See the README file that accompanies this bibliography.

This bibliography contains ISEE Newsletter entries, vols. 1-18, 1990-2007, but not 2008 Newsletter entries. They will be merged into this document spring 2009. They can meanwhile be searched in the separate quarterly newsletters at the ISEE website.


Cadigan, Tui, "Land Ideologies that Inform a Contextual Maori Theology of Land," Ecotheology Vol 6 (Jul 01/Jan 02):123-137. thasista@ihug.co.nz This paper is primarily concerned with a Maori theological perspective with regard to relationship to land. A series of traditional Maori concepts are employed to articulate this three-way relationship between God-Land-People. The ideologies dealt with here were selected from a list of seven ideologies of land Maori identify with. The context is Aotearoa, the people referred to are the local indigenous people, namely Maori, also known as Tangata Whenna. To assist international readers some brief referencing to possible similarities and obvious differences with the Christian scriptural theological perspective have been applied. The paper seeks to share with the reader something of the depth of relationship Maori have to their environment generally and to land in particular.


Cafaro, Philip, and Verma, Monish. "For Indian Wilderness." Terra Nova 3 (no. 3, 1998): 53-58. A wilderness, on one important definition, is a place which remains largely unmodified by human beings. Due to increased human numbers and technological power, only places mandated by law will remain as wildernesses in the coming centuries. Wilderness preservation gains support from two cornerstone positions of Western environmentalism, as it has developed over the past twenty years. First, the view articulated within environmental ethics that wild, non-human nature, or at least some parts of it, has intrinsic value and that it should be treated respectfully as a consequence. Second, the understanding developed within conservation biology that we have entered a period of massive anthropogenic extinction of biological species and biodiversity loss, that human economic activities are the major cause of this, and that landscape-level habitat preservation is essential for ameliorating it.

Recently, some writers have argued that wilderness preservation is a specifically American or Western preoccupation, whose promotion in the third world amounts to cultural imperialism. According to Ramachandra Guha, for example, wilderness preservation is inappropriate and unnecessary in the third world, whose peoples face more pressing environmental issues, centered on meeting basic human needs. In effect, Guha denies the
intrinsic value of non-human nature and dismisses as unimportant the loss of biodiversity in the third world.

In opposition to this well-intentioned anthropocentrism, we argue that non-human nature retains intrinsic value in the third world, as in the first. Furthermore, biodiversity loss is not in the interests of third world citizens, but will lead rather to their material, intellectual and spiritual impoverishment. In order to stem such loss, we advocate, with Guha, sustainable development for the poor, decreased consumption among the rich, and wilderness preservation, worldwide. Cafaro teaches philosophy at Southwest State University, Marshall, Minnesota. Verma is a consultant for UNICEF in New Delhi, India.
moral character, knowledge, and creativity. Thoreau's life and writings, argues Cafaro, present a positive, life-affirming environmental ethics, combining respect and restraint with an appreciation for human possibilities for flourishing within nature.

Cafaro, Philip, review of video “Suits and Savages: Why the World Bank Won't Save the World,” Organization and Environment 14 (2001): 463-465. Takes filmmakers to task for ignoring the needs of wildlife. “The film makers share the World Bank's tradition view that people and their concerns are all important. They differ on which people they care about and what they think is best for them.” (v.12,#4)

Cafaro, Philip, “Less is More: Economic Consumption and the Good Life.” Philosophy Today 42(1998): 26-39. We should judge economic consumption on whether it improves or detracts from our lives, and act on that basis. The issue of consumption is placed in the context of living a good life, in order to discuss its justifiable limits. Two important areas of our economic activity, food consumption and transportation, are examined from an eudaimonist perspective.

From the perspective of our enlightened self-interest, we see that when it comes to economic consumption, less is more. Not always, and not beyond a certain minimum level. But often, less is more; especially for the middle and upper class members of wealthy industrial societies. This is the proper perspective from which to consider environmentalists’ calls for limiting consumption in order to protect nature. (v.9,#3)


Cafaro, Philip Justin. Thoreau's Vision of a Good Life in Nature: Towards an Environmental Virtue Ethics. Ph. D. thesis, Boston University Graduate School of Arts and Sciences, 1997. Major Professor: Michael Martin, Professor of Philosophy. Environmental ethics from a virtue ethics perspective. Positive relationships to nature are necessary to a good human life, while negative relationships stunt and limit us. The thesis is developed through a consideration of the writings of Henry David Thoreau, focusing on his analyses of two important areas of our lives: economic activity and the pursuit of knowledge. It brings Thoreau into current environmental debates with the goal of furthering the creation of a strong environmental virtue ethics, arguing that an enlightened self-interest demands environmental protection and the preservation of wild nature.

Part one outlines a theory of virtue ethics and develops a position on the nature and limits of ethical justification. It then explores Thoreau's method of ethical theorizing, a blend of analysis, experiment, exhortation and story-telling.

Part two presents Thoreau's economic philosophy and argues for its contemporary relevance. Treating economics within the context of virtue ethics, Thoreau argues that the real importance of our economic lives lies in what sorts of people they make us, and in how they relate us to other people and to nature. Because modern economic theory takes a narrower view of the purpose of economic life, these chapters challenge both our economic lives and currently accepted ways of understanding them.

Part three considers the role of the search for knowledge in a good life. One chapter explores Thoreau's career as a naturalist and argues that the study of natural history is an important avenue for personal growth and fulfillment. A second considers Thoreau's ambivalent yet lasting interest in natural science and his contributions to the nascent science of ecology. Building on recent insights into the importance of narrative to virtue ethics, it discusses the
stories that individual scientists may tell about their activities, and the stories that we may tell of science itself, as the career of humanity knowing nature. This dissertation argues that stories which include loving and respectful relationships to nature are superior to those which promote its control and domination.

Cafaro is now assistant professor of philosophy at Southwest State University, Marshall, Minnesota. (v.9,#3)


Cafaro, Philip, "For a Grounded Conception of Wilderness and More Wilderness on the Ground," Ethics and the Environment 6(no. 1, 2001):1-17. Recently a number of influential academic environmentalists have spoken out against wilderness, most prominently William Cronon and J. Baird Callicott. This is odd, given that these writers seem to support two cornerstone positions of environmentalism as it has developed over the past twenty years: first, the view articulated within environmental ethics that wild, nonhuman nature, or at least some parts of it, has intrinsic or inherent value; second, the understanding developed within conservation biology that we have entered a period of massive anthropogenic biodiversity loss and that landscape-level habitat preservation is essential for combating this. I argue here that Cronon and Callicott are wrong. In fact, an ethics of respect for nonhuman nature and an informed, scientific understanding of what is necessary to preserve it do strongly support increased wilderness preservation. Cafaro is in philosophy, Colorado State University. (E&E)

Cafaro, Philip, "Thoreauvian Patriotism as an Environmental Virtue." Philosophy in the Contemporary World 2 (1995): 1-9. In Walden Henry David Thoreau argues for and against patriotism. Thoughtful environmentalists should do likewise. Thoreau's accounts of "settling" and farming are efforts to rethink and deepen his connections to the land. These efforts define a patriotism that is local, thoughtful and moral, and Thoreau's economic philosophy can be seen as applied patriotism. Like other virtues such as courage or prudence, patriotism is liable to a skewed development and various kinds of misuse. Yet properly developed it is a part of a good human life. Thoreauvian patriotism provides a strong base from which to oppose militarism and xenophobia, which many intellectuals mistakenly equate with patriotism. (v.9,#3)


Cafaro, Philip, "The Naturalist's Virtues," Philosophy in the Contemporary World 8 (Number 2, Fall-Winter 2001):85-99. This paper argues that studying natural history helps make us more virtuous; that is, better and happier people. After sketching a broad conception of virtue, It discusses how naturalizing may improve our moral character and help develop our intellectual, aesthetic and physical abilities. It asserts essential connections between non-anthropocentrism and wisdom, and between natural history study and the achievement of a non-anthropocentric stance toward the world. Finally, it argues that the great naturalists suggest a noble, inspiring alternative to the gross consumption and trivial pleasures offered by our destructive modern economy: the exploration, understanding and appreciation of nature. It concludes that a better understanding of our enlightened self-interest would do as much to further environmental protection as the acknowledgment of nature's intrinsic value. (v.13,#2)

health and quality of life and also causes direct and indirect environmental degradation, through habitat loss and increased pollution from agricultural fertilizers and pesticides. We show here that reducing food consumption (and eating less meat) could improve Americans' health and well-being while facilitating environmental benefits ranging from establishing new national parks and protected areas to allowing more earth-friendly farming and ranching techniques. We conclude by considering various public policy initiatives to lower per capita caloric intake and excessive meat consumption, and to translate this temperate behavior into substantial environmental protection. Keywords: biodiversity - consumption - environmental protection - food ethics - obesity - overconsumption - sustainability - temperance. Cafaro and Zimdahl are in the Department of Philosophy, Colorado State University, Fort Collins, CO. (JAEE)

Cafaro, Philip. "Thoreau, Leopold, and Carson: Toward an Environmental Virtue Ethics." Environmental Ethics 23 (2001):3-18. I argue for an environmental virtue ethics which specifies human excellence and flourishing in relation to nature. I consider Henry David Thoreau, Aldo Leopold, and Rachel Carson as environmental virtue ethicists, and show that these writers share certain ethical positions that any environmental virtue ethics worthy of the name must embrace. These positions include putting economic life in its proper, subordinate place within human life as a whole; cultivating scientific knowledge, while appreciating its limits; extending moral considerability to the nonhuman world; and supporting wilderness protection. I argue that Thoreau, Leopold, and Carson themselves exemplify the potential for cultivating excellence in engagement with wild nature: their lives are among our most powerful arguments for its preservation. (EE)


Cafaro, Philip. "Thoreau`s Environmental Ethics in Walden." The Concord Saunterer 10 (2002): 17-63. A detailed discussion of Thoreau`s environmental ethics, focused on Walden, but rounding out his conservation philosophy with reference to his journal and late natural history writings. Shows Thoreau to have anticipated intrinsic value arguments and to have fully articulated an environmental virtue ethics. (v 14, #3)

Cafaro, Philip. "Economic Consumption, Pleasure and the Good Life." Journal of Social Philosophy 32 (2001): 471-486. This paper makes two contentions; first, that we should judge consumption on whether it improves or detracts from our lives, and act on that basis; second, that many of the limits to economic consumption advocated by environmentalists would improve our lives. (v


Cahen, Harley. "Against the Moral Considerability of Ecosystems." Environmental Ethics 10(1988):195-216. Are ecosystems morally considerable—that is, do we owe it to them to protect their "interests"? Many environmental ethicists, impressed by the way that individual non-sentient organisms such as plants tenaciously pursue their own biological goals, have concluded that we should extend moral considerability far enough to include such organisms. There is a pitfall in the ecosystem-to-organism analogy, however. We must distinguish a system's genuine goals from the incidental effects, or byproducts, of the behavior of that system's parts. Goals seem capable of giving rise to interests; byproducts do not. It is hard to see how whole ecosystems can be genuinely goal-directed unless group selection occurs at the community level. Currently, mainstream ecological and evolutionary theory is individualistic. From such a theory it follows that the apparent goals of ecosystems are mere byproducts and, as such, cannot ground moral considerability. Cahen is in the department of Natural Resources, Cornell University, Ithaca, NY. (EE)

Cahen, Harley, "Against the Moral Considerability of Ecosystems," Environmental Ethics 10(1988):195-216. This article is a challenge to the land ethic of Leopold or any other holistic environmental ethic, for Cahen denies that ecosystems are morally considerable in themselves. Even if all goal-directed behavior is morally considerable, there is a difference between the goals and incidental by-products of activity. Ecosystemic theory is individualistic; it assumes that the stability of systems is not a goal but a by-product of numerous individual behaviors. Cahen rests this argument on the lack of group or community selection in natural systems. But this argument is based on only one side of current debates in evolutionary ecological theory. For more discussion, see Stanley and Barbara Salthe, "Ecosystem Moral Considerability: A Reply to Cahen," Environmental Ethics 11 (1989):355-361. (Katz, Bibl # 2)

Cahill, Thomas V., Review of Scarce, Rik, Eco-Warriors: Understanding the Radical


Cahn, Steven M., and Peter Markie, eds., Ethics: History, Theory, and Contemporary Issues. New York: Oxford University Press, 1998. Said to be the most comprehensive anthology available, but not comprehensive enough to include any environmental ethics. Tom Regan, "The Case for Animal Rights," and Carl Cohen, "The Case for the Use of Animals in Medical Research," make it in, but that's as non-human as ethics gets here. Otherwise the issues are the usual ones: abortion, euthanasia, capital punishment, affirmative action, famine relief. Cahn is in philosophy at the City University of New York; Markie is in philosophy at the University of Missouri, Columbia. (v.8,#4)

Cai Ya'na, Miu Shenyu & Huang Xiaobing, "On Latent Environmental Problems: The Risk Involved in Gene Transfer Organisms." Huanjing yu Shehui, a Quarterly, (Environment and Society), vol. 3, no. 4 (December 30, 2000). Abstract: This paper describes the historical origins and basic ideas regarding the issue of the risk involved in gene transfer organisms as one of the latent environmental problems. In Chinese. (EE v.12,#1)


Cairncross, Frances, Costing the Earth: The Challenge for Governments, the Opportunities for Business. Cambridge, MA: Harvard Business School Press, 1992. 341 pages. $ 24.95. Environmentalists "need to help develop incentives for industry to support human needs in the least polluting way." They must "put down their placards ... and come into the boardroom with constructive advice." (v3,#2)


Cairns, John, Jr., "Sustained Emergencies," International Journal of Sustainable Development and World Ecology 12(2005):221-226. Emergency situations require more resources than normal operations. If human society does not address environmental problems effectively before they reach the emergency stage, life from then on will be in a sustained (indefinite) state of emergency. Sustainable use of the planet requires optimal use of resources, which can be facilitated by avoiding sustained emergency conditions. Some emergencies beyond human control will always occur, and adequate global resources must be allocated to cope with them. However, a huge number of emergencies are simply the result of failing to take precautionary preventative action in time. Cairns is in biology (emeritus) at Virginia Tech, Blacksburg, VA.


Caldecott, Julian. Designing Conservation Projects. New York: Cambridge University Press, 1996. 300 pages. $64.95 cloth. Many challenges are involved in protecting biodiversity in tropical terrestrial and coastal ecosystems, and conservation projects teach many practical lessons. Guidelines to help others design projects that are practical and effective, yet more complete and more robust than some of those designed in the recent past. (v7, #3)

Calderazzo, John, Rising Fire: Volcanoes and our Inner Lives. Guilford, CT: Lyons Press, 2004. Earth's volcanoes have inspired poetry and terror. They also inspire a sense of where the world truly begins. "Over the long arc of time, volcanoes heave themselves up into high, holy mountains and haunted summits, burst apart, erode back down. Their lavas leap and turn with the grace of sandhill cranes in their mating dance; they breathe, roar and sing. And singing, volcanic rocks and fires can deeply affect the way we see and act in the world, the stories we tell about the world." "The natural world can revolutionize the human heart." Calderazzo teaches English, including nature writing, at Colorado State University. (v. 15, # 3)

Caldwell, Lynton Keith and Kristin Shrader-Frechette, Policy for Land: Law and Ethics. Lanham, Md: Roman and Littlefield, 1993. 333 pages. Cloth. A new, ecologically enlightened view of land and policy, analyzed and defended against arguments often brought against it. What people believe about their relationship with the Earth takes the form of ethical conclusions that are expressed in institutions defined by law. This account is both biocentric and anthropocentric, drawing on political and legal theory, as well as on analyses of both science and ethics. Chapters on different kinds of land ethics, on concepts of ownership and rights of use, on limits to policy, on land-use policy in international issues, on ecosystemic criteria for land policy, on practical steps and ethical justifications, and on a national policy for land. Caldwell is emeritus in political science at Indiana University; Shrader-Frechette is in philosophy at the University of South Florida, Tampa. (v4,#4)
Caldwell, Lynton Keith and Kristin Shrader-Frechette, *Policy for Land: Law and Ethics*. Lanham, MD, Rowman and Littlefield, and Lanham, MD: University Press of America, 1992. $ 24.95 paper. $ 67.50 cloth. A survey of the problem that have arisen from environmentally counterproductive land policies and use. The authors challenge traditional justifications for property rights and land use. California agricultural land and Appalachian coal land are used as case studies. Caldwell is professor emeritus of political science at Indiana University. Shrader-Frechette is professor of philosophy at the University of South Florida. (v3,#4)


Caldwell, Lynton K., *Between Two Worlds: Science, the Environmental Movement and Policy Choice*. New York: Cambridge University Press, 1989. 200 pages, $ 44.50. Will humans adapt their ways of life to conserve the natural systems upon which their future and the living world depend? Caldwell attempts an integrated analysis of the interrelationships among science, the environmental movement, and public policy. Special emphasis is given to the interaction of environmentalism and science in generating public and international environmental policies. (v1,#4)


Callahan, Daniel, "Can Nature Serve as a Moral Guide?" *Hastings Center Report* 26 (no. 6, Nov.-Dec. 1996):21-27, a short essay, with short replies by Leon R. Kass, "The Troubled Dream of Nature as a Moral Guide," by Bryan G. Norton, "Moral Naturalism and Adaptive Management," and by Strachan Donnelley, "Nature as a Reality Check." Callahan: "I have never quite given up the hope that nature might put in a reappearance in ethics. ... The supposed naturalistic fallacy is, on closer inspection, an odd kind of fallacy since `is' is all the universe has to offer, to say that it cannot be the source of an `ought' is tantamount to saying a priori that an ought can have no course at all--and to say that is no less than to say there can be no oughts. ... Quite apart from these philosophical puzzles, it is useful to note that there is now a major field of inquiry and action right under our noses where nature is frequently held up--with little objection--as the standard for proper behavior." Kass: "Natural knowledge may be very useful in selecting our means, but not in discerning our ends, and it is utterly useless in deciding how to balance one good against another." Callahan is the retiring president of the Hastings Center. The whole collection of four pieces could be quite profitably read for discussion in a single class hour, in an introductory philosophy class, as well as in an environmental ethics class. (v7,#4)

Callicott, J. Baird, "The Metaphysical Transition in Farming: From the Newtonian-Mechanical to the Eltonian Ecological", *Journal of Agricultural Ethics* 3(1990):36-49. Modern agriculture is subject to a metaphysical as well as an ethical critique. As a casual review of the beliefs associated with food production in the past suggests, modern agriculture is embedded in and informed by the prevailing modern world view, Newtonian Mechanics, which is bankrupt as a scientific paradigm and unsustainable as an agricultural motif. A new holistic, organic world view is emerging from ecology and the new physics marked by four general conceptual feature. A future post-modern
ecological agriculture will help to solve the ethical problems engendered by modern mechanical agriculture. Callicott is in philosophy at the University of Wisconsin, Stevens Point.


Callicott, J. Baird. "Hume's Is/Ought Dichotomy and the Relation of Ecology to Leopold's Land Ethic." Environmental Ethics 4(1982):163-74. Environmental ethics in its modern classical expression by Aldo Leopold appears to fall afoul of Hume's prohibition against deriving ought-statements from is-statements since it is presented as a logical consequence of the science of ecology. Hume's is/ought dichotomy is reviewed in its historical theoretical context. A general formulation bridging is and ought, in Hume's terms, meeting his own criteria for sound practical argument, is found. It is then shown that Aldo Leopold's land ethic is expressible as a special case of this general formulation. Hence Leopold's land ethic, despite its direct passage from descriptive scientific premises to prescriptive normative conclusions, is not in violation of any logical strictures which Hume would impose upon axiological reasoning. Callicott is in the department of philosophy, University of Wisconsin-Stevens Point, Stevens-Point, WI. (EE)

Callicott, J. Baird. "The Case against Moral Pluralism." Environmental Ethics 12(1990):99-124. Despite Christopher Stone's recent argument on behalf of moral pluralism, the principal architects of environmental ethics remain committed to moral monism. Moral pluralism fails to specify what to do when two or more of its theories indicate inconsistent practical imperatives. More deeply, ethical theories are embedded in moral philosophies and moral pluralism requires us to shift between mutually inconsistent metaphysics of morals, most of which are no longer tenable in light of postmodern science. A univocal moral philosophy--traceable to David Hume's and Adam Smith's theory of moral sentiments, grounded in evolutionary biology by Charles Darwin, and latterly extended to the environment by Aldo Leopold--provides a unified, scientifically supported world view and portrait of human nature in which multiple. Lexically ordered ethics are generated by multiple human, "mixed," and "biotic" community memberships. Callicott is in the department of philosophy, University of Wisconsin-Stevens Point, Stevens-Point, WI. (EE)

Callicott, J. Baird. "Animal Liberation: A Triangular Affair." Environmental Ethics 2(1980):311-38. The ethical foundations of the "animal liberation" movement are compared with those of Aldo Leopold's "land ethic," which is taken as the paradigm for environmental ethics in general. Notwithstanding certain superficial similarities, more profound practical and theoretical differences are exposed. While only sentient animals are morally considerable according to the humane ethic, the land ethic includes within its purview plants as well as animals and even soils and waters. Nor does the land ethic prohibit the hunting, killing, and eating of certain animal species, in sharp contrast to the humane ethic. The humane ethic rests upon Benthamic foundations: pain is taken to be the ultimate evil and it is reductive or atomistic in its moral focus. The land ethic, on the other hand, is holistic in the sense that the integrity, stability, and beauty of the biotic community is its summum bonum. A classical antecedent of some of the formal
characteristics of the land ethic is found in Plato’s moral philosophy. Special consideration is
given to the differing moral status of domestic and wild animals in the humane and land ethics
and to the question of moral vegetarianism. Callicott is in the department of philosophy,
University of Wisconsin-Stevens Point, Stevens-Point, WI. (EE)
326. (EE)

York: Macmillan Library Reference, Simon and Schuster, 1995), 676-87. (v6,#2)

applied to fisheries management, with attention to whether we ought to stock exotic fish. "While
the first commandment of the Leopold Land Ethic, thou shalt not extirpate species or render them
extinct, is categorical; the second is hypothetical: thou mayest introduce exotics provided thou
exerciseth great caution in doing so." A case in point: "California's Clear Lake, 'one of the oldest
lakes in North America,' originally had 12 native fish species. It is now home to 23. Thus, it is
presently nearly twice as diverse as in its historical ('natural') condition and presumably
ecologically stable." Regrettably, "the introduction of 16 species has made Clear Lake a much
richer fishery than formerly, but five of the natives were extirpated, of which two are now
globally extinct. In absolute terms the planet is poorer." Callicott is professor of philosophy,
University of Wisconsin, Stevens Point. (v2,#2)

Callicott, J. Baird, "Land Ethic" (Environmental Ethics), Encyclopedia of Bioethics, revised ed.

8(1986):301-16. Although ecology is neither a universal nor foundational science, it has
metaphysical implications because it profoundly alters traditional Western concepts of terrestrial
nature and human being. I briefly sketch the received metaphysical foundations of the modern
world view, set out a historical outline of an emerging ecological world view, and identify its
principal metaphysical implications. Among these the most salient are a field ontology, the
ontological subordination of matter to energy, internal relations, and systemic (as opposed to
oceanic) holism. I treat moral psychology as a special case of the metaphysical implications of
ecology. Ecology undermines the concept of a separable ego or social atom and thus renders
obsolete any ethics which involves the concepts of "self" and "other" as primitive terms.
Callicott is in the department of philosophy, University of Wisconsin-Stevens Point, Stevens-Point,
WI. (EE)

Callicott, J. Baird. "Intrinsic Value, Quantum Theory, and Environmental Ethics." Environmental
Ethics 7(1985):257-75. The central and most recalcitrant problem for environmental ethics is the
problem of constructing an adequate theory of intrinsic value for nonhuman natural entities and
for nature as a whole. In part one, I retrospectively survey the problem, review certain classical
approaches to it, and recommend one as an adequate, albeit only partial, solution. In part two, I
show that the classical theory of inherent value for nonhuman entities and nature as a whole
outlined in part one is inconsistent with a contemporary scientific world view because it
assumes the validity of the classical Cartesian partition between subject and object which has
been overturned by quantum theory. Based upon the minimalistic Copenhagen Interpretation of
quantum theory, I then develop a theory of inherent value which does not repose upon the
obsolete subject/object and ancillary fact/value dichotomies. In part three, I suggest that a more
speculative metaphysical interpretation of quantum theory--one involving the notion of real
internal relations and a holistic picture of nature--permits a principle of "axiological
complementary," a theory of "intrinsic"--as opposed to "inherent"--value in nature as a simple
extension of ego. Callicott is in the department of philosophy, University of Wisconsin-Stevens
Callicott, J. Baird, "Moral Monism in Environmental Ethics Defended," *Journal of Philosophical Research* 19(1994):51-60. In dealing with concern for human beings, sentient animals, and the environment, Christopher D. Stone suggests that a single agent adopt a different ethical theory--Kant's, Bentham's, Leopold's--for each domain. But employing Kant's categorical imperative in this case, Bentham's hedonic calculus in that, and Leopold's land ethic in another, a single agent would have either simultaneously or cyclically to endorse contradictory moral principles. Instead, Callicott suggests that different and sometimes conflicting duties are generated by an agent's membership in multiple moral communities. Peter Wenz, Gary Varner, Andrew Brennan, Anthony Weston, and Eugene Hargrove variously misunderstand either what is at issue in the monism versus pluralism debate or Callicott's suggested communitarian alternative to the sort of pluralism that Stone recommends. (v5,#2)


Callicott, J. Baird, "A Critique of and an Alternative to the Wilderness Idea," *Wild Earth* 4, no. 4 (Winter 1994-95): 54-59. Wildernesses could be better conceived as managed biosphere reserves. The wilderness idea (1) was conceived to meet human aesthetic and spiritual needs, not as biodiversity reserves; (2) is a defensive, losing strategy, because most of nature has already been developed, nature is at an end; (3) is not an international idea universalizable for all countries; (4) is ethnocentric, because there was no real wilderness even prior to Columbus; native Americans actively managed the landscape; (5) is flawed because nature is not static as envisioned in wilderness; and (6) the idea perpetuates a dichotomy between humans and nature. A better policy is active human management of nature reserves, with illustrations of how this could be so in the Greater Yellowstone Ecosystem.

Immediately following are two replies, the first by Reed Noss, "Wilderness--Now More than Ever," *Wild Earth* 4, no. 4 (Winter 1994-95):60-63. "Callicott is dead wrong." "Callicott erects a straw man." "No ecologist interprets wilderness in the static, pristine, climax sense that Callicott caricatures it." The second reply is by Dave Foreman, "Wilderness Areas Are Vital," *Wild Earth* 4(no. 4, Winter 1994-1995):64-69. Callicott's argument ''is fraught with mischief, and unschooled in its subject." ''Before a respected scholar like Callicott criticizes the Wilderness concept (even from a friendly if disingenuous point of view), he ought to become more familiar with the history of the Wilderness preservation movement." Callicott counter-replies, a "retort," in "Deep Grammar," *Wild Earth* 5(no. 1, Spring 1995):64-66. Wilderness is a religion and anyone who criticizes it gets jumped on; Callicott argues that we should "abandon the concept of wilderness (with its historicist baggage) for the concept of biodiversity reserves."

Callicott, J. Baird, "Tertium Organum and Mankind's Role in Future Evolution." *Philosophica* 39 (1987): 101-112. A minor piece by Callicott, suggesting a new organicist myth of the human place in the world. The world is a product of "emergent evolution," and we humans are the central nervous system. (Katz, Bibl # 2)


A plethora of normative conservation concepts have recently emerged, most of which are ill-defined: biological diversity, biological integrity, ecological restoration, ecological services, ecological rehabilitation, ecological sustainability, sustainable development, ecosystem health, ecosystem management, adaptive management, and keystone species are salient among them. These normative concepts can be organized and interpreted by reference to two new schools of conservation philosophy, compositionalism and functionalism. The former comprehends nature primarily by means of evolutionary ecology and considers Homo sapiens separate from nature. The latter comprehends nature primarily by means of ecosystem ecology and considers Homo sapiens as part of nature. Biological diversity, biological integrity, and ecological restoration belong primarily in the compositionalist glossary; the rest belong primarily in the functionalist glossary. The former set are more appropriate norms for reserves, the latter for areas that are humanly inhabited and exploited. In contrast to the older schools of conservation philosophy, preservationism and resourcism, compositionalism and functionalism are complementary, not competitive and mutually exclusive. As the historically divergent ecological sciences--evolutionary ecology and ecosystem ecology--are increasingly synthesized, a more unified philosophy of conservation can be envisioned. Callicott is in philosophy, University of North Texas. Crowder is in zoology, Duke University, Marine Laboratory. Mumford is in Fisheries and Wildlife, University of Minnesota St. Paul.

The conceptual foundations of Aldo Leopold's land ethic are traceable through Darwin to the sentiment-based ethics of Hume. According to Hume, the moral sentiments are universal; and, according to Darwin, they were naturally selected in the intensely social matrix of human evolution. Hence they may provide a "consensus of feeling," functionally equivalent to the normative force of reason overriding inclination. But then ethics, allege Kristin Shrader-Frechette and Warwick Fox, is reduced to a description of human nature, and the question remains open whether one really ought or ought not value, approve, or do this or that. The moral sentiments, however, are informed by culture. Specific ethical injunctions, even so, are not culturally relative, because cultural beliefs are amenable to cognitive criticism. New experience and new discoveries of science may bring to light hitherto unrecognized "proper objects" of our moral sentiments. This paper was originally delivered at the Pacific Division, APA, March 1991. Callicott is professor of philosophy, University of Wisconsin, Stevens Point.

Pragmatist environmental philosophers have (erroneously) assumed that environmental ethics has made little impact on environmental policy because environmental ethics has been absorbed with arcane theoretical controversies, mostly centered on the question of intrinsic value in nature. Positions on this question generate the allegedly divisive categories of anthropocentrism/nonanthropocentrism, shallow/deep ecology, and individualism/holism. The locus classicus for the objectivist concept of intrinsic value is traceable to Kant, and modifications of the Kantian form of ethical theory terminate in biocentrism. A subjectivist approach to the affirmation of intrinsic value in nature has also been explored. Because of the academic debate about intrinsic value in nature, the concept of intrinsic value in nature has begun to penetrate and reshape the discourse of environmental activists and environmental agency personnel. In environmental ethics, the concept of intrinsic value in nature functions similarly to way the concept of human rights functions in social ethics. Human rights has had enormous pragmatic efficacy in social ethics and policy. The prospective adoption of the Earth Charter by the General Assembly of the United Nations may have an impact on governmental environmental policy and performance similar to the impact on governmental social policy and behavior of the adoption by the same body in 1948 of the Universal Declaration of Human Rights. Belatedly, but at last, the most strident Pragmatist critics of the concept of intrinsic value.
value in nature now acknowledge its pragmatic power and promise. (EV)

Callicott, J. Baird, "La Nature est Morte; Vive la Nature," Hastings Center Report 22 (September-October 1992):16-23. "The old, mechanistic idea of nature is dying. We are witnessing the shift to a new idea, in which nature is seen as an organic system that includes human beings as one of its components rather than as brutal and ultimately self-defeating conquistadores." "We are animals ourselves, large omnivorous primates, very precocious to be sure, but just big monkeys, nevertheless. We are therefore a part of nature, not set apart from it. Chicago is no less a phenomenon of nature than is the Great Barrier Reef." Callicott is in the Department of Philosophy, University of Wisconsin, Stevens Point. (v3,#3)

Callicott, J. Baird. "Traditional American Indian and Western European Attitudes toward Nature: An Overview." Environmental Ethics 4(1982):293-318. A generalized traditional Western world view is compared with a generalized traditional American Indian world view in respect to the practical relations implied by either to nature. The Western tradition pictures nature as material, mechanical, and devoid of spirit (reserving that exclusively for humans), while the American Indian tradition pictures nature throughout as an extended family or society of living, ensouled beings. The former picture invites unrestrained exploitation of nonhuman nature, while the latter provides the foundations for ethical restraint in relation to nonhuman nature. This conclusion is defended against disclaimers by Calvin Martin and Tom Regan. Callicott is in the department of philosophy, University of Wisconsin-Stevens Point, Stevens-Point, WI. (EE)

Callicott, J. Baird. "Silencing Philosophers: Minteer and the Foundations of Anti-foundationalism." Environmental Values 8(1999):499-516. ABSTRACT: In "No Experience Necessary: Foundationalism and the Retreat from Culture in Environmental Ethics", Ben A. Minteer forgivably misconstrues my critique of moral pluralism. Contrary to Minteer's representation: I do not accuse moral pluralists of "moral promiscuity"; nor do I posit a "master principle" to govern all human action respecting the environment; and although I offer conceptual foundations for environmental ethics, I do not claim that they rest on certain, a priori, and non-empirical intuitions. Rather, the conceptual foundations I offer for environmental ethics are largely scientific. Contrary to Minteer's representation: I do consider a multiplicity of contexts in which ethical actions are situated; and I do respectfully attend to and creatively engage a variety of cultural points of view, both western and nonwestern, in constructing environmental ethics. Anti-foundationalists, such as Minteer and Bryan G. Norton, ironically pose an insidious threat to democratic discussion and debate of environmental values, because they themselves posit, but do not frankly acknowledge, foundational beliefs. KEYWORDS: Foundationalism, anti-foundationalism, environmental ethics, pragmatism, culture. J. Baird Callicott, Department of Philosophy and Religion Studies University of North Texas Denton, TX 76203, USA. (EV)

Callicott, J. Baird, "Intrinsic Value, Quantum Theory, and Environmental Ethics," Environmental Ethics 7(1985):257-275. This is the latest in a series of articles that attempt to delineate the concept of intrinsic value in nature. Callicott rightly sees this as the central problem for environmental ethics. He further develops his axiological subjectivism of Humean/ Darwinian empathy to take into account the revelations of quantum physics. That science has effectively ended the duality of subject/object--thus making the conflict between subjectivism and naturalism a moot point. In ethics, this means that we can value nature as part of an expanded concept of self. What Callicott has done is develop a Deep Ecology position, but rather than basing his conclusions on some kind of mystical intuition, he has grounded his position in coherent and relevant arguments. But in practical terms, it is unclear how far the extension of "self" can reach. (Katz, Bibl # 1)

pluralism is the separation of ethics from metaphysics. Each ethical view is based on a specific metaphysical world-view, so how is pluralism possible? Pluralism abandons the attempt to develop a coherent vision of the world. Callicott proposes the community model of Darwin and Leopold, which presents a univocal ethical theory with multiple duties. In practical operation, Callicott's Darwinian metaphysic of morals is not any less pluralistic than Stone's view. (Katz, Bibl # 2)

Callicott, J. Baird., In Defense of the Land Ethic: Essays in Environmental Philosophy. Albany: SUNY Press, 1989. Pp. x, 325. Callicott is a central figure in environmental ethics, and this is a collection of his principal articles published over the last fifteen years. All of the chapters appeared before 1988, and many of them are reviewed in the first version of this bibliography. Callicott is primarily known as a critic of "animal liberation" and a defender of an extreme holism, but his best work (represented here) involves the development of a foundation for environmental ethics based on Humean psychology, Darwinian evolution, and quantum physics. (Katz, Bibl # 2)


Callicott, J. Baird, ed., Companion to A Sand County Almanac: Interpretive and Critical Essays. Madison: University of Wisconsin Press, 1987. Pp. x, 308. This is the first collection of essays devoted exclusively to Aldo Leopold's A Sand County Almanac (Oxford 1948). Leopold is the most influential historical source in the field of environmental ethics; his essay, "The Land Ethic," in Almanac is almost universally cited by environmental philosophers. The essays here range from personal biographical accounts of Leopold to general philosophical discussions of his ideas. Of chief philosophical interest are: Holmes Rolston, "Duties to Ecosystems," (pp. 246-274), which presents a detailed analysis of the reasons why environmental systems can be the objects of moral concern. Ecosystemic communities should not be thought of as organismic individuals. The model of individualism in moral thinking may be appropriate for culture (interhuman activity) but it fails as a model when applied to human-nature interaction. "The appropriate unit for moral concern is the fundamental unit of development and survival," i.e., the ecosystemic community (p. 258). Ecosystemic communities are not analogues of human communities, mainly because the elements of natural communities lack subjectivity; nonetheless, they still have value in themselves. J. Baird Callicott, "The Land Aesthetic" (pp. 157-171), shows how Leopold's aesthetic view of nature was "informed by ecological and evolutionary natural history" (p. 168), so that one ascribes beauty to land that is functioning as a natural ecosystem, not to land that is "pretty" in a merely scenic sense. For Leopold, both moral and aesthetic value are based on ecological relationships. In "The Conceptual Foundations of the Land Ethic" (pp. 186-217), Callicott shows the internal development and logic of Leopold's argument (which is often misunderstood) as being based on: a Darwinian natural history of ethical development, a kinship theory of ethical ties among living things, and an ecological model of biological communities, "all overlaid on a Humean-Smithian moral psychology" (p. 195). Callicott resolves problems of the holism of Leopold's ethic--in particular, the charges that ecological holism is a kind of "ecofascism," and that the land ethic is just a form of enlightened species-wide human self-interest. The land ethic does not "cancel human morality" (p. 208). It supplements it. And the land ethic is not prudential-consequentialist; it is a deontological system of ethics based on love and respect for the community of the land. In "Aldo Leopold's Intellectual Heritage," (pp. 63-88), Roderick Nash shows that Leopold's land ethic was not entirely original; it has intellectual roots in Darwin, the humane movement regarding animal welfare, and the "reverence-for-life" ethic of Albert Schweitzer. But Nash misses the point of Leopold's originality. The land ethic was holistic; it is based on the community of the ecosystem, not isolated individuals. This was a view that was radical and new. Peter A. Fritzell, "The Conflicts of Ecological Conscience," (pp. 128-153), presents a literary and philosophical exegesis of the Almanac which reveals the basic tensions and paradoxes of conceiving man as both part of the natural community and as part of a moral culture. The collection also contains several worthwhile literary essays on the
development of the Almanac and "The Land Ethic," as well as an earlier Foreword written by Leopold in 1947 but not published in the final version of the first edition. No bibliography. (Katz, Bibl # 1)

Callicott, J. Baird, "Genesis and John Muir." ReVision 12:3 (Winter 1990): 31-47. Using an interpretation of Genesis by John Muir as a starting point, Callicott examines the possible presence of a "citizenship" model for human-nature relationships in the Hebrew Bible. The analysis is based on the recognition that Genesis had several authors; Callicott uses the "J" version of creation as his primary source and argues that anthropocentrism was original sin. Another version of this article appears in Environmental History Review 14:1-2 (1990): 65-90. (Katz, Bibl # 2)

Callicott, J. Baird, and Mumford, Karen. "Ecological Sustainability as a Conservation Concept," Conservation Biology 11(no.1, 1997):32. Neither the classic resource management concept of maximum sustainable yield nor the concept of sustainable development are useful to contemporary, nonanthropocentric, ecologically informed conservation biology. As an alternative, we advance an ecological definition of sustainability that is in better accord with biological conservation: meeting human needs without compromising the health of ecosystems. In addition to similar benefit-cost constraints on human economic activity, we urge adding ecological constraints. Projects are not choice-worthy if they compromise the health of the ecosystems in which human economic systems are embedded. Sustainability, so defined, is offered as an approach to conservation that would complement wildlands preservation for ecological integrity, not substitute for wildlands preservation. Callicott is in philosophy at the University of North Texas. Mumford is in the Department of Fisheries and Wildlife, University of Minnesota, St. Paul. (v8,#2)


Callicott, J. Baird. "Intrinsic Value in Nature: A Metaethical Analysis." EJAP, The Electronic Journal of Analytic Philosophy. A topical issue on foundational justifications of intrinsic value in environmental ethics. This journal does not appear in paper, only on internet. A phenomenological proof and a teleological proof for intrinsic value in nature. An answer to Norton's claims that anthropocentric and nonanthropocentric environmental ethics converge. Kant on objective intrinsic value. The Biocentrists (Albert Schweitzer, Paul Taylor, Holmes Rolston) and their insights and inadequacies. Callicott argues that we should "base environmental ethics on our human capacity to value non-human natural entities for what they are--irrespective of what they may do for us and of whether or not they can value themselves." Suggestions how to envision a postmodern account of value in nature, one still in the making.

Other papers are by Robin Attfield and Stephen R. L. Clark. Contact the guest editor for this issue, Martin Schönfeld, Department of Philosophy, Indiana University, Bloomington, IN 47405; ejap@phil.indiana.edu. (v6,#1)
Callicott, J. Baird, "Genesis Revisited: Murian Musing on the Lynn White, Jr., Debate," Environmental History Review 14(1990):65-90. The roots of the ecological crisis are as Greek as they are Hebrew. John Muir read Genesis with neither the despotic (subdue and conquer) nor the stewardship model, but rather with an ecocentric-bioegalitarian model. This is not the perspective of the first creation story (the P-account), but it is the perspective of the second creation story (the J-account). Though second in the biblical text, this is the earlier Hebrew account, an atavistic account that sees anthropocentrism as the original sin. Muir's own lifestyle was of this kind. Persons in contemporary society, however, since they have fallen into this anthropocentrism, cannot realistically undertake such a primitive return to nature. But they can perhaps reach a Self-realization, an ecological self (in the sense advocated by Naess) that does transcend anthropocentrism. (v1,#3)

Callicott, J. Baird, "Agroecology in Context", Journal of Agricultural Ethics 1(1988):3-9. Agriculture and medicine palpably manifest a culture's world view. Correspondingly, changes in agriculture and medicine may be barometers of change in a culture's overall outlook. Agroecology translates this abstract new vision into a concrete agricultural vocabulary: The farmstead is regarded as an artificial ecosystem with a multiplicity of diverse plant and animal constituents interacting with one another and with environing natural ecosystems in complex and mutually supporting ways. Callicott is in philosophy at the University of Wisconsin, Stevens Point.


Callicott, J. Baird. "Rolston on Intrinsic Value: A Deconstruction." Environmental Ethics 14(1992):129-43. Central to Holmes Rolston's Environmental Ethics is the theoretical quest of most environmental philosophers for a defensible concept of intrinsic value for nonhuman natural entities and nature as a whole. Rolston's theory is similar to Paul Taylor's in rooting intrinsic value in conation, but dissimilar in assigning value bonuses to consciousness and self-consciousness and value dividends to organic wholes and elemental nature. I argue that such a theory of intrinsic value flies in the face of the subject/object and fact/value dichotomies of the metaphysical foundations of modern science--a problem Rolston never directly confronts. The modern scientific world view is obsolete. A post-modern scientific world view provides for a range of potential values in nature actualizable upon interaction with consciousness. The best that a modern scientific world view can provide are subject-generated--though not necessarily subject-centered--values in nature. Callicott is in the department of philosophy, University of Wisconsin-Stevens Point, Stevens-Point, WI. (EE)
Callicott, J. Baird and Eugene C. Hargrove. "Leopold's `Means and Ends in Wild Life Management': A Brief Commentary." Environmental Ethics 12(1990):333-37. Leopold's lecture at Beloit College provides an important glimpse into his conversion from a philosophy of prudent scientific resource management to a land ethic and aesthetic. Leopold here advocates natural regulation not simply because of his growing concern that invasive management principles are limited, but also because of aesthetic considerations that were independent of his instrumental or "utilitarian" training at the Yale Forest School and in the U.S. Forest Service. The lecture is helpful in correcting an unfortunate misreading of Leopold's famous essay, "The Land Ethic," according to which the land ethic is interpreted as being based primarily on human welfare and self-interest. Callicott is in the department of philosophy, University of Wisconsin-Stevens Point, Stevens-Point, WI. Hargrove is in the department of philosophy, University of North Texas, Denton, Texas. (EE)


Callicott, J. Baird, "Whither Conservation Ethics? in Conservation Biology vol. 4, no. 1 (March 1990):15-20. Callicott concludes that Leopold advocated "active management for a mutually beneficial human-nature symbiosis, in addition to passive preservation of 'wilderness.' As the human population grows and more nations develop, the best hope for conservation biology lies in a generalization of Leopold's ideal of ecosystems which are at once economically productive and ecologically healthy. The principal intellectual challenge raised by such an ideal for conservation biology is the development of criteria of ecological health and integrity in an inherently dynamic, evolving, and human-saturated biota."

Callicott, J. Baird, "How Environmental Ethical Theory May Be Put into Practice," Ethics and the Environment 1(no.1, 1996):3-14. Environmentalists do not appear to walk their walk as consistently as animal liberationists and anti-abortionists. Are we therefore more hypocritical? Maybe: but there's another explanation. Unlike concern for individual animals or individual fetuses, environmental concerns are holistic (systemic)--air and water pollution, species extinction, diminished ecological health and integrity. One pro-life pregnant woman may preserve the life of one unborn baby, the one in her uterus; and one animal liberationist can save the life of one animal, the one he didn't eat. But one environmentalist who refuses to own and operate an automobile has no measurable effect on air pollution. Only collective, social change--universal banning of automobiles, mandatory recycling, etc.--will effectively redress environmental insults. Thus, the best way to put environmental ethics into practice is not to try to do one's bit and hope that all such individual environmental ethical acts will aggregate into significance. The best way to put environmental ethics into practice is to work to instill environmental values in society as the foundation for coercive environmental policies, regulations, and laws. The mechanistic-materialistic worldview and its associated consumerist value system trickled down into the collective consciousness via its technological manifestation in a plethora of machines. The systemic worldview in which environmental values are embedded may be communicated to the general public less by means of discursive discourse than by a new generation of systemic-electronic technologies. Callicott teaches philosophy at the University of North Texas, Denton. (E&E)


--J. Baird Callicott and Fernando J.R. da Rocha, "Ethics, University, and Environment"
--Jose Lutzenberger, "Science, Technology, Economics, Ethics, and Environment"
--Nicholas M. Sosa, "The Ethics of Dialogue and the Environment: Solidarity as a Foundation for Environmental Ethics"
--Peter Madsen, "What Can Universities and Professional Schools Do to Save the Environment?"
--Andrew Brennan, "Incontinence, Self-Deception, Shallow Analysis, Myth-making, and Economic Rationality: Their Bearing on Environmental Policy"
--Catherine Larrere, "Ethics, Politics, Science, and the Environment: Concerning the Natural Contract"
--Holmes Rolston, III, "Earth Ethics: A Challenge to Liberal Education"
--John Lemons, "University Education in Sustainable Development and Environmental Protection"

Callicott, J. Baird. "Elements of an Environmental Ethic: Moral Considerability and the Biotic Community." *Environmental Ethics* 1(1979):71-81. An environmental ethic based on Aldo Leopold's land ethic, compared with the call for a new ethic by Richard Routley (now Sylvan) and with that of John Passmore. Includes some logical formalism. Callicott is in the department of philosophy, University of Wisconsin-Stevens Point, Stevens-Point, WI. (EE)

Callicott, J. Baird. "Moral Monism in Environmental Ethics Defended." *Journal of Philosophical Research* 19 (1994): 51-60. "In dealing with concern for fellow human beings, sentient animals, and the environment, Christopher D. Stone suggests that a single agent adopt a different ethical theory--e.g. Kant's, Bentham's, Leopold's--for each domain. Ethical theories, however, and their attendant rules and principles are embedded in moral philosophies. Employing Kant's categorical imperative in this case, Bentham's hedonistic calculus in that, and Leopold's land ethic in another, a single agent would therefore have either simultaneously or cyclically to endorse contradictory moral philosophies. Instead, I suggest that different and sometimes conflicting duties and obligations are generated by an agent's membership in multiple moral communities. Peter Wenz, Gary Varner, Andrew Brennan, Anthony Weston, and Eugene Hargrove, among others, variously misunderstand either what is at issue in the monism versus pluralism debate in environmental ethics or my suggested communitarian alternative to the sort of pluralism that Stone recommends." Callicott is in philosophy at the University of North Texas. (v7, #3)

Callicott, J. Baird, "Animal Liberation and Environmental Ethics: Back Together Again." *Between the Species* 4 (1988): 163-169. An attempt to reconcile these two philosophical movements through the notions of community and sympathy---but this reconciliation tends to eliminate Callicott's most famous position, the lack of value of domesticated animals. (Katz, Bibl # 2)

Matters of Life and Death: New Introductory Essays in Moral Philosophy, 3rd ed. New York: McGraw Hill, 1993. A useful general introduction, written for freshmen and sophomores. Callicott analyzes the need for an environmental ethic, anthropocentric versus nature-based ethics, deep ecology (especially Naess), ecofeminism, the criteria for an adequate environmental ethics, two versions of a Judeo-Christian environmental ethics, the need for an evolutionary and ecologically based ethics, and then several accounts of an expanding ethics: animal welfare/rights ethics (Singer and Regan), biocentrism (Goodpaster, Taylor, Rolston), and concluding with his own recommendation, ecocentrism (Leopold, Callicott, Rolston). The revision in the third edition is more current than earlier editions. Callicott is in philosophy at the University of North Texas.


Callicott, J. Baird. "The Value of Ecosystem Health." Environmental Values 4(1995):345-361. The concept of ecosystem health is problematic. Do ecosystems as such exist? Is health an objective condition of organisms or is it socially constructed? Can ‘health’ be unequivocally predicated of ecosystems? Is ecosystem health both objective and valuative? Are ecosystem health and biological integrity identical? How do these concepts interface with the concept of biodiversity? Ecosystems exist, although they are turning out to be nested sets of linked process-functions with temporal boundaries, not tangible superorganisms with spatial boundaries. Ecosystem health--or normal occurrence of ecological processes and functions--is an objective condition of ecosystems, although the concept of ecosystem health allows some room for personal and social determination or construction. Ecosystem health is prudentially, aesthetically, and intrinsically valuable, although the value of ecosystem health is subjectively conferred. Biodiversity and biological integrity are different from, but not unrelated to, ecosystem health. Together these three normative concepts represent complementary conservation goals. KEYWORDS: Biodiversity, community, ecosystem, ecosystem health, health, integrity, objective, subjective, value. Callicott is in the philosophy and religious studies department, University of North Texas. (EV)


1. Introduction: Compass Points in Environmental Philosophy
I. Practicing Environmental Ethics
2. Environmental Philosophy Is Environmental Activism: The Most Radical and Effective Kind
3. How Environmental Ethical Theory May Be Put Into Practice
4. Holistic Environmental Ethics and the Problem of Ecofascism
II. The Conceptual Foundations of the Land Ethic Revisited
5. Just the Facts, Ma’am
6. Can a Theory of Moral Sentiments Support a Genuinely Normative Environmental Ethic?
7. Do Deconstructive Ecology and Sociobiology Undermine the Leopold's Land Ethic?
III. Moral Monism vs. Moral Pluralism
8. The Case Against Moral Pluralism
9. Moral Monism in Environmental Ethics Defended
IV. Nature's Intrinsic Value
10. Genesis and John Muir
11. Rolston on Intrinsic Value
12. Intrinsic Value in Nature: A Metaethical Analysis
V. Ecological Metaphysics in Agriculture, Medicine, and Technology
13. The Metaphysical Transition in Farming: From the Newtonian-Mechanical to the Eltonian-Ecological
14. Environmental Wellness
15. After the Industrial Paradigm, What?
VI. Toward a New Philosophy of Conservation
16. Whither Conservation Ethics?
17. Aldo Leopold's Concept of Ecosystem Health
18. The Value of Ecosystem Health
19. Ecological Sustainability as a Conservation Concept

Callicott is in philosophy at the University of North Texas, and is president of ISEE. (v.9,#4)

Callicott, J. Baird, "Do Deconstructive Ecology and Sociobiology Undermine Leopold's Land Ethic?," Environmental Ethics 18(1996):353-372. Recent deconstructive developments in ecology (doubts about the existence of unified communities and ecosystems, the diversity-stability hypothesis, and a natural homeostasis or 'balance of nature'; and an emphasis on 'chaos,' 'perturbation,' and directionless change in living nature) and the advent of sociobiology (selfish genes) may seem to undermine the scientific foundations of environmental ethics, especially the Leopold land ethic. A reassessment of the Leopold land ethic in light of these developments (and vice versa) indicates that the land ethic is still a viable environmental ethic, if judiciously updated and revised. Callocott is in philosophy, University of North Texas, Denton. (EE)


Callicott, J. Baird, "Harmony between Men and Land--Aldo Leopold and the Foundations of Ecosystem Management," Journal of Forestry 98 (No. 5, 2000 May 01): 4- . Essays published only recently reveal that formulating a concept of ecosystem health--"land health," as he called it- -was central to Aldo Leopold's philosophy of conservation. Our contemporary concepts of ecosystem health and ecosystem management were, in fat, clearly outlined in Leopold's writings 50 years ago.

Callicott, J. Baird. "Many Indigenous Worlds or the Indigenous World? A Reply to My 'Indigenous' Critics." Environmental Ethics 22(2000):291-310. Earth's Insights is about more than indigenous North American environmental attitudes and values. The conclusions of Hester, McPherson, Booth, and Cheney about universal indigenous environmental attitudes and values, although pronounced with papal infallibility, are based on no evidence. The unstated authority of their pronouncements seems to be the indigenous identity of two of the authors. Two other self-identified indigenous authors, V. F. Cordova and Sandy Marie Anglás Grande, argue explicitly that indigenous identity is sufficient authority for declaring what pre-Columbian indigenous environmental attitudes and values were. Exclusive knowledge claims based on essentialist racial-cultural identity, though politically motivated, are politically risky. They may inadvertently legitimate more noxious and dangerous racial-cultural identity politics and exclusion of those who identify themselves (or are identified by others) in oppositional racial-cultural terms from full and equal participation in the political and economic arenas of the prevailing culture. Biologically, racial differences are entirely superficial; Homo sapiens is a single, homogeneous species. Contrary to Hester et al., ethnic conflict was common among pre-Columbian indigenous North American peoples. Other indigenous authors, among them McPherson, have found my comparison of pre-Columbian indigenous North American attitudes and values with the Aldo Leopold land ethic to be illuminating. I wish I had not said that pre-Columbian indigenous North American attitudes and values are "validated" by ecology, but rather that they and ecology are "mutually validating." (EE)

Callicott, J. Baird, and Nelson, Michael P., eds. The Great New Wilderness Debate. Athens: University of Georgia Press, 1998. 696 pp. $30. A big anthology on wilderness, which will become a leading reference in the field. Contains the following:
Part One: The Received Wilderness Idea
--Emerson, Ralph Waldo, Selections from Nature.
--Thoreau, Henry David, "Walking" and "Huckleberries."
--Muir, John, Selections from Our National Parks.
--Leopold, Aldo, "Wilderness as a Form of Land Use.
--Marshall, Robert, "The Problem of the Wilderness."
--Olson, Sigurd, "Why Wilderness?"
--Woods, Mark, "Federal Wilderness Preservation in the United States: The Preservation of Wilderness?"
--Nelson, Michael P. "An Amalgamation of Wilderness Preservation Arguments."
Part Two: Third and Fourth World Views of the Wilderness Idea
--Standing Bear, Chief Luther, "Indian Wisdom."
new ecology finds nature always in flux; moreover human disturbance in the New World goes
back 10,000 years. Some wish to restore conditions at the Pleistocene-Holocene boundary,
even restoring the fauna from that time, so far as possible. But with the choice of appropriate
temporal and spatial scales for ecological restoration, one can still make a scientifically
defensible case for restoration to pre-settlement conditions. Post-settlement conditions greatly
exceeded earlier aboriginal influences, nor does one have to claim that such pre-settlement
conditions were in equilibria. Callicott is in philosophy, University of North Texas.


Calow, Peter, ed. Handbook of Environmental Risk Assessment and Management. Oxford:

Calthorpe, Peter, and Fulton, William, The Regional City: Planning for the End of Sprawl. 260
pages. Cloth $55. Paper $35. A new metropolitan form and how regional-scale planning and
design can help direct growth wisely and reverse current trends in land use. (v.11,#4)

New York: Princeton Architectural Press, 1993. 175 pages. paper. Calthorpe holds that the
environmental, economic, and social limits to growth are reaching crisis proportions. He
advocates a fundamental change in our patterns of building, defining new directions for planning.
He avoids an architectural manifesto or utopian proposal and describes alternatives currently
shaping the debate over growth in communities across the United States. He deals with
housing, traffic, environmental, and social problems inherent in sprawl. The underlying principle
is that "environmentally benign places and technologies are fundamentally more humane and
richer than those which are demanding and destructive of natural ecosystems" (p. 1). Calthorpe
is a California architect. (v.11,#4)

Calvez, Leigh, "Deafness in the depths," The Ecologist 30 (No. 4, 2000 Jun 01): 48-. Leigh
Calvez shows how sonar equipment used by the US navy is threatening the existence of
whales, dolphins and other sea mammals. (v.11,#4)

Camacho, David, ed. Environmental Injustices, Political Struggles: Race, Class, and the
policy, and civil rights, race and ethnicity, urban and regional planning. (v.10,#1)

Cammas: An Environmental Journal is published by the Environmental Studies Department,
University of Montana, with a focus on the Northern Rocky Mountains. In addition to critical
articles, the journal publishes poetry, photography, and artwork. Contact: Rick Stern, Editor,
Environmental Studies Department, University of Montana, Missoula, MT 59812 USA. (v.7, #3)

Cameron, J., Werksman, J., Roderick, P. Improving Compliance with

Cameron, Angus, "Geographies of welfare and exclusion: initial report," Progress in Human

Cameron, James, David J. Robertson, and Paul Curnow, "Legal and Regulatory Strategies for
(v.12,#3)


Campagna, Claudio, and Teresita Fernandez, AA Comparative Analysis of the Vision and Mission Statements of International Environmental Organisations, @ *Environmental Values* 16(2007):369-398. The vision and mission statements of 24 environmental organisations were analysed under the premise that the language used in these statements reflects and influences the priorities of their operation. A dominant perspective, hinging on the concept of 'sustainable development', merged the profile of government agencies and non-governmental groups. The language reflected an utilitarian ethics: the environment was more generally portrayed as resources than as nature. Aesthetic remarks were exceptional, even among groups focusing on wildlife. Despite a broadly claimed link between human welfare and habitat viability, environmental issues were not broadly referred to by humanitarian organisations, while conservation groups comply with societal priorities and needs. Organisational statements seem more concerned about political legitimation by audiences with specific expectations than about articulating purposes with internal structural consequences or goals that advocate change or reflect organisational uniqueness. The authors are at the Centro Nacional Patagónico, Chubut, Argentina.

