. and Brinsfield, R. B., "Agriculture and Water Quality on the Maryland Eastern Shore: Where Do We Go from Here?," Bioscience 51(no.10, 2001): 859-68. (v.13,#2)

Stead, J. G. and W. E. Stead, "Ecoenterprise Strategy: Standing for Sustainability," Journal of Business Ethics 24(no. 4, 2000):313-329.

Steady, Filomina Chioma, "Women, Shelter and the Environment." Environmental Values Vol.2 No.2(1993):163-176. ABSTRACT: The aim of this paper is to point out the logic of the links between shelter, women and the environment in order to understand this important dimension of the crisis in human settlements, particularly in the provision of human shelters. It also discusses the relationship of this crisis to processes of development which are both unsustainable and detrimental to the well-being and socio-economic situation of people in general, and women and

children in particular. This paper then attempts to evaluate the effect of development strategies that aim to alleviate the problem and examines some successful initiatives which have promoted both sustainable development and the involvement of women in sustainable human shelter activities. It finally argues that solutions to the problem of human shelter will be ineffective without consideration of women's needs, concerns and contributions in this important aspect of sustainable development. KEYWORDS: Development, environment, gender, shelter policies, women's movements. UNCED, PO Box 80, CH-1231 Conches, Switzerland.

Stearns, Beverly Peterson and Stearns, Stephen C., Watching, from the Edge of Extinction. New Haven: Yale University Press, 1999. Stories, reflections from those watching extinctions, often from people dedicating their lives to what becomes a heartbreaking effort, sometimes for the lost species, sometimes for the mistakes, confusions, foibles of the humans involved. "We have written this book not only as a tribute to those species which are on the edge of extinction but for us humans who will be left behind, and in hopes we can draw some lessons from what is happening. The fates of some of these species have not been settled--not quite. We can still make a difference. "You who may open this book years from now, wondering how they went: remember too the eyes that watched them go, and the tongues that strove to articulate the loss" (frontis). (v.13,#1)

Stearns, Beverly Peterson, and Stearns, Stephen C., Watching, from the Edge of Extinction. New Haven, CT: Yale University Press, 1999. A sampling of a dozen endangered species and the almost incredible complexity of efforts to save them. Key issues: competing views as to the rationale for endangered species protection, financial constraints, politics that engender unwanted results, and the politics of conservation biology. (v.10,#3)

Stedman, R and Hammer, R, "Environmental Perception in a Rapidly Growing, Amenity Rich Region: The Effects of Lakeshore Development on Perceived Water Quality in Vilas County, Wisconsin," Society and Natural Resources 19 (no. 2, February 2006): 137-151.

Stedman, R., "A Review of: Baker, Mark, and Jonathan, Kusel. Community Forestry in the United States: Learning from the Past, Crafting the Future," Society and Natural Resources 18(no. 9, October 2005): 853-856.

Stedman, RC, "Is It Really Just a Social Construction?: The Contribution of the Physical Environment to Sense of Place," Society and Natural Resources 16(no.8, 2003):671-686. (v.14, #4)

Steger, Will and Jon Bowermaster. Saving the Earth: A Citizen's Guide to Environmental Action, New York: Alfred A. Knopf, 1990. \$ 10.95. (v1,#2)

Steel, Brent S., List, Peter, and Schindler, Bruce, "Conflicting Values About Federal Forests: A Comparison of National and Oregon Publics," Society and Natural Resources 7(1994):137-153. The degree to which the public embraces different values in forests nationally and regionally in Oregon, but finding strong biocentric value orientations in both cases. Value orientations are strongly related to policy preferences. Steel is in Political Science, Washington State

University-Vancouver. List is in Philosophy, Schindler in Forest Resources, Oregon State University. (v.10,#1)

Steel Brent S., Peter List, and Bruce Shindler, "Conflicting Values About Federal Forests: A Comparison of National and Oregon Politics," Society and Natural Resources 7(1994):137-153. Both national and Oregon publics are more biocentric than anthropocentric in general orientation toward federal forests, though the national public is more strongly biocentric than the Oregon public. A biocentric orientation does not give primacy to human interests but places them in a nature-centered or ecocentric approach. It does not deny that human values are important, but places these in a larger context, finding inherent as well as instrumental value in nature. Among the public, younger persons, women, members of environmental organizations, liberals, and postmaterialists are significantly more biocentric than older persons, men, those economically dependent on timber, conservatives, and materialists. One can predict that biocentric orientations will increase in the future, and agencies that manage resources with traditional anthropocentric orientations, such as the U.S. Forest Service and the Bureau of Land Management, are likely to encounter steadily more resistance from the public. Steel is in political science at Washington State University, Vancouver; List in philosophy, and Shindler in forest resources at Oregon State University. (v5,#4)

Steele, Kristin and Kaza Stephanie, "Buddhist Food Practices and Attitudes among Contemporary Western Practitioners," Ecotheology No 9 (July 2000):49-67.

Steelwater, Eliza, "Mead and Heidegger: Exploring the Ethics and Theory of Space, Place, and the Environment," Philosophy and Geography 1 (1997): 189-207. Steelwater is assistant professor in the Department of Urban and Regional Planning at the University of Illinois at Urbana-Champaign. (P&G)

Steeves, H. Peter, ed., Animal Others: On Ethics, Ontology, and Animal Life. Albany, NY: State University of New York Press, 1999. Contains:
-Behnke, Elizabeth, "From Merleau-Ponty's Concept of Nature to an Interspecies Practice of Peace" (v.13,#4)

Steeves, H. Peter, ed., Animal Others: On Ethics, Ontology, and Animal Life. Albany: State University of New York Press, 1999. 294 pages. Paper, \$ 18.00. Eleven contributors, exploring the status of animals from the continental philosophy perspective. The moral status of animals, animal minds, understanding what it is to be an animal, and what it is to be with an animal. The role animals play in the work of philosophers such as Husserl, Heidegger, Nietzsche, Merleau-Ponty, and Derrida. Steeves is in philosophy at DePaul University. (v.10,#3)

Stefan Baumgartner, Malte Faber and Johannes Schiller, *Joint Production and Responsibilities in Ecological Economics* (Cheltenham: Edward Elgar, 2006). Reviewed by Richard B.Howarth, *Environmental Values* 17(2008):111-113.

Stefanovic, Ingrid Leman. "Interdisciplinarity and Wholeness: Lessons from Eco-Research on the Hamilton Harbour Ecosystem." Environments 23, no.3 (1996): 74. (v7, #3)

Stefanovic, Ingrid, "Philosophy, Earth, and Environment," Philosophy and Geography 4 (No. 2, 2001): 244-248. Book review of Robert Frodeman's "Earth Matters: The Earth Sciences, Philosophy and the Claims of Community," New Jersey: Prentice Hall, Inc., 2000. (P&G)

Stefanovic, Ingrid Leman. "Phenomenological Reflections on Ecosystem Health." Ethics and the Environment 5(2000):253-270. ABSTRACT: That the notion of ecosystem health is of central importance to environmental policy making is clear, even from a cursory survey of landmark documents. The World Commission on Environment and Development (1987) has declared good health to be "the foundation of human welfare and productivity" and "a broad-based health policy" to be essential for sustainable development. The Rio Declaration similarly advocates a global partnership to "conserve, protect and restore the health and integrity of the Earth's ecosystem," and the International Society for Ecosystem Health at the University of Guelph concludes that the idea of health "provides an immediate and powerful approach" to the challenge of overcoming the earth's environmental crisis.

As frequently as we refer to the concept of health, we rarely explore in explicit terms what we mean. How does one define health? Perhaps, as St. Augustine found himself understanding well the notion of time until he was asked to define it, similarly we take for granted that we agree on the meaning of health until we are asked to achieve a universal consensus on our mutual conceptions of the term. If we were to collectively attempt to define the concept of health, would our definitions converge?

Some philosophers might argue that fruitful policy making cannot proceed in the absence of a clarification of the meaning of the terms that are employed. As logical as this conclusion may sound, it is not completely justified. Moreover, our understanding of the concepts of human and ecosystem health can nevertheless be enlarged, even if we do not achieve consensus on definitions. (E&E)

Stefanovic, Ingrid Leman, Safeguarding our Common Future. Re-thinking Sustainable Development Reviewed by Lijmbach, Susanne. Journal of Agricultural and Environmental Ethics 16(2003):209-217. (JAEE)

Stefanovic, Ingrid Leman, "Evolving Sustainability: A Re-Thinking of Ontological Foundations," Trumpeter, 8:4, Fall 1991, pp. 194-200. The meaning of sustainability, from the perspective of phenomenology. Critical of the positivist roots of sustainable development concepts, the author suggests a more originative understanding of sustainability by re-thinking the notions of "dwelling" and "wholeness."

Stefanovic, Ingrid Leman, Safeguarding our Common Future. Albany: State University of New York Press, 2000. The relevance of the phenomenological tradition to questions surrounding environmental ethics and sustainable development. A phenomenological approach, as conceived by Heidegger, helps us evolve a more originative and informed way of thinking about the foundations of sustainable development. Stefanovic is in philosophy at the University of Toronto. (v.11,#3)

Steffen, Lloyd H. "In Defense of Dominion." Environmental Ethics 14(1992):63-80. The biblical notion of dominion has often been cited as the source and sanction for Western attitudes of environmental disregard. An analysis of the Genesis passage in which dominion (radah) is

mentioned reveals a curious misreading of the text: dominion is actually an ideal of human-divine intimacy and peacefulness--as one ought to expect in a paradise creation story. I analyze Genesis dominion not only as a religious concept, but also as a philosophical notion manifesting the Hebrew selfunderstanding of its contemporary experience with the natural world. Being a verb, *radah* is also an action concept that connotes an ethic of environmental responsibility. Dominion authorizes a philosophical critique of Western attitudes and practices of environmental exploitation. I defend it here as an intentional expression of the Western religious consciousness that could, if it were understood as an ideal of responsible action rather than as an authorization for callous disregard of the natural world, actually promote interreligious dialogue on environmental issues. Steffen is University Chaplain and in the department of religious studies, Lehigh, University, Bethlehem, PA. (EE)

Steffen, Lloyd. "What Religion Contributes to an Environmental Ethic." *Environmental Ethics* 29(2007):193-208. Religion and ethics overlap and are in many respects related; yet, they differ in their primary focus of concern. Ethics projects are anthropocentric in that they are constructed in the context of self-other relationships, which includes human beings in relation to the Aother@ of the natural world, and even religious ethics reflect this relational structure. Religion, however, is focused on the human relation to ultimacy and presents a distinctive consciousness of the self and its relations, including relation to the natural world. As religion decenters the self and reframes how the self is related to the other of the natural world - Thomas Merton and Thich Nhat Hanh articulate this distinctively religious consciousness in relation to the environment - religious consciousness can provide positive support for actions of care and regard toward the natural world. But religion need not go this direction. Focused as it is on ultimacy, which is a power concept that can be dangerous, religion can also sponsor destructive environmental action. Although religion can, indeed, yield in distinctive ways actions and attitudes that amount to support for an ethic of positive regard for the natural world, religiously inspired actions must always be subject to moral critique. (EE)

Steffen, Lloyd. Review of *The Oxford Handbook of Religion and Ecology*. Edited by Roger S. Gottlieb. *Environmental Ethics* 30(2008):439-442. (EE)

Steffen, W; Andrae, MO; Bolin, B; Cox, PM; Crutzen, PJ; Cubasch, U; Held, H; Nakicenovic, N; Scholes, RJ; TalaueMcManus, L, "Abrupt Changes: The Achilles' Heels of the Earth System", *Environment* 46 (no.3, 2004): 8-21.

Steg, Linda and Sievers, Inge, "Cultural Theory and Individual Perceptions of Environmental Risks," *Environment And Behavior* 32 (No. 2, 2000, Mar 01): 250- . (v.11,#2)

Steidlmeier, Paul. "The Morality of Pollution Permits." *Environmental Ethics* 15(1993):133-50. The Clean Air Act of 1990 sets forth a system of tradable permits in pollution allowances. I examine the moral implications of such marketable allowances as a means to achieving a clean air environment. First, I examine the "ends sought" in environmental policy by discussing foundational ethical perspectives. Second, I set forth a framework for judging the moral suitability of various means. I conclude with reflections on interest group power, public policy, and the legitimacy of "second best" solutions. Steidlmeier is at the School of Management, State University of New York, Binghamton, New York. (EE)

Stein, BA, "A Fragile Cornucopia: Assessing the Status of U.S. Biodiversity," Environment 43(no. 7, 2001):10-23. (v.13,#1)

Stein, Bruce A., Kutner, Lynn S., and Adams, Jonathan S., eds., Precious Heritage: The Status of Biodiversity in the United States. New York: Oxford University Press, 2000. Paper, \$ 20.00. Draws together information developed from natural heritage programs from across the U.S. over a quarter of a century. Produced by the Nature Conservancy and the Association for Biodiversity Information. Richly illustrated. (v.12,#2)

Stein, Taylor V., Anderson, Dorothy H., and Kelly, Tim, "Using Stakeholders' Values to Apply Ecosystem Management in an Upper Midwest Landscape," Environmental Management 24(no. 3, 1999):399-413. Much of the justification behind ecosystem management is biocentric. However clear connections that show how biodiversity benefits humans are rarely discussed. Many people are wary of the concept of ecosystem management because they believe it leaves humans out of the picture. The biocentric justifications need to be complemented by anthropocentric justifications. Stein is in the School of Forest Resources and Conservation, University of Florida. Anderson is in the Department of Forest Resources, University of Minnesota. Kelly is in the Office of Planning, Minnesota Department of Natural Resources. (v.13,#2)

Steinberg, Ted, Down to Earth: Nature's Role in American History. New York: Oxford University Press, 2002. I. The preindustrial age. II. The great industrial expansion of the nineteenth century. III. Twentieth century consumer society has processed and packaged nature on an unprecedented scale. What that did to the land and to Americans. Nature has profoundly shaped American history, but here it is hard to see how Americans understood their land or that they cared about it except as natural resources. Environmentalism's most radical contribution--translating scientific descriptions of human involvement in nature into definite moral tasks for individuals and society--appears only as the bland statement that a "sharpening of the links between everyday life ... and its ecological consequences laid the groundwork for ... a new moral framework, one that urged Americans to take responsibility for their actions with respect to nonhuman nature." Steinberg teaches history and law at Case Western Reserve University. Reviewed by Thomas R. Dunlap, "What Hath Nature Wrought?" Science 297(30 August 2002):1480. (v.13,#4)

Steinberg, Ted. *Down to Earth: Nature's Role in American History*, 2nd ed. Oxford: Oxford University Press, 2008. In his discussion of environmental history in the United States, Steinberg shows how a precarious ecological balance can be undermined and destroyed by the smallest of unintended consequences. He argues that treating natural entities as capitalist commodities is fundamentally at odds with diverse and healthy ecosystems.

Steinberg, Ted. *Down to Earth: Nature's Role in American History*, 2nd ed. Oxford: Oxford University Press, 2008. In his discussion of environmental history in the United States, Steinberg shows how a precarious ecological balance can be undermined and destroyed by the smallest of unintended consequences. He argues that treating natural entities as capitalist commodities is fundamentally at odds with diverse and healthy ecosystems.

Steinberg, Theodore, "Do-It-Yourself Deathscape: The Unnatural History of Natural Disaster in South Florida," Environmental History 2(Oct. 1997):414-. (v.8,#4)

Steinbock, Bonnie, "Speciesism and the Idea of Equality," Philosophy 53(no. 204, April 1978):247-256. Reprinted in Barbara MacKinnon, Ethics: Theory and Contemporary Issues, 2nd ed. (Belmont, CA: Wadsworth Publishing Co., 1998), pp. 381-388. Steinbock is in philosophy at SUNY, Albany.

Steinbrecher, Ricarda A. "From Green Revolution to Gene Revolution: The Environmental Risks of Genetically Engineered Crops," The Ecologist 26(no.6, 1996):273. Many interest groups claim that an increasing world population cannot be fed unless genetically engineered crops are grown. Such crops, so the theory goes, will produce higher yields than conventional farming methods and have fewer adverse environmental impacts because the frequency, range and toxicity of weed-killer and pesticide applications will be reduced. Ecological risk assessments are said to indicate that several products can be grown safely on a wide scale. In fact, growing genetically engineered plants is likely to increase the use of herbicides and pesticides and to accelerate the evolution of "superweeds" and "superbugs". Crucially, major environmental risks are unpredictable effects and the unintended transfer of transgenes to plant relatives. Risk assessments are limited and have primarily been based on an outdated understanding of gene behavior. (v8,#2)

Steiner, Dieter and Markus Nauser, eds., Human Ecology: Fragments of Anti-fragmentary Views of the World. London: Routledge, 1993. 365 pages. , 65. Part I. Transdisciplinarity, biohistory, and the human ecological triangle of person-society-environment. Part II. Epistemology. Part III. Structuration. Part IV. The regional dimension. Human ecology is really human geography and can and ought to be a serious science. Written from the perspective of contemporary geographical theory and social science. A difficult book to read. (v6,#4)

Steiner, Gary, Anthropocentrism and Its Discontents: The Moral Status of Animals in the History of Western Philosophy. Pittsburgh: University of Pittsburgh Press, 2005.

Steingraber, Sara, Living Downstream: An Ecologist Looks at Cancer and the Environment. Reading, MA: Addison-Wesley, 1997. Reviewed by Alastair McIntosh in Environmental Values 4(1995):274-276. (v.9,#4)

Steins, Nathalie A. and Edwards, Victoria M. "Collective Action in Common-Pool Resource Management: The Contribution of a Social Constructivist Perspective to Existing Theory." Society & Natural Resources 12(No. 6, Sept. 1999):539-. (v10,#4)

Stem, C., J. Lassoie, D. Lee, D. Deshler and J. Schelhas, "Community Participation in Ecotourism Benefits: The Link to Conservation Practices and Perspectives," Society and Natural Resources 16(no. 5, 2003): 387-414. (v 14, #3)

Stenholm, Charles W. and Waggoner, Daniel B., "Animal Agriculture Production and Research in the 1990s: A View From Capitol Hill", Journal of Agricultural and Environmental Ethics

6(1993). Animal agriculture production systems vary throughout the world, but many of the limitations and complexities of production are universal. It is common to attempt comparisons among management systems, even though systems may differ in several features. A sound animal husbandry program should provide a system of care that permits an animal to grow, mature, reproduce and maintain general health. Animal welfare concerns relate to housing, reproduction, confinement, feeding, health, slaughter and research. Factors driving the increased interest in farm animal well-being are varied and complex, and the issues are unfortunately often evaluated on emotional grounds rather than on a factual, scientific and rational basis. The scientific community should develop "best management practices" that enhance profitability, stewardship and sustainability for producers. Unfortunately, the need for expanded work in animal behaviour and related areas comes at a time of shrinking federal and private research budgets. Effective farm animal quality assurance programs should be developed which are targeted towards providing an educational and training format for producers. All parties must be willing to inform the public truthfully about farm animal welfare, particularly scientifically sound production practices. Stenholm is Chairman of United States House Subcommittee on Livestock, Dairy, and Poultry, 1226 Longworth Building, Washington, DC 20515. Waggoner is Staff Director of United States House Subcommittee on Livestock, Dairy, and Poultry, 1301 Longworth Building, Washington, DC 20515.