Campbell, Courtney and Lisa Sideris (eds.), "Giving Voice to Silent Spring: the Legacy of Rachel Carson." A special issue of Reflections, the newsletter of the program for ethics, science and technology at Oregon State University, devoted to Rachel Carson's legacy for conservation and environmental ethics (volume 9, number 2, May, 2002). Contributors include Linda Lear, William Howarth, Phil Cafaro, Lisa Sideris and Peter List. 44 pages. For a free copy write Courtney Campbell at ccampbell@orst.edu. (v.13,#2)


Campbell, Bruce, Neil Byron, and Wily, Liz. "Moving to Local Control of Woodland Resources - Can CAMPFIRE Go Beyond the Mega-Fauna." *Society & Natural Resources* 12(no. 5, July 1999):501-. (v.11,#1)

Campbell, Mora, "Beyond the Terms of the Contract: Mothers and Farmers", *Journal of Agricultural and Environmental Ethics* 7(1994):205-220. At the heart of the recent Canadian agricultural policy review, "Growing Together", is the concept of partnership. The formation of partnerships between various members of the agri-food sector, it is claimed, will provide a
framework in which all parties will benefit. I describe the contractarian assumptions inherent in this proposal, and show how their application jeopardizes the economic survival and values of many household farmers. Drawing on the work of philosophers Virginia Held and Sara Ruddick, I outline strong connections between the practices of mothering persons and household farmers, arguing that the values arising out of the practice of household farming are best articulated under a feminist ethic of care. I conclude that agricultural ethics must be contextualized to encompass all of the moral relations in agriculture. Campbell is in environmental studies, York University, New York, Ontario.


Campbell, Robert A., "A Narrative Analysis of Success and Failure in Environmental Remediation: The Case of Incineration at the Sydney Tar Ponds", Organization and Environment, 15, (No. 3, 2002): 259-77. In this article, the author constructs a sociological narrative as a means of describing and analyzing a project to incinerate an estimated 700,000 tonnes of toxic sludge created as a by-product of a century of steel making in Sydney, Nova Scotia, Canada. On one level, the author's objective here is to document some of the events that have taken place at what is considered one of the worst toxic sites in Canada. On another level, though, the author attempts to outline a method through which we may better understand the dynamics of environmental movements. Specifically, in this case, the author uses a multidimensional conceptualization of success and failure that includes scientific, technological, economic, political, social and cultural components. Campbell is a senior lecturer in sociology at the Scarborough campus of the University of Toronto.

Campbell SueEllen, Even Mountains Vanish: Searching for Solace in an Age of Extinction. Salt Lake City: University of Utah Press, 2003. Campbell faces a paradox: whenever she contemplates the beauty of the cosmos and the astonishing inventiveness of nature she encounters the deleterious environmental impact of humankind. Campbell describes a visit to Pajarito Canyon, a wilderness area just outside Los Alamos, and her sudden need to understand more about Earth's improbable evolution. Campbell invokes plate tectonics, sandhill cranes, Pueblo cultures, nuclear waste, even a flash flood that inundates her university's library. Rocky Mountain National Park and Canada's Arctic coast. Campbell is beset with ecological and spiritual blues, ponders the survival strategies of tundra plants, animals, and people. She struggles with human destructiveness and the transitoriness of life. Campbell teaches English and nature writing at Colorado State University.

Campbell SueEllen. Bringing the Mountain Home. Tucson: University of Arizona Press, 1997. "The desire for wildness is an elemental force, like gravity, like magnetism." "A deeply loved landscape holds us fast to the planet. Drawn to one wild place, to a small lily-splashed lake in the Rockies, I'm drawn to all wild places." A narrative of what landscape means to the author, recalling especially her walks in the Rockies. "I realized I was taking two walks at once." "One was intensely personal and immediate, my body, senses, memories moving through a specific and extraordinary place and moment. The other was shared, my own experience formed by my culture, by other, earlier visitors to wild places, by circumstances, attitudes, assumptions, words, even emotions I had no part in creating but had somehow absorbed myself." Campbell teaches English at Colorado State University. (v8,#1)

Campos, Daniel G. "Assessing the Value of Nature: A Transactional Approach." Henry David Thoreau's discussion of the highest value of wild apples and my own reflection upon my experience, interacting with the sea and enjoying its products during my Central American upbringing, motivate this discussion of how human beings may apprehend nature's highest worth. I propose that in order to apprehend nature's highest value it is necessary to understand the complete transaction between human beings and natureCan active transaction that requires from the human being a continuous movement along experience, reflection, and responsible
action. I argue that the economic valuation of natural products via the contemporary economic concepts of utility, use-value, existence-value, and willingness-to-pay is insufficient to comprehend the full worth of nature because it reduces the human being-nature transaction to mere economic terms. Hence, a reading of Ralph Waldo Emerson’s Nature provides insight into the services commodity, beauty, language, and discipline that the human being receives, as part of the transaction, from nature. In turn, a reading of Aldo Leopold’s A Sand County Almanac complements the Emersonian position by considering the human being’s position as a member of a natural community. Finally, I propose that in order to apprehend the worth of nature, it is further necessary to move from the reflective understanding of the human being-nature transaction into necessary action, that is, into the assumption of responsibility towards nature. Environmental Ethics 24(2002):57-74. (EE)

Canadian Graduate Environmental Studies Programs, Alternatives 27(no. 1, Winter 2001):41-. Alternatives presents its third annual annotated graduate directory. (v.12,#2)


Cannoughton, Kent, "Sustainability: The Key Forest Policy Issue of the New Millennium?" Journal of Forestry 99(no.2, 2001 Feb 01): 7-. The Journal presents this special section on forest sustainability in the hope that it will generate discussion and further responses on this elusive but increasingly critical concept. (v.12,#3)

Cannavo, Peter F. "American Contradictions and Pastoral Visions: An Appraisal of Leo Marx’s ‘The Machine in the Garden’", Organization and Environment 14 (No. 1, March 2001) pp.74-92. This article discusses the significance of Leo Marx’s 1964 "The Machine in the Garden" in environmental studies, and how Marx’s ideas have evolved in later essays, noting especially Marx’s insight into the contradictory relationship with nature embodied in American pastoralism. Americans celebrate nature and rural values and yet embrace industry and commercialism as means to a pastoral utopia, even though these are ultimately destructive of the natural environment. Given these contradictions, Marx argues that American pastoralism ultimately fails as a viable cultural and political ideal. This article is critical of such pessimism but also shows how Marx revises his prognosis in later essays and comes to see the pastoral ideal, particularly as manifested in environmentalism, as offering a key political alternative to contemporary industrial society and its social and ecological pathologies. Cannavo recently received his PhD in political science from Harvard University. (v.13,#2)


Cannavò, Peter F. The Working Landscape: Founding, Preservation, and the Politics of Place. Cambridge, MA: MIT Press, 2007. Cannavò uses case studies of the debate over the logging of old-growth forests in the Pacific Northwest, the problems of urban sprawl, and the redevelopment of the former World Trade Center site in New York to discuss zero-sum conflict between nature preservation versus economic development, resource exploitation, and
commodification as a contemporary crisis of place. To resolve this crisis, he offers theoretical and practical alternatives built upon an approach that unifies democratic governance and ecological values and that embraces both change and stability to create a working landscape in rural, suburban, and urban areas.


Cannon, Teresa, and Peter Davis, Aliya--Stories of The Elephants of Sri Lanka. Ferntree Gully, Victoria, Australia: Airavita Press (P.O. Box 204, 3156), 1995. ISBN 0-646-21408-X Sri Lankan elephants, now an endangered species, in their encounters with people, for better and worse and over the millennia, used for war, sport, and work, and as cultural symbols. Also, elephants in the wild, their complex social systems and how they constitute a keystone species in that their survival is crucial to the survival of entire ecosystems, and to the welfare of Sri Lankans.

Cannovo, Peter F. Review of Deliberative Environmental Politics: Democracy and Ecological Rationality. By Walter F. Baber and Robert V. Bartlett. 319-322. (EE)

Cantrill, James, and Masluk, Michelle, "Place and Privilege and Predictors of How the Environment is Described in Discourse," Communication Reports 9(1996):79. Focusing on the Beartooth Alliance, the authors find that proximity to a site of environmental controversy influences environmental discourse. The role of place and privilege must be considered when attempting to assess the most influential modes of discourse. (v.8,#4)


Capitalism, Nature, Socialism is now in its eighth volume, recently expanded in size. A new journal that began publishing in 1988, with six issues through 1990. The focus is on Marxist and socialist analysis of the ecological and economic crisis. "Even though environmentalism constitutes one of the most powerful social movements in the United States and other countries, and ecological destruction and crises now ravage the world, Marxists and socialists have made few or feeble attempts to theoretically explain these facts in a coherent way." The journal plans to fill this "theoretical void" (CNS, 3, 1989, p. 1). (Katz, Bibl # 2)


Capitini, Claudia; Tissot, Brian; Carroll, Matthew; Walsh, William; Peck, Sara, "Competing Perspectives in Resource Protection: The Case of Marine Protected Areas in West Hawai‘I", Society and Natural Resources 17(no.9, October 2004): 763-778(16).


Capra, Frithof, David Seindl-Rast, with Thomas Matus, Belonging to the Universe: Explorations on the Frontier of Science and Spirituality. San Francisco: Harper and Row, 1992. $ 10.00, paper. Conversations between Capra, physicist and cosmologist with an Eastern turn of mind, and Seindl-Rast, a Benedictine monk. (v3,#4)

Capture, Care and Management of Threatened Mammals. Onderstepoort, South Africa: Wildlife Group of the South African Veterinary Association, 1993 (P. O. Box 12900, Onderstepoort, 0110 R. South Africa). 84 pages, R30.00 (RSA), $30 (USA). The capture, care, and management of threatened mammals. The data presented are the proceedings of an international symposium held at Skukuza, Kruger National Park, South Africa.

Caputi, Jane, A Green Consciousness: Earth-based Myth and Meaning in Shrek, @ Ethics and the Environment 12(no. 2, 2007):23-44. Green consciousness is a holistic worldview based in many ancient and still-current principles and wisdoms, holistic worldview, and one that offers alternative conceptions of human and non-human subjectivity, of humans' relationships with each other and with non-human nature. Its principles are elaborated not only in environmentalist philosophies but also in some forms of popular culture. Shrek retells ancient earth-based myth, specifically around its imagination of greenness as an emblem of the life force, its respect for the feminine principle, its refusal of hierarchy and split consciousness, its endorsement of the happy body and communal ecstasy, and its ringing celebration of diversity. Caputi is in Women=s Studies and Communications, Florida Atlantic University.


Caraco, Nina; Cole, Jonathan; Findlay, Stuart; Wigand, Cathleen, "Vascular Plants as Engineers of Oxygen in Aquatic Systems," BioScience 56 (no.3, March 2006): 219-225 (7). The impact of organisms on oxygen is one of the most dramatic examples of ecosystem engineering on Earth. In aquatic systems, which have much lower oxygen concentrations than the atmosphere, vascular aquatic plants can affect oxygen concentrations significantly. Aquatic plants are generally thought of as adding oxygen to aquatic systems through photosynthesis, but the impact of vascular aquatic plants on oxygen varies greatly with plant morphology. Floating-leaved plants that vent oxygen to the atmosphere can strongly deplete oxygen. In some ecosystems where floating-leaved plants have replaced submerged vegetation, oxygen concentrations have been substantially reduced. This can have cascading impacts on nutrient and trace gas chemistry and on the suitability of plant beds as habitat for animal life.

Caragata, Lea, "New Meanings of Place: The Place of the Poor and the Loss of Place as the Center of Mediation," Philosophy and Geography 3 (1998): 215-237. Caragata is associate professor in community development for the Faculty of Social Work at Wilfrid Laurier University. (P&G)


Carder, Al C. *Forest Giants of the World Past and Present*. Markham, Ont: Fitzhenry and Whiteside, 1994. 208pp. $55 cloth. An authoritative record of the world's super trees, past and present, and other striking and remarkable trees. Covers 140 species. Excellent photographs. The tallest? It's difficult to be sure, because some crowns have broken off, and many of the tallest were cut before reliable records were kept. Principal candidates: Mountain ash, *Eucalyptus regnans* in Australia; California coastal redwoods, *Sequoia sempervirens*; Douglas-Fir, *Pseudotsuga menziesii*, in the Pacific Northwest, all about 400 feet. The oldest? Trees over 1,000 years are difficult to date reliably, often the inner core has rotted. Probably Bristlecone pine, *Pinus longaeva*, 4,900 years, in the Western United States. In these forest giants "beauty and goodness abide in good measure and will ever-increasingly strengthen, commensurate with time" (p. 169). (v8,#1)

Cardillo, Marcel et al., "Multiple Causes of High Extinction Risk in Large Mammal Species," *Science* 309(19 August 2005):1239-1241. Many large animal species run a high risk of extinction, commonly thought to relate to large body size, visibility, low rates of reproduction. But these authors find many more contributing factors, both environmental and intrinsic to the morphology and behavior of large animals, such as the need for larger ranges of habitat. The dangers of extinction for large animals are greater than previously recognized. Cardillo is in biology, Imperial College, London.

Care, Norman S. "Future Generations, Public Policy, and the Motivation Problem." *Environmental Ethics* 4(1982):195-213. A motivation problem may arise when morally principled public policy calls for serious sacrifice, relative to ways of life and levels of well-being, on the part of the members of a free society. Apart from legal or other forms of "external" coercion, what will, could, or should move people to make the sacrifices required by morality? I explore the motivation problem in the context of morally principled public policy concerning our legacy for future generations. In this context the problem raises special moral-psychological difficulties. My inquiry suggests pessimism regarding our ability to solve the motivation problem relative to what morality requires on behalf of future generations. Care is in the department of philosophy, Oberlin College, Oberlin, OH. (EE)


Carey, John, "Where Have All the Animals Gone?" *International Wildlife* 29 (no. 6, Nov./Dec. 1999):12-20. Meat for the pot. In many tropical forests around the globe, virtually every animal has been killed, leaving an empty forest. Hunting for the pot is becoming a bigger conservation threat than habitat loss--Laos, Southeast Asia, Indonesia, India, the Brazilian Amazon, the Congo. In some areas biologists can best inventory what is in the forests by walking through the markets. Everything is eaten. Typically national regulation authority is weak, and where wildlife responsibility has been transferred to local peoples, the problem is worse. Sustainability is a myth before the pressures of exploding populations. George Schaller says, "Only people that sit in offices have the romantic notions that local people live in harmony with the environment" (p. 17). There are dozens of contributing factors. Perhaps the major one is logging, when logging roads open up once-remote areas. Carey covers science and technology for *Business Week* magazine. (v.10,#3)

Carey, John. "Where Have All the Animals Gone?" *Wildlife* 29(1999):12-21. In Bolivia, the Sirono and Yugi people of the Bolivian Amazon are over-hunting the forest to meet their basic needs. Increased use of cars and guns has made them hunt more effectively, with empty forests remaining.


Caring for the World: A Strategy for Sustainability. This is the new title for the successor to the World Conservation Strategy, now released in a June 1990 draft. Available from World Conservation Center, Avenue du Mont Blanc, CH-1196 Gland, Switzerland. (v1,#3)

Caring for Creation: Vision, Hope and Justice is a study booklet, 28 pages, by the Evangelical Lutheran Church in America Environment Task Force, released August 1991. Contact: ELCA Distribution Service, 426 South Fifth Street, Box 1209, Minneapolis, MN 55440. Phone 800/328-4648. (v2,#4)
Carlassare, Elizabeth. "Socialist and Cultural Ecofeminism: Allies in Resistance." *Ethics and the Environment* 5(2000):89-106. ABSTRACT: Ecofeminism is a social movement and form of theoretical inquiry that resists formations of domination and seeks to construct a politics for planetary survival and social egalitarianism. In the words of Australian ecofeminist Ariel Salleh (1995, 26), "Ecofeminists are concerned about global sustainability as much as gender justice." Ecofeminism consists in many different ideas and actions, and as a result cannot be generalized easily. That ecofeminism accommodates a diverse array of perspectives has led some feminists (most notably social ecologist and former ecofeminist Janet Biehl, [Biehl 1991]) to criticize ecofeminism on the basis that it is incoherent. Ecofeminists hold different views on how to effect social change and on the role of Western dualism, capitalism, patriarchy, and imperialism in perpetuating ecological degradation and oppression along multiple lines, including gender, race, and class. Despite this diversity, ecofeminism is united by the commitment of its proponents to planetary survival and ending oppression. In this essay, I explore the differences and common ground between two predominant perspectives in ecofeminism, socialist and cultural ecofeminism, examining the strategies for social change and epistemological positions that arise from these perspectives. I argue against attempts by feminists and ecofeminists of materialist persuasions to dismiss all or part of ecofeminism on the basis that it is incoherent or regressive, examining the question of who such criticisms serve and suggesting alternative interpretations of ecofeminism's "regressive" moves and "incoherence." I argue that, despite their different views, ecofeminists are able to act together politically in their shared desire to end ecological degradation and foster social egalitarianism. (E&E)


Carley, Michael and Ian Christie, *Managing Sustainable Development*. Minneapolis: University of Minnesota Press, 1993. Co-published with Earthscan in the United Kingdom. 288 pages. Paper, $19.95. Sustainable development is an intensely political process, however defined and on whatever scale, and involves continual trade-offs between economic, social, and biophysical needs and objectives. The authors propose an action-centered network as a key innovation in environmental management. (v4,#2)


Carlson, Allen, "Saito on the Correct Aesthetic Appreciation of Nature," *Journal of Aesthetic Education* 20 (no. 2, 1986):85-93. Saito does not adequately distinguish between a correct and a relevant appreciation of nature. Saito’s arguments neither clearly establish the relevance of a variety of possible kinds of aesthetic appreciation of nature nor seriously erode the grounds for the prominence that ought to be granted to scientific categories of nature in this appreciation.


Holmes Rolston, III, Cheryl Foster, Ronald Moore, John Andrew Fisher, Donald W. Campbell, Thomas Heyd, and Yrjö Sepänmaa. Designed as an introduction to the present state of the field of environmental aesthetics. Carlson is in philosophy, University of Alberta, Edmonton. Berleant is philosophy (emeritus), Long Island University, C.W. Post Campus. now in Castine, Maine. (v. 15, # 3)

Carlson, Allen, Aesthetics and the Environment: The Appreciation of Nature, Art and Architecture. New York: Routledge, 2003. How much of our aesthetic experience is in response to nature, sunsets, mountains, or horizons, or more mundane surroundings like gardens or the view from our window. Knowledge of what we are appreciating is essential to having an appropriate aesthetic experience and a scientific understanding of nature can enhance our appreciation, rather than denigrate it. Carlson is in philosophy at the University of Alberta.

Carlson, Allen, "Nature and Positive Aesthetics," Environmental Ethics 6(1984):5-34. A consideration of various justifications for the position of "Positive Aesthetics": all of nature untouched by man is beautiful. Carlson supports this view by a comparison of art appreciation with natural science. As natural science informs us of the properties of the ecosystem, we discover its beauty. (Katz, Bibl # 1)


Carlson, Allen, "On aesthetically appreciating human environments," Philosophy and Geography 4 (No. 1, 2001): 9-24. In this essay I attempt to move the aesthetics of human environments away from what I call the designer landscape approach. This approach to appreciating human environments involves a cluster of ideas and assumptions such as: that human environments are usefully construed as being in general "deliberately designed" and worthy of aesthetic consideration only in so far as they are so designed, that human environments are in this way importantly similar to works of art, and that the aesthetics of human environments thus has much in common with the aesthetics of art. As an alternative to the designer landscape approach, I suggest that the aesthetics of human environments should be understood as a major area of the aesthetics of everyday life. To facilitate this shift I develop the idea of an ecological approach to the aesthetics of human environments and the related notion of functional fit. The ecological approach employs an analogy with natural ecosystems and, by stressing the role of functional fit in each, facilitates the appreciation of both natural and human environments in a way that I characterize as "looking as they should." The upshot, I maintain, is a set of appreciative consequences constituting a more satisfying aesthetic experience of our everyday human environments. Carlson is Professor of Philosophy at the University of Alberta. (P&G)

Carlson, Allen. "Nature and Positive Aesthetics." *Environmental Ethics* 6(1984):5-34. Positive aesthetics holds that the natural environment, insofar as it is unaffected by humans, has only positive aesthetic qualities and value—that virgin nature is essentially beautiful. In spite of the initial implausibility of this position, it is nonetheless suggested by many individuals who have given serious thought to the natural environment and to environmental philosophy. Certain attempts to defend the position involve claiming either that it is not implausible because our appreciation of nature is not genuinely aesthetic, or that the position is justified in virtue of human limited control and understanding of the natural world or in virtue of the natural world’s divine design and origin. Such attempts are inadequate; they neither justify the position nor explain its acceptance. In order to account for positive aesthetics, we must note the intimate connection between nature appreciation and the development of natural science. An understanding of the role of scientific knowledge in the aesthetic appreciation of nature not only sheds light on the acceptance of the positive aesthetics position, but also suggests a means by which to justify it.

Carlson is at the philosophy department, University of Alberta, Edmonton, Alberta, Canada. (EE)


Carmin, JoAnn & Balser, Deborah B., "Selecting Repertoires of Action in Environmental Movement Organizations: An Interpretive Approach". *Organization and Environment*, 15, (No. 4, 2002): 365-88. Environmental Movement Organizations (EMOs) with similar goals frequently deploy different tactics and strategies to advance their agendas. This article uses an interpretive perspective to examine the factors influencing EMO selection of a repertoire of action. Building on concepts from organization and social movement theories, and relying on interview and archival data from Friends of the Earth and Greenpeace, this study suggests that experience, core values and beliefs, environmental philosophy and political ideology work together to create distinct organizational interpretations of the political environment, efficacy of action, acceptability of tactics, significance of an issue, and source of the problem. These interpretations combine to shape EMO determinations of what types of action will be most appropriate and effective. Although structural factors influence the decisions that are made within EMOs, organizations also rely on interpretive processes in their selection of a repertoire of action. Carmin is an assistant professor in the Department of Urban Affairs and Planning at Virginia Tech. Balser holds an assistant professor post with a joint appointment in the College of Business.
Administration and the Public Policy Administration programs at the University of Missouri-St. Louis.

Carmin, J. "Resources, Opportunities and Local Environmental Action in the Democratic Transition and Early Consolidation Periods in the Czech Republic," Environmental Politics 12(no.3, 2003):42-64. (v.14, #4)


Caro, T.M. "Species richness and abundance of small mammals inside and outside an African national park," Biological Conservation 98(no.3, 2001):251-. (v.12,#4)


Caro, T.M. "Demography and Behaviour of African Mammals Subject to Exploitation. Biological Conservation 91(No. 1, 1999):91- . (v10,#4)


Carolan, Michael S., and Bell, Michael M., "In Truth We Trust: Discourse, Phenomenology, and the Social Relations of Knowledge in an Environmental Dispute" Environmental Values 12(2003): 225-245. In this age of debate it is not news that what constitutes 'truth' is often at issue in environmental debates. But what is often missed is an insight that the speakers of Middle English understood a millennium ago: that truth comes from trust, which, is the central theoretical position of this paper. Our point is that truth depends essentially on social relations - relations that involve power and knowledge, to be sure, but also identity. Thus, challenges to what constitutes the 'truth' are equally challenges to identities and the social networks of trust in which that truth is embedded. We therefore attempt to move beyond Foucaultian discursive theory by reintroducing the subject as both the product and producer of discourse.

For Foucault, the subject is reduced to the discursive relations of power/knowledge. In his effort to free us from the Cartesian cogito and the modernist absolutisms that eventually followed, Foucault lapses into a kind of postmodern functionalism. We argue that we should not speak of power/knowledge, as Foucault suggested, but of power/knowledge/identity, recovering the actors and concrete social relations that produce discourse, and are not only produced by it. We then argue that these social relations become constituted (and reconstituted) in particular moments of phenomenological challenge - discursive moments that confront the existing social relations of knowledge and their dialogue of trust and truth. We illustrate the implications of a threat to the social relations of environmental knowledge through an analysis of one such moment of phenomenological challenge: a dispute over whether or not the power plant in the community where we used to live, Ames, Iowa, is producing dioxin.

science and sociologists of knowledge have been writing for more than a decade about the de-centred, multiple object. Yet what if this insight were applied to the realm of environmental problems? What would be revealed? These questions are explored in this paper by examining the ontology of environmental problems. Ethnomethodologists, social constructionists, and sociologists of knowledge have all painted a descriptive picture of a thoroughly sociological ontology; an ontology that is fluid, at times de-centred, and (at least potentially) multiple. Yet if ontology is social, and thus multiple, it is also ultimately political. But multiplicity need not imply fragmentation. It can be coherent, but this requires both coordination and trust. To give further visual and conceptual shape to this argument a heuristic model is constructed. Through this model I map a handful of environmental problems - in terms of their complexity and epistemological distance - and in doing so give focus to the ontologically diverse nature of environmental problems today. A case study involving a particularly contentious environmental dispute is then examined so as to give the argument additional focus and an empirical grounding. Carolan is in sociology, Colorado State University, Fort Collins, CO. (EV)

Carolan, Michael S., "Conserving Nature, But to What End? Conservation Policies and the Unanticipated Ecologies They Support," Organization and Environment, 19 (no. 2, June 2006): 153-170. The author examines various cases of conservation policies in practice, and the implications of those practices in terms of the ecologies they support, showing, in the end, that the "nature" being preserved is not always the one intended. In doing this, insights are also gleaned to inform the future of environmental sociology. Carolan is in sociology at Colorado State University.

Carolan, Michael S., "Risk, Trust and 'The Beyond' of the Environment: A Brief Look at the Recent Case of Mad Cow Disease in the United States," Environmental Values 15(2006): 233-252. The epistemologically distant nature of many of today's environmental risks greatly problematises conventional risk analyses that emphasise objectivity, materiality, factual specificity and certainty. Such analyses fail to problematise issues of ontology and epistemology, assuming a reality that is readily 'readable' and a corresponding knowledge of that reality that is asocial, objective and certain. Under the weight of modern, invisible, manufactured environmental risks, however, these assumptions begin to crack, revealing their tenuous nature. As this paper argues, statements of risk are ultimately social products that come to us by way of translation. They are statements not of what is (ontology) but of knowledge (epistemology) expressed in probabilistic terms, and are thus thoroughly social in nature, for it is we - through our actions and social networks - that imbue them with meaning. One way we do this is through our social relations of trust. And it is this relationship - between trust and risk - that this paper seeks to detail both conceptually and empirically (while remaining grounded in a realist philosophy of science). While one could look toward any number of case studies to develop the conceptual details of this project, this paper focuses on the relatively recent (and first) case of mad cow disease to have been reported within the United States. Here, we have an epistemologically distant, and thus hotly contested, 'object' (or is it?), which has been the source of much risk debate; a debate that is also, in part, the effect of a deeper erosion of trust, particularly toward those managing our meat supply. (EV)


Carolan, Michael S. "Disciplining Nature: The Homogenising and Constraining Forces of Anti-Markets on the Food System," Environmental Values 14(2005): 363-387. To understand the changing patterns within agriculture, it is important to look not only at social relations and organisational configurations. Also salient to such an analysis is an examination of how those formations give shape to non-humans. Much attention has been placed recently on the political economy of agriculture when speaking of these emergent patterns. Yet in doing this, the natural environment is all too often relegated to the backdrop; where the agro-economy is viewed as
something that manoeuvres within the environment but never through it. The conceptual groundwork for this paper draws from two often unconnected scholars: Michel Foucault and Fernand Braudel. In Foucault, we find a framework, with a little conceptual development, through which to talk about how the economy (of both discipline and capital) enters into nature. Specifically, the argument is made that through the embodiment of discipline, nature too becomes disciplined. Yet in Foucault we find a discursive conception of socio-economic history; where capitalism is discussed, but always as an effect of the discursive structures of power/knowledge. Enter the work of Braudel, to provide us with a materialist counterweight to Foucault's theorising. In Braudel, we find a detailed analysis on the emergence of capitalism, out of which then comes his distinction between markets and anti-markets. In short, when both accounts of history are overlaid, interesting connections between the emergence of Braudelian anti-markets and Foucaultian discipline are revealed. Two brief case studies are then examined to add further depth to the discussion: the first focusing on corn; the second centring on the cow. The paper then concludes speaking on the issue of resistance. Carolan is in sociology, Colorado State University, Fort Collins, CO. (EV)


Carone, Gabriela Roxana. "Plato and the Environment." Environmental Ethics 20(1998):115-33. I set out to refute several charges that have recently been raised against Plato's attitude toward the environment and to present him under a new light of relevance for the contemporary environmental debate. For this purpose, I assess the meaning of Plato's metaphysical dualism, his notion of nature and teleology, and the kind of value that he attributes to animals, plants, and the land in general. I thus show how Plato's organicist view of the universe endows it with an intrinsic value that is over and above each of its parts, including humans, and provides an argument for the preservation of species of nonhuman animals, which in many relevant ways are not ranked below the human species. In addition, I show how Plato's dialogues provide good evidence for human concern about the environment and how such a concern is promoted rather than hindered by his nonanthropocentric notion of teleology. Carone is in the Department of Philosophy, University of Colorado, Boulder. (EE)

Carpenter, Betsy, "A Panther by Another Name: Should the Government Protect Imperiled Animals That Fool Around Outside the Species?" U. S. News and World Report, June 17, 1991. How pure does an animal have to be before it merits protection? Illustrated by the Florida panther problem and the wolf-coyote interbreeding. The panther carries some genes of a South American cousin. Wolves and coyotes rarely interbreed "Merely possessing a smidgen of coyote blood does not automatically transform a wolf into a woyote (half-breed hybrid)." "The biological significance of the crossmating is nearly nill," quoting Timm Kaminski, U.S. Forest Service wolf expert. Given the high rates of extinction among some species, "There will be more and more times when hybridization will be the only way to hold on to a least a chunk of a species's rich library of genes." "When a hybrid is all we've got, we should go for it," quoting geneticist Stephen O'Brien. (v2,#2)

Carpenter, SR; Gunderson, LH, "Coping with Collapse: Ecological and Social Dynamics in Ecosystem Management," Bioscience 51(no. 6, 2001):451-458. (v.13,#1)

Carpenter, Stephen R. et al (six others), "Millennium Ecosystem Assessment: Research Needs," Science 314(13 October 2006):257-258. "We lack a robust theoretical basis for linking ecological diversity to ecosystem dynamics and, in turn, to ecosystem services underlying human well-being. ... The most catastrophic changes in ecosystem services identified in the MA (Millennium Assessment) involved nonlinear or abrupt shifts. We lack the ability to predict thresholds for such changes, whether or not such a change may be reversible, and how individuals and societies will respond. ... Relations between ecosystem services and human well-being are poorly understood. One gap relates to the consequences of changes in ecosystem services for poverty reduction. The poor are most dependent on ecosystem services and vulnerable to their degradation. Empirical studies are needed."

Carpenter, Betsy and Bob Holmes, "Living with Nature," U. S. News and World Report, November 30, 1992. Story on Edward O. Wilson's urgent defense of biodiversity. Wilson says, "Wilderness settles peace on the soul because it needs no help; it is beyond human contrivance. Wilderness is a metaphor of unlimited opportunity, rising from the tribal memory of a time when humanity spread across the world ... godstruck, firm in the belief that virgin land went on forever." With the loss of wild nature, "we face an enormous psychological and spiritual loss." We "court spiritual disaster." (v3,#4)


Carr, Ethan, Wilderness by Design: Landscape Architecture and the National Park Service. Lincoln, NE: University of Nebraska Press, 1998. 378 pages. $ 45 cloth. Even though the public still equates the national parks with primordial, untouched wilderness, Carr claims that the reality is considerably different. Not only is the conception of a park a cultural construct, but the very appearance and design of national parks is based on social conventions, for example, aesthetic and political ideologies, that allow "land" to become "landscape." "The designed landscapes in national and state parks, as works of art, directly express the value society invests in preserving and appreciating natural areas. Few other arts, with the exception of landscape painting, more fully explore this leitmotif of American culture. Neither pure wilderness nor mere artifact, the national park is the purest manifestation of the peculiar American genius which sought to reconcile a people obsessed with progress with the unmatched price paid for that advance: the near total loss of the North American wilderness" (p. 9). (v.10,#3)


Carr, Susan, "Ethical and Value-Based Aspects of the European Commission's Precautionary Principle," Journal of Agricultural and Environmental Ethics 15(no. 1, 2002):31-38. In February 2000, the European Commission adopted a Communication on the precautionary principle. This states how the Commission intends to apply the principle and establishes guidelines for its application. The document is intended to inform discussions on international agreements. In particular, it provides a defense of European Union (EU) precautionary policies in case of trade disputes, for example, in case the EU is accused of imposing unfair trade barriers on exports of genetically-modified (GM) products from the United States under the rules of the World Trade Organisation. In the communication, the Commission emphasizes the scientific aspects of the precautionary principle, perhaps partly to counter claims from US officials that the EU's reluctance to accept GM imports is not based on science but is politically motivated. However, a principle is by definition a moral guide to behavior. In other words, it is an ethic. The
precautionary principle should be viewed as a complement to science, to be invoked when a lack of scientific evidence means that outcomes are uncertain. Any interpretation of this principle needs to place at least as much emphasis on its ethical and value-based aspects as on its scientific justification. The Commission's interpretation risks undermining the painstaking progress made among European Union member states in responding to public concern about GM crops and food by adopting increased precaution. This paper explores the balance between the scientific and ethical/value-based aspects of the precautionary principle as set out in the Commission's communication, to make the case that it is the ethical and value-based aspects rather than the scientific aspects of the guidelines that need strengthening. KEYWORDS: ethics, GM crops, precautionary principle, trans-Atlantic trade. Carr is with the Biotechnology Policy Group Centre for Technology Strategy, The Open University, Milton Keynes, UK. (JAEE)


Carrere, Ricardo. "Pulping the South: Brazil's Pulp and Paper Plantations", The Ecologist 26(no.5, 1996):206. Demand for paper is soaring, particularly in the North. To supply cheap pulp, fast-growing tree plantations are being established on the forests, pastures and farmlands of the South, with severe environmental and social impacts. Anticipating opposition to their activities, the pulp and paper industry has become adept at "greenwashing" its activities. A case study of three of Brazil's leading pulp operations compares the companies' claims with their impacts on the ground. (v7,#4)

Carrere, Ricardo and Larry Lohmann. Pulping the South: Third World Tree Plantations in the Global Paper Economy. Atlantic Highlands, NJ: Humanities Press, Zed Books, 1996. In many regions of the South today, the expansion of the pulp and paper industry is one of the most important causes of land and water conflicts. Information from a wide range of countries and sources on the threats to livelihood, soil, and biodiversity generated by large-scale pulpwood plantations. Case studies from Brazil, Chile, Indonesia, South Africa, Thailand and Uruguay. How a varied assemblage of actors both inside and outside the state construct the social and physical grids through which the wood-fiber industry captures subsidies, redistributes risk, manages paper demand and evades, digests, and regulates resistance. (v7,#1)


Carrier, Paul, "The Hidden Costs of Environmentally Responsible Health Care," Perspectives in Biology and Medicine 48(no. 3, 2005):4530463. Review essay of Pierce, Jessica and Andrew Jameton, The Ethics of Environmentally Responsible Health Care (Oxford: Oxford University Press, 2004). Pierce and Jameton worry about the environmental (and other) costs of high tech medicine and medical care and advocate the model of a "Green Health Center." Carrick appreciates this, but worries that sick patients may be pressured to think more about preserving the health and welfare of the surrounding environment than preserving their own health. Perhaps only those therapies and treatment goals that tend to reduce negative impacts on the environment would be considered morally acceptable. Carrick thinks this is "a deadly gamble," which might result in the loss of patient autonomy, in ecological paternalism, and cheapen the respect for life, giving priority to the ecosystem over individual life. With a response by Pierce and Jameton. Carrick is in philosophy, Gettysburg College, Gettysburg, PA.

Carrier, Jim. "Unbearable Futures: Behind the Cuteness Lies an Ethical Debate." The Denver (Colorado) Post, 3 April 1995, 1A, 12A. The Denver Zoo has two polar bear cubs, Klondike and
Snow, stars in a zoo of ooohs, in an exhibit with lines waiting to see them a quarter of a mile long, and March was the biggest month in zoo history. Polar bear doll sales were $7,000; the bears even have their own touch-tone button on the Denver Zoo switchboard. But University of Colorado philosopher, Dale Jamieson, says the bears are condemned to a life of captivity, and there is a "moral presumption against keeping wild animals in captivity." University of Colorado zoologist, Mark Bekoff says that "a polar bear in captivity is not a polar bear," since the public sees them, unrealistically, as cute and cuddly creatures, and that "It's extremely self-centered [of humans] to have cute little polar bears in captivity." William Conway, director of the New York Zoo, replies that the most serious threat to wild creatures" is that they will be ignored ... the most profound and moving lessons zoo education has to offer are simply well cared-for, well-exhibited, living animals."


Carroll, John E. "Envisioning Ecological Sustainability: The Need and a Method." Environmental Values 4(1995):167-168. It has been suggested that a fundamental reason why our society cannot grapple with and overcome so many of its basic environmental and social problems and bring about a needed level of change which is greater than mere cosmetic change is our collective failure to envision a future without such problems, a future more desirable than the one we too often fear will be our legacy.1 We have a visioning problem, for if we cannot see, if we cannot envision such a future, then such a future will always remain beyond our grasp, and the problems will only worsen. Carroll is in the department of natural resources, University of New Hampshire. (EV)


Carroll, John E., and Albert LaChance, eds., Embracing Earth: Catholic Approaches to Ecology. Maryknoll, NY: Orbis Books, 1994. 300 pages. $ 18.95. Richard Rohr, "Christianity and Creation": David Toolan, "Open to Life--and Death," (on the prohibition of all but "natural" birth control); Tessa Bielarki on the mystical-spiritual schemes suggested by the Gaia model, the Samsara construct, and C. S. Lewis' allegorical kingdom of Narnia; William McNamara on verbal pollution and a provocative call to a radical renewal of language; Paul Gonzalez on expanding spiritual horizons beyond the modern norm of a limited concern for the self. Carroll is professor of natural resources at the University of New Hampshire and LaChance is a psychologist and author of Greenspirit. (v5,#3)


Carroll, C, et al., "Defining Recovery Goals and Strategies for Endangered Species: The Wolf as a Case Study," BioScience 56 (no. 1, January 2006): 25-37. We used a spatially explicit population model of wolves (Canis lupus) to propose a framework for defining range-wide recovery priorities and finer scale strategies for regional reintroductions. The model predicts that Yellowstone and central Idaho, where wolves have recently been successfully reintroduced, hold the most secure core areas for wolves in the western United States, implying that future reintroductions will face greater challenges. However, these currently occupied sites, along with dispersal or reintroduction to several unoccupied but suitable core areas, could facilitate
recovery of wolves to 49% of the area in the western United States that holds sufficient prey to support wolves. That percentage of the range with recovery potential could drop to 23% over the next few decades owing to landscape change, or increase to 61% owing to habitat restoration efforts such as the removal of some roads on public lands.


Carroll, Noël, "On Being Moved by Nature: Between Religion and Natural History," in Salim Kemal and Ivan Gaskell, eds. Landscape, Natural Beauty and the Arts (Cambridge: Cambridge University Press, 1993), pp. 244-266. Nature arouses us in ways that are neither religious nor scientific, and these are legitimate ways of appreciating nature aesthetically. "We may appreciate nature by opening ourselves to its stimulus, and to being put in a certain emotional state by attending to its aspects. Experiencing nature, in this mode, just is a manner of appreciating it. ... Such experiences have a genuine claim to be counted among the ways in which nature may be (legitimately) appreciated." This does not require knowledge of natural history. They are "of a less intellective, more visceral sort" (p. 245). Carroll is at the University of Wisconsin. (v7,#2)

Carroll, Rory, "Leakey Puts Wildlife at Top of Tree," The Guardian (London), Friday, September 12, 2003. Richard Leakey puts wildlife at top priority, over people. The wildlife conservationist Richard Leakey stirred up controversy at the World Parks Congress in Durban (in a speech Sept. 11) by saying that conservation had to come before the rights of indigenous peoples. Protected nature areas are too important to be "subjugated" to people complaining of eviction from ancestral lands in the name of biodiversity. Indigenous people deserve compensation but to let them manage the parks where they once lived risks unravelling environmental and economic gains. These parks belong to the world. (v.14,#4)

Carroll, John E., and Albert LaChance, eds., Embracing Earth: Catholic Approaches to Ecology (Maryknoll: Orbis Books, 1994). A collection of Christian visions attempting to provide valuable, thought-provoking, and inspiring resources with which to confront the global ecological crisis. Contributors include Richard Rohr, William McNamara, David Toolan, and Paula Gonzalez. (v5,#4)

Carruthers, P., The Animals Issues. New York: Cambridge University Press, 1992. Enlarges the argument of "Brute Experience." Animals, even if they do feel pain, are not rational agents, and outside the social contract of morality. But animals, although they have pain mechanisms and unconscious mental states, are incapable of feeling pain and are therefore morally irrelevant. Carruthers is in philosophy at the University of Essex.

Carruthers, David V. "Agroecology in Mexico: Linking Environmental and Indigenous Struggles,: Society & Natural Resources 10(no.3, 1997):259. (v8,#2)

Carruthers, Peter, "Brute Experience," Journal of Philosophy 86 (1989):258-269. "The question whether brutes have experience has been granted as obvious in recent times, and in one sense of the term `experience' no doubt it is so. But not, I shall argue, in the sense that makes their
experience an appropriate object of moral concern." "Many experiences ... do not feel like anything." These are "nonconscious experiences." Only conscious experiences have a distinctive phenomenology, a distinctive feel." Based on "the nonconscious status of most animal experiences," Carruthers concludes that "in the case of brutes: since their experiences, including their pains, are nonconscious ones, they are of no immediate moral concern." "Much time and money is presently spent on alleviating the pains of brutes which ought properly to be directed toward human beings. ... Such activities are not only morally unsupported but morally objectionable." "And it also follows that there is no moral criticism to be leveled at the majority of people who are indifferent to the pains of factory-farmed animals." Carruthers is in philosophy at the University of Essex. (v3,#4)


Carte, Brad K. "Biomedical Potential of Marine Natural Products." Bioscience 46, no.4 (1996):271. Marine organisms are yielding novel molecules for use in basic research and medical applications. (v7, #3)


Carter, Alan, "Some Theoretical Foundations for Radical Green Politics," Environmental Values 13(2004):305-328. On the basis of our apparent obligations to future generations, it would seem that we are morally obliged to reduce the risk our environmentally destructive behaviour poses for their well-being. But if, rather than choosing to destroy the environment, we are in fact driven to do so, then any obligation to reduce our environmental impact requires an understanding of the mechanism driving our behaviour. This article argues that the State-Primacy Theory provides a plausible explanation for the nature of that mechanism, and concludes that the most common strategies offered as a response to our environmental impact are most likely to be insufficiently radical to meet our seeming obligations effectively. Carter is in philosophy, University of Colorado, Boulder. (EV)


Carter, Alan, A Radical Green Political Theory. London: Routledge, 1999. 409 pages. Claims to be the first systematic, comprehensive environmental political philosophy. Exposes the relationships between the ever-worsening environmental crises, the nature of the prevailing economic structures, and the role of the modern state, and concludes that the combination of these factors is driving humanity towards destruction. After analyzing authoritarian, reformist, Marxist and anarchist approaches to the environmental problem, the author argues strongly that only the most radical of political practices can prevent an ecological catastrophe. This is explored through analysis of social relationships, power, the state, anarchism and Third World development. Sample chapters: Chapter 6: The state and nature: Radical green values: feminist, socialist and anarchist. An environmentally hazardous dynamic. An environmentally benign interrelationship? The coherence of green political thought. Chapter 7: Towards a cooperative autonomy. Anarchism. Cooperative autonomy. A green vision. Two justifications of civil disobedience. A duty of radical disobedience. More details: http://www.heythrop.ac.uk/cartargpt.htm
Carter is in philosophy at Heythrop College, London, and moving to a position in philosophy and environmental studies at the University of Colorado, Boulder. (v.12,#2)

Carter, Alan, *A Radical Green Political Theory*. London: Routledge, 1999. 409 pp. ISBN 0-415-20309-0. The first systematic, comprehensive environmental political philosophy, exposing the relationships between the ever-worsening environmental crises, the nature of the prevailing economic structures and the role of the modern state. The combination of these factors is driving humanity towards destruction. After analyzing authoritarian, reformist, Marxist and anarchist approaches to the environmental problem, Carter argues that only the most radical of political practices can prevent an ecological catastrophe. A detailed analysis of social relationships, power, the state, anarchism, and Third World development. Sample sections: The need for a green political theory. Eco-authoritarianism. Eco-reformism. Marxism as a basis for green political theory. Individualism or collectivism? Re-thinking the state. Development or underdevelopment. The state and nature. Radical green values: feminist, socialist and anarchist. The coherence of green political thought. A duty of radical disobedience. Carter is in philosophy, Heythrop College, University of London. (v.10,#1)


Carter, Alan. "Can We Harm Future People?" *Environmental Values* 10(2001):429-454. It appears to have been established that it is not possible for us to harm distant future generations by failing to adopt long-range welfare policies which would conserve resources or limit pollution. By exploring a number of possible worlds, the present article shows, first, that the argument appears to be at least as telling against Aristotelian, rights-based and Rawlsian approaches as it seems to be against utilitarianism, but second, and most importantly, that it only holds if we fail to view moral agents as individuals. The article also concludes that the argument has profoundly counter-intuitive implications. Keywords: Future generations, Schwartz, Parfit, non-identity problem, person-affecting principle. Alan Carter is in the Department of Philosophy, University of Colorado at Boulder, CO, USA. (EV)


Carter, Alan. "Humean Nature." *Environmental Values* 9(2000):3-37. Abstract: It has been argued that there is an irreconcilable difference between those advocating animal liberation or animal rights, on the one hand, and those preferring a wider environmental ethic, which includes concern for non-sentient life-forms and species preservation, on the other. In contrast, I argue that it is possible to provide foundations for both seemingly environmentalist positions by exploring some of the potential of a `collective-projectivist' reading of Hume - one that seems more consistent with Hume's texts than other readings. In short, this article seeks to advance our understanding of some of the possibilities within Humean moral theory, while simultaneously providing new foundations for both animal welfare and a wider environmental ethic. KEYWORDS: Animal rights, intrinsic value, projectivism, secondary qualities, subjectivism, sympathy, welfare. Carter is in philosophy, Heythrop College, University of London. (EV)

Carter, Alan. "Saving Nature and Feeding People," Environmental Ethics 26(2004):339-360. Holmes Rolston, III has argued that there are times when we should save nature rather than feed people. In arguing thus, Rolston appears tacitly to share a number of assumptions with Garrett Hardin regarding the causes of human overpopulation. Those assumptions are most likely erroneous. Rather than our facing the choice between saving nature or feeding people, we will not save nature unless we feed people.. (EE)


Carter, Dick, "Maintaining Wildlife Naturalness in Wilderness," International Journal of Wilderness 3 (no. 3, 1997):17-21. Federal managers may not introduce exotic species to wilderness areas, but they allow state managers to stock non-native fishes and to introduce non-native goats adjacent to wilderness areas, knowing they will migrate there. Carter is a Utah environmentalist. (v.8,#4)

Carter, Jimmy, "Who's Afraid of Genetic Engineering," New York Times, August 26, 1998, p. 23. The former U.S. President argues that a team studying threats to biodiversity from genetically engineered crops and other organisms has come under the influence of environmental extremists. The team was constituted under the U.N. Biodiversity Convention and has members from more than 100 different governments. Anti-technology activists, especially in third world nations, exaggerate the threats to biodiversity and prohibit useful genetically engineered crops, such as the soybeans Carter raises on his own farm in Georgia. (v.9,#3)

Carter, Luther J., and Thomas H. Pigford, "Proof of Safety at Yucca Mountain," Science 310(21 October 2005):447-448. After court rulings, the Environmental Protection agency has proposed a two-tiered new standard that would stay within a 15-mrem/year for the first 10,000 years and a 350 mrem/year for up to one million years thereafter. These authors conclude: "In our view, the present repository design cannot meet these tests." Carter is the author of Nuclear Imperatives and Public Trust: Dealing with Radioactive Waste. Pigford is in nuclear engineering, University of California, Berkeley.


Carter-Long, Lawrence. "Learning from Debate," The Animals' Agenda 17(no.4, 1997):28. Animals deserve nothing less than thoughtful, spirited, and messy debates on their behalf. (v8,#3)


the myth of "man the hunter." What it means to be human, to stand uncertainly between the wilderness of beast and prey and the peaceable kingdom. "It is hard to see how we can justify sportive hunting, since it inflicts grave suffering for the sake of mere amusement." Such "hunting, then, is not a 'natural' activity in any meaningful sense" (pp. 240-242). Cartmill is in biological anthropology at Duke University. (v4,#1)


Carwald, Georgia O., "Hydroelectric Development and Road Paving in Brazil's Transamazon Area" _The Journal Of Environment And Development_ 8(no. 4, Dec 01 1999):397-. (v10,#4)


Case, T. J. "Global Patterns in the Establishment and Distribution of Exotic Birds", _Biological Conservation_ 78(no.1/2, 1996):69. (v7,#4)

Casebeer, William D. _Natural Ethical Facts: Evolution, Connectionism, and Moral Cognition_. Cambridge, MA: The MIT Press, 2005. We can articulate a fully naturalized ethical theory using concepts from evolutionary biology and cognitive science. We can study moral cognition just as we study other forms of cognition. We have As softly fixed at human natures, these natures are evolved, and our lives go well or badly depending on how we satisfy the functional demands of these natures.

Casey, Edward S., _Getting Back into Place: Toward a Renewed Understanding of the Place-World_. Bloomington, IN: Indiana University Press, 1993. 416 pages. Cloth, $ 45.00. Paper, $ 19.95. What would the world be like if there were no places? Our lives are so place-oriented that we cannot begin to comprehend sheer placelessness. Despite the pervasiveness of place, philosophers have neglected it. Part I. Finding Place. Greek views contrasted with modernist efforts to reduce place to space and to assert the primacy of time. Part II. The Body in Place. Embodied emplacement requires structures in which to reside, structures devised by humans to support their desires and needs. Develops the analysis of Merleau-Ponty and Husserl. Part III. Built Places. How we dwell in places, what it means for places to be built. Part IV. Wild Places. Place in its unbuilt and uncultivated aspects, the ecological horizons and wilderness modes. Part V. Moving between Places. Our life in the place-world at large, especially in home places. Casey is a philosopher at the State University of New York (SUNY), Stony Brook. (v4,#4)

Casey, Edward S., "The Production of Space or The Heterogeneity of Place: A Commentary on Edward Dimendberg and Neil Smith," _Philosophy and Geography_ 2 (1998): 71-80. Casey is a professor in the Department of Philosophy at the State University of New York, Stony Brook. (P&G)


Casey, Edward. *The Fate of Place: A Philosophical History*. Berkeley: University of California Press, 1997. 495 pp. $45 cloth, $19.95 paper. A philosophical history of the evolving conceptualizations of place and space in Western thought, an interpretation that is acutely sensitive to silences, absences, and missed opportunities in the complex history of approaches to space and place. (v.10,#1)


Castelletta, Marjorie, Navjot S. Sodhi, and R. Subaraj, "Heavy Extinctions of Forest Avifauna in Singapore: Lessons for Biodiversity Conservation in Southeast Asia," *Conservation Biology* 14(no.6, 2000 Dec 01): 1870-. (v.12,#3)

Castelo, Carmen Velayos, "Reflections on Stoic Logocentrism," *Environmental Ethics* 18(1996):291-296. William O. Stephens is to be applauded for the way in which he presents and analyzes some paradigmatic Stoic arguments, and thus defends Stoicism from the misplaced charges of Jim Cheney. Nonetheless, Stephens's individualist interpretation of what he calls Stoic 'logocentrism' obscures key features of the Stoics' theory of value and their related ethic and metaphysic. Once the Stoics are allowed to speak for themselves, it emerges that they
adhered to a holistic axiology, that for them virtue lay in conformity with cosmic nature, and that the standard charges of anthropocentrism and blindness to natural beauty, often wielded by environmental philosophers against them, are misguided. Castelo is in philosophy, University of Salamanca Campus Unamuno, Salamanca, Spain. (EE)

Castle, David. "Limitations on an Inclusive Definition of Ecosystem-Human Health." Ethics and the Environment 5(2000):153-162. ABSTRACT: The ecology movement has been effective in focusing our attention on humanity's antipathy toward nature and the risks associated with that antipathy. Evidence of the effects of human-caused environmental destruction performed in the march of progress has long been recognized, but it has been realized only recently that degraded environments can reciprocate and impose severe if not final limits on human pursuits. Ecologists and philosophers who have foreseen our environmental midnight have attempted to reformulate contemporary society so that humanity and nature can work in concert, not in opposition. In this respect, the ecological movement has sponsored various forms of ecocentrism, all of which are distinguished by their attempt to integrate the norms underlying ecosystem health and human health. Despite the fact that significant aspects of the ecocentrism platform have been called into question (Steverson 1994), the prospect of their integration still has appeal. An integrated definition would imply that concern for human and natural welfare could be coextensive and that right action would simultaneously benefit humans and nature. Ostensibly, an inclusive definition of ecosystem-human health must satisfy two basic criteria. It must 1. Articulate the relationship between human health and ecosystem health, 2. Provide a set of norms that are consistent for human health and ecosystem health. I argue that an analysis of the basic principles underlying ecosystem health and human health enable us to answer (1), but that it is not presently possible to answer (2). (E&E)


Castle, Emery N., "A Pluralistic, Pragmatic and Evolutionary Approach to Natural Resource Management," Forest Ecology and Management 56(1993):279-295. Four requirements must be satisfied by natural resource management. (1) It must provide for economic and social change, especially true in modern societies. (2) It must recognize the interdependence of humans and the natural environment. (3) The welfare of future generations must be considered. (4) The process by which group decisions are made is critical. Castle reaches three conclusions: (1) No single environmental ethic or philosophical system exists nor is one likely to be discovered that will guide environmental policy, though several philosophical approaches help. Natural resource policy is necessarily pluralistic. (2) Pluralism is not an acceptable comprehensive system because it does not forbid inconsistencies. For this reason policy must be pragmatic, and democracy is a pragmatic device. (3) Social and natural systems co-exist through time and must mutually adapt, though neither is stable or predictable far into the future. Castle teaches economics at Oregon State University. (v5,#4)


Catalano, George D., "Chaos and a New Environmental Ethic: The Land Ethic Revisited," Between the Species 11 (Nos. 1 & 2, 1995):64-73. The revised ethic reads: "A thing is right when it tends to allow the natural world and all the entities thereof, to thrive in richness and diversity, and to experience change. It is wrong when it tends otherwise." Catalano is at the United States Military Academy, West Point. (v.9,#4)


Catton, Jr., William R., "Kulturelle Rueckstaendigkeit gefaehrdet die Zukunft der Menschheit" (article in German) Humanity's Future Imperiled by Cultural Lags. Natur und Kultur, Vol. 1/2, 2000, pp. 3-25. Abstract: Human societies exploiting Earth's ecosystems beyond carrying capacity make ideas about human dominion obsolete. Formerly successful policies become disastrous. With six billion humans using Earth three ways (as supply depot, activity space, and disposal site) mutual interference between these uses escalates. Technological advances, once progressive, now enlarge per capita resource appetites and impacts, reducing the number of humans the planet can continue supporting. Sustainability requires enormous efficiencies and a period of "negative population growth". (v.11,#4)


Catturi, Guiseppe, Produrre e Consumari, Ma Comme? (Produce and Consume, But How?). Padova, Italy: CEDAM--Casa Editrice Dot A. Milani, 1990. A discussion of environmental responsibility from the perspective of accounting, as contrasted with economics. Systems theory should be used to understand the relation of a business to others in its environment or business ecosystem, governed by the principle of consonance or harmony, finding for each business a niche in the system. Accounting should reflect responsibility beyond the confines of the business. The European Community's "Atto Unico" (Single [environmental] Act) is used as a model and guide for this interaction. Catturi is president of the Accounting Institute of the University of Siena. (v3,#2)

Cauchon, Dennis, "Maurausing Beetles Menace Forests," USA Today, November 12, 2004, p. 3A. The emerald ash borer, transplanted from China about ten years ago, has killed six million ash trees in Ohio, and threatens to spread to over 7.5 billion ash trees in the U.S., if not stopped. Stopping it requires drastic measures: cutting all ash trees in a six to twelve mile wide protective belt, and this may not be enough. The beetle kills big, strong trees in a few years. When it appeared, it was a species unknown to researchers in the U.S.,; a now aged-Chinese entomologist had described it, but his research was destroyed in the Cultural Revolution, a ten year campaign against intellectuals starting in 1966. (v.14, #4)

Caughley, Graheme. "Directions in Conservation Biology." Journal of Animal Ecology 63(1994):215-244. Most theories about conservation have been developed in studies of species that occur in small populations under constrained conditions. These are amenable to theoretical treatment, but the theory provides an answer to a trivial question, How long will the population persist if nothing happens. It bears tenuous relevance to the specific problems of aiding a species in trouble. The real conservation problems, however, involve species that are declining in numbers from widespread, large populations. The reasons are humdrum, various, defy tight generalization, and not of theoretical interest. But such theory is in urgently needed to orient practice. Caughley is with the CSIRO Division of Wildlife and Ecology, Canberra, Australia.

Caughley, Graeme and Anne Gunn, Conservation Biology in Theory and Practice. Cambridge, MA: Blackwell Science, 1995. 448 pages. $ 44.95. The logic and methods for the diagnosis and treatment of species extinctions and declines. The success of previous recovery efforts and methods of improving or reversing the plight of endangered species worldwide. Issues of population dynamics, risk assessment, and wildlife management, balanced against social and cultural pressures such as economics and legislation.

Causey, Ann S. "On the Morality of Hunting." Environmental Ethics 11(1989):327-343. The controversy between hunting apologists and their anti-hunting antagonists continues to escalate. Numerous attempts to settle the issue have failed in part because the participants have often not distinguished and treated separately the various activities labeled "hunting." Those who participate in hunting fall into one of two categories: shooters or sport hunters. Shooters are those whose ultimate goals do not depend on hunting but can be met in other ways; sport hunters are those who take immense pleasure in the hunt itself and who kill in order to have had an authentic hunting experience. Discussion of the morality of hunting (as opposed to its prudence) is properly restricted to the moral evaluation of the desire of sport hunters to kill for pleasure. This desire can be explained by biological/evolutionary concepts and defended as morally neutral. Neither the animal protectionists nor the utilitarian apologists recognize that violent death is part of nature and that man's desire to participate in it can be both natural and culturally valuable. Though well-intentioned, utilitarianism is an impotent ethical defense of hunting because it can judge only the prudence, not the morality, of hunting. Causey is in the department of Botany and Microbiology, Auburn University, Auburn, AL.


Cavalieri, Paola, Why Non-Human Animals Deserve Human Rights. New York: Oxford University Press, 2001. It is necessary to go beyond the traditional opposition between utilitarianism and Kantianism and focus on the question of fundamental moral protection. In the case of human beings, such protection is granted within the doctrine of universal human rights. The logic of this doctrine extends to non-human animals who are owed basic moral and legal rights. As a result, human rights are not merely human, after all. Cavalieri is editor of the journal Ethics and Animals.
Cavanaugh, Michael, "Global Population Equilibrium: A Model for the Twenty-First Century," Zygon 32(1997):163-174. A global population in equilibrium can serve as an organizing model, or scientific myth, both as a plausible description of reality and a goal with a compelling normative status. Few deny that, unless humans stabilize their population, our world will face serious problems before the year 2050, and a consensus about this can unite persons in many cultures, and also join scientific and theological perspectives. (v8,#2)

Cave, George S. "Animals, Heidegger, and the Right to Life." Environmental Ethics 4(1982):249-54. Quantitative utilitarianism demands equal treatment of human and nonhuman animals where there are no relevant differences between them. A difference is relevant only if it excludes the animal from suffering evil if it is treated differently. Quantitative utilitarianism cannot, however, resolve conflicts of interest nor prove that painless killing of animals is morally wrong. For this we need a higher qualitative good. I suggest that Care, as Heidegger understands it, is such a good, and that it is the essence not only of human, but of nonhuman animal Dasein as well. Because animals care, we are morally obliged to desist from killing them, even painlessly. Cave is an animal rights activist at State College, PA. (EE)


Ceballos, Gerardo and Ehrlich, Paul R., "Mammal Population Losses and the Extinction Crisis," Science 296(3 May 2002):904-907. The disappearance of populations is a prelude to species extinction. No geographically explicit estimates have been made of current population losses of major indicator taxa. Here we compare historic and present distributions of 173 declining mammal species from six continents. These species have collectively lost over 50% of their historic range area, mostly where human activities are intensive. Australia is the continent with the largest number of mammal species extinctions. Worldwide, this implies a serious loss of ecosystem services and goods. It also signals a substantial threat to species diversity. Ceballos is in the Instituto de Ecologia, Universidad Nacional Autonoma de Mexico. (v.13,#2)

Cebon, Peter, Dahinden, Urs, Davies, Huw C., Imboden, Dieter, Jaeger, Carlo C., eds. Views from the Alps: Regional Perspectives on Climate Change. Cambridge, MA: MIT Press, 1998. 536 pp. $60. This book takes a regional approach to the Alpine region. The result of the ongoing Swiss research program Climate and Environment in the Alpine Region (CLEAR), it incorporates the work of an independent network of approximately fifty researches from a variety of disciplines. (v.9,#4)

Cela Conde, Camilo J., "Humanos y no humanos. Sobre los derechos de unos y otros (On the Rights of Human and Non-Human Animals. Animal Experimentation and Animal Rights)," Arbor-Ciencia Pensamiento y Cultura (Madrid) 150(issue 592, 1995):47-60. In Spanish. Cela conde is in the Department of Philosophy, University of Islas-Baleares, Palma-de-Mallorca, Spain. (v.10,#1)

Cembalest, Robin, "The Ecological Art Explosion," Artnews, Summer 1991, pp. 96-1-5. Artworks about ecological disasters; a wheatfield planted on a Manhattan Battery Park landfill, to help people rethink their priorities; waste filter systems artistically designed; Puget Sound's sewage used as a glaze for plates; a waste site field artistically arranged with plants that are absorbing the toxic wastes beneath, and more.
Cenci Goga, Beniamino T., and Clementi, Francesca, "Safety Assurance of Foods: Risk Management Depends on Good Science but it is not a Scientific Activity," *Journal of Agricultural and Environmental Ethics* 15(no. 3, 2002):305-313. We make many decisions in our lives and we weigh the benefits against the drawbacks. Our decisions are based on what benefits are most important to us and what drawbacks we are willing to accept. Decisions about what we eat are made in the same way; but when it comes to safety, our decisions are usually made more carefully. Food contains natural chemicals and it can come into contact with many natural and artificial substances during harvest, production, processing, and preparation. They include microorganisms, chemicals, either naturally present or produced by cooking, environmental contaminants, and pesticides. Since the chance of being harmed by these potential hazards is called risk, risk analysis might be better termed as the science of safety, because risk management is an essential part of it. It would, however, be difficult and shortsighted to maintain that questions about risk and safety can have no moral dimension. Risk and safety become matters of moral concern when they raise further questions about responsibility, accountability, and justifiability. The question of risk cannot be ignored in any ethical investigation of genetic engineering, novel foods, animal welfare, and individual choices. However, food is more than metabolic fuel. It has physiological, psychological, social, cultural, and aesthetic associations that merge to form a gestalt that people endanger and maintain. The contribution of any food towards an individual's well being is as complex as the individual himself. In this context, the benefits of consuming food that contains hazards may outweigh the risk. KEY WORDS: food safety, food science, risk management. Cenci Goga is in the Dipartimento di Scienze degli Alimenti, Università degli Studi di Perugia, Perugia, Italy. Clementi is with the Dipartimento di Biotecnologie Agrarie e Ambientali, Università degli Studi di Ancona, Ancona, Italy. (JAEE)


Centner, T. J., "Coordinating fence law with range management strategies in the USA," *Environmental Conservation* 27(no.2, JUN 01 2000):201- . (EE v.12,#1)


Cessford, Gordon, "Antarctic Tourism: A Frontier for Wilderness Management," *International Journal of Wilderness* 3 (no. 3, 1997):7-11. Antarctic tourism has grown rapidly in recent years, 10,000 persons in the four summer months. To date impacts have been relatively benign, but the prospect of continued growth brings some concerns about the adequacy of existing rules and calls for continued surveillance and research. Cessford is with the Department of Conservation in Wellington, New Zealand. (v.8,#4)

CGIAR: Agricultural Research for Whom?" *The Ecologist* 26 (no.6, 1996): 259. Off-farm agricultural research plays a central role in shaping the current and future direction of agriculture. Who controls that research and who sets its agenda is of critical importance for food security. Of particular concern is the influence exerted by the Consultative Group on International Agricultural Research (CGIAR). Under its direction, research has been geared towards intensive, industrialized method of production--at great cost to genetic diversity, the environment and poorer farmers in the South. Non-governmental organizations are pressing CGIAR to implement wide-ranging changes so as to restructure its research agenda and decision-making processes. (v8,#2)


--Mepham, Ben, "Agricultural Ethics"
--Parascandola, Mark, "Animal Research"
--Pluhar, Evelyn, "Animal Rights"
--Rawles, Kate, "Biocentrism"
--Lee, Keekok, "Biodiversity"
--Leopold, Aldo Carl, "Conservation (Stewardship)"
--Munz, Peter, "Darwinism"
--Talbot, Carl, "Deep Ecology"
--Dower, Nigel, "Development Ethics"
--Dower, Nigel, "Development Issues"
--Holland, Alan, "Ecological Balance"
--Burritt, Roger, "Environmental Compliance by Industry"
--Sagoff, Mark, "Environmental Economics"
--Attfield, Robin, "Environmental Ethics, Overview"
--Jarvela, Marja, "Environmental Impact Assessment"
--Talbot, Carl, "Environmental Justice"
--MacDonald, Chris, "Evolutionary Perspectives in Ethics"
--Brennan, Andrew, "Gaia Hypothesis"
--Valadez, Jorge, "Indigenous Rights"
--Booth, Annie L., "Land-Use Issues"
--Mori, Maurizio, "Life, Concept of"
--Daffer, Thomas, "Native American Cultures"
--Allen, Garland E., "Nature vs. Nurture"
--Shrader-Frechette (Shrader-Frechette), Kristin, "Nuclear Power"
--Ryder, Richard, "Painism"
--Clark, John P. "Political Ecology"
--Parker, Jenneth. "Precautionary Principle"
--Christman, John. "Property Rights"
--Carpenter, Robert Stanley. "Sustainability"
--Kaplan, Helmut. "Vegetarianism"
--Rollin, Bernard E. "Veterinary Ethics"
--Spash, Clive L. "Wildlife Conservation"
--Dower, Nigel. "World Ethics"
--Bostock, Stephen. "Zoos and Zoological Parks"

Chadwick, Ruth, Guest Editor, Special Issue: "Food Safety, Food Quality and Food Ethics." Selected papers from the 3rd Congress of the European Society for Agricultural and Food Ethics. Journal of Agricultural and Environmental Ethics 15(no. 3, 2002). (JAEE)

Chadwick, Douglas H. "A Place for Parks in the New South Africa." National Geographic 190, no. 1, pp. 2-41. Conservationists in South Africa hope to preserve a balance between the nation's magnificent wildlife and a rapidly expanding human population desperate for land. Still, South Africa holds the best hope on the continent for the conservation of wildlife. (v7, #3)


Chahal, Surjeet Kaur, Environment and the Moral Life: Towards a New Paradigm. New Delhi: Ashish Publishing House, 1994. ISBN 81-7024-615-6. The first systematic work on environmental ethics from a philosopher in India. Chapter titles: Necessity and Possibility of Environmental Ethics. The Problem of Interests and Rights in Environmental Ethics. Reflective Equilibrium--A Framework for Environmental Ethics. Environmental Ethics: The Ultimate Questions. She develops a holistic approach towards the geosphere, on the basis of which she hopes for a change in the prevalent behavior towards nature and preserving the environment for future generations. "The problems of environmental ethics restore a sense of urgency and realism to the philosophical enterprise itself" (p. vii). She is well read in the British and American literature, and draws especially from the Sikh tradition. The author teaches philosophy at the University of Poona (or Pune), inland from Bombay (or Mumbai). (v9,#1)

Chahal, Surjeet Chahal, Ecology Redesigning Genes: Ethical and Sikh Perspective. Amritsar, India: Singh Brothers, 2005. Research in genetics cannot be isolated from its impact on ecology. With the genes redesigned, with newer organisms appearing and various unwanted species eliminated, it may not be possible for us to undo the damage to the biosphere. Genetic technology challenges the relationship between God, humans, and the rest of nature. A Sikh perspective. Chahal is in philosophy, University of Pune, India.

Chaitanya, Krishna, "Man, Nature and Cosmos in Vedic India," The Ecologist 30 (No. 1, Jan 01 2000): 21-. The thrust of the Religion of ancient India was to follow R'ta - the natural and moral law - that which maintained the order of the Cosmos. (v.11,#2)

Chaloupka, William. "John Dewey's Social Aesthetics as a Precedent for Environmental Thought." Environmental Ethics 9(1987):243-60. In this essay I review John Dewey's pragmatism from the perspective of environmental social theory. Dewey's clarification of aesthetics, values, experience, and the natural world are useful to contemporary environmentalism. His work represents a precedent for critical, anti-dualistic social philosophy in the U.S., and usefully clarifies the relationship of humans to the "material world." Dewey's conception of values, politics, and experience suggests that these elements may be combined in ways congenial to environmental thought. Chaloupka is at the Political Science Dept., University of Montana, Missoula, MT. (EE)


Chao Mengqing, "New concept of human nature and ecological ethics", Academic Research, 2003(2)


Chapman, Audrey R., Unprecedented Choices: Religious Ethics at the Frontiers of Genetic Science. Minneapolis, MN: Fortress Press, 1999. A thorough survey of what ethicists, especially religious ethicists, have said about genetics: cloning, patenting life, DNA modification for therapeutic purposes or for designer children. One conclusion is that theologians find it difficult to translate the reverence for life in their traditions into applied ethics in the unprecedented challenges posed by possibilities in genetics. A variety of conclusions is often possible. But science without ethical guidance is also irresponsible. Chapman is Director of the Dialogue on Science, Ethics, and Religion, a program of the American Association for the Advancement of Science, Washington.

Chapman, Audrey R., "The Greening of Science, Theology, and Ethics." Pages 211-227 in Peters, Ted., ed., Science and Theology: The New Consonance (Boulder, CO: Westview Press, 1998). "The constructive thesis of this article is that a greater integration of science into eco-theology and eco-ethics could contribute significantly to the development of ecological theology (eco-theology) and ecological ethics (eco-ethics). A multi-disciplinary perspective could provide greater conceptual rigor, concreteness, and relevance to these specializations. A scientific grounding is essential if eco-theology and eco-ethics are to understand and come to terms with what is happening to the planet as a basis for formulating an appropriate theological response. Humanity's spiritual life and future depend, not so much on an exhortation to lead a sustainable and develop a sustainable society, but on learning what makes for sustainability and wrestling with the difficult theological, moral, social, and environmental issues it raises" (pp. 212-213).
Chapman is program director for the American Association for the Advancement of Science, Dialogue between Science and Religion, Washington, DC. (v.10,#3)

Chapman, Audrey R., Unprecedented Choices: Religious Ethics at the Frontiers of Genetic Science. Minneapolis: Fortress Press, 1999. We now face, from genetic science, urgent and unprecedented choices that may involve re-designing our nature, for which traditional ethics provides little direct guidance, and science provides even less. How can we integrate religious, ethical, and scientific reasoning in this crisis?


Chapman, Robert L., has completed at Ph.D. dissertation, "Values Beyond Culture: A Study in Environmental Axiology," at Fordham University, Bronx, NY, under Elizabeth Kraus. The central argument is that nature posses non-instrumental value. The arguments are mainly aesthetic and favorably supplement a purely ethical approach to environmental value. Chapman is now adjunct assistant professor at Pace University, New York, New York, where he is teaching environmental ethics and establishing a degree program in environmental studies. (v3,#4)

Chapman, Robert L. "The Goat-stag and the Sphinx: The Place of the Virtues in Environmental Ethics," Environmental Values 11(2002):129-144. Standard virtue ethics approach to environmental issues do not go far enough because they often lack significant attachment to local environments. Place provides the necessary link that enlarges the arena of moral action by joining human well-being to a place-based goal of wildness (Thoreau) or biotic harmony (Leopold). Place defines a niche for human activity as part of nature. Virtuous action, then, is understood as deliberation from a position of being in and of the natural world; respect and gratitude are examples of this type of deliberation. (EV)
Chapman, Robert L. "Immigration and Environment: Settling the Moral Boundaries." Environmental Values 9(2000):189-209. Abstract: Large populations fuelled by immigration have damaging effects on natural environments. Utilitarian approaches to immigration (whether restrictive or permissive) are inadequate, since they fail to draw the appropriate boundaries between people, as are standard rights approaches buttressed by sovereignty concerns because they fail to include critical environmental concerns within their pantheon of rights. A right to a healthy environment is a basic/subsistence right to be enjoyed by everyone, resident and immigrant alike. Current political-economic arrangements reinforced by familiar ethical positions that support property rights and preference satisfaction favours (privileged) residents while directly or indirectly denying basic rights to potential immigrants and should be abandoned and a basic rights procedure adopted. Keywords: Dependency theory, livable environment, subsistence rights, utilitarianism. Chapman is in the Department of Philosophy and Religious Studies, 41 Park Row - Shiff Faculty Center, New York, NY 10038, USA. (EV)

Chapman, Robert L., "Ecological Restoration Restored," Environmental Values 15(2006): 463-478. Conceptual and methodological changes in ecology have the potential to alter significantly the way we view the world. A result of embracing a dynamic model ('the flux of nature', and 'disturbance regimes') has been to make ecological restoration projects a viable alternative, whereas under 'equilibrium ecology' (climax communities/nature-knows-best) restoration was considered destructive interference. The logic of sustainability strategies within the context of dynamic forces promises a greater compatibility with anthropogenic activity. Unhappily, environmental restoration turns out to be paradoxical under the current identification of wilderness with wildness where wildness is, at least, a necessary condition for the possession of natural value. The solution to the paradox is to separate wilderness from wildness both conceptually and ontologically by enlarging the domain of wildness to include certain human activities. (EV)


Chapman, Anne, A The Ways That Nature Matters: The World and the Earth in the Thought of Hannah Arendt,(@ Environmental Values 16(2007): 433-445. One of the many sets of distinctions made by Hannah Arendt was that between the world and the earth. I give two different interpretations of this distinction then set out four different ways in which nature matters to us, depending on whether nature is regarded as world or as earth, and whether humans are seen as biological beings or as beings who create and inhabit a world. These different ways are represented in different forms of environmentalism and theories of environmental ethics. The controversy over wind farms in the UK as an instance in which two of the different ways that nature matters come into conflict with each other. Chapman lives in Lancaster, UK.


Jamieson, Dale, "Zoos Revisited," pp. 180-192. (v.8,#4)


Chapple, Christopher Key, ed., Ecological Prospects: Scientific, Religious, and Aesthetic Perspectives. Albany: State University of New York Press, 1993. 236 pages. $19.95 paper. $59.50 hardcover. How ecological insight can serve as a management model for appropriate economic development, the possible categories that can be used to determine land use priorities, working models for environmental activism, potential paradigms for spiritually attuned environmentalism, and the role of aesthetic appreciation in the development of sensitivity to the environment. Chapple is in theology at Loyola Marymount University. (v.4,#3)

Chapple, Christopher Key, and Tucker, Mary Evelyn, eds., Hinduism and Ecology: The Intersection of Earth, Sky, and Water. Cambridge: Center for the Study of World Religions, Harvard University, 2000. Some two dozen contributors. Some samples:
--Dwivedi, O. P., "Dhamic Ecology."
--Agarwal, Anil, "Can Hindu Beliefs and Values Help India Meet Its Ecological Crisis?"
--Habeman, David L., "River of Love in an Age of Pollution."

Chapple is in Asian studies, Loyola Marymount University in Los Angeles. Tucker is in religion, Bucknell University, Lewisburg, PA. (v.12,#2)

Chapple, Christopher Key, Nonviolence to Animals, Earth, and Self in Asian Traditions. Albany: SUNY Press, 1993. The origins of the practice of nonviolence in early India and its paths within the Jain, Hindu, and Buddhist traditions. The relevance of this for contemporary issues: vegetarianism, animal and environmental protection, and religious tolerance. Chapple is in theology at Loyola Marymount University. (v.5,#3)

Charles, Daniel, Lords of the Harvest: Biotech, Big Money, and the Future of Food. Perseus Publishing, 2001. Seed--what used to be considered a gift of nature and a public good, like rain and sunshine, has been turned into a profit-driven market regulated by patents and license fees, just like computer software.


Charlton, Noel G., A Paradigm Change in Values for Environmental Survival?, Master's Thesis, Department of Philosophy, Lancaster University, September 1994. (v.7,#1)


third provides detailed case studies from around the world. Sustainable product development. Green marketing alliances. Environmental communications. Green consumers. Eco-tourism. Environmental marketing in developing countries. Charter is at the Centre for Sustainable Design, UK, and Polonsky at the University of Newcastle, Australia. Greenleaf Publishing, Aizlewood Business Centre, Aizlewood’s Mill, Nursery Street, Sheffield S3 8GG, UK. Tel: +44 (0)114 282 3475. Fax: +44 (0)114 282 3476. E-mail: greenleaf@worldscope.co.uk
http://www.greenleaf-publishing.com (v.10,#2)


Chase, Alston, In a Dark Wood: The Fight over Forests and the New Tyranny of Ecology. New York: Ticknor and Fields (Houghton Mifflin), 1995. A pair of contrasting reviews by Terry L. Anderson and Karl Hess, Jr., with Alston Chases rejoinders, is in PERC Reports (502 S. 19th Avenue, Suite 211, Bozeman, MT 59715). Anderson: "The main contribution of this book is that it exposes the lack of any scientific basis for biocentrism and ecosystem management. ... By embracing biocentrism and ecosystem management, environmentalists have `confused science with philosophy, facts with values, and truth with mythology.' .. The emperor has no clothes. I hope that in a Dark Wood will cripple the idea if not drive a stake into the heart and soul of biocentrism." Hess: There is "a demon in Chase, a mean-spiritedness aimed willy-nilly at greens. In a Dark Wood is a compendium of prejudicial pseudo-science, ad hominem attacks, and facile analyses. It is environmental clearcutting at its most sophisticated and also at its worst. ... Chase is shakiest when attacking ecologists for embracing static models of nature. Here he is dead wrong. Chase bogs down in eco-bashing. By innuendo and coincidence (Nazis were green) he tries to link ecology and biocentrism to tyranny."


Chatelain, C., Gautier, L., Spichiger, R., "A Recent History of Forest Fragmentation in Southwestern Ivory Coast (Africa)", Biodiversity and Conservation 5(No.1, 1996):37-. (v7,#1)

Chatterjee, Pratap and Finger, Matthias, The Earth Brokers: Power, Politics and World Development. London: Earthscan Publications, 1994. The Biodiversity Convention converts, perverts, a concern for the destruction of biodiversity into a preoccupation with biotechnology and natural resources to be manipulated and exploited and manipulated as national and private property.

Chauveur, Michele, Ecology, Ethics, Education, in 1996, Dalhousie University (Canada), M.A. degree in education. 158 pages. The Nova Scotia environmental movement has a wide
spectrum of positions. Unification among these groups is precarious due to the incompatibility of the anthropocentric view and the biocentric view. Sustainable development is rejected by biocentric opponents. Animal rights activists defend universal justice for humans and animals alike. Ecofeminism links women/human oppression and nature’s oppression, rejecting anthropocentric and androcentric values. Social ecology and deep ecology have different views. The role of education versus fears of indoctrination. For a Freirian and a feminist educational approach, understanding nuclearism as a form of oppression and violence is a way to seek empowerment and change toward a post patriarchal society based on a profound awareness of interdependence and respect for the right of all beings to life. The advisor was Ann Manicom.


Chawla, Saroj, "Linguistic and Philosophical Roots of Our Environmental Crisis." Environmental Ethics 13(1991):253-62. I suggest a close relationship between language, philosophy, and our handling of the natural environment. My focus is on unconscious language habits and the presuppositions about reality or world view which underlie these language habits. I discuss three distinct features of Amerindian languages and the English language. Amerindian languages do not give form to intangibles and mass nouns, they make a distinction between spatial and metaphorical aggregates (real and imaginary nouns), and they treat time as being continuous or fluid. In contrast, the English language does give form to intangibles and mass nouns, uses the same terminology for real and imaginary nouns, and has a fragmented (three-dimensional) perception of time. As a result, English language habits are not very conducive to a holistic and careful attitude toward the natural environment. Chawla is in the department of Sociology, York University, North York, Ontario, Canada. (EE)


Chazdon, Robin L., "Tropical Forests- Log'Em or Leave'Em?" Science 281(28 August 1998):1295-1296. Isolated forest fragments, logged forests, and second-growth forests are now being recognized for their value in the conservation of biodiversity, for example in forests of Borneo. But these results cannot be generalized to all forests, and other forests are unlikely ever to recover their original composition after logging. Chazdon is in ecology and evolutionary biology at the University of Connecticut, Storrs. (v.9,#4)

Cheater, Mark, "Wolf Spirit Returns to Idaho," National Wildlife 36 (no. 5, August/September 1998):32-41. The Nez Perce Indians bring a spiritual dimension to restore endangered gray wolves to former habitat. The Indians are in charge of a group of wild wolves transplanted to Idaho by the U.S. federal government. Horace Axtell, spiritual leader of the tribe, says, "I told
them they're back on their land and gave them a blessing so they'll multiply and become part of this circle of life again."


Cheetham, Tom. "The Forms of Life: Complexity, History, and Actuality." Environmental Ethics 15(1993):293-11. A fundamental misapprehension of the nature of our being in the world underlies the general inhumanity and incoherence of modern culture. The belief that abstraction as a mode of knowing can be universalized to provide a rational ground for all human knowledge and action is a pernicious and unacknowledged background to several modern diseases. Illustrative of these maladies is the seeming dichotomy between the aesthetic and the analytic approaches to nature. One critical arena in which the incoherences of our current understandings of our place in nature come to light is in the battle over the environment. I argue that a more adequate conceptualization of our place in the natural world can be erected if the central metaphors for our understanding are grounded in notions derived from the sciences of life. The key concepts must include contingency, historicity, evolution, organism, and imaginative interaction with concrete reality in individual human beings. Cheetham is in the Program in Environmental Studies, Department of Biology, Wilson College, Chambersburg, PA. (EE)


Chen Denglin and Ma Janzhang, Outline of Chinese Conservation History (in Chinese). Harbin, China: Northeast Forestry University Press, 2nd edition, 1993. 173 pages. ISBN 7-81008-292-2. 5.60 Yuan. This book narrates systematically the changing history of the natural environment, of its use as resources and its preservation in the various historical periods of China, from primitive society until 1949 before the People's Republic of China was founded. It traces ideas of exploitation, utilization, and conservation, and also governmental institutions for water resources, land resources, forest and wildlife resources. This is the first systematic work of its kind in China, to be used in school education. Chapter titles: (1) Period of Primitive Society. (2) Period of Hsia, Shang, Western Chou Dynasties. (3) Period of Spring and Autumn, and Warring. (4) Ch'in and Han Periods. (5) Three Kingdoms, Two Tsins, and Southern and Northern Dynasties Period. (6) Period of Sui, T'ang, and Five Dynasties. (7) Period of Sung, Liao, Kin and Yuan. (8) Period of Ming and Ch'ing. (9) Modern Period. (Thanks to Ye Ping, Northeast Forestry University, Harbin.) (China) (v5,#4)


Cheney, Dorothy L. and Robert M. Seyfarth, How Monkeys See the World. Chicago: University of Chicago Press, 1990. 389 pages. $ 24.95. The first book to explore the communication and intelligence of these free-ranging primates using field experiments and the theories of modern cognitive science. This book is likely to become the standard reference for biological and behavioral detail in evaluating cognitive theories that compare and contrast humans and monkeys. (v1,#4)

Cheney, Jim, "Postmodern Environmental Ethics: Ethics as Bioregional Narrative," Environmental Ethics 11(1989):117-134. An ambitious attempt to outline the direction of a postmodern environmental ethic, i.e., an ethic based on the social construction of truth and normative belief. Cheney combines the feminist critique of a universal patriarchal belief system, the development of contextualism, Rolston's concept of "stорied residence," McaIntyre's use of narrative in ethical thought, and myth and ritual practice in non-Western communities. The central claim is that bioregional narratives, situated in specific landscapes and places, determine our selves and our communities, and with them, the ethical norms that create healthy lives and societies. The problem here is the relativism of narratives. (Katz, Bibl # 2)

Cheney, Jim, "Eco-feminism and Deep Ecology," Environmental Ethics 9(1987):115-145. The best of a series of papers on eco-feminism. Cheney shows precisely what is different about a feminist perspective on ecological ethics. It rejects both the model of individual rights/biospherical egalitarianism and the model of extreme holism the supenndividual organism. Feminist ethical thought focuses on relations, and these can be maintained only in a community of care and trust. The modes of individual rights and extreme holism are incapable of taking relationships seriously. Contextual relationships determine ethical worth and value, and the appropriate response to a moral situation. (Katz, Bibl # 1)

Cheney, Jim, and Anthony Weston. "Environmental Ethics as Environmental Etiquette: Toward an Ethics-Based Epistemology." Environmental Ethics 21(1999):115-134. An ethics-based epistemology is necessary for environmental philosophy: a sharply different approach from the epistemology-based ethics that the field has inherited, mostly implicitly, from mainstream ethics. In this paper, we try to uncover this inherited epistemology and point toward an alternative. In section two, we outline a general contrast between an ethics-based epistemology and an epistemology-based ethics. In section three, we examine the relationship between ethics and epistemology in an ethics-based epistemology, drawing extensively on examples from indigenous cultures. We briefly explore several striking implications of an ethics-based epistemology in sections four and five. (EE)

Cheney, Jim, "The Dusty World: Wildness and Laws in Thoreau's Walden," Ethics and the Environment 1(no. 2, 1996):75-90. To the attentive reader, the high contrast between Thoreau's depiction of a life in conformity to "Higher Laws" and his depiction of Wildness can seem to be yet another endorsement of nature/culture dualism. I argue that while such a dualism frames much of Thoreau's "experiment" at Walden Pond, a deeper understanding of the relationship between Higher Laws and Wildness emerges which is decidedly nondualistic, an understanding for which I invoke the Buddhist image of the Dusty World. I conclude with some reflections on Val Plumwood's recent work on the nature/culture dualisms at work in current discussions about wilderness. Cheney teaches philosophy at the University of Wisconsin-Waukesha. (E&E)


Cheney, Jim, and Karen J. Warren. "Ecosystem Ecology and Metaphysical Ecology: A Case Study." Environmental Ethics 15(1993):99-116. We critique the metaphysical ecology developed by J. Baird Callicott in "The Metaphysical Implications of Ecology" in light of what we take to be the most viable attempt to provide an inclusive theoretical framework for the wide variety of extant ecosystem analyses--namely, hierarchy theory. We argue that Callicott's metaphysical ecology is not consonant with hierarchy theory and is, therefore, an unsatisfactory foundation for the development of an environmental ethic. Cheney is at the Philosophy Dept., University of Wisconsin-Waukesha, Waukesha, WI. Warren is at the Philosophy Dept., Macalester College, St. Paul, MN. (EE)

Cheney, Jim, "The Neo-Stoicism of Radical Environmentalism," Environmental Ethics 11(1989):293-325. Complex account of what Cheney calls the subtext of deep ecology: the task of containing the other by denying difference through a project of cosmological identification and self-realization; the use of intuition isolated from discourse and negotiation; the creation of a totalizing world-view which simultaneously denies otherness and preserves the autonomy of the self. What is required instead is a politics of difference, based on bioregional and historical narratives, with values derived in context and not deduced from a metaphysical vision. Cheney's argument is a plea for a society based on a model of community with difference, not on a model of a unified organism. (Katz, Bibl # 2)

Cheney, Jim, "Truth, Knowledge and the Wild World," Ethics and the Environment 10(no. 2, 2005):101-135. I had hoped for a narrative of storied residence in Midwest prairie, lake, and river country, and in the mountains and deserts of Idaho, with the history of the development of an environmental ethic (or ethos) left largely implicit within that larger narrative, leaving readers to reflect as they may on the philosophical dimensions of the journey. To leave traditional philosophical modes of expression completely behind proved impossible (for now), but it has been for me a worthwhile exercise to locate my reflections on "truth, knowledge, and the wild world" in something of a narrative form. It is the lakes and rivers, prairies, mountains, and deserts that have remained implicit. They have cast their spell, however, on any attempt to impose cultural order on the relationship between truth, knowledge, and wild world. Cheney is in philosophy, University of Wisconsin-Waukesha. (Eth&Env)

Cheney, Jim. "Universal Consideration: An Epistemological Map of the Terrain." Environmental Ethics 20(1998):265-77. I offer an epistemologically grounded revisioning of Tom Birch's ethical principle of universal consideration, suggesting that epistemologies have ethical dimensions and hence that universal moral consideration is intrinsic to the epistemological enterprise. I contrast epistemologies of domination with epistemologies in part constituted by the generosity of spirit that is the hallmark of Birch's notion of universal consideration. Cheney is in philosophy, University of Wisconsin--Waukesha. (EE)

Cheney, Jim. "Callicott's `Metaphysics of Morals.'" 13(1991):311-25. In his campaign against moral pluralism, J. Baird Callicott has attempted to bring "theoretical unity and closure" to environmental ethics by providing a "metaphysics of morals" encompassing environmental, interpersonal, and social concerns, as well as concerns for domesticated animals. The central notion in this metaphysics is the community concept. I discuss two quite different, and separable, aspects of Callicott's project. First, I argue that his metaphysics of morals does not provide ethical unity and closure. Second, and less specifically focused on Callicott, I discuss the thesis that we can derive ethical obligations from descriptions of the structures of the various communities to which we belong. Cheney is at the Philosophy Dept., University of Wisconsin-Waukesha, Waukesha, WI. (EE)

Cheney, Jim. "Postmodern Environmental Ethics: Ethics as Bioregional Narrative." Environmental Ethics 11(1989):117-34. Recent developments in ethics and postmodernist epistemology have set the stage for a reconceptualization of environmental ethics. In this paper, I sketch a path for postmodernism which makes use of certain notions current in contemporary environmentalism. At the center of my thought is the idea of place: (1) place as the context of our lives and the setting in which ethical deliberation takes place; and (2) the epistemological function of place in the construction of our understandings of self, community, and world. Central to these themes, in turn are the related notions of myth, narrative, storied residence, and ethical vernacular. Cheney is at the Philosophy Dept., University of Wisconsin-Waukesha, Waukesha, WI. (EE)

Cheney, Jim. "The Neo-Stoicism of Radical Environmentalism." Environmental Ethics 11(1989):293-325. Feminist analysis has convinced me that certain tendencies within that form of radical environmentalism known as deep ecology--with its supposed rejection of the Western ethical tradition and its adoption of what looks to be a feminist attitude toward the environment and our relationship to nature--constitute one more chapter in the story of Western alienation from nature. In this paper I deepen my critique of these tendencies toward alienation within deep ecology by historicizing my critique in the light of a development in the ancient world that is disquietingly similar to the rise of deep ecology in recent times namely, the rise of Stoicism in the wake of the breakup of the ancient polis. Cheney is at the Philosophy Dept., University of Wisconsin-Waukesha, Waukesha, WI. (EE)

Cheney, Jim. "Eco-Feminism and Deep Ecology." Environmental Ethics 9(1987):115-45. I examine the degree to which the so-called "deep ecology" movement embodies a feminist sensibility. In part one I take a brief look at the ambivalent attitude of "eco-feminism" toward deep ecology. In part two I show that this ambivalence stems largely from the fact that deep ecology assimilates feminist insights to a basically masculine ethical orientation. In part three I discuss some of the ways in which deep ecology theory might change if it adopted a fundamentally feminist ethical orientation. Cheney is at the Philosophy Dept., University of Wisconsin-Waukesha, Waukesha, WI. (EE)

Cheney, Jim. "Naturalizing the Problem of Evil." Environmental Ethics 19(1997):299-313. I place my analysis and naturalization of the problem of evil in relation to (1) Hóles Rolston's views on disvalues in nature and (2) the challenge posed to theology by environmental philosophy in the work of Frederick Ferré. In the analysis of the problem of evil that follows my discussion of Rolston and Ferré, I first discuss the transformative power for the religious believer of reflection on the problem of evil, using the biblical Job as a case study. I point out difficulties with Job's
particular resolution of the problem of evil and suggest that these difficulties can be satisfactorily addressed by naturalizing spirituality. Cheney is in philosophy at the University of Wisconsin-Waukesha, WI. (EE)

Cheng, Chung-ying. "On the Environmental Ethics of the Tao and the Ch'i." Environmental Ethics 8(1986):351-70. How the Tao applies to the ecological understanding of the human environment for the purpose of human well-being as well as for the harmony of nature is an interesting and crucial issue for both environmentalists and philosophers of the Tao. I formulate five basic axioms for an environmental ethic of the Tao. (1) the axiom of total interpenetration; (2) the axiom of self-transformation; (3) the axiom of creative spontaneity; (4) the axiom of a will not to will; and (5) the axiom of non-attaching attachment. I show that each axiom generates important consequences for environmental ethics and that together they provide a necessary foundation for environmental ethics. Cheng is in the department of philosophy, University of Hawaii at Manoa, Honolulu, HI. (China)

Cheng, Joseph Y.S. and Zhang Mujin, "Historical Survey and the Cultivation of a New Culture Regarding the Ecology in China's Western Provinces," International Journal of Sustainable Development and World Ecology 11(2004):129-142. Extensive background analysis. China's leadership is giving priority to developing the Western Provinces, where environmental pollution and degradation are worse than in the provinces of the East. Here the blind imitation of the (World) West is striking, but there are Chinese environmentalists who seek a "new ecological culture." This plans for sustainable development and also includes respect for the environment, including intrinsic values in nature. Cheng is with the Contemporary China Research Project, University of Hong Kong. Zhang is at Tsing Hua University, Beijing.


Cheng, AS; Kruger, LE; Daniels, SE, "'Place' as an Integrating Concept in Natural Resource Politics: Propositions for a Social Science Research Agenda", Society and Natural Resources 16(no.2, 2003):87-104.


Chernobyl, 10 Years Later. Environment 38, no.3 (1996): 3. On the tenth anniversary of the accident at Chernobyl, a group of distinguished scholars and scientists offers some thoughts on the accident's legacy. (v7, #3)

Ches, Caron; Burger, Joanna; McDermot, Melanie, "Speaking Like a State: Environmental Justice and Fish Consumption Advisories," Society and Natural Resources 18(no.3, March 2005):267-278(12).

Chessa, Frank. "Endangered Species and the Right to Die." Environmental Ethics 27 (2005):23-41. Assuming that both humans and nonhuman organisms have intrinsic value, the concept of a "death with dignity" should extend to the natural world. Recently, an effort has been undertaken to save the razorback sucker, an endangered species of fish in the Colorado River. Razorback are bred and raised in captivity and transferred to the river only when large enough to survive predation by nonnative fish. While this effort is well-intentioned, there is little chance that the razorback will again live unassisted in the Colorado River. There may be human-centered reasons for saving the razorback. However, just as respecting a person sometimes requires limiting his or her life-sustaining medical treatment, so too respecting the razorback may require removing human assistance with its reproductive cycle. (EE)


Cheyette, Dan. "Breaking the Trail of Broken Promises: 'Necessary' in Section 810 of ANILCA Carries Substantive Obligations," Environmental Law 27(no.2, 1997):611. Chayette examines the U.S. Forest Service's subsistence management policies for the Tongass National Forest in light of section 810 of Alaska National Interest Lands and Conservation Act, which requires federal land management agencies to consider subsistence resources in all land use decisions. He concludes that the Forest Service has ignored the substantive requirements of the statute by managing the Tongass for timber harvesting to the detriment of subsistence resources. Chayette argues that until the Forest Service creates a new management plan that considers equally all resources of the Tongass, the courts must enjoin timber sales that adversely impact subsistence resources. (v8,#3)

Cheyne, Ilona, "Law and Ethics in the Trade and Environment Debate: Tuna, Dolphins and Turtles," Journal of Environmental Law (Oxford University Press) 12 (no. 3, 2000):293-316. The author's conclusions “throw doubts on the rhetoric of sustainable development ... as an overriding policy framework under which the three human goals of environmental protection, economic welfare ... and social justice can be harmonised. While as a purely empirical matter the three goals may sometimes be combinable, they are essentially incommensurable and competing. Examination of the ethical dimension in particular exposes competing conceptions of sustainability which must be explicitly articulated to prevent protagonists at any level of the trade and environment debate talking past each other” (p. 313). “There are obvious problems in adopting even enlightened anthropocentric reasons when making decisions that are intended to protect the environment. Policies may be short-lived if human preferences change, or it turns out that human interests are affected detrimentally. There is also the risk of ignoring the value of species with which we have little or no affinity" (p. 314). Cheyne is in law, Newcastle Law School, UK.


Chiarelli, Brunetto, Director, Centre for Bioethics, Societa' Italiana di Bioetica, Italy, Universita' di Firenze, Via del Proconsolo, 12, 50122, Firenze, is publishing a newsletter and has offered to publish parts of our own Newsletter with it, including membership information. (v1,#3)
Chicago Wilderness: Exploring Nature and Culture. This might seem an oxymoron, but in fact Chicago Wilderness is a magazine and movement with surprising success—so successful that other cities are imitating the program. There are over 220,000 acres of nature preserves in the Chicago area, and more in the region. Several dozen organizations cooperate in educating Chicago people to appreciate the nature and natural history in the region—bird migrants, wildflowers, wetlands, trails, Lake Michigan, the sand dunes. Contact Chicago Wilderness, P. O. Box 268, Downer's Grove, IL 60515-0268. (v.10,#3)


Chiles, James R., Inviting Disaster: Lessons from the Edge of Technology. New York: HarperBusiness, 2001. Science and technology have made humans ever more powerful, but no less prone to error. Growing technological power and unchanging fallibility invite disaster, as with the Three Mile Island meltdown. But one safety feature is that, though disasters seem to have happened suddenly, often many steps of multiple failures and mistakes lead to disasters, and we can devise detection systems stepwise. Still, we are prone to ignore the early warnings. For some of the most dangerous potential catastrophes, even a tiny risk is intolerably high. (v.13,#1)

Chimpanzee Sequencing and Analysis Consortium, "Initial Sequence of the Chimpanzee Genome and Comparison with the Human Genome," Nature 437(1 Sept. 2005):69-87. The authors note the differences between chimpanzee genes and human genes, focussing on the protein generating genes. Differences are few on overall percentage scales, but considerable on local gene scales. Given the massive size of the sequenced data array, a few percent differences accumulate into millions of differences: thirty-five million single-nucleotide changes, five million insertion/deletion events, and various chromosomal rearrangements. They run various analyses to see what genes in humans and chimps might have been differentially selected. They also frankly recognize that what makes us distinctively human is not yet understood.

"Our close biological relatedness to chimpanzees not only allows unique insights into human biology, it also creates ethical obligations. ... We hope that elaborating how few differences separate our species will broaden recognition of our duty to these extraordinary primates that stand as our siblings in the family of life" (p. 83). The same issue of Nature contains a half dozen related articles, equally puzzled about what makes us human.

Chinese Society of Dialectics of Nature, Nong Ye Zhe Xue Ji Chu (The Basis of a Philosophy of Agriculture), by a Working Group of the Chinese Society of Dialectics of Nature. Beijing: Science Press, 1991. 361 pages. Entirely in Chinese. A contact and one of the working group is Zhang Xiang-gin, Beijing Agricultural University, Beijing China. She is also one of the authors. (China)


Chipeniuk, Raymond, "The Old and Middle English Origins of 'Wilderness'," Environments (Waterloo, Ont.: Faculty of Environmental Studies, University of Waterloo) 21(1991):22-28. Interesting and important article on the roots of the idea of wilderness, which should be read by anyone who has read Roderick Nash. There is a widespread view that until the eighteenth century it was usual for people in the Western tradition to fear and hate wilderness. This view is elaborated by Roderick Nash in Wilderness and the American Mind. But, contrary to Nash, in old English the sense is not always negative; there are many commonsense, neutral, and sometimes positive evaluations of wilderness. There are two possible roots "wil(d)deor," or "wild deer" and "wildeorern," or "wild, uncontrolled or untamed," and "wildeornes" generally
meant wild or uncultivated land, inhabited only by wild animals. The word "wild" goes back to Old Teutonic, the precursor of English, long before 450 A.D. In the Bible, the meanings of several words for "wilderness" are not always negative, but they sometimes are, and with the coming of Bible translations these could enter English usage, where wilderness is a frightening and wasted place.

"All in all, the evidence seems to suggest speakers of English have always used the word `wilderness" ... to mean primarily land not farmed or settled, or ... land inhabited by wild animals. ... Americans do not deserve quite as much credit for elevating wilderness to its current high esteem as Nash and others are wont to give them. Interest in and regard for wilderness as the home of abundant wildlife was the heritage of the English-speaking world from its beginnings." Chipeniuk has degrees in English language and literature from McGill University and the University of Toronto, and works in regional planning with an interest in wilderness. (v7,#1)


Cho, Mildred K., Magnus, David, Caplan, Arthur L., McGee, Daniel, and the Ethics of Genomics Group, "Ethical Considerations in Synthesizing a Minimal Genome," Science 286(1999):2087-2090. Efforts to create a free-living organism with a minimal genome are underway, although the prospects of so doing are rather far off. Such an organism would have the minimal genome that allows for replication in an environment, estimated at 256 genes. The research may give insight into the origins of life and into more complex genomes, as well as have applications in genetic engineering. "The prospect of constructing minimal and new genomes does not violate any fundamental moral precepts or boundaries, but does raise questions that are essential to consider before this work advances further." "The dominant view is that, while there are reasons for caution, there is nothing in the research agenda for creating a minimal genome that is automatically prohibited by legitimate religious considerations." (v10,#4)

Cho, Hong Sik. "An Overview of Korean Environmental Law." Environmental Law, 29(No. 3, 1999): 501-. Severe environmental harms have forced the Korean people to reevaluate the balance between industrialization and environmental protection in Korea. Korea has reached a point in its economic development where its people have begun to evaluate their surroundings and quality of life as affected by the environment. Hong Sik Cho recommends that other developing nations take a serious look at Korea's current challenge of balancing economic prosperity with environmental protection and that they learn from Korea's experience. (v10,#4)

Choosing a Sustainable Future: The Report of the National Commission on the Environment. Washington, DC: Island Press, 1993. The report of a private sector initiative convened by the World Wildlife Fund. Nineteen prominent members. "We the members of the National Commission on the Environment, are convinced that the natural processes that support life on Earth are increasingly at risk and that by choosing to act or not to act to confront this risk now, our country is choosing between two very different futures" (p. xi). Russell E. Train, Chair, World Wildlife Fund and former Environmental Protection Agency (EPA) Administrator and Council on Environmental Quality Chair (CEQ) was the chair of the commission. (v4,#2)

Chornesky, Elizabeth A. et al., "Science Priorities for Reducing the Threat of Invasive Species to Sustainable Forestry," BioScience 55(no.4, April 2005):335-349(15). Invasive species pose a major, yet poorly addressed, threat to sustainable forestry. Here we set forth an interdisciplinary science strategy of research, development, and applications to reduce this threat. To spur action by public and private entities that too often are slow, reluctant, or unable to act, we recommend
(a) better integrating invasive species into sustainable forestry frameworks such as the Montreal Process and forest certification programs; (b) developing improved cost estimates to inform choices about international trade and pest suppression efforts; and (c) building distributed information systems that deliver information on risks, identification, and response strategies. To enhance the success of prevention and management actions, we recommend (a) advancing technologies for molecular identification, expert systems, and remote sensing; (b) evolving approaches for ecosystem and landscape management; and (c) better anticipating interactions between species invasions and other global change processes.

Choucri, Nazli, ed., Global Accord: Environmental Challenges and International Responses. Cambridge: MIT Press. 688 pages. $45.00. Fifteen essays on how individuals, groups, and nations create environmental dislocations and can work together to solve ecological problems that cross their borders. Choucri is professor of political science at the Massachusetts Institute of Technology. (v4,#2)


Chow, Jeffrey, Kopp, Raymond J., and Portney, Paul R., "Energy Resources and Global Development," Science 302(2003):1528-1531. "In order to address the economic and environmental consequences of our global energy system, we consider the availability and consumption of energy resources. Problems arise from our dependence on combustible fuels, the environmental risks associated with their extraction, and the environmental damage caused by their emissions. Yet no primary source, be it renewable or nonrenewable, is free of environmental or economic limitations. As developed and developing economies continue to grow, conversion to and adoption of environmentally benign energy technology will depend on political and economic realities."

The world does not seem to be running out of mineral fuels, but using these fuels intelligently, justly, and without degrading the environment is a much tougher question, and not currently being adequately addressed. The authors are with Resources for the Future, Washington, DC.


Christ, Carol P. and Kathryn Rountree. "Humanity in the Web of Life." Environmental Ethics 28(2006):185-200. The humanity-nature divide is a modern Western construction based on the notion that matter (nature) is dead, while consciousness (humanity) is alive, rational, and positioned to use matter (nature) to achieve its ends. In contrast, in the world views of the indigenous Maori of New Zealand and Aborigines of Australia, nature is not separate from humanity and all is infused with consciousness. The ecofeminist and Goddess movements which emerged in the last decades of the twentieth-century, share with many indigenous religions the perception that all of nature is alive and that human beings must respect other beings within the web of life. Yet these are postmodern rather than premodern movements with an explicit critique of the assumptions of modernity. Process philosophy, especially when understood through the "feminist process paradigm" proposed here, is a postmodern philosophical system that affirms the insights of indigenous peoples, as well as Goddess and ecofeminists, that humanity must situate itself within the web of life. At the same time, process philosophy provides the tools for reconciling "premodern" insights with the findings (but not the
assumptions) of modern science. Each of these resources can help us to provide alternatives to the humanity-nature divide. (EE)

Christensen, Harriet H. and Daniel L. Dustin, "Reaching Recreationists at Different Levels of Moral Development," Journal of Park and Recreation Administration 7(no. 4, Winter 1989):72-80. Illustrations of interpretive signs and other appeals in environmental ethics directed toward persons at different levels of moral development. Differences between Lawrence Kohlberg and Carol Gilligan on what these levels are and the consequent appeals. Especially at the higher levels, men are characterized by an ethic of justice, fairness, and self-respect, women by an ethic of reference and relation to self and others, with caring the highest value. Christensen is a social scientist with the U. S. Forest Service Pacific Northwest Research Station, Seattle. Dustin is a professor in the Department of Recreation at San Diego State University. (v2,#1)


Christensen, Paul D., Whitehead, Bradley W. "Operationalizing A Value-Based Approach to Environmental Management," Journal of Environmental Law & Practice 3(no.3 Nov. 1995):32-. The skills needed and the steps to follow for companies to optimize strategic environmental decision making. (v6,#4)


Christian, C. S.; Lacher, T. E.; and Burnett, G. W. "Parrot Conservation in the Lesser Antilles With Some Comparison to the Puerto Rican Efforts." Biological Conservation 77, no.2 (1996): 159. (v7, #3)


Church, Jill Howard. "The Business of Animal Research," The Animals' Agenda 17(no.4, 1997):30. Church spotlights the industries that profit from vivisection but hide from public scrutiny. (v8,#3)

Church and Society, vol. 80, no. 4, March/April 1990 is a special issue, "While the Earth Remains...." devoted to ecojustice, with papers on theology and environmental ethics, waste


Church, Jill Howard, "The Elephants' Graveyard: Life In Captivity," The Animals' Agenda 15(no. 4, Sept. 1995):22- . Elephants have killed 21 people in zoos, circuses, and entertainment-related events around the world since 1985. At least 50 persons were injured by elephants in similar venues during that same period. Jill Howard Church, an animal activist and freelance writer in Peachtree City, Georgia, explains why. (v6,#4)

Church, Jill Howard. "In Focus: How the Media Portray Animals." The Animals' Agenda 16, no.1 (1996): 24. How often the media portray animals (and their defenders) as violent and negative. For every program like "The Simpsons" that promotes animal rights, too many reinforce harmful attitudes. But viewers can help turn the tide. (v7, #3)


Ciesla, William A., "Ethics in Photogrammetry and Remote Sensing: A Perspective from a Natural Resource Specialist," Photogrammetric Engineering and Remote Sensing 57(no. 3, March 1991):281-282. Resource managers now face much more complex decisions than before, owing to the intense conflicts in society over which values are to be pursued in environmental management, across a spectrum from more economic output and stability to concern for the other organisms with whom we share the planet. Technicians in photogrammetry and remote sensing have an obligation to take great care to present reliable and unbiased results to society, as a basis for social decisions. They ought not to cloud their conclusions with personal bias. Also, they ought not to overestimate the powers of technology. Following Leopold's land ethic, they also need continually to re-evaluate their "ground truth," that they have a responsibility and role in helping society to manage and protect the resources on which we depend for the common good of our planet and future generations. Ciesla is with the USDA Forest Service, Pacific Northwest Region, Portland, OR.


Cifric, Ivan, "Development and Environmental Protection in Croatia," Socijalna Ekologija (Journal for Environmental Thought and Sociological Research) (Zegreb, Croatia) 4(nos. 2-3, 1995):149-170. Most of those surveyed see environmental problems as quite serious and are pessimistic about improvements in the next ten years. But men, religious persons, those who identify with a political party, and those with living standards above average expect more progress, especially after ten years. Depending on the region of Croatia, 19% to 36% think there will be no
improvement, and those who favor market models expect that environmental protection will degrade even more. Cifric is on the philosophy faculty at Zagreb. (v6,#4)

Cifric, Ivan, "Anthropocentrism and Naturalism--Bases of Modern Thought?" Socijalna Ekologija: Casopis za ekološku misao i sociologiska istraživanja okoline (Social Ecology: Journal for Environmental Thought and Sociological Research) 4(1995):5-34. Published in Zagreb, Croatia. The journal is ordinarily published in Croatian, some articles in German or French, but some issues are in English, as is this one. Based on a study of the convictions of Croatian students, finding and analyzing two main bases of modern thought. The first relies on anthropocentrism, is optimistic, supports progress, projects development. The second is pessimistic, relies on naturalism, and from a moral standpoint contests the existing progress of civilization, advocates saving natural resources, and sees a catastrophic future. Cifric is in the faculty of philosophy, Department of Sociology, University of Zagreb. Other articles in this issue on progress and politics, attitudes toward nuclear power plants, radioactive wastes, and the sense of the quality of life. (v8,#3)

Cifric, Ivan. "Relation between Socioenvironmental Orientations and Religious Belief." Socijalna ekologija (Social Ecology: Journal for Environmental Thought and Sociological Research) 4(1995):15-33. (published by the Faculty of Philosophy, Department of Sociology, University of Zagreb, Croatia. In Croatian, with paper summary in English and German. Comparing surveys in 1988 and 1992, there was a decrease in anthropocentric beliefs and an increase of desire for natural balance, though believers in formal congregations were more anthropocentric. Cifric is in philosophy at the University of Zagreb. (v6,#3)


Claridge, M.F., Dawah, A.H., Wilson, M.R. eds. Species: The Units of Biodiversity. Washington, D.C.: Smithsonian Institution Press, 1997. 456 pp. $89.95. An international team of experts provides a detailed account of their ideas on the species concept for selected groups of organisms, from viruses to mammals. (v8,#3)


Clark Ann E. and Hugh Lehman, "Assessment of GM Crops in Commercial Agriculture," Journal of Agricultural and Environmental Ethics 14(2001):3-28. The caliber of recent discourse regarding genetically modified organisms (GMOs) has suffered from a lack of consensus on terminology, from the scarcity of evidence upon which to assess risk to health and to the environment, and
from value differences between proponents and opponents of GMOs. Towards addressing these issues, we present the thesis that GM should be defined as the forcible insertion of DNA into a host genome, irrespective of the source of the DNA, and exclusive of conventional or mutation breeding.

Some defenders of the commercial use of GMOs have referred to the scientific work of GMO critics as "junk science." Such a claim is false and misleading, given that many papers critical of both the utility and safety of GMOs have been published in peer reviewed journals by respected scientists. In contrast, there is a dearth of peer reviewed work to substantiate the frequently heard assertions of either safety or utility in GMOs. The polarity, which now characterizes much of the public discourse on GMOs, reflects not simply scientific disagreement, but also disagreement in underlying value assumptions. Value differences strongly affect the assessment of both benefit and harm from GMOs.

The concept of substantial equivalence occupies a pivotal position in the GMO risk assessment process that is used in both Canada and the US. A GMO judged to be substantially equivalent to a conventional product - as have all submissions to date - is presumed to be safe enough for commercialization. The conclusion of safety - from both human health and environmental perspectives - should be based on scientific evidence, corroborated by actual experimentation. However, regulators infer safety largely from assumptions-based reasoning, with little or no experimental validation. The judgement of safety because of substantial equivalence is a dubious argument by analogy. Keywords: biotechnology, genetic engineering, junk science, risk assessment, substantial equivalence. Clark and Lehman are in the Department of Plant Agriculture, University of Guelph, Guelph, Ontario, Canada. (JAEE)

Clark, Brad, "Agenda Setting and Issue Dynamics: Dam Breaching on the Lower Snake River," Society and Natural Resources 17(no.7, August 2004):599-609(11). (v. 15, # 3)

Clark, Brett, and Foster, John Bellamy. "Helen Keller and the Touch of Nature: An Introduction to Keller's 'The World I Live in'," Organization and Environment, 15, (No. 3, 2002): 279-92. The authors provide an introduction to the environmental and social thought of Helen Keller, with its radicalism and invocation of the use of the sensory domain, as an introduction to some extended extracts from her work Clark is a sociology doctoral student at the University of Oregon. Foster is a professor of sociology at the University of Oregon. (v.13, #3)

Clark, Brett, "Ebenezer Howard and the Marriage of Town and Country: An Introduction to Howard's "Garden Cities of Tomorrow"," Organization and Environment, 16, (No. 1, 2003): 87-97. An introductory examination of how Ebenezer Howard advocated the construction of garden cities to reduce the alienation of human society from nature. Howard insisted that the long term sustainability of garden cities was founded on abiding by the law of restitution, where all wastes were recycled back to the soil to ensure the continued productive potential of the land. In this, Howard's garden cities dissolved the town-country divide and provided a model for an ecologically sustainable society. Clark is a sociology doctoral student at the University of Oregon.


Clark, Brett., "The Indigenous Environmental Movement in the United States: Transcending Borders in Struggles Against Mining, Manufacturing, and the Capitalist State". Organization and Environment, 15, (No. 4, 2002): 410-442. Social Movement theory emphasizes the importance of resource mobilization and the strategic political processes of struggles within a society. This critical essay argues that although it yields useful insights into the dynamics involved in a struggle, social movement theory ultimately is too narrow to grapple with all social struggles. The indigenous environmental movement breaks the mould, revealing unconsidered historical forces and variables involved in social struggles. The economic dynamics of capitalism and the history of internal colonialism must be incorporated into an account of the evolution of the indigenous environmental movement. Struggles over treaty rights and sovereignty are unique to the Native
population, making their movement one of the most powerful and effective groups for protecting the environment. Although the indigenous environmental movement is connected to other environmental movements, the Native struggle remains fundamentally grounded in a challenge to the whole of society, as presently constituted, as they fight for the survival of their nations and ways of life. Brett Clark is a sociology doctoral student at the University of Oregon with research interests in ecology, political economy and imperialism.


Clark, E. Ann & Christie, B. R., "A Forage-Based Vision of Ontario Agriculture", Journal of Agricultural Ethics 1(1988):109-121. The necessity of incorporating societal and environmental concerns into publicly funded agricultural initiatives in research, extension, and practice is increasingly evident. Agriculturalists are urged to acknowledge and respond to societal concerns before an insensitive and largely ill-informed urban majority assumes a dominant posture in agricultural policy. Clark and Christie are in crop science at the University of Guelph, Ontario.


Clark, E. Ann, "Resolving Conflicting Priorities in Ontario Agriculture", Journal of Agricultural Ethics 1(1988):275-289. Enhancing the viability of nontraditional farm operations, an historically neglected component of the farming community, as well as commercial farms is viewed as one approach to sustaining and improving both the agricultural land base and the agricultural community. Applying resource-extensive rather than resource-intensive approaches to forage management reveals that these apparently divergent priorities are, in fact, interlocking pieces of the same puzzle. Clark is in crop science at the University of Guelph, Ontario.

Clark, Eric, "The Ballad Dance of the Faeroese: Island Biocultural Geography in an Age of Globalisation," Tijdschrift voor Economische en Social Geografie 95(no. 3, 2004):284-297. In English. The Ballad Dance of the Faeroese (connected with local identity and whale slaughter) is taken as an example of cultural diversity blended with biodiversity, and the Faeroe Islands an example of a distinctive island culture encountering globalisation. What to make of boundaries, of island-ness in a global age? Historical studies of island biocultural geographies provide promising means for probing ties between biological and cultural diversity and enhancing our perceptions of co-evolution under globalisation. Clark is in the Department of Social and Economic Geography, Lund University, Lund, Sweden.