Stenmark, Mikael, Environmental Ethics and Policy Making. Aldershot, UK: Ashgate, 2001. Originally in Swedish, 2000; here in English translation. Stenmark analyzes how environmental ethics informs environmental policy and sustainable development. What people do depends on why they do it. There is often critical divergence between anthropocentric, biocentric, and ecocentric ethical perspectives. Different convictions can involve different duties (contrary to Bryan Norton's "convergence hypothesis), here applied to concerns about population, future generations, agriculture, endangered species, and wilderness. Much attention to UN and UNCED documents. Extensive analysis of Aldo Leopold, Tom Regan, Paul Taylor, J. Baird Callicott, and Holmes Rolston. "In conclusion, ... anthropocentrism, biocentrism and ecocentrism generate different views about the direction of current environmental policy making and management, and ... lack of unity at the ethical or normative level cannot therefore be ignored" (p. 147). Stenmark is "trying to create a bridge between ethical theory and practice" (p. 143). Stenmark is in theology, Uppsala University, Sweden. (v.12,#4)

Stenmark, Mikael. "The Relevance of Environmental Ethical Theories for Policy Making." I address the issue of whether differences in ethical theory have any relevance for the practical issues of environmental management and policy making. Norton's answer, expressed as a convergence hypothesis, is that environmentalists are evolving toward a consensus in policy even though they remain divided regarding basic values. I suggest that there are good reasons for rejecting Norton's position. I elaborate on these reasons, first, by distinguishing between different forms of anthropocentrism and nonanthropocentrism, second, by contrasting the different goals that anthropocentrists, biocentrists, and ecocentrists set up for environmental policy making, and, lastly, by identifying three important policy areas (population growth, wilderness preservation, and wildlife management) where differences in basic values generate divergent policies. Environmental Ethics 24(2002):135-148. (EE)

Stenson, Anthony J., and Tim S. Gray. "An Autonomy-Based Justification for Intellectual Property Rights of Indigenous Communities." Environmental Ethics 21(1999):177-190. The claim that indigenous communities are entitled to have intellectual property rights (IPRs) to both their plant varieties and their botanical knowledge has been put forward by writers who wish to protect the plant genetic resources of indigenous communities from uncompensated use by biotechnological transnational corporations. We argue that while it is necessary for indigenous communities to have such rights, the entitlement argument is an unsatisfactory justification for them. A more convincing foundation for indigenous community IPRs is the autonomy theory developed by Will Kymlicka. (EE)

Stenstad, Gail. Review of *The Incarnality of Being: The Earth, Animals, and the Body in Heidegger's Thought*. Environmental Ethics 29(2007):437-438. (EE)

Stephens, Martin L., "A Current View of Vivisection: Animal Research in America", The Animals' Agenda 16(no.4, 1996):20. A comprehensive look at the complex and volatile issue of vivisection in America. Who does animal experiments, where, and why. Claims that information about the issue is kept almost as far from public view as the animals themselves. Stephens is with the Humane Society of the United States.

Stephens, P. H. G., "Hubris, Humility, History and Harmony: Human Belonging and the Uses of Nature," Environmental Politics 11(no.2, 2002): 174-80. (v.13,#4)

Stephens, PHG, "Review of: Laura Westra and Bill E. Lawson (eds.), Faces of Environmental Racism: Confronting Issues of Global Justice," Environmental Politics 11(no.4, 2002): 144.

Stephens, PHG, "A Space for Place: Pragmatic Naturalism, Particularity and the Politics of Nature," Environmental Politics 11(no.3, 2002): 168-173.

Stephens, PHG, "Green Liberalisms: Nature, Agency and the Good," Environmental Politics 10(no, 3, 2001):1-22. (v.13,#1)

Stephens, Piers H.G. "Nature, Purity, Ontology." Environmental Values 9(2000):267-294. ABSTRACT: Standard defences of preservationism, and of the intrinsic value of nature more generally, are vulnerable to at least three objections. The first of these comes from social constructivism, the second from the claim that it is incoherent to argue that nature is both 'other' and something with which we can feel unity, whilst the third links defences of nature to authoritarian objectivism and dangerously misanthropic normative dichotomies which set pure nature against impure humanity. I argue that all these objections may be answered by recasting the relationship between man and nature into a tripartite spectrum of ontological form between nature and artifact, with the key question being the extent to which nature has been humanised in accordance with certain modes of strongly instrumental rationality, these in turn being defined by reference to the split between abstract reason and natural feeling which was exacerbated by specific elements in the Enlightenment period. This new model may grant normative force by linking external nature to a broader conception of human psychological wellbeing than that offered by the quantitatively orientated models of human rationality and agency. KEYWORDS: Nature, purity, reason, instrumentalism, ontology. Stephens is in the Department of Politics and

Philosophy, Manchester Metropolitan University, Oxford Road, Manchester M15 6LL, UK.
(EV)

Stephens, Piers H.G. Review of Alan Carter, "A Radical Green Political Theory", Organization and Environment 14 (No. 1, March 2002) pp.99-102. Stephens is in philosophy at the University of Liverpool and the Manchester Metropolitan Metropolitan University, UK. (v.13,#2)

Stephens, Piers H.G., "Nature and Human Liberty: The Golden Country in George Orwell=s 1984 and an Alternative Conception of Human Freedom", Organization and Environment 17 (no. 1, March 2004).

Stephens, Piers H.G. Review of Andrew Dobson (Ed.), "Fairness and Futurity: Essays on Environmental Sustainability and Social Justice" Organization and Environment 14 (No. 3, September 2001) pp.372-5. Stephens is in philosophy at the University of Liverpool and the Manchester Metropolitan Metropolitan University, UK. (v.13,#2)

Stephens, Piers H.G. "Hubris, Humility, History and Harmony: Human Belonging and the Uses of Nature", Environmental Politics, 11 (No. 2, Summer 2002): 174-80. An extended review article revolving around two edited volumes, William Throop's "Environmental Restoration: Ethics, Theory and Practice" and Charles T. Rubin's "Conservation Reconsidered: Nature, Virtue and American Liberal Democracy", and dealing with themes of conservation, preservation, environmental restoration and property rights. Stephens is in philosophy at the University of Liverpool and the University of Manchester, UK. (v.13, #3)

Stephens, Piers H. G. Review of: de Greus, Marius, The End of Over-consumption: Towards a Lifestyle of Moderation and Self-restraint. Utrecht: International Books, 2002. Reviewed by Piers H. G. Stephens. Environmental Values 13(2004):263-266.

Stephens, Piers H. G., Value, Nature and the Subject-Object Divide. PhD thesis, Centre for Philosophy and the Environment, University of Manchester, 1997. 362 pages. Modernity is characterized by dynamics of appropriation and artefactualisation that are drawn from Descartes, Bacon and Locke, manifesting themselves in continuously reductive instrumentalisation. This dynamic is challenged by synthesising the work of Anthony Weston and Robert E. Goodin within the epistemological framework of William James' pragmatic naturalism. Nature is ontologically contrasted to artifice, then defended as a source of spontaneity at the experiential level and of coherence at the theoretical/political level, making the claim for nature as a necessary primary good in the latter domain. The thesis supervisor was Keekok Lee. The external examiner was Andrew Dobson, University of Keele. (v.8,#4)

Stephens, Piers, et. al. eds., *Contemporary Environmental Politics: From Margins to Mainstream*, Routledge: Routledge Research in Environmental Politics Series, 2006.

Stephens, Piers H.G. "Blood, not Soil: Anna Bramwell and the Myth of `Hitler's Green Party'", Organization and Environment 14 (No. 2, June 2001) pp.173-87. The anti-green backlash that began in the 1990s has constantly advanced charges of misanthropic extremism against ecologists, most dramatically illustrated by claims of historical or thematic linkage between

ecologism and Nazism, mainly drawn from Anna Bramwell's work. The author analyses Bramwell's work both historically and systematically, arguing first that her claims of association between ecologism and Nazism are historically flawed, and second, that her conceptual treatment fails to take into account the central motivational roles of Social Darwinism and absolutist purity in National Socialism. These factors effectively divorce green thought about nature from Nazi connection. The author concludes that Bramwell fails to demonstrate any clear historical or conceptual link between ecologism and Nazism, but that greens should nonetheless eschew dangerous purity notions if possible. Stephens is in philosophy at the University of Liverpool and the Manchester Metropolitan Metropolitan University, UK. (v.13,#2)

Stephens, Piers H.G. "A Space for Place: Pragmatic Naturalism, Particularity and the Politics of Nature", Environmental Politics, 11 (No. 3, Autumn 2002): 168-73. A review article dealing with John M. Meyer's "Political Nature: Environmentalism and the Interpretation of Western Thought" and Peter Hay's "Main Currents in Western Environmental Thought", focusing on the motivational possibilities of place in relation to the history of Western thought, and to the American pragmatic naturalist tradition in particular. (v.13, #3)

Stephens, Piers H.G., "Patriotism, Environmentalism and the Circles of Ethics: A Response to Cafaro." Response to Philip Cafaro's claim that patriotism needs to be reclaimed by environmentalists as loyalty to a homeland, landscapes included. Stephens maintains that there are vital differences between one's sense of personal belonging to land and the patriot's appeal to collective nationhood. Stephens is at the University of Liverpool. Email: <mfedphs@fs1.art.man.ac.uk> (v.12,#4)

Stephens, Piers H.G. Review of Wayne Ouderkirk and Jim Hill (eds.), Land, Value, Community: Callicott and Environmental Philosophy, Organization and Environment, 16, (No. 2, 2003): 255-58. Stephens teaches philosophy at the University of Liverpool and University of Manchester, and is honorary research fellow at the School of Politics, International Relations and the Environment, University of Keele, UK.

Stephens, Piers H. G., John Barry, and Andrew Dobson, eds., *Contemporary Environmental Politics*. Reviewed by John Foster, *Environmental Values* 16(2007):542-544.

Stephens, Piers. Review of J. Baird Callicott, Beyond the Land Ethic: More Essays in Environmental Philosophy, Albany: Suny Press, 1999, Environmental Values 10(2001):138. (EV)

Stephens, William O., "Stoic Naturalism, Rationalism, and Ecology." Environmental Ethics 16(1994):275-286. Cheney's claim that there is a subtextual affinity between ancient Stoicism and deep ecology is historically unfounded, conceptually unsupported, and misguided from a scholarly viewpoint. His criticisms of Stoic thought are thus merely ad hominem diatribe. A proper examination of the central ideas of Stoic ethics reveals the coherence and insightfulness of Stoic naturalism and rationalism. While not providing the basis for a contemporary environmental ethic, Stoicism, nonetheless, contains some very fruitful ethical concepts. Stephens is with the Dept. of Philosophy, Creighton University, Nebraska. (EE)

Stephens, William O., Review of John Lawrence Hill, The Case for Vegetarianism: Philosophy for a Small Planet. Environmental Ethics 19(1997):221-224. (EE)

Stephenson, Bret, and Bratton, Susan Power, "Martin Luther's Understanding of Sin's Impact on Nature and the Unlanding of the Jews," Ecotheology No 9 (July 2000):84-102.

Stepien, Kathy Ann, Does an Ecological Self Need an Environmental Ethics? An Analysis and Critique of Warwick Fox's Deep Ecology. M.A. thesis, Colorado State University, Fall 1999. Warwick Fox's interpretation of the deep ecological position takes Self-realization as the fundamental norm, a self essentially interconnected with all other entities, and contrasted with a tripartite conception of the self in traditional accounts. Fox rejects the need for environmental ethics, as a result of his expanded sense of self. The self's behavior is internally motivated, not externally regulated. But this is a mistake; rather a deep ecological ethics is in fact needed, offering much-needed moral reasoning to the expanded self, making difficult decisions in the real world. Rejected environmental ethics is reaffirmed, enabling the moral development of the expanded self, seeking to care in a complex world. The advisor was Holmes Rolston. Stepien, who is also a physical therapist, now lives in Alaska in a cabin outside Juneau (where she drinks the water that runs off her roof into a cistern) and assists in some teaching at the University of Alaska--Southeast in Juneau. (v10,#4)

Stepp, Holly E., "Logging Suspended in the Boone," Lexington (Kentucky) Herald-Leader, 17 June 1997, pp. A1, A6. Logging Suspended in Daniel Boone National Forrest (Kentucky). The U.S. Forest Service has temporarily suspended almost all logging on the Daniel Boone National Forrest as a result of a ruling by U.S. District Court Judge Karl Forester. The ruling blocked only a proposed sale of timber from 200 acres near the Red River Gorge. All commercial logging is prohibited in the Gorge. Judge Forester, in a sharply worded decision, ruled that the Forest Service had violated the Endangered Species Act by not giving top priority to protecting the endangered Indiana bat; violated the National Forest Management Act by drawing up policies without obtaining public comment; and violated the National Environmental Policy Act by failing to prepare an environmental impact statement before deciding to sell the trees. Although the ruling applied only to this particular sale, the Forest Service decided to suspend all logging since they had followed standard Forest Service procedure for this sale. They are considering appealing the decision to the 6th Circuit U.S. Court of Appeals. The Forest Service is being represented by Kelly Mofield, an attorney for the U.S. Department of Justice. The suit was brought by Kentucky Heartwood, an environmental activist organization that opposes all timber sales on national forests and that has filed lawsuits against virtually every sale on the Boone. The ban will result in about 100 workers losing their jobs. Timber sales from the Boone are only 5% of state's total. Also, since government agencies do not pay local taxes, the Forest Service voluntarily gives 25% of the gross from all sales on the Boone to the counties where the timber is located. (v8,#2)

Stepp, J. R., "Review of: Zerner, Charles, ed., People, Plants, & Justice," Society and Natural Resources 15(no.1, 2002): 98-99. (v.13,#2)

Sterba, James, Morality in Practice, 4th edition. Belmont, CA: Wadsworth, 1994. Paper. 576 pages. Contains a section, "Animal Liberation and Environmental Justice": R. D. Guthrie, "Anthropocentrism"; Peter Singer, "All Animals Are Equal"; Paul W. Taylor, "The Ethics of

Respect for Nature"; James P. Sterba, "Environmental Justice"; plus a section on applications. Sterba is in philosophy at the University of Notre Dame. (v4,#3)

Sterba, James P., "Reconciling Anthropocentric and Nonanthropocentric Environmental Ethics." Environmental Values 3(1994):229-244. I propose to show that when the most morally defensible versions of an anthropocentric environmental ethics and a nonanthropocentric ethics are laid out, they would lead us to accept the same principles of environmental justice. KEYWORDS: Anthropocentric, nonanthropocentric, nonquestion-begging. Sterba is at the Department of Philosophy at Notre Dame, Indiana. (EV)

Sterba, James P., ed., Earth Ethics: Environmental Ethics, Animal Rights, and Practical Applications. Englewood Cliffs, NJ: Prentice-Hall, 1995. Sections: Animal Liberation and Animal Rights; Respect for Nature; The Land Ethic/Deep Ecology; Attempts at Reconciliation (of animal rights vs. land ethic; of anthropocentrism vs. nonanthropocentrism); Ecological Feminism; Social Ecology and Christian Ecology; and in a section on practical applications: Vegetarianism; Global Warming, Acid Rain, and Ozone Depletion; Endangered Species; Radical Environmental Action; Economic Growth and Environmental Quality. 36 authors, a major anthology in the field. Sterba teaches philosophy at the University of Notre Dame. (v5,#4)

Sterba, James P. "From Biocentric Individualism to Biocentric Pluralism." Environmental Ethics 17(1995):191-207. Drawing on and inspired by Paul Taylor's *Respect for Nature*, I develop a view which I call "biocentric pluralism," which, I claim, avoids the major criticisms that have been directed at Taylor's account. In addition, I show that biocentric pluralism has certain advantages over biocentric utilitarianism (VanDeVeer) and concentric circle theories (Wenz and Callicott). Sterba is in the department of philosophy, University of Notre Dame. (EE)

Sterba, James P. "Reviewing a Reviewer: A Response to Peter Wenz." Environmental Ethics 22(2000):333-334.

Sterba, James P., ed., Morality in Practice, 5th edition. Belmont, CA: Wadsworth, 1997. 585 pages. Continues the section from the 4th edition on "Animal Liberation and Environmental Justice," now including Karen Warren, "The Promise and Power of Ecological Feminism." Sterba is in philosophy at the University of Notre Dame. (v7,#4)

Sterba, James P. "A Biocentrist Strikes Back," Environmental Ethics 20(1998):361-76. Biocentrists are criticized (1) for being biased in favor of the human species, (2) for basing their view on an ecology that is now widely challenged, and (3) for failing to reasonably distinguish the life that they claim has intrinsic value from the animate and inanimate things that they claim lack intrinsic value. In this paper, I show how biocentrism can be defended against these three criticisms, thus permitting biocentrists to justifiably appropriate the salutation, "Let the life force (or better the ethical demands of life) be with you." Sterba is in philosophy, University of Notre Dame, Notre Dame, IN. (EE)

Sterba, James P., "Environmentalism: The Human Bias in Traditional Ethics and How to Correct It." In Sterba, Three Challenges to Ethics: Environmentalism, Feminism, and Multiculturalism. New York: Oxford University Press, 2001. Singer's Utilitarian Environmentalism. Regan's

Kantian environmentalism. Taylor's Kantian environmentalism. Priority principles for biocentric pluralism, correcting other positions. Two examples (modifying Taylor): (1) A Principle of Human Defense: Actions that defend oneself and other human beings against harmful aggression are permissible even when they necessitate killing or harming individual animals or plants or even destroying whole species or ecosystems. (2) A Principle of Human Preservation: Actions that are necessary for meeting one's basic needs or the basic needs of other human beings are permissible even when they require aggressing against the basic needs of individual animals and plants or even of whole species or ecosystems. (pp. 33-34). Two other principles are of (3) Disproportionality and (4) Restitution. Sterba is in philosophy, University of Notre Dame. (v.12,#3)

Sterba, James P. "Biocentrism and Human Health." Ethics and the environment 5(2000):271-284. ABSTRACT: Biocentrists endorse the equality of species. But is endorsing the equality of species compatible with maintaining the health of humans, or should at least sometimes the health of humans be sacrificed for the sake of other species? In this article, I argue for the compatibility of biocentrism and human health. I argue that maintaining the equality of species, correctly understood, is in no way in conflict with maintaining human health. In fact, I will argue that there is a mutually supporting relationship between the requirements of biocentrism and the requirements for human health. (E&E)

Sterba, James P., "Reconciliation Reaffirmed: A Reply to Steverson," Environmental Values 5(1996):363-368. In this reply to Brian Steverson's objections to my reconciliationist argument, I have clarified the requirements that follow from my principles of environmental justice. I have also clarified the notion of intrinsic value that I am endorsing and the grounds on which my claim of greater intrinsic value for humans rests. KEYWORDS: Justice, reciprocity, intrinsic value, utilitarianism (EV)

Sterba, James P., "On the possibility of grounding a defense of ecofeminist philosophy," Ethics and the Environment 7(no. 2, 2002):27-38.

Sterba, James P., Three Challenges to Ethics: Environmentalism, Feminism, and Multiculturalism. New York: Oxford University Press, 2000. Traditional ethics has yet to confront the three significant challenges posed by environmentalism, feminism, and multiculturalism. Though successful in dealing with the problems it has faced, ethics has not addressed the possibility that its solutions to these problems are biased in favor of humans, men, and Western culture. In the case of environmentalism, traditional ethics must incorporate conflict resolution principles that favor nonhumans over humans in a significant range of cases. Sterba is in philosophy at the University of Notre Dame. (v.11,#3)

Sterba, James, Three Challenges to Ethics Oxford University Press, 2000. Reviewed by Bates, Lisa. Ethics and the Environment 8(no. 2, 2003):126-131.

Sheppard, James W., Review of: Environmentalism: A Global History by Ramachandra Guha. New York: Longman. Ethics and the Environment 8(no. 2, 2003):132-139.

Sterba, James, "A Morally Defensible Aristotelian Environmental Ethics: Comments on Gerber, O'Neill, Frasz and Cafaro on Environmental Virtue Ethics," Philosophy in the Contemporary

World 8 (Number 2, Fall-Winter 2001): 63-66. Professor Sterba delivered these comments as part of the International Society for Environmental Ethics panels on Environmental Virtue Ethics, held at the annual meeting of the Pacific Division of the American Philosophical Association, April 2000, in Albuquerque, New Mexico. (v.13,#2)

Sterba, Jim and Peter Wenz. "Peacemaking Philosophy: Another Try." Environmental Ethics 23(2001):112-112.

Sterckx, Sigrid, and Tom MacMillan, "Taking Citizens Seriously," Journal of Agricultural and Environmental Ethics 19(2006): 219-223. Sterckx is in the Vakgroep Wijsbegeerte en Moraalwetenschap, Universiteit Gent, Gent, Belgium. McMillan is with the Food Ethics Council, Brighton, United Kingdom. (JAEE)

Sterling, L. G., Halbrendt, C. K., and Kitto, S. L., "Impact of Education on the Attitudes of College Students Toward Biotechnology", Journal of Agricultural and Environmental Ethics 6(1993):75-88. An interdisciplinary course was designed as an introduction to the applications of, and the socio-economic issues associated with, biotechnology. College students enrolled in the course were surveyed prior to the first formal lecture, and again upon completion of the course. Assessment was made of the impact of the educational materials on the attitudes and perceptions of the students toward the applications of biotechnology to agriculture. The course was effective in increasing the knowledge base of the students, but not as effective in allaying their perceptions of risks associated with biotechnology. Sterling, Halbrendt, and Kitto are at the College of Agricultural Sciences, University of Delaware, Newark, Delaware.

Stern, Nicholas, *The Economics of Climate Change*. Reviewed by Clive L. Spash, *Environmental Values* 16(2007):532-536.

Stern, Paul C., Dietz, Thomas, Guagnano, Gregory A. "The New Ecological Paradigm in Social-Psychological Context," Environment and Behavior 27(no.6, Nov. 1995):723- . (v6,#4)

Stern, PC, "Deliberative Methods for Understanding Environmental Systems," BioScience 55 (no. 11, November 2005): 976-982. Environmental problem solving needs science but also inevitably requires subjective judgment. Science can help in dealing with subjectivity, because scientists have long experience developing institutions and practices to address the subjective and value laden choices that are essential to scientific progress. Democracy has also developed approaches to the problem. The underlying principles can be applied to environmental policymaking. This article explores these issues in the context of decisions about environmental risks, drawing on the work of the National Research Council and other sources. It suggests some guidelines for risk deliberation including broad based participation, commitment to scientific quality, explicit attention to values, transparency of processes, etc.

Sterritt, David. "'Leopard Son' Offers Rare Glimpse Into Life on Africa's Serengeti Plan." The Christian Science Monitor, vol. 88, 26 Sept. 1996. p. 12.

Stevens, B., and Rose, A., "A Dynamic Analysis of the Marketable Permits Approach to Global Warming Policy: A Comparison of Spatial and Temporal Flexibility," Journal of Environmental Economics and Management 44(no.1, 2002): 45-69. (v.13,#4)

Stevens, Jane Ellen. "It's a Jungle in There." Bioscience 46, no.5 (1996): 314. Oral ecologists find the warm, moist human mouth a microhabitat in which benign creatures dominate and terrible ones lurk. (v7, #3)

Stevens, Margaret, "Environmental Ethics: Elective Only?" Land (Landscape Architecture News Digest), March-April 1993. A briefer summary of the same study. The Code of Professional Conduct of the American Society of Landscape Architects says, "the member has a social and environmental responsibility to reconcile the public's needs and the natural environment with minimal disruption to the natural system." Ian McHarg says, "The study of environmental ethics, with its roots in ecology, is absolutely essential to landscape architecture." Yet very few design education programs have incorporated environmental ethics into their curricula. (v4,#1)

Stevens, Payson R. and Kevin W. Kelley, Embracing Earth. Chronicle Books, 1992. 176 pages. \$ 39.95. Recent photographs and computer images from space, beautiful and haunting images of a fragile planet undergoing natural and manmade changes. (v3,#2)

Stevens, Stan. Conservation through Cultural Survival: Indigenous Peoples and Protected Areas. Covelo, CA: Island Press, 1997. 320 pp. \$22.95 paper. Contributors who have been actively involved in projects around the world provide in-depth accounts from Nepal, Australia, New Guinea, Nicaragua, Honduras, Canada, and Alaska of some of the most promising efforts to develop protected areas where indigenous peoples maintain their rights to settlement and subsistence and participate in management. (v8,#2)

Stevens, W. K., "Debating Nature of Nature in Yellowstone," New York Times, 7/23/98 and McMillion, Scott, "Scientists Examine Park Policy," Bozeman Chronicle, 7/12/99. Scientists study natural regulation of Yellowstone Park. The National Academy of Sciences is carrying out a congressionally mandated study of the scientific claims surrounding the controversy over the National Park Service's management philosophy of "natural regulation." The philosophical questions are just as much in need of study. The policy of letting nature take its course, says Yellowstone's chief scientist John Varley, involves a *laissez-faire*, hand's-off approach, except when intervention is required to fix a human-caused problem. Says Varley, "If nature is making all the right decisions, then you let nature make the decisions, but if there is something dysfunctional caused by humankind, then we need to go in and fix it." For example, the size of the Yellowstone elk herd, once managed by park officials, is now allowed to fluctuate in response to changes in climate, food supply, and pressure from predators. The recent restoration of wolves to the park can be seen as correcting an earlier human-caused dysfunction in the system.

This policy is pregnant with questions for environmental philosophers: What if the "dysfunction" in the system is not caused by humans? Does the policy acknowledge the possibility of such dysfunction? And how is dysfunction to be defined, given the instability typical of many natural systems? Critics of the policy claim that the elk herd has severely overgrazed and degraded the northern range in the park, with devastating affects on cottonwood, willow and aspen trees, beaver populations, and stream sides. Others dispute these claims,

suggesting that the critics see overgrazing because they believe the ecosystem should look like one managed to produce maximum grass for cattle, an inappropriate standard for a wild landscape. Other critics deny that it even makes sense to speak of natural regulation of a bioregion that--despite being "the only scrap of land in the lower 48 states that has all the major species known to live there in pre-Columbian times"--continues to be significantly influenced by humans. They point out that each year the elk herd migrates outside the park "where they leave natural regulation behind and human predation becomes a major player." Montana wildlife officials encourage hunters to kill lots of elk (typically anywhere from 10 to 20% of the herd) to keep them from degrading habitat. Another critic calls Yellowstone's northern range an "ecological slum" and argues that Native Americans should be allowed to "camp there all summer and shoot all the elk they want" thus controlling the elk population as he believes they did for 12,000 years before the park was formed.

A further question concerns the rationale for natural regulation. The park superintendent Michael Finley claims the reason for "hands lightly on the tiller" in Yellowstone is that too little is known about the ecosystem's functioning to be confident of the impact of human action. He cites John Muir's famous dictum about interconnectedness "when you try to pick one thing out of the universe you find it hitched to everything else." This suggests that should we come to have sufficient knowledge of how ecosystems like Yellowstone work, we should abandon natural regulation and take control of nature's tiller. (v.10,#2)

Stevens, W. K., "Tentative Accord is Reached to Cut Greenhouse Gases," New York Times (1/11/97): A1. Kyoto Greenhouse Gas Accord Reached. One hundred and fifty nations meeting in Kyoto, Japan reached an agreement that would legally obligate the industrialized nations to cut greenhouse gas emissions by an average of 5.2 percent below 1990 levels. The accord was reached when the United States agreed to a 7 percent reduction by 2010, dropping its earlier less stringent target of simply reducing emissions to 1990 levels, rather than below them. This is a significant goal, for current trends in U.S. energy use would result in U.S. greenhouse gas emissions being 30 percent higher in 2010. To meet these goals, people will have to start driving more efficient vehicles, power companies will have to alter their methods of producing energy, and consumers will have to buy more energy-efficient appliances. Industry and labor groups are fighting the treaty, predicting that it would lead to a loss of millions of jobs and, for example, a decrease in farm income of 50%. The treaty includes provisions for emissions trading whereby one country or company can meet its reduction targets by buying credits from others countries or companies that have exceeded their targets. It also provides incentives for transferring energy-efficient technologies and nonpolluting forms of energy production from richer nations to poorer ones. It is unclear if the U.S. Senate will sign the treaty as it had previously strongly endorsed the idea that greenhouse gas reduction by developing nations like China must be included, something the treaty failed to achieve. The Clinton Administration continues to seek "meaningful participation" by the developing world in controlling greenhouse gases and said it won't submit the treaty for Senate ratification until this is achieved. While it is imperative that the developing nations not repeat the industrialized world's high pollution path to development, fairness dictates that the developed world--which caused the global warming problem--should shoulder the vast majority of the burden of its solution. (v.8,#4)

Stevens, William K., "One in Every 8 Plant Species Is Imperiled, A Survey Finds," New York Times (4/9/98): A1. Ninety percent of the plants on the list are native to only one country, thus

making them especially vulnerable. The U.S. rate is so much higher because plants were likely better surveyed there than elsewhere. Two years ago the union placed nearly one quarter of mammals species and 11 percent of birds on the list. Ecologist Stuart Pimm claims that the latest report is one more piece of evidence that "a whole chunk of creation is at risk." "All the evidence is that the destruction is continuing at an accelerating pace."

Stevens, William K., "Humanity Confronts its Handiwork: An Altered Planet Whose Vast Resilience is Stretched to the Limit." New York Times, May 1, 1992. Full double page spread following a half page lead story in the Science Times section. Nothing new here for those who are regular readers about environmental issues, but the article does show intense concern and communicate this well to the enormous New York Times reader audience. (v3,#2)

Stevens, William K., "Red Foxes Thrive in Suburban Woods," New York Times, May 5, 1998, B13, B17. Red foxes are doing well and quite adaptable to rural and suburban living, fortunately, since the red fox is considered one of the most clever and beautiful animals in the world. One reason may be that they are rather cat-like canines. (v9,#2)

Stevens, William K., Miracle Under the Oaks: The Revival of Nature in America. New York: Pocket Books, 1995. 332 pages. Illustrated. \$22. Tells the story of how teams of volunteers have adopted and rehabilitated parcels of land. (v6,#2)

Stevens, William K., "Dead Trees and Shriveling Glaciers as Alaska Melts," New York Times, August 18, 1998, B7, B10. Alaska is thawing and much of northern Russia and Canada with it, and many think this is one of the most telling signs of global warming. Experts have long said this bellwether region should warm more and faster than Earth as a whole. The Columbia Glacier has retreated more than eight miles in the last sixteen years. Warmer temperatures have encouraged beetle epidemics in spruce forests. There is a longer growing season but less rain. Melting permafrost ruins roads, telephone poles, and trees sink into swamps. (v.9,#3)

Stevens, William K., "Suspects in 'Blitzkrieg' Extinctions: Primitive Hunters," New York Times (3/28/00). Evidence for Human-caused Blitzkrieg Extinctions. A new study suggests that stone-age Polynesian's colonizing New Zealand drove an entire class of flightless birds called moas to extinction in less than 160 years. There were 11 species of moa and an estimated 160,000 individuals. Some stood 10 feet tall and weighed over 500 pounds. Radiocarbon dating of campsite materials suggest the earliest arrival of Polynesians was in the 13th century. Archaeological analysis of moa remains in the campsites show that none were killed after the 14th century. Estimates of numbers of Polynesian colonists and reproductive rates of moas were also used in the study. One expert on ancient extinctions claims that there is "no way of interpreting this record other than that it had to happen virtually overnight" and that the evidence makes a "really very impressive" case for hunting as the prime cause. Another says that this study's results "reinforce the view that people with even the most basic technologies--fire, clubs, snares--can have major environmental effects." As with the moas in New Zealand, large-scale extinctions of big animals have often coincided with the arrival of early humans in places they had never been before. That such large-scale extinctions did not happen in Africa may be because people and animals evolved together there and thus African animals were not naive about humans. The extinctions in North America of mammoths, mastodons, camels, ground

sloths, saber-toothed cats, etc., 13,000 years ago is believed to have occurred in about 400 years. Three causes have been suggested for that extinction event: (1) That humans swept across the continent from Siberia in a killing front that moved about 100 miles a decade; (2) That these animals were killed by diseases carried by the newly-arriving humans and their dogs; (3) That rapid climate change played the major causal role. (v.11,#1)

Stevens, William, "Everglades Restoration Plan Does Too Little, Experts Say," New York Times (2/22/99): A1. Critics charge Everglades restoration perpetuates human management. Prominent environmental scientists have criticized the \$8 billion plan to restore the Florida Everglades to ecological health as failing to go far enough in re-establishing the natural flow of water in the ecosystem. Instead, they charge the restoration--as currently proposed--would leave the Everglades much as they are now, "a series of disconnected fragments dependent less on natural processes and more on human management involving a complex system of levees, canals, pumps, gates, and reservoirs." Paul Ehrlich, Gary Meffe, Gordon Orians, Peter Raven, E.O. Wilson, and Stuart Pimm are asking that the plan undergo an independent scientific review before it is submitted to Congress for approval in July of 1999. This is the most comprehensive ecological restoration effort ever proposed. It involves recapturing billions of gallons of water now channeled into the Atlantic and gulf, storing some of it in reservoirs and pumping some of it, through wells, into an aquifer. This water would then be pumped out and released when needed through a network of canals, many of them new, to be used by South Florida's growing population and also to mimic the natural flow of water in the Everglades. University of Tennessee ecologist Stuart Pimm argues that this approach at restoration is flawed because it fails to restore natural water flow as much as possible and retains the fragmentation of the Everglades. He believes the philosophy ought to be "natural is better than managed" and he rejects "the notion that the entire system can be managed in perpetuity" by humans. Staff scientists at Everglades National Park have made similar criticism of this high-tech approach at restoration favored by the Army Corp of Engineers. A case where the ecological health and naturalness goals of restoration may be in some tension. For an overview of the Everglades restoration project, see William Stevens "Putting Things Right in the Everglades," NY Times (4/13/99): D1. Also, story in Science 283(1999):1093. (v.10,#1)

Stevens, William K., "Lush Life: But as Species Vanish, What Will We Lose?" New York Times, June 2, 1998. Section D. Special section on endangered species. Also contains:
--Cushman, John H., Jr., "Evolutionary Law." The Endangered Species Act is changing rapidly as the Clinton Administration pushes agreements that give broader habitats limited protection.
--Revkin, Andrew C., and Passell, Peter, "So What?" Scientists and economists look at the reasons for caring about biodiversity and what we are willing to pay to preserve it.
--Egan, Timothy, "Trout Truths." As a devastating disease infects the pristine rivers of Montana, questions arise about whether human efforts to improve on nature are to blame.
--Collins, Glenn, "Hall of Hard Questions." Life, where to fit it all? The creation of the American Museum of Natural History's new biodiversity exhibit was an adventure in itself. (v9,#2)

Stevens, William K., "Long-Line Fishing Seen as Damaging to Some Fish and to the Albatross," New York Times (11/5/96): B5. Long-line fishing: Almost as bad as drift nets. Drift nets are 30-mile long walls of fine mesh that catch nearly everything that they contact. Drift nets have

been banned because of their devastation of marine life. Now technologically sophisticated long-line fishing is also proving to be quite damaging. Typical long-lines are between 20 and 40 miles long, though some stretch to 80 miles. Each of these lines carries thousands of hooks; large ships put out tens of thousands of hooks at once. Some vessels have systems that bait the hooks and remove the catch automatically, and many are outfitted with satellite tracking, sonar, and radar. Thousands of these ships are now roaming the seas. Though more discriminating than drift nets in what they catch, long-liners are being blamed for the deaths of many non-targeted species, including pilot whales, common dolphins, and various surface-feeding sea birds that grab the baited hooks before they sink and then get dragged under water. The most notable of these is the wandering albatross, the largest bird in the world with an eleven-foot wing span. It can fly over 500 miles a day at 50 miles per hour. Other species of albatross are hooked as well, and one study concludes that more than 40,000 are being killed by long-liners each year in the southern Pacific. Scientists are also worried that this high-technology fishing will deplete such target fish populations as tuna, sharks, and swordfish. For example, long-liners are responsible for the decline in Atlantic swordfish, whose numbers are at only 58% of the minimal viable population size. The populations of reproducing adults is only 2-3% of its un-fished size. (v8,#2)

Stevens, William K., "New Evidence Finds This Is Warmest Century in 600 Years," New York Times, April 28, 1998, page B13. Greenhouse gases now seem to be the major influence. (v9,#2)

Stevenson, James, Review of: R. Kerry Turner, Ian Bateman and Neil Adger, Economics of Coastal and Water Resources: Valuing Environmental Functions, Environmental Values 11(2002):528-530.

Stevenson, John, "The Mediation of the Public Sphere: Ideological Origins, Practical Possibilities," Philosophy and Geography 2 (1998): 189-206. Stevenson is a lecturer in the Department of Liberal Education at Columbia College, and an instructor in the Department of Philosophy at Roosevelt University. (P&G)

Steverson, Brian K. "On Norton's Reply to Steverson." Environmental Ethics 19(1997):335-336. (EE)

Steverson, Brian K. "Contextualism and Norton's Convergence Hypothesis." Environmental Ethics 17(1995):135-150. Toward Unity among Environmentalists is Bryan Norton's most developed effort to surmount the frequently intractable debate between anthropocentrists and nonanthropocentrists. Norton argues that the basic axiological differences between the two positions have become irrelevant at the level of policy formation. His thesis is that the two camps converge when dealing with practical goals and aims for environmental management. I argue that Norton's approach falls significantly short of establishing such a convergence because of the overall methodological framework for policy formation that he defends. The key problem with that framework is that it fails to provide for the degree of species protection most suitable to the nonanthropocentrist position. Steverson is in the department of philosophy, Gonzaga University, Spokane, WA. (EE)

Steverson, Brian K., "On the Reconciliation of Anthropocentric and Nonanthropocentric Environmental Ethics," Environmental Values 5(1996):349-361. I argue that James Sterba's recent attempt to show that, despite their foundational axiological differences regarding the relative value of humans and members of nonhuman species, anthropocentrists and nonanthropocentrists would accept the exact same principles of environmental justice fails. The failure to reconcile the two positions is a product of an underestimation of the divergence that occurs at the level of general principles and practical policy as a result of the initial value commitments which characterize each position. The upshot of this is that, contrary to those who argue that environmental ethicists ought to move beyond the traditional anthropocentric-nonanthropocentric debate, the foundational debate about interspecific egalitarianism will continue to issue in substantial debates about environmental policy formation. KEYWORDS: Anthropocentrism, environmental justice, nonanthropocentrism, Sterba (EV)

Steverson, Brian K. "Ecocentrism and Ecological Modeling." Environmental Ethics 16(1994):71-88. Typical of ecocentric approaches such as the land ethic and the deep ecology movement is the use of concepts from ecological science to create an "ecoholistic" ontological foundation from which a strong environmental ethic is generated. Crucial to ecocentric theories is the assumption that ecological science has shown that humanity and nonhuman nature are essentially integrated into communal or communal-like arrangements. I challenge the adequacy of that claim. I argue that for the most part the claim is false, and that if it were true, it would overextend the sphere of morally considerable entities to include entities that are implausibly deserving of moral consideration. In either case, the foundation of ecocentrism is significantly weakened. Steverson is in the philosophy department, Gonzaga University, Spokane, WA. (EE)

Stavis, Dimitris and Assetto, Valerie J., eds., The International Economy of the Environment: Critical Perspectives. (International Political Economy Yearbook, volume 12). Boulder, CO and London: Lynne Rienner Publisher, 2002. Fourteen contributors who believe that environmental problems are real, serious, and need to be solved. Environmental managerialism is often a servant of capital; there is much 'capture' of the environmental agenda by business. The authors seek to harness the power of political theory and the governance of the state to find solutions for environmental crises. Case studies of how societies respond to an idea become fashionable that may threaten their survival, status, or credibility, or offer new opportunities, such as for public subsidies and influence. The editors are in political science, Colorado State University.