Clark, John P., "Marx's Inorganic Body," Environmental Ethics 11(1989):243-258. Marx's philosophy of nature does not include an ecological perspective. In the Grundrisse, "Marx repeatedly stresses the theme that historical progress depends on a continual expansion of the human domination of nature" (253). Marx humanizes, but perpetuates, the nonecological
dualisms of pre-ecological thought: anthropocentrism, instrumental rationality, and technological liberation. (Katz, Bibl # 2)

Clark, John P. "Marx's Inorganic Body." Environmental Ethics 11(1989):243-58. Attempts to find an authentically ecological outlook in Marx's philosophy of nature are ultimately unsuccessful. Although Marx does at times point the way toward a truly ecological dialectic, he does not himself follow that way. Instead, he proposes a problematic of technological liberation and mastery of nature that preserves many of the dualisms of that tradition of domination with which he ostensibly wishes to break. Clark is at City College, Loyola University, New Orleans, LA. (EE)

Clark, John, "How Wide is Deep Ecology?" Inquiry 39(no. 2, June, 1996):189-201. "Arne Naess's `rules of Gandhian nonviolence' might usefully be applied to recent debates in ecophilosophy. The `radical ecologies' have increasingly been depicted as mutually exclusive alternatives lacking any common ground, and many of the hostile and antagonistic attitudes that Naess cautions against have become prevalent. Naess suggests, however, that fundamental differences concerning theory and practice can coexist with a respect for one's opponents, an openness to the views of others, and a commitment to cooperation in the pursuit of mutually held goals. I raise questions about the scope of deep ecology in the light of Naess's non-ideological, `deep-questioning' approach. First, I ask whether an expanded consideration of the social institutional implications of deep ecology would not increase its depth, relevance and appeal to proponents of other ecologies. Second, I pose the question of whether certain tendencies to define deep ecology in stark opposition to other ecophilosophies have not impeded the original aims of the movement. And, finally, I suggest that possible answers to these questions are implicit in Arne Naess's ecophilosophy." Clark is at Loyola University, New Orleans. (v8,#3)


Clark, John, "The Dialectical Social Geography of Elisée Reclus," Philosophy and Geography 1 (1997): 117-142. Clark is professor of philosophy at Loyola University. (P&G)

Clark, Kendall, and Susan Koxacek, "How Do Your Personal Wilderness Values Rate?" International Journal of Wilderness 3(no. 1, 1997):12-13. (v8,#2)

Clark, Mary E. "Tasks for Future Ecologists." Environmental Values Vol.1 No.1(1992):35-46. ABSTRACT: Apparent conflicts between human jobs and welfare and the interests of wildlife can frequently be resolved if man is perceived as part of Nature rather than in opposition to it. However, social and scientific paradigms emphasize individuality at the expense of connectedness, and competition at the expense of co-operation. Ecologists are well placed to address the important questions of how fast human societies can adapt to change, which cultures are most adaptable, and how satisfactory given adaptations are likely to prove in the longer term. A new perception of time is needed, with serious questioning of such practices as discounting the future. Ecologists may be able to help predict the long-term effects of climate change, not only on the environment, but also on human social systems. KEYWORDS: Evolutionary change, human ecology, scientific paradigms. Institute for Conflict Analysis and Resolution, George Mason University, Fairfax, VA 22030-4444, USA.


Clark is concerned to challenge those who claim too much in the name of science, to unmask the ideological commitments of those who imagine that they carry none. By reducing ethics simply to evolutionary or sociobiological impulses, writers such as Richard Dawkins and E. O. Wilson produce a highly distorted account of what it is to be moral, let alone a religious human being. They proffer a highly questionably series of "scientific" explanations.

Clark is further concerned to challenge scientists and theologians alike. Many of us have a deeply distorted and contradictory relationship with other animals. In Clark’s theological account of creation all animals are our neighbors. Scientists should not regard animals as the proper subject of experiments, or of biotechnological manipulations, and the rest of us should not eat them. Instead, we should learn to value and respect them as neighbors who share to a greater or lesser degree many of the qualities and capacities that we regard as characteristically human. Clark has a theological commitment to both ecology and vegetarianism. Clark is in philosophy at the University of Liverpool, UK. (v.13,#2)


Clark, Stephen R. L., "Natural Goods and Moral Beauty," pages 83-97 in Knowles, Dudley and Skorupski, John, eds., *Virtue and Taste: Essays on Politics, Ethics and Aesthetics*, vol. 2 in the *Philosophical Quarterly Supplementary Series*. Oxford: Basil Blackwell, 1993. "How can animals set us good examples of how to behave, without being moral agents? About as easily, I might reply, as they can set us good examples in engineering, without being technologists." (p. 85). Animals do not intend to do beautiful things, but their engineering and survival constraints result in their doing beautiful things, and humans with their aesthetic capacities can discover this objective beauty in the world. "My own conclusion is that the Beautiful is indeed a constraint on what can happen, and that natural selection and engineering efficiency have generated--because they were so intended--creatures that can look directly toward the Beautiful, and not merely at its reflection and shadow, natural good. There is indeed a Beautiful that does not die, and all that passes beautifully in the long nightmare of our present living is eternal There" (pp. 94-95). Clark is in philosophy at the University of Liverpool. (v.9,#3)


Clark, Tim W., Curlee, A. Peyton, and Reading, Richard P., "Crafting Effective Solutions to the Large Carnivore Conservation Problem," Conservation Biology 10, no.4 (August 1996):940-948. Grizzly bears. Gray wolves. Mountain lions. Wolverines. Five key variables that must be addressed to protect such endangered species: cultural history, valuation, ecology, management systems, and the political process. For example, many of the positive values associated with large carnivores (humans admiring them for their strength, courage, endurance, prowess) are difficult to quantify, and easy to ignore, though important and widely distributed among Americans, while the negative values (the costs of livestock predation) are easy to quantify, localized with a few ranchers, and hard to ignore in political decision-making. The authors are in the School of Forestry and Environmental Studies, Yale University. (v.10,#1)


Clark, Tim W.; Curlee, A. Peyton; and Reading, Richard P. "Crafting Effective Solutions to the Large Carnivore Conservation Problem." Conservation Biology 10, no.4 (1996): 940. (v7, #3)


Clark, William C., "America’s National Interests in Promoting a Transition to Sustainability: Issues for the New U.S. Administration," Environment 43(no. 1, Jan. 1, 2001):18-26. For humanity to meet the environmental challenges of the 21st century, it must develop a vision of the future that encompasses the multiple dimensions of a global relationship between society and the environment. What is America’s role in promoting this transition? Clark is at the John F. Kennedy School of Government, Harvard University. (v.12,#2)


Clarke, Benedick, Are There Intrinsic Values in Nature?, Master's Thesis, Department of Philosophy, Lancaster University, September 1994. (v7,#1)

Clarke, Melissa, "Ontology, Ethics, and Sentir: Properly Situating Merleau-Ponty," Environmental Values 11(2002):211-225. Maurice Merleau-Ponty did not author an ethic, and yet it is possible to extend his ontological descriptions to an ethic similar to that espoused by post modern thinkers. It is even possible to distill an environmental ethic, or at least, one of consideration of the more-than-human, from his work. This paper attempts to do some preliminary work in light of this, and lays some ground work for the future direction of an environmental ethic inspired by a Merleau-Pontian ontology. At the same time, it challenges the popularized view of Merleau-Ponty espoused by David Abram--viz., of Merleau-Ponty as an animist--and properly situates Merleau Ponty. (EV)


Claro, Edmundo, A Exchange Relationships and the Environment: The Acceptability of Compensation in the Siting of Waste Disposal Facilities, Environmental Values 16(2007):187-208. Within siting literature there is strong agreement that compensation for environmental risks is a necessary condition for local acceptance of waste treatment facilities. In-kind compensation is commonly pushed forward as being more effective than financial benefits in reducing local opposition. By focusing on the siting of a sanitary landfill in Santiago, Chile, this paper explores the performance of both types of compensation and relates the analysis to the notion of social norms of exchange. These are understood as being based on three main types of social relations: care, justice and freedom. Whereas monetary compensation is associated with market relations based on freedom and the offer of in-kind compensation to egalitarian relations based on justice, the absence of compensation is linked to fraternal relations based on care. It is argued that in-kind compensation is more acceptable than monetary payments or no compensation because people tend to understand siting conflicts more as matters of justice rather than as matters of freedom or care. Claro lives in Santiago, Chile.


Claussen, Eileen, "Global Environmental Governance: Issues for the New U.S. Administration," Environment 43(no. 1, Jan. 1, 2001):28-. The magnitude of the global environmental agenda makes it almost impossible for individual institutions and governments to respond effectively. People and organizations need to work together to solve problems and potential crises facing the environment. (v.12,#2)


Claxton, Guy, "Involuntary Simplicity: Changing Dysfunctional Habits of Consumption." Environmental Values 3(1994):71-78. Why is it so difficult for `voluntary simplicity' to become truly voluntary? It is suggested that an important distinction has to be made between beliefs which are `espoused' and those which are `embodied'. Certain crucial systems of embodied beliefs constitute traps, in the sense that they set, invisibly, a person's motivational agenda, and bias perception against their own detection. This analysis makes it clear why certain popular forms of campaigning and education are ineffective; and suggests that some methodologies of self-transformation associated with spiritual traditions such as Buddhism may have much to offer the environmental movement. KEYWORDS: Beliefs, motivation, perception, psychology, voluntary simplicity. Claxton is in education at the University of Bristol, U.K. (EV)


Clayton, Anthony. "Systems Theory: Some Caveats." Environmental Values 2(1993):159-161. Some of the same words are used to define physical systems, which can be very precisely defined in mathematical terms, and 'hard systems,' which can be fairly well defined, and 'soft system,' where the definition of the system is usually fluid. Confusion arises, for instance, when a physical system and also a social system is called "closed" or "open." Clayton is at the Institute for Policy Analysis and Development, Edinburgh.


Clayton, Mark, "Today's Farm Families in Canada Find They Must Innovate, Diversify--or Quit," The Christian Science Monitor 86 (13 July 1994):1, 6. (v5,#3)


Clayton, Patti H., Connection on the Ice: Environmental Ethics in Theory and Practice. Philadelphia: Temple University Press, 1998. 328 pages. $25 paper. $70 cloth. With photographs by Charles Mason. An extraordinary whale rescue that reveals a great deal about values and decision making and about how we think of ourselves as human beings. The 1988 rescue of gray whales near Barrow, Alaska, said to be "the most extraordinary animal rescue effort ever undertaken," serves as a touchstone for critical comparisons in an introductory overview of three major traditions of environmental philosophy: extensionism, ecofeminism's "care" ethic, and Heideggerian phenomenology. The unifying narrative of the rescue story is both an engaging vehicle for the study of environmental ethics and a "real world" testament to the multifaceted nature of human-nonhuman relationships. Clayton is affiliated with North Carolina State University and the University of North Carolina. (v9,#2)


Clement, Roland C. "Watson's Reciprocity of Rights and Duties." Environmental Ethics 1(1979):353-55. Richard A. Watson's proposal that rights inhere only in those who can perform duties is here objected to as being too intellectualistic. Instead, it is suggested that rights inhere in all those who participate in the process of becoming, as A. N. Whitehead proposed half a century ago. Ecological science lends new support to this view. Clement resides at Norwalk, CT. (EE)


Clemings, Russell, *Mirage: The False Promise of Desert Agriculture*. San Francisco: Sierra Club Books, 1996. 256 pages. $28. Agricultural practices in the American West are unsustainable, especially in California and along the Colorado River. There has been enormous waste of water and money, with especially adverse effects in salinization and selenium, combined with poor drainage and adverse effects on wildlife. Irrigation cannot be eliminated, since one third of the world's food relies on it, but there are better ways to do it, for example Israel's drip irrigation system. "Water has no place in the desert; the soil cannot accommodate it. ... On those rare occasions when rain does fall on the desert, the ground rejects it as though allergic." Clemings is an environmental reporter. (v7,#4)


Clery, Daniel. AA Sustainable Future, If We Pay Up Front. @ *Science* Vol. 315, no. 5813 (9 February 2007): 782-83. Introduction to a suite of articles on technological possibilities in sustainable energy, often also profiling the researchers.


Clifford, Hal, *Downhill Slide: Why the Corporate Ski Industry is Bad for Skiing, Ski Towns, and the Environment*. San Francisco: Sierra Club Books, 2002. Fueled by mergers and buyouts, America's corporate ski resorts are more about real estate than ski runs. Skiing morphed from a more or less environmentally benign outdoor experience into a destructive, extractive industry. The ski industry depends on U.S. Forest Service co-operation (also interested in the monetary gains), demands both forests and water and power to make snow. A major resort spends $1 million annually on its power bill for snowmaking and resorts will (if they can) drain the rivers at their lowest flow in winter, adversely affecting riparian ecology. But the money is not made from skiing. The real money is made at the bottom of the ski runs, in the glitzy real estate, now sprawling widely across the valleys below the runs, and also demanding consumption of natural resources, straining the support capacities of the montane ecosystems. Clifford lives in Telluride, Colorado.


Clifford, Anne M., *Introducing Feminist Theology*. Orbis, 2001. With a chapter on "Feminist Perspectives on Ecology." Contrary to those who contend that the Hebrew-Christian tradition divorces God from intimate relation with the creation, or gives humans license to exploit nature as they please, Clifford argues for a sacramental vision of the natural world, recognizing that God is known not only through Christ and other human beings, but also through the whole created order. Those who see the divine in nature, as the Bible does, will radically change their attitudes and behavior toward nature. (v.13,#1)


*Climate Change: The IPCC Response Strategies*. By the Intergovernmental Panel on Climate Change. Covelo, CA: Island Press, 1991. $ 55.00 cloth, $ 34.95 paper. 272 pages. This panel was established in 1988 by the World Meteorological Organization of the United Nations Environment Programme to identify and evaluate a wide range of international strategies for limiting or adapting to climate change, and to review available ways of implementing these strategies. (v.2,#3)

Clinebell, Howard. *Ecotherapy*, Minneapolis: Augsburg Fortress, 1996. Clinebell explores an ecologically grounded theory of personality development, outlines a model for doing ecologically oriented psychotherapy, counseling, medical healing, teaching, and parenting. He suggests how these earthy approaches may be utilized in a variety of social contexts and cultures. (v.7,#1)

Clines, Francis, "Mining Deep underground Stirs Protest Above," *New York Times* (5/4/01): A14. Subsistence from coal mining stirs debate. Underground coal mining in Pennsylvania involves a slow but relentlessly moving "longwall" that produces miles of slag 7 feet high and 1,000 feet wide underground caverns. Frequently the above ground topography drops 3 or 4 feet, resulting in cracked houses, altered streams, and disappearing water wells. In 1999, about 60% of undermined structures were damaged. State law requires compensation and homeowners are given a range of damage-control and buyout options. But they question why they have to tolerate this destruction in the first place.

Legally the coal industry seems to be on firm ground, for mining rights were usually sold by earlier owners around 1900 and they stipulated the owners' obligation to acknowledge the coal companies' undermining rights. A coal company spokesperson maintains that repair and compensation for damaged structures have been adequate and describes the effects of subsistence on people's homes as "sort of like having your bathroom and kitchen done at the same time." Recent studies of the environmental effects of the longwall suggest significant effects on streams, springs, and wetlands. Critics claim the sediment from longwall mining is a major pollutant of streams negatively affecting breeding grounds of various species, disrupting food webs, and reducing oxygen levels. The coal company spokesperson argues that any
damage is temporary and that change, far from being necessarily bad, can even be an enhancement. He dismisses the critics as "a small group of people trying to mount a modern fight against an economic fact of life that is two centuries old." The Pittsburgh seam, one of the richest in the U.S., yields 23 tons of coal a minute and has about 50 years worth of coal left. (v.12,#4)


Clube, Victor, ed., *Catastrophes and Evolution* (Cambridge University Press, 1990. $ 44.50. The physical evidence and scientific arguments favoring the view that catastrophic events in the geological past have had a major influence on the course of evolution. Papers are accessible to a general reader interested in natural extinctions. (v2,#1)

Clugston, Richard M., ed. "The Ethics of Genetic Engineering." *Earth Ethics* 6, no. 1 (Fall 1994): 1, 3-7. Brief contributions (dialogue) by Michael Fox, Thomas Berry, Robert Welborn, Dieter Hessel, and Stephanie Kaza. The common theme is that current genetic engineering research lacks ethical restraint based on respect for the integrity of nature. The contributors were participants in a symposium on 7 May 1994 at the Center for Respect of Life and Environment. (v6,#1)

Clugston, Richard M., "Deep Ecotourism," *Earth Ethics*, Summer 1993. Tourism has recently become the world's largest industry, surpassing petroleum-related businesses in economic activity. For many nations, tourism is the largest source of foreign income. For some, such as Kenya and Costa Rica, it is practically the foundation of the economy. Over the past few years one sector of the tourist industry has grown dramatically, that of "eco" or "responsible" tourism. Also: lists of resources, and other articles. Clugston is Director, Center for Respect of Life and Environment, Washington, DC. (v.9,#3)

Clugston, Rick, "Soul of the Wilderness: Consumption Gone Wild," *International Journal of Wilderness* 4(no. 2, July 1998):4-6. Consumerism is destroying the wilderness and us. This obsession with owning and consuming more is driving whole worlds of life, consciousness, and experience into extinction. Clugston directs the Center for Respect of Life and Environment, an affiliate of the Humane Society of the United States. (v.9,#3)


Coast Alliance, Muddy Waters--The Toxic Wasteland Below America's Oceans, Coasts, Rivers, and Lakes. Washington, DC: Coast Alliance, 2000. $ 25.00. (600 Pennsylvania Ave., Suite 340, Washington, DC 20004. Phone: 202/546-9554. E-mail jsvitz@coastalliance.org) Poisons run out of pipes, off the streets, or drift down from the atmosphere. But they do not usually go on to the ocean bottom, where they might do little damage. Tons of these toxic substances remain in
the rivers, lakes, and coastal waters, contaminating the water we drink and the fish we eat. (v.11,#1)


Coates, D.J., and K.A. Atkins, "Priority Setting and the Conservation of Western Australia's Diverse and Highly Endemic Flora," Biological Conservation 97(no.2, 2001): 251-. (v.12,#3)


Coatney, Caryn. "Rare Critters in a Wild World Down Under." Christian Science Monitor 89 (22 July 1997): 14. Two Peoples Bay, a gorgeous nature reserve on the southwestern coast of Australia near the town of Albany, is home to many endangered and rarely seen species, including marsupials. (v8,#3)

Cobb, Clifford W. and John B. Cobb, Jr., "The Costs of Free Trade," Christian Century 108 (no. 30, October 23, 1991):967-969. The General Agreement on Tariffs and Trade (GATT) will allow transnational corporations to escape environmental responsibility. The transnationals are subject to no government, and move to another country if they dislike the standards of one. They push standards down; no developing nation has the power to raise them higher than the average. Corporations control governments, rather than governments regulating corporations. Clifford Cobb is a free-lance writer; John Cobb is recently retired from Claremont Graduate School in theology. (v2,#4)


Cobb, John B., Jr., The Earthist Challenge to Economism: A Theological Critique of the World Bank. New York: St. Martins, 1999. 192 pages. $ 65.00. A penetrating critique of the World Bank in development and environmental conservation, because Cobb hopes that, troublesome though the Bank has been and is, it will "lead the world beyond economism to earthism." History has moved through a series of epochs, each ordered by a dominant social institution. Each such social institution has developed an ideology that functions as that society's "shared religion." The excesses of this ideology lead to the demise of the dominant institution and the rise of another. In the medieval period the church governed, and came to dominate with an inordinately self-serving ideology. Social power and authority shifted to the state, and nationalism developed with its own self-aggrandizing tendencies, substituting for religion. Power has now shifted to
economic institutions, notably the European Economic Community/Union, the International Monetary Fund, The World Bank, and the World Trade Organization. The assumption is that all people will be better off if market forces replace national policies--economism. But economism is destined increasingly to bring about its own ideological and institutional demise. What's next? Earthism. Earthists "see the health of the Earth, including its human inhabitants, as of supreme importance." Economism, ideologically degenerating, implies that the poor will get poorer and natural environments will continue to be degraded, and consumerism in developed nations will escalate. We ought all to become earthists, and so can, and ought, the World Bank. Cobb analyzes how. He even applauds the bank's current president, James Wolfensohn, for espousing the kinds of values and pushing the bank to embody the kinds of funding priorities that could demonstrate "an earthist paradigm for development." Cobb is emeritus, Claremont School of Theology. (v.10,#2)


Cobb, John B., Jr. Is It Too Late? A Theology of Ecology. Revised edition. Denton, TX: Environmental Ethics Books, 1995. First edition published by Bruce, a division of Bensinger, Bruce and Glencoe, in 1972. With minor revisions in the main text and an afterword for the new edition, also an updated bibliography. "Is It Too Late? was one of the very few pioneering works in ecological ethics and theology. It remains richly relevant, indicative of the author's seminal insight and foresight. ... Although written for a general audience, it is also an essential resource for ecophilsophers and ecotheologians." -- James A. Nash, The Churches' Center for Theology and Public Policy. Cobb is professor of philosophy at the School of Theology at Claremont. (v6,#1)

Cobb, John, Jr. "Christian Existence in a World of Limits." Environmental Ethics 1(1979):149-58. The new awareness of limits profoundly challenges dominant habits of mind and styles of life. Although Christians have largely adopted these now inappropriate habits and styles, the Christian tradition has resources for a more appropriate response. Among these resources are Christian realism, the eschatological attitude the discernment of Christ, the way of the cross, and prophetic vision. Finally, faith offers freedom from the burden of guilt of failing to live in a way appropriate to our newly perceived reality. Cobb is at the School of Theology and Claremont Graduate School, Claremont, CA. (EE)

Cobb, John B., Jr., Sustaining the Common Good: A Christian Perspective on the Global Economy. Cleveland, OH: Pilgrim Press, 1995. 128 pages. $ 12.95. Globalization is destroying our capacity to maintain vital human communities. To avoid catastrophe, we must decentralize by adopting policies that promote relatively self-sufficient local economies. The scale of economic activity in today's world already exceeds that which ought to prevail in a world that limits its uses of resources to sustainable levels. We are robbing future generations in order to improve conditions for ourselves. The self-interested behavior of buyers and sellers in most markets today is an almost insurmountable barrier to the task of building vital human communities. When workers and owners of capital are taught to seek the largest possible return for their efforts, they make possible the specialization and productivity for which laissez-faire capitalism is famous, but at the expense of constant disruption to the fabric of community. Theologically, Cobb faults the existing economic system for focusing primary on human production rather than on creation, putting God's gifts of nature at considerable risk of degradation. The Earth is God's and
degrading it is evil, a result of economism as an idolatry. Cobb is a well-known theologian, retired from Claremont Graduate School. (v6,#4)


Cock, Jacklyn, "Towards the Greening of the Church in South Africa: Some Problems and Possibilities." 26 page typescript, in press, available from the author, who is at the Department of Sociology, University of the Witwatersrand, 1 Jan Smuts Avenue, Johannesburg, South Africa. Probably the principal paper available for assessing the power and prospects for Christianity as a force for environmental conservation, as well as for human development, in South Africa. The author has also formed, with Eddie Koch of the Johannesburg Weekly Mail, GEM, Group for Environmental Monitoring, that seeks to do research in and provide education for environmental issues in South Africa, especially as this affects those who have been the victims of apartheid. (v2,#4)


Cockell, Charles S., "The Rights of Microbes," Interdisciplinary Science Reviews 29(2004):141-150. "A strong case can be made for microorganisms to be accorded special ethical status, as they represent the base of all food chains and of the major biochemical cycles. Without lions there is life, but without microorganisms there can be no higher life forms. The notion of protecting individual microorganisms may be absurd, but microbial communities and ecosystems nevertheless deserve protection, and offer an example of the merits of a population based approach to environmental ethics. I argue that humankind should assume the position of a moral agent to the microbial world, by formally recognizing the intrinsic worth of microorganisms, as well as their utilitarian value to humans and to the rest of life on earth. The practical implications of such an ethic are discussed." Cockell is with the British Antarctic Survey, Cambridge, UK.

Cockell, Charles S. "The Value of Microorganisms." Environmental Ethics 27 (2005):375-390. Environmental Ethics has almost exclusively been focused on multicellular organisms. However, because microorganisms form the base of the world's food chains, allowing for the existence of
all higher organisms, the complexities of the moral considerability of microorganisms deserve attention. Despite the impossible task of protecting individual microorganisms, the paradigmatic example of the limitations to a Schweitzerian "reverence for life" can be considered to have intrinsic value on the basis of conation, along with their enormous instrumental value. This intrinsic value even manifests itself at the individual level, although in this case the ethic can only be regulative (an ethical principle). Biocentrism is the most appropriate ethical framework for microorganisms, and the most useful normative framework for implementing the preservation and conservation of microorganisms. This ethic has implications for how we deal with disease-causing microorganisms. (EE)


Cockell, Charles S. "The Ethical Relevance of Earth-like Extrasolar Planets." Environmental Ethics 28(2006):303-314. The discovery of Earth-sized extrasolar planets orbiting distant stars will merit an expansion of the sphere of entities worthy of moral consideration. Although it will be a long time, if ever, before humans visit these planets, it is nevertheless worthwhile to develop an environmental ethic that encompasses these planets, as this ethic reflects on our view of life on Earth and elsewhere. A particularly significant case would be a planet that displays spectroscopic signatures of life, although the discovery of many lifeless planets might itself intensify the value of life on Earth. A derivation of Schweitzer's general principle of "reverence for life" and similar frameworks are appropriate ethics with which to view extrasolar planets. The development of an ethical framework for extrasolar planets might provide a means to fashion a deeper and more effective environmental ethic for Earth's biosphere. (EE)


Code, Lorraine, Ecological Thinking: The Politics of Epistemic Location. Oxford Univ Press, 2006. How could ecological thinking animate an epistemology capable of addressing feminist, multicultural, and other post-colonial concerns? Starting from an epistemological approach implicit in Rachel Carson's scientific practice, Code elaborates the creative, restructuring resources of ecology for a theory of knowledge. Drawing on ecological theory and practice, on naturalized epistemology, and on feminist and post-colonial theories, Code analyzes extended examples from developmental psychology, and from two "natural" institutions of knowledge production: medicine and law. These institutions lend themselves well to a reconfigured naturalism. They are, in practice, empirically-scientifically informed, specifically situated, and locally interpretive. With human subjects as their "objects" of knowledge, they invoke the responsibility requirements central to Code's larger project. Code is Distinguished Research Professor, York University, Toronto


Codling, Rosamunde, "Concepts of Wilderness in the Antarctic," International Journal of Wilderness 3 (no. 3, 1997):35-39. Tourists visiting by ship carry their accommodation and their means of propulsion with them, but while they may be spectators to the wilderness that is the land, they live and move through the wilderness that is the sea. Wilderness needs to be seen in a global context, as part of a continuum of human impact that begins with highly urban areas and
ends with remaining pristine regions. Codling is a landscape planner, Scott Polar Research Institute, Cambridge University. (v.8,#4)

Coggins, George C., "Regulating Federal Natural Resources: A Summary Case Against Devolved Collaboration," *Ecology Law Quarterly* 25(No.4, 1999):602-. (v.10,#2)

Coggins, George Cameron, and Glicksman, Robert L. "Power, Procedure, and Policy in Public Lands and Resources Law," *Natural Resources & Environment* 10(no.1, Summer 1995):3-. (v6,#4)


Coglianese, Cary, "The Constitution and the Costs of Clean Air," *Environment* 42(no. 9, Nov. 1, 2000):32-. The U.S. Environmental Protection Agency has issued thousands of regulations and enforcement actions under the authority of the Clean Air Act. But is this act constitutional? (v.12,#2)

Coglianese, Cary. "Implications of Liberal Neutrality for Environmental Policy." *Environmental Ethics* 20(1998):41-59. The principle of liberal neutrality requires governments to avoid acting to promote particular conceptions of the good life. Yet by determining who uses natural resources and how, environmental policy makers can affect the availability of resources needed by individuals to carry on meaningful lives and in doing so can effectively privilege some versions of the good life at the expense of others. A commitment to liberal neutrality by implication promotes environmental policy that accommodates competing activities in order to provide a wide range of resources that can support diversity in individual lives. It also encourages caution with regard to legislation based on deep ecology, the intrinsic value of species, and the fear of impending environmental catastrophe. Coglianese is at Harvard University, School of Government. (EE)


Cohen, Jack D., "Preventing Disaster: Home Ignitability in the Wildland-Urban Interface,"* Journal Of Forestry* 98 (No. 3, Mar 01 2000): 15-. Fires area major concern at the wildland-urban interface. New research has implications for hazard assessment, risk mapping, effective mitigation, and reducing residential losses. (v.11,#2)


pages. The history of the famous "subdue and conquer" text in Genesis, from a Jewish perspective and from antiquity through the Reformation, in law, exegesis, homily, theology, mysticism, philosophy, and poetry. Cohen seeks to dispel the notion that the Genesis story must bear responsibility for Western insensitivity to the natural environment. Cohen is professor of Jewish history at The Ohio State University. (v3,#3)


Cohen, Joel E. "Population Growth and Earth's Human Carrying Capacity." Science 269(1995):341-345. Earth's capacity to support people is determined both by natural constraints and by human choices concerning economics, environment, culture (including values and politics), and demography. Human carrying capacity is therefore dynamic and uncertain. Human choice is not captured by ecological notions of carrying capacity that are appropriate for nonhuman populations. Simple mathematical models of the relation between human population growth and human carrying capacity can account for faster-than-exponential population growth followed by a slowing population growth rate, as observed in recent human history. Estimates of how many people Earth can carry have varied widely, from 1 to 100 billion, and estimates published in 1994 alone varied from 3 to 44 billion. The human population may be entering a zone where limits on the human carrying capacity of Earth will be encountered. The statement that "every human being represents hands to work, and not just another mouth to feed" does not specify the cultural, environmental, and economic resources available to make additional hands productive and therefore does not specify by how much the additional hands can increase or decrease human carrying capacity. An excellent, compact, summary article that everyone concerned with population growth ought to read. Cohen is in the Laboratory of Populations, Rockefeller University. (v6,#3)

Cohen, John, "Center Puts Hold on Mangabey Experiments," Science 314(3 November, 2006):743-744. Yerkes National Primate Research Center in Atlanta has temporarily withdrawn a request to conduct experiments on sooty mangabey monkeys that could unravel the biochemistry by which HIV causes AIDS. The U.S. Fish and Wildlife Service considers the sooty mangabey an endangered species. SIV, similar to HIV, naturally infects the mangabeys but rarely causes harm. Yerkes has 200 mangabeys and wished to use up to 20 animals for invasive surgery research, requiring eventually killing them. They do routinely draw blood from mangabeys for research. They also still hope to do the research.

Cohen, Jon, "Researchers Urged Not to Inject Virulent HIV Strain into Chimps," Science 283(1999):1090-1091. Previous HIV injections produce infections but do not make the chimps sick; newer strains do, and provide (some say) more realistic models of the human disease. A coalition of prominent AIDS researchers and primatologists (including Jane Goodall) have urged
researchers not to use such strains "from both a scientific and an ethical standpoint." One researcher says, "The prospect of causing a rapidly progressive and fatal disease in this near-human species is abhorrent." With text of the letter of protect, p. 1117. (v.10,#1)


Cohen, Maurie J. "Science and Society in Historical Perspective: Implications for Social Theories of Risk MAURIE." Environmental Values 8(1999):153-176. ABSTRACT: Over the past decade risk society theory has become increasingly prominent within the field of environmental social theory. This perspective contends that conventional political divisions based on class are becoming less salient and are giving way to a politics predicated upon the distribution of risk. There is much in risk society theory, especially its central contention that public anxieties about high consequence-low probability events undermine the legitimacy of science, that has a distinctly German stamp. Through a comparative analysis of how national context has differently shaped science as a public epistemology this paper suggests we should tread carefully in moving to accept the general applicability of this theoretical approach. KEYWORDS: Environmental sociology, public understanding of science, scientific mentality, Germany, Britain. J. COHEN, Department of Geography and Environmental Studies Program Binghamton University Binghamton, NY 13902, USA and Oxford Centre for the Environment, Ethics & Society Mansfield College Oxford OX1 3TF, UK. (EV)


Cohen, Maurie J. Editorial Introduction: "Risk, Culture and Social Theory in Comparative Perspective." Environmental Values 8(1999):127-134. (EV)


Cohen, Michael P., "Blues in the Green: Ecocriticism under Critique," Environmental History 9(no. 1, 2004):9-36. "At bottom, ecocriticism needs to import scientific authority in order to combat two positions, 1) that culture can be a refuge from nature, and 2) that nature is merely a cultural construction." (p. 18) Cohen is well-known as an environmental author and is visiting professor of literature and environment at the University of Nevada, Reno.

students in natural areas over thirty years has produced nearly a hundred unique nature-
connecting activities that renew fifty inherent sensory fulfillments, for rejuvenation of biological
and spiritual integrity. Cohen is with the World Peace University, San Juan Island, Washington.
Michael Cohen, P. O. Box 4112, Roche Harbor, WA 98250. (v5,#2)

1605, Friday Harbor, WA 98250. Phone 360/378-6313. Email: nature@pacificri.net. 262 pages.
$ 19.50. "An integration of ecology and psychology that lets thoughtful sensory contacts with
Earth catalyze wellness, spirit and responsibility." (v8,#1)

Cohen, MJ, "Review of: Humphrey, Craig, Tammy L. Lewis, and Frederick H. Buttel. Environment,

Cohen, MP, "Blues in the Green: Ecocriticism under Critique", Environmental History 9 (no.1,

Cohen, Stephen and Grace, Damian, "Engineers and Social Responsibility: An Obligation to Do
Good," IEEE (Institute of Electrical and Electronics Engineers) Technology and Society Magazine
13 (no. 3, Fall 1994):12-19. With increasing concern about the environment, "social
responsibility" has become an integral part of scientific and engineering endeavor. Engineers,
both individually and collectively, have not only a duty to minimize harm, but, according to the
very nature of their profession, a duty to do good. Includes the code of Ethics, The Institution
of Engineers, Australia. Cohen is with the School of Philosophy and Grace with the School of
Social Work, University of New South Wales, Sydney, Australia. (v.10,#1)

Cohen, W.B., "Integrating Remote Sensing and Ecology," BioScience 54(no.6, 1 June 2004):483-
483(1). (v. 15, # 3)

Cohen, W.B.; Goward, S.N., "Landsats Role in Ecological Applications of Remote Sensing,"
BioScience 54(no.6, 1 June 2004):535-545(11). (v. 15, # 3)

Cohen, Warren B., Wallin, David O., Fiorella, Maria. "Two Decades of Carbon Flux from Forests
strategy. (v8,#1)

York: Ardsley House, Publishers, 1995. 318 pages. Section 6 is "Ethics and the Environment,
" and contains a section on acid rain and one on Lao Zi and the Dao de Jing (sic), nothing else, a
somewhat curious combination as an introduction to environmental ethics in thought and action.
Cohen is in philosophy at the University of Hawaii at Manoa. (v5,#4)

a wide array of fields--communications, banking and finance, consulting, public policy, and more.
Cohn is environmental careers coordinator in the Office of Career Development, New York
University. (v6,#4)

Cohn, J. P., "Resurrecting the Dammed: A Look at Colorado River Restoration," Bioscience
51(no.12, 2001): 998-1004. (v.13,#2)

Cohn, J. P., "Joint Ventures: A Different Approach to Conservation," Bioscience 55(no. 10,

Cohn, Jeffrey P., "Saving the Salton Sea," Bioscience 50 (No. 4, 2000 Apr 01): 295-. (v.11,#4)

Cohn, Jeffrey P., "Saving the California Condor," Bioscience 49(no. 11, Nov 01 1999): 864-.
(v10,#4)

Cohn, JP, "Sonoran Desert Conservation," Bioscience 51(no. 8, 2001): 606-611. (v.13,#1)

Cohn, JP, "Environmental Conflict Resolution," Bioscience 52(no. 5, 2002): 400-404. (v.13, #3)


Colborn, Theo, Dianne Dumanoski, and John Peterson Myers, Our Stolen Future, New York: Dutton, Penguin Books, 1996. Claims there is a large and growing body of scientific evidence linking synthetic chemicals in the environment to aberrant sexual development and behavioral and reproductive problems. Much of the evidence studies animals and ecological effects, but there are important implications for human health as well. Leading medical journals point ominously to hormone-disrupting chemicals' effect on human health and fertility. There are low sperm counts, infertility, genital deformities, hormonally triggered cancers of the breast and prostate gland, and neurological disorders in children, such as hyperactivity and deficits in attention, also developmental and reproductive problems in wildlife. The National Academy of Sciences has established an expert panel to assess the threats. With a forward by Vice-President Al Gore.

Colborn is a scientist with the World Wildlife Fund; Dumanoski a journalist with the Boston Globe; Myers directs a foundation on global environmental protection and was formerly a zoologist with the National Audubon Society. (v7,#2)


Cole, D.C., R.E.G Upshur, and Gibson, B.L. "Detective Work." Alternatives 25(No. 3, Summer 1999): 26-.

Environmental contaminants are important contributors to ill health, but it is not easy to identify the culprits and measure their effects. (v10,#4)

Cole, David N., "Ecological Manipulation in Wilderness--An Emerging Management Dilemma," International Journal of Wilderness 2, no. 1 (May 1996): 15-18. As anthropogenic disturbance of wilderness intensifies, managers must increasingly face the dilemma of choosing between the goals of restoring pristine conditions and avoiding conscious manipulation of ecosystems. At the crux of this dilemma are questions about the value of wilderness as a reference area of baseline
and what wilderness should provide a reference to. Cole is a research biologist with the Aldo Leopold Wilderness Research Institute, Missoula, MT. (v7,#2)

Cole, David N., "Wilderness Recreation in the United States--Trends in Use, Users, and Impacts," International Journal of Wilderness 2 (no. 3, December, 1996):14-18. Visitor evaluations of wilderness conditions and their management preferences have been highly stable over time. The vast majority of visitors are extremely satisfied with their wilderness visits and rate trip quality as very good. (v8,#1)


Cole-King, Adam, "Costal and Marine Conservation in Britain: Ecology and Aesthetics, Land and Sea", Environmental Values 3(1994):139-153. The long standing division of official responsibility in Britain, between the scientific and aesthetic aspects of environmental conservation has obscured more fundamental distinctions within conservation, such as its many different objectives and ethical bases. Public administration of conservation in Britain has recently been reorganized, but the question of the administrative status of the coast and sea has yet to be properly addressed. Consideration of the diverse needs of environmental conservation shows that traditional perceptions of the coast need to be radically reappraised. KEYWORDS: Conservation, environmental perception, coasts natural heritage, seascape. Cole-King is in maritime studies and international transport at the University of Wales, Cardiff. (EV)


ColeKing, Adam (Cole-King), "Marine Conservation: A New Policy Area," Marine Policy 17 (no. 3, May, 1993):171-185. The ethical bases for marine conservation, as well as background perceptions of the marine environment, as this affects policies, institutions, and implementation. There is no clear ethical or philosophical basis to guide marine conservation. The principal points of contention in environmental ethics are whether the duty to protect the environment is because it is intrinsically valuable or because it provides for human needs. If ecocentrism and enlightened self-interest require the same practical results, the ethical debate is of academic interest only. If not, it is extremely important. The chances are that it is extremely important, since it seems unlikely, based on past performance, that collective self-interest can ever be sufficiently enlightened to preserve all our future environmental options. Cole-King is in the Department of Maritime Studies and International Transport, University of Wales, Cardiff. (v5,#4)


Coleman, Earle J., "Is Nature Ever Unaesthetic?" Between the Species 5 (1989): 138-146. An examination of four models of aesthetic appreciation, all supplying negative answers to the title question. (Katz, Bibl # 2)
Coleman, Earle J. "Is Nature Ever Unaesthetic?" Between the Species 5:138-146. Examines four models of aesthetic appreciation of nature: the contextual-ecosystem model, Kant's phenomenological model, Bosanquet's expressionist model, building to argue for a metaphysical model that provides a more inclusive account of aesthetic experiences of nature. Coleman is in the department of religion and philosophy at Virginia Commonwealth University, Richmond. (v1,#1)

Coleman, Jon T., Vicious: Wolves and Men in America. New Haven: Yale University Press, 2005. A historian chronicles three centuries of Europeans interacting with wolves, finding the European view massively a social construction, and also more revealing of a "vicious" dimension in humans than in wolves. Europeans arrived with a millennia long mythological wolf lore, "the big bad wolf," and projected this mythology onto America wolves, which they exterminated as a menacing evil. But they did so with sadistic passion, with "wolf bullets" or meat hooks to ensure slow, tortuous deaths. When they captured wolves alive, they dragged them behind horses, set them on fire, or released them with their mouths and genitals wired shut. Death was not enough; the Europeans insisted on torture. Coleman interprets this as Europeans believing that to conquer a savage wilderness, one must act savagely. So they were licensed and required to act with enthusiastic cruelty. "People are vicious to the core ... Wolf killing confirms people's knack for generating pain and suffering." Meanwhile, of course, these vicious people have restored the wolf to parts of the landscape and repented of their past. Coleman is a University of Notre Dame historian.


Colfer, C. J. Pierce, Peluso, N., Chung, C. S. Beyond Slash and Burn: Building on Indigenous Management of Borneo's Tropical Rain Forests. Bronx, NY: The New York Botanical Garden, 1997. $25 cloth. What is the world giving up when tropical rain forests are destroyed? The author ponders this question from the view of the Uma Jalan Kenyah, an indigenous people of eastern Borneo, by taking a look at the complex management systems they have developed for tropical forests. The many uses the Kenyah make of the various states of forest regrowth, the under-recognized benefits gained from the forest, and the forest's value beyond that which is attached to it by outsiders. (v7,#4)


Collett, Jonathan, and Stephen Karakashian, eds., *Greening the College Curriculum: A Guide to Environmental Teaching in the Liberal Arts*. Washington, DC: Island Press, 1995. 320 pages. $22.00. Integrating environmental concerns in undergraduate teaching in the various humanistic disciplines. Chapters on anthropology, biology, economics, geography, history, literature, journalism, philosophy, political science, and religion. Each chapter has a rationale for including material on the environment, guidelines for constructing a course or a section of a course, sample course plans, a compendium of annotated resources. Holmes Rolston wrote the chapter on philosophy. Collett teaches humanities at the State University of New York/College at Old Westbury. Karakashian is with the Rainforest Alliance in New York City. (v6,#4)

Collett, Jonathan and Stephen Karakashian, eds., *Greening the College Curriculum A Guide to Environmental Teaching in the Liberal Arts*. Washington, DC Island Press, 1996. 320 pages. Paper, $22.00. Cloth, $40.00. Environmental literacy requires integrating environmental issues into disciplines not traditionally thought of as being "environmental" in the liberal arts (and into humanist biology). Rationales, guidelines, sample plans for courses, annotated resources, both print and nonprint. David Orr (Oberlin College), "Reinventing Higher Education"; William Blake (Tulane University), "Anthropology"; David G. Campbell and Vern Durkee (Grinnell College), "Biology"; Gerald Alonzo Smith (Mankato State University), "Economics"; Lisa Naughton-Treves (University of Florida) and Emily Young (University of Texas), "Geography"; John Opie (New Jersey Institute of Technology) and Michael Black (Harvey Mudd College), "History"; Vernon Owen Grumbling (University of New England), "Literature"; Karl Grossman (SUNY/College at Old Westbury) and Ann Filemyr (Antioch College), "Media/Journalism"; Holmes Rolston, III (Colorado State University), "Philosophy"; Michael E. Kraft (University of Wisconsin at Green Bay), "Political Science"; Steven Rockefeller (Middlebury College), "Religion"; Jonathan Collett (SUNY/College at Old Westbury), "Reinventing the Classroom." Collett teaches comparative humanities. Karakashian is coordinator for higher education at The Rainforest Alliance, New York City. (v6,#3)


Collier, Ute, "Sustainability, Subsidiarity and Deregulation: New Directions in EU Environmental Policy," *Environmental Politics* (Summer 1997):1-. (v.8,#4)

Collinge, Sharon K., and Chris Ray, eds., *Disease Ecology: Community Structure and Pathogen Dynamics*. Oxford: Oxford University Press, 2006. Community structure and ecology in the emergence of pathogens. One often has to know as much about the ecology as about the microbes. The editors are at the University of Colorado, Boulder.


Collins-Chobanian, Shari. "Beyond Sax and Welfare Interests: A Case for Environmental Rights." *Environmental Ethics* 22(2000):149-168. In "The Search for Environmental Rights," Joseph Sax argues that each individual should have, as a right, freedom from environmental hazards and access to environmental benefits, but he makes clear that environmental rights do not exist and their recognition would truly be a novel step. Sax states that environmental rights are different from existing human rights and argues that the closest analogy is welfare interests. In arguing for environmental rights, I follow Sax's direction and draw from the work of those who are the
most relevant in establishing environmental rights. I consider Joel Feinberg's notion of welfare interests, Henry Shue's notion of basic rights, and James Nickel's right to a safe environment. I draw from Mill's harm principle, the superfund legislation, and the Clean Air Act to illustrate the existing ethical and legal bases for establishing environmental rights. Finally, I discuss positive and negative duties that such rights might carry. (EE)

Collins, Denis and Barkdull, John. "Capitalism, Environmentalism, and Mediating Structures: From Adam Smith to Stakeholder Panels." Environmental Ethics 17 (1995):227-244. How can an environmental ethic be developed that encompasses the concerns of both free market proponents and environmentalists? In this article we approach the environment-market debate using Adam Smith's writings in The Theory of Moral Sentiments, The Wealth of Nations, and Lectures on Jurisprudence. Smith's guiding principle for solving prominent conflicts of self-interest is that government intervention is required when the economic activities of some cause harm to others. The solution that follows from Smith's analysis is a government-funded, independent, democratically controlled, and democratically accountable mediating structure that derives impartial decisions and is authorized to impose its just and fair decisions on affected parties. In practical terms, this analysis provides the ethical foundation for the wide-ranging development of stakeholder panels composed of public interest group representatives and business representatives and empowered to develop solutions to public conflicts arising out of environmental problems. Collins is at the School of Business, University of Wisconsin-Madison. Barkdull is in the department of political science, Texas Tech University, Lubbock. (EE)

Collins, Joseph, Lear, John. "Free Market Miracle or Myth? Chile's Neo-Liberal Experiment", The Ecologist (1979) 26(no. 4,1996):156. Chile has been hailed as shining example of the successful application of free market policies. Since the 1970s, the public sector has been privatized, price controls lifted, government spending slashed and markets liberalized. Social and economic realities in Chile, however, are at odds with the rhetoric of the free marketeers. Income disparities between rich and poor have become worsen; the country's health care and welfare system has been dismantled; and control over Chile's natural resources has been concentrated in the hands of wealthy national and foreign interests, to the detriment of the environment.


Collins, Terry, "Toward Sustainable Chemistry," Science 291(5 January 2001):48-49. "Chemistry has an important role to play in achieving a sustainable civilization on Earth ... which current chemistry education essentially ignores. It has become an imperative that chemists lead in developing the technological dimensions of a sustainable civilization." Technological chemistry tends to be simple, nondegradable, and toxic, biochemistry tends to be complex and recyclable. "To achieve such sustainable chemistry requires a sea change in the chemical community." Collins teaches "green chemistry" at Carnegie-Mellon University in Pittsburgh. (EE v.12,#1)

Interests: A Case for Environmental Rights”; and Vandana Shiva, "Development, Ecology, and Women." Collins-Chobanian is a philosopher at Arizona State University West.


Colomeda, Lori. See Lambert Colomeda, Lorelei Anne.


Colwell, Tom, "The Ethics of Being Part of Nature" Environmental Ethics 9(1987):99-113. Colwell suggests that environmental philosophers rarely take seriously their claim that man is part of nature. Once understood, this idea ends the duality between man and nature, and renders these concepts obsolete. The search for intrinsic value in nature is just another example of this outmoded dualistic thinking. "All values are instrumental. The important intellectual and moral question is which instrumental value is best suited to promoting the activity of environment complexes in ways that are responsive to the life requirements of all its members" (p. 109). (Katz, Bibl # 1)

Colwell, Tom. "The Ethics of Being Part of Nature." Environmental Ethics 9(1987):99-113. Most environmental philosophers acknowledge that humans are part of nature; yet few have grasped the significance of the idea fully, and as a result it remains ambiguous. I argue that when taken to include humans and their culture, the idea supports philosophical naturalism as an alternative to dualism and provides a new approach to environmental ethics capable of meeting popular objections to naturalism in ethics. Naturalism, I conclude, requires a new way of thinking about nature, and by implication greater care in the choice of language used to talk about nature. Colwell is in the department of Cultural Foundation, New York University, NY, NY. (EE)


Committee on Scientific Issues in the Endangered Species Act, National Research Council. *Science and the Endangered Species Act.* Washington, D.C.: National Academy Press, 1995. 288pp. $39.95. This book analyzes concepts of species and how they have been interpreted for purposes of the ESA, examines conflicts between species when individual species are identified for protection, and assesses extinction risk and decisions under the ESA. It concludes with a look beyond the Endangered Species Act and suggests additional means of biological conservation and ways to reduce conflicts. (v8,#1)

Committee on Environmental Issues in Pacific Northwest Forest Management, National Research Council. *Forests of the Pacific Northwest.* Washington, D.C.: National Academy Press, 1997. 350pp. $44.95. Explores the markup role of Pacific Northwest wood products and looks at the implications if other regions should be expected to make up for reduced timber harvests. The book reviews the health of the forested ecosystems of the region, evaluating the effects of past forest use patterns and management practice. It also discusses the biological importance, social significance, and management of old-growth as well as late-succession forests.


Common, M.S., R.K. Blamey and T.W. Norton, "Sustainability and Environmental Valuation." *Environmental Values* Vol.2 No.4(1993):299-334. ABSTRACT: For economists, sustainability and environmental valuation are connected in two ways. At the micro level, proper environmental valuation is required if projects are to be approved and rejected consistently with sustainability requirements. This is cost-benefit analysis. At the macro level, many take the view that sustainability requires that national income measurement be modified so as to account for environmental damage. Such natural resource accounting is possible only if environmental damage is valued for incorporation into the economic accounts. The paper reviews the techniques that economists have developed for environmental valuation. In regard to cost-benefit analysis and sustainability, it is noted that the technique on which most interest focuses, the Contingent Valuation Method, involves the extension of the domain of consumer demand analysis to include the natural environment. Contributions questioning the appropriateness of this are reviewed, and it is argued that they merit more attention from economists than they have received to date. In regard to natural resource accounting, it is argued that while there is little prospect of it achieving what its proponents claim for it, the modelling that it necessarily implies has the potential both to clarify valuation issues and play an important role in informing the policy process. KEYWORDS: Sustainability, valuation, environment, contingent valuation, natural resource accounting, optimization. Centre for Resource and Environmental Studies, Australian National University, Canberra, ACT 0200, Australia.

Complete Guide to Environmental Careers, The CEIP Fund, Lee P. DeAngelis, Project Director, et al. Published by Island Press, Washington, D. C. and Covelo, CA. 1989. A 331-page guide to careers in environmental fields. Useful to share with students who are interested in environmental conservation and wondering how to make a living at it, who would like to apply their philosophy and environmental ethics at work. (v1,#1)

Compson, Jane F., Whose Pain, Which Morality? A Defense of the Moral Considerability of Animals Using a Coherence Model of Ethical Justification. M.A. Thesis, Colorado State University, 2005. In a search for a sound theoretical justification for the equal consideration of animals, moral realism and foundationalism are rejected as implausible. First general accounts to raise the moral status of animals (such as those of Peter Singer and Tom Regan) are beset by related difficulties. The coherence approach, demonstrated by second generation ethicists (such as Bernard Rollin and David DeGrazia) is defended. The epistemological differences between the realist and the coherence approach are exemplified with a discussion on value; the coherence approach is more plausible, though it does have to be defended against relativism. The coherence approach is applied to the counter-intuitive arguments of Peter Carruthers, showing that the coherence approach does not lead to a relativist free-for-all, but provides firm evaluative criteria for making moral judgments without having to postulate objective, mind-independent truths. Compson is in philosophy at the University of Central Florida, Orlando.


Comstock, Gary L., "Is it Unnatural to Genetically Engineer Plants?" Weed Science 46(1998):647-651. Eight arguments against genetic engineering of plants are considered. For example: To engage in plant engineering is to play God. But the argument fails because, if so, playing God is not always a bad thing. For example: To engage in plant engineering is illegitimately to cross species boundaries. But species are regularly transmogrifying themselves to produce new species. For example: To engage in plant engineering is unnatural because it disrupts the integrity, beauty, and balance of creation. This objection has much to commend it, but it is not an intrinsic objection. Plant engineering might have such consequences, but it need not. In sum, those opposed to genetic engineering of plants will have a hard time finding justification for their case in the unnaturalness objection, and they may best help to advance the conversation by focusing instead on consequences. Comstock is in philosophy and religious studies, Iowa State University, Ames. (v.10,#3)


Comstock, Gary L. "Do Agriculturalists Need a New, an Ecocentric, Ethic?" Agriculture and Human Values 12 (Winter 1995): 2-16. In 1973, Richard Sylvan began his seminal essay, "Do We Need a New, an Environmental Ethic?" with these words: "It is increasingly said that...Western civilization...stands in need of a new ethic...setting out people's relations to the natural environment." In the intervening years, it has increasingly been said that Western civilization is in need of ecocentrism, an ethic according to which a thing's value is derived from its contribution to the integrity, stability, and beauty of ecosystems. Comstock argues that ecocentrism is an inadequate ethic for agriculturalists, and suggests they look instead to "extensionists," or animal rights philosophers, for guidance regarding our relations to the natural environment. Comstock is Associate Professor of Religious Studies at Iowa State U. and Head of the ISU Bioethics Program. The article is an expanded version of his 1994 presidential address to the Agriculture, Food, and Human Values Society. (v6,#3)


Comstock, Gary, "Genetically Engineered Herbicide Resistance, Part Two", Journal of Agricultural Ethics 3(1990):114-146. Should we continue to support publicly funded research on genetically engineered herbicide resistant crops? In Part One, I discussed the difference between science and ethics, presented a brief history of weed control, and explained three moral principles undergirding my environmentalist perspective. I then argued that unqualified endorsement of the research is unjustified, as is unqualified opposition. In Part Two I argue against qualified endorsement and for qualified opposition. Comstock is in philosophy at Iowa State University, Ames.


Comstock, Gary L., "Theism and Environmental Ethics." In Quinn, Philip L. and Charles Taliaferro, eds., A Companion to Philosophy of Religion, pp. 505-513. Cambridge, MA: Blackwell Publishers, 1997. Theistic metaphysical beliefs that construe God as enemy, owner, and redeemer of nature seem to incline more to an anthropocentric environmental ethic while those that see God as nature's husband, embodiment, or identity seem to lean more to ecocentrism. However, there seems to be little in the way of necessary or logical entailment between one's view of God and one's environmental ethics. The psychological dependence may run in exactly the opposite direction; our intuitions about the environment may do more to shape our views of God than our intuitions about God do to shape our attitudes to nature. Comstock is in philosophy at Iowa State University. (v8,#1)


Cone, Richard A., Martin, Emily, "Corporeal Flows: The Immune System, Global Economies of Food & Implications for Health," The Ecologist (1979) 27(no.3 1997):107. Allergies and autoimmune disorders are increasing in incidence worldwide, especially among the urban poor. Changes in food production, transport and consumption may be contributing to this increase. Research into the connections between diet and the immune system has therefore become urgent; it may suggest ways to reduce the incidence or severity of such disorders by changing what we eat and the global food system. (v8,#3)


Congressional Forum on Wetlands Loss, Renewable Resources Journal, Summer 1989. Selected short articles. "Of the more than 200 million acres of wetlands which existed in the lower 48 States when the United States was settled, more than half--nearly 100 million acres--have been converted." "Three-fourths of the remaining wetlands in the continental U.S. are privately owned. Only about 0.5 percent of privately owned wetlands are under some form of conservation protection." See below for wetlands video. (v1,#4)

Conley, Verena Andermatt, Ecopolitics: The Environment in Poststructuralist Thought. London and New York: Routledge, 1997. 188 pages. Poststructuralist European thought, although often thought to have no concern for the environment, actually has complex but hidden ties to ecology. Conley reviews and rejects the disparagements of ecology by Ferry and Baudrillard, emphasizing rather the explicit ecological aspects of Levi-Strauss's thought. She traces ecological themes through Hélène Cixous and Luce Irigaray, defending a feminist perspective. (v8,#3)


Conn, P. Michael, and Parker, James, "Animal Rights: Reaching the Public," Science 282(20 November 1998):1417. The lead editorial in this issue of Science. "A misguided cause ... now seeks to end biomedical research because of the theory that animals have rights precluding their use in research. Scientists need to respond forcefully to animal rights advocates, whose arguments are confusing the public and thereby threatening advances in health knowledge and care. There is little logic in emotional campaigns to end the practice of animal experimentation. A
1990 study found that although 63% of animal rights literature concerns the use of animals in science, such use each year involves 0.003 percent of the number of animals consumed for food. Only half as many animals undergo medical procedures in research as endure surgery ordered by pet owners for cosmetic reasons.

"Scientists must communicate their message to the public in a compassionate, understandable way— in human terms, not the language of molecular biology. We need to make clear the connection between animal research and a grandmother’s hip replacement, a father’s bypass operation, a baby’s vaccination, and even a pet’s shots. If good people do nothing, there is a real possibility that an uninformed citizenry will extinguish the precious embers of medical progress."


Conniff, Richard, "Fuzzy-Wuzzy Thinking About Animal Rights," Audubon, November 1990. Ignorance about nature is the movement’s doctrine. Animal welfare advocates hold that nature is essentially benign and lack any sense of the first law of nature, which is eat and be eaten. The legal skin trade is more likely to save an endangered species than to wipe it out. Citing Peter Singer’s Animal Liberation, Conniff claims, "in reality the animal rights movement has elevated ignorance about nature almost to the level of a philosophical principle."

Connelly, Barbara, Keohane, Robert O. "Institutions for Environmental Aid: Politics, Lessons, and Opportunities." Environment 38(Jun. 1996):12. The success of environmental aid programs depends on defining the problem correctly, getting resources into the right hands, and establishing effective oversight.


Conradie, EM 1995. Liefde (en troos) is nog ieuers op aarde te vind! Ned Geref Teologiese Tydskrif 36:2, 211-228.


comprehensive listing of organizations, agencies, and officials concerned with environmental conservation. (v7,#4)

Conservation Ecology is a new electronic journal, launched by the Ecological Society of America. Website address: http://www.consecol.org/Journal
C. S. Holling is editor. The journal will feature interdisciplinary communications and insight. It is available free of charge at the website or by e-mail subscription. To subscribe send an e-mail message to:
subscribe@consecol.org
Include "subscribe conservation-ecology" in the body of the e-mail text. (v.9,#3)

Conservation Genetics is a journal that promotes the conservation of genetic diversity, especially the application of genetic methods towards resolving problems in conservation. Both paper and online. Kluwer Academic journal and therefore not cheap. $218 for four issues. One free online copy. www.wkap.nl/journals/cons_genetics
(v.13,#2)

Conservation of Southern Africa's Resources. Exploitation, Sustainability and Ethics. Proceedings of a one day symposium in May 1995, organised and hosted by the South African Institute of Ecologists and Environmental Scientists, the South African Wildlife Management Association, and the Marine Science Society of Southern Africa. 31 pages. Ten papers dealing with the "consumptive use of wild living resources."