Stewart, Frank, A Natural History of Nature Writing. Shearwater/Island Press, 1995. Cloth, \$32.50; paper, \$16.95. From Thoreau to Ed Abbey, nature writing has profoundly influenced American literature. (v6,#2)

Stewart, Robert Scott and Nicholls, Roderick, "Virtual worlds, travel, and the picturesque garden," Philosophy and Geography 5 (No. 1, 2002): 83-99. Debate concerning virtual reality is often drawn in terms of sharply defined dichotomies B for example, between "real" (or "actual") and "virtual," "authentic" and "inauthentic," and "natural" and "artificial." In this paper we offer an alternative approach by suggesting a conception of a virtual world that highlights a continuity and commonality with our sense of everyday reality. We accomplish this in part by an examination of the English picturesque garden as if it were a virtual world partially constructed out of ideas and objects collected during travels to foreign lands on the Grand Tour. Such foreign

travel transformed not only the English person's sense of self, but also altered the English landscape. We conclude that in one sense the "real" England" is also a "virtual" reality. Stewart is an Associate Professor of Philosophy at the University College of Cape Breton. Nicholls is an Associate Professor of Philosophy at the University College of Cape Breton. (P&G)

Stewart, Susan, "Response to Brady, Phillips and Rolston," Environmental Values 15(2006): 315-320. A response to conference papers by Brady, Phillips, and Rolston on aesthetics and environmentalism, this essay argues that sound environmental policy might begin with basic questions about the purpose and extent of human life, for such policies shape human nature as they also shape the phenomenal world. Decisions based upon short-lived economic conditions cannot provide those long-term benefits necessary for the preservation of the environment. Aesthetic judgments, because they are reflective, help us anthropomorphise ourselves; along with scientific judgments, they might serve as foundational, rather than auxiliary, practices for determining the future of our finite planet. (EV)

Stewart Wayne, Metaphysics by Default. A website book publication. Juxtaposes metaphysicians and naturalists, often thought to be at odds with one another, to create a dialogue between them, and even a peaceful co-existence. Nineteen chapters. Website address: <http://mbdefault.org/> (v10,#4)

Stewart, Wayne, Metaphysics by Default, an electronic publication at: <http://mbdefault.org> Can metaphysical philosophy be reconciled to naturalism? The author argues that it can. The challenge of the reconciliation is shown to lie in finding naturalistic foundations for metaphysical concepts. This paper focuses upon personal identity--first analyzing the known naturalistic criteria of personal identity; then interpreting the metaphysics which emerges from that analysis. An initial, qualitative metaphysics is discussed and defended. Thereafter, the author quantifies several aggregate metaphysical results. Along the way, a historical precedent is reconstructed from the Arabic writings of Fatimid Hellenists. At the end, the author sets forward potential benefits: contemporary ethical and ecological difficulties are seen to be resolved within the context of this new metaphysics. Stewart can be reached at e-mail: WayneStewart@email.msn.com

Stich, Stephen P., "Do Animals Have Beliefs?", Australasian Journal of Philosophy, 57 (1979): 15-28. (Abstract based on abstract in Philosopher's Index) On the one hand, it seems plausible that higher animals' behaviour can be explained by a belief-desire theory in just the same way as human behaviour is explained; on the other hand, it seems impossible to say just what it is that an animal believes. Stich's thesis is that the title question is moot. It is argued that the intuitive concept of belief is a hybrid one. To be a belief a psychological state must have certain functional or causal properties and it must have an expressible content. What is more, having a content requires having a body of beliefs similar to ours. Animals may well have psychological states whose functional characteristics qualify them as beliefs, but which have no expressible content.

Stier, SC; Siebert, SF, "The Kyoto Protocol: an Opportunity for Biodiversity Restoration Forestry," Conservation Biology 16(no.3, 2002):575-576. (v.13, #3)

Stiglitz, Joseph E., Globalization and Its Discontents. New York: Norton, 2002. Although not opposed to globalization per se, economist and Nobel laureate Stiglitz offers a trenchant polemic against the type of globalization promoted by the U.S. and world financial institutions--a type he says is neither fair nor efficient and is often detrimental to poorer countries. He concludes by outlining steps toward "a globalization with a more human face."

"I have written this book because while I was at the World Bank, I saw firsthand the devastating effect that globalization can have on developing countries, and especially the poor within those countries. ... Especially at the International Monetary Fund ... decisions were made on the basis of what seemed a curious blend of ideology and bad economics, dogmas that sometimes seemed to be thinly veiling special interests ... The IMF's policies, in part based on the outworn presumption that markets, by themselves, lead to efficient outcomes, failed to allow for desirable government interventions in the market, measures which can guide economic growth and make everyone better off" (p. ix, p. xiii, p. xii). Stiglitz was on the Council of Economic Advisors under U.S. President Bill Clinton, and then Chief Economist for the World Bank. (v.13,#4)

Stiles, M, "Review of: Community Forestry in the United States: Learning From the Past, Crafting the Future by Mark Baker and Jonathan Kusel," Journal of Environment and Development 12(no.3, 2003):340-341. (v.14, #4)

Stilgoe, John, Alongshore. New Haven: Yale University Press, 1994. 444 pages. \$ 35.00. A study of the New England seashore and the American culture entwined with it. The cultural evolution of the meaning of the shore area of New England through the history of European habitation there. The shore as an endangered zone, where the geomorphological forms of ocean and land meet and a human culture develops out of this unique interaction. (v6,#4)

Still, Christopher J., Foster, Prudence N., and Schneider, Stephen H., "Simulating the Effects of Climate Change on Tropical Montane Cloud Forests," Nature 398(15 April 1999):608-610. Tropical montane cloud forests are unique among terrestrial ecosystem in that they are strongly linked to regular cycles of cloud formation. They are also high in biodiversity. Modeling suggest that climate change could alter cloud formation, which could have serious conservation implications, given that these ecosystems harbour a high proportion of endemic species. See related article, Pounds, J. Alan, et al, "Biological Response to Climate Change on a Tropical Mountain," Nature 398(15 April 1999):611-615. (v.10,#2)

Stillman, Peter G. "Morality, Economics, and Environmental Policy." Environmental Ethics 6(1984):95-96.

Stine, Jeffrey K., "Environmental Politics in the American South: The Fight over the Tennessee-Tombigbee Waterway," Environmental History Review, vol. 15, no. 1, spring 1991, Stine is at the National Museum of American History, Smithsonian Institution. (v2,#2)

Stirling, Andy, Review of: S. Allan et al., Environmental Risks and the Media, Environmental Values 11(2002):118-120.

Stirling, Andy: Review of: Mary O'Brien, Making Better Environmental Decisions: An Alternative to Risk Assessment, Environmental Values 11(2002):518-521.

Stivers, Robert L., "Integrity: One Way of Understanding God's Presence in All Creation," Earth Letter, January 2000, pp. 4-6. Published by Earth Ministry, 1305 NE 47th St., Seattle, WA 98105. Website: www.earthministry.org "At first glance, it does not seem to make much sense to speak of the integrity of nature. ... Plants and animals react instinctively and possess only rudimentary intentionality. With no substantial freedom, they do not sin. There is no justice in a wilderness. Impersonal predation is central to the evolutionary process and a precondition of healthy ecosystems. Nature, it would seem, is without integrity. Nevertheless, we can still speak of integrity in nature. ... We can recognize as a form of integrity in nature the dynamic integration of individuals, species, and ecosystems. The integrity of nature in this sense is the intact quality of this integration. We can further recognize that the preservation of nature's integrity is now a matter of human responsibility." Stivers teaches religion at Pacific Lutheran University, Tacoma. (v10,#4)

Stivers, Robert L. Hunger, Technology & Limits to Growth: Christian Responsibility for Three Ethical Issues. Minneapolis: Augsburg Publishing House, 1984.

Stivers, Robert L. "The Ancient Forests of the Pacific Northwest: The Moral Debate," Theology and Public Policy 5(no. 2, 1993).

Stock, Gregory, Redesigning Humans: Our Inevitable Genetic Future. New York: Houghton-Mifflin, 2002. Gene manipulation offers hope, health, and challenge. If we can make better humans, why not do it? Nature has not been particularly kind. "Brutal decay lies in store for each of us lucky enough to reach it." Postponing the blighting afflictions--stroke, cancer, Alzheimer's--reducing infertility, preventing birth defects; all these can hardly be called inhumane. We are not likely radically to redesign ourselves, but we can certainly improve on what nature has given us. Stock directs the medical school at UCLA. (v.13, #3)

Stoett, Peter J. The International Politics of Whaling. Review by Sidney J. Holt, Environmental Values 7:(1998):372.

Stoett, Peter J., "Whaling: Confrontations Continue," Environmental Politics 8(no. 2, Summer 1999):153- . (v.11,#1)

Stoett, Peter, Review of Sachs, Wolfgang, ed., Global Ecology: A New Arena of Political Conflict. Environmental Values 5(1996):92-93. (EV)

Stohlgren, T. J., Coughenour, M. B., Berry, J. K. "Landscape Analysis of Plant Diversity," Landscape Ecology 12(no.3, 1997):155. (v8,#3)

Stokes, Edward. Hong Kong's Wild Places: An Environmental Exploration. New York: Oxford University Press, 1996. 196pp. \$40. A journey through the towering peaks, grassy hills, wooded valleys, and coastal waters--revealing the varied life that survives among them in Hong Kong. (v8,#2)

Stokes, Samuel N., Watson, A. Elizabeth, and Mastram, Shelley S., Saving America's Countryside, 2nd ed. (National Trust for Historic Preservation) Baltimore: John Hopkins University Press, 1989, 1997. Rural Communities, landscapes, and their conservation. (v.10,#1)

Stokstad, Eric, "What's Wrong With the Endangered Species Act?" Science 309(30 September 2005):2150-2152. Mainly the claim that it has not worked very well, owing to growing backlog of candidate species and lack of effective designation of critical habitat, with much of the slow-down from lack of funding owing to congressional lack of support, owing in turn to pressures from developers.

Stokstad, Eric, "States Sue Over Global Warming," Science 305(30 July, 2004):590. See also New York Times, "A Novel Tactic on Warming," July 28, 2004, A 18. Where the Bush Administration fails to act, seven states--California, Connecticut, Iowa, New Jersey, New York, Rhode Island, Vermont--and New York City have filed suit against five of the country's largest power companies, to force them to reduce carbon dioxide emissions. Their claim is that the utility companies release pollutants that harm their residents. But under public-nuisance law, to win the states will have to show that their citizens are harmed more than citizens of other states, which could be tough to do, considering how much the pollutants move around. (v. 15, # 3)

Stokstad, Erik, "University Bids to Salvage Reputation after Flap over Logging Paper," Science 312 (2 June 2006): 1288. Oregon State University College of Forestry continues to show deep divisions in the faculty after the furor over attempting to suppress publication of a paper in Science by graduate student Dan Donato and colleagues on the adverse ecological effects of salvage logging. Subpoenaed e-mails from Dean Hal Salwasser express contempt for environmental activists calling them "goons" and comparing their protests to Mafia extortionists. Salwasser says he now regrets those e-mails which he calls "stupid, unthinking, unkind." The faculty reveals deep tensions over management to increase harvests and spur regeneration after fires and an emphasis on biodiversity conservation, as well as misgivings over industry pressures and academic freedom.

Stokstad, Erik, "House Revises Endangered Species Act," Science 310(7 October 2005):32. The U.S. House passed a revised Endangered Species Act, hustled through the House Resources Committee in just four days by Richard Pombo, longtime critic of the Act and chair of that committee. The bill passed the House 229-193. The revised Act eliminates critical habitat provisions, requires that FWS evaluate proposals in 180 days or else proposals get an automatic green light, and that if land is preserved unaltered for species protection, the U.S. Fish and Wildlife Service must compensate owners, without providing any additional money to do so. The U.S. Senate is unlikely to work on a companion bill until spring 2006, and likely to make more moderate changes to the Act.

Stokstad, Erik, "Humane Science Finds Sharper and Kinder Tools," Science 286(5 November 1999):1068-1071. New technology is helping researchers reduce their reliance on animal experiments, while at the same time improving their results. "Humane science is better science," was a frequent conclusion at the Third World Congress on Alternatives and Animal Use in the Life Sciences. Use of animals in the U.K. has declined nearly 50% (from over 5 million a year

in the seventies to about 2.5 million a year), although use of transgenic animals is up sharply in this decade from 50,000 to 450,000. A major feature is implantable chips. But government regulatory agencies are slow to accept these results. (v10,#4)

Stokstad, Erik, "Debate Continues Over Safety of Water Spiked with Rocket Fuel," Science 307(28 January 2005):507. Drinking water in a hundred or more locations around the United States is contaminated with perchlorate, used in rocket fuel and explosives. With enough dose, damage to the thyroid gland and to the developing brain results. But what is a safe dose, one part per billion or 220 parts per billion. The Environmental Protection Agency and a study group of the National Academy of Sciences disagree, by orders of magnitude. A recent NAS panel takes a conservative view but industry says precaution is trumping science. Precautionary principle?

Stokstad, Erik, "Louisiana's Wetlands Struggle for Survival," Science 310(25 November 2005):1264-1266. More than 600 square kilometers of wetlands in the area have disappeared in the last decade along. After hurricanes Katrina and Rita, and a new appreciation of the role of wetlands in flood prevention, ecologists hope their large-scale plants will be implemented. The past 40 years wetlands decline have increased storm surges 2.4-3 meters, although it is not likely that wetland restoration would have been enough to reduce the Katrina storm surge enough to prevent breaching the dikes. Another problem is that now such wetlands have to be artificially maintained, which is fragile and expensive.

Stokstad, Erik, "'Genetic Rescue' Helps Panthers but Puts Researchers on the Spot," Science 309(19 August 2005):1162. In 1995 researchers transplanted eight female panthers from Texas to south Florida in a last-ditch effort to reverse the troubling effects of inbreeding in the small population of surviving Florida cats. Stuart Pimm and a team of biologists have analyzed a decade of data (54 offspring from the eight females, mating with Florida males; 118 offspring from purebred Florida kittens) and conclude that the survival rate of the "hybrid" offspring is three times greater, especially for females. But some Florida Fish and Wildlife Conservation Commission researchers complain that the analysis is premature.

Stokstad, Erik. AFearful Quagga Mussel Turns Up in Western United States.@ *Science* Vol. 315, no. 5811 (26 January 2007): 453. Close relative of the zebra mussel that has tormented the Great Lakes has been found in Lake Meade and below in the Colorado River.

Stokstad, Erik. ABig Land Purchase Triggers Review of Plans to Restore Everglades.@ *Science* Vol. 321, no. 5885 (4 July 2008): 22. A major land deal in Florida, buying out US Sugar Corporation, the largest sugar cane producer in the state, offers new opportunities for regulating water flow through the Everglades.

Stokstad, Erik. ADeadly Wheat Fungus Threatens World=s Breadbaskets.@ *Science* Vol. 315, no. 5820 (30 March 2007): 1786-87. New mutations have resulted in the devastating spread of a killer wheat fungus. Causing black stem rust, the fungus destroyed wheat crops in the 1950s, but resistant wheat varieties were found during the Green Revolution. Now that the fungus is back, new varieties that attack previously resistant wheat have appeared in Uganda and Ethiopia and are rapidly spreading into the Middle East, from whence they may spread to Asia.

Stoll, John, "Review of: Slater, Candace ed. *In Search of the Rain Forest*," Society and Natural Resources 19 (no.5, May-June 2006): 473-475 (3).

Stoll Kleemann, S. and O'Riordan, T., "From Participation to Partnership in Biodiversity Protection: Experience from Germany and South Africa," Society and Natural Resources 15(no.2, 2002): 161-78. (v.13,#2)

Stoll, M, "Green versus Green: Religions, Ethics, and the Bookchin-Foreman Dispute," Environmental History 6(no. 3, 2001):412-427. (v.13,#1)

Stoll, S., "Review of: Conevery Bolton Valencius. *The Health of the Country: How Americans Understood themselves and their Land*," Environmental History 8(no. 3, 2003): 492.

StollKleemann, S, "Reconciling opposition to protected areas management in Europe: The German experience," Environment 43(no.5, 2001):32-44. (v.12,#4)

Stolzenburg, William, "Sweet Home Alabama," Nature Conservancy 47(no. 4, Sept./Oct 1997):8-9. Alabama a biodiversity hotspot? Well, yes. The 29th largest of the United States, Alabama is the nation's fourth richest kingdom of plants and animals. In species per square mile only Florida can match it. Part of the reason is the wide ranging topography, from sea level to the Southern Appalachians, which coincides with a reach from almost subtropical to mountain temperate forests. But, alas, Alabama's number of extinct or mission species towers above all other states in the lower 48. Some 98 species have gone extinct. See also Lydeard, Charles and Mayden, Richard L., "A Diverse and Endangered Aquatic Ecosystem of the Southeast United States," Conservation Biology 9(1995):800-805. (v9,#1)

Stone, Alison, Review of de Jonge, Eccc, Spinoza and Deep Ecology: Challenging Traditional Approaches to Environmentalism. Aldershot: Ashgate, 2004. Environmental Values 14(2005):524-527.

Stone, Alison, "Introduction: Nature, Environmental Ethics, and Continental Philosophy," Environmental Values 14(2005):285-294. Until recently, there has been relatively little self-conscious reflection - from either environmental or continental philosophers - on the specific contributions which continental philosophy, insofar as it is a distinctive tradition, might make to environmental thought. This situation has begun to change with several recent publications, such as Charles S. Brown and Ted Toadvine's (2003) edited collection Ecophenomenology: Back to the Earth Itself, and Bruce V. Foltz and Robert Frodeman's (2004) collection Rethinking Nature: Essays in Environmental Philosophy. This special issue aims to continue the discussion of how the continental tradition might advance or transform environmental thinking, both by reconsidering authors such as Kant, Schelling, Nietzsche and Heidegger, and by considering how themes and concepts from continental philosophy and social theory - including Merleau-Ponty's concept of flesh, Foucault's notion of discipline, and Bourdieu's social critique of taste - bear on environmental practice and theory. Stone is at the Centre for Philosophy, Furness College, Lancaster University, Lancaster, UK. (EV)

Stone, Alison, Petrified Intelligence: Nature in Hegel's Philosophy, Reviewed by Paul Ashton,

Environmental Values 15(2006):121-124.

Stone, CD, "Land Use and Biodiversity," Ecology Law Quarterly 27(no.4, 2000):967-1002. (v.12,#4)

Stone, Charles B. and Danielle B. Stone, eds. Conservation Biology in Hawai'i. Honolulu: University of Hawaii Cooperative National Park Resources Studies Unit, 1989. Distributed by University of Hawaii Press, Honolulu. Today's Hawaiian biota is the most unique assemblage anywhere and the most endangered in the United States and one of the most endangered in the world. Biological and sociological analyses. The closing section is on values and ethics, with essays on native Hawaiian conservation values, outdoor ethics, humanity's responsibility for future life, and priorities in paradise, conservation education in Hawaii. (v1,#2)

Stone, Christopher D. "Legal Rights and Moral Pluralism." Environmental Ethics 9(1987):281-84.

Stone, Christopher, Earth and Other Ethics: The Case for Moral Pluralism. New York: Harper & Row, 1987. Pp. viii, 280. This is a book length sequel to Stone's pioneering legal brief "Should Trees Have Standing?" (Los Altos, CA: William Kaufmann, 1974). Here Stone offers a view of normative ethics that is pluralistic regarding the entities and actions that are morally relevant. Much of the material overlaps with Stone's long article "Should Trees Have Standing? Revisited: How Far Will Law and Morals Reach? A Pluralist Perspective," Southern California Law Review 59 (1985): 1-154. (Katz, Bibl # 1) Reviewed in Environmental Ethics 10(1988):259-65.

Stone, Christopher, D., "Do Morals Matter? The Influence of Ethics on Courts and Congress in Shaping U.S. Environmental Policies," U.C. Davis Law Review 37(2003):13 - .
Simultaneously published in Environs Environmental Law and Policy Journal 27(2003):13 - .

Stone, Christopher D., The Gnat Is Older than Man, Reviewed by Anthony Weston in Environmental Ethics 16(1994):441

Stone, Christopher D., The Gnat Is Older than Man: Global Environment and Human Agenda. Princeton: Princeton University Press, 1993. 341 pp. \$ 21.95. Proposes a Global Commons Trust Fund, monies raised on the premise that nations using the common heritage of the planet--the oceans, the atmosphere--be charged for their use. The natural environment and species within it can, from this fund, be represented by "ecoguardians." Stone is a law professor at the University of Southern California Law School. (v4,#2)

Stone, Christopher D., Should Trees Have Standing? And Other Essays on Law, Morals, and the Environment, 25th anniversary edition. Dobbs Ferry, NY: Oceana Publications, 1996. 186 pages. Stone wrote the seminal article, "Should Trees Have Standing?" a quarter century ago. Here is a reprint, with an introduction and epilogue "Trees" at Twenty-five." Other essays: "The NonPerson in Law"; "Should We Establish a Guardian for Future Generations"; "How to Heal the Planet"; "Reflections on Sustainable Development"; "The Convention on Biological Diversity." "An Environmental Ethic for the 21st Century": "Moral Pluralism and the Course of Environmental Ethics." Stone is in law at the University of Southern California. (v9,#1)

Stone, Christopher D. Review of The Economy of the Earth. By Mark Sagoff. Environmental Ethics 10(1988):363-68.

Stone, Christopher D. The Gnat is Older Than Man: Global Environment and Human Agenda: (Princeton University Press, 1993). Reviewed by Alexander Gillespie in Environmental Values 4(1995):182-185. (EV)

Stone, Christopher D. "Moral Pluralism and the Course of Environmental Ethics." Environmental Ethics 10(1988):139-54. Environmental ethics has reached a certain level of maturity; further significant advances require reexamining its status within the larger realm of moral philosophy. It could aim to extend to nonhumans one of the familiar sets of principles subject to appropriate modifications; or it could seek to break away and put forward its own paradigm or paradigms. Selecting the proper course requires as the most immediate mission exploring the formal requirements of an ethical system. In general, are there constraints against bringing our moral relations with different sorts of things under different rules of governance? In particular, how much independence can an environmental ethic (or ethics) aim to have? For replies, see: Callicott, J. Baird. "The Case against Moral Pluralism." Environmental Ethics 12(1990):99-124; Wenz, Peter. "Minimal, Moderate, and Extreme Moral Pluralism." Environmental Ethics 15(1993):61-74; Varner, Gary E. "No Holism without Pluralism." Environmental Ethics 13(1991):175-79. Stone is at the School of Law, University of Southern California, Los Angeles, CA. (EE)

Stone, Christopher D., "Should Trees Have Standing? Revisited: How Far Will Law and Morals Reach? A Pluralist Perspective." Southern California Law Review 59 (1985): 1-154. Stone returns to the scene of his pioneering article on the legal rights of nature, now with the luxury of developing a full-scale argument for a position he terms "Moral Pluralism": "moral activities [are to be] partitioned into several distinct domains, each governed by distinct principles and logical texture" (p. 9). Stone focuses on the toughest possible test case for environmental ethics: can we ascribe "legal consideration" to entities he calls Ds--disinterested entities, i.e., entities without any sentience at all. He argues that legal consideration is not a problem from a logical point of view; but the question remains whether it is a rational, wise, or moral policy to undertake. To answer this question we require a moral theory that can take account of Ds, and this he thinks is moral pluralism: treating different entities differently, for they are located on different moral planes. This is a complex and important paper. The challenge to Stone's moral pluralism is its tendency to degenerate into a kind of relativistic intuitionism. (Katz, Bibl # 1)

Stone, Christopher D., "Moral Pluralism and the Course of Environmental Ethics," Environmental Ethics 10(1988):139-154. This is a precis of Stone's book, Earth and Other Ethics: The Case for Moral Pluralism. Stone argues that we should give up the attempt to develop a "moral monism," i.e., one guiding moral principle that is applicable in all situations, with all kinds of human, animal, and natural entities. But pluralism implies the ultimate indeterminacy of ethical systems and judgments. (Katz, Bibl # 2)

Stone, Jerome A. Review of The Paradise of God: Renewing Religion in an Ecological Age. By Norman Wirzba. Environmental Ethics 27 (2005):207-208.

Stone, Jerome A. "Broadening Care, Discerning Worth: The Environmental Contributions of Minimalist Religious Naturalism." Process Studies 22 (no. 4, Winter 1993):194-203. Religious naturalism, in conjunction with the theory and practice of appreciative awareness such as outlined by Bernard Meland, can contribute to extending our moral concern toward the environment as well as aesthetically appreciating it. In addition, a minimalist religious naturalism with a pluralistic emphasis and a prophetic principle can provide a helpful sense of the plurality of values and a critical readiness to undergo paradigm shifts, both of which are needed in facing our ever-growing eco-crisis. Stone teaches philosophy and religion at William Rainey Harper College, Palatine, IL. (v6,#3)

Stone, Jerome A., ed. American Journal of Theology and Philosophy 18(no. 1, January, 1997). Contains:

--Engel, J. Ronald, "The Post-World War II Eco-Justice Movement in Christian Theology: Patterns and Issues," pp. 9-19.

--Engel, Joan Gibb, "Ecology, Justice, and Christian Faith: Comments of a Comma Consultant," pp. 21-31. An analysis of a recently published bibliography, Peter W. Bakken, Joan Gibb Engel, and J. Ronald Engel, Ecology, Justice and Christian Faith: A Critical Guide to the Literature, finding anthropocentrism in old and new guises. "I see the eco-justice discourse needing a few well-placed commas. Generally speaking, nature is not on an equal footing with theology or social concerns in our literature.

--Ruether, Rosemary Radford, "Ecofeminism: First and Third World Women," pp 33-45.

--Tuan, Yi-fu, "Sense of Place: What Does It Mean to be Human?" pp 47-57.

--Rolston, Holmes III, "Ecological Spirituality," pp. 59-63.

--Callicott, J. Baird, "The Challenge of a World Environmental Ethic," pp. 65-79.

--Traina, Cristina L. H., "Baird Callicott's Ethical Vision: Response to Baird Callicott," pp. 81-87. (v8,#1)

Stone, Jerome A. Review of A Greener Faith: Religious Environmentalism and Our Planet's Future. *Environmental Ethics* 29(2007):441-442. (EE)

Stone, Joshua M., "Restraints on Competition Through the Alteration of the Environment at the Genetic Level," New York University Environmental Law Journal 8(no.3, 2000):704-. (EE v.12,#1)

Stone, Richard, "A Plan to Save Hawaii's Threatened Biodiversity," Science 285(1999):817-818. Hawaii's Threatened Biodiversity. Legacy 2000 is a five year \$ 200 million initiative to save Hawaii's biodiversity, the most threatened in the U.S. Advocates note that the U.S. is spending billions to save the Everglades, and neglecting Hawaii. (v. 10, # 3).

Stone, Richard, "Caspian Sea Ecology Teeters on the Brink," Science 295(18 January 2002):430-433. As nations around the world's largest lake bicker over oil rights, the wildlife of the Caspian Sea is in a state of siege from which it may never recover. Hardest hit are four major species of sturgeon, supplying 90% of the world's caviar, a lucrative commodity, and drastically overfished. Petroleum is naturally so close to the surface that nature does some polluting of its own. Nations around the lake want the oil, but the oil is also considered a major prize by Western

powers. With no international effort to safeguard the lake anywhere in sight, the lake itself seem doomed to suffer. (v.13,#1)

Stone, Richard, and Hawk Jia. *AGoing Against the Flow.*@ *Science* Vol. 313, no. 5790 (25 August 2006): 1034-37. The Chinese government has begun a massive engineering project to divert water from three southern rivers to the parched north a controversial scheme for rearranging nature moving river flows over 1,000 kilometers with unknown consequences.

Stone, Richard. *ACan Palm Oil Plantations Come Clean?*@ *Science* Vol. 317, no. 5844 (14 September 2007): 1491. Palm oil has recently surpassed soybean as the top-selling vegetable oil in the world and has become Malaysia=s number one crop. But a just-completed review by three dozen academics details species declines pinned on the oil palm, a native of Africa that has now become a dominant feature of Southeast Asia=s landscape. Some scientists and like-minded industry people hope to cut the destruction of wildlife with better palm oil plantation practices.

Stone, Roger D., *The Nature of Development: A Report from the Rural Tropics on the Quest for Sustainable Economic Growth.* New York: Alfred A. Knopf, 1992. 286 pp. \$ 23. Planning has been from the top-down by the World Bank and International Monetary Fund and largely unsuccessful. Planning ought rather to be from the bottom-up, especially as third world peoples become increasingly skilled at ecological research and strategy and ever more adept at communicating their needs and opinions. Still, a major obstacle is the "excruciating difficult of accomplishing anything in rural work." Stone is a senior fellow at the World Wildlife Fund. (v3,#3)

Stone, Roger D., "The Denuded Earth: What Is to Be Done?" *World Policy Journal* 15(no.2, 1998), p. 50. (v.9,#4)

Stonehouse, D. Peter, "A New Modus Operandi For the Agricultural Economics Profession," *Journal of Agricultural and Environmental Ethics* 10(1997):55-67. Agricultural economics has, until the 1990s, enjoyed a reputation for relevance and usefulness to the agri-food industry and policy-makers. That reputation has been jeopardized by a growing infatuation with models and quantification, and a concomitant underemphasis placed on many complex problems and issues of society. An illustrative example is explored, using agricultural activity-related damage to the natural resource base, environment and ecology. Agricultural economists are urged to respond by broadening their terms of reference and joining forces with other disciplines. (JAEE)

Stonehouse, D.P. Review of M.R. Redclift, M.R., J. N. Lekakis and G. P Zanias, eds., *Agriculture and World Trade Liberalization: Socio-Environmental Perspectives on the Common Agricultural Policy.* *Journal of Agricultural and Environmental Ethics* 14(2001):102-106. (JAEE)

Stonehouse, Peter. Review of S. Dabbert, A. Dubgaard, L. Slangen and M. Whitby, eds., *The Economics of Landscape and Wildlife Conservation.* *Journal of Agricultural and Environmental Ethics* 11(1999):247-249. (JAEE)

Stoneman, Colin, "Spiritual Biology," Journal of Biological Education 31 (no. 2, Summer 1997):131-134. What should biology teachers do where there is an interest in education for spiritual development? The UK government Office for Standards in Education has long held that education should contribute to pupil's moral, spiritual, and social development, but more recently, since 1992 as a consequence of the Education (Schools) Act of 1992, has urged that all subjects of the curriculum contribute to this development, including biological science. Biology does not deal with "spirit"; some think that the success of biology requires chasing out the spirits; and yet biologists do not want the reputation of being indifferent toward their pupils whole and well rounded development. The guidelines say: "Spiritual development refers to that aspect of inner life through which pupils acquire insights into their personal existence which are of enduring worth [including] valuing a non-material dimension to life and intimations of an enduring reality." There are better and worse ways of interpreting what this might mean for biology. Might it involve caring for creation and environmental responsibility for example? Or the deeper questions of human existence, such as the mind-body problem, the human relation to nature, or ethics and biology? In any case, (British) biologists have a challenge. Stoneman is a retired biology teacher. (v8,#3)

Stonich, Susan C. "The Environmental Quality and Social Justice Implications of Shrimp Mariculture Development in Honduras," Human Ecology 23, no. 2 (June 1995): 143-

Story Earth: Native Voices on the Environment. San Francisco, CA: Mercury House, 1993. First published in the Netherlands as Het verhaal Aarde by In de Knipsheer Publishers for Bridges Books, Amsterdam, 1992. No editor is named. 200 pages. Stories from indigenous peoples, and by indigenous authors, on six continents, from Australia, Brazil, Canada, Easter Island, Egypt, Finland, Guatemala, India, Kenya, Lesotho, Nepal, Papua New Guinea, Peru, Philippines, Solomon Islands, Sri Lanka, and the United States. The nature of the global crisis and changes we must make in the way we view the world. Only by turning away from the industrial view of the Earth as a resource to be consumed, and only by listening to the lessons of traditional cultures that have for centuries maintained a sustainable relationship to the Earth can we cure the damage that Western civilization has wrought. Originally published with a subsidy from the Dutch Environment Ministry. (v8,#2)

Straede, Steffen, and Finn Helles, "Park-People Conflict Resolution in Royal Chitwan National Park, Nepal: Buying Time at High Cost," Environmental Conservation 27(no.4, Dec. 2001): 368-. (v.12,#3)

Straede, Steffen, and Helles, Finn, "Park-people Conflict Resolution in Royal Chitwan National Park, Nepal: Buying Time at High Cost?" Environmental Conservation 27 (no. 4, 2000):368-381. Royal Chitwan National Park, Nepal, is a major tiger and rhino sanctuary, also a dozen other charismatic species, located in lowland Nepal (the Terai), and surrounded by an exploding, impoverished human population. Local peoples have been permitted to cut grasses, mostly for thatch, in the park ten days a year; they also take much fuelwood without penalty, though this is officially illegal. The authors present survey data and argue that forest conservation is being compromised, habitat being degraded, and that, whether one is concerned for the tigers and rhinos or not, even the grass cutting program is not sustainable. The deeper problems are only being postponed. They recommend some possible changes for the better. The authors are in

forestry and natural resource economics, Royal Veterinary and Agricultural University, Denmark. (v.12,#3)

Strahan, Ronald, ed. Mammals of Australia. Washington, D.C.: Smithsonian Institution Press, 1996. 756pp. \$75 cloth. Written by more than one hundred experts, this book surveys the rich and varied world of Australian mammals, describing every species known to have existed in the last two hundred years. It includes well known mammals, as well as the less known. It has reference documents for each species' habitat, diet, reproduction, and growth as well as patterns of activity such as feeding, sheltering, attack and defense, social interactions, courtship, mating, and care of the young. The conservation status of each species and the effect of human settlement on its population are included.

Strand, R. and P., The hijacking of the humane movement: Animal extremism. Wilsonville, OR: Doral Publishing, 1993.

Strang, Carl A. "The Ethics of Wildlife Rehabilitation." Environmental Ethics 8(1986):183-85.

Strang, Rob, "Gibbs v. Babbitt: The Taking of Red Wolves on Private Land, a Post-Lopez Challenge to the Endangered Species Act," Tulane Environmental Law Journal 14(no.1, Wint 2000):229-. (v.12,#4)

Strassman, Judith A., and Sam H. Ham, "Interpreting Controversial Species: A Case Study and Principles" (The Grizzly Bear), Journal of Interpretation 14 (no. 2, 1990):7-9. Present the facts. Dispel myth and misinformation. Cultivate a respect and appreciation for the grizzly bear as an endangered species. Develop credibility and public trust in the federal and other agents involved. Be open-minded about all sides of the issue. With details of how the authors applied this to the conservation of the bears. Strassman and Ham are in the College of Forestry, Wildlife and Range Sciences, University of Idaho. (v5,#4)

Strauss, Andrew L., "From GATTZILLA to the Green Giant: Winning the Environmental Battle for the Soul of the World Trade Organization," University of Pennsylvania Journal of International Economic Law 19 (no. 3, Fall 1998): 769-821.

Strauss, D.F.M. "Thought and Language: On the Line of Demarcation Between Animal and Human Abilities." South African Journal of Philosophy 13(no. 4, 1994): 175-182. Although an anthropomorphic mode of expression may easily tempt us to attribute human abilities to animals, a closer investigation shows that animals are neither able to think logically, nor do they share in the dimension of human language. It is argued that if animals did have logical concepts at their disposal, then they should have been able to express logical judgments--something explicitly denied by prominent advocates of the idea that animals possess a-verbal concepts. A negative test is given in the question: Is it possible for animals to think illogically?--something never demonstrated experimentally. Crucial differences between human and animal communication are highlighted. Strauss in is philosophy, University of the Orange Free State, Bloemfontein, South Africa. (v6,#1)

Strayer D.L.; Downing J.A.; Haag W.R.; King T.L.; Layzer J.B.; Newton T=.J.; Nichols S.J., "Changing Perspectives on Pearly Mussels, North Americas Most Imperiled = Animals," BioScience 54(no.5, 1 May 2004):429-439(11). (v. 15, # 3)

Streever, B., "Science and Emotion, on Ice: The Role of Science on Alaska's North Slope," Bioscience 52(no.2, 2002): 179-84. (v.13,#2)

Streiffer, R., "In Defence of the Moral Relevance of Species Boundaries," American Journal of Bioethics 3(2003):37-38.

Streiffer, Robert, and Thomas Hedemann, "The Political Import of Intrinsic Objections to Genetically Engineered Food," Journal of Agricultural and Environmental Ethics 18(2005):191-210. Many people object to genetically engineered (GE) food because they believe that it is unnatural or that its creation amounts to playing God. These objections are often referred to as intrinsic objections, and they have been widely criticized in the agricultural bioethics literature as being unsound, incompatible with modern science, religious, inchoate, and based on emotion instead of reason. Many also argue that even if these objections did have some merit as ethical objections, their quasi-religious nature means that they are entirely irrelevant when interpreted as political objections. We argue that this widespread view is false. Intrinsic objections have much more political import than has previously been recognized. Keywords ethics - genetically engineered food - genetically modified food - GM food - intrinsic objections - liberal neutrality - playing God - political liberalism - unnaturalness - yuck factor. The authors are in philosophy, medical history, and bioethics, University of Wisconsin, Madison, WI. (JAEE)

Streiffer, Robert. Review of Vexing Nature? On the Ethical Case against Agricultural Biotechnology. By Gary Comstock. Environmental Ethics 27 (2005):213-216.

Stretesky, P. and Gabriel, J., "Self Policing and the Environment: Predicting Self Disclosure of Clean Air Act Violations Under the U.S. Environmental Protection Agency's Audit Policy," Society and Natural Resources 18(no. 10, November/December 2005): 889-905.

Stricker, P, "Diaz-Briquets, Sergio, and Jorge Perez-Lopez. "Conquering Nature: The Environmental Legacy of Socialism in Cuba," Society and Natural Resources 14(no.5, 2001):443-444. (v.12,#4)

Strickland, Rennard. "Osage Oil: Mineral Law, Murder, Mayhem, and Manipulation," Natural Resources & Environment 10(no.1, Summer 1995):39- . (v6,#4)

Stricklin, W. Ray and Swanson, Janice C., "Technology and Animal Agriculture", Journal of Agricultural and Environmental Ethics 6(1993). Technology can be defined as the manipulation of nature to serve human needs and interests. Food and fibre producing animals were domesticated through an alteration of their gene pools by humans to serve human interests. Thus, we present an argument that the domestication and use of animals in animal agriculture is a technology. During the initial stages of domestication, the relationship was possibly one of symbiosis between humans and animals, but humans now have control over animals through the application of technology. Recently, new techniques in molecular genetics (biotechnology) have

presented the possibility of rapid and radical changes in animal genotypes and the production of compounds such as biologically engineered growth enhancers. The application of other technologies, especially those related to the control or eradication of contagious diseases, permitted the development of intensive confinement animal agriculture. These production systems typically involve large numbers of animals managed in one housing unit, sometimes as one group. Animals in these confinement systems are less diseased, grow faster and more efficiently, but live in structures that limit their freedom of movement and control their social environment. The modern confinement production systems that employ recent advances in technology have been characterized by some as biologically inefficient, harmful to the environment, harmful to human health and bioethically unjustifiable because of restrictions on the animal's behaviour and activity. Some persons have proposed that all technology has a negative impact on animal welfare. The term "factory farming" is now a phrase that implies the harmful impact of technology on animal well-being. We contend that some technologies have actually enhanced animal welfare, and extend this idea to suggest that control over nature does not have to equate to negative animal well-being. A challenge for animal agriculturalists is to design food production systems that provide an appropriate quality of life for animals, are efficient and sustainable in the utilization of resources and are compatible with the social and economic interests of the general and agricultural public. Stricklin and Swanson are in the Department of Animal Sciences, University of Maryland, College Park, MD 20742.

Stricklin, W. Ray, and Joy A. Mench, eds., "An International Conference on Farm Animal Welfare: Ethical, Scientific and Technological Perspectives." An International Conference on Farm Animal Welfare was held at Queenstown, Maryland in June 1991. The reviewed proceedings from the conference are included in two issues of the Journal of Agricultural and Environmental Ethics, volume 6. The conference dealt with ethical, scientific and technological perspectives on animal welfare. Accordingly, persons from university, government, animal industries and animal protection organizations participated in the conference. The major financial sponsors were the National Science Foundation and the Geraldine Dodge Foundation. A primary objective of the conference was to establish dialogue on the topic of farm animal welfare that would serve as the basis for formulating general research directions.

Stridbeck, Bolof. Ekosofi och Etik. Göteborg, Sweden: Bokskogen, 1994. ISBN 91 7776 070 0. A doctoral dissertation in practical philosophy delivered to the Humanities faculty at the University of Gothenburg, Sweden, in June 1993. With an English summary, pp. 289-299. Chapter 1. Ecological balance as homeorhetic balance, balance in a system that maintains the same direction of change. Chapters 2-5 follow an analogy with the Noble Truths of Buddhism, and feature selected Norwegian and other ecophilosophers. Chapter 2. The truth of suffering. How bad is it today? Sigmund Kvaloy (Sätereng). Chapter 3. The truth of the cause of suffering. Why is it like this? Hjalmar Hegge. Chapter 4: The truth of the end of suffering. How should it be instead? Arne Naess and Henryk Skolimowski. Generally he finds that these thinkers complement one another. Chapter 5. The truth of the way to the end of suffering. Thomas Mathiesen, and his political strategy for promoting "ecological balance and creative manifoldness." Stridbeck also concludes "No concrete entities other than experiences have intrinsic value."