Conservation Biology is another journal that ISEE members should consult regularly. Some representative articles from the September 1990 issue:
Orr, David W., "The Virtue of Conservation Education."
Aldo Leopold, "Standards of Conservation," a previously unpublished manuscript with comment by J. Baird Callicott.
Reed F. Noss, "Can We Maintain Biological and Ecological Integrity?"
James R. Karr, "Biological Integrity and the Goal of Environmental Legislation: Lessons for Conservation Biology."
Michael E. Soulé, "The Onslaught of Alien Species, and Other Challenges in the Coming Decades." (v2,#1)

Convention on Biological Diversity, in PDF files and website: <http://www.biodiv.org/>
Convoked after the 1992 Earth Summit in Rio de Janeiro, the Convention on Biological Diversity has three primary goals: the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits from the use of genetic resources. The main body of the organization's home page is dedicated to disseminating information about upcoming meetings, news, and events, such as the expert meeting on the global strategy for plant conservation and the various constituent groups that make up the Convention. The number of online documents available here is quite prodigious, and is divided into groups that include quarterly reports, global biodiversity outlook reports, and case-study documents. Users may elect to browse through these collections, or choose to use the search engine. On the left-hand side of the site's homepage, visitors can peruse the numerous sections devoted to the convention bodies (along with information about their current status and respective missions), information services provided by the Convention, and a well-developed area on biosafety protocol. (v.14, #4)

Conviser, Richard. "Toward Agricultures of Context." Environmental Ethics 6(1984):71-85. The current mode of agricultural organization produces both political and ecological problems. I explore several deeply-rooted cultural origins of that mode of organization, particularly the movements toward scientism and capitalism; each of these is shown to emphasize abstraction
from context. A contrasting set of values, emphasizing holism and localism, is then examined. Several forms of agriculture consistent with these contrasting values, and exempt from previously discussed problems, are described. Conviser is at the Science and Technology Studies Division, Rensselaer Polytechnic Institute, Troy, NY. (EE)


Cook, Cheryl, Enid M. Gorman and Lorette Picciano-Hanson, eds., Directory of Environmental Activities and Resources in the N.A. Religious Community. New York: Joint Appeal by Religion and Science for the Environment, 1992. 172 pages, paper. A directory by religious leaders of all major faiths and many scientists to develop initiatives for protecting and restoring the environment at the national, regional and congregational levels. A resource guide is included. (v7,#2)

Cook, Gavin, Science, Experience, Ethics & Phenomenology; A Phenomenology of Moral Experience; Moral Controversies & Their Possible Resolution; Perspectives Relating to the Environment, Master's Thesis, Department of Philosophy, Lancaster University, September 1992. (v7,#1)


Cook, Julie. "The Philosophical Colonization of Ecofeminism." Environmental Ethics 20(1998):227-46. There is general agreement among ecofeminists regarding the desirability of a variety of expressions of ecofeminism, but this pluralism is under threat with the emergence of an approach that emphasizes the primacy of a philosophical ecofeminism which claims the authority to prescribe what ecofeminism should be. The recent anthology Ecological Feminism (Karen J. Warren, ed.) is symptomatic of this trend, with contributors who affirm the philosophical significance of ecological feminism by privileging philosophers' voices over those of other ecofeminists, rather than by engaging in critical dialogue with, and exploring connections between, different ecofeminist discourses. This colonizing strategy actively excludes many women's voices from the creation of an environmental ethic, including those of activist, spiritual, and "Third World" ecofeminists, but fails to offer any adequate philosophical grounds for doing so. Cook is in philosophy, Lancaster University, Lancaster, PA. (EE)

Cooke, S. J. and Cowx, I. G., "The Role of Recreational Fishing in Global Fish Crises," BioScience 54(no. 9, 2004): 857-859(3). Exploitation of fishery resources has become a major conservation issue on a global scale. Commercial fisheries have been repeatedly blamed for the worldwide declines in fish populations. However, we contend that the recreational fishing sector also has the potential to negatively affect fish and fisheries. Here we present evidence to show that both recreational and commercial fishing sectors deserve consideration as contributors to the exploitation of fish in marine and inland waters. The lack of global monitoring and compiling of statistics on recreational fishing participation, harvest, and catch and release has retarded our ability to understand the magnitude of this fishing sector. Using data from Canada, we estimate that the potential contribution of recreational fish harvest around the world may represent approximately 12 percent of the global fish harvest. Failure to recognize the potential contribution of recreational fishing to fishery declines, environmental degradation, and ecosystem alterations places ecologically and economically important resources at risk. Elevating recreational fishing to a global conservation concern would facilitate the development of strategies to increase the sustainability of this activity. (v.14, #4)

Cooke, Steven; Suski, Cory, "Do we need species-specific guidelines for catch-and-release recreational angling to effectively conserve diverse fishery resources?," Biodiversity and Conservation 14(no.5, May 2005):1195-1209(15).

Cooke, Roger M., Experts in Uncertainty: Opinion and Subjectivity Probability in Science. New York: Oxford University Press, 1991. 336 pages. $ 65.00. A criticism of experts’ use of subjective probabilities in environmental risk assessment. Cooke shows that environmental risk assessors systematically underestimate the environmental risks to which we are all exposed. (v3,#2)

Cookson, Richard, "Welfare Economic Dogmas: A Reply to Sagoff," Environmental Values 5(1996):59-74. This article examines Sagoff’s criticisms of Four Dogmas of Environmental Economics (Environmental Values, Winter 1994) and argues that none of them are fatal. Many of the criticisms appear to rest on general misunderstandings about welfare economics. One misunderstanding is that transaction costs are theoretically indistinguishable from regular production costs. The theoretical distinction is that transaction costs vary under alternative policies and institutions whereas production costs are fixed by tastes, technology and endowments. Another misunderstanding is that market failure concerns only Pareto efficiency. Market failure also concerns social efficiency with respect to the social welfare function, a device for making explicit ethical judgments about the interpersonal distribution of welfare. A
third misunderstanding is that the rationality assumption drives economic theory. In fact, the explanatory power of economic models comes mainly from explicit assumptions about the constraints facing economic agents. A fourth misunderstanding is that welfare economics is used as a mechanism for making legal and political decisions. Rather, welfare economics is used as a method for informing legal and political decisions by evaluating their outcomes on the basis of individual welfare. Used properly, it can improve the democratic process by bringing hidden costs and difficult issues to the attention of both policy-makers and the wider public.

KEYWORDS: Coase theorem, efficiency, transaction costs, utility, welfare economics (EV)

Cooley, D. R., with G. A. Goreham, "Are Transgenic Organisms Unnatural?," *Ethics and the Environment* 9(no. 1, 2004):46-55. The introduction of transgenic organisms into agriculture has raised a firestorm of controversy. Many view the technology as a pathway to a much better future society, whereas others condemn it for endangering people and the environment. One defective argument against transgenics is the "Unnatural-Is-Unethical" argument (UIU). UIU attempts to prove if transgenic organisms are unnatural and all unnatural things are morally bad, then transgenics are morally bad. However, the argument fails once it is shown that there is no plausible definition for "unnatural." Therefore, UIU should be abandoned in favor of arguments more likely to succeed. Cooley is in ethics in the Department of History and Religion, North Dakota State University. Goreham is in sociology, North Dakota State University. (E&E)

Cooley, D. R., Gary Goreham, and George A. Youngs, Jr., "Practical Moral Codes in the Transgenic Organism Debate," *Journal of Agricultural and Environmental Ethics* 17(2004):517-544. In one study funded by the United States Department of Agriculture, people from North Dakota were interviewed to discover which moral principles they use in evaluating the morality of transgenic organisms and their introduction into markets. It was found that although the moral codes the human subjects employed were very similar, their views on transgenics were vastly different. In this paper, the codes that were used by the respondents are developed, compared to that of the academically composed Belmont Report, and then modified to create the more practical Common Moral Code. At the end, it is shown that the Common Moral Code has inherent inconsistency flaws that might be resolvable, but would require extensive work on the definition of terms and principles. However, the effort is worthwhile, especially if it results in a common moral code that all those involved in the debate are willing to use in negotiating a resolution to their differences. Keywords: Belmont report, GMO, moral code, moral principle, practical morality, transgenic organisms. The authors are in the Department of History and Religion, North Dakota State University, Fargo, ND. (JAEE)


--Mathews, Freya, "The Real, the One and the Many in Ecological Thought," pp. 57-72.
--Rawles, Kate, "Philosophy and the Environmental Movement," pp. 131-145.
Cooper is in philosophy, Palmer in education, at the University of Durham, UK. (v9,#1)


Cooper, David E., "Human Sentiment and the Future of Wildlife." Environmental Values Vol.2 No.4(1993):335-346. ABSTRACT: Identifying what is wrong with the demise of wildlife requires prior identification of the human sentiment which is offended by that demise. Attempts to understand this in terms of animal rights (individual or species) and the benefits of wildlife to human beings or the wider environment are rejected. A diagnosis of this sentiment is attempted in terms of our increasing admiration, in the conditions of modernity and postmodernity, for the `harmony' or `at homeness' of wild animals with their environments. The diagnosis is defended against certain misunderstandings, and implications are tentatively drawn from it for environmental education and the management of wildlife. KEYWORDS: Animal ethics, animal rights, environmental education, moral sentiment, species, wildlife. Department of Philosophy, University of Durham, Durham DH1 3HN, UK.


Cooper, David E., and Simon P. James, Buddhism, Virtue and the Environment. Ashgate, 2005. Buddhism, one increasingly hears, is an 'eco friendly' religion. It is often said that this is because it promotes an 'ecological' view of things, one stressing the essential unity of human beings and the natural world. While agreeing that Buddhism is, in many important respects, in tune with environmental concerns, Cooper and James argue that what makes it 'green' is its view of human life. The true connection between the religion and environmental thought is to be found in Buddhist accounts of the virtues – those traits, such as compassion, equanimity and humility, that characterise the life of a spiritually enlightened individual. Central chapters of this book examine these virtues and their implications for environmental attitudes and practice. Buddhism. The authors are at the University of Durham, UK.

Cooper, David and Simon James. Buddhism, Virtue and the Environment (Ashgate, 2004). Buddhism, one increasingly hears, is an 'eco-friendly' religion. It is often said that this is because it promotes an 'ecological' view of things, one stressing the essential unity of human beings and
the natural world. This book presents a different view. While agreeing that Buddhism is, in many important respects, in tune with environmental concerns, Cooper and James argue that what makes it 'green' is its view of human life. The true connection between the religion and environmental thought is to be found in Buddhist accounts of the virtues - those traits, such as compassion, equanimity and humility, that characterise the life of a spiritually enlightened individual. Central chapters of this book examine these virtues and their implications for environmental attitudes and practice. Buddhism, Virtue and Environment will be of interest not only to students and teachers of Buddhism and environmental ethics, but to those more generally engaged with moral philosophy. Written in a clear and accessible style, this book presents an original conception of Buddhist environmental thought. The authors also contribute to the wider debate on the place of ethics in Buddhist teachings and practices, and to debates within 'virtue ethics' on the relations between human well-being and environmental concern. Available from Ashgate Publishing in hardback (£50.00, ISBN: 0 7546 3909 6 ) and paperback (£16.99, ISBN: 0 7546 3910 X).

Cooper, David E., "Heidegger on Nature," Environmental Values 14(2005):339-351. The primary purpose of the paper is the broadly exegetical one of explaining and connecting Heidegger's many remarks, made in several different contexts of enquiry, on nature. The three main contexts are those of ontology, scientific methodology, and technology. After showing how Heidegger's central theses in these contexts are related to one another, I argue, in the final section, that his observations on scientific method are pivotal. Unless these are secured, his further claims about ontology and technology lose their essential support. Cooper is in philosophy, University of Durham, UK. (EV)


Cooper, Gregory, "Generalizations in Ecology: A Philosophical Taxonomy," Biology and Philosophy 13(1998):555-586. There has been uncertainty and controversy over general knowledge in ecology. Perhaps only case by case knowledge is available, no genuine nomothetic knowledge. Philosophers of biology wonder if there are laws anywhere in biology. Cooper provides a framework for such general knowledge claims, with three broad categories--phenomenological, causal, and theoretical. While there are probably no laws as that term is generally understood in philosophy of science, it does not follow that everything in ecology is equally contingent. One can recognize degrees of contingency. This has implications for setting environmental policy based on ecological knowledge. Cooper is in philosophy at Duke University. (v.9,#4)

Cooper, Gregory J., The Science of the Struggle for Existence: On the Foundations of Ecology. Cambridge, UK: Cambridge University Press, 2003. Ecology is interpreted as the science of the struggle for existence, linking it with evolutionary biology. Cooper puzzles about the differences, if any, between ecology and evolutionary biology. He also analyzes the tension between law-like explanations, such as characterize physics and chemistry, and the more historical character of both ecology and evolutionary biology, involving openness and unpredictability. Perhaps ecology is a piecemeal science. This also requires analysis of such ideas as stability, equilibrium, succession, and so forth. A better term than law is "nomic force" which "comes in degrees and is restricted to particular domains" (p. 123, p. 115, p. 181). "Theoretical explanation does not need laws in the traditional sense, only ... highly resilient generalizations" (p. 194). Cooper brings a sophisticated awareness of issues in the philosophy of science to bear on analysis of the tensions that have characterized ecology over the last century. Cooper is in philosophy and ethics at Washington and Lee University, Lexington, Va.

Cooper, Gregory, "Teleology and Environmental Ethics," American Philosophical Quarterly 35 (no. 2, 1998):195-207. There is a disturbing tendency in the environmental ethics literature to rely on
metaphysically rich, but scientifically controversial, ideas from the sciences of ecology and ethology. Three examples are discussed; one from the animal rights camp, a second from the reverence for life perspective, and a third from the ethical holists. In each of these cases, value theory helps itself to a kind of teleology that it is not clear the science is ready to yield. Cooper is at Washington and Lee University, Lexington, VA. (v.13,#2)


Cooper, Nigel S., "Wildlife Conservation in Churchyards: A Case-Study in Ethical Judgments," Biodiversity and Conservation 4(1995):916-928. Groups promoting wildlife in churchyards, or other sites, discover that they face normative questions that have no scientific answers. The language of management is used for handling these questions, but this metaphor has unhelpful associations with predetermined goals, a culture of control and self-centeredness. Using a case-study approach, conflicts between conserving natural entities or natural processes (e.g. transplanting scarce plants); between caring for the individual organism or for the system (e.g. felling trees); and between conserving the natural or the cultural heritage (e.g. repointing walls) are examined. These case of conflicts of duty illustrate the value of attention to circumstances, proportionality, and compromise. The social mechanisms of moral debate include legal protection and the power of stories to give meaning and vision. Ethics is a communal activity. By listening to others and attending to nature our sensibilities will become more refined and our ethical judgments will develop. Cooper is a pastor in Rivenhall, Witham, Essex, UK. (v7,#2)

Cooper, Nigel S. "How Natural is a Nature Reserve? An Ideological Study of British Nature Conservation Landscapes," Biodiversity and Conservation 9(no. 8, 2000):1131-1152. Abstract. Areas set apart for nature conservation in Britain are broadly categorised according to their cultural purpose, and names are assigned to these in this paper. Nature reserves may be similar to zoos and botanic gardens in aiming to maintain the diversity of species and if so are termed "biodiversity reserves". This tradition understands nature as a static collection of entities apart from humans. Maintaining traditional management at a site is arguably a good way to sustain species; it also retains old ways in which humans and nature were integrated in the life of the nation and so are called "historic countryside parks". There is growing interest in "wilderness areas", where nature is seen as primarily processes protected from human interference. Despite the strength of each of these, they suffer from attempting to restrict nature to a ghetto, a process that is economically and environmentally costly. "Companion places" are places which set sustainable examples of integrating human life and economic activity with maintaining biodiversity and offering an opportunity to encounter wild processes at the heart of life. The language of these four types, or vectors, of nature reserves is offered to help the discussion of our place in nature. Key words: biodiversity, historic countryside, language, sustainability, wilderness.

Cooper, Nigel S., "Speaking and listening to nature: Ethics within ecology," Biology and Conservation 9(2000):1009-1027. Abstract. One context for the papers arising from INTEGOL VII in this special issue is the debate over the social construction of science. Some fear that advocates for the social or cultural construction of ecology will undermine attempts to defend nature. But resources are made available in a mediating position of social 'construal', particularly alerting ecologists to the social and ethical dimensions of the conducting of their work. When speaking, ecologists will use living and dead metaphors and these carry connotations which in turn raise ethical questions. Different political interest groups may use a word like biodiversity for different ethical purposes. The position of any one speaker is limited, and so greater knowledge is achieved if scientists listen to the situated knowledges of other, diverse people. Even Nature herself, or creatures, may have aspects of personhood. The good ecologist will listen with empathy as a naturalist to what is being said, giving Nature the respect she deserves. These are some of the ethical implications in the very doing of ecology. Key words: biodiversity,
metaphor, personalism, situated knowledge, social construction of science. Cooper is in the Diocese of Chelmsford, and lives at The Rectory, Rivenhall, Witham, Essex. (v.13,#1)

Cooper, Nigel S., "How natural is a nature reserve?: An ideological study of British nature conservation landscapes," *Biology and Conservation* 9(2000):1131-1152. Abstract. Areas set apart for nature conservation in Britain are broadly categorised according to their cultural purpose, and names are assigned to these. Nature reserves may be similar to zoos and botanic gardens in aiming to maintain the diversity of species and if so are termed 'biodiversity reserves.' This tradition understands nature as a static collection of entities apart from humans. Maintaining traditional management at a site is arguably a good way to sustain species, it also retains old ways in which humans and nature were integrated in the life of the nation and so are called 'historic countryside parks'. There is growing interest in 'wilderness areas'; where nature is seen as primarily processes protected from human interference. Despite the strength of each of these, they suffer from attempting to restrict nature to a ghetto, a process that is economically and environmentally costly. 'Companion places' are places which set sustainable examples of integrating human life and economic activity with maintaining biodiversity and offering an opportunity to encounter wild processes at the heart of life. The language of these four types, or vectors, of nature reserves is offered to help the discussion of our place in nature. Key words: biodiversity, historic countryside, language, sustainability, wilderness, (v.13,#1)


Cooper, Nigel, and Carling, R.C.J., "Ecologists and Ethical Judgements," *Biodiversity and Conservation* 4(no.8, Nov. 1995):783-. (v6,#4)

Cooper, Nigel S. "Speaking and Listening to Nature: Ethics Within Ecology," *Biodiversity and Conservation* 9(no. 8, 2000):1009-1027. Abstract. One context for the papers arising from INTECOL VII in this special issue is the debate over the social construction of science. Some fear that advocates for the social or cultural construction of ecology will undermine attempts to defend nature. But resources are made available in a mediating position of social "construal," particularly alerting ecologists to the social and ethical dimensions of the conducting of their work. When speaking, ecologists will use living and dead metaphors and these carry connotations which in turn raise ethical questions. Different political interest groups may use a word like biodiversity for different ethical purposes. The position of any one speaker is limited,
and so greater knowledge is achieved if scientists listen to the situated knowledges of other, diverse people. Even Nature herself, or creatures, may have aspects of personhood. The good ecologist will listen with empathy as a naturalist to what is being said, giving Nature the respect she deserves. These are some of the ethical implications in the very doing of ecology. Key words: biodiversity, metaphor, personalism, situated knowledge, social construction of science.


Coote, Belinda: The Trade Trap: Poverty and the Global Commodity Markets. Atlantic Highlands, NJ: Humanities Press, 1996. The complexities and difficulties of the international trade system. Argues that trade agreements must incorporate minimum standards in order to defend poor people's basic social and environmental rights against the impact of unregulated trade. (v7,#1)


Cope, DR; Pettifor, RA; Griffin, LR; MarcusRowcliffe, J, "Integrating farming and wildlife conservation: the Barnacle Goose Management Scheme," Biological Conservation 110(no.1, 2003): 113-122.


Corash, Michele B., "Consensus Will Be Key to Globalization Environmental Law," Journal of Environmental Law & Practice 7 (No. 3, 2000 Winter): 30-. (v.11,#4)


Corbett, Jim. Goatwalking: A Guide to Wildland Living, A Quest for the Peaceable Kingdom. New York: Penguin, 1991. 237 pages. $11.00 paper. "Two milk goats can provide all the nutrients a human being needs, with the exception of vitamin C and a few trace minerals." So begins the romantic, Quixotic account of how to live as nomads in the Sonora desert. Corbett is co-founder of the Sanctuary Movement. Included is an appendix is the Saguaro-Juniper Covenant, an association for sustainable living on 130 acres of deeded land and six sections (square miles) of grazing lease. Non-technical, practical; what Thoreau might have written had he lived in the desert. "Cranky, brilliant, unlovable, and true"--Jim Harrison. (v5,#2)

Corbin, Greg D. "The United States Forest Service's Response to Biodiversity Science." Environmental Law 29(No. 2, 1999):377-. The National Forest Management Act and its implementing regulations require the United States Forest Service to manage the national forests' biodiversity based on a set of science-based management prescriptions. Mr. Corbin argues that while the Forest Service adopted a regulatory program designed to incorporate the new understanding of biodiversity science into the forest planning process, the agency's litigation posture and proposed regulatory changes in favor of ecosystem management ignore the science of biodiversity to preserve broad regulatory discretion and maximum on-the-ground management flexibility. (v10,#4)

Corbridge, Stuart, "Development Ethics: Distance, Difference, Plausibility," Ethics, Place and Environment 1(no. 1, 1998):35-53. Ethical concern for others at a distance and different from those of us (in developed countries) is both possible and plausible, and this contrary to critics from the right (the New Right) and from the left (the post-Left). Corbridge is in geography, University of Cambridge, UK. (v.13,#4)


Cordell, Ken, Tarrant, Michael A., and Green, Gary T., "Is the Public Viewpoint of Wilderness Shifting?" International Journal of Wilderness 9(no. 2, August 2003):27-32. Shifts since the mid 1990's in the values the public places on wilderness. Public views of the National Wilderness Preservation System were compared from national surveys conducted in 1994 and in 2000. Results show that while more people in 2000 were aware of the Wilderness System, this increase in awareness has not created greater support for additional wilderness acreage. But the levels of importance people place on ecosystem services, existence of wilderness, recreation, and future use options for existing protected wilderness have increased sharply since 1994. Overall, this seems to indicate a need for greater emphasis on nonuse values in setting policy and managing wilderness. Awareness and support for wilderness vary significantly among ethnic, age, and regional groups. It seems as though people do not want more wilderness but they value what they already have designated much more than before. The
authors are with the USDA Forest Service and the School of Forestry, University of Georgia, Athens, GA. (v 14, #3)

Corey, Michael A., Evolution and the Problem of Evil. Lanham, MD: University Press of America, 2000. An approach that synthesizes the tenets of modern developmental psychology with the basic concepts of classical theism. The problem of evil, as well as the general fate of humans, is placed in a much larger and more optimistic contest than traditionally imagined. (v.12,#3)


Corkran, Robert E. "Quality of Life, Mining, and Economic Analysis in a Yellowstone Gateway Community." Society and Natural Resources 9, no.2 (1996): 143. (v7, #3)

Corlett, J. Angelo, "Corporate Responsibility for Environmental Damage," Environmental Ethics 18(1996):195-207. I set forth and defend an analysis of corporate moral responsibility (retrospective moral liability), which, I argue, ought to serve as the foundation for corporate legal responsibility, punishment, and compensation for environmental damage caused by corporations. Corlett is in philosophy, Georgia State University, Atlanta. (EE)


Cornhett, Zane J., "The Courage to Say "Not Yet" to the Proposed Code of Ethics," Journal of Forestry 98 (No. 7, 2000 July 01): 22-. Until we have engaged each other in debate and anticipated the values we will need in the 21st century, we should just say "Not yet" to the current proposal to revise our Code of Ethics. (v.11,#4)


emerges from finite locations in the world. Corrington is professor of philosophical theology at Drew University. (v3,#1)

Corrington, Robert S., Ecstatic Naturalism: Signs of the World, Bloomington, IN: Indiana University Press, 1994. 218 pages. Cloth, $ 29.95. A new metaphysics, a semiotics of nature, insisting that all signs participate in larger orders of meaning that are natural and religious. Meanings embodied in nature point beyond nature to the mystery inherent in positioned codes and signs. Corrington is professor of philosophical theology at Drew University. (v7,#1)

Corson, Walter H., "Priorities for a Sustainable Future: The Role of Education, the Media, and Tax Reform," Journal of Social Issues 51 (no. 4, 1995):37-61. Twelve priority actions to alleviate environmental degradation. Ecological and societal literacy may be necessary conditions for change; ecological tax reform may be an important intermediate step. Social marketing media campaigns could catalyze behavioral change and facilitate progress toward a sustainable future. Corson is in environmental politics, George Washington University. (v.10,#2)


Cortner, Hanna J., Moote, Margaret A. The Politics of Ecosystem Management. Covelo, CA: Island Press, 1999. 224 pp. $50 cloth, $25 paper. The sweeping and profound changes that will be required of the American governance system--its political philosophy, institutions, notions of citizenship, and politics, as well as its resource management practices--if the shift to ecosystem management is to be realized. (v.10,#1)

Corwin, Jennifer A. An Evaluation of Kant's Claims Regarding the Non-Rational Nature of Non-Human Animals, M.A. thesis, Colorado State University, fall 2002. It is generally accept that Kant's ethical theories cannot serve as a basis for a non-anthropocentric environmental ethic because Kant asserts that non-human animals are not owed direct duties from human beings because non-human animals are not rational creatures. But Kant's conception of rational does not permit him to make such a "knowledge claim." At most Kant can only theorize or postulate the non-rationality of animals as a theoretical possibility and not a cognitive certainty. Lacking such knowledge, we can and ought to expand Kant's ethical theories to include direct duties toward non-humans, serving as a basis for a non-anthropocentric environmental ethic. The thesis advisor was Jane Kneller. (v.13,#4)


Costanza, Robert, Daly, Herman, and Hawken, Paul, "Managing Our Environmental Portfolio," Bioscience. 50 (No. 2, Feb 01 2000): 149-. (v.11,#2)

Costanza, Robert, Daly, Herman, Cumberland, John, Goodland, Robert, Norgaard, Richard. An Introduction to Ecological Economics. Boca Raton, FL: St. Lucie Press, 1997. 288 pp. $39.95. Beginning with a description of some current problems in society and their underlying causes, then moving on to an historical perspective to explain how world views regarding economics
and ecology have evolved, the writers continue by presenting the fundamental principles of ecological economics and outlining a set of policies for creating and implementing a sustainable society. They end with prospects for the future. (v8,#3)


Costanza, Robert, and twelve others. "The Value of the World's Ecosystem Services and Natural Capital." Nature 387(15 May 1997):253-260. The services of ecological systems and the natural capital stocks that produce them are critical to the functioning of the Earth's life support system. They contribute to human welfare, both directly and indirectly, and therefore represent part of the total economic value of the planet. The authors have estimated the current economic value of 17 ecosystem services for 16 biomes, based on published studies and a few original calculations. For the entire biosphere, the value (most of which is outside the market) is estimated to be in the range of US$ 16-54 trillion (10^{12}) per year, with an average of US$ 33 trillion per year. Because of the nature of the uncertainties, this must be considered a minimum estimate. Global gross national product total is around US$ 18 trillion per year.

Costanza admits his group's numbers are "back-of-the-envelope" estimates, but says they are close enough to help set ecosystem usage taxes. Also in this issue is a commentary by Stuart L. Pimm, "The Value of Everything," Nature 387(15 May 1997):231-232. A summary is Wade Roush, "Putting a Price Tag on Nature's Bounty, Science 276(16 May 1997):1029. Some complain that the numbers are worthless; other say the study is important, no matter what the numbers, as they are relatively huge. Another study, by David Pimentel, came up with only $ 3 trillion by comparison. (v8,#2)


Coste, Michael, "Environmental Takings, Environmental Regulation, and Property: A Lockean Perspective.” Paper given at the Mountain-Plains Philosophy Conference, Oklahoma State University, Stillwater, Oklahoma, 26-28 September 1996. Coste is at Front Range Community College, Fort Collins, Colorado. (v7, #3)

Division of the American Chemical Society. The symposium consisted of two keynote speakers and fourteen presentations, although the book has eight more papers to flesh out the topics.

The volume is organized as a supplemental textbook. Sections are: introduction, issues in environmental risk decision making, values and value judgements, commentary and summary.

The editor summarizes the argument of the book as follows: Values and ethics should be included in the environmental decision making process for three reasons; they are already a major component, although unacknowledged; ignoring them causes almost insurmountable difficulties in risk communication; and because it is the right thing to do. The existing models for environmental risk assessment do not contain any explicit mention of values, value judgements, ethics, or perceptions. However, these are often the main bases used in making such decisions. For example:

- alar was banned to protect children
- the linear, no-threshold dose-response curve and use of combined upper 95% confidence limits are based on safety, not science
- the idea of zero discharge is based on the sanctity of the individual
- forests and wetlands are preserved because of stewardship
- sustainable development is based on protecting future generations
- nuclear power is avoided because of fear of a catastrophe.

For more information, contact the editor, Rick Cothern: PH 202-208-6234 , FAX 202-208-4867, E-mail <rcothern@nova.umuc.edu>. (v6,#4)


the types of "ecoholism" thought to support the belief that all of nature is morally significant. I critically assess their support in the science of ecology. Ecology is comprised of a diverse group of research programs none of which is a "holistic" science in the sense required to support ecoholism. In the light of feminist and other critiques of science, the project of seeking to base ethics on science is deeply problematic. The advisor was L. W. Sumner. (v.10,#1)

Cousins, Emily, "Mountains Made Alive: Native American Relationships with Sacred Land," Cross Currents 46 (no. 4, Winter 1996/97):497-509. "The phrase 'sacred land' is used frequently these days, both by Native Americans trying to protect land and by non-Natives sensitive to this cause. Yet despite its increased use, the meaning of the phrase remains elusive to many non-Natives, who relate to land mostly through property lines or hiking trails. Traditional Native American cultures, on the other hand, have defined geography through myth, ritual ceremonies, and spirit power. This difference highlights perhaps the widest gulf between the two cultures. It also represents a place where we must meet, as both cultures face environmental crisis." Cousins is a writer and editor living in Missoula, Montana. (v.8,#4)

Covich, Alan P et al., "The Role of Biodiversity in the Functioning of Freshwater and Marine Benthic Ecosystems", BioScience 54 (no. 8, 1 August 2004):767-775(9). Empirical studies investigating the role of species diversity in sustaining ecosystem processes have focused primarily on terrestrial plant and soil communities. Eighteen representative studies drawn from post-1999 literature specifically examined how changes in biodiversity affect benthic ecosystem processes. Results from these small-scale, low-diversity manipulative studies indicate that the effects of changes in biodiversity (mostly synonymous with local species richness) are highly variable over space and time and frequently depend on specific biological traits or functional roles of individual species. Future studies of freshwater and marine ecosystems will require the development of new experimental designs at larger spatial and temporal scales. Furthermore, to successfully integrate field and laboratory studies, the derivation of realistic models and appropriate experiments will require approaches different from those already used in terrestrial systems.


Covington, W., Wallace Fule, Peter Z. Vance, and Regina K., "Learning by Doing: Education in Ecological Restoration at Northern Arizona University," Journal of Forestry 98(no.10, OCT 01 2000):30- . Northern Arizona University offers an integrated, interdisciplinary program that stresses both the ecological and the social skills that restorationists need. (EE v.12,#1)
Chinese religions, secular ethics, North-South relations, market forces, the status of women, and international law. Coward is director of the Centre for Studies in Religion and Society at the University of Victoria. (v6,#4)


Coward, Harold, "New Theology on Population, Consumption, and Ecology," *Journal of the American Academy of Religion* 65(1997):259-273. Often religion is never mentioned in these debates, yet it is clear that religions can and do strongly shape people's attitudes to the environment, to practices surrounding fertility and reproductive health, and to the just sharing of Earth's resources. Introducing a theme issue on "Religious Responses to Problems of Population, Consumption, and Degradation of the Environment," resulting from a research project on the topic, the full results of which will be published by SUNY Press. Coward is in Studies in Religion and Society at the University of Victoria, British Columbia. (v8,#3)


--Yu (Yü), Chün-fang, "Chinese Religions on Population, Consumption, and Ecology" (China)


Cowell, Mark. "Ecological Restoration and Environmental Ethics." *Environmental Ethics* 15(1993):19-32. Restoration ecology has recently emerged as a branch of scientific ecology that challenges many of the traditional tenets of environmentalism. Because the restoration of ecosystems, "applied ecology," has the potential to advance theoretical understanding to such an extent that scientists can extensively manipulate the environment, it encourages increasingly active human participation within ecosystems and could inhibit the preservation of areas from human influences. Despite the environmentally dangerous possibilities that this form of science and technology present, restoration offers an attractive alternative for human interaction with the
environment. I outline the primary claims that have been made for ecological restoration, examine inconsistencies with restorationists' philosophical position, and propose a reassessment of the definition of restoration that may aid in the clarification and development of a system of environmental ethics that recognizes human relationships with the environment as potentially symbiotic and positive. Cowell is in the department of Geography and Planning, Memphis State University, Memphis, TN. (EE)


Cowen, Tyler. "Policing Nature." Environmental Ethics 25(2003):169-182. Utility, rights, and holistic standards all point toward some modest steps to limit or check the predatory activity of carnivores relative to their victims. At the very least, we should limit current subsidies to nature's carnivores. Policing nature need not be absurdly costly or violate common-sense intuitions. (EE)


Cowling, Richard and Dave Richardson, Fynbos: South Africa's Unique Floral Kingdom Vlaeberg: Fernwood Press, 1995. 154 pages. ISBN 1 874590 10 5 Fynbos, a vegetation type unique to South Africa, is the smallest floral kingdom in the world, yet for its size it boasts the largest number of plant species. Nowhere else on earth are so many species crammed into such a small area. This is an extremely attractive presentation in text and photography, not only of the flora but of the fauna it supports. Its conservation is of great concern and one of the leading arguments here is that the solutions to these problems lie in the recognition of fynbos as an economic resource. Cowling is an ecologist at the University of Cape Town and a 1994 winner in the Pew Conservation Award. Richardson is a researcher at the Institute for Plant Conservation, University of Cape Town. (v6,#3)


Cox, Cleo, rDNA Genetic Engineering: More of the Same?, Master's Thesis, Department of Philosophy, Lancaster University, September 1995. (v7,#1)

Cox, Cleo, rDNA Genetic Engineering: More of the Same?, Master's Thesis, Department of Philosophy, Lancaster University, September 1995.
Cox, Damian. "On the Value of Natural Relations." *Environmental Ethics* 19(1997):173-183. In "A Refutation of Environmental Ethics" Janna Thompson argues that by assigning intrinsic value to nonhuman elements of nature either our evaluations become (1) arbitrary, and therefore unjustified, or (2) impractical, or (3) justified and practical, but only by reflecting human interest, thus failing to be truly intrinsic to nonhuman nature. There are a number of possible responses to her argument, some of which have been made explicitly in reply to Thompson and others which are implicit in the literature. In this discussion I describe still another response, one which takes Thompson's concerns about value seriously, but does not assign nature intrinsic or nonanthropocentric value. I suggest a relational environmental ethic as the basis for a genuinely ethical stance toward nature in which our relations to nature are a principal object of ethical concern. Cox is in the School of Social and Cultural Studies, Edith Cowan University, Joondalup, Western Australia. (EE)

Cox, George W., *Alien Species in North America and Hawaii: Impacts on Natural Ecosystems*. Washington, D.C.: Island Press, 1999. 400pp. cloth $60. paper $30. Comprehensive overview of the invasive species phenomenon, examining the threats posed and the damage that has already been done to ecosystems across North America and Hawaii. Cox is emeritus professor of ecology at San Diego State University. (v10,#4)


Cox, L. Hughes, "On the Uses of Analogy in Land Ethics." In *Freedom, Equality, and Social Change*, edited by Creighton Peden and James P. Sterba (Lewiston: Edwin Mellen Press, 1989), pp. 324-333. Leopold's argument in "The Land Ethic" is analogical, but it fails because of the disanalogy between human agents who can communicate and natural objects that cannot. Cox claims that Leopold's analogy is meant as a useful moral fiction. A serious mis-reading of Leopold; e.g., Cox claims that Leopold "never uses the organismic metaphor" (p. 331). (Katz, Bibl # 2)

Cox, Paul Alan, "Will Tribal Knowledge Survive the Millennium," *Science* 287(7 January 2000):44-45. Tribal knowledge can often seem superstitious, but tribal herbal knowledge has at times given promising leads to new drugs. An example from Western Samoa is an antiviral drug, prostratin. But both the tribal knowledge and the biodiversity on which it is based are being rapidly lost. Cox directs the National Tropical Botanical Garden in Hawaii. (v.11,#1)


Cox, Susan Jane Buck. "No Tragedy of the Commons." *Environmental Ethics* 7(1985):49-61. The historical antecedents of Garrett Hardin's "tragedy of the commons" are generally understood to lie in the common grazing lands of medieval and post-medieval England. The concept of the commons current in medieval England is significantly different from the modern concept; the English common was not available to the general public but rather only to certain individuals who inherited or were granted the right to use it, and use of the common even by these people was not unregulated. The types and in some cases the numbers of animals each tenant could pasture were limited, based at least partly on a recognition of the limited carrying
capacity of the land. The decline of the commons system was the result of a variety of factors having little to do with the system's inherent worth. Among these factors were widespread abuse of the rules governing the commons, land "reforms" chiefly designed to increase the holdings of a few landowners, improved agricultural techniques, and the effects of the industrial revolution. Thus, the traditional commons system is not an example of an inherently flawed land-use policy, as is widely supposed, but of a policy which succeeded admirably in its time. Cox is in the department of Political Science, Northern Arizona University, Flagstaff, AZ. (EE)

Cox, Susan Jane Buck, "No Tragedy of the Commons" Environmental Ethics 7(1985):49-61. An historical analysis shows that Garrett Hardin's model of the tragedy of the commons, the English pasturage system, was not flawed, and did not lead to ruin. In real life, Hardin's model of the self-interested, rational, economic human does not exist. (Katz, Bibl # 1)


Crabb, Charlene, "Rio, the Logical Sea Lion," Discover 14 (February 1993). A sea lion that understands deductive reasoning. The researchers claim that Rio could identify the third connection in a hypothetical syllogism 28 out of 30 times on her first try. (v5,#1)

Craig, Paul P., Harold Glasser and Willett Kempton, "Ethics and Values in Environmental Policy: The Said and the UNCED." Environmental Values Vol. 2 No.2(1993):137--158. ABSTRACT: While citizens often use non-instrumental arguments to support environmental protection, most governmental policies are justified by instrumental arguments. This paper explores some of the reasons. We interviewed senior policy advisors to four European governments active in global climate change negotiations and the UNCED (United Nations Conference on Environment and Development) process. In response to our questions, a majority of these advisors articulated deeply held personal environmental values. They told us that they normally keep these values separate from their professional environmental policy activities. We interpret these findings within the context of the literature on environmental ethics and values. We suggest that environmental policy could be improved if widely held environmental values were articulated, validated, and admitted into the process of policy analysis and deliberation. KEYWORDS: environment, ethics, values, policy, intrinsic value. Craig and Glasser: Sustainable Futures Group, College of Engineering, University of California, Davis 95616, USA. Kempton: Center for Energy and Urban Policy Research, University of Delaware, Newark, DE 19716, USA.


Craig, Robin Kundis. "Of Fish, Federal Dams, and State Protections: A State's Options Against the Federal Government for Dam-Related Fish Kills on the Columbia River." Environmental Law 26, no.1 (1996): 355. Craig examines the possible means for states to bring claims against the federal government for dam-related fish kills. She explores the federal government's sovereign immunity and the interaction between the states' and federal government's interests in the Columbia River Basin. Craig argues in favor of a strict liability remedy against the federal government so that states may obtain damages for the fish kills. (v7, #3)

Craige, Betty Jean, Eugene Odum: Ecosystem Ecologist and Environmentalist. Athens, GA: University of Georgia Press, 2001. 264 pages. $ 35. The first biography of the father of ecosystem ecology. Craige is University Professor of Comparative Literature, University of Georgia. (EE v.12,#1)


Crain, Caitlin Mullan; Bertness, Mark D., "Ecosystem Engineering across Environmental Gradients: Implications for Conservation and Management," BioScience 56 (no.3, March 2006): 211-218 (8). Ecosystem engineers are organisms whose presence or activity alters their physical surroundings or changes the flow of resources, thereby creating or modifying habitats. Because ecosystem engineers affect communities through environmentally mediated interactions, their impact and importance are likely to shift across environmental stress gradients. We hypothesize that in extreme physical environments, ecosystem engineers that ameliorate physical stress are essential for ecosystem function, whereas in physically benign environments where competitor and consumer pressure is typically high, engineers support ecosystem processes by providing competitor- or predator-free space. Important ecosystem engineers alleviate limiting abiotic and biotic stresses, expanding distributional limits for numerous species, and often form the foundation for community development. Because managing important engineers can protect numerous associated species and functions, we advocate using these organisms as conservation targets, harnessing the benefits of ecosystem engineers in various environments.


Crane, Peter and Ann Kinzig, "Nature in the Metropolis," Science 308(27 May 2005):1225. Editorial. "It seems very likely that our environmental ethic will gradually change. ... Whatever the future of our environmental ethic, one thing is clear: What remains of habitats and biodiversity within the city is of disproportionate importance." The Chicago Wilderness Consortium is commended as an example, 172 public and private organizations working together to protect, restore, manage Chicago's natural resources, and to give urban people access to nature nearby. Crane is director of Royal Botanic Gardens, Kew, UK. Kinzig is in urban ecology, Arizona State University.


major duties regarding pollution control are political, in that we must create laws or other political mechanisms to insure that people do not pollute. (Katz, Bibl # 1)

Crate, Susan Alexandra. Cows, Kin, and Globalization: An Ethnography of Sustainability. Walnut Creek, CA: Altimira Press, 2006. Crate presents the first cultural ecological study of a Siberian people: the Viliui Sakha, contemporary horse and cattle agropastoralists in northeastern Siberia. The author links the local and global economic forces, and provides an intimate view of how a seemingly remote and isolated community is directly affected by the forces of modernization and globalization. She details the severe environmental and historical factors that continue to challenge their survival, and shows how the multi-million dollar diamond industry, in part run by ethnic Sakha, raises issues of ethnic solidarity and indigenous rights as well as environmental impact.

Crawford-Brown, Douglas, and Neil E. Pearce, "Sufficient Proof in the Scientific Justification of Environmental Actions," Environmental Ethics 11(1989):153-167. Focusing on the case of radon exposure, this is an examination of the nature of evidence used in the decision-making and regulatory process of environmental risk. Proves that it is inappropriate to use scientific judgments as the sole determinants in ethical decisions. (Katz, Bibl # 2)

Crawford-Brown, Douglas, and Neil E. Pearce. "Sufficient Proof in the Scientific Justification of Environmental Actions." Environmental Ethics 11(1989):153-67. Environmental actions require a willingness to act, which, in turn, is stimulated partially by the belief that an action will yield the desired consequences. In determining whether an actor was justified in exerting the will to act, therefore, it is essential to examine the nature of evidence offered by the actor in support of any beliefs about the environment. In this paper we explore the points in environmental risk analyses at which evidence is brought to bear in support of inferences concerning environmental effects of regulatory actions. The intent is to provide a framework for discussing the manner in which evidence may provide a sufficient basis for ethically sound decisions for environmental actions. Pearce is at the Wellington Clinical School of Medicine, Wellington, New Zealand. Crawford-Brown is at the School of Public Health, University of North Carolina, Chapel Hill, NC. (EE)

Crawford, Colin, Uproar at Dancing Rabbit Creek: Battling Over Race, Class, and the Environment. Reading, MA: Addison-Wesley, 1996. How a small, mostly black Mississippi county (Noxubee County) became the target of an entrepreneur looking for a site in which to locate a toxic-waste dump. In their resistance, county residents had to face charges of racism for opposing a project that would have given the poor, black community a (tainted) breath of economic hope (150 jobs). Black elected officials repeatedly voted to approve the dump, and the local NAACP, whose vice-president was hired as a consultant, issued a resolution of approval. Set in courtrooms and living rooms, full of historical digressions and local color, with a multiracial cast of characters, and pervaded by strong environmental convictions, here is a case study in environmental discrimination. Crawford is an environmental lawyer based in New York City.


Crawford, Jennifer, The Sustainable Self: An Inquiry into the Metaphysics of Sustainability and the Self. Environmental Paper No. 10. Graduate School of Environmental Sciences, Department of Geography and Environmental Science, Monash University, Melbourne, Victoria 3168, Australia. 1993. 70 pages. ISBN 0 909685 51 7. The monograph, developed from a Master's thesis there, considers the meaning of Self realization, introduced into environmental thought by deep ecologists. The term was borrowed from Gandhi and transplanted into Western environmental philosophy, a "conceptual colonization" that has, to the great loss of ecophilosophy, deformed the traditional meaning of both Self realization and the Self. The author argues for a return to Gandhi's concept, against the Western loss of the vertical dimension of being, which leaves an impoverished sense of reality and of self. She critiques the work of
deep ecologists. Their deformation of the concept of Self has created confusion and misunderstanding and even been used by some to strengthen the modern Western mind set which they purport to change. Yet the positive significance of deep ecology is acknowledged as potentially providing an opening for the reintroduction of metaphysics into our understanding of ourselves and our relationship with nature. (v.4,#1)


Crawley, Michael J., ed., Natural Enemies: The Population Biology of Predators, Parasites and Diseases. Oxford: Blackwell Scientific Publications, 1992. Two dozen contributors. Relationships are usually more complex than we think. Predators may regulate prey populations in some years and in some circumstances; prey, especially herbivores, may be regulated as often by how much food is available or by parasites and diseases. A long-standing generalization is that all trophic levels are regulated by competition for resources, except for herbivores which are regulated by natural enemies. Many, perhaps most, carnivores are food-limited, what prey they can catch. But it does not follow that their prey herbivores are enemy-limited, how many of them are caught; they may be limited in numbers by food too, how much green there is to eat. (cf Crawley's overview, pp. 476-489). Crawley is in biology, Imperial College, London.

Creation Spirituality is "a magazine to sustain the earth--with creativity, reverence, celebration and prophetic vision." There are "regular features on creating ritual, art as meditation, mysticism, science, ecology and psychology." Matthew Fox is editor-in-chief. Six issues a year, $ 20. Contact: Creation Spirituality, 160 E. Virginia Street, # 290, San Jose, CA 95112. (v.2,#2)

(v.12,#3)


Creel, S; Fox, JE; Hardy, A; Sands, J; Garrott, B; Peterson, RO, "Snowmobile Activity and Glucocorticoid Stress Responses in Wolves and Elk," Conservation Biology 16(no.3, 2002):809-814. (v.13, #3)

Creighton, Sarah Hammond. Greening the Ivory Tower: Improving the Environmental Track Record of Universities, Colleges, and Other Institutions. Cambridge, MA: MIT Press, 1998. 372 pp. Paper $25. A motivational and how-to-guide for staff, faculty, and students. Offers detailed "greening" strategies for those who may have little experience with institutional change or with the latest environmentally friendly technologies. The author was project manager of Tufts CLEAN. (v.9,#4)


Crist, Eileen, *Images of Animals: Anthropomorphism and Animal Mind*. Philadelphia: Temple University Press, 1998. Seeing a cat rubbing against a person, Charles Darwin described her as "in an affectionate frame of mind"; for Samuel Barnett, a behaviorist, the mental realm is beyond the grasp of scientists and behavior must be described technically, as a physical action only. What difference does this make? In Crist's analysis of the language used to portray animal behavior, the difference "is that in the reader's mind the very image of the cat's `body' is transfigured ... from an experiencing subject ... into a vacant object." Rejecting the notion that "a neutral language exists, or can be constructed, which yields incontestably objective accounts of animal behavior," Crist argues that "language is not a neutral instrument in the depiction of animals, and, in particular, it is never impartial with respect to the question of animal mind." Crist is at the Center for Interdisciplinary Studies, Virginia Polytechnic Institute. (v9,#2)

Crist, Eileen, "Quantifying the Biodiversity Crisis," *Wild Earth* 12 (no. 1, 2002):16-19. Quantitative estimates of species lost are necessary, but always inadequate, due to inherent difficulties in obtaining them. Overstatement of such losses, when discovered and exposed by environmental skeptics, can be used to downplay the real seriousness of the biodiversity crisis. The numbers game can backfire. Too much reliance on such estimates can distract from a deeper understanding of the Earth's ecological predicament. Crist is in science and technology studies at Virginia Tech in Blacksburg. (v.13,#2)

Crist, Eileen, *Images of Animals: Anthropomorphism and the Animal Mind*. Philadelphia: Temple University Press, 2000. "A tension is built into the pursuit of knowledge about animal life, for it is heir to both the Cartesian verdict of an unbridgeable hiatus between humans and animals and the Darwinian affirmation of evolutionary continuity. The consequence of an intellectual and cultural heritage of opposed visions of the relationship between animals and humans is that the problematic of animal mind--whether affirmed or refuted, celebrated or doubted, qualified or sidestepped--is ever present, perhaps even the heart of the matter, in behavioral writings. Representations of animal life whether intentionally or not, are always addressing what is for
Western thought a most engrossing mystery--the contentious topic of animal mind or animal consciousness. In this book I address the theme of animal mind through a comparative study of representations of animals in behavioral works. Specifically, I examine the understanding of animal life in behavioral thought, from the writings of Charles Darwin and turn-of-the-century naturalists to works of classical ethology and contemporary sociobiology.

My focus is on the powerful role that language use plays in the portrayal of animals. Even a casual examination of different writings reveals that language, far from being simply a useful, neutral tool for inquiry, plays a formative part in how animals are depicted. While the different works I examine are kindred in their focus on naturally occurring animal behavior, they represent animal life in very discrepant ways. My aim is to elucidate how different portraiture of animals are created. The works I study belong to the genre of behavioral science, in that the authors examined all share the ideal of discovering the realities of the natural lives of animals. It is paradoxical, then, that while they have this common goal of arriving at faithful representations of animals--documenting with great care their life histories, habits, and instincts--they nevertheless often reveal realities that are worlds apart. I approach this paradox of striking discrepancies in the portrayal of animals by focussing on the effects of diverse linguistic mediums" (pp. 1-2) (v.13,#2)


Crist, Eileen. "Against the Social Construction of Nature and Wilderness." Environmental Ethics 26(2004):5-24. The application of constructivism to "nature" and "wilderness" is intellectually and politically objectionable. Despite a proclivity for examining the social underpinnings of representations, constructivists do not deconstruct their own rhetoric and assumptions; nor do they consider what socio-historical conditions support their perspective. Constructivists employ skewed metaphors to describe knowledge production about nature as though the loaded language use of constructivism is straightforward and neutral. They also implicitly rely on a humanist perspective about knowledge creation that privileges the cognitive sovereignty of human subject over nature. Politically, the constructivist approach fails to take the scientific documentation of the biodiversity crisis seriously; it diverts attention toward discourses about the environmental predicament, rather than examining that predicament itself; and it indirectly cashes in on, and thus supports, human colonization of the Earth. (EE)


Crittenden, Chris. "Subordinate and Oppressive Conceptual Frameworks: A Defense of Ecofeminist Perspectives." Environmental Ethics 20(1998):247-63. I first demonstrate that Beth Dixon's central arguments challenging Karen Warren's "logic of domination" do not succeed. Second, I argue that the logic of domination not only connects the oppression of women and animals--a possibility that Dixon disputes--but it in fact plays a significant role in connecting these oppressions, and many others besides, in its capacity as a component of a larger oppressive conceptual framework. My negative arguments against Dixon provide a foundation for the positive arguments in the second half of the paper, wherein, in contravention of her project, I establish that humans and animals clearly share emotions in a philosophically interesting sense, that this affective similarity allows us to draw conclusions about the oppression of animals from situations oppressive to humans, and, the main thesis, that the suffering of women, animals, and other oppressed groups is the symptom of a ubiquitous mindset morally untenable, psychologically dysfunctional, and characterized by an ideology of superior/inferior-
Crittenden, Chris, "Self-deselection: Technopsychotic annihilation via cyborg," Ethics and the Environment 7(no. 2, 2002):127-152. The cry that advanced machines will come to dominate human beings resounds from the time of the Luddites up to the current consternation by the chief scientist of Sun Microsystems, Bill Joy. My theme is a twist on this fear: self-deselection, the possibility that humans will voluntarily combine their own bodies with technological additions to the point where it could reasonably be said that our species has been replaced by another kind of entity, a hybrid of human and radical enhancement, whether that enhancement stems from genetic alteration or the affixing of robotic parts. The paper discusses why this danger exists, focusing mainly on perilous psychological and cultural tendencies (though the amazing rate of technological change and its likely course are discussed). It then proceeds with arguments as to why such deselection is a kind of suicide and why this suicide would be a bad thing in the context of early twenty-first-century society. In the last section, ecofeminist theory is employed to generate a therapeutic ethic of social and political relationship that contrasts with a patriarchal model of domineering control through aggressive science. (E&E)


Crocker, David A., ed., Sustaining the Good Life: The Ethics of Consumption and Global Stewardship. Lanham, MD: Rowman and Littlefield Publishers, Inc., 1997. 544 pp. $25 paper, $75 cloth. Two dozen eminent scholars from across the humanities and social sciences examine the causes, nature, and consequences of patterns of consumption. The essays frame the problem of consumption in a variety of ways, challenging readers to see the issue from new perspectives. (v8,#2)


Crocker, David A., "Cross-Cultural Criticism and Development Ethics," Philosophy and Public Policy Quarterly, vol. 24, no. 3, Summer 2004, pp. 2-8. Development ethicists from one society may help understand and evaluate social change in another society. After examining several types of such cross-cultural assessments, the author argues that "insider-outsider hybrids" are the most promising cross-cultural partners. Crocker is at the Institute for Philosophy and Public Policy, University of Maryland. (v.14, #4)


Crocker, David A., "Development Ethics and Globalization," Philosophy and Public Policy Quarterly 22 (no. 4, Fall 2002):13-20. Development ethics in the light of trends toward globalization, summary of main trends and issues. How much are local peoples likely to benefit from globalization? Should peoples be open to globalization, cross-boundary markets, multinational powers, or should they emphasize instead their local well-being? What is the relationship of desired development to economic growth? Are there development goals and principles valid for
all societies, or are such goals particular to particular peoples? Crocker favors a "capabilities" approach. Crocker is at the Institute for Philosophy and Public Policy, University of Maryland.

Crocker, David, "The Hope for Just, Participatory Ecodevelopment in Costa Rica," in Sociale Arbeit und Internationale Entwicklung, eds. Gregor Sauerwald, Wigbert Flock, and Reinhold Hemker (Munster, Hamburg: Lit Verlag, 1992), pp. 121-134. The social democratic developmental model in Costa Rica has been replaced by a neoliberal development emphasizing free trade. Both models have their drawbacks and downsides. A better model emphasizes (1) the satisfaction of basic human needs, (2) democratic self-determination, (3) environmental respect, and (4) the equal opportunity for personal self-realization. Costa Rica has the best chance of any Latin American country to become a model for blending harmony with the environment and development. Crocker is professor of philosophy at Colorado State University. (v3,#4)


Croll, D. A., et al, "Introduced Predators Transform Subarctic Islands from Grassland to Tundra," Science 307(25 March 2005):1959-1961. Arctic foxes, introduced to the Aleutian Islands by fur traders looking to expand their supply from the 1700's onward, have upset the original grassland ecosystems. Once the islands were grasslands and inhabited by seed-eating Aleutian geese. The foxes drove the geese near extinction and also ate the eggs and hatchlings of puffins, auklets and other ocean feeding seabirds. As the birds faded, so did their excrement, which had been a natural fertilizer for the grasses. The grasses disappered and left sparse tundra. Despite the foxes, the islands still remain home to 10 million seabirds that nest on cliffs.


Cronon, William Nature's Metropolis: Chicago and the Great West. Norton, 1991. "But the labor theory of value cannot by itself explain the astonishing accumulation of capital that accompanied Chicago's growth. Human labor may have been critical ... but much of the value in such commodities came directly from the first, not second, nature. The fertility of the prairie soils and the abundance of the northern forests had far less to do with human labor than with autonomous ecological processes. ... The abundance that fueled Chicago's hinterland economy thus consisted largely of stored sunshine: this was the wealth of nature, and no human labor could create the value it contained ... "The social relations of production ... themselves depended on still more encompassing ecological relations on consumption. In any ecosystem, only the sun produces. ... Since no organism can make energy, each must do its best to store it, accumulating a stockpile for use when the sun will not be so generous with its gifts. The same is true of
human society: most of the labor that goes into ‘producing’ grain, lumber, and meat involves consuming part of the natural world and setting aside some portion of the resulting wealth as ‘capital.’ To apply for a moment the language of economy to the ecology of the Great West, Chicago’s explosive growth was purchased at the expense of prairies and forests that had spent centuries accumulating the wealth that now made ‘free land’ so attractive. Much of the capital that made the city was nature’s own” (pp. 149-151). (v4,#2)

Cronon, William, ed., Uncommon Ground: Toward Reinventing Nature. New York: Norton, 1995. Environmental historians worrying about the cultural construction of nature. Contains Cronon, "The Trouble With Wilderness; or, Getting Back to the Wrong Nature." Cronon starts out by claiming that our concept of wilderness has to be reinvented in that it is a social construction. Sometimes he seems to adopt the postmodernist claim that there is no reality accessible beyond human words. But by the end of the article he returns to the conservation of wild nature: "I hope it is clear that my criticism in this essay is not directed at wild nature per se, or even at efforts to set aside large tracts of wild land, but rather at the specific habits of thinking that flow from this complex cultural construction called wilderness. It is not the things we label as wilderness that are the problem—for nonhuman nature and large tracts of the natural world do deserve protection—but rather what we ourselves mean when we use that label" (p. 81). "I also think it no less crucial for us to recognize and honor nonhuman nature as a world we did not create, a world with its own independent, nonhuman reasons for being as it is" (p. 87). Sounds like Cronon has gotten right back to wilderness after all.


Cronon, William. Feature article, "An Environmentalist on a Different Path: A Fresh View of the Supposed 'Wilderness' and Even the Indians' Place in It," New York Times, April 3, 1999, p. A15, A17. "The ideal of wilderness is a fantasy and a threat." A fantasy because the American continent was already thoroughly altered by native Americans long before the Europeans came. A threat because wilderness is no model for the human/nature relations, it sets a stark opposition between nature and culture; the needed model is one where humans are to be in harmony with nature. Gary Snyder is not so impressed: "I must confess I am getting a bit grumpy about the dumb arguments being put forth by high-paid intellectual types in which they are trying to knock Nature, knock the people who value Nature and still come out smelling smart and progressive." Cronon is in environmental history at the University of Wisconsin. (v.10,#1)


Crosby, Donald A., A Religion of Nature. Albany, NY: State University of New York Press, 2002. Nature as a proper focus of religious commitment and concern. Nature--envisioned as without God, gods, or animating spirits of any kind--is religiously ultimate. Nature is also metaphysically ultimate, that is, self-sustaining and requiring no explanation for its existence beyond itself. Moreover, humans are viewed as an integral part of nature, natural beings in the fullest sense of the term. They are at home in the natural world, their origin, nature, and destiny lie here and not in some transcendent realm, and their moral and religious responsibilities extend not only to one another and to the human community but to the whole of nature and to all living beings.