Strittholt, J. R. and Dellasala, D. A., "Importance of Roadless Areas in Biodiversity Conservation in Forested Ecosystems: Case Study of the Klamath-Siskiyou Ecoregion of the United States," Conservation Biology 15(no.6, 2001): 1742-54. (v.13,#2)

Strittholt, James R. "Valuing Ecosystem Functions," Conservation Biology 11(no.4, 1997):1039. (v8,#3)

Strochinskii, AA; Pozyvailo, YM; Jungst, SE, "Forests and Forestry in Ukraine: Standing on the Brink of a Market Economy," Journal of Forestry 99(no. 8, 2001):34-38. (v.13,#1)

Strohmaier, David, "Threescore and ten: Fire, place, and loss in the West," Ethics and the Environment 8(no. 2, 2003):31-41. "Some things are worth protecting from fire simply because they are important to us--even a part of us. ... What's critical, though, as we struggle to live in a land that burns, is getting clear about how we want that land to look and why. I fear that we've become so transfixed by the power of ecological sounding arguments--scientific sounding arguments gilded with graphs and statistics--that we either fail to recognize how values permeate our ecology or we downplay the legitimacy of preserving parts of nature for other than strictly ecological or economic reasons. Those who advocate restoring fire to western ecosystems (myself included) as often as not pawn off aesthetic, philosophical or economic reasons for ecological reasons." Strohmaier is a historian with Historical Research Associates, Missoula, Montana, and a fire fighter. (E&E)

Strohmaier, David J., The Seasons of Fire: Reflections on Fire in the West. Reno: University of Nevada Press, 2001. The moral nexus between fire, humans, and the landscape of the American West. Epistemological role of natural phenomena, such as fire. Fire as axis mundi. sacrament, object of fear, and object of reverie. An apologetic on behalf of the value of fire, and on behalf of those who find value in watching, tending, and actively engaging fire. Strohmaier, for many years a fire fighter himself, has also studied environmental ethics, and is now a public comment analyst with the U.S. Forest Service in Missoula, MT. ISEE will sponsor an "Author Meets Critics" session on this book at the Pacific APA in Seattle, 2002. (v.12,#3)

Strong, David, "Technological Subversion of Environmental Ethics," in Winston, Morton E., and Edelbach, Ralph D., eds., Society, Ethics, and Technology (Belmont, CA: Wadsworth, 2000). Reprinted extract from Strong's Crazy Mountains. Strong is in philosophy at Rocky Mountain College, Billings, MT. (v.11,#1)

Strong, David, "Environmental Ethics," entry in Carl Mitcham, ed., Encyclopedia of Science, Technology, and Ethics (Farmington, MA: Macmillan Reference, USA, Thomson/Gale, 2005), vol. 2, pp. 653-661.

Strong, David. Crazy Mountains: Learning from Wilderness to Weigh Technology. Reviewed in Environmental Ethics 21(1999):321-324.

Strong, David. Crazy Mountains: Learning from Wilderness to Weigh Technology. Albany: State University of New York Press, 1995. 253 pages. \$ 14.95 paper. Strong uses the Crazy Mountains of Montana, a wilderness, jeopardized by a newly bulldozed road and a planned

timber sale to trigger a series of wide-ranging reflections on the way in which technology is transforming the Earth in increasingly extensive ways. From wilderness we can learn what things are real and how this reality can re-order our lives. Written with considerable literary power and philosophical clarity. Strong teaches philosophy at Rocky Mountain College, Billings, Montana. (v6,#3)

Strong, David. "Disclosive Discourse, Ecology, and Technology." Environmental Ethics 16(1994):89-102. Currently, much hope for the protection of nature is pinned on the science of ecology. Without suggesting that we should pay less serious attention to science, I argue for a more pluralistic approach to the environmental and technological problems facing our time. I maintain that when ecology changes attitudes and ways of life, it does so by importing a language of engagement with nature rather than by remaining confined to a strictly scientific account. This language of engagement, which shows how nature and natural things can be engaged by humans in a multiplicity of ways, I call disclosive discourse. Disclosive discourse, however, is not used exclusively by ecologists and other scientists. To the contrary, the great literary writers exemplify in their writings the ways this discourse can present nature and natural things in their most profound and powerful appeal. Moreover, disclosive discourse is not limited to words: artworks, too, are disclosive. By characterizing the deeper problem with which we are faced differently, as fundamentally technological rather than environmental, a more diversified plurality of alternatives to technology, not limited to those having to do with primarily nature, can be brought into relief and encouraged. Strong is in the department of philosophy, Rocky Mountain College, Billings, MN. (EE)

Strudler, Alan, "Valuing Nature: Assessing Damages for Oil Spills," Report from the Institute for Philosophy and Public Policy 15 no. 1 (Winter, 1995): 6-10. The Valdez spill reviewed. Determining dollar amounts commensurate with nonuse values has proved elusive. But one should not conclude that any dollar amount imposed by a court is arbitrary and unfair. Arbitrariness can be limited by judges who review damage awards for their consistency with comparable cases. Accidents themselves are deeply arbitrary, and, in the case of oil spills, there is no reason that the weight of the arbitrary should fall entirely on the shoulders of the public. By imposing liability for lost nonuse values on firms like the Exxon corporation, the burden of arbitrariness is more fairly shared. Strudler is a Research Scholar at the Institute for Philosophy and Public Policy, University of Maryland. (v6,#2)

Stuart, Chris, Stuart, Tilde. Africa's Vanishing Wildlife. Washington, D.C.: Smithsonian Institution Press, 1996. 208 pp. \$39.95 cloth. Drawing on data from IUCN publications, this work documents the perils of Africa's vulnerable, rare, and declining species. Pinpointing both keystone species --such as the African elephant--and those that are little known, the authors cover primates, carnivores, antelopes, birds, reptiles, amphibians and freshwater fish. Synthesizing the biology, natural history, and conservation status of Africa's vanishing species, this is an accessible review of the continent's wildlife. (v7,#4)

Stuart, Nicole, "Technology and Epistemology: Environmental Mentalities and Urban Water Usage," @ Environmental Values 16(2007): 417-431. This paper examines the mentalities associated with the transformation of 'nature' into urban life in industrial societies, with particular reference to the conversion of rainwater into tap water. It argues that industrial technologies dissociate urban dwellers from the natural environment upon which they depend. The paper

maintains that this dissociation has contributed to mentalities encouraging the depletion and degradation of water resources and critically examines technological strategies for managing urban water use. The paper argues that epistemological systems must be reformed in conjunction with changing technological systems before environmental management strategies are likely to succeed. It concludes by suggesting ways in which urban water provision could be transformed so as to encourage greater ecological awareness and activism. Stuart is in the School of Earth and Geographical Sciences, University of Western Australia, Crawley.

Stuart, Simon N., et al (6 others), "Status and Trends of Amphibian Declines and Extinctions Worldwide," Science 306(3 December 2004):1783-1786. A global census shows that most of the 5,743 known amphibian species are in decline and one-third are currently endangered. Amphibians are more threatened and are declining more rapidly than either birds or mammals. Although many declines are due to habitat loss, other, unidentified processes are driving species quite quickly to extinction. The lead author (and several of others) are with the IUCN Species Survival Commission/Conservation International Center for Applied Biodiversity Science, Biodiversity Assessment Unit, Washington, DC.

Stuart, Tilde, Stuart, Chris. Africa's Vanishing Wildlife. Washington, D.C.: Smithsonian Institution Press, 1996. 208 pp. \$39.95. Pinpointing both keystone species and those that are little known, the authors provide information on each animal's behavior, evolution, habitat, diet, social structure, and conservation status. (v8,#3)

Stuartmurray (Stuart-Murray), John. Review of Jay Appleton The Experience of Landscape, Environmental Values 7(1998):359.

Student Conservation Association. The Guide to Graduate Environmental Programs. Covelo, CA: Island Press, 1997. 384 pp. \$29.95 cloth. \$16.95 paper. More than 160 in-depth profiles provide information on enrollments, student-faculty ratios, tuition, areas of specializations, facilities, admission and degree requirements, career counseling and job placements, special program features and more. (v9,#2)

Student Conservation Association. The Guide to Graduate Environmental Programs. Covelo, CA: Island Press, 1997. 384pp. \$29.95 cloth, \$16.95 paper. This presents in a single volume information on the various types of programs available across the full spectrum of environmental fields--the city and regional planning, environmental law, public policy, natural resources management, ecology, biological sciences, public health, architecture, and many others. (v8,#1)

Stuessy, Tod, Sohmer, S.H., eds. Sampling the Green World. New York: Columbia University Press, 1996. 384 pp. \$49.50 cloth. Twenty-one leading experts in systematic botany outline an intelligent plan for mapping phytodiversity in the next half century. The authors look at the protocols and procedures for collecting, documenting, storing, and preserving specimens and consider methods of retaining images for plants that cannot be sampled, surveying advanced computerized video applications including virtual reality. (v7,#4)

Stuntz, Linda G. "The Energy Policy Act of 1992: Changing the Electricity Industry," Natural Resources & Environment 10(no.1, Summer 1995):69- . (v6,#4)

Sturgeon, Kareen B. "The Classroom as a Model of the World." Environmental Ethics 13(1991):165-73. This paper explores the relationship between science and ethics and its implications for educational reform and environmental change. It is a personal account of my search to find a place for ethics in an environmental science class and how, in the process, the class itself is being transformed. I document how I have come to believe that the classroom is a model of the world: within my own development, the transformation of a course is implicated and, within the development of the course, the potential transformation of an educational system and the world is enfolded. Sturgeon is at the Biology department, Linfield College, McMinnville, OR. (EE)

Sturgeon, Noël. Ecofeminist Natures: Race, Gender, Feminist Theory and Political Action. Reviewed in Environmental Ethics 21(1999):429-432.

Sturm, Matthew et al., "Winter Biological Processes Could Help Convert Arctic Tundra to Shrubland", BioScience 55(no.1, January 2005):17-26(10). In arctic Alaska, air temperatures have warmed 0.5 degrees Celsius (C) per decade for the past 30 years, with most of the warming coming in winter. Over the same period, shrub abundance has increased, perhaps a harbinger of a conversion of tundra to shrubland. Evidence suggests that winter biological processes are contributing to this conversion through a positive feedback that involves the snow-holding capacity of shrubs, the insulating properties of snow, a soil layer that has a high water content because it overlies nearly impermeable permafrost, and hardy microbes that can maintain metabolic activity at temperatures of -6C or lower. Increasing shrub abundance leads to deeper snow, which promotes higher winter soil temperatures, greater microbial activity, and more plant-available nitrogen. High levels of soil nitrogen favor shrub growth the following summer. With climate models predicting continued warming, large areas of tundra could become converted to shrubland, with winter processes like those described here possibly playing a critical role.

Style, S, "The new Mexican government's plan to open up the country to corporate domination," The Ecologist 31(no.5, 2001):50-51. (v.12,#4)
Styles, John, The Animal Creation: Its Claims on Our Humanity Stated and Enforced. Originally published: London: T. Ward, 1849. Reprint edition: Lewiston, NY: Edward Mellon Press, 1997. With an introduction by Comstock, Gary L. (v.10,#3)

Su Xiangui, "Thoreau's thoughts of nature and its implication for ecological ethics", Journal of Beijing University 2002(2)

Suagee, Dean B. "Clean Water and Human Rights in Indian Country", Natural Resources & Environment 11(no.2, 1996):46. (v7,#4)

Subramaniam, Mangala. "Whose Interests? Gender Issues and Wood-fired Cooking Stoves," American Behavioral Scientist 43(No.4, 2000). Environmental justice. (v.11,#1)

Sugameli, Glenn P., "Lucas v. South Carolina Coastal Council: The Categorical and Other "Exceptions" to Liability for Fifth Amendment Takings of Private Property Far Outweigh the

"Rule," Environmental Law 29 (No. 4, 1999): 939- . The Takings Clause of the Fifth Amendment to the United States Constitution provides that private property cannot be taken for public use without just compensation. Mr. Sugameli discusses the takings rule outlined by the Supreme Court's 1992 decision in *Lucas v. South Carolina Coastal Council* and cases that have interpreted and applied the Lucas rule and concludes that the exceptions described in *Lucas* outweigh the liability rule. (v.11,#2)

Sullivan, Caroline, Review of: E. B. Barbier, *The Economics of Environment and Development*, Environmental Values 11(2002):106-108.

Sullivan, John, "Nuclear Plant in New Jersey Draws Censure," New York times, October 11, 2004, p. A1, p. A25. The Salem Nuclear Power Station in southwestern New Jersey, with the second largest nuclear power output in the United States, has been censured for dozens of violations, from the reliability of equipment to leaks to the availability of spare parts to supervision in a control room. (v.14, #4)

Sullivan, Shannon, McCann, Elizabeth, DeYoung, Raymond, Erickson, Donna. "Farmers' Attitudes about Farming and the Environment: A Survey of Conventional and Organic Farmers," Journal of Agricultural and Environmental Ethics 9(1996):123-143. This paper compares the attitudes and beliefs of a group of conventional farmers to those of a group of organic farmers. It was found that while both groups reject the idea that a farmer's role is to conquer nature, organic farmers were significantly more supportive of the notion that humans should live in harmony with nature. Organic farmers also reported a greater awareness of and appreciation for nature in their relationship with the land. Both groups view independence as a main benefit of farming and a lack of financial reward as its main drawback. Overall, conventional farmers report more stress in their lives although they also view themselves in a caretaker role for the land more than do the organic farmers. In contrast, organic farmers report more satisfaction with their lives, a greater concern of living ethically and a stronger perception of community. Both groups are willing to have their rights limited (organic farmers somewhat more so) but they do not trust the government to do so. Keywords: environmental attitudes, organic farming environmental ethics. Sullivan, DeYoung and Erickson teach in the School of Natural Resources and Environment, University of Michigan. McCann teaches in the College of Natural Resources, University of Wisconsin Stevens Point. (JAEE)

Summer, David, Review of Michel B. Gerrard, *Whose Backyard, Whose Risk: Fear and Fairness in Toxic and Nuclear Waste Siting*. Environmental Values 7(1998):122.

Sumner, David, and Gilmoura, Peter. "Radiation Protection and Moral Theory." Environmental Values 4(1995):241-255. It seems likely that there is no threshold for the induction of cancer by ionising radiation. Hence even small radiation doses may result in a finite number of premature deaths if a large number of people are exposed. Various arguments are used to demonstrate that such deaths, if they occur, are acceptable; these arguments are shown to be flawed. Many of the arguments, and the ICRP's principle of justification, appear rooted in a utilitarian system of moral philosophy. Such a system is superficially attractive as it appears objective and rational; however, the objectivity may be an illusion masking the underlying aims of the interested parties. KEYWORDS: Radioactive

discharges, utilitarianism, emotivism, justification, cost-benefit analysis. Sumner resides at Whithorn, UK. Gilmoura resides at Glasgow. (EV)

Sumner, L. W. Review of The Ethics of Environmental Concern. By Robin Attfield. Environmental Ethics 8(1986):77-82.

Sumner, L. W., Donald Callen, and Thomas Attig, eds., Values and Moral Standing. Bowling Green: Applied Philosophy Program, Bowling Green State University, 1986. Pp. iii, 167. This is the eighth volume in a series of conference papers on various subjects in applied philosophy. All the 1986 papers concern questions of moral standing: what kind of entities deserve moral consideration, and why? All the papers are tangentially related to environmental issues, but only three discuss environmental ethics directly. Anthony Weston, "Towards an Inclusive Ethics," continues his defense of a theory of pragmatic value--a Deweyan holism which transcends the person-centered model of moral value and recognizes the moral value of nonhuman entities (see also his article in Environmental Ethics, 1985). Eric Katz, "Buffalo-killing and the Valuation of Species" (pp. 114-123), examines the two main schools of non-anthropocentric environmental ethics, individualism and holism, and argues that each is appropriate at certain times--neither view is comprehensive. Holmes Rolston, "The Human Standing in Nature: Fitness in the Moral Overseer" (pp. 90-101), discusses the proper place of humanity in the comprehension of, or interaction with, nature. Although man transcends nature because he can have a global objective world view, the challenge implied by the view is to "learn interspecific altruism." The value in nature for man is "storied achievement:" the unity of history with natural ecological development. "Humans want a storied residence in nature where the passage of time integrates past, present, and future in a meaningful career" (p. 99). (Katz, Bibl # 1)

Sumner, L. W. Review of Animal Liberation. By Peter Singer. Environmental Ethics 1(1979):365-70.

Sumner, L. W. Review of Animal Rights and Human Obligations. Edited by Tom Regan and Peter Singer. Environmental Ethics 1(1979):365-70.

Sunderlin, William D. "Between Danger and Opportunity: Indonesia and Forests in an Era of Economic Crisis and Political Change." Society & Natural Resources 12(No. 6, Sept. 1999):559- . (v10,#4)

Sundermeier, T 1992. Development and ecology in Africa. In: Koegelenberg, R (ed): Church and development: an interdisciplinary approach, 246-253. Cape Town: EFSA. (Africa)

Sunding, D., and Zilberman, D., "The Economics of Environmental Regulation by Licensing: An Assessment of Recent Changes to the Wetland Permitting Process," Natural Resources Journal 42(no.1, 2002): 59-90. (v.13,#4)

Sunevag, Kjell. Review of C. Carraro, ed. International Environmental Negotiations: Strategic Policy Issues, Cheltenham: Edward Elgar, 1997, Environmental Values 10(2001):130. (EV)

Sunquist, Fiona, "End of the Ark?" International Wildlife 25 (no. 6, Nov./Dec. 1995):22-29. Captive breeding is out; conservation in the wild is in. Facing increasing disapproval of keeping animals in the captivity, Michael Hutchins, Director for conservation and science at the American Zoo and Aquarium Association, says: "The zoo profession is at an important crossroads in its history. The world is changing around us, and if we choose to conduct business as usual, we are not sure that zoos will ultimately survive. ... As zoos struggle to define what they are supposed to be and do, they're finding an ever-greater role in saving animals in the wild." William Conway, director of what was once the Bronx Zoo (now a "Conservation Park," says, "I don't believe there is any question but that every accredited North American zoo will have a significant field conservation effort within six years." At present, the budget for one good U.S. zoo can equal the entire budgets of all the national wildlife conservation agencies in countries south of the Sahara in Africa.

Sunstein, Cass R., Risk and Reason: Safety, Law, and the Environment. New York: Cambridge University Press, 2002. A wide-ranging analysis of the problem of managing environmental health risks (and not much further attention to ecosystem health, or nature conservation). From the 1970's the U.S. Congress was inclined to "command and control" regulation, often silent on cost-benefit balancing, sometimes even precluding it. On the whole these laws led to major environmental and health improvements that justify the high visible costs they often entailed. But some, especially cleaning up waste sites, cost too much with too little benefit.

Regulatory reforms are now needed. Agencies need to conduct a quantitative assessment of risks before developing regulations, and not to rely either on qualitative impressions or on public perceptions, which are often wrong. Reforms need to consider tradeoffs, and to express both costs and benefits, often in monetary terms. An appropriate value for a human life is in the range of \$ 5 million to \$ 8 million. Reforms need to go beyond "command and control" to use economic incentives, encourage self-disclosure, allow trading of pollution permits. But cost-benefit analysis does have its limits, especially when scientific uncertainty is great (as with arsenic in drinking water). Sunstein defends what he calls "a highly technocratic approach to risk regulation." Conservatives are likely to regard Sunstein's proposals as self-evident; environmentalists will have their doubts. Sunstein is in law, University of Chicago Law School.

Sunstein Cass R., and Martha C. Nussbaum, eds., Animal Rights: Current Debate and New Directions (New York: Oxford University Press, 2004). Reviewed by Richard Haynes, *Journal of Agricultural and Environmental Ethics* 20(2007):533-542.

Sunstein, Cass R., and Nussbaum, Martha C., eds., Animal Rights: Current Debates, New Directions. New York: Oxford University Press, 2004. With particular attention to animals and the law, providing concrete suggestions for legal reform.