Crosby urges us to grant to nature the kind of reverence, respect, love, and devotion we in the West have formerly reserved for God. He explores such topics as the concept of nature, the character and status of natural values, commonalities and differences between humans and other forms of life on earth, and the place of humans in the natural order. Finally, he makes a case for a religion of nature by showing how nature can function as an appropriate focus of religious commitment, responding to six basic objections to a religion of nature, and explaining why nature should be regarded as the ultimate source of and impetus toward goodness in the world. Crosby is professor of philosophy, Colorado State University, emeritus. (v.13,#4)

Crosby, Donald A., "From God to Nature: A Personal Odyssey," Religious Humanism 25 (no. 3, Summer, 1991):107-116. "Human beings, therefore, do not transcend nature in their essential being, as had traditionally been thought and as I myself had long believed, but are product and expression of its immanent powers. For a time I had been attracted to religious humanism as an alternative to theism, but now I began to realize that human beings, as one spin-off of the irrepressibly creative workings of nature, should not be regarded as religiously ultimate in themselves but rather as evidencing, along with other forms of emergent life, the ultimacy of an all-encompassing nature." Crosby is professor of philosophy at Colorado State University, Fort Collins. (v3,#1)


Cross, Frank B. "When Environmental Regulations Kill: The Role of Health/Health Analysis." Ecology Law Quarterly 22(no.4, 1995):729. (v7,#1)

Cross, Frank B., "The Subtle Vices Behind Environmental Values," Duke Environmental Law and Policy Forum 8(1997):151-176. The apparent virtues of environmentalism may obscure a darker underside. Public perceptions of risks associated with the environment are often mistaken and should not be relied on for risk regulation. Public perceptions are selfish and people act in their own self interest, not in community interest. Democracy does not compel reliance on public perceptions. (v.10,#1)

Cross, Frank B. "Natural Resource Damage Valuation." Vanderbilt Law Review 42 (March 1989): 269-341. Natural resource destruction results from the status of public lands as a common good in a capitalist system. Establishing accurate means for valuing natural resources transcends the current procedures. Broadly used, the right to recover natural resource
damages can force the internalization of many pollution costs and thus create a powerful deterrent to future environmental harm. Government action has achieved some success, but the mechanism has inherent limitations and may always trail behind the creative force of the market and the harm that it may cause. The job of protecting natural resources pertains to government functions that are too large, complex, or widely dispersed for government to perform. Instilling private marketplace decisions with a concern for harm to nature is a vital and necessary complement to government intervention in the market. To be truly effective, however, such recovery must cap the full value of harm done to resources. At present, natural resource valuation seriously understates the true social harm done to natural resources. The author proposes better valuation procedures, with special reference to Superfund. Another good example of an article that philosophers should read before they complain that lawyers do not do their philosophical homework. Cross teaches business law in the Department of Management, University of Texas. 


Crosson, Pierre. "Will Erosion Threaten Agricultural Productivity?" Environment 39(no.8, 1997):4. Despite widespread apprehensions to the contrary, erosion does not pose a serious threat to the global agricultural system's capacity to increase future yields. (v8,#3)

Crotty, Sean, Single Track Mind: Cycling and the Evolution of the American Nature Ideal. M.A. thesis in environmental history, Colorado State University, spring 1999. "Americans have constructed a natural idea in which machines are no longer an intruder in the garden, but rather indispensable tools for uncovering and enjoying nature's wonders." (Introduction). This includes automobiles, freeze-dried foods, Gore-tex jackets, cross-country skis, and mountain bikes. 63% of mountain bikers consider themselves environmentalists. They often drive an hour or more to put a $ 1,500 bike into the woods. bicycling has a long history of country cycling, and it can be a means of getting people out of their houses and cars and into more experience of nature, whether on suburban bikeways or mountain trails. The bicycle is, in some situations, "the most benevolent of the machines" (p. 38). "If nature is (socially) constructed, if it is indeed a blank screen awaiting the projection of human values, and if one of those values is technology, then mountain biking has the eco-friendly image that it does because it represents the culmination of an American idea of nature, constructed throughout this century" (p. 59).

Why not then bikes in designated wilderness? Earlier regulations prohibited only "contrivances powered by a non-living power source," but today "mechanized transport" is prohibited (p. 85). Once it was no motors, now it is no gears. But clothing, pocket knives, axes, stoves, metal frame backpacks are o.k., even guns (where hunting is permitted) Or cellular phones, and satellite location devices. Crotty's conclusion is that the no-bikes-in-the-wilderness rule is justified only by degree of adverse impact, were large numbers of bikers to ride the wilderness trails. For the same reasons, horses or Vibram boots could be banned. There is no question of banning technology from the wilderness for purity of wilderness experience; modern humans cannot and will not go there without it. Crotty was formerly a professional mountain bike racer. (v.10,#1)

Crouch, Martha, "The Very Structure of Scientific Research Mitigates Against Developing Products to Help the Environment, the Poor, and the Hungry", Journal of Agricultural and Environmental Ethics 4(1991):151-158. In a debate: Does the very structure of scientific research mitigate against developing products to help the hungry, the poor, and the environment?

Crouch, Martha L. "Biotechnology Is Not Compatible with Sustainable Agriculture." Journal of Agricultural and Environmental Ethics 8(1995):98-111. Biotechnology increases commercialization of food production, which competes with food for home use. Most people in the world grow their own food, and are more secure without the mediation of the market. To the
extent that biotechnology enhances market competitiveness, world food security will decrease. This instability will result in a greater gap between rich and poor, increasing poverty of women and children, less ability and incentive to protect the environment, and greater need for militarization to maintain order. Therefore, biotechnology should be discouraged. An active program to protect and strengthen local food production and to decrease reliance on industrial agriculture should be promoted. (JAEE)


Crowards, Tom, "Nonuse Values and the Environment: Economic and Ethical Motivations," Environmental Values 6(1997):143-167. ABSTRACT: Nonuse values are a potentially very important, but controversial, aspect of the economic valuation of the environment. Since no use is envisaged by the individual, a degree of altruism appears to be the driving force behind nonuse values. Whilst much of the controversy has focused upon measurement issues associated with the contingent valuation method, this paper concentrates on the underlying motivations, whether ethical or economic, that form the basis for such values. Some fundamental aspects of defining and quantifying economic nonuse values are considered, and possible motives for attributing value to the environment are analysed, making a clear distinction between selfish altruism and selfless altruism. The difference has crucial implications for economic valuation and for assessing individuals willingness to pay for environmental quality. The concept of Safe Minimum Standards is introduced as a means of supplementing purely economic methodology to incorporate ethical concerns into decision making. Centre for Social and Economic Research on the Global Environment (CSERGE), University of East Anglia and University College London. (EV)


Crowley, Kate, "A Failed Greening? The Electoral Routing of the Tasmanian Greens," Environmental Politics 8 (No. 4, 1999 Winter): 186- . (v.11,#4)

Crowley, Kate, "Lake Pedder's Loss and Failed Restoration: Ecological Politics Meets Liberal Democracy in Tasmania," Australian Journal of Political Science 34 (no. 3, 1999):409-424. The flooding of Lake Pedder in South West Tasmania for hydro-electricity in the early 1970's is recognized as one of the world's great ecological tragedies. The hope for its restoration, long held by some, has been given impetus by the activities of Pedder 2000, a nation-wide restoration lobby group founded in 1994. The legitimacy, feasibility and desirability of Pedder's restoration has been acknowledged, if not endorsed, by a recent federal inquiry. Restoration proponents see Pedder's recovery not only as a means of making amends for past follies, but as a new millennium project that offers hope to future generations. This paper reviews Pedder's inundation and the efforts towards its recovery, and finds little support for restoration in the absence of compelling economic and political benefit. This is cause to reflect, it is argued, upon the difficulties that ecological politics has encountered within Tasmania that saw Lake Pedder dammed in the first place. Crowley teaches in the Department of Government at the University of Tasmania, Hobart. (v.11,#1)
Crowley, Kate. "Nature: Reinvention, Restoration or Preservation?", Environmental Politics 5(no.2, 1996):367. Crowley teaches political science at the University of Tasmania, Hobart. (v7,#4)


Crumpacker, DW; Box, EO; Hardin, ED, "Implications of Climatic Warming for Conservation of Native Trees and Shrubs in Florida," Conservation Biology 15(no. 4, 2001):1008-1020. (v.13,#1)

Cruz, Wilfredo, Munasinghe, Mohan, Warford, Jeremy. "Greening Development: Environmental Implications of Economic Policies." Environment 38(Jun. 1996):6. Policies to promote economic development can have a profound impact on the environment--including the resource base on which development may depend. (v7,#2)

Csete, Marie E., and Doyle, John C., "Reverse Engineering of Biological Complexity," Science 295(1 March 2002):1664-1669. In a symposium on biological systems. There is a "deep and necessary interplay between complexity and robustness, modularity, feedback, and fragility." Maybe "stability" is no longer in vogue in biological systems, but the new replacement seems to be "robustness." A key is "robustness, the preservation of peculiar characteristics despite uncertainty in components or the environment" (p. 1664). As important as modules are "protocols," "rules designed to manage relationships and processes smoothly and efficiently." "A good protocol is one that supplies both robustness and evolvability" (p. 1666). Robustness is continually at the edge of fragility, as pressures to optimize robustness venture mutants that can result in the collapse of the system. Complex human technological systems, such as a Boeing 777, and complex organisms, such as a flying bird, have more in common than is commonly thought. Csete is in developmental biology, University of Michigan Medical School, Ann Arbor; Doyle is in electrical engineering and bioengineering, California Institute of Technology. Pasadena. (v.13, #3)


Cuaron, Alfredo D., "A Global Perspective on Habitat Disturbance and Tropical Rainforest Mammals.," Conservation Biology 14(no.6, 2000 Dec 01): 1574-. (v.12,#3)


Cudahy, Richard D., "Coming of Age in the Environment," Environmental Law 30 (No. 1, 2000): 15-. Judge Cudahy traces the history of the environmental movement in the United States and concludes with a peek into the future of Environmental law. He questions the direction in which the United States is headed in terms of urban sprawl and also ponders the population dilemma. (v.11,#4)


Cullen, James, A Systems Approach to Environmental Values: Systems Process and the Bifurcation of Nature. Master's thesis, Lancaster University, U.K. 1994. "Our current environmental predicament, it is claimed, is the consequence of what Whitehead called 'the bifurcation of nature'. This crisis is said to have stemmed from Descartes' cogito and to still prevail today. In order to overcome this dualistic worldview, the idea of life as a process is introduced. From this dynamic appraisal, systems thinking is put forward as a fundamentally more organic alternative to mechanistic presuppositions about the world. Non-hierarchical structure is then discussed via an appraisal of the significant relationships that all things have. In conclusion, 'systemic' value is offered as an holistic alternative to the fallacy of simplistic value division and imposition." (v6,#4)


Cunningham, Andrew A., and Daszak, Peter, "Extinction of a Species of Land Snail Due to Infection with a Microsporidian Parasite," Conservation Biology 12(1998):1139-1141. The first documentation of an infection wiping out the last of a species. South Pacific snails are rare in nature. In the Society Island chain, 5,000 km. west of Hawaii, residents imported predatory snails from Florida to eat another imported snail that had become a pest. That was in 1986. But the new import preferred native snails. Scientists from the Zoological Society of London captured the last known individuals of Partula turgida to try to save them through a breeding program, in 1991. But, starting about 1994, the population dwindled from about 300 to 10. Scientists became alarmed, but by the time they found out the trouble, it was too late. The snail became extinct. The cause was a new species of a microsporidian protozoan in the genus Steinhausia that had ravaged the snails digestive tracts. So endangered species recovery programs can be hazardous too. A summary story is Ferber, Dan, "Bug Vanquishes Species," Science 282(9 October 1998):215. Cunningham is at the Institute of Zoology, Regent's Park, London. Daszak is in the School of Life Sciences, Kingston University, Surrey, UK. (v.9,#4)


The entry on "Environmental Ethics" is by Christine B. Jeryan, Gale Research Staff, Project Coordinator. Bibliographic articles on Edward Abbey, Aldo Leopold, Theodore Roszak, Kirkpatrick Sale, E. O. Wilson, Peter Singer, Tom Regan, Holmes Rolston, and J. Baird Callicott (the latter two by Ann Causey), and others. Should be in every library. (v5,#1)


Cuomo, Christine J. "Unravelling the Problems in Ecofeminism." Environmental Ethics 14(1992):351-63. Karen Warren has argued that environmental ethics must be feminist and that feminist ethics must be ecological. Hence, she endorses ecofeminism as an environmental ethic with power and promise. Recent ecofeminist theory, however, is not as powerful as one might hope. In fact, I argue, much of this theory is based on values that are potentially damaging to moral agents, and that are not in accord with feminist goals. My intent is not to dismantle ecofeminism, but to analyze and clarify some of the philosophical problems with recent ecofeminist work and to point out a more promising direction for ecofeminist ethics. Cuomo is in the department of philosophy, University of Cincinnati, Cincinnati, OH. (EE)

Curnutt, Jordan. "How to Argue For and Against Sport Hunting." Journal of Social Philosophy 27, no. 2 (Fall 1996): 65-89. (v8,#2)


Curry, Patrick, "Re-Thinking Nature: Towards an Eco-Pluralism," Environmental Values 12(2003): 337-360. Both scientific realism and social constructionism offer unpromising and even destructive ways of trying to understand nature and human-nature relations. The reasons include what these apparent opponents share: a commitment to the (latterly) modernist division between subject/culture and object/nature that results from what is here called 'monist essentialism'. It is contrasted with 'relational pluralism', which provides the basis of a better alternative - ecopluralism - which, properly understood, is necessarily both ecocentric and pluralist. (EV)
Curry, Patrick, "Redefining community: Towards an ecological republicanism," Biology and Conservation 9(2000):1059-1071. Abstract. This paper makes some suggestions for a concept of community which arguably satisfies the most important criteria for both human communities, as defined in the social sciences and humanities, and natural communities, as defined in ecology and biology. Beginning with the former, I arrive at two such criteria: (1) a material and social connection, among members, and (2) some kind and degree of awareness of other members. These are then supplemented with a third drawn from civic republicanism, with its focus on citizenship and the common good: communities (3) enable and require certain practices for their maintenance. Turning to ecological definitions of community, I find the dominant (reductionist) one seriously deficient as compared with a more holist and ecosystemic approach. However, I invoke a nonreductive holism to defend the idea of community, and go on to argue that each of the three above-mentioned criteria can be fruitfully extended to include both social and ecological communities in a nonreductionist way—that is, in a way that neither reduces ecosystemic properties to individual organisms nor the reverse. This culminates in a discussion of what I call ecological republicanism, which I suggest could have powerfully positive effects on the contemporary crisis of undue human impact on the natural world. Key words: community, ecological republicanism, reductionism, the common good, virtue. Curry lives at 10 Burnand House, Redan Street, London W14 OLW, UK. (v.13,#1)

Curry, Patrick, Ecological Ethics: An Introduction. Cambridge: Polity Press, 2006. A wide-ranging and pithy introduction, accessible to those who know little about the field and are willing to think seriously and philosophically. "This book therefore doesn't advocate ethics by >extension' from human beings through other animals. ... Rather, I start from the belief, or perception, that nature—which certainly includes humanity—is the ultimate source of all value. ... So, as Richard Sylvan and David Bennett put it, >the ecological community forms the ethical community'." (p. 2). Curry is good at getting some angle on truth from diverse positions and keeping a balancing act as he pursues his way through "light green or shallow (anthropocentric) ethics" (Chapter 6), "mid-green or intermediate ethics" (Chapter 7) to reach a "dark green or deep (ecocentric) ethics" (Chapter 8). He has also a serious interest in an "ecocentric spirituality" (Chapter 9). Curry is at the Sophia Centre, Bath Spa University, UK.


Curry, Patrick. "Redefining Community: Towards an Ecological Republicanism," Biodiversity and Conservation 9(no. 8, 2000):1059-1071. Abstract. This paper makes some suggestions for a concept of community which arguably satisfies the most important criteria for both human communities, as defined in the social sciences and humanities, and natural communities, as defined in ecology and biology. Beginning with the former, I arrive at two such criteria: (1) a material and social connection among members, and (2) some kind and degree of awareness of other members. These are then supplemented with a third drawn from civic republicanism, with its focus on citizenship and the common good: communities (3) enable and require certain practices for their maintenance. Turning to ecological definitions of community, I find the dominant (reductionist) one seriously deficient as compared with a more holist and ecosystemic approach. However, I invoke a nonreductive holism to defend the idea of community, and go on to argue that each of the three above-mentioned criteria can be fruitfully extended to include both social and ecological communities in a nonreductionist way—that is, in a way that neither reduces ecosystemic properties to individual organisms nor the reverse. This culminates in a discussion of what I call ecological republicanism, which I suggest could have powerfully positive effects on the contemporary crisis of undue human impact on the natural world. Key words: community, ecological republicanism, reductionism, the common good, virtue.

Christians hold differing views that affect their attitudes toward the environment. Dispensationalism tends to use ecological deterioration as a gauge to predict Christ's return and the end of the present age. Postmillennialism teaches that the natural and human world will improve up to Christ's return and puts responsibility on Christians for that improvement. Amillennialism and Historic Premillennialism teach that the possibility of ecological and social improvement is limited in the present age though Christians are to attempt to heal the Earth's wounds to show evidence of a future renewed Earth." Roper is professor of geography at the Central University of Iowa, Pella.

Curtin, Deane, "A State of Mind Like Water: Ecosophy T and the Buddhist Traditions," Inquiry 39(no. 2, June, 1996):239-253. Arne Naess has come under many influences, most notably Gandhi and Spinoza. The Buddhist influence on his work, though less pervasive, provides the most direct account of key deep ecological concepts such as Self-realization and intrinsic value. I read Ecosophy T as a rigorously phenomenological branch of Deep Ecology. Like early Buddhism, Naess responds to the human suffering that causes environmental destruction by challenging us to return to the reality of lived experience. This Buddhist reading clarifies, but it also complicates. It reaffirms Naess's essential vision, but it challenges him at two points: first, to affirm that Self-realization is a process of co-realization with all beings, not just with sentient beings. Second, while this reading accepts that humans do not create the value of nature, it questions whether its value is best expressed in terms of the 'intrinsic value' of radical environmental ethicists." Curtin is at Gustavus Adolphus College, St. Peter, MN.


Curtin, C. G., "Integration of Science and Community-Based Conservation in the Mexico/U.S. Borderlands," Conservation Biology 16(no.4, 2002): 880-86. (v.13,#4)

Curtin, Deane, Chinnagounder's Challenge: The Question of Ecological Citizenship. Bloomington: Indiana University Press, 1999. Environmental ethics with a focus on the third world. The arguments used in the West are often out of context in other cultures. Systematic features of the ways we in the West tend to organize moral experience encourage us to believe we have understood profoundly different cultures when we do not. In result, when we try to help, we fail. Nature and culture; living at the margins. The British utilitarians and the invention of the "Third World." The politics of agricultural "modernization." Gandhian legacies: indigenous resistance to "development" in contemporary India and Mexico. Recognizing women's environmental expertise. Radical first world environmental philosophy: a new colonialism? Callicott's land ethic. (Callicott is too monist; not pluralist enough; despite his claimed multiculturalism, in his monist zeal, "Callicott simply wipes entire continents off the map of environmental ethics" (p. 112). Ecosophy T and the Buddhist tradition. Ecological feminism and the place of caring. Democratic discourse in a morally pluralistic world. Putting down roots: ecocommunities and the practice of freedom.

Chinnagounder appears late in the book, a old man, over a hundred years old, in a village in India, who lives in the back of a stable on sheets of cardboard, and asks disconcerting questions. Curtin is in philosophy, Gustavus Adolphus College, St. Peter, MN.

Curtin, Deane, "Dogen, Deep Ecology, and the Ecological Self." Environmental Ethics 16(1994):195-213. A core project for deep ecologists is the reformulation of the concept of self. In searching for a more inclusive understanding of self, deep ecologists often look to Buddhist philosophy, and to the Japanese Buddhist philosopher Dogen in particular, for inspiration. I argue that, while Dogen does share a nondualist, nonanthropocentric framework with deep ecology, his phenomenology of the self is fundamentally at odds with the expanded Self found in the deep ecology literature. I suggest, though I do not fully argue for it, that Dogen's account of the self is
more sympathetic to one version of ecofeminism than to deep ecology. Curtin is in philosophy, Gustavus Adolphus College, St. Peter, MN. (EE)

Curtin, Deane. "Making Peace with the Earth: Indigenous Agriculture and the Green Revolution." Environmental Ethics 17(1995):59-73. Since its inception in the years following World War II, the green revolution has been defended, not just as a technical program designed to alleviate world hunger, but on moral grounds as a program to achieve world peace. In this paper, I dispute the moral claim to a politics of peace, arguing instead that the green revolution is warist in its treatment of the environment and indigenous communities, and that the agricultural practices that the green revolution was designed to supplant principally indigenous women's agriculture are forms of ecological peacemaking, akin to pacifism. I argue, as well, that the warist intentions of the green revolution are characteristic of a form of domination called developmentalism. A complete understanding of domination necessitates linking developmentalism with other forms of domination such as racism, sexism, and naturism. Curtin is with the philosophy department, Gustavus Adolphus College, St. Peter, MN. (EE)


Curtis, John A., "Ethics in Wildlife Management: What Price?" Environmental Values 11(2002):145-161. This paper argues that there may be instances where assessing wildlife for monetary valuation might be quite reasonable and useful for public policy, even when there are strong arguments against valuation of wildlife and nature. A case of deer population management is considered where continued growth of the deer population will lead to more property damage and habitat loss. However, deer population control raises ethical questions on the rights of animals to exist and on the rights of humans to arbitrarily interfere. The contingent valuation methodology (CVM) is used to value preferences for deer management for the purpose of guiding public policy. The valuation estimates show that ethical concerns about killing deer affect the level of willingness to pay in a quite a logical manner. However, for individuals with rights-based preferences, CVM is not appropriate. The survey results also show that individuals with rights-based preferences are a small minority in this particular example. (EV)

Curtis, Mark. "The Ambiguities of Power: British Foreign Policy Since 1945." The Ecologist 26, no.1 (1996): 5. Britain's dealings with the Third World are generally assumed to be motivated by a desire to promoting democracy, human rights and economic well-being. However, a close scrutiny of Britain's foreign policy since 1945 reveals a very different story. Far from being benevolent, Britain has consistently contributed to economic and political oppression. (v7, #3)
Curtis, Allan, De Lacy, Terry, "Landcare, Stewardship and Sustainable Agriculture in Australia," Environmental Values 7(1998):59-78. There are over 2,500 Landcare groups with 65,000 members operating across Australia. With considerable evidence of program impact, Landcare is an important example of state sponsored community participation in natural resource management. However, the authors suggest excessive emphasis has been placed upon attitudinal change - the development of landholder stewardship, as the lever for effecting major changes in land management. Analysis of data from a landholder survey failed to establish predicted stewardship differences between Landcare and non-Landcare respondents or between those who joined early/late, or participated more/less in group activities. And there was no relationship between stewardship and adoption for most of the sustainable agriculture practices surveyed. Further analysis clearly linked Landcare participation and concern about the environmental and economic impacts of land degradation. Whilst respondents were significantly more concerned about economic impacts, research findings were consistent with earlier work indicating that most land managers have a strong stewardship ethic. The authors also suggest that concerns that Landcare is not addressing biodiversity conservation are largely unjustified and reflect unrealistic expectations of these voluntary groups. KEYWORDS: Landcare, stewardship ethic, sustainable agriculture, Australia, community participation, rural development. Allan Curtis is at Charles Sturt University. Terry De Lacy is at University of Queensland. (EV)


Curtis, Stanley E., "Future Directions of Science and Public Policy", Journal of Agricultural and Environmental Ethics 6(1993). The issue of farm animal welfare today is very complex. Increasing the welfare-supportive quality of an animal production system usually increases production cost. In already adequate animal environments, there is little profit incentive - and likewise little moral imperative - to increase environmental quality. But activists do not seek adequate or optimal remedies; they seek maximal animal well-being. Nevertheless, in reality, this begs compromise, so political debate is inevitable. Advocates on one side tend to let feelings lead them to argue that common sense should suffice to guide lawmakers to regulate production practices strictly, while those on the other side tend to argue that producers are doing as well as possible. Both sides seem to ignore the fact that scientific knowledge of farm animal well-being is attainable and should serve as the basis for discussion. In the United States a political solution may soon determine farm animal care practices and procedures. Instead of this, we need to ask the animals to answer questions such as "how big should the pen be?" through scientific experiments. Until we can answer such questions with authority, we have no business passing laws and writing regulations setting design specifications for animal accommodations. Establishment of such regulations now would be premature. We need more information about what constitutes animal well-being - particularly psychological aspects. It matters not what anyone might think constitutes that state. What it takes is what it takes, regardless of what anybody opines. We need to increase our knowledge of animal well-being so that some day we can formulate design specifications. Curtis is in the Department of Dairy and Animal Science, College of Agricultural Sciences, The Pennsylvania State University, 324 William L. Henning Building, University Park, Pennsylvania 16802.


reserves along the western flank of Kruger National Park—Sabi Sand, Timbavati, Manyeleti, and Klaserie—have luxury lodges for high priced ecotourism and close encounter with wildlife. The lodges try to use local materials, labor, and supplies, and claim that they are committed to sound environmental principles, hoping to give credence to the term ecotourism. Fences have come down between the park and the reserves; animals roam where they will. Reserve managers have been following the advice of ecologists in the restoration of lands once degraded by cattle. Ecotourism is a major factor in earning foreign exchange. Still, there is the criticism of a high paying international elite enjoying wildlife while masses of the poor blacks are not far away. Meanwhile, wildlife viewing is much cheaper at nearby Kruger Park. Curzon is a free lance journalist. (v6,#3)

Cushman, John H. Jr., "Scientists are Turning to Trees to Repair the Greenhouse," New York Times, March 3, 1998. Planting trees is by no means the whole solution, but it can be an important part of it. (v9,#1)

Cushman, John, "Buried in Measure on Toxic Waste: One Special Offer," New York Times (9/5/97): A1. Superfund revision would prohibit compensation for lost intrinsic value. One of the sticking points in the attempt to reauthorize the Superfund toxic waste law concerns whether companies can be sued for damage to the intrinsic value of natural resources and whether they can be forced to try to restore them. Montana Senator Max Baucus objected to a proposed weakening in the Superfund law by saying it "completely overlooks the intrinsic value of a remote mountain wilderness." The revision would prohibit seeking damages for intangible environmental values that cannot be easily priced. The Assistant Attorney General of New York argues that "unique resources are valuable to society not only for their actual uses as parks, waterways or recreational facilities, but because they just are." A spokesperson for a coalition of industry groups opposed to penalties for long-term environmental restoration says that some lawsuits "are going to attempt to compute the value to the squirrel of having to eat acorns instead of walnuts while restoration is occurring, or the value to a robin of eating bugs instead of worms--and to file claims for the robin's pain and suffering." (v8,#3)

Cushman, John H., Jr., "Courts Expanding Effort to Battle Water Pollution: New Enforcement Tactic," New York Times, National, March 1, 1998, p. 1, p. 16. A hitherto little used provision in the 1972 Clean Water Act allows states to measure water pollution more broadly, including nonpoint sources, and to impose across-the-board limits on pollution from all sources until clear water standards can actually be met. Courts are now tending to uphold this aspect of the law, which means that all development can be held up until the nonpoint source problem is addressed. (v9,#1)

Cushman, John, "One Million Acres of Wetlands Was Lost From 1985 to 1995, Despite New Protections," New York Times (9/18/97): A18. Wetlands Loss Continues. Despite a nearly decade-old policy of no-net loss of wetlands, between 1985 and 1995, the U.S. lost a total of over 1 million acres of wetlands (1600 square miles). One half of this loss occurred in the Southeast. The ten year loss was 1 percent of total wetlands in the 48 contiguous states, which have lost 50 percent of their wetlands since colonial times. There once were over 200 million acres in the "lower 48 states"; now 100 million acres remain (Alaska has 170 million acres left). Fortunately, the rate of wetland loss is slowing: From 1965 to 1975 the loss was 5 million acres and from 1975 to 1985 the loss was 3 million acres. Still, 100,000 acres are lost a year. Of particular concern are the forested wetlands of the Southeast. In the last decade, 2.5 million acres of swamp were lost, 5 percent of the 50 million acres of swamp remaining. Much of this isn't reflected in the overall loss statistics, because after they are logged, shrubs may remain and this type of wetland (shrub wetland) actually increased in the ten year period, offsetting other losses. Many forested wetlands were drained entirely and converted to pine farms or croplands. Other increases in wetlands include freshwater ponds (e.g., development retention ponds and water traps on golf courses and agricultural fields). Wetlands provide a number of
important functions including flood control, pollution filtering, protection from erosion, and wildlife nursery and habitat. (v.8,#4)

Cushman, John, "Pollution Policy is Unfair Burden, States Tell E.P.A.,” New York Times (5/10/98): A1. Debate over policy to stem environmental racism. A U.S. Environmental Protection Agency (EPA) policy aimed at lessening the disproportionate burden of pollution endured by poor and minority communities has provoked a strong reaction from State environmental agencies and business groups. The EPA's office of civil rights has issued guidelines suggesting that if a pollution permit issued by a state contributes to a pattern of disproportionate pollution in a minority neighborhood, then it may be treated as a violation of the anti-discrimination provisions of the Civil Rights Act of 1964. Thus even if pollution permits that states issue to businesses passes all the ordinary tests of environmental laws, states could face a loss of Federal money or a possible a lawsuit if such permits contribute to environmental injustice. A U.S. Chamber of Commerce official objects that the policy runs counter to Federal programs designed to bring jobs and economic opportunities to low-income and minority areas and that it undermines the effort to clean-up closed contaminated industrial sites and build factories there. Over 50 complaints challenging the location of incinerators, dumps, and factories have been filed over the last 5 years. . Environmental justice advocates think the policy is too weak and should make it clear that discrimination can occur not just by exposure to pollutants but also by increase in health risks, changes in land values, and the stigma of living near undesirable installations. (v.9,#4)

Cushman, John H., Jr. [New York Times News Service], Lexington [KY] Herald-Leader, 10 May 1998, A6. Challenges to the EPA policy against environmental racism. State governments and major industrial groups are challenging the EPA-Clinton administration policy against placing an unfair share of incinerators, dumps, and other sources of pollution in poor and minority neighborhoods. The opponents to the policy claim it will hamstring state and local governments, encourage frivolous lawsuits, and discourage companies from locating in depressed areas. (v9,#2)

Cushman, John H., Jr., "One Million Acres of Wetlands Was Lost From 1985-1995, Despite New Protections," New York Times, Sept. 18, 1997, p. A18. Wetlands Lost. One million acres of wetlands was lost in the continental U.S. from 1985-1995, despite new protections, according to a U.S. Fish and Wildlife survey. The losses on agricultural lands were especially surprising, 965,000 of these acres, indicating lack of enforcement of wetland protections on the farm. Still, many interpreted the report as good news, since losses in the previous decade, 1975-1985 were three million acres. The loss was about one percent of the wetlands that remain in the lower 48 states, which now have less than half the wetlands that existed in Colonial times. (v8,#3)

Cushman, John, "Cuts Sought in Wasteful Fish Kills," New York Times (1/13/98): B12.Wasteful fishing practices. Because of indiscriminate commercial fishing practices, more than 20 million tons of fish, a quarter of all fish caught worldwide, are wastefully killed and discarded each year. Conservation and sports groups are pushing the National Marine Fisheries Service to reduce the "bycatch" in the American fishing industry by 75% by 2005. Recent changes in fisheries law requires the Federal Government to rebuild all depleted fish populations within 10 years (if biologically feasible), and this includes minimizing by-catch. The groups are calling for severe restrictions on the use of drifting long lines, as well as additional gear for Gulf of Mexico shrimpers, who kill an estimated four pounds of finfish for every pound of shrimp they take in. (v9,#2)


Cyber Activism: The Potential and the Price, *Environmental Action* 27 (no. 3, Fall 1995):11-25. Special section on computers and the environment: ecollingking and networks, promoting environmental causes, watching legislation, databases, rich and poor and computing access, the Third World and computers, toxic chemicals in manufacturing chips and where they end up, telecommuting and reduced automobile emissions, though perhaps added urban and rural sprawl, a big Intel plant near Albuquerque, New Mexico, and its environmental problems, energy efficiency on computers, re-cycling of computers and components, computers and paper use and trees lost or saved. Articles by half a dozen authors. Good introduction to the issues in the field.


Czech, Brian, and P. R. Krausman. 2001. *The Endangered Species Act: History, Conservation Biology, and Public Policy*. Baltimore. MD: Johns Hopkins University Press, 2001 240 pp. ISBN 0-8018-6504-2, $26.00, pb A comprehensive analyses of the Endangered Species Act, using "policy design theory", developed in the 1990s by political scientists Anne Schneider and Helen Ingram. Part 1: Overview of current ESA controversies, followed by a history of species endangerment in the United States and the sociopolitical response. Part 2: A policy design analysis of the ESA, beginning with a layout of the ESA's structure and an assessment of the assumptions of the ESA authors. Next, the allocation of recovery efforts among threatened and endangered species is assessed using a "social construction/political power matrix". The technical legitimacy of the ESA is assessed, with particular attention paid to the prioritization of species for conservation. The socioeconomic context of the ESA is described using an assessment of the causes of species endangerment, and the implications of the ESA to American democracy (and vice versa) are discussed. Special attention is given to property rights. The authors conclude that the ESA is an implicit prescription for a steady state economy of sustainable size. (v.12,#4)


Americans. Once the motives of the liquidators and the effects of their behavior are revealed, the steady state class will begin to castigate the liquidating class. Increasingly informed by the ecological economics movement in academia, will lead to the establishment of a steady state, sustainable economy. (v.12,#4)

Czech, Brian, et al (20 others, including a study group of the Wildlife Society), "The Iron Triangle: Why The Wildlife Society Needs to Take a Position on Economic Growth," Wildlife Society Bulletin 31(no. 2, 2003):574-577. Powerful forces exist who do not want the public to think there is a conflict between economic growth and wildlife conservation. But there is, and wildlife professionals need to address that conflict. An "iron triangle" exists; one side is special interest groups, one side is supportive political factions, and the third side is professional agencies, usually in the government; the triangle locks out other views. Neoclassical economists typically argue that there is no conflict between economic growth and wildlife conservation, but ecological economists say there is. The Wildlife Society needs to speak up. Czech is a wildlife biologist with the U.S. Fish and Wildlife Service, National Wildlife Refuge System, and chair of The Wildlife Society's Working Group for the Steady State Economy.


Daedalus: Journal of the American Academy of Arts and Sciences. Theme issue on: "The Liberation of the Environment", 125(no.3, 1996). The authors seem remarkably unfamiliar with environmental philosophy, beginning with the title of the theme issue and continuing throughout, with the exception of Klaus Meyer-Abich. Contains:

--Frosch, Robert A. "Toward the End of Waste: Reflections on a New Ecology of Industry", p.199.
--Starr, Chauncey. "Sustaining the Human Environment: The Next Two Hundred Years", p.235. (v7,#4)
Daehler, CC; Denslow, JS; Ansari, S; Kuo, HC, "A Risk-Assessment System for Screening Out Invasive Pest Plants from Hawaii and Other Pacific Islands", Conservation Biology 18 (no.2, 2004): 360-368.

Dagget, Dan, "Death for the Bear," Harrowsmith's Country Life, December 1990. High-tech bear hunting, with radio telemetry computerized hounds, high-powered four-wheel drives, high-powered telescopic rifles, infrared night scopes, video-enhanced images, including the latest guerilla weapons, and all the rest. Fair chase? Nobody asks when a fast-paced business executive wants a bear quick over a weekend. Nor do many ask what this is doing to the bear populations. Dagget is conservation chairman of the Sierra Club of Northern Arizona and writes guidebooks for the United States Forest Service. (v1,#4)


Dahlberg, Kenneth A., "The Value Content of Agricultural Technologies and their Effect on Rural Regions and Farmers", Journal of Agricultural Ethics 2(1989):87-96. The premise of this article is that technologies are not neutral in terms of their design objectives, their scale, and the fact that they reflect the physical and social environments in which they have developed. The articles also examines a series of major threats such as climate change that require the rethinking and restructuring of agriculture along more sustainable lines. Dahlberg is in political science at Western Michigan University, Kalamazoo.

Daigle, J. Douglas, The Role of a Planetary Narrative in Environmental Ethics. Master's thesis at Colorado State University, spring 1993. Narrative as forming the larger unitary framework in which to understand nature and the human place in nature, with a sense of present crisis in the planetary store. The concluding chapter is on oceans interpreted as the common heritage of humankind and their role in contributing to a sense of global history. (v3,#4)

Dailey, Gretchen and a dozen others, "Food Production, Population Growth, and the Environment," Science 281(28 August 1998):1291-1292. World population has increased at a historically high average rate of 1.8% annually since 1950, but cereal production has more than kept pace. Global statistics are misleading, however. One has to look at food production through a local lens. The increased production may not be sustainable, and the social costs of such production, counting hidden costs, often exceed the market prices. The purchasing power of the poor may be so weak that they are undernourished, even if there are ample supplies. More green accounting and genuine progress indicators are needed. (v.9,#4)

Daily, Gretchen C., ed. *Nature’s Services: Societal Dependence on Natural Ecosystems*. Covelo, CA: Island Press, 1997. 416 pp. $49.95 cloth, $24.95 paper. Scientists from a variety of disciplines examine the character and value of ecosystem services, the damage that has been done to them, and the consequent implications for human society. (v8,#2)

Daily, Gretchen C. "Restoring Value to the World's Degraded Lands." *Science* 269(1995):350-354. About 43% of Earth's terrestrial vegetated land has diminished capacity to supply benefits to humans because of degradation, a reduction in benefits of about 10%. If present trends continue the reduction in benefits could reach 20%. Alternatively, with restoration, the reduction in benefits could be only 5%. Capitalizing on natural recovery mechanisms is urgently needed to prevent further irreversible change. (v6,#3)

Daily, Gretchen C., and Katherine Ellison, *The New Economy of Nature: The Quest to Make Conservation Profitable*. Washington, DC: Island Press, 2002. Natural "labour" has historically been taken to be "free." But the services of nature are worth a great deal. And it can cost a lot of money to forget this. Reviewed by Tim Rosser, *Environmental Values* 13(2004):139-140. (EV)

Daily, Gretchen and Ellison, Katherine, *The New Economy of Nature: The Quest to Make Conservation Biology Profitable*. Covelo, CA: Island Press, 2002. Conserving natural habitats for one year instead of developing them for human use would save humanity $ 250 billion that year and every year thereafter, according to a group of British and American ecologists. Cost-benefit analysis is a sound basis for environmental policy. (v.13, #3)

Daitch, Vicki, et al., "Personal Environmental Histories: Expressions of Self and Place," *Human Ecology Review* 3(no. 1, 1996):19-31. Ten individuals interviewed, analyzed, active and passive orientations to the environment, and a distinct array of nature experiences. The authors are at the Institute for Environmental Studies, University of Illinois at Urbana-Champaign. (v.13,#1)


Dale, VH; Joyce, LA; McNulty, S; Neilson, RP; Ayres, MP; Flannigan, MD; Hanson, PJ; Irland, LC; Lugo, AE; Peterson, CJ, "Climate Change and Forest Disturbances," *Bioscience* 51(no, 9, 2001): 723-734. (v.13,#1)


Dale, Virginia H., and Haebuer, Richard A., eds., *Applying Ecological Principles to Land Management*. New York: Springer-Verlag, 2001. Grows out of the work of a committee established by the Ecological Society of America to study how ecologists can help make effective decisions on land management. Major ecological principles. Guidelines for using the principles. A dozen major case studies: wildlife habitat in the Western U.S.; land management across mixed ownerships; tribal habitats in the Eastern Ghats of India; tiger reserves; riparian restoration of large rivers; farming in the Brazilian Amazon; agricultural watersheds; and more. One motif is that ecological principles alone cannot sustain nature; cultural principles must be included. But equally people without nature are also unsustainable. Dale is with the Environmental Sciences Division, Oak Ridge National Laboratory, Oak Ridge, TN. (v.12,#4)
Dale, Virginia H., et al (8 others), "Ecological Guidelines for Land Use Management." Pages 3-33 in Dale, Virginia H., and Haeuber, Richard A., eds., Applying Ecological Principles to Land Management. New York: Springer, 2001. A report from the Ecological Society of America. "Five principles of ecological science have particular implications for land use and can assure that fundamental processes of the earth's ecosystems are sustained. These ecological principles deal with time, species, place, disturbance, and the landscape. The recognition that ecological processes occur within a temporal setting and change over time is fundamental to analyzing the effects of land use. In addition, individual species and networks of interacting species have strong and far-reaching effects on ecological processes. Furthermore, each site or region has a unique set of organisms and abiotic conditions influencing and constraining ecological processes. Disturbances are important and ubiquitous ecological events whose effects may strongly influence population, community, and ecosystem dynamics. Finally, the size, shape, and spatial relationships of habitat patches on the landscape affect the structure and function of ecosystems. The responses of the land to changes in use and management by people depend on expressions of these fundamental principles in nature" (p. 24). The authors also lament that ecosystem principles are seldom considered in land use decisions affecting private land, with cumulative, detrimental, long-term effects, difficult to reverse.


Dallmeyer, Dorinda, and Ike, Albert, eds. Environmental Ethics and the Global Marketplace. Athens, GA: University of Georgia Press, 1998. 184 pp. Ike is chair of the Environmental Ethics Certification Program at the University of Georgia and Associate Vice President for Service and Outreach. Dallmeyer is research director of the Dean Rusk Center for International and Comparative Law, University of Georgia, School of Law. Contents include:

Forward: Andrew Young

--Sagoff, Mark, "Is the Economy Too Big for the Environment?", pp. 31-61.


--Skrbina, David, "The Ethics of Free Trade," pp. 140-152.
--Ike, Albert, and Dallmeyer, Dorinda G., "Where Do We Go from Here?", pp. 165-168. (v.9,#3)
Dallmeyer, Dorinda G., ed., *Values at Sea: Ethics for the Marine Environment*. Athens: University of Georgia Press, 2003. Relatively little attention has been given to environmental ethics at sea, but the sea is largely unregulated by law; therefore at sea ethical conviction could be more important than on land. Fifteen papers by an interdisciplinary group of scholars. Marine life; indigenous peoples' knowledge and stewardship, endemic and exotic species, aquaculture, oil spills, species protection. Dallmeyer is in law, University of Georgia.

Dalmiya, Vrinda. "Cows and Others: Toward Constructing Ecofeminist Selves." I examine the kind of alliances and ironic crossing of borders that constitute an ecofeminist subjectivity by appeal to a postcolonial literary imagination and ahistorical philosophical argumentation. I link the theoretical insights of a modern short story "Bestiality" with a concept of "congenital debt" found in the ancient Vedic corpus to suggest a notion of ecological selfhood that transforms into the idea of a "gift community" to encompass nonhumans as well as people on the fringes of society, but without the usual problems associated with such a two-pronged extensionism. *Environmental Ethics* 24(2002):149-168. (EE)


Dalton, Russell J., *The Green Rainbow: Environmental Groups in Western Europe*. New Haven: Yale University Press, 1994. 300 pages. $ 35. What has produced the greening of European politics, and what is the future of the green movement. Environmental groups as important new participants in the contemporary political process. Dalton is at the University of California, Irvine. (v5,#3)

Dalton, D. and J. Barraclough. *One Earth, Two Worlds*. Atlantic Highlands, NJ: Humanities Press, 1996. Full-color case studies look at environmental issues from the point of view of the poor, those who depend on the environment more directly and are more immediately affected by its deteriorations. (v7,#1)


Daly, Herman, "The Perils of Free Trade," *Scientific American*. November 1993, 50-57. (v6,#2) Economists regularly ignore its hidden costs to the environment and to the community.

Daly, Herman E., "Globalization and its Discontents," *Philosophy and Public Policy Quarterly* 21(no. 2/3, Spring/Summer 2001):17-21. Globalization, the effective erasure of national boundaries for economic purposes, risks standards-lowering competition, an increased tolerance of mergers and monopoly power, intense national specialization, and excessive monopolization of knowledge. The better alternative to globalization is internationalization, which advocates that the basic unit of community and policy remain the nation. (v.13,#1)


Daly, Herman E., "Allocation, Distribution, and Scale: Towards an Economics that is Efficient, Just, and Sustainable," *Ecological Economics* 6(1992):185-193. The practical policy of issuing tradeable permits for depletion and pollution requires for its implementation the clear separation of the three basic economic goals of efficient allocation, equitable distribution, and sustainable scale. Economic theory needs to catch up with policy in recognizing that scale issues cannot be reduced to either allocation or distribution. Daly is at the School of Public Affairs, University of Maryland. (v8,#2)

Daly, Herman reviews David Ehrenfeld's *Beginning Again: People and Nature in the New Millennium* in *Conservation Biology* 7(1993):736-738. Among his observations: "The case for preserving biodiversity is based on an appeal to some combination of instrumental and intrinsic value. But biology also teaches that the whole show was a big accident and that all the differentiated parts, ourselves included, are little accidents, all produced by random mechanical causation with no purpose or final causation admitted. Is it possible, really, to love an accident? Is it possible to save what we cannot love? If biologists continue to insist that we must substitute the idea of `Accident' for the idea of `Creation,' then they really undercut their own pleas for the preservation of biodiversity beyond the most short-run instrumental arguments. If `biophilia' is really genetically programmed into us, then why are we killing other species wholesale? This is not to deny the important role of chance and necessity, of evolution, in the practical working of Creation. But the assumption that the biologist's `central dogma' is sufficient to require the substitution of Creation by Accident is past due for serious rethinking. ... I hope that biologists will not, in their descriptions and explanations of the living world, abstract so completely from the immediate and universal experience of purpose that they are in the end left with no basis in their own science to support their pleas for political action to conserve biodiversity." Daly is an economist with the World Bank's environmental department. (v4,#4)

Daly, Herman E. and John B. Cobb, Jr., *For the Common Good: Redirecting the Economy Toward Community, the Environment, and a Sustainable Future* (Boston: Beacon Press, 1989, revised edition, 1994). Pp. viii, 482. A major criticism and restructuring of economic and political thinking regarding environmental policies. The book contains extensive recommendations for policy change. The central concern is the shift from an economics based on individual human demands to an economics based on social community. For the student of environmental philosophy, the key argument then focuses upon the definition or extent of community: is the biosphere and its natural entities part of the community for which sustainable and beneficial economic policies will be implemented? Daly and Cobb deny the possibility of the biosphere being a member of the community, but they permit humans to characterize their involvement in the biosphere as a membership in a larger community. This characterization creates a "biocentric vision" that can shape economic policy (pp. 202-03). (Katz, Bibl # 2)

Daly, Herman E. and John B. Cobb, Jr. *For the Common Good: Redirecting the Economy toward Community, the Environment, and a Sustainable Future* (Boston: Beacon Press, 1989, revised edition, 1994). This book, jointly authored by an economist and a theologian, was in manuscript the focus of several symposia, and is likely to prove a major contribution to the effort to achieve a sustainable, conservation oriented economy. Daly is now with the World Bank and Cobb is at Claremont School of Theology. (v1,#1)

Daly, Herman E. *Beyond Growth: The Economics of Sustainable Development*. Boston: Beacon Press, 1996. "Although there is an emerging political consensus on the desirability of something called sustainable development, this term—touted by many and even institutionalized in some places—is still dangerously vague. Apparent agreement masks a fight over what exactly "sustainable development" should mean—a fight in which the stakes are high" (p. 1). Part I. Economic Theory and Sustainable Development. Part II. Operational Policy and Sustainable Development. Part III. National Accounts and Sustainable Development. Part IV. Population and Sustainable Development. Part V. International Trade and Sustainable Development. Part VI. Two Pioneers in the Economics of Sustainable Development (Frederick Soddy and Nicholas
Georgescu-Rogers). Part VII. Ethics, Religion, and Sustainable Development (Biblical economics and the sustainable economy, and how to move from religious insight to ethical principle and public policy). Anything written by Herman Daly is worth reading by philosophers (as well as by economists and everybody else). Daly is in economics at the University of Maryland.

Anyone who doubts the clout of establishment economics should read Daly's note about the history of his manuscript. Solicited by MIT, it was accepted by MIT Press; five reviewers said publish it. But a distinguished economist on their advisory committee killed it, after a contract had been issued (p. 225). (v8,#1)

Daly, Herman E. "On Wilfred Beckerman's Critique of Sustainable Development." Environmental Values 4(1995):49-55. Beckerman's discussion of sustainable development (Environmental Values 3: 191-209) provides some useful clarifications, and a good occasion for making a few more. Since I advocate what he calls the 'sustainability as constraint' position, I will move straight to it..... Daly is in the School of Public Affairs, University of Maryland. (EV)


Daly Herman E., and John B. Cobb, Jr., AISER. The 'Debunking' Interpretation and the Person-in-Community Paradox: Comment on Rafael Ziegler, @ Environmental Values 16(2007): 287-288. Reply to article APolitical Perception and Ensemble of Macro Objectives and Measures: The Paradox of the Index for Sustainable Economic Welfare@ by Rafael Ziegler in Environmental Values vol.16 no.1, pp.43-60. Daly is in the School of Public Policy, University of Maryland, College Park, MD. Cobb is at Claremont School of Theology, Claremont, CA.


D'Amato (D'Amato), Anthony. "Do We Owe a Duty to Future Generations to Preserve the Global Environment?" American Journal of International Law, 1990. 84:195-198. (v8,#3)
Damodaran, A., "The Project Tiger Crisis in India: Moving Away from the Policy and Economics of Selectivity," *Environmental Values* 16(2007): 61-77. This paper discusses the economic and philosophical inadequacies that have characterised the Project Tiger scheme in India. Launched in the 1970s to protect the habitats of the Royal Bengal Tiger, Project Tiger has over time evolved into a management system that has abstracted the tiger from its habitat by highlighting its charismatic functions. However the abstraction has also caused the tiger to be valued for its narrow consumptive uses. By comparison the habitats that have nurtured the tiger have received less attention. The paper critiques partial equilibrium frameworks that have attempted to value a tiger in terms of demand and supply functions rather than as an integral element of an ecosystem. While considering the superiority of the Total Economic Value concept as a value-determining method, the paper also points to the limitation of the concept in not addressing the conflicts between use and non-use values of a tiger. In the light of these facts, the paper advances the theory of complementarity as a valuation approach that considers the tiger and its habitat as a joint resource that needs to be protected and conserved in the larger interests of biodiversity conservation in India. Damodaran is at the Indian Institute of Management, Bangalore.


Daniel, Terry C., "Whither Scenic Beauty? Visual Landscape Quality Assessment in the 21st Century," Landscape and Urban Planning 54(2001):276-281. A review of the history of efforts systematically to assess the quality of our visual landscape and an appraisal of the future of this scientific and practical enterprise. There is an ongoing tension between the judgments of experts in science and/or aesthetics and the perceptions of residents on landscapes. Emphasis on ecosystem management increasingly figures in landscape quality assessment, and some aspects of this are subject to technological assessment. At a deeper level, traditional landscape approaches are increasingly challenged by deep ecology and green philosophy, which advocate a strongly biocentric approach to land quality assessment. On the opposite side, social/cultural construction models so construe the landscape as the product of socially constructed human interpretation that these leave little or no role for biophysical landscape features and processes. Daniel proposes a psychological approach for more balance between biophysical and human perception/judgment components. Daniel is in psychology, School for Renewable Natural Resources, University of Arizona, Tucson. (v.13, #3)

Daniel, Pete, "Technology and Ethics in Agriculture", Journal of Agricultural and Environmental Ethics 6(1993). Using technological changes in wheat harvest, the formation and transformation of the cotton culture, the impact of the Green Revolution in Malaya, and genetic engineering as examples, this article explores the positive and negative impacts of science and technology applied to agriculture. The limited and considered use of science and technology by the Amish suggests an alternative to the uncritical adoption of capital-intensive farming methods that cause human displacement and ecological damage. Larger farm operations and the substitution of technological expertise for husbandry distances farmers from their land and crops and sometimes leaves an ethical void. Daniel is in the National Museum of American History, Washington, DC 20560.

Daniels, Tom, Bowers, Deborah. *Holding Our Ground: Protecting America's Farms and Farmland*. Covelo, CA: Island Press, 1997. 420 pp. $34.95. The many challenges involved in protecting farmland and how to create a package of techniques that can meet those challenges. (v9,#2)

Daniels, Steven E., Gobeli, Corrine L. and Findley, Angela J., "Reemployment Programs for Dislocated Timber Workers: Lessons from Oregon," *Society & Natural Resources* 13 (No. 2, Mar 01 2000): 135-. (v.11,#2)


Dantzer, Robert, "Research Perspectives in Farm Animal Welfare: The Concept of Stress", *Journal of Agricultural and Environmental Ethics* 6(1993), Supplement. Research carried out during the last two decades on hormone-behaviour relationships in stressful situations has allowed us to discard the simplistic stimulus-response model of stress in favour of more sophisticated interactionist models which incorporate as intervening variables the psychological and social resources available to the individual (coping). It is now well-recognized that the response to stress is multidimensional, involving different responses in different systems, individuals, and situations. This complexity cannot be addressed by sticking to the old notion of stress as a non-specific response to every stimulus that threatens homeostasis. A more appropriate perspective is to view stress responses as modular. According to this perspective, the organism is equipped with a number of defence systems that are triggered by specific exteroceptive or interoceptive stimuli, and that lead to defence reactions which involve intricate relationships between physiological and behavioural responses. Although these different defence systems normally function independently from one another, they can also interact due to some commonality in their underlying neural mechanisms and as a result of competition for a final common behavioral pathway. The study of how information is processed within each system and how different systems interact with each other provides new insights about the pathophysiology of stress-related disorders, and may help us to understand how the concept of health, defined as a state of physio-logical and psychological well-being, can be translated into biological terms. Dantzer is at INRA-INSERM U176, Rue Camille Saint-Saens, 33077 Bordeaux Cedex, France.

Danz, Harold P. *Of Bison and Man*. Niwot, CO: University Press of Colorado, 1997. 232 pp. $32.50. The bison's prehistory and natural history, its complex relationship with Native Americans, the bison slaughter and recovery, the establishment of the bison as an industry, and the role bison play today, both as food source and as a wild animal. (v8,#3)

Dardick, Samuel, "Land Use Planning, Communities, and Environmental Limits," *Ecology Law Quarterly* 25(No.4, 1999):659-. The changing politic of the Northern California Sierra. (v.10,#2)


Dasgupta, Partha, "Economic Value of Biodiversity, Overview," *Encyclopedia of Biodiversity* 2: 291-304. Any assessment of the value of biodiversity should begin with an account of why we need to value it and the reasons market values would not be expected to suffice for the purpose. The first three sections discuss these matters in the wider context of valuing natural resources (biodiversity is but a special case). Following sections discuss the special problems that arise in valuing biodiversity. (v.11,#4)


Dasgupta, Partha, Levine, Simono, and Lubchenco, Jane, "Economic Pathways to Ecological Sustainability," *Bioscience* 50 (No. 4, 2000 Apr 01): 339-. (v.11,#4)


Daszak, Peter and Andrew A. Cunningham, "Emerging Infectious Diseases: A Key Role for Conservation Medicine." Pages 40-61 in Aguire, A. Alonso, Richard S. Ostfeld, Gary M. Tabor, Carol House, and Mary C. Pearl, 2002. *Conservation Medicine: Ecological Health in Practice*. Oxford: Oxford University Press. Pathogens travel both ways, from wild animals to humans, producing pandemic diseases, and from humans to wild animals, disabling them with disease and in some cases threatening them with extinction. The authors also raise some interesting practical and ethical concerns about the extinction of parasites, with accompanying references. Daszak is with the Consortium for Conservation Medicine, Wildlife Trust, New York. Cunningham is in wildlife epidemiology, Zoological Society of London.

Daszak, Peter, Cunningham, Andrew A., and Hyatt, Alex D., "Emerging Infectious Diseases of Wildlife--Threats to Biodiversity and Human Health," *Science* 287(21 January 2000):443-449. Infectious diseases of wild animals spill over into domestic animals and vice versa. They also spill over into humans and vice versa. These diseases threaten biodiversity as well as human health. Increased populations escalate the problem. The Spanish conquistadors brought smallpox and measles into native American peoples; likewise their animals brought wildlife diseases. A classic misfortune, a paradigm for the future, is the African rinderpest epidemic of the 1880's and 1890's, introduced from Asia, and spreading across Africa in ten years, devastating cattle and wild buffalo. Daszak is with the Institute of Ecology, University of Georgia. (v.11,#4)

Daugherty, Steven A. "The Unfulfilled Promise of an End to Timber Dominance on the Tongass: Forest Service Implementation of the Tongass Timber Reform Act." *Environmental Law* 24 (no. 4, 1994): 1573- Ways that the U. S. Forest Service has failed to carry out the intent behind the
Tongass Timber Reform Act; the U. S. Congress should enact further legislation that imposes clearer standards.  (v6,#1)

Dauvergne, Peter. Shadows in the Forest: Japan and the Politics of Timber in Southeast Asia. Cambridge, MA: MIT Press, 1997. 336 pp. $22. Although Japanese practices have improved somewhat since the early 1990's, Dauvergne maintains that corporate trade structures and purchasing patterns, timber prices, wasteful consumption, import tariffs, and the cumulative environment effects of past practices continue to undermine sustainable forest management in Southeast Asia.  (v.9,#4)

Dauvergne, Peter. Shadows in the Forest: Japan and the Political Economy of Deforestation in Southeast Asia. Cambridge, MA: MIT Press, 1997. 336pp. $45 cloth, $22 paper. Dauvergne examines Japan's effect on commercial timber management in Indonesia, East Malaysia and the Philippines. The book is one of the first to examine the environmental impact of Northeast Asian development on Southeast Asian resource management and to analyze the indirect environmental impact of bilateral state relations on the management of South Asian forest resources.  (v8,#1)


Davenport, Tim R. B., et al, "A New Genus of African Monkey, Rungwecebus: Morphology, Ecology, and Molecular Phylogenetics," Science 312 (2 June 2006): 1378-1381. A new species of monkey found in southern Tanzania, related to mangabeys, but different enough to be placed in a new genus. A viable population has been discovered and photographs taken, but only one specimen has been studied, an individual killed in a trap set by a native farmer.


Davidsdottir, Sigrun, "To whale or not to whale?" Ecologist 31(no.10, 2002):64-65. Sigrun Davidsdottir explains Iceland's attitude to whaling.  (v.13, #3)

Davidson, Davy. "Toward Kinship 'Compassionate Communication.'" The Animals' Agenda 16, no.1 (1996): 40. Yelling anti-fur epithets at someone wearing a fur coat is often not effective. Although an angry confrontation may be cathartic for the activist, an empathetic approach offers a better change to convert someone. "Compassion is practical because it is the best method to open hearts and change minds." And it begins with self-acceptance. (v7, #3)


Davidson, Carlos, "Economic Growth and the Environment: Alternatives to the Limits Paradigm.," Bioscience 50 (No. 2000 May 01): 5-.  (v.11,#4)

Davidson, Julie. "Sustainable Development: Business as Usual or a New Way Of Living?" Environmental Ethics 22(2000):25-42. In the eighteenth century, the economic problem was reformulated according to a particular set of politico-economic components, in which the pursuit of individual freedom was elevated to an ethical and political ideal. Subsequent developments of this individualist philosophy together with the achievements of technological progress now appear as a threat to future existence. Extensive environmental degradation and persistent global inequalities of wealth demand a new reformulation of the economic problem. Sustainable development has emerged as the most recent economic strategy for addressing concerns about ecological integrity and social justice. Although there is a recognized continuum of understanding about the concept from conservative to radical it has been argued that only the radical version of sustainable development embodies the ethical capacity to address these concerns. Simultaneously the perennial existential question "How should we live?" has been raised anew along with the novel ethico-moral question; "How should we arrange our systems of production and consumption to ensure the sustainability of the Earth under conditions of conspicuous and pressing environmentally limiting conditions?" Moreover, the strong normative dimension embodied in the radical version of sustainability represents a challenge to liberal democracy and its understanding of individual and collective goods. I argue that the radical approach has the capacity to relieve what is an inherently acute tension of modern life and to reconcile individual autonomy with the wider social and ecological good. (EE)


Davidson, Stewart, A. The Troubled Marriage of Deep Ecology and Bioregionalism, @ Environmental Values 16(2007): 313-332. Bioregionalism is often presented as the politics of deep ecology, or deep ecology’s social philosophy. That the ties uniting these doctrines are rarely explored can be put down to a perception amongst commentators that such links are self-evident and therefore unworthy of closer examination. By arguing that the bonds between deep ecology and bioregionalism are more tenuous than has often been assumed, this paper addresses this theoretical lacuna. There is nothing exclusive to the central tenets of deep ecology which provides us with a coherent rationale for a specifically bioregional form of decentralisation. However, deep ecology has nonetheless had an appreciable impact on bioregional thinking. In this context it is argued that bioregionalism's assimilation of aspects of deep ecology, and particularly an emphasis upon cross-species identification, undermines the project in various ways. Davidson is in the Department of Government, University of Strathclyde, Glasgow, Scotland.


Davies, Anna. "What Silence Knows - Planning, Public Participation and Environmental Values," Environmental Values 10(2001):77-182. While fraught with ambiguities, support for greater public participation in environmental policy making is experiencing a renaissance amongst sections of government and academia, particularly within the field of land-use planning. There is concern within this cohort that the planning system silences public voices through its current mechanisms for community involvement. Proponents of participation often presuppose that more
public participation will produce both 'better' decisions and environmental benefits, but to date research has focused on the front-end, or "processes", of participation rather than the "products" that result. While procedural aspects of public participation are important it is imperative that critical consideration is also given to what emerges from the participation that is being exalted. This paper addresses this concern by focusing on the products of a public participation exercise conducted in Luton, South-east England in order to consider what it is that "silence knows". Keywords: Environmental values, public participation, land-use planning, Luton. Davies is in the Department of Geography, King's College, London. (EV)

Davies, B. R., J. H. O'Keefe, and C. D. Snaddon, A Synthesis of the Ecological Functioning, Conservation and Management of South African Rivers Ecosystems, 1993. ISBN 1 86845 001 3. Water Research Commission, P. O. Box 824, Pretoria 0001, South Africa. The dedication reads: "To all people that care for the earth, and who regard it as finite resource to cherish, rather than to pillage and to profit from, be the glory!" The conclusion is in the hope that the study will help South Africans to "give love to our rivers."


Davies, J. Clarence, ed. Comparing Environmental Risks. Washington, D.C.: Resources for the Future, 1996. 150pp. This volume explain the origins of comparative risk and the political context in which it is being put forward, its use in the US, the limitations that might reasonably be imposed upon it, and the way in which both "experts" and the lay public might participate in making risk comparisons. (v8,#1)

Davies, Lincoln L., "Lessons for an Endangered Movement: What a Historical Juxtaposition of the Legal Response to the Civil Rights and Environmentalism Has to Teach Environmentalists Today," Environmental Law 31(no.2, 2001): 229-. The twentieth century's two most important social movements, civil rights and environmentalism, derive from divergent paths but increasingly share a similar trajectory - one in which they are falling out of public favor as problems deemed already solved. In this Article, Mr. Davies examines from a historical perspective the legal treatment of these two movements to illustrate what environmentalists might change in the next century to ensure the accomplishment of their objectives and in turn, the health of our planet. (v.12,#3)

--Davies, Nick B., Cuckoos, Cowbirds and other Cheats. San Diego: Academic Press, 2000. Brood parasites and the evolution of cheating. The arms race between parasites and their prey. Cheating was once thought an exception, but recently it has been discovered to be widespread in many birds, who may parasite the nests of their own kind. One question to raise with students might be whether cowbird cheating is as morally reprehensible as student cheating! Or maybe whether calling cowbirds cheats is cheating. (v.11,#3)


Davies, Terry, "Voluntary Incentives Are No Shortcut to Pollution Abatement," Resources (Resources for the Future), Winter, 1997, p. 18. Summary of an RFF study concluding that no shortcut will be found around the difficult taks of legislating a better pollution control system in the United States. Any incentives will have to be woven into regulatory law. (v8,#1)

Davion, Victoria. "Theoretical Versus Applied Ethics: A Look at Cyborgs," Ethics and the Environment 4(1999):73-78. In this brief comment I will focus on Chris Cuomo's (1998) discussions of theoretrical versus applied ethics, and apply this discussion to her suggestion that the cyborg myth as discussed by Donna Haraway, can be a helpful ecological feminist ideal. Although I agree with Cuomo that some aspects of the cyborg myth might be helpful, I will
explore some disturbing aspects of cyborgs. Cuomo is certainly aware of the dangers of the cyborg myth, mentioning many of them herself. My aim is to fill out a discussion of such dangers by arguing that cyborgs are nothing new. In fact, I shall argue that key figures involved in the decision to bomb Hiroshima and Nagasaki, including President Truman, identified with the bomb and bomb-centered technology in a cyborgian manner. Obviously, the kind of cyborg identity that could encourage mass murder of the sort involved in our bombings of Japan, and the cyborg ideal that inspires Cuomo are very different. However, Cuomo's discussion of theoretical versus applied ethics clearly indicates that before ecological feminists accept the cyborg as a theoretical ideal, we should examine how real cyborgs, if there have in fact been any, have functioned within society. Hence, if the case can be made that those responsible for the devastating bombings of Japan were cyborgs, this fact is crucial for anyone promoting a cyborg ideal of any sort to consider. Davion is in philosophy at the University of Georgia. (E&E)

Davion, Victoria. "Itch Scratching, Patio Building, and Pesky Flies: Biocentric Individualism Revisited." Environmental Ethics 28(2006):115-128. Biocentric individualism, the position that all life has intrinsic value, is of no practical help in policy-making contexts. Examples commonly used in discussions of biocentric individualism are themselves alienating and threaten to make environmental philosophy appear irrelevant to policy decisions. Hence, both biocentric individualism and typical discussions of it are problematic for those wishing to make environmental philosophy useful in policy. A recent article by Jason Kawall, in which he attempts to defend biocentric individualism, demonstrates these points. (EE)

Davion, Victoria, "Anthropocentrism, Artificial Intelligence, and Moral Network Theory: An Ecofeminist Perspective," Environmental Values 11(2002): 163-176. This paper critiques a conception of intelligence central in AI, and a related concept of reason central in moral philosophy, from an ecological feminist perspective. I argue that ecofeminist critique of human/nature dualisms offers insight into the durability of both problematic conceptions, and into the direction of research programmes. I conclude by arguing for the importance of keeping political analysis in the forefront of science and environmental ethics. (EV)


Davis, B., "The Ecology, Land Use and Conservation of the Cairngorms (Scotland)," Biological Conservation 113(no. 2, 2003): 319. (v 14, #3)


Davis, Donald Edward. Ecophilosophy: A Field Guide to the Literature (San Pedro, CA: R. & E. Miles, 1989) is an excellent annotated bibliography of nearly three hundred books in environmental philosophy and related areas. There are appendices listing periodicals and organizations.

Davis, Donald. "Ecosophy: The Seduction of Sophia?" Environmental Ethics 8(1986):151-62. In this paper I challenge the reader to witness the environmental and feminist aegis as an epicine confrontation with nature whose main goal is to reconcile a lost partnership with the archetype I have labeled Sophia. Sophia, whose providential origins lie somewhere amid the great pre-Hellenic gnostic cults, can only bring salvation if she is liberated by humanity through the resacralization of nature. It is this change in consciousness that points toward a radical environmental ethic and a total reconceptualization of the becoming process. Davis is in the department of Psychology, West Georgia College, Carrollton, GA. (EE)

Davis, Ellen F., "Torah of the Earth." Pages 183-201 in Getting Involved with God: Rediscovering the Old Testament. Cambridge, MA: Cowley Publications, 2001. "The biblical writers explore the infinitely complex web of relationships, with the earth and the non-human creatures, in which we are embedded. Further, they help us see the degree to which our relationship with God is bound up in our relationships with the other creatures whom God has made" (p. 182). Davis teaches Bible at Duke Divinity School. (v.13, #3)


Davis, George, and Michael Somers, eds., Conservation of Southern Africa's Wild Living Resources: Exploitation, Sustainability and Ethics. Proceedings of a one day symposium in May 1995. Organized and hosted by the South African Institute of Ecologists and Environmental Scientists, the South African Wildlife Management Association, the Marine Science Society of Southern Africa. About forty pages. With short discussions of the sustainable use of wildlife, the ethics/science dichotomy, the need to differentiate scientific statements and value judgments, the consumptive use of wildlife, media involvement and the shaping of popular opinion, culling and killing in the interests of biodiversity, and other matters. With a participant list and addresses of principal contacts in South and southern Africa. (Africa)


Davis, Mackenzie L., and Cornwell, David A., Introduction to Environmental Engineering. Boston: McGraw-Hill, 1998. 919 pages. A major introductory text to environmental engineering, with, early on, a small section on environmental ethics. "The birth of environmental ethics as a force is partly a result of concern for our own long-term survival, as well as our realization that humans are but one form of life, and that we share our earth with other forms of life. ... The acceptable system is one in which we learn to share our exhaustible resources--to regain a balance. This requires that we reduce our needs and that the materials we use must be replenishable. We must treat all of the earth as a sacred trust to be used so that its content is neither diminished nor permanently changed; we must release no substances that cannot be reincorporated without damage to the natural system. The recognition of the need for such adaptation (as a means of survival) has developed into what we now call the environmental ethic" (pp. 33-35). Davis teaches environmental engineering at Michigan State University; Cornwell is with Environmental Engineering and Technology, Inc. (v.9,#4)
Davis, Mary Byrd, ed. *Eastern Old-Growth Forests*. Covelo, CA: Island Press, 1996. 420 pp. $50 cloth, $24.95 paper. Leading experts examine the ecology and characteristics of eastern old growth forests, explore such forests history and value, and make recommendations for forest preservation. (v7,#4)

Davis, Mike. *Ecology of Fear: Los Angeles and the Imagination of Disaster*. New York: Metropolitan Books, 1998. 484 pages. $25. Los Angeles' tales of disaster resulting from a discrepancy between the genuine natural ecology of southern California--including earthquakes, fires, floods, droughts, and tornadoes--and the nearly delusional stories that have been told to naturalize the region for the many millions who have settled there in the twentieth century. An ecology of catastrophe leads to a sociology of catastrophe. Even seemingly unrelated troubles can root in ecology. Disaster relief, for example, provided by the government flows most expeditiously to well-to-do neighborhoods, leaving poorer neighborhoods more vulnerable, and prone to riots. And political and economic forces continue to try to normalize such a massive, poorly planned human presence in a place where disaster lies dormant. (v.9,#3)


Davis, Steven I., "The least harm principle may require that humans consume a diet containing large herbivores, not a vegan diet," *Journal of Agricultural and Environmental Ethics* 16(2003):387-394. Regan concludes that humans are morally obligated to consume a vegetarian or vegan diet. We are obligated to consume a vegetarian/vegan diet because in total it would cause the least harm to animals (Least Harm Principle, or LHP) as compared to current agriculture. But is that conclusion valid? The LHP may actually be better served using food production systems that include both plant-based agriculture and a forage-ruminant-based agriculture as compared to a strict plant-based (vegan) system. KEY WORDS: animal production, animal rights, least harm, moral vegetarianism, vegan. (JAEE)

Davis, Susan G., *Spectacular Nature: Corporate Culture and the Sea World Experience*. Berkeley: University of California Press, 1997. 325 pages. $19.00 paper. An analysis of one of the most ambiguous of American commercial institutions, the nature theme park, with contradictions between a world dedicated to profit and also, supposedly, to public knowledge, compassion, and conservation. Davis teaches communications at the University of California, San Diego. (v.9,#3)


Davis-Berman and Berman, Dene S., *Wilderness Therapy: Foundations, Theory, Research*. Dubuque, IA: Kendall/Hunt Publishing Co., 1994. 282 pages. $26.00 paper. The definitive analysis of the idea that wilderness experience can have therapeutic value. The authors discuss cultural orientations toward wilderness and wilderness ethics, trends in research and the different orientations of outdoor programs ranging from mental health to enrichment. Theories informing wilderness therapy, and the importance of those theories for basic research, as well as for program development and evaluation. Two chapters contain practical suggestions for wilderness therapy programs. The authors ask for increasing professionalization of the field, including such measures as accreditation of programs and certification of leaders. Much of the focus is on the usefulness of such programs for troubled youth. Two themes are that the least restrictive environment provides the best forum for confronting psychological problems, and that
outdoor environments generally make the consequences of actions less ambiguous and more immediate, both favorable to therapy. Both authors are mental health professionals. (v8,#2)


Davradou, Maria and Paul Wood. "The Promotion of Individual Autonomy in Environmental Ethics." Environmental Ethics 22(2000):73-84. In his book The Morality of Freedom, Joseph Raz argues that the promotion of personal autonomy can serve as a constitutive principle for a comprehensive political theory. He maintains that three conditions are necessary for attainment of individual autonomy: appropriate mental abilities, an adequate range of options, and independence. In this essay, by focusing on Raz's conception of an adequate range of options, we suggest that Raz's theory justifies environmental conservation in general. We present an empirical framework of present-day assaults on personal autonomy, construct a heuristic scenario, and argue against both neoclassical economics and utility maximization as adequate criteria regarding environmental decisions. We conclude that successful environmental policies should directly or indirectly strive to provide the conditions necessary for promoting individual autonomy. (EE)

Davradou, Maria and Namkoong, Gene, "Science, Ethical Arguments, and Management in the Preservation of Land for Grizzly Bear Conservation," Conservation Biology 15 (no.3, June, 2001):570-577. Environmental groups advocate the preservation of an area within British Columbia's coastal temperate rainforest as a sanctuary for grizzly bears (Ursus arctos horribilis). Debate among government, industry, and environmental spokespersons has provided arguments but no resolution. We have applied to this issue available biological knowledge on grizzly bears and the arguments of a range of ethical theories. The theories of three professionally trained ethicists were included: Tom Regan, Holmes Rolston III, and Arne Naess. Aldo Leopold's prominent position in the conservation movement justifies his "land ethic" as a fourth ethical theory. All four theories agree that the area should be preserved. Contrary to this fundamental agreement, the theories diverge when tested against a "hard" conservation scenario, the conflict between the protection of the last surviving grizzly bears versus the survival of a culturally distinct human tribe. Application of the principles developed by Regan and Naess recommend that human interests should override the preservation of grizzly bears, whereas Leopold's and Rolston's arguments favor the preservation of the area for the bears. Our work can be used as a model of how the gap between biological sciences, ethical theories, and ecosystem management can be bridged successfully. The authors are in Forest Sciences, University of British Columbia. (v.12,#4)

Davy, Barbara Jane, A. An Other Face of Ethics in Levinas, @ Ethics and the Environment 12(no. 1, 2007):39-65. The main threads of Emmanuel Levinas' theory of ethics, developed in his philosophical works, Totality and Infinity (1969), and Otherwise than Being or Beyond Essence (1998), instruct that ethics require transcendence of being and nature, which he describes in terms of a transcendence of animality to the human. This apparent devaluation of the nonhuman would seem to preclude the development of Levinasian environmental ethics. However, a deconstructive reading of Levinas recognizes a subtext that interrupts the main thread of his argument running against the inclusion of nonhuman others in ethics. Through a critical reconstructive reading of Levinas, I develop an ethic extraneous to Levinas' transcendent ethics, an ethic outside his Otherwise than being.


Dawkins, Marian Stamp, "From an Animal's Point of View: Motivation, Fitness, and Animal Welfare," Behavioral and Brain Sciences 13(1990):1-61. To study animal welfare empirically we need an objective basis for deciding when an animal is suffering. Suffering includes a wide range of unpleasant emotional states such as fear, boredom, pain, and hunger. Suffering has evolved as a mechanism for avoiding sources of danger and threats to fitness. Captive animals often suffer in situations in which they are prevented from doing something that they are highly motivated to do. In designing environments for animals in zoos, farms, and laboratories, priority should be given to features for which an animal continues to work despite increasing costs. The care of animals can thereby be based on an objective, animal-centered assessment of their needs. A "target" article, with commentary by two dozen critics, most eminently Peter Singer. Dawkins is at Oxford University in the department of zoology.

Dawkins, Richard, "The Evolved Imagination: Animals as Models of Their World," Natural History 104 (no. 9, September, 1995):8, 10-11, 22-24. "An animal is a model. Any organism is a model of the world in which it lives. ... Imagine a zoologist presented with the body of an animal she has never seen before. ... A good zoologist should be able to reconstruct almost everything about the world in which the animal lived." Some animals seem to have the capacity to model their worlds and project this model into the future. Thinking simulates the future, and humans are especially good at this. "And once natural selection had built brains capable of simulating slight departures from reality into the imagined future, a further capacity automatically flowered. Now it was but a short step to the wilder reaches of imagination revealed in dreams and in art, an escape from mundane reality that has no obvious limits." (v9,#2)


"What comes naturally" is a topic which Darwinism might be expected to illuminate. Darwinian natural selection gives us just about everything else in our nature--our bones, our organs, our instincts. If there is a reason to exclude our values, it had better be a good one. The values of sustainability are important to all of us here and I enthusiastically include myself. We might therefore hope that these too are built into us by natural selection. I shall tell you today that this is not so. On the contrary, there is something profoundly anti-Darwinian about the very idea of sustainability. But this is not as pessimistic as it sounds. Although we are products of Darwinism, we are not slaves to it. Using the large brains that Darwinian natural selection has given us, it is possible to fashion new values that contradict Darwinian values and that is the policy I shall urge upon you" (opening paragraph).

Dawkins claims that we are biologically inclined to pursue short-term self interest, but that our minds can override that with long-term self interest, but still self interest. "From a Darwinian point of view, the problem with sustainability is this: sustainability is all about long-term benefits of the world or of the ecosystem at the expense of short-term benefits. Darwinism encourages precisely the opposite values. Short-term genetic benefit is all that matters in a Darwinian world." "There is a tension between short-term individual welfare and long-term group welfare or world welfare. If it were left to Darwinism along there would be no hope. Short-term greed is
bound to win. The only hope lies in the unique human capacity to use our big brains with our massive communal database and our forward simulating imagination." "The answer lies in the fact that brains, although they are the products of natural selection, follow their own rules, which are different from the rules of natural selection."

Can we get past long-term self interest, perhaps to justice, equity, or respect for nature? Dawkins is doubtful but hopeful. In answer to a question by Kate Rawles, an environmental philosopher: "I suppose maybe you were asking because of the hope that one might be able to teach people to forgo short-term selfish gain in the interest of long-term world benefit. I am more optimistic about that. There are an awful lot of people who, either for cultural reasons or educational reasons or I don't know quite what, do seem to be capable of subjugating their selfish desires for the good of humanity as a whole, or even living creatures as a whole. The fact that some people seem to manage to do this gives me hope that more people might." And, continuing, "I suppose I ought to say that, as a passionate Darwinian in the academic sense that I believe Darwinism is the explanation for all of life, I am also a passionate anti-Darwinian when it comes to deriving values for our own life. A pretty good definition of the kind of society in which I don't want to live is a society founded on the principles of Darwinism. That is, in a way, the central message of my lecture." Dawkins is professor of the public understanding of science, Oxford University, and author of *The Selfish Gene*. (v.13,#1)


Dawson, C P., N. A. Connelly, and T. L. Brown, "Salmon Snagging Controversy: New York's Salmon River" *Fisheries* 18(no. 4, 1993):6-10. In salmon snagging the fisherman jerks a large hook through a pod of fish in hopes of snagging one of them. The authors find four reason to support such snagging, but seven to oppose it. They don't seem to ask, or know, whether the fish suffer, more or less than if caught in other ways. Many fish and wildlife agencies are attempting to phase out snagging. (v5,#4)

Dawson, Mary R., et al., "Laonastes and the `Lazarus Effect' in Recent Mammals," *Science* 311 (10 March 2006): 1456-1461. A new species of squirrel-like rodent (Laonastes aenigmamus) has been found living in Laos. It was first described in 2005 as belonging to a new family, but now systematists have found that it belongs to a family thought to be extinct for about 11 million years. The animal has been described from specimens bought in markets and from bones in pellets from owls that eat it, but it has not yet actually been seen alive by the biologists who have described it. Dawson is in vertebrate paleontology, Carnegie Museum of Natural History, Pittsburgh.


de Laplante, Kevin. "Environmental Alchemy: How to Turn Ecological Science into Ecological Philosophy." *Environmental Ethics* 26(2004):361-380. Ecological science has been viewed by some philosophers as a foundational resource for the development of metaphysical, epistemological and normative views concerning humanity's relationship with the natural environment, or what might be called an "ecological philosophy." Analysis of three attempts to infer philosophical conclusions from ecological science shows that (1) there are serious obstacles facing any attempt to derive unique philosophical consequences from ecological science and (2) the project of developing an ecological philosophy relevant to human-environment relations is seriously hindered by a reliance on traditional ecological science that focuses on relations between nonhuman organisms and their environments. However, the search for an ecological philosophy is not inherently misguided because (1) although ecological science may never support a unique philosophical interpretation of ecological theory, empirical evidence can function to narrow the range of possible interpretations, which is a significant epistemic achievement; and because (2) there are several non-traditional branches of ecological science that focus on human-environment relations and that consequently may be better suited to function as conceptual resources for the sorts of problems that concern environmental philosophers. (EE)


De Marco, P; Coelho, FM, "Services performed by the ecosystem: forest remnants influence agricultural cultures pollination and production", *Biodiversity and Conservation* 13 (no.7, 2004): 1245-1255(11).

De-Shalit, Avner, Review of Kristin Shrader-Frechette, *Environmental Justice: Creating Equality, Reclaiming Democracy, Ethics and the Environment* 9(no. 1, 2004):140-144. "This is not an easy book to read-it is more like watching a violent film: it tells us about greediness, cruelty, misery, cynicism, and the like. But just like watching a good film, after reading the book one cannot remain indifferent. This book, then, is not a typical neutral piece of philosophy or social science. Shrader-Frechette has an agenda on her mind, and she claims that not only is it wrong not to do something to stop environmental injustice, but in fact people have a duty to be active, politically speaking. De-Shalit is in politics, Hebrew University of Jerusalem.


Dean, Cornelia, "Policy to Preserve Coastline Runs Into Reality on Nation's Beaches," *New York Times*, October 26, 2004, p. D1. People like to live in on prominent shorelines that nature likes to destroy. After recent storms, neither the U.S. government nor private insurers want to insure such property, which makes it impossible to sell, since a mortgage has to have insurance. Such
landowners, usually quite wealthy, are seeking exemptions so that their property can be eligible for federal insurance. (v.14, #4)

Dean, Cornelia, Against the Tide: The Battle for America's Beaches. New York: Columbia University Press, 1999. 295 pages. $ 25. Some 70 to 90 percent of the coastlines of the lower 48 states are eroding, and leaving nature to take its course is completely unacceptable to residents and developers. The fundamental problem is our collective desire to live on the beach or close to it. There is a bewildering morass of rules that apparently safeguard short-term economic and political coastal interests at the long-term expense of the general public. Dean is science editor of the New York Times. (EE v.12,#1)

Dean, Cornelia, "Red-Footed Falcon Makes its Western Hemisphere Debut," New York Times, August 12, 2004. Birders from all over are hastening to Martha's Vineyard to see the first ever Red-footed Falcon in this hemisphere. It belongs in Russia and Africa. (v. 15, # 3)

Dean, Cornelia, "A Seashore Fight to Harness the Wind," New York Times, November 14, 2004, p. 18. Before a proposal to build the world's largest offshore wind power plant in Nantucket Sound, residents are protesting that the wind turbines would spoil the view on Cape Cod and Martha's Vineyard. They would rather have the view than the environmentally friendly power. (v.14, #4)

Dean, Cornelia, "Time to Move the Mississippi, Experts Say," New York Times online, Sept. 19, 2006. Some scientists and engineers are recommending a massive diversion that will send the Mississippi flooding wholesale into the state's sediment starved-marshes. This could also protect against global climate change that will bring rising seas, accelerating land loss and worse weather.


Deane-Drummond, Celia, Creation Through Wisdom: Theology and the New Biology. Edinburgh: T&T Clark, 2000. "The wisdom motif [in the Bible] as a basis for a theology of creation ... one that is grounded in the realities confronting us in the new biology" (p. 2). The author maintains an awareness of suffering in biological creation, promotes an academically grounded, yet earthy spirituality that embrace God's immanence in the world without romanticizing it, preserves the theological coupling of creation with redemption, and promotes a theology capable of supporting a robust ethic from which to address the complex maze of decision-making we encounter in the new biology, from ecology to genetics. She advocates "pansyntheism," that God is with all creation, as preferable to panentheism, that God is in all things and all things are in God.

particularly that of wisdom [with reference to Biblical wisdom literature]--offers a way of affirming the earth, while at the same time recognizing it as 'other' than human." Deane-Drummond is in theology and biological sciences at Chester College of Higher Education, Chester, UK.


DeaneDrummond (Deane-Drummond), Celia E., "Genetic Engineering for the Environment: Ethical Implications of the Biotechnology Revolution," The Heythrop Journal 36(1995):307-327. Genetic engineering for agriculture purposes, especially crop plants. The philosophical, theological, and ethical implications of this application of biology are rather different from those pertaining to human beings and deserve separate attention. In particular, this technology has important environmental consequences, both in the short-term and in the long term. There is no a priori reason not to engineer such crops, but it has to be done judiciously and ethically. Deane-Drummond is at Chester College of Higher Education, Chester, UK. (v.10,#1)


Dearden, Philip; Chettamart, Surachet; and Tankanjana, Noppawan. "National Parks and Hill Tribes in Northern Thailand: A Case Study of Doi Inthanon." Society and Natural Resources 9, no.2 (1996): 125. (v7, #3)

Dearden, Philip, "Park Literacy and Conservation," Conservation Biology 9(1995):1654-1656. Parks play social roles: museums, art galleries, zoos, playgrounds, theatres, cathedrals, generators of income. Parks play ecological roles: banks, reservoirs, laboratories, schoolrooms. This framework may be too anthropocentric, but people who appreciate the multiple functions of parks are more likely to preserve them. Dearden teaches geography at the University of Victoria. (v6,#4)


Deaubonne (d'Eaubonne), Francoise. "What Could an Ecofeminist Society Be?"
that the abolition of patriarchy and the establishment of a relationship with the environment that
is finally balanced are not only fundamentally linked, but also can only occur in a post-
revolutionary and self-managing society. (E&E)

Society and Natural Resources 14(no.8, 2001): 711-24. (v.13,#2)

DeBakker (De Bakker), Frank G.A. Review of Aseem Prakash, "Greening the Firm: The Politics of
Bakker is an assistant professor in strategic management at the faculty of Social Cultural
Sciences in the Vrije Universiteit, Amsterdam, The Netherlands. (v.13, #3)

DeBakker (De Bakker), Erik, .Integrity and Cynicism: Possibilities and Constraints of Moral
thorough attention to cynical action and integrity could result in a less naive approach to ethics
and moral communication. This article discusses the issues of integrity and cynicism on a
theoretical and on a more practical level. The first part confronts Habermas==a concept of cynical reason. In the second part, the focus
will be on the constraints and possibilities of moral communication within a business context.
Discussing the corporate integrity approach of Kaptein and Wempe will provide this focus. Their
approach can be considered as a valuable contribution to the question of how to deal with
(dilemmas of) conflicting interests, open discussion, fairness, and strategic decision-making in the context of stakeholder dialog. However, it is concluded that Kaptein and Wempe seem to
overstretch the concept of corporate integrity by their inclination to make it an all-purpose remedy for corporate dilemmas. Keywords: Business ethics - communicative/strategic action - cynicism - integrity - moral communication - open/high agendas - social theory. Bakker is at LEI
(Agricultural Economics Research Institute), Public Issues Division, Wageningen UR, The
Hague, The Netherlands.

DeBardeleben, Joan and John Hannigan, eds., Environmental Quality and Security after
1994. 256 pages. $ 55.00 cloth, $ 19.95 paper. There is increased awareness and activism, but the environmental crisis has not abated since the collapse of communism. The proliferation
of new countries and intensified economic problems complicates the search
for solutions.
Environmental deterioration poses serious threats to the quality of life, stability, and security in the region. Both authors are in East European and Russian studies at Carleton University.
(v5,#3)

Debeer (De Beer), H. Omgewingsetiek en omgewingsbewarring: 'n wysgerig-etiiese perspektief
op bewaringswetgewing, beleid en strategiee in Suid-Afrika. (Environmental Ethics and
Environmental Conservation: A Philosophical-Ethical Perspective on Conservation Law, Policy
Promotor: Johan P. Hattingh. (v.10,#1)

Debinski, D. M.; Ray, C. Saveraid, E. H, "Species diversity and the scale of the landscape mosaic:
do scales of movement and patch size affect diversity," Biological Conservation 98(no.2,
2001):179-. (v.12,#4)

Debinski, Diane M. and Holt, Robert D., "A Survey and Overview of Habitat Fragmentation
Experiments," Conservation Biology 14 (No. 2, 2000 Apr 01): 342-. (v.11,#4)

Deblonde, Marian and Patrick Du Jardin, "Deepening a Precautionary European Policy," Journal of
Agricultural and Environmental Ethics 18(2005):319-343. The principle of precaution is hardly
linked to the ideal of sustainable development. It should be. Sustainable development is the sense of an ethics of co-responsibility, while precaution is the attitude needed to realize this sense. We comment on some regulatory practices within the European context regarding authorization requests for deliberate releases of genetically modified crops and show some problems that are popping up there, for example, the difficulties in interpreting the meaning of harm and of benefit. The authors are at the Research Centre for Technology, Energy, and Environment, University of Antwerp, Belgium. (JAEES)

Abstract: Environmental economics is a policy science. Environmental economists, however, find that their policy recommendations are often neglected by political officials. Some of them react to this neglect by reproaching public authorities with lack of efficiency: this so-called inefficiency is considered to be a manifestation of government failure. Others propose a redefinition of environmental economics in order to make it fit better with actual political objectives. After briefly outlining the case for an economic paradigm that differs from conventional (i.e. neo-classical welfare) environmental economics, I argue that an alternative paradigm demands a different interpretation of economic `objectivity'. I claim that economic `objectivity' ultimately comes down to a non-neutral common consent within a particular community of economic scientists. This interpretation leaves room for a multiplicity of `objective', but non-neutral economic theories. The fact that the inevitable value ideas underlying a particular theory cannot be made fully transparent, urges us to accept a different conception of the theory's political relevance. Environmental economic theory should be considered not so much a provider of political `instruments', as of scientific `insights'. It should not simply be considered a theory that responds to actual political objectives, but one that inspires political objectives. These two latter suggestions of mine are only preliminary recommendations, which require further conceptual analysis. Keywords: Bromley, neutrality, objectivity, Pearce. Marian K. DeBlonde is in Applied Philosophy, Wageningen Agricultural University, Hollandseweg 1, 6706 KN Wageningen, The Netherlands. (EV)

Deblonde, M., R. de Graaff, and F. Brom, A An Ethical Toolkit for Food Companies: Reflections on its Use, @ Journal of Agricultural and Environmental Ethics 20(2007):99-118. Nowadays many debates are going on that relate to the agricultural and food sector. It looks as if present technological and organizational developments within the agricultural and food sector are badly geared to societal needs and expectations. In this article we briefly present a toolkit for moral communication within the food chain. This toolkit is developed as part of a European research project. Next, we discuss what such a toolkit can bring about, given the characteristics of the present day agricultural and food sector and its wider context. We defend that the toolkit can be seen as one of the mechanisms that can help enterprises in the agricultural and food sector to be accountable. It should, however, be complemented with other mechanisms, first, to empower the wider public and, second, to stimulate a dialogue, on a more equal footing, between public authorities, citizens, and economic act. Keywords: CSR (developed form) - empowerment - ethical toolkit - equal dialogue - food sector - moral communication. Deblonde is at Department Environment, Technology & Technology Management, Research Centre for Technology, Energy and Environment BB STEM, University of Antwerpen, Antwerp, Belgium.

DeBoer, Kristin, "Thomas Berry interviewed by Kristin DeBoer," Wild Earth 10(no. 2, Summer 2000):93- . (v.12,#2)

DeCarolis, Joseph F., Goble, Robert L., and Hohenemser, Christopher, "Searching for Energy Efficiency on Campus: Clark University's 30-Year Quest," Environment 42(no. 4, May 1, 2000):8- . An analysis of 30 years of energy consumption patterns and efforts to reduce energy use illustrates how a small institution can set an example while confronting society's significant challenges. (v.12,#2)


Deckers, Jan, "Christianity and Ecological Ethics: The Significance of Process Thought and a Panexperientialist Critique of Strong Anthropocentrism," *Ecotheology* 9(no. 3, 2004):359-387. In recent years, Christian theologians have reconsidered our duties towards nonhuman entities by rethinking the God-humanity relationship. The way in which nonhuman nature is conceived has largely remained unchanged. The key to the development of an adequate ecological ethic lies in the casting aside of materialist and dualist conceptions of matter, and the adoption of panexperientialism. Weak speciesism is the required ethic. It places humans first, yet assigns great significance to other animals. It commits many humans to quasi-veganism. Deckers is Lecturer in Health Care Ethics, School of Population and Health Sciences, The Medical School, University of Newcastle, UK.

Deckers, Jan, "Are Scientists Right and Non-Scientists Wrong? Reflections on Discussions of GM," *Journal of Agricultural and Environmental Ethics* 18(2005):451-478. While many people have been reported to hold the view that GM is unnatural, many policy-makers and their advisors have suggested that the view must be ignored or rejected, and that there are scientific reasons for doing so. Their accounts fail to mount a convincing critique. In an empirical research project at the University of Newcastle-upon-Tyne, scientists met with non-scientists in a range of facilitated one-to-one conversations (exchanges) on various environmental issues, one of which was on GM. Our findings show that some scientists who rejected the GM is unnatural view struggled to do so consistently. The concerns of those who held the GM is unnatural view rejected the instrumentalization of the nonhuman world. Because the underlying concerns of those who held the GM is unnatural view were not with GM as such, yet with a worldview that was considered to be problematic, policy-makers and their advisors should reflect on the critical worldview of those who claim that GM is unnatural if they want to engage seriously with their concerns. Keywords: biotechnology - deliberative exchange - policy - science - unnatural - worldviews. Deckers is in the School of Population and Health Sciences, University of Newcastle, UK. (JAEE)


deDuve (de Duve), Christian, *Vital Dust: The Origin and Evolution of Life on Earth*. New York: Basic Books, 1995. de Duve is a Nobel Prizewinner for discoveries about the functional and structural organization of the cell. This is his philosophical overview: "Life is almost bound to arise in a molecular form not very different from its form on Earth. ... Those who claim that life is a highly improbable event, possibly unique, have not looked closely enough at the chemical realities underlying the origin of life." The stuff of the earth is "vital dust" (p. 292). Of interest to environmental philosopher is a concluding section on "The Future of Life." Life on Earth, a cosmic imperative over the millennia, has recently come under the most serious threat ever, human overpopulation and consumptive appetites degrading the Earth. Science needs more wisdom.
"The last twenty years have witnessed a remarkable rise in global responsibility. The ecological movement, in spite of excesses, deserves to be praised" (p. 283). Now emeritus, de Duve taught at the University of Louvain, Belgium, and Rockefeller University, New York. (v7,#4)

Deegan, Mary Jo and Christopher W. Podesch. "The Ecofeminist Pragmatism of Charlotte Perkins Gilman." Environmental Ethics 23(2001):19-36. We read the roots of contemporary ecofeminism through the lens of feminist pragmatism. After indicating the general relation between ecofeminism and feminist pragmatism, we provide a detailed analysis of Charlotte Perkins Gilman's saga Herland and With Her in Ourland to document the strong connection between these two traditions. Gilman's congruencies with ecofeminism make clear that she was a forerunner and perhaps a foundation for contemporary ecofeminism. However, further analyses are needed to reveal the full import of this link between ecofeminism and "eco-feminist pragmatism," as well as bridge the gap between ecofeminist pragmatism and ecopragmatism, including environmental pragmatism. (EE)

Defenders of Wildlife, Oregon's Living Landscape: Strategies and Opportunities to Conserve Biodiversity. Corvallis, OR: Oregon State University Press, 1998. A state-wide assessment of Oregon's biodiversity, pioneering laws and programs, including the beach bill, the bottle bill, and statewide land use planning. Also sponsored by the Nature Conservancy and dozens of public and private cooperators. (v9,#1)

Deffenbaugh, Daniel G., "Toward Thinking Like a Mountain: The Evolution of an Ecological Conscience," Soundings 78(1995):239-261. There is underway an evolution of the ecological conscience, a progressive movement away from thinking like self-interested human beings and toward thinking like a mountain. A review of the history of philosophical reflection in the West reveals why environmental ethics has been regarded as problematic. Very simply, we have inherited a tradition which has been developed from the perspective of egoism. If the human individual is the locus for discerning all value in the world, then ethics will naturally tend to serve those who are doing the valuing. In this case environmental ethics becomes a convenient tool for protecting human interests. A truly holistic environmental ethic involves a conceptual transition from egoism to ecoism, a move that is best facilitated by an understanding of the ecological sciences. The significant contribution of Aldo Leopold and Holmes Rolston III has been the fundamental realization that nature and not culture should have the last word as to prescriptive duties. Deffenbaugh teaches in the Department of Religious Studies at the University of Tennessee. (v.10,#1)


DeGeus (De Geus), Marius. Review of Roland Schaer, Gregory Claeys, Lyman Tower Sargent, (Eds.), "Utopia: The Search for the Ideal Society in the Western World", Organization and Environment 14 (No. 4, December 2001) pp.470-72. De Geus is a lecturer in political theory and legal philosophy at the University of Leiden, Netherlands. (v.13,#2)

DeGeus (De Geus), Marius, "Ecotopia, Sustainability and Vision", Organization and Environment, 15, (No. 2, 2002): 187-201. This article explores whether ecological utopias are capable of providing a useful contribution to our quest for an ecologically responsible future and a sustainable society and, if so, in what specific ways. The author develops a model of ecological utopias as a distant point of orientation, or as a "navigational compass". In this model ecotopias
may influence the course of concrete decision making in the direction of a future sustainable society. After an analysis of the current social debate in western Europe on sustainable development, it is argued that ecological utopias can help us to "monitor" environmental problems and that they provide "inspiration" for a cleaner society. Ecotopias also allow us to imagine a "virtual reality" of a possibly ecologically stable society and are a justifiable means of visionary imagery of a better future. De Geus is a lecturer in political and legal philosophy at the University of Leiden. (v.13, #3)

deGraaf (de Graaf), Gjalt, "Veterinarians' Discourses on Animals and Clients," *Journal of Agricultural and Environmental Ethics* 18(2005):557-578. Veterinarians have obligations towards both the animals they treat and their clients, the owners of the animals. With both groups, veterinarians have complicated relations; many times the interests of both groups conflict. Using Q-methodology as a method for discourse analysis, the following question is answered: How do Dutch practicing veterinarians conceptualize animals and their owners and their professional responsibility towards both? Keywords: descriptive ethics - discourse analysis - veterinary medicine - veterinary ethics - Q-methodology. The author is in the Department of Public Administration and Organization Science, Vrije Universiteit, Amsterdam. (JAEE)


DeGreef (De Greef), Karel, Frans Stafleu and Carolien De Lauwere, "A Simple Value-Distinction Approach Aids Transparency in Farm Animal Welfare Debate," *Journal of Agricultural and Environmental Ethics* 19(2006):57-66. Public debate on acceptable farm animal husbandry suffers from a confusion of tongues. To clarify positions of various stakeholder groups in their joint search for acceptable solutions, the concept of animal welfare was split up into three notions: no suffering, respect for intrinsic value, and non-appalling appearance of animals. This strategy was based on the hypothesis that multi-stakeholder solutions should be based on shared values rather than on compromises. The usefulness of such an artificial value distinction strategy was tested in a small series of experiments. The results demonstrate that the chosen concept to distinguish between values is effective in a stakeholder context. Farmers' views on doing good to animals appeared to be largely based on their value to prevent suffering and predominantly focused on the provision of regular care. Their priority for this value is clearly shared with other stakeholders, providing a basis for joint solutions. The concept of intrinsic value does not play a discernable role in farmers' considerations. Based on the varying views on
welfare, it can be inferred that there is a gradual rather than a principal difference between
government legislation and farmers' values, whereas public perception and acceptance of farm
practices remains complicated. Distinction between value groups and focusing on a selected
notion (such as no suffering) proved to be effective in bringing representatives of stakeholder
groups together, but is unlikely to bridge the emotional gap between commercial farm practices
and public ideals. Keywords: Animal welfare-farmer ethics-interactive design-intrinsic
value-stakeholder views. De Greef is with the Animal Sciences Group of Wageningen UR, The
Netherlands. Stafleu is with the Ethics Institute, Utrecht University, The Netherlands. De Lauwere is at the Agricultural Economics Research Institute, Wageningen UR, The Hague, The
Netherlands.

ethics defend the abolition of most or all animal agriculture, which they consider an unethical
exploitation of sentient non-human animals. However, animal agriculture can also be seen as a
coevolution over thousands of years, that has affected biology and behavior on the one hand,
and quality of life of humans and domestic animals on the other. Furthermore, animals are
important in sustainable agriculture. They can increase efficiency by their ability to transform
materials unsuitable for human consumption and by grazing areas that would be difficult to
harvest otherwise. Grazing of natural pastures is essential for the pastoral landscape, an
important habitat for wild flora and fauna and much valued by humans for its aesthetic value.
Thus it seems that the environment gains substantially when animals are included in sustainable
agricultural systems. But what about the animals themselves? Objections against animal
agriculture often refer to the disrespect for animals' lives, integrity, and welfare in present
intensive animal production systems. Of the three issues at stake, neither integrity nor animal
welfare need in principle be violated in carefully designed animal husbandry systems. The main
ethical conflict seems to lie in the killing of animals, which is inevitable if the system is to deliver
animal products. We present the benefits and costs to humans and animals of including animals
in sustainable agriculture, and discuss how to address some of the ethical issues involved.
Keywords: animal welfare-ethics - killing - sustainability - vegetarianism. The authors are with
the National Veterinary Institute, Oslo, Norway. (JAEE)

deGreus (de Greus), Marius, The End of Over-consumption: Towards a Lifestyle of Moderation

sustainable use of environmental functions, currently being applied to assessing the Danube and
Dniester deltas, the Spanish island of Mallorca, the Greek island of Santorini, the Pantanal
wetland in Brazil, and other areas. de Groot is director of the Wageningen Institute for
Environment and Climate Research at Wageningen Agricultural University, Netherlands. (v7,#1)

deGroot (de Groot), Kristi, "Highlights from the First Latin American Congress on National Parks
and Other Protected Areas" "Primer Congreso Latinoamericano de Parques Nacionales y Otras
South America, 650 persons met May 21-18, 1998 to address national parks and protected
areas, indigenous peoples, biodiversity threats, land degradation, tourism, and related issues. de
Groot is a student in wildlife biology at the University of Montana. (v.9,#3)

Africa 72, 73-78. (Africa)

dehart, Allen, Hiking North Carolina's Mountains-to-Sea Trail. Chapel Hill: University of North Carolina Press, 2000. One thousand miles of trail from Clingman's Dome, the highest peak in the Great Smoky Mountains National Park, and past Mount Mitchell, the highest peak east of the Mississippi, down to Jockey's Ridge, the largest dune on the Atlantic Coast. (v.12,#2)


Dejong (De Jong), Mechtild, and Chunglin Kwa. "Ecological Theories and Dutch Nature Conservation," Biodiversity and Conservation 9(no. 8, 2000):1171-1186. Abstract. This paper aims to achieve insight into various ecological theories in the Netherlands which have different, and sometimes opposing, views on the conservation of nature. Interviews, publications and archival research brought to light four separate theories: "vitalistic/holistic", "dynamic", "cybernetic" and "chaos". Diversity is reached through stability according to vitalistic/holistic and cybernetic theories, but through change and instability according to the "dynamic" and "chaos" theories. These two groups are working apart, and continue to have their own ideas. Prediction of the future is only possible with the "vitalistic/holistic" and "cybernetic" theories. Ecologists who adhere to these theories feel responsible and able in different ways to change ecological nature towards desirable end goals. The other two theories, "dynamic" and "chaos", appear to be less activist. Key words: biodiversity, chaos theory, cybernetic theory, dynamic theory, economy, holistic theory, Rio de Janeiro, Second Law of Thermodynamics, significs.

DeJong, Mechtild, and Kwa, Chunglin, "Ecological theories and Dutch nature conservation," Biology and Conservation 9(2000):1171-1186. Abstract. Insight into various ecological theories in the Netherlands which have different, and sometimes opposing, views on the conservation of nature. Four separate theories: 'vitalistic/holistic', 'dynamic', 'cybernetic' and 'chaos'. Diversity is reached through stability according to vitalistic/holistic and cybernetic theories, but through change and instability according to the 'dynamic' and 'chaos' theories. These two groups are working apart, and continue to have their own ideas. Prediction of the future is only possible with the 'vitalistic/holistic' and 'cybernetic' theories. Ecologists who adhere to these theories feel responsible and able in different ways to change ecological nature towards desirable end goals. The other two theories, 'dynamic' and 'chaos', appear to be less activist. Key words: biodiversity, chaos theory, cybernetic theory, dynamic theory, economy, holistic theory, Rio de Janeiro, Second Law of Thermodynamics, significs. The authors are in the Department of Science Dynamics, University of Amsterdam, The Netherlands. (v.13,#1)


DeJonge, Eccy, Spinoza and Deep Ecology: Challenging Traditional Approaches to Environmentalism. Aldershot, Hants. UK: Ashgate Publishing Ltd., 2004. Explores deep ecology and the way Spinoza's philosophy has been put to this aim. Only a self-realization, along the lines of Spinoza's philosophy, can afford a philosophy of care which is inclusive of humans and the non-human world, which recognizes the need for civil laws and democratic policies for human flourishing. Claiming that "deep ecology is a muddled polemic" (p. 145), de Jonge criticizes existing versions of deep ecology, especially in that they fail to accept that human concerns are integral to environmental issues. Originally a Ph.D. thesis.

Deknatel, Charles Y. "Questions about Environmental Ethics--Toward a Research Agenda with a Focus on Public Policy." *Environmental Ethics* 2(1980):353-62. Despite common elements and antecedents of environmental ethics, their implied application to related policy or action is not always clear. This paper attempts to develop a set of questions and a preliminary framework for considering some of the issues raised by environmental ethics as they might appear in public policy. Deknatel is at the College of Architecture, University of Nebraska at Lincoln, Lincoln, NE. (EE)


Del Caro, Adrian. "Nietzschean Considerations on Environment." *Environmental Ethics* 26(2004):307-321. The superhuman (Übermensch) is a human being attuned to his or her environment in such a way that human and environment function as a whole, in keeping with Zarathustra's prophecy that the superhuman is the meaning of the Earth. Nietzsche's rhetorical embrace of the Earth in *Thus Spoke Zarathustra* is actually grounded in the works of the 1870s, in particular Human, All Too Human, which does not receive its due in critical engagement but which requires serious critical revisitation if the ecological Nietzsche is to be heard above his own rhetoric. When Nietzsche's writings are considered from the standpoint of ecology, it emerges that the phrase "the superhuman shall be the meaning of the Earth" is not so much focused on a debatable vision of future humanity, but instead addresses strategies for inhabiting our finite Earth in a spirit of creativity, partnership, and meaningful daily interaction. The hotly debated doctrine of will to power, for example, undergoes clarification and grounding when subjected to ecological standards, resulting in a will to empowerment whose beneficiaries are not only humans who assume proper stewardship of the Earth, but all Earthly life forms insofar as the meaning of Earth must include them. (EE)


Delancey, Craig. "Teleofunctions and Oncomice: The Case for Revising Varner's Value Theory." *Environmental Ethics* 26(2004):171-188. The view that organisms deserve moral respect because they have their own purposes is often grounded in a specification of the biological functions that the organism has. One way to identify such functions, adopted by Gary Varner, is to determine the etiology of some behavior based on the evolution of the structures enabling it. This view suffers from some unacceptable problems, including that some organisms with profound defects will by definition have a welfare interest in their defects. For example, this view entails that the patented oncomice, intentionally engineered and bred for a genetic defect that leads to extremely high incidence of cancer, would have a welfare interest in the development of tumors. The systems-based theory of biological functions, which refers not to the evolution of structures but rather to their role in the organism, escapes these problems, and shows how a theory of an organism's welfare interest in its purposes can be grounded in a sound naturalistic approach. This approach also has some fruitful corollaries, including an elegant theory of why species may require special moral regard. (EE)

deLaplante (de Laplante), Kevin, *Toward a General Philosophy of Ecology*, Ph. D. dissertation, Department of Philosophy, University of Western Ontario, 1998. Examines the role that ecological concepts and theories play in environmental philosophy and defends a conception of ecological science that is broad enough to address the philosophical and scientific concerns of environmental philosophers. These aims are consistent with the dominant tradition in contemporary environmental philosophy, but the argument is highly critical of the way the
ecology-environmental philosophy relationship is conceived in contemporary environmental philosophy. Rather than view ecology as a conceptual and scientific resource that is relevant to environmental philosophy only insofar as it provides support for the ethical, social and political aims of environmentalism, deLaplante argues that the core problems of environmental philosophy are essentially problems for a general science and philosophy of ecology. The thesis defends the robustness of a conception of ecology that is sufficiently broad to encompass "ecological psychology", "ecological economics", and "ecological anthropology", as well as traditional ecological science.

Part One is a survey and critique of the role of ecology in environmental philosophy. Part Two develops a conceptual framework for a general philosophy of ecology based on developments in complex systems approaches in theoretical ecology and ecological psychology. Part Three explores in greater detail certain issues in the foundations of the relevant complex systems sciences. The supervisor was Kathleen Okruhlik. Kevin de Laplante is now teaching at Iowa State University, Ames. (v10,#4)


deLeeuw (de Leeuw), A. Dionys, "Contemplating the Interests of Fish: The Angler's Challenge" Environmental Ethics 18(1996):373-390. I examine the morality of sport fishing by focusing on the respect that anglers show for the interests of fish compared to the respect that hunters show for their game. Angling is a form of hunting because of the strong link between these two activities in literature, in management, and in the individual's participation in both angling and hunting, and in the similarity of both activities during the process of pursuing an animal in order to control it. Fish are similar in many ways to animals that are hunted, including their interests in survival and in avoiding pain. These interests need to be considered by anglers for moral reasons. All hunters and anglers value their sport with animals more than they respect the lives of animals they pursue. Hunters are, therefore, similar to anglers in the respect that they show for the survival interests of their game animals. Hunters, however, are significantly different from anglers in the respect that they show for an animal's interest in avoiding pain and suffering. While hunters make every effort to reduce pain and suffering in their game animals, anglers purposefully inflict these conditions on fish. These similarities and differences have three important consequences. (1) The moral argument justifying the killing of animals for sport in hunting must apply to all of angling as well. (2) Angling, unlike hunting, requires a second justification for the intentional infliction of avoidable pain and suffering in fish. (3) If ethical hunters hold true to their principle of avoiding all suffering in animal that they pursue, then hunters must reject all sports fishing. de Leeuw is a biologist with the British Columbia Ministry of Environment, Lands, and Parks. Williams directs an institute for applied ethics, and teaches philosophy at Saint Thomas University, Fredericton, New Brunswick. (EE)

Delind, Laura B., "Of Bodies, Place, and Culture: Re-Situating Local Food." Journal of Agricultural and Environmental Ethics 19(2006):121-146. In the US, an increasingly popular local food movement is propelled along by structural arguments that highlight the inequity and unsustainability of the current agri-food system and by individually based arguments that highlight personal health and well-being. Despite clear differences in their foci, the deeper values contained in each argument tend to be neglected or lost, while local innovations assume instrumental and largely market-based forms. By narrowing their focus to the rational and the economic, movement activists tend to overlook (or marginalize) the role of the sensual, the
emotional, the expressive for maintaining layered sets of embodied relationships to food and to place. This paper seeks to show that cultural and nonrational elements are fundamental to local food discussions. It proceeds from the assumption that, without them as full partners, the movement cannot be sustained in any felt, practiced, or committed way. To this end, it discusses the concept of place and bodies in place, as well as the connections between the ecological and the cultural, the sensual and the scientific. It offers a new set of questions and conceptual tools with which advocates and activists may "ground," and thereby revalue and restore, the promise and practice of local food. Keywords: bodies - culture - local food - place - United States - values. Delind is at the Department of Anthropology, Michigan State University, East Lansing, MI. (JAEE)


Deloria, Jr., Vine, Red Earth, White Lies: Native Americans and the Myth of Scientific Fact. New York: Scribner, 1995. 286 pages. Cloth, $ 23. Taking on scientists from Darwin to Stephen Jay Gould, Deloria claims that white European scientists manipulate data to fit their theories. Native American oral traditions may actually provide better explanations than those of scientists, who struggle to make facts fit predetermined theories. Evolution, planetary history, the origin of humans, natural disasters, and population as explained differently from the white European scientific and the red Native American point of view. Modern science encourages cultural bias and mistaken understandings of the natural world. One of Deloria's targets is the claim by scientists who argue, on the basis of archaeological and paleontological records, that native Americans caused the extinctions of animal species in the Pleistocene period. That claim is nonsense. Deloria is a well-known Native American and professor of history, law, religious studies, and political science at the University of Colorado, Boulder. (v7,#1)


Deluca, Kevin Michael, "Thinking with Heidegger: Rethinking Environmental Theory and Practice," Ethics and the Environment 10(no. 1, 2005):67-78. Environmentalism is tired. It is a movement both institutionalized and insipid. In the midst of this melee I want to suggest we reconsider the work of Martin Heidegger. I want to think Heidegger in distress: in the distress of machination; in the distress of the technological enframing of the earth; in the distress of the environmental crisis. Deluca is in speech communication and adjunct in ecology, University of Georgia. (Eth&Env)

DeLuca, Kevin Michael. "Rethinking Critical Theory: Instrumental Reason, Judgment, and the Environmental Crisis." Environmental Ethics 23(2001):307-325. Through rethinking the trajectory of critical theory, I suggest the need to reconsider its environmental possibilities. The critical theory of the Frankfurt School, usually overlooked in environmental circles, provides a fecund opening for social and environmental theory with its recognition that the multiple catastrophes of the twentieth century are not extrinsic to civilization but intrinsic to the rationality of the Enlightenment. That is, the promise of the scientific domination of nature and rational forms of
social organization simultaneously spawn the perils of environmental crises, fascism, genocide, world wars, and nuclear annihilation. With its theorizing of the domination of nature as involving the interconnection of humans and nature in a shared fate, the Frankfurt School provides a fundamentally ecocentric base for rethinking humanity-nature relations. Further, through its nuanced understanding of reason, critical theory provides a trenchant critique of instrumental reason and suggests judgment as the basis for a new ethic for humanity’s interactions with the natural world. (EE)


Delwiche, Charles F, "The Genomic Palimpsest: Genomics in Evolution and Ecology", BioScience 54(no.11, November 2004):991-1001(11). Genomics is the discipline that has grown up around the sequencing and analysis of complete genomes. It has typically emphasized questions that involve the biological function of individual organisms, and has been somewhat isolated from the fields of evolutionary biology and ecology. However, genomic approaches also provide powerful tools for studying populations, interactions among organisms, and evolutionary history. Because of the large number of microbial genomes available, the first widespread use of genomic methods in evolution and ecology was in the study of bacteria and archaea, but similar approaches are being applied to eukaryotes. Genomic approaches have revolutionized the study of in situ microbial populations and facilitated the reconstruction of early events in the evolution of photosynthetic eukaryotes. Fields that have been largely unaffected by genomics will feel its influence in the near future, and greater interaction will benefit all of these historically distinct fields of study.

Demaine, Linda J. and Fellmeth, Aaron X., "Natural Substances and Patentable Inventions," Science 300(30 May 2003):1375-1376. Inventions are patentable but not discoveries of naturally occurring phenomena--that was the classic concept. But subtly and without fanfare this has fallen apart, notably in biology and also in the case of some purified inorganic substances and alloys, which are claimed to undergo a substantial transformation. This is regretable. Suggestions for getting patent law reconstituted around the classical idea, which is not always easy to translate into current technology. Demaine is a policy analyst with RAND, Santa Monica, CA. Fellmeth is an attorney. (v.14, #4)

Demeny, Paul, McNicall, Geoffrey, eds. The Earthscan Reader in Population and Development. London: Earthscan Publications Ltd., 1996. 288pp., 19.95. This selection of essays cuts through the technical literature to provide an accessible guide to the complex issues surrounding population and development. It is a sourcebook for development studies, sociology, geography and environmental courses. (v8,#1)

Demeritt, David, "Ecology, Objectivity and Critique in Writings on Nature and Human Societies," Journal of Historical Geography 20(no. 1, 1994):20-37. A committed postmodern view of ecology, environmentalism, and environmental history. "Inspired by the Green Movement and invoking many of the analytical concepts of ecological science, environmental historians have offered trenchant criticisms of modern society and its relations with nature. Recently however, their position has been eroded on several fronts. Revisionists in ecological science have repudiated the idea of stable, holistic ecosystems used by many environmental historians and other Green critics to measure and assail the environmental damage wrought by society. Various assaults on the authority of science and history to represent nature and the past have also undercut the exclusive claims to knowledge that environmental historians rely upon to legitimate their critique. I review these various challenges and the responses to them in turn. In the final part of the essay, I advance the position that environmental historians and other Green critics should end their search for foundational authority, be it in science or elsewhere, and
appeal instead to diverse moral, political and aesthetic criteria to arbitrate between particular representations of nature in particular situations. This situation does not rule out appropriations from ecological science or other fields of knowledge where they prove useful and convincing, because, ultimately, environmental narratives are not legitimated in the lofty heights of foundational epistemology but in the more approachable and more contested realm of public discourse." Demeritt is in geography, University of British Columbia, Vancouver. (v9,#2)

Demeritt, D, "What is the `social construction of nature'? A typology and sympathetic critique," Progress in Human Geography 26(no.6, 2002): 767-790.

Democracy and Nature: The International Journal of Politics and Ecology. This journal explores such areas as the philosophy of ecology; the state and an ecological society; ecology, labor, and class; feminism and ecology; socialism and ecology; nationalism and the new world order; green economics; science and technology, to advance the twofold goal of an inclusive democracy and a sustainable, ecological society. Papers invited. The journal was formerly called Society and Nature. Aegis Publications, P. O. Box 637, Littleton, CO 80160-0637. This is the journal of the Institute for Social Ecology, P. O. Box 89, Plainfield, VT 05667. 802/454-8493 (v8,#1)


Denevan, William M., "The Pristine Myth: The Landscape of the Americas in 1492," Annals of the Association of American Geographers 82(no. 3, 1992):369-385. The myth persists that in 1492 the Americans were a sparsely populated wilderness, "a world of barely perceptible human disturbance." There is substantial evidence, however, that the Native American landscape of the early sixteenth century was a humanized landscape almost everywhere. Populations were large. Forest composition had been modified, grasslands had been created, wildlife disrupted, and erosion was severe in places. Earthworks, roads, fields, and settlements were ubiquitous. With Indian depopulation in the wake of Old World disease, the environment recovered in many areas. A good argument can be made that the human presence was less visible in 1750 than it was in 1492. "There are no virgin tropical forests today, nor were there in 1492" (p. 375). Denevan is a geographer at the University of Wisconsin. (v6,#4)

Denfeld, Rene, "Old Messages: Ecofeminism and the Alienation of Young People from Environmental Education," pp. 246-255. Contrasts the romantic eco-radicalism endemic among "difference" or "gender" feminists with the serious and committed environmentalism that it displaces or discourages. Young people, and young women especially, have had deflected their serious interest in environmental questions by the sectarianism, the wooly self-righteousness, and the disdain for science that have characterized ecofeminism. Fortunately, "the message of ecofeminism, and of the environmental movement that adopts it, is unlikely ever to gain widespread support among upcoming generations" (p. 253). Denfeld is the author of The New Victorians: A Young Woman's Challenge to the Old Feminist Order. In Gross, Paul R., Levitt,

Deng Mingying, "On ecological conscience", Studies in Ethics. 2003(2)


Denver University Law Review, vol. 76 (1999), no. 2, is a theme issue on wilderness and the Wilderness Act. The whole issue (300 pages) is available from the publisher, William S. Hein & Co., 1285 Main Street, Buffalo. NY 14209. 800/828-7571. $ 16 plus $ 7 shipping. Contains:

--Cheever, Federico, "Introduction--Talking About Wilderness," p. 335
--McCloskey, Michael, "Changing Views of What the Wilderness System Is All About," p. 369
--Glicksman, Robert L., and Coggins, George Cameron, "Wilderness in Context," p. 383
--Nickas, George, "Preserving an Enduring Wilderness: Challenges and Threats to the National Wilderness Preservation System," p. 449
--Sheldon, Karin P. "Water for Wilderness," p. 555


DePalma, Anthony, "Canada No Safe Haven for Birds or Bears," New York Times, March 13, 1998, p. A1, A8. Canada frequently has a worse record than the United States for conservation. There is a list of 291 endangered animals, birds, and insects, but there is no legislation to protect them. One problem is tension between the provincial and the national governments, with the provinces resisting any national regulation. Another is Canadian perceptions of the hassles over endangered species in the U.S. Another is refusal of Canadians to believe that, in relatively undeveloped Canada, there is a problem. (v9,#1)

DePalma, Anthony, with Romero, Simon, "Super Seeds Sweeping Major Markets, and Brazil May Be Next," New York Times (5/16/00). Herbicide-resistant soybeans, patents, and saving seeds. Monsanto's "Roundup Ready" soybean seeds allow farmers to use greater amounts of the herbicide Roundup without damaging their soybean crop. Farmers who use the
genetically-altered soybeans allegedly save on chemicals and labor because they can apply a single herbicide without harming the soy plants. One study suggests they can cut costs by 4 percent. But in the U.S. and Canada, farmers must also pay a special technology fee for each bag of seed they use and they must agree not to save seed for the following year (a longstanding practice of farmers). They must also allow Monsanto investigators to inspect their fields if they ever stop using the seed. Monsanto's informers' hot line has taken thousands of calls and Monsanto has brought charges against farmers for violating its patent rights. (One Canadian farmer brought to court by Monsanto claims the Roundup Ready plants in his field came from seed blow off passing grain trucks.) Although Monsanto claims its patents on such seeds are essential to its business, it has allowed Roundup Ready seeds to be sold in Argentina even though the country rejected its patent application. Farmers there routinely save the seed and don't have to pay the technology fee. 90 percent of that country's soy crop is now genetically-altered and U.S. farmers feel threatened by the cheaper costs of Argentinian soy producers. Brazil is trying to decide whether to allow transgenic soybeans into the country or to tap the European market for non-transgenic soybeans (European countries prohibit the use of modified seeds). Because U.S., Brazil, and Argentina together account for 80 percent of the world's soybean production and because soybean extracts are added to countless foods, Brazil's decision could have a significant affect on the availability of food free of genetically-modified material. (v.11,#2)

DePalma, Anthony, "Do Fish Have Water Rights?" New York Times, June 25, 2004, p. A22. On the Delaware River, efforts to keep trout in the river (which requires cool water) conflict with a thirsty New York City. The city has reservoirs upstream and if the level of the river drops too low, and the water heats up, the City has to release water to keep the fish cool, water which a thirsty New York needs. New York also has to keep a minimum flow so that Philadelphia and Trenton can have their share of the Delaware. (v. 15, # 3)

Depew, Brian R. Depew, There Is a Moral Obligation to Save the Family Farm, M.A. thesis, Colorado State University, summer 2005. Many persons have an attraction to family farms but without a clear moral argument for them, while family farms flounder. The two live options for agriculture in the United states are a family farm system or an industrial agribusiness system, and they differently affect individual autonomy, environmental stewardship, and community well-being, with the family farm system proving superior. This has significant implications for farm and rural policy. Depew is now pursuing a Ph.D. in rural sociology, also with further work in philosophy, at Michigan State University, East Lansing. The advisor was Michael Losonsky.

Depledge, Joanna. "Coming of Age at Buenos Aires: The Climate Change Regime After Kyoto." Environment 41(No. 7, September 1999):15-. The international community's effort to forestall climate change entered a new phase of maturity at the fourth Conference of the Parties. (v10,#4)


Dernbach, John C., "Population Control and Sustainable Industry," *Natural Resources and Environment* 12 (Fall 1997):101-. (v.8,#4)

DeRoose, Frank, "Towards a Non-Axiological Holist Ethic." *Philosophica* 39 (1987): 77-100. Wide-ranging critical review of arguments in favor of holism. DeRoose is skeptical about any axiological justification for holism, since no reasonable criterion of value can reconcile holism with individualism. (Katz, Bibl # 2)


Derr, Mark, "It Takes Training and Genes to Make a Mean Dog," *New York Times*, Feb. 4, 2001, D1, D5. Pit bulls, Rottweilers, German shepherds, mastiffs and other breeds have been selected by breeders for aggressiveness, although they also have to be trained to be aggressive, often by abuse. This does not particularly represent what they are by original wild nature. Any breed can sometimes become aggressive, and dog experts dislike banning any particular breed. Pit bulls and Rottweilers account for more than half of the fatal attacks on humans in the U.S. About 40% of American dog owners get dogs primarily for protection. They often favor such breeds, but are naive or careless about keeping such dogs out of situations where this aggressiveness will erupt in unwanted attacks. (v.12,#3)

Derr, Mark "Alien Species Often Fit In Fine, Some Scientists Contend," *NY Times* (9/4/01): D4. Exotic species are not so bad after all? Billions of dollars a year are spent to destroy nonnative organisms and prevent their spread. But some are now questioning the assumption that alien species are inherently bad and that they are never acceptable in natural ecosystems. Many now claim that the distinction between exotic and native depends on arbitrarily picking a date and stipulating that organisms that show up after that date are exotic. Others worry about the impossibility of removing all exotics and point out that native species can also be invasive; it may be more important to control them than exotics. Furthermore, there are cases where endangered plants and animals depend on exotic species. According to ecologist Dan Simberloff, of the U.S.'s 150,000 species, 7,000 are alien and about 10% of these are invasive (the other 90% have fit into their environments and are considered naturalized).


Derr, Mark, "Vanishing Livestock Breeds Leave Diversity Gap," *New York Times* (11/14/00): D3. Domestic animal diversity. Humans have domesticated about 40 species of animals and created thousands of breeds. Between 1,000 and 1,500 livestock breeds are at risk of extinction, representing about 30 percent of the most important domesticated species of birds and mammals. These animals are reservoirs of genetic diversity, play important roles in a number of ecosystems, and are sometimes central to the history and culture of human communities. 600 breeds of livestock have already gone extinct and another 78 are lost each year. The causes are the increasing industrialization of agriculture (including replacement of draft animals with
machines and the loss of family farms), indiscriminate cross breeding, and a narrow focus on certain breeds like Holsteins for milk to the exclusion of others. Scientific breeding has produced industrial hens that lay 300 eggs a year compared to 30 for most indigenous birds, broiler chickens bred to mature in 6 to 7 weeks instead of the usual 12 weeks, and a doubling of milk production in Holsteins in the last 40 years. Scientists worry that levels of inbreeding necessary to attain these results reduce genetic diversity within the breeds and can lead to serious health problems. The eight million Holsteins in the U.S. are descendants of just 37 individuals. The greatest potential for losses of livestock diversity are in developing nations which are importing scientifically-improved livestock that replace their indigenous breeds. An example of a threatened breed in the U.S. is the "Gulf Coast native sheep." Directly descendant from the stock of the first Spanish and French colonists, these sheep have been breeding largely free of human intervention for more than 300 years. They have adapted to the heat and humidity of the Gulf coast and have developed resistance to diseases and parasites that debilitate other breeds. Scientists are trying isolate genes responsible for this resistance in order to introduce them into commercially important breeds. (v.11,#4)

Derr, Patrick G. and McNamara, Edward M., Case Studies in Environmental Ethics. Lanham, MD: Rowman and Littlefield, 2003. 43 cases, typically 3-4 pages each. Hawaiian feral pigs, oil and ANWR, golden rice, Bhopal, monkey-wrenching, great apes, the Delhi Sands fly, and a host of others. Useful for discussion groups in classes in environmental ethics. Derr is in philosophy, Clark University. McNamara is an attorney. (v.14, #4)


Nash, in a sharply stated response, claims that Derr does not see the issues clearly. "Derr's position must not stand unchallenged! It represents a widespread and unwarranted distortion of much environmental thought" (p. 105) Derr is too much focused on a confidence on human nature, and, indeed, on the capacity of modern, technological civilization to meet key challenges of the new ecological awareness. Derr has yet to find the correct balance of earth, humanity, and divinity.

Neuhaus agrees with Derr that the balance between the naturalistic and the humanistic dimensions of our world have been too lopsided on the naturalistic side. But he doubts that either Derr or the radical ecologists have a picture of the place of divinity in all this, which can be known only with an adequate Christology. Derr is a Reformed thinker, Nash a "liberal" Methodist, and Neuhaus a "conservative" Roman Catholic. (v9,#1)

Derr, Thomas S., Nash, James A. Neuhaus, John. Environmental Ethics and Christian Humanism. Nashville: Abingdon Press, 1996. 144pp. $16.95 paper. Crossing s words with biocentrism, the animal rights movement, and ecofeminism Derr argues that Christian ethics requires an environmentalism that depends on good science for its practical judgments on compassion and a lively sense of justice for its social and economic policies, and on faithfulness to our God-given responsibilities as stewards of nature for its energy. James Nash and John Neuhaus offer critical responses to which Deer presents a rejoinder. (v8,#2)

Derr, Thomas S., Nash, James A. Neuhaus, John. Environmental Ethics and Christian Humanism. Nashville: Abingdon Press, 1996. 144pp. $16.95 paper. Crossin words with biocentrism, the animal rights movement, and ecofeminism Derr argues that Christian ethics requires an environmentalism that depends on good science for its practical judgments on compassion and a lively sense of justice for its social and economic policies, and on faithfulness to our God-given responsibilities as stewards of nature for its energy. James Nash and John Neuhaus offer critical responses to which Deer presents a rejoinder. (v8,#2)

Derr, Thomas S., Nash, James A. Neuhaus, John. Environmental Ethics and Christian Humanism. Nashville: Abingdon Press, 1996. 144pp. $16.95 paper. Crossin words with biocentrism, the animal rights movement, and ecofeminism Derr argues that Christian ethics requires an environmentalism that depends on good science for its practical judgments on compassion and a lively sense of justice for its social and economic policies, and on faithfulness to our God-given responsibilities as stewards of nature for its energy. James Nash and John Neuhaus offer critical responses to which Deer presents a rejoinder. (v8,#2)
Derringh, Frank W., "Is Coerced Fertility Reduction to Preserve Nature Justifiable?" *Philosophy in the Contemporary World* 8 (no. 1, Spring 2001):21-30. Human population growth must end, and the sooner the better, for both nature and a humanity that pursues boundlessly increasing affluence. Poisoning of organisms and massive extinctions result, exacerbated by population momentum. Infliction of pain and death largely for trivial reasons constitutes the ignoble denouement of our history. Reducing human numbers would be only one fitting response to recognition of this situation. Reliance on voluntary socio-economic reforms, including even the empowerment of women, appears unlikely to lead to below-replacement-level fertility, since families on average still elect to have more than two children. Discussed are three reason for thinking that coercive measures could help to engender a decreasing human population without negating preferable voluntary efforts to the same end. Hence some coercion to reduce fertility is justifiable. Derringh is in the Department of Social Science (Philosophy), New York City Technical College, Brooklyn. (v.13,#1)


Dersch, E, "Feeding the World: A Challenge for the Twenty-First Century," *Society and Natural Resources* 14(no.8, 2001): 725. (v.13,#2)

derWeele (der Weele), Corvan, "Food Metaphors and Ethics: Towards More Attention for Bodily Experience," *Journal of Agricultural and Environmental Ethics* 19(2006):313-324. Official Dutch food information apparently tries to avoid images but is implicitly shaped by the metaphor that food is fuel. The image of food as fuel and its accompanying view of the body as a machine are not maximally helpful for integrating two important human desires: health and pleasure. At the basis of the split between health and pleasure is the traditional mind-body dichotomy, in which the body is an important source of evil and bodily pleasure is sinful and dangerous. In the search for alternatives, new metaphors are proposed that integrate mind and body as well as pleasure and health. The relevance of metaphors for ethics is at least twofold. (1) Moral thought and theory are at least partly shaped by metaphors. In the light of this growing recognition, the analysis of morality needs innovation. (2) With regard to food, new metaphors, such as slow food, or the image of enjoyment as an art, enable a new search for morally responsible forms of hedonism, based on more love and respect for human as well as animal bodies. But new metaphors are specific and selective, just like old ones. I argue that a search for the best overall metaphor would be misguided, but that more diverse forms of attention to bodily aspects of life, including experiences related to food, will result in richer vocabularies of the body, the mind, and body-mind relations. This holds a promise of moral progress. Keywords: enjoyment - food - health - metaphors - mind-body relations. der Weele is in the Applied Philosophy Group, Wageningen University, Wageningen, The Netherlands. (JAE)


deSelincourt, (de Selincourt) Kate. "Intensifying Agriculture--The Organic Way," *The Ecologist* 26(no.6, 1996):271. (v8,#2)
deShalit (de-Shalit), Avner, "Bargaining with the Not-yet-born: Gauthier’s Contractarian Theory of Inter-Generational Justice and its Limitations," International Journal of Moral and Social Studies 5(1990):221-234. If one follows the contractarian premises and approach to environmental policies and inter-generational justice, one will not be able to derive obligations to future generations from these principles. Nor will one get help in arriving at any sense of balance between contemporaries and future people. (v5,#2) (Israel)

deShalit (de-Shalit), Avner, "From the Political to the Objective: The Dialectics of Zionism and the Environment," Environmental Politics 4(no. 1, 1995):70-. In the short history of the Zionist movement in Israel there have already been three interpretations of the concept of the environment, of which two are completely political. The attitude of the first Jewish immigrants to Palestine was one of anxiety. Coming from Europe, this new environment was absolutely unfamiliar to them, and they regarded the sandy dunes, the desert and the swamps as a threat. They therefore romanticized it and their relationship to it, as is done by children who are afraid of witches, fire, and so forth. They claimed that the reunion of the Jewish soil with the Jewish soul would emancipate the Jews from their bourgeois character. The second interpretation was "conquering" the new environment, which was a way of making it more familiar and human-friendly. The environment which has been described as "nothingness," "emptiness," "desolation," had to be "made to flourish" and "civilized." Zionism adopted different interpretation of the environment in order to create a new type of Jew, or to prove that Zionism was right. A third possibility, now arising, may be to appreciate the environment more objectively, but it is not yet clear whether the environment can be treated non-politically. de-Shalit teaches politics at the Hebrew University, Jerusalem. (v6,#4)

deShalit (de-Shalit), Avner, Why Posterity Matters. London: Routledge, 1995. A comprehensive examination of our duties to future generations, arguing that our obligations toward future generations are a matter of justice, not of charity or supererogation. We have a duty to consider them when we distribute access to natural resources, decide on environmental policies, and plan budgets. This raises problems for conventional theories of justice and requires a new communitarian theory of intergenerational justice, which can serve as the moral basis for environmental policy. This book is in the Routledge series, Environmental Philosophies, edited by Andrew Brennan. de-Shalit teaches environmental ethics and political policy at the Hebrew University, Jerusalem. (v5,#3)


deShalit (de-Shalit), Avner, "Environmental Policies and Justice Between Generations," European Journal of Political Research 21(1992):307-316. In environmental policy, over and above the relations between humans and nature, there are relations between contemporaries and future generations. Many environmental policies can be seen as a matter of distribution of access to goods between contemporaries and future generations. A theory of justice between generations enables political theorists to evaluate environmental problems with a new approach. (v5,#2) (Israel)

deShalit (de-Shalit), Avner, "From the Political to the Objective: The Dialectics of Zionism and the Environment," Political Studies 4: 70-88. Is the argument that we can only conceive of the "environment" in political terms far-fetched? Is an objective understanding of the concept of the "environment" possible? By an analysis of three phases in the relationship between Zionism and the environment, it can be argued, first, that not only the developmental but also the romantic attitudes to the environment regard the latter instrumentally and both constituted political definitions of the environment; and second, that a direct transition from a romantic-ruralist attitude to the environment to a modern, scientifically-based environmentalism is impossible, and that the
antithesis of the ethos of development has been necessary for the instrumental and political approach to the environment to be abandoned. (v6,#2)

deShalit (de-Shalit), Avner, The Environment Between Theory and Practice. Oxford: Oxford University Press, 2000. Why do so many environmental activists claim that there is a gap between the questions that environmental philosophers discuss and the issues that motivate environmental activists? The author attempts to answer this question and then to bridge this gap by combining tools of political philosophy with questions of environmental ethics and politics. He defends a radical position in relations to both environmental protection and social policies in order to put forward a theory, which is not only philosophically sound, but also relevant to the practice of environmental activism. de-Shalit develops and applies what he calls "public reflective equilibrium" as a new method to be used by philosophers who are engaged in applied philosophy. Avner de-Shalit is professor of political and environmental theory, The Hebrew University of Jerusalem, and Associate Fellow, Oxford Centre for Environment, Ethics and Society. (v.11,#3)


deShalit (de-Shalit), Avner, and Moti Talias, "Green or Blue and White? Environmental Controversies in Israel," in Environmental Politics 3(no. 2, Summer 1994):273- . Blue and white are the colors of Israel, here contrasted with green. Environmental controversies in Israel are characterized by the dominance of non-anthropocentric modes of reasoning. In that respect they are different from the modes of reasoning in other western countries. We analyze the arguments put forward in favor of conservation in Israel, and claim that this is not accidental, but is related to a profound cleavage between a non-anthropocentric attitude and the Israeli-Zionist ethos of development, which has governed Israeli political thought since the 1930's. (v5,#1) (Israel)

deShalit (de-Shalit), Avner, "Hachevra Ha'ezrachit ber'ei Hasviva" (Civil Society in the Mirror of the Environment), in Yoav Peled and Ophir Adi, eds., Hachevra Ha'ezrachit (Civil Society), forthcoming. (v5,#1) (Israel)


deShalit (de-Shalit), Avner, "Urban Preservation and the Judgment of Solomon," Journal of Applied Philosophy 4(1994):3-13. "Facing heretofore unknown waves of new immigrants, the Israeli Government and the mayor of Jerusalem issued a comprehensive development program, including rapid and massive construction. Cities with historical and aesthetic uniqueness, particularly Jerusalem, are likely to lose their special features and beauty. How can an argument in favor of conservation of the special beauties of such cities be advanced in the light of the urgent need to supply shelter and jobs for their inhabitants? The paper has to aims: to analyze the reason for environmental ethics' failure to discuss urban preservation so far, and to put forward a rationale for urban preservation. The latter derives from the political wisdom of King Solomon and from the notion of anthropocentric intrinsic value. de-Shalit teaches political science and environmental policy at the Hebrew University of Jerusalem. (v5,#2) (Israel)

deShalit (de-Shalit), Avner, "Community and the Rights of Future Generations: A Reply to Robert Elliot," Journal of Applied Philosophy 9(1992):105-115. de-Shalit accepts Elliot's arguments for obligations based on the rights of future people, but the main issue is whether balance can be found between these and the rights of present people. The question can be tackled only in terms of welfare rights, which requires a concept of "trans-generational" community, and the theory of justice between generations cannot be purely "rights-based." (Israel)

deShalit (de-Shalit), Avner, "Ruralism or Environmentalism?," Environmental Values 5(1996):47-58. Recent works on the historical sources of the environmental movement neglect environmental philosophy. They therefore fail to distinguish between two different currents of thought: ruralism--the romantic glorification of rural life and environmentalism--a philosophy which is based on scientific information, anti-speciesism and respect for all organisms. These works, therefore, mistakenly identify 'political ecology' with right-wing ideologies. KEYWORDS: Ruralism, environmentalism, biocentrism, greens. (EV)


deSilva (de Silva), Padmasiri, Environmental Philosophy & Ethics in Buddhism. Macmillan: London; St. Martin: New York, 1998. (1) Following an introduction to the central theories and issues in Western environmental ethics, de Silva develops an account of Buddhist environmental philosophy, ethics, economics and a Buddhist pedagogy for environmental education. (2) A central claim is that the current environmental crisis is a product of a "thinking disorder, and as mentioned in a recent review, "the author sets to demonstrate that the means of healing this virulent disorder could well come from the developing world, specially from ancient Buddhist teachings." This work is the product of a UNESCO project searching for an environmental ethic across the cultures and religions of the Asian region. (3) The critique of narrow epistemological paradigms, the call for a multi-dimensional pedagogy, the need for an environmental ethics that will actually influence people--these claims are backed by Antonio Damasio's claim that we make bad decisions, when we have no access to "emotional learning." The concept of "ecological sensibility" is another important ingredient of this book. (v.11,#1)


DesJardins (Des Jardins), Joseph R. *Environmental Philosophy*. 2nd ed. Belmont, CA: Wadsworth Publishing Co., 1997. 288 pages. A second edition of a widely-selling introductory text. Added in the second edition are sections on moral pluralism, cost-benefit analysis, sustainable economics, environmental justice, environmental racism, social ecology, and ecofeminism. The work of Callicott, Goodpaster, Bullard, and Rachel Carson is discussed more extensively than in the first edition. The sections on intrinsic/instrumental value and on ecology have been reworked for the sake of clarity and accuracy. Translations of this work into Korean and Chinese are pending. Des Jardins is in philosophy at The College of Saint Benedict/St. Johns University, St. Joseph. MN. (v7, #3)


DesJardins, Joseph R. (Des Jardins), *Environmental Ethics: An Introduction to Environmental Philosophy*. 272 pages, paper. Wadsworth, 1993. Sections on basic ethical concepts, forests, pollution, climate change, economics, energy, future generations, duties to animals, biocentrism, the land ethic, deep ecology, ecofeminism. Discussions include the spotted owl controversy, monkey-wrenching and the Rio Summit. End of chapter summaries and discussion questions. Makes a particular effort to survey all the areas of the field, yet a reasonably compact text. Des Jardins is professor of philosophy at the College of St. Benedict/St. Johns University, St. Joseph, MN. (v3,#4)


DesJardins, Joseph R., *Environmental Ethics: An Introduction to Environmental Philosophy*. 4th edition. Belmont, CA: Thomson/Wadsworth 2006. Now the fourth edition of this quite popular text. This edition tries to connect theories in ethics more directly to contemporary environmental debates. It gives more attention to religious dimensions in environmental ethics, and more to sustainable development. There is also a wider-ranging discussion of social justice issues. DesJardins is in philosophy, College of St. Benedict and St. John's University, St. Joseph, MN.


Desouzafilho (de Souza Filho), Hildo Meirelles. *The Adoption of Sustainable Agricultural Technologies*. Brookfield, VT: Ashgate, 1998. 190 pp. $55.95. This is a case study in the state of Espirito Santo, Brazil. (v9,#2)

Dessai, S, "Why Did The Hague Climate Conference Fail?" *Environmental Politics* 10(no, 3, 2001): 139-144. (v.13,#1)


DeStefano, S, "Birds in the Human Landscape," *Conservation Biology* 17(no.5, 2003):1467-1468. (v.14, #4)


Deudney, Daniel H., and Matthew, Richard A., eds., *Contested Grounds: Security and Conflict in the New Environmental Politics*. Albany, NY: State University of New York Press, 1999. 276 pages. $ 21.00 paper. 12 contributors. The relationship between international security and the environment. The important, and overlooked, role that environmental factors have played in geopolitics. What are the relationships between environmental change, degradation and protection and traditional national security concepts and organizations? How useful are security concepts and organizations in mobilizing political responses to environmental problems? What role do environmental favors play in stimulating international conflict and cooperation. Deudney is in political science, Johns Hopkins University. Matthew is in social ecology and political science, University of California at Irvine. (v.10,#1)

Deuffic, Philippe, and Jacqueline Candau, "Farming and Landscape Management: How French Farmers are Coping with the Ecologization of Their Activities." Journal of Agricultural and Environmental Ethics 19(2006):563-585. In Europe, an increasing share of public subsidies for food production is being transferred towards the production of goods and environmental services. Today, farmers hesitate between the quest for technical and economic performance, which has been the paradigm of their professional activities since the 1960s, on one hand, and taking account of the environmental concerns that have been imposed since the middle of the 80s, on the other. Is it possible for farmers to continue to work according to the paradigm of the producer of agri-food goods, and how do they react to the ecologization of their activities? In this paper, we will see the difficulties and sources of tension induced by landscape maintenance in the daily professional practice of the farmers. We will see that the professional identity of the farmers is profoundly brought into question by these changes (substitution of strictly "agricultural issues" by more general concerns such as "rural issues," substitution of the farmer by the "ecologized" peasant...). The topic of landscape reveals social strains between farmers. It also raises the question of the legitimacy of farmers to define the sense of their activities by themselves. Finally we will see that environmental orientations do not systematically open up new prospects for all farmers; they sometimes contribute to increase the inequalities between farmers (financial support proportional to land property, marginalization of farmers who are less socially integrated...). Keywords: agri-environment - farmers professional identity - landscape - multifunctionality - rural amenities - social contract. The authors are with Cemagref, UR Agriculture and Dynamics of Rural Areas, Cestas, France. (JAEE)

Deutsch, Eliot. "A Metaphysical Grounding for Nature Reverence: East-West." Environmental Ethics 8(1986):293-99. I argue for the possibility of a creative relationship between man and nature which will inform the basic decision makings that confront us in the concrete concerns of environmental ethics today. This relationship, which I call "natural reverence," is essentially an attitudinal one which recognizes the togetherness of man and nature in freedom. Contrasting Kant's treatment of the sublime with certain ideas to be found in Indian philosophy--namely, the idea of a radical discontinuity, thought to obtain between "reality" and "nature" (maya in Vedanta), and the idea of karman as involving modes of human making--I show the manner in which nature can become value laden and how we can work with nature in a manner analogous to that of an artist working with his/her medium in a kind of creative play. Deutsch is the editor of Philosophy East and West, Honolulu, Hl. (EE)

Devall, Bill and George Sessions. "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 at the Philosophy Dept., Sierra College, Rocklin, CA. Devall is at the Sociology Dept., Humboldt University, Arcata, CA. (EE)

Devall, Bill, and George Sessions, Deep Ecology: Living as if Nature Mattered. Salt Lake City: Peregrine Smith, 1985. Pp. xi, 267. The most charitable way to describe Deep Ecology as a philosophical position is that it is an attempt to raise our "ecological consciousness" so that we
may see the unity of humanity and nature. Unfortunately, the position, as it has been staked out in the literature, is so vague that it includes a host of seemingly conflicting elements: e.g., both biospecies equality and holism. Devall and Sessions do little to explain the position and argue for it. This is disheartening, for many of the features of Deep Ecology are philosophically significant in the development of an environmental ethic--particularly the critique of what Devall calls "Reform Environmentalism." But Devall and Sessions seem to be writing for the converted; there is little convincing argument. Argument, however, is possible: witness Session's appendix on Deep Ecology and "fascism" where he defends Deep Ecology and Holism from critics who say it submerges the value of individuals. Unfortunately, the rest of the book is a hodgepodge of many Devall and Sessions papers collected as a book. This should be read as a necessary evil ... but we still need a sustained description and defense of the Deep Ecology position. (Katz, Bibl # 1)

Devall, Bill, "The Deep, Long-range Ecology Movement: 1960-2000--A Review," *Ethics and the Environment* 6(no. 1, 2001):18-41. Aarne Naess, in a seminal paper on environmental philosophy, distinguished between two streams of environmental philosophy and activism-shallow and deep. The deep, long-range ecology movement has developed over the past four decades on a variety of fronts. However, in the context of global conferences on development, population, and environment held during the 1990s, even shallow environmentalism seems to have less priority than demands for worldwide economic growth based on trade liberalization and a free market global economy. Devall was in sociology, now emeritus, Humboldt State University, Arcata, CA. (E&E)


Development Southern Africa is a quarterly journal published by the Development Bank of Southern Africa. P. O. Box 1234, Halfway House, 1685, South Africa. A scholarly journal now in its twelfth year, published six times a year. The emphasis is on development, but development that is environmentally sustainable and sensitive. (v6,#3)


DeVries (De Vries), Rob, "Genetic Engineering and the Integrity of Animals," *Journal of Agricultural and Environmental Ethics* 19(2006):469-493. Genetic engineering evokes a number of objections that are not directed at the negative effects the technique might have on the health and welfare of the modified animals. The concept of animal integrity is often invoked to articulate these kind of objections. Moreover, in reaction to the advent of genetic engineering, the concept has been extended from the level of the individual animal to the level of the genome and of the species. However, the concept of animal integrity was not developed in the context of genetic engineering. Given this external origin, the aim of this paper is to critically examine the assumption that the concept of integrity, including its extensions to the level of the genome and the species, is suitable to articulate and justify moral objections more specifically directed at the genetic engineering of animals. Keywords: animal integrity - duties towards animals - genetic engineering of animals - genetic integrity - species integrity. de Vries is in the Faculty of Science, Department of Philosophy and Science Studies, Radboud University Nijmegen & Centre for Ethics, Nijmegen, The Netherlands. (JAEE)


deWaal (de Waal), Frans B. M., "Survival of the Kindest," *Chronicle of Higher Education*, August 7, 1998, B4-B5. A summary of de Waal's claims contesting the selfish genes theories, which he has made recently in a number of publications, such as *Good Natured* (Harvard University Press). There is frequently genuine altruism in animals (and people). "When George Williams ... declared ... that `natural selection maximizes short-sighted selfishness,' he confused the utilitarian language of evolutionary biology with what actually drives animals and people to act. Selfishness implies an intention to serve oneself, a purpose that depends on knowing what one stands to gain from a particular behavior. Without such knowledge, selfishness is a much more problematic concept than many evolutionary thinkers realize. ... In my work on the evolution of empathy and morality, I have found many instances of animals’ caring for one another and responding to one another’s distress--evidence so rich that I am convinced that survival depends not only on strength in combat but also at times on cooperation and kindness."

"The helping behaviors shown by dolphins, gorillas, or people toward strangers in need probably evolved in the context of close knit group life, in which most such actions benefited relatives and companions able to return the favor. The impulse to help was therefore never totally without self-interest and survival value to the individual displaying it. But, as so often is the case, the impulse became divorced from the consequences that shaped its evolution. This permitted it to express itself even when payoffs were highly unlikely. In this sense, the impulse became genuinely unselfish." De Waal is in psychology and primate behavior at Emory University. (v.9,#3)
deWaal (de Waal), Frans, Good Natured: The Origins of Right and Wrong in Humans and Other Animals. Cambridge, MA: Harvard University Press, 1996. The extent to which requisites of morality can be recognized in other animals, especially primates. de Waal strenuously objects to a current tendency among biologists to ascribe various negative descriptions to animals, such as their being "selfish," or "cheaters" or "deceiving" or "greedy" or "having enemies," or "murdering" with a simultaneous refusal to ascribe various positive traits to them. Biologists go to great lengths, unnecessarily so, to argue away all evidence of animal altruism, interpreting it as disguised selfishness, or kin selection, or nepotism, and so on. Animals, particularly those close to us, display an enormous spectrum of emotions and different kinds of relationships. It is only fair to reflect this fact in a broad array of terms. If animals can have enemies, they can have friends. If they can cheat, they can be honest. If they can be spiteful, they can also be kind and altruistic. Semantic distinctions between animal and human behavior often obscure fundamental similarities; a discussion of morality will be pointless if we allow our language to be distorted by a denial of benign motives and emotions in animals. de Waal works at the Yerkes Regional Primate Center in Atlanta, Georgia. (v7,#1)

deWaal (de Waal), Frans B. M., "A Century of Getting to Know the Chimpanzee," Nature 437(1 Sept. 2005):56-59. "Humans do occupy a special place among the primates, but this place has increasingly to be defined against a backdrop of substantial similarity." de Waal is in primate research, Yerkes National Primate Research Center, Emory University.


Dewar, Heather, "Everglades to Be Restored, Sort of," Lexington Herald-Leader, 18 June 1998, B9 Everglades restoration plan (Draft) to cost $7.5 billion. In June 1998, the US Army Corps of Engineers completed its draft plan for undoing the damage it did to the Everglades in the late 1960s. That was when the Corps finished the 1600-mile long network of levees and canals that drain the swamps and marshes, creating space for urban development and 750,00 acres of farmland. The canals deprive the Everglades of 20% of its natural waterflow. Now wading birds are gone from many regions, and some species are down to about one-twentieth their pre-canal numbers. The canal project cost $252 million. The restoration is estimated to cost $7.5 billion. South of Lake Okeechobee, the Corps will dig 100 wells, each a thousand feet deep, that will store water during the rainy season. Then during the dry season, the water will be pumped into dry areas, restoring an estimated 40-60,000 acres of wetlands. The technology has never been tested on this grand a scale. Another alternative, costing far less but politically unacceptable, would be to rip out the levees and allow the natural flow of water across the region. Originally more than 1.5 million acres in size, the Everglades has been reduced by more than half. Ecologist John Ogden of the South Florida Water Management District, a member of the team drafting the proposal, laments that the remnant cannot function naturally without human assistance and intrusive high-technology. Restoring the Glades will give the Corps something to do for at least fifteen years. The draft proposal will be officially presented for public comment in October 1998 and then will go to Congress for funding in July 1999. The draft plan is being supported by the Audubon Society. (v9,#2)


DeWitt, Calvin B., "Biodiversity and the Bible," Global Biodiversity 6(no. 4, 1997):13-16. (v.12,#4)


DeWitt, Calvin, Earth-Wise: Reclaiming God's Creation: A Biblical Response to Environmental Issues. Grand Rapids, Mi: CRC Publications, 1994. $ 6.50. We should not panic about the state of the environment; its final maintenance and care rests in God's divine hands. At the same time, God has appointed humans the stewards of creation and requires us to consider what consequences our actions may impose on God's creation. DeWitt is professor of environmental studies at the University of Wisconsin-Madison. (v5,#4)


DeYoung (De Young), Raymond. "Some Psychological Aspects of Reduced Consumption Behavior: The Role of Intrinsic Satisfaction and Competence Motivation." Environment and Behavior 28, no.3 (1996): 358. (v7, #3)

Dharmadasa, K.N.O., and Samarasinghe, S.W.R. de A., eds., The Vanishing Aborigines: Sri Lanka's Veddas in Transition. New Delhi: Vikas Publishing House, 1990. In Sri Lanka, the extremely poor Vedda people were relocated in the Mahaweli Development Scheme, which called for a forest and wildlife reserve in some of their best hunting and food gathering areas.

DHondt, Steven, Rutherford, Scott, and Spivack, Arthur J., "Metabolic Activity of Subsurface Life in Deep-Sea Sediments," Science 295(15 March 2002):2067-2069. There is a surprising amount of life buried deep in marine sediments (to one kilometer), mostly microorganisms (procaryotes) that may constitute from one-tenth to one-third of Earth's biomass. But most of it is quite low in metabolic activity (most in the first few centimeters) and lower down the organisms are mostly inactive--just there in a suspended state until conditions change that permit metabolic activity. The authors are in oceanography, University of Rhode Island. (v.13,#2)

Dial, Kenneth P.; Randall, Ross J.; Dial, Terry R., "What Use Is Half a Wing in the Ecology and Evolution of Birds?," BioScience 56 (no.5, May 2006): 437-445 (9). The use of incipient wings during ontogeny in living birds reveals not only the function of these developing forelimbs in growing birds' survival but also the possible employment of proto wings during transitional stages in the evolution of flight. When startled, juvenile galliform birds attempt aerial flight even though
their wings are not fully developed. They also flap their incipient wings when they run up precipitous inclines, a behavior we have described as wing-assisted incline running (WAIR), and when they launch from elevated structures. We argue that avian ancestors may have used WAIR as an evolutionary transition from bipedal locomotion to flapping flight.


Diamond, Jared, *The Third Chimpanzee: The Evolution and Future of the Human Animal*. New York: HarperCollins, 1992. 407 pages. Diamond claims that the golden age of indigenous peoples of the past never was. Preindustrial societies exterminated species, destroyed habitats, exploited their resources, and undermined their own existence for thousands of years, and archaeological finds at Polynesian, American Indian, Madagascar, Easter Island, Maya, Aztec, and other sites demonstrate this. The native peoples were not particularly either gentle or nature-loving. But they were more ignorant than we. "Tragic failures become moral sins only if one should have known better from the outset." Our scientific knowledge enables us to know that we are engaging in "self-inflicted ecological disasters." It is "beyond understanding to see modern societies repeating the past's suicidal ecological mismanagement." Diamond is a UCLA physiologist, cultural ecologist, and anthropologist, who spends half the year in New Guinea among tribes that were still living in the Stone Age until fifty years ago. (v5,#1)

Diamond, Jared, *Guns, Germs, and Steel: The Fates of Human Societies*. New York: Norton, 1997. Diamond examines the environmental factors that influenced the shift from hunter-gatherers to farming-based cultures, to provide a better understanding of how human societies came to be. Societies with the advantages of reliable food sources and domesticated animals tended to develop writing, technology, government, and organized religion as well as military weapons, resulting in their expansion at the expense of less sophisticated societies. Location and environment, not superior culture, are the deciding factor in the construction of dominant
civilizations. So superiority is an illusion, it's all a matter of environmental good fortune. Diamond is a UCLA physiologist and cultural ecologist, who does research among New Guinea tribes. (EE v.12,#1)

Diamond, Jared, *Collapse: How Societies Choose to Fail or Succeed*. New York: Viking, 2005. By the author of *Guns, Germs and Steel*. Hit the NY Times best seller list for several weeks. Examines reasons for social collapse, ranging over several fairly ancient societies, such as Easter Island, the Mayans and Norse Greenland, to contemporary societies such as Haiti, China, and Australia, and to global industrial society. Diamond persistently asks why societies make decisions which turn out to be disastrous, as well as what this means for us today. In the end, he discusses twelve sets of environmental problems now confronting global society, where the failure to resolve any one of which will likely lead down the road of global social collapse. "No cure is even under serious discussion for these problems, which will only get worse" (p. 500). Quite a goad to further action. (Thanks to Andrew McLaughlin.)

Diamond, Jared. "Playing God at the Zoo." *Discover*, March 1995, pp. 79-85. Should we feed live lambs to tigers? When zoo directors put the interests of animals first, they find themselves facing thorny moral questions. Diamond is a UCLA physiologist, cultural ecologist, and anthropologist. (v6,#1)


Dias De Oliveira, ME; Vaughan, BE; Rykiel, EJ, "Ethanol as Fuel: Energy, Carbon Dioxide Balances, and Ecological Footprint," *BioScience* 55 (no. 7, July 2005): 593-602. The major contributor to global warming is considered to be the high levels of greenhouse gas emissions, especially carbon dioxide (CO2), caused by the burning of fossil fuel. Thus, to mitigate CO2 emissions, renewable energy sources such as ethanol have been seen as a promising alternative to fossil fuel consumption. Brazil was the world's first nation to run a large-scale program for using ethanol as fuel. Eventually, the United States also developed large-scale production of ethanol. In this study, we compare the benefits and environmental impacts of ethanol fuel, in Brazil and in the United States, using the ecological footprint tool developed by Wackernagel and Rees.


Dickens, Peter, *Society and Nature: Towards a Green Social Theory*. Philadelphia: Temple University Press, 1992. 203 pp. Paper and cloth. Dickens starts with Marx and the claim that work is the main source of human separation from nature, then builds on Anthony Giddens' social theory, and critiques deep green and deep ecology movements. Dickens is in urban studies and social policy at the University of Sussex, UK. (v3,#4)

Dickens, Peter, *Reconstructing Nature: Alienation, Emancipation and the Division of Labour*. London: Routledge, 1996. 217 pages. .14 paper. Social constructivism takes many forms. From a Marxist, and hence materialist, point of view the wholesale deconstructivism favored by "postmoderns" and discourse analysts goes too far. Dickens wants to correct an environmentalism he regards as "characterised by a profound failure to understand their relations with nature" (p. 149). He also rejects the idea that nature is "a purely social construction with no references to real and material processes `out there.'" Dickens targets what he refers to as "strong" social constructivism. He wants this label to apply equally to both those explicitly constructivist critics of environmental discourses who regard "nature" as simply a product of human social practices and those environmentalists who entirely reject this view and wish to retain (and in his terms reify) a pure nature untouched by human hands. The former he regards as idealists in the sense that they come to regard "nature" as an infinitely plastic creation of the human mind. The latter are idealists in the different sense of being unwitting dupes who accept aromanticized picture of the human/natural relations without recognizing it for the social construction it really is. Dickens is in urban studies and social policy at the University of Sussex, UK. Reviewed by Mick Smith, "What's Natural? The Socio-political (De)construction of Nature," *Environmental Politics* 6 (no. 2, Summer 1997):164-168. (v9,#1)


Dickinson, James, "In Its Place: Site and Meaning in Richard Serra's Public Sculpture," *Philosophy and Geography* 3 (1998): 45-72. Dickinson is professor of sociology at Rider University. (P&G)

Dicks, Lynn, "Too Close for Comfort," *New Scientist*, 18 October 2003. The effects of inbreeding are more insidious than anyone expected, with implications for the conservation of species with limited genetic pools. "We should change the way we try to protect endangered species and stop wasting time trying to rehabilitate sick [inbred] animals who will only fall ill again." (v.14, #4)


Dickson, Barnabas. "The Ethicist Conception of Environmental Problems." *Environmental Values* 9(2000):127-152. Abstract: Ethicist assumptions about the causes and solutions of environmental problems are widely held within environmental philosophy. It is typically assumed that an important cause of problems are the attitudes towards the natural environment held by individuals and that problems can be solved by getting people to adopt a more ethical orientation towards the environment. This article analyses and criticises these claims. Both the highly mediated nature of the relationship between individuals and the natural environment and the pervasive pressure on firms in market economies to reduce their costs provide reasons to question the ethicist assumptions. KEYWORDS: Ethicism, environmental ethics, environmental problems, solutions. Barnabas Dickson resides at Holmsgarth, Blackheath, Wenhaston, Suffolk IP19 9ET, UK. (EV)

Dielm, Christian. "Arne Naess and the Task of Gestalt Ontology." Environmental Ethics 28(2006):21-35. While much of Arne Naess's ecosophy underscores the importance of understanding one's ecological Self, his analyses of gestaltism are significant in that they center less on questions of the self than on questions of nature and what is other-than-human. Rather than the realization of a more expansive Self, gestalt ontology calls for a "gestalt shift" in our thinking about nature, one that allows for its intrinsic value to emerge clearly. Taking such a gestalt shift as a central task enables Naess to avoid some common criticisms of his view. (EE)

Diehm, Christian, A Identification with Nature: What it Is and Why it Matters, @ Ethics and the Environment 12(no. 2, 2007):1-22. This essay examines the content and significance of the notion of "identification" as it appears in the works of theorists of deep ecology. It starts with the most frequently expressed conception of identification-termed "identification-as-belonging" -and distinguishes several different variants of it. After reviewing two criticisms of deep ecology that appear to target this notion, it is argued that there is a second, less frequently noticed type of identification that appears primarily in the work of Arne Naess-"identification-as-kinship." Following this analysis, it is suggested that identification-as-kinship may be less vulnerable to the criticisms that are aimed at identification-as-belonging. Diehm is in philosophy, University of Wisconsin, Stevens Point.

Diekmann, Andreas and Franzen, Axel, "The Wealth of Nations and Environmental Concern." Environment and Behavior 31(no.4, July 1999):540-. (v.11,#1)


Dietz, JM; Aviram, R; Bickford, S; Douthwaite, K; Goodstine, A; Izursa, JL; Kavanaugh, S; MacCarthy, K; Oherron, M; Parker, K, "Defining Leadership in Conservation: a View from the Top". Conservation Biology 18 (no.1, 2004): 274-278.

Dietz, Thomas, Ostrom, Elinor, and Stern, Paul C., "The Struggle to Govern the Commons," Science 302(12 December 2003):1907-1912. Governing the commons, a dilemma first posed by Garrett Hardin in 1968 is still an unsolved problem. Human institutions sometimes succeed locally; but often fail, especially when rapid change occurs. There is no satisfactory global governance, although some international institutions hold promise. Much needed is "adaptive governance in complex systems. "Sound science is necessary for commons governance, but not sufficient. Too many strategies for governance are designed in capital cities or by donor agencies in ignorance of the state of the science and local conditions. The results are often tragic, but at least these tragedies are local. As the human footprint on the Earth enlarges, humanity is challenged to develop and deploy understanding of large scale commons governance quickly enough to avoid the large-scale tragedies that will otherwise ensue" (p. 1910). Dietz is in environmental science and policy, Michigan State University. Ostrom is in institutions, population, and environmental change, Indiana University. Stern is in social and behavior sciences, The National Academies, Washington.

Dill, Starla K., "Animal Habitats in Ham's Way: Sweet Home Chapter of Communities for a Great Oregon v. Babbitt," Environmental Law 25 no. 2 (1995): 513- . Dill criticizes the majority opinion in Sweet Home III. She argues that, pursuant to the Chevron doctrine, the majority should have held the Fish and Wildlife Service interpretation of harm as habitat modification a reasonable interpretation of the Endangered Species Act and concludes that the Supreme Court should reverse Sweet Home III and declare the Fish and Wildlife Service regulation valid. (v6,#2)


Dilsaver, Larry M. and Craig E. Colton, eds., The American Environment: Historical Geographic Interpretation of Impact and Policy. Lanham, MD: Rowman and Littlefield, 1992. 288 pages. $22.95 paper, $ 60.00 cloth. The authors regret that historical geographers have over recent decades left the study of nature-culture interactions to others, such as environmental historians and philosophers, and hope to reaffirm the importance of geography in this discussion. There is a long but thinly attended past scholarship here, and a rapidly accelerating research agenda. Nine authors. Dilsaver is in geography at the University of South Alabama, Colton is in history and geography at Sangamon State University, Springfield, IL. (v3,#4)


Dinar, S; Dinar, A, "Recent Developments in the Literature on Conflict Negotiation and Cooperation over Shared International Fresh Waters," *Natural Resources Journal* 43(no.4, 2003):1217-1286. (v. 15, # 3)


di Norcia (di Norcia), Vincent, "Environmental and Social Performance," *Journal of Business Ethics* 15(1996):773-784. If an organization cares for nature it will so act as not to harm the ecosystems it affects, or when it cannot so act at the moment it will commit itself to such action over time. Credible commitment requires an action plan with specified targets determining the best ecologically beneficent pollution abatement and ecosystem improvements. Four direct environmental performance measures are analyzed: pollutant loads, pollutant concentrations, ecosystem impacts, and ecosystem restoration. A model of ecologically beneficent performance that is microscopic in detail and regional in scope. Economics and ecology should be mutually reinforcing, just as sustainable development suggests. di Norcia is in environmental management, University of Sudbury, Sudbury, Ontario. (v.10,#2)


Dion, Michel. "A Typology of Corporate Environmental Policies." *Environmental Ethics* 20(1998):151-62. Although many small businesses and a great number of large enterprises have environmental policies, the contents of such policies vary widely according to their emphases either on technical rationality and technocentrism/technocracy or on ecological rationality and ecocentrism/ecocracy. I present them in four categories: with regard to strong anthropocentrism, (1) the neo-technocratic enterprise and (2) the techno-environmentalist enterprise; and with regard to weak anthropocentrism, (3) the pseudo-environmentalist enterprise and (4) the quasi-environmentalist enterprise. Such a typology can be useful for business managers to write and/or review their environmental policies. However, it only reflects the "ideal values" of the enterprise, not the corporate story with regard to environmental issues. Dion is in theology and philosophy, Université de Sherbrooke, Sherbrooke, Quebec. (EE)

Oregon Coast Range for more than sixty years recalls the forests and their changes, lamenting all that we lose when we destroy old-growth forests. Dirks-Edmunds served for more than thirty years as professor of biology, Linfield College, McMinnville, OR. (v.10,#1)


DiSilvestro (Di Silvestro), Roger. "Steelhead Trout: Factors in Protection," Bioscience 47(no.7 1997):409. The federal government may list this salmon species this summer, amid a cauldron of conflicting concerns. (v8,#3)

DiSilvestro, Roger L., Reclaiming the Last Wild Places: A New Agenda for Biodiversity. New York: John Wiley & Sons, 1993. 266 pages. "This is a book about boundaries. ... Territorial boundaries are ancient; they are artifacts dating from a primordial world. They are, in essence, established for the exploitation of the earth. ... Only in the past century has humanity begun to set the protection of wildlands as a broad social goal, creating national parks, national forests, wildlife refuges, even protected wilderness areas. This is something truly new under the sun, and every protected wild place is a monument to humanity's uniqueness. The greatest qualitative difference between us and nonhuman animals is not that we can change and modify our environment. Practically every living creature does that, from the AIDS virus that destroys its own habitat, to herds of hoofed animals that trim grasslands, to chimpanzees that make spoons from leaves, to birds that build nests, to ants and termites living in teeming arthropod cities. But we are the first living things, as far as we know, to make a choice about the extent to which we will apply our abilities to influence the environment. We not only can do, but we can choose not to do. Thus, what is unique about the boundaries we place around parks and other sanctuaries is that these boundaries are created to protect a region from our own actions. ... No longer can we think of ourselves as masters of the natural world. Rather, we are partners with it" (pp. xiii-xv). The final chapter is "Ethics, Economics, and Ecosystems."


Dixon, Beth A., "The Feminist Connection between Women and Animals," Environmental Ethics 18(1996):181-194. Comparison of similarities between women and animals does not necessarily show that animals are oppressed, much less that they are oppressed by patriarchy. Moreover, by seeking to establish symbolic connections, ecofeminists run the risk of essentializing women as emotional and bodily and closer to nature than men. Feminists have little to gain by concentrating exclusively on how the concepts of woman and animal overlap. Likewise, there is little to be gained for animal liberation by comparing women and animals in theory and practice. Feminists have obligations to liberate animals to the degree that they have obligations to liberate any oppressed population, but not because there are either theoretical, practical, or symbolic connections between women and animals. Dixon is in philosophy, State University of New York at Plattsburgh. (EE)

Dixon, Beth, "Animal Emotions," *Ethics and the Environment* 6(no. 2, 2001):22-30. Recent work in the area of ethics and animals suggests that it is philosophically legitimate to ascribe emotions to non-human animals. Furthermore, it is sometimes argued that emotionality is a morally relevant psychological state shared by humans and nonhumans. What is missing from the philosophical literature that makes reference to emotions in non-human animals is an attempt to clarify and defend some particular account of the nature of emotion, and the role that emotions play in a characterization of human nature. I argue in this paper that some analyses of emotion are more credible than others. Because this is so, the thesis that humans and nonhumans share emotions may well be a more difficult case to make than has been recognized thus far. Dixon is in philosophy, State University of New York, Plattsburgh. (E&E)


Dixon, Ben, @Darwinism and Human Dignity.@ *Environmental Values* 16(2007): 23-42. James Rachels argued against the possibility of finding some moral capacity in humans that confers upon them a unique dignity. His argument contends that Darwinism challenges such attempts, because Darwinism predicts that any morally valuable capacity able to bestow a unique dignity is likely present to a degree within both humans and non-human animals alike. I make the case, however, that some of Darwin's own thoughts regarding the nature of conscience provide a springboard for criticising Rachels's claim here. Using Darwin's thoughts regarding conscience, I begin the project of grounding a revised account of human dignity in the human tendency to enshrine products of conscience within institutions. Specifically, I argue that this new account of human dignity is partly contingent upon humans creating institutions morally respectful of the values present within non-human nature. Dixon is in philosophy, University of Maryland, Baltimore County, Baltimore.

Dizard, Jan E., *Going Wild: Hunting, Animal Rights, and the Contested Meaning of Nature*. Amherst: University of Massachusetts Press, 1994. 182 pages. $ 12.95 paper. Boston's water agency, the Metropolitan District Commission, owns and operates the Quabbin Reservoir and its watershed of 55,000 acres. The area is a preserve, and wildlife flourishes there. Deer flourish, welcomed for decades, but then overpopulate and begin to degrade the forest. The Commission opens the area to hunting, under controversial debate that moves across most of the key issues in environmental ethics: nature undisturbed by humans and the proper role of human management, whether nature can take care of itself in a reserve of this kind, whether hunting is an acceptable management tool, conservation and preservation. Chapter titles: What's Wild; Let Nature Be; Taking Care of Nature; Sport, Management or Murder, Ambiguity and Ambivalence in Modern Hunting; Nature's Rights and Human Responsibility; Constructing Nature. Dizard is in sociology and American studies at Amherst College. (v6,#4)


leftist critique of liberal democratic society with contemporary environmental concerns. His work is undermined, however, in part by the dubious comparisons he makes between market systems and ecosystems, in particular by his failure to understand how these systems operate by impersonal principles of self-organization, combining both cooperation and competition. But the market system, whatever its merits, does promote an instrumental human relation to nature. Free market environmentalism cannot incorporate an appreciation for creatures that have intrinsic value but no instrumental value for human beings, nor for the intrinsic values of things that do have such instrumental value. Deep ecologists are therefore right to criticize the unwillingness of market societies to appreciate the intrinsic value of nature. This can be addressed with an evolutionary liberalism. Here property rights, for example, would be taken up with a sense of stewardship of values in the natural world. The deep ecological principle that should not be compromised is that property rights should reflect not just efficiency in meeting human desires, but also the value of the nonhuman world. We can achieve a harmony between humans and the natural world under the guidance of the rules of self-organizing systems. DiZerega is with the Institute of Government Studies, University of California, Berkeley. (v5,#4)


DiZerega, Gus. "Individuality, Human and Natural Communities, and the Foundations of Ethics." Environmental Ethics 17(1995):23-37. An ecologically informed view of ethics focuses upon individuals considered in relation to the communities within which they live. Such a view holds that ethics is rooted in the fundamental relationships characterizing particular types of communities. From this perspective, the different communities of the polity, family, and ecosystem superficially appear to have very different ethical systems. In fact, however, all are characterized by respect for community members. Respect is the fundamental ethical insight. This view suggests a way of harmonizing modern society’s relationship with the natural world and of bringing ethical theory into closer harmony with humankind’s most timeless insights. Dierega is with the Foundation for Research for Economics and the Environment, Seattle. (EE)


Dobb, Edwin, "Reality Check: The Debate Behind the Lens," Audubon 100 (no. 1, January-February 1998):44-51, 98-99. Ethical and related issues in wildlife photography. Our ability to separate photographic fact from fiction is a thing of the past. What hope remains for faithful, credible images of wildlife? New photographic technologies have provoked a debate over the ethics of digital manipulation, the use of captive or posed animals, the harassment of wildlife, and various artifices that stretch the truth. (v.8,#4)

Dobbins, Jeffrey C. "The Pain and Suffering of Environmental Loss: Using Contingent Valuation to Estimate Nonuse Damages." Duke Law Journal 43 (1994): 879-946. The various economic, philosophical, and legal arguments posed against the validity of contingent valuation will continue for some time to come. Despite uncertainties in contingent valuation methodologies, however, agencies and courts should permit contingent valuation to serve as one pieces of evidence in the effort properly to assess the value of natural resource damages. The consistently positive response to contingent valuation studies and our own experience indicate that many of us do place a value on the mere existence of natural places and organisms. The difficulties involved in translating this value into monetary terms do not justify the complete rejection of a method that has the potential for reporting useful information. Although a significant body of criticism regarding the mechanics of contingent valuation methodology has been developed, caution in design and administration can resolve most of the difficulties. To the extent that even well-conducted contingent valuation studies remain doubtful, they involve questions regarding the appropriateness of inserting these sorts of cash values into the litigation and policymaking
process. The decision then is a political, moral, and legal one. Are