Suomen Luonto (Nature in Finland) is the magazine of Suomen Luonnonsuojeluliitto (Finnish Association for Nature Conservation). The magazine has 80,000 subscriptions, one of the more widely circulating magazines in Finland. The society has 25,000 members. (v5,#2) (Finland)

Surgery, John, "Agriculture. A War on Nature?" Journal of Applied Philosophy 6 (1989): 205-207. Brief "dialogue" between a farmer and an environmentalist over the possibility of an

agriculture in "harmony" with nature. Cultivation involves aggression and domination, but when done correctly also involves gentleness and cooperation. (Katz, Bibl # 2)

Susanne, Charles & Hens, L., "From anthropocentrism to ecocentrism". Pages 35-55 in Susanne, Charles & Gallé, László eds. Ecotechnie and Sustainable Development. Szeged, Hungary: Officina, 1998. ISBN: 963-482-283-5 (v.12,#4)

Sustainability Issues, a special section in Daphne Gail Fautin, et al. ed., Annual Review of Ecology and Systematics 26 (1995). Includes Robert Goodland, "The Concept of Environmental Sustainability," Christopher Humphries et al., "Measuring Biodiversity Value for Conservation," Robert Nelson, "Sustainability, Efficiency and God: Economic Values and The Sustainability Debate," John Vandermeer, "The Ecological Basis of Alternative Agriculture," John Clark, "Economic Development vs. Sustainable Societies: Reflections on the Players in a Crucial Contest."

Sustainable Forestry in the Boreal, Taiga News, no. 16, February/March 1996. Special issue on sustainable forestry in boreal forests. Taiga Rescue Network, Ajtte, P. O. Box 116, S-962 23 Jokkmokk, Sweden. Phone 46 971 17039. Fax 46 971 12057. (v7,#1)

Sutcliffe, Felicity, Review Essay of Frans de Waal, Good Natured. Animal Issues (University of Sydney, Australia) 2, no. 1, 1998. (v.10,#1)

Sutcliffe, Odette L., Thomas, Chris D. "Open Corridors Appear to Facilitate Dispersal by Ringlet Butterflies (Aphantopus hyperantus) between Woodland Clearings", Conservation Biology 10 (no.5,1996):1359.

Sutherland, Anne and Jeffrey E. Nash. "Animal Rights as a New Environmental Cosmology." Qualitative Sociology 17 (no. 2, 1994): 171-186. The secularization and modernization of society have created opportunities for broad interpretations of fundamental questions of life. The Animal Rights Movement challenges Judeo-Christian cosmology and offers an alternative. It redefines the distinctions between humans and animals and gives them a new meaning within the generalized environmental other. As an emerging cosmology, it functions to give believers a means of dealing with questions of order and chaos, suffering, good and evil, and justice. It also creates a community of people who seek redemption through saving animals. The animal rights movement goes beyond moral protest and takes on the role of a religious cosmology. Sutherland is in anthropology at Macalester College, St. Paul, MN. (v6,#1)

Sutherland, D. Dixon, "The Space of Creation: Theology's Search for an Ecological Ethic," Communio Viatorum 1 XXXVI 1994, pages 46-60. Communio Viatorum is published by the Protestant Theological Faculty of Charles University, Prague. The historic cords that bind the ecological crisis and Christian theology together run deeper than expected. Modern theology and the ecological crisis cannot be separated. The roots of both are historically and substantively entangled. In a profound sense, the ecological crisis of the twentieth century has propelled theology into its own severe crisis. Dixon teaches Christian ethics at Stetson University, DeLand, Florida. (v7,#2)

Sutherland William J., Susan Armstrong-Brown, Paul R. Armsworth, Tom Brereton, Jonathan Brickland, Colin D. Campbell, Daniel E. Chamberlain, Andrew I. Cooke, Nicholas K. Dulvy, Nicholas R. Dusic, Martin Fitton, Robert P. Freckleton, H. Charles J. Godfray, Nick Grout, John H. Harvey, Colin Hedley, John J. Hopkins, Neil B. Kift, Jeff Kirby, and William E. Kunin. A The Identification of 100 Ecological Questions of High Policy Relevance in the UK. @ *Journal of Applied Ecology* Vol. 43, no. 4 (2006): 617-27. Some of the questions include agriculture, marine fisheries, forests, climate change, ecosystem function, ecosystem services, aliens, invasive species, recreation, field sports, pollution, energy, carbon management, land management, restoration, and biodiversity conservation. Policy is driven by broad interests rather than specific ones, but scientists are often best equipped to answer specific questions. Applied ecologists need to feed into policy more carefully and emphasize the generic relevance of their work.

Sutter, P, "What Can U.S. Environmental Historians Learn from Non-U.S. Environmental Historiography?", *Environmental History* 8(no.1, 2003):109-129.

Sutter, Paul, "A Retreat from Profit": Colonization, the Appalachian Trail, and the Social Roots of Benton MacKaye's Wilderness Advocacy," *Environmental History* 4 (No. 4, Oct 01 1999): 553- . (v.11,#2)

Sutton, Philip W., *Nature, Environment and Society*. Palgrave Macmillan, 2004. "Ecocentric theorists are right to argue that human being are natural beings, but they are wrong to suggest that the biological is somehow more 'real' than the social. Such a view remains a serious obstacle to ecocentric theories of self and society as well as to any accommodation between ecocentric and sociological approaches to environmental issues" (p. 114). Sutton teaches sociology at Robert Gordon University in Aberdeen, Scotland. (v.14, #4)

Sutton, Richard, *The Future of Environmental Education*, Master's Thesis, Department of Philosophy, Lancaster University, September 1992. (v7,#1)

Sutton, Richard, *The Future of Environmental Education*, Master's Thesis, Department of Philosophy, Lancaster University, September 1992.

Suzuki, David, with McConnell, Amanda, *The Sacred Balance: Rediscovering Our Place in Nature*. Amherst, NY: Prometheus Books, 1998. 269 pages. Cloth \$26.00. "Nature is the ultimate source of our inspiration, of our sense of belonging, of our hope that life will survive long after we are gone. In order to realize this hope, we must learn to regard the planet as sacred." Suzuki is a Canadian media celebrity, and geneticist, host of a popular science program, "The Nature of Things."

Suzuki, David and Peter Knudtson, eds., *Wisdom of the Elders: Sacred Native Stories of Nature*. New York: Bantam Books, 1992. 275 pages. Cloth and paper. Several dozen vignettes characterizing native ecologies from around the world. Each chapter is organized beginning with a thumbnail sketch of modern scientific perspectives relevant to the chapter's theme, as a backdrop against which the native vignettes are juxtaposed. The editors are impressed with the fundamental validity and power of aboriginal notions of the sacredness of nature. Suzuki is

professor of zoology at the University of British Columbia and a distinguished Canadian broadcaster and environmentalist. Knudtson is a Vancouver-based journalist. (v4,#4)

Svancara, LK, et al., ""Policy driven versus Evidence based Conservation: A Review of Political Targets and Biological Needs," BioScience 55 (no. 11, November 2005): 989-995. "How much is enough?" is a question that conservationists, scientists, and policymakers have struggled with for years in conservation planning. To answer this question, and to ensure the long term protection of biodiversity, many have sought to establish quantitative targets or goals based on the percentage of area in a country or region that is conserved. In recent years, policy driven targets have frequently been faulted for their lack of biological foundation. In this manuscript, we reviewed 159 articles reporting or proposing 222 conservation targets and assessed differences between policy driven and evidence based approaches. Our findings suggest that the average percentages of area recommended for evidence based targets were nearly three times as high as those recommended in policy driven approaches. Implementing a minimalist, policy driven approach to conservation could result in unanticipated decreases in species numbers and increases in the number of endangered species.

Swaffield, S. and Primdahl, J., "Spatial Concepts in Landscape Analysis and Policy: Some Implications of Globalisation," Landscape Ecology 20(no. 6, September 2005): 657-673.

Swaffield, Simon, "Sustainable Management and the Pastoral Ideal," Environmental Politics (Summer 1997):101-. (v.8,#4)

Swaffield, Simon; Primdahl, Jorgen, "Spatial Concepts in Landscape Analysis and Policy: Some Implications of Globalisation," Landscape Ecology 21 (no.3, April 2006): 315-331 (17).

Swan, James A. In Defence of Hunting. San Francisco: Harper, San Francisco, 1995. 290 pages. \$20. Hunting is not cruel or contrary to ecological training, but rather offers modern people an opportunity to experience some of the most basic impulses of existence: the desire to hunt. Within each of us there lives a hunter, and repressing this instinct can result in personal and societal strife and violence. Swan is an environmental author and has taught natural resources and recreation at various universities. (v6,#1)

Swan, James, Nature as Teacher and Healer. New York: Random House, Villard Books, 1992. 322 pages. \$ 13.00. "A spiritual first-aid kit for anyone who feels alienated from nature." Swan is an environmental psychologist who heads the Institute for the Study of Natural Systems, Mill Valley, CA. (v4,#3)

Swan, James A., Sacred Places: How the Living Earth Seeks our Friendship. Santa Fe, NM: Bear and Company Publishing, 1990. 237 pages. \$ 12.95. Chapter titles: The dilemma of sacred places in a modern world. Varieties of native American sacred places. The right place at the right time. Sacred places on trial. Minding the spirit of place. The new Earth paradigm. Visiting a place of power. With an appendix: Sacred places of the United States. Bibliography. Foreword by James Lovelock. Swan is a psychologist, who specializes in environmental psychology with native Americans, a faculty member at the California Institute of Integral Studies. "Dr. Swan understands the American Indian mind better than any other white man I

know" - Bill Fields, Cherokee, retired director of Indian Affairs, U. S. National Park Service. (v5,#2)

Swanson, Frederick H. "Time Series Mapping of Utah's Wild Lands," Wild Earth 7(no.1, 1997):64. (v8,#2)

Swanson, Stevenson, "To Bring Back Starry Skies, Local Ordinances Restrict Excess Illumination," Washington Post (12/25/97): A 19. Community Ordinances to Protect Starry Sky. A growing number of local governments are regulating lighting to prevent unsafe glare and to bring back the night sky. The U.S. is so well illuminated that only one in 10 Americans lives in a place where light pollution has not marred the beauty of the night sky. These ordinances require that new lighting be shielded so that light is directed downward, not sideways or up, and they require that outdoor lights not needed for security must be reduced or turned off after business hours. In addition to making the night sky more visible, the ordinances aim to make driving more safe by reducing glare that can temporarily blind or disorient motorists. (v.8,#4)

Swanson, Timothy M., ed. The Economics and Ecology of Biodiversity Decline: The Forces of Driving Global Change. New York: Cambridge University Press, 1995. 176 pages. \$39.95 cloth. Economists analyze how economic growth predictably alters the earth, and ecologists consider how the drive for fitness and consequent population growth changes the globe. Both look at the institutional interface between humans and biosphere, and explain global change as the consequence of human noncooperation and conflict. (v7, #3)

Swanson, Timothy, ed., The Economics of Environmental Degradation: Tragedy for the Commons? Brookfield, VT: Edward Elgar Publishing Co., 1996. 240 pages. \$64.00. Swanson is at the University of Cambridge and University College, London. (v7,#2)

Swanson, Timothy M., and Edward B. Barbier, eds. Economics for the Wilds: Wildlife, Wildlands, Diversity and Development. London: Earthscan, 1992. 226 pages. , 12.95, paper. The only way to save wildlife is to make it economically profitable to save them. The reason wildlife is now under threat is that there are so few economic incentives; the vast majority of species are refugees of the international economic system. Unless we find ways of integrating these wild values into the economic system, wildlife and wildlands face a bleak future. They cannot be saved in peopleless parks. Unfortunately, the largest reserves of biological diversity lie in some of the poorest countries of the world, and it is neither fair nor prudent to ask developing countries to preserve wildlands, especially when the developed countries have destroyed theirs. The contributors suggest new ways of making wildlife and wildlands count economically. Bruce Aylward, "Appropriating the Value of Wildlife and Wildlands" argues, however, that there are some aspects of biodiversity that cannot be brought into economic arguments. Questions of our moral obligations to nonhuman species are given scant treatment here; most of the authors hold that such moral arguments are likely to be increasingly flimsy in the face of overwhelming population pressures and the inequitable trading relations and development patterns between North and South. (v5,#4)

Swanson, Timothy. Global Action for Biodiversity: An International Framework for Implementing the Convention on Biological Diversity. Covelo, CA: Island Press, 1997. 208pp. \$61.50 cloth, \$26.50 paper. This book describes the nature of the issues now before the

international community, the gaps in the GBD Convention which remain to be filled, and the ways in which the international community can reach agreement on those gaps. (v8,#2)

Swanson. Timothy M., ed. Intellectual Property Rights and Biodiversity Conservation: An Interdisciplinary Analysis of the Values of Medicinal Plants. New York: Cambridge University Press, 1995. 285 pages. \$59.95 cloth. A detailed analysis of the economic and scientific rationales for biodiversity conservation. The contributions form an interdisciplinary approach encompassing fields of study such as evolutionary biology, chemistry, economics and legal studies. The arguments are presented through the case study of medicinal plant use in the pharmaceutical industry. (v7, #3)

Swara (the Swahili for impala) is the conservation magazine of the East African Wildlife Society (2nd floor, Museum Hill Centre. Mailing address: P. O. Box 20110, Nairobi, Kenya. Phone 748170. Fax 746868). They print about 10,000 copies. (v6,#3)

Swart, Betsy. "The Fight Against Fur." The Animals' Agenda 16(Jul. 1996):18. (v7,#2)

Swart, Jac. A.A., "Care for the Wild: An Integrative View on Wild and Domesticated Animals," Environmental Values 14(2005): 241-250. Environmental ethics has to deal with the challenge of reconciling contrasting ecocentric and animal-centric perspectives. Two classic attempts at this reconciliation, which both adopted the metaphor of concentric circles, are discussed. It is concluded that the relationship between the animal and its environment, whether the latter is human or natural, should be a pivotal element of such reconciliation. An alternative approach is presented, inspired by care ethics, which proposes that caring for wild animals implies caring for their relationship to the natural environment and thus taking action to maintain wildlife habitat. This type of care is labelled non-specific care because it is not directed towards the individual wild animal and its specific individual needs. In contrast, caring for domestic animals is called specific care because it is much more directed towards the individual animal's needs. Swart is in biology, University of Groningen, The Netherlands. (EV)

Swart, Jac. A.A., "The Wild Animal as a Research Animal," Journal of Agricultural and Environmental Ethics 17(2004):181-197. Most discussions on animal experimentation refer to domesticated animals and regulations are tailored to this class of animals. However, wild animals are also used for research, e.g., in biological field research that is often directed to fundamental ecological-evolutionary questions or to conservation goals. There are several differences between domesticated and wild animals that are relevant for evaluation of the acceptability of animal experiments. Biological features of wild animals are often more critical as compared with domesticated animals because of their survival effects. An important issue is what is called here "natural suffering": the suffering from natural circumstances. Should this type of suffering be taken into account when suffering from experimentation is evaluated? As an answer, it is suggested that "natural functioning" should be considered as an additional standard in the evaluation of wild animal experimentation. Finally, two topics related to the ecological context are considered. Firstly, the often inevitable involvement of non-research animals in wild animal experimentation, and secondly, the eco-centric approach to nature conservation. According to the latter position, animals are subordinated to ecosystems. All these aspects make the evaluation of wild animal experiments much more complex than experiments with

domesticated animals. Preliminary scores are proposed to deal with these aspects. It is argued that this should not lead to a more complex governmental regulation, since an effective maintenance and control are hard to realize and one may lose the cooperation of researchers themselves. In addition, non-governmental professional organizations such as research societies and funding organizations play a pivotal role. Keywords: animal experimentation, animal welfare, domesticated animals, field biological research, natural functioning, natural suffering, wild animals

The author is in the Section Science and Society, Department of Biology, Groningen University, The Netherlands. (JAEE)

Swearingen, Jack C. "Brownfields and Greenfields: An Ethical Perspective on Land Use." Environmental Ethics 21(1999):277-292. America's industries and families continue to forsake cities for suburban and rural environs, in the process leaving nonproductive lands (brownfields) and simultaneously removing greenfield land from agriculturally or biologically productive use. In spite of noteworthy exceptions, urban regions which once functioned as vital communities continue in economic and social decline. Discussion or debate about the problem (or, indeed, whether it is a problem at all) invokes systems of values which often are not articulated. Some attribute the urban exodus to departure from personal ethical norms (e.g., substance abuse, violence, welfare addiction) by urban residents, as though ethical decline is driving the phenomenon. Others take the exact opposite stance, that social and economic decline follow the departure of the economic base. There is no consensus on what government should do about the problem, or whether government should be involved at all. I present elements of a land-use ethic which can accommodate the foregoing. I argue that government is already involved in the brownfields problem because urban flight is facilitated by public policies which de facto subsidize the process. I further argue that the debate invokes key--but unexamined--assumptions regarding limits. Where there are few substitutes for resources and the social cost of exploitation is high, government intervention in the market is necessary; "value-free" economic approaches need to be supplemented by values concerning what ought to be, i.e., what is desirable for society. (EE)

Swearingen, Thomas Craig. Moral Development and Environmental Ethics. Ph.D. dissertation in the College of Forest Resources, University of Washington, 1989. Available through University Microfilms, Ann Arbor, MI. 293 pages. Kohlberg's theory of moral development is relevant to the development of environmental ethical reasoning. Kohlberg is Western and anthropocentric. His theory is extended and adapted to environmental ethics. An instrument is developed to measure principled moral reasoning with an environmental orientation. Approximately 25,000 subjects were observed in a national park; persons observed to engage in environmentally destructive behavior and a matched random sample of other visitors were studied, 568 respondents. Analyses indicate that the subjects' responses are consistent with the extended theory hypothesizing stages in the development of environmental ethical reasoning. The thesis advisor was Robert G. Lee. A paper in progress, continuing this research is, "The Development of an Environmental Morality: A Theoretical Synthesis." Swearingen teaches in the Department of Health, Physical education, and Leisure Studies, University of Alabama, Mobile. (v6,#3)

Swedlund A.C., "Book Review: Human Population Dynamics: Cross-Disciplinary Perspectives. By Helen Macbeth and Paul Collinson eds. Cambridge University Press, Cambridge, UK, 2002. Biosocial Society Symposium Series. Hb-75.00, Pb-28.00. Glossary, index, 224 pp," Human Ecology 32(no.3, June 2004):389-391(3). (v. 15, # 3)

Sweet, Leonard I. State of the Ark. A special number of Bibelot, a periodical for pastors and alumni of the United Theological Seminary, Dayton, Ohio. The issue is devoted to environmental ethics and religion and environment. Many current books are reviewed and developments in these areas are analyzed. \$3.00 a copy from United Theological Seminary, 1810 Harvard Boulevard, Dayton, OH 45406. (v1,#1)

Swenson, J.J., and J. Franklin, "The Effects of Future Urban Development on Habitat Fragmentation in the Santa Monica Mountains," Landscape Ecology 15(no.8, Dec. 2000): 713-. (v.12,#3)

Swertlitz, Marc, ed., Judaism and Ecology, 1970-1986: A Sourcebook of Readings. Fourteen of the principal scholarly articles in the field, also with further bibliography. Contact: Ellen Bernstein, Shomrei Adamah, 550 Wissahickon Avenue, # 804C, Philadelphia, PA 19144. 215/844-8150. (v5,#2)

Swetlitz, Marc, ed., Judaism and Ecology, 1970-1986: A Sourcebook of Readings, 1990, published by Shomrei Adamah, Church Road and Greenwood Ave., Wyncote, PA 19095, available at that address. An anthology of fourteen articles intended to provide Jewish leaders and educators with liturgical, educational, and resource materials that inspire an awareness of nature and promote an active practice of stewardship. With a selected bibliography. (Thanks to Steven Shaw for these two entries.) (v3,#3)

Swidler, Leonard, "Toward a Universal Declaration of a Global Ethic." Pages 1-18 in Swidler, ed., For All Life: Toward a Universal Declaration of a Global Ethic. Ashland: White Cloud Press, 1999.

Swift Jr., Lloyd W. and Burns, Richard G. "The Three Rs of Roads: Redesign, Reconstruction, and Restoration." Journal of Forestry 97(No.8, August 1999):40- . Old unpaved access roads located near streams and rivers often contribute sediment to the watershed. For landowners who cannot reconstruct and relocate such roads to protect water quality, low-cost mitigation alternatives are available. (v10,#4)

Swimme, Brian and Thomas Berry, The Universe Story: From the Primordial Flaring Forth to the Ecozoic Era--A Celebration of the Unfolding of the Cosmos. San Francisco: Harper and Row, 1992. 305 pp. Hardcover, \$ 22.00. Swimme is a mathematical cosmologist, California Institute of Integral Studies, San Francisco; Berry is a Catholic priest and historian of cultures. (v3,#4)

Swimme, Brian. The Hidden Heart of the Cosmos: Humanity and the New Story. Maryknoll, NY: Orbis Books, 1997. 12pp. \$15 cloth. Swimme takes a journey through the cosmos in search

of the "new story" that is developing in answer to this age-old question. He shows that science can be a wisdom tradition, its lessons integral to our being and well-being. (v8,#1)

Sydoriak, Charisse; Allen, Craig; Jacobs, Brian, "Would Ecological Restoration Make the Bandelier Wilderness More or Less of a Wilderness," Wild Earth 10(no.4, Wint 2000):83-. (v.12,#4)

Sylvan, Richard, "What Is Wrong with Applied Ethics?" One problem is the delivery of the commodity, but deeper problems lie in the applied idea and in what the application is presumed to be made to. There is something odd about the very idea of applied ethics, rather like applied nursing. All ethics is applied; there is no pure ethics. But further, environmental ethics challenges the whole body of ethical theory, not just application. The label "applied" is substantially a misnomer. A main matter with the body of ethics is its anthropic bias. Three options that emerge are inappropriate application, or extension or adjustment, and fashioning of something new, and these correspond more or less to the threefold division of environmental positions: shallow, intermediate, and deep. A provocative and insightful paper. This paper was given at a conference, "Philosophy and Applied Ethics Re-examined," at the University of Newcastle in August 1993. (v5,#1)

Sylvan, Richard, and David Bennett, The Greening of Ethics: From Human Chauvinism to Deep-Green Theory. Tucson: University of Arizona Press; and Cambridge UK: White Horse Press, 1994. Pp. 269. \$22.95 paper, \$45.00 cloth; ,11.95 paper, ,29.95 cloth. Environmental ethics from "down under" showing how topsy turvy the uppermost Western, first world view really is. The most insightful work of many to come out of Australia so far as it seeks to define, in its own national development, Australia's unique contribution to the greening of ethics. Forceful, critical, subversive, even satirical, and, ultimately, quite constructive, Sylvan and Bennett show that if conservation fails in Australia, then all hope of convincing the rest of the world of its importance is dead.

Sylvan and Bennett's analysis is by no means peculiarly Australian. Environmental ethics, they argue, everywhere comes in shallow, intermediate, and deep forms, and the authors use their position to evaluate what is happening in Europe and the United States. In their most original chapter (5), the authors set out their "deep-green theory," both sharing features with, and contrasted with, "deep ecology." The earlier chapters are mostly "de-constructionist," but in conclusion the authors advance their own construction of an appropriately green ethics based on intrinsic value in nature. The final chapters look at practical applications, always more radical than we like first to suppose. Sylvan is in philosophy at the Research School of Social Sciences, Australian National University, Canberra. Bennett is environment officer with the Aboriginal and Torres Strait Islander Commission in Canberra. (v5,#4)

Sylvan, Richard, "War and Peace IV: Tao and Deep-Green," 23 page typescript. Taoism and deep-green environmental theory diverge over war. Taoism is not a pacific doctrine but is committed to skilful defensive militarism, limited defensive military operations for specific purposes. Deep-green theory stands opposed to professional militarism, and is committed to a principled pacifism. Conveniently, a route through Taoism leads to problems of pacifism and toward a deep green theory. Available from Department of Philosophy, Research School of Social Sciences, Australian National University, P. O. Box 4, (v2,#4)

Sylvan, Richard, and David Bennett, The Greening of Ethics. Cambridge, UK: Whitehorse Press, 1994. 300 pages. , 11.95. Chapter titles: Ethics and its Reluctant Greening, Set Against Escalating Environmental Problems. Shallow Environmental Ethics. Intermediate Environmental Ethics. A Prominent Deep Environmental Movement: Deep Ecology. An Outline of Deep-Green Theory, by Way of Contrast with Deep Ecology. On the Development of Environmental Ethics. On Ways and Means of Marketing, Propagating, Inculcating and Implementing Environmental Ethics. Suggestions on a Range of Initiatives and for Action. The authors claim "that Australia has become a bellwether territory," and hold that "if conservation fails in Australia then all hope of convincing the rest of the world of its importance is dead." The work grows out of a UNESCO study on environmental ethics in Australia; it has an Australian flavor and cast. There is, throughout, a subversive tone, in the best philosophical sense, in that it casts a steady critical eye over the traditional, that is, modernist assumption of the European West, its domination over nature, its worship of entrepreneurial, capitalist economics, its arrogant colonialism, the British sense of empire of which Australia is a result.

One gets the sense that one is reading a book by disaffected renegades who know the tradition they are rebelling against inside out, products of it themselves, and making criticisms too forceful and well put for one to dismiss them as those of idiosyncratic disaffection. There is insight here that cannot or ought not be ignored. Chapters 1-4 are deconstructionist, but the authors construct their own deep green theory in Chapter 5 in a highly original way. Chapters 6, 7, 8 are on "applying" ethics, a term the authors rightfully find problematic, with persistent criticism of the idea of development, asking what it is that one wants to develop. Ideas like "marketing, propagating, inculcating, packaging, and implementing" environmental ethics are real teasers because every word is loaded; the authors are taking the terms of the standard worldview and using them subversively to show the limitations of the marketing mentality. The authors are in philosophy at the Research School of Social Sciences, Australian National University, Canberra; see below. An American co-publisher is University of Arizona Press. (v5,#1)

Sylvan, Richard, Bennett, David, The Greening of Ethics. Reviewed by Robert Elliot. Environmental Values 5(1996):273-274. (EV)

Sylvan, Richard, "On the Value Core of Deep-Green Theory." Pages 222-229 in Oddie, Graham and Perrett, Roy W., eds., Justice, Ethics and New Zealand Society. Auckland, New Zealand: Oxford University Press, 1992.

Sylvan, Richard, "Mucking with Nature" In Sylvan, Against the Main Stream. Discussion Papers in Environmental Philosophy, no. 21. Canberra: Research School of Social Sciences, Australian National University, 1994. Criticizes Robert Elliot's "Faking Nature," Eric Katz, "The Big Lie: Human Restoration of Nature," and Eugene Hargrove on "therapeutic nihilism."

Sylvan, Richard, "Problems and Solutions in Radical Deeper Green Political Theory: An Australian Perspective." There is a growing dissatisfaction with Australia's political institutions, and increasing demand to change them. This demand has been initiated top-down; there is so far little surge from grass-roots levels. Nonetheless, along with apathy, there is widespread popular disenchantment. There is now an opportunity, if a rather small window of opportunity, to get

green and radical themes on the agenda for real political change in Australia. That opportunity should not be missed. (v5,#1)

Sylvan, Richard, Transcendental Metaphysics. Cambridge, UK: The White Horse Press, 1998. 500 pages. , 45.00. Sylvan links his "deep green" theory of environmental philosophy to wide-ranging work in metaphysics, semantics, logic and value theory, his last work just completed before he died. Pioneering, eclectic, and controversial. Sylvan advocates "plurallism" (sic). "There is not merely a plurality of correct theories and more or less satisfactory worldviews: there is a corresponding plurality of actual worlds. Plurality penetrates deeper in full plurallism than linguistic surface or than conceptual or theoretical structure, to worlds ... There is no single fact of the matter, there are facts and matters."

Contents:

Chapter 1. Introducing and placing full and deep plurallisms

Chapter 2. Explaining full metaphysical plurallisms: their features, their differences.

Chapter 3. Paths and arguments leading to deep plurallism: vias negativas Chapter 4. More arguments to deep plurallism: vias positivas

Chapter 5. Still more positive arguments to plurallism

Chapter 6. Worlds and wholes: their natures and relative features

Chapter 7. Talking and thinking plurallise as well as more ordinarily: modellings and discourse

Chapter 8. Making a wider metaphysical sweep: traditional notions, traditional pluralism, traditional objections

Chapter 9. Distancing plurallism from realism, anti-realism and relativism, and those other -isms

Chapter 10. Plurallistic investigation of relevant philosophers and philosophical schools

Chapter 11. Impacts upon Philosophy: harmonious applications and further problem-solving

Chapter 12. What deep plurallism does, its intellectual impact, and where it leads

Chapter 13. Beyond intellectual plurallism--to liberating practice

Richard Sylvan was Senior Research Fellow in the Philosophy Program at the Australian National University. (v9,#1)

Sylvan, Richard and David Bennett, "Of Utopias, Tao and Deep Ecology," Discussion Papers in Environmental Philosophy, No. 19. Available from Department of Philosophy and Law, Research School of Social Sciences, Australian National University, P. O. Box 4, Canberra, ACT, Australia 2600. (v2,#3)

Sylvan, Richard, "A Critique of (Wild) Western Deep Ecology: A Response to Warwick Fox's Response to an Earlier Critique," manuscript paper. "Western deep ecology differs in important respects from the deep ecology originated and pursued by Naess, ... authentic deep ecology. ... Western deep ecology ... is very roughly a doctrine of the west of those new world continents where environmental philosophy functions; it has been advanced primarily by West Coast Americans (Devall, Drengson, Sessions and others) and associated West Australians (Fox, now of Tasmania, also Hallem and others). Unlike authentic deep ecology, Western deep ecology is hostile to environmental ethics, which it tends to dismiss as mere axiology; and it is excessively enthusiastic about transpersonal experience, spiritual 'paths' and 'ways', and unitarian metaphysics. ... On a personal level, I am quite attracted by authentic deep ecology; but I am substantially repelled by Western deep ecology." Available from: Department of Philosophy, Research School of Social Sciences, Australian National University, P. O. Box 4, Canberra, ACT 2600. (v1,#2)

Sylvan, Richard, "A Critique of Deep Ecology." Radical Philosophy 40 (Summer 1985): 2-12 and Radical Philosophy 41 (Fall 1985). A difficult paper to understand but absolutely essential as an analysis of the popular Deep Ecology movement. Sylvan (formerly Routley) has been a leading critic of anthropocentric environmental ethics, and thus his criticisms of an environmental philosophy closely aligned with his views is all the more impressive. Sylvan attacks Deep Ecology for being too vague: it is based on unsupported intuitions that actually permit anthropocentric biases to creep in. The problem is traced to the deep ecologist's avoidance of rational argument. There is an inconsistency between biospherical egalitarianism and holism: all the parts of the ecosystem cannot have equal value if the system itself is to be protected. Deep Ecology tries to emphasize the importance of life--and distorts the concept by including as living entities such systems as "river"--but life should not be as important as the system of nature. Finally, the Deep Ecology goal of "self-realization" lends itself to a criterion of value based on experience, and perhaps conscious experience--self-direction. In sum, Sylvan argues that because of its vagueness, Deep Ecology claims to support many positions that actually undermine a real environmental perspective. (Katz, Bibl # 1)

Sylvan, Richard, "Gaean Greenhouse, Nuclear Winter, and Anthropic Doomsday," Research Series in Unfashionable Philosophy, No. 4, 1990, Division of Philosophy and Law, Research School of Social Sciences, Australian National University, Canberra. Some provocative reflections, especially on the greenhouse effect. Possible responses rationally assessed, pessimism, skepticism, but Sylvan concludes: "From the angle of radical change, then, the impact of the Greenhouse problematique is far from entirely negative. For it may encourage or even force many more of us into thinking about and doing what should be done from a deep perspective anyway, such as rectifying recent heavy human impact upon environments, and beginning at once to put in place more environment-friendly arrangements and structures." No. 4 in this series includes two other papers by Sylvan, "As to the Purpose of the Universe," and "Illogic and Illusion in Biologic Evolution." Available from Department of Philosophy, Research School of Social Sciences, Australian National University, P. O. Box 4, Canberra, ACT 2600. (v1,#2)

Sylvan, Richard, "Paradigmatic Roots of Environmental Problems." Virtually all diagnoses of the roots and sources of environmental problems are defective, and hence the problems will not be adequately addressed. The roots of the problem are typically found in answers that do not question entrenched paradigms but seek to explain problems through defective practice, or in those that do look to entrenched paradigms, but are flawed by a monist concentration on a single paradigm, or a single narrow band of paradigms. Sylvan seeks a wider, more satisfactory answer. He disentangles in detail proposed and alleged sources of the problems; none of these answers is satisfactory. A different, more complex answer through broader classes of paradigms is investigated. One result is that philosophy portrayed through its standard history is dismal environmental news. Sylvan (d. 1996) was professor of philosophy, Research School of Social Sciences, Australian National University. (v5,#1)

Sylvan, Richard. See also Routley, Richard.

Sylvan, Richard. Obituaries: Grey, William, Bennett, David, Rawles, Kate, Holland, Alan, "Obituaries of Richard Sylvan," Environmental Values 5(1996):265-266. (EV)

Symanski, Richard, and Pickard, John. "Rules by Which We Judge One Another." Progress in Human Geography 20, no.2 (1996):175. (v7, #3)

Symanski, Richard. "Dances with Horses: Lessons from the Environmental Fringe." Conservation Biology 10, no.3 (1996): 708. (v7, #3)

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Szarka, J., "The Politics of Bounded Innovation: 'New' Environmental Policy Instruments in France," Environmental Politics 12(no. 1, 2003): 93-114. (v 14, #3)

Szaro, Robert C., Johnston, David W. Biodiversity in Managed Landscapes: Theory and Practice. New York: Oxford University Press, 1996. 808pp. \$55. The scientific basis for

understanding biodiversity, documenting with case examples of theory and concepts applied at differing scales. Examines policies that affect biodiversity conservation. (v8,#1)

Szasz, Andrew and Michael Meuser. "Unintended; Inexorable: The Production of Environmental Inequalities in Santa Clara, County, CA," American Behavioral Scientist 43(No.4, 2000). Environmental justice. (v.11,#1)

Szasz, Andrew, Ecopolitism: Toxic Waste and the Movement for Environmental Justice. Minneapolis: University of Minnesota Press, 1994. 232 pages. \$39.95; \$16.95 paper. A case study of how grass-roots movements reinvigorate politics. Traces the movement of toxic waste issues from "official" Washington policy to TV, popular consciousness, and then thousands of local, community-based groups. (v5,#2)

Szathmáry, Eörs, Jordán, Ferenc, and Pál, Csaba, "Can Genes Explain Biological Complexity," Science 292(2001):1315-1316. The number of genes correlates poorly with complexity in plants and animals. An important further factor is the number of networks that can be established by transcription factors and the genes they regulate. Immune systems and brains are more complex than the genes that generate them. There may be a significant analogy to ecosystems, where the number of species is not the main consideration in complexity of ecosystems, but the number of connections between species. We need to distinguish between two forms of complexity: one measured by the number of genes and the other by the connectivity of gene regulation networks. The authors are in the Collegium Budapest (Institute for Advanced Study). (v.12,#2)

Sze, Julie. *Noxious New York: The Racial Politics of Urban Health and Environmental Justice*. Cambridge, MA: The MIT Press, 2006. Sze relies extensively on fieldwork and interviews with community members and activists to track urban planning and environmental health activism in Brooklyn=s Sunset Park and Williamsburg sections, West Harlem, and the South Bronx in response to economic decay and a concentration of noxious incinerators, solid waste transfer stations, and power plants. The emergence of local campaigns organized around issues of asthma, energy systems, and garbage in the 1980s and 1990s is linked to the nineteenth century=s sanitation movement and New York=s history of garbage, sewage and sludge management.

Szerszynski, Bronislaw. Wallace Heim, and Claire Waterton, eds., Nature Performed: Environment, Culture and Performance. Oxford: Blackwell Publishing, 2003. Reviewed by Patrick Laviolette in Environmental Values 15(2005):536-539.

Szerszynski, Bronislaw. "Risk and Trust: The Performative Dimensionl." Environmental Values 8(1999):239-252. ABSTRACT: This paper will explore some of the implications of attending to the performative aspects of language for the sociological understanding of issues of risk and trust among lay communities. Ulrich Beck and Anthony Giddens have alerted us to the way that in late or reflexive modernity trust in authority cannot be taken for granted, but increasingly has to be actively earned and actively invested. For his part, Brian Wynne has pointed out that lay judgements are relational and hermeneutic, including as they do judgements about the behaviour of relevant expert institutions, and about the risk to one's self-identity incurred by being caught up in relationships of dependency. Wynne has also argued that public avowals of trust can often

mask deep private distrust, and thus be expressions more of fatalistic acceptance than of genuine trust. However, all of these analyses work from a basic model of "trust" as being the result of a cognitive process - as a judgement as to the trustworthiness of others. Yet trust is frequently "active" in an even stronger sense than this. To take a posture of trust towards another can often be best understood not just as a cognitive judgement but as an attempt to bind the "trusted" into a relationship and attitude of responsibility - and thus perhaps to alter their behaviour - through the taking up of a position in a social ritual. Speech act theory can help us be sensitive to this sort of use of the language of "trust", by reminding us that language can perform a number of different functions - not just that of describing the world, or of acting out ascribed roles and identities, but also that of trying to change the world. The analysis of public discourse about risk, trust and mistrust must thus be sensitive to the range of things that people might be attempting to do when they are saying things if it is to avoid drawing misleading conclusions about public attitudes to risk. KEYWORDS: Risk, trust, lay knowledge, performativity, speech acts. Bronislaw Szerszynski, Centre for the Study of Environmental Change Lancaster University Lancaster LA1 4YT E-mail: bron@lancaster.ac.uk (EV)

Szerszynski, Bronislaw, "The Varieties of Ecological Piety" Worldviews: Environment, Culture, Religion, vol.1, no.1.

Sztybel, David, "Marxism and Animal Rights," Ethics and the Environment 2(1997):169-185. There is no doubt that Marx and Engels rejected animal rights. However, they did embrace the communist principle, "From each according to his abilities, to each according to his need." Furthermore, they acknowledge that nonhuman animals have needs. So the principle can enjoin us to respect animals' needs, even if they lack certain abilities (e.g., tool-making, perhaps even self-consciousness). I argue that it is essentially speciesist to restrict this principle to human beings, and that its acceptance implies either animal rights or a substantive equivalent. Marxism may have to undergo a profound dialectical transformation in light of the implications of its own maxim. Sztybel is completing a doctorate at the University of Toronto. (E&E)

Sztybel, David, "A Living Will Clause for Supporters of Animal Experimentation," Journal of Applied Philosophy 23 (no.2, May 2006): 173-189 (17).

Sztybel, David, "Can the Treatment of Animals Be Compared to the Holocaust?" Ethics and the Environment 11(2006):97-132. The treatment of animals and the Holocaust have been compared many times before, but never has a thoroughly detailed comparison been offered. A thirty-nine-point comparison can be constructed, whether or not one believes that animals are oppressed. The question of whether or not the comparison ought to be expressed merely brings into question whether animal liberationists have liberal-democratic rights to express themselves, which they surely do. Four objections are considered: Is the comparison offensive? Does the comparison trivialize what happened to the victims of the Nazis, overlook important differences, or ignore supposed affinities between animal liberationists and Nazis? These four lines of attack are shown to fail. The comparison stands to help us to reflect on the significance of how animals are treated in contemporary times. Sztybel finished a doctorate in animal rights ethics at the University of Toronto. (Eth&Env)

Sztybel, David. "Animal Rights: Autonomy and Redundancy." Even if animal liberation were to be adopted, would rights for animals be redundant - or even deleterious? Such an objection, most prominently voiced by L. W. Sumner and Paul W. Taylor, is misguided, risks an anthropocentric and anthropo-morphic conception of autonomy and freedom, overly agent-centered rights conceptions, and an overlooking of the likely harmful consequences of positing rights for humans but not for nonhuman animals. The objection in question also stems from an overly pessimistic construal of autonomy-infringements thought to result from extending rights to animals, and also, of confusions that supposedly may ensue from ascribing animal rights. Whether or not a case for animal liberation and/or animal rights can cogently be made, the redundancy-or-worse objection to animal rights need pose no barrier. Keywords: animal liberation, animals, anthropocentrism, anthropomorphism, autonomy, ethics, rights, utilitarianism. Sztybel is in the Philosophy Department, University of Toronto, Toronto, Ontario, Canada. (JAEE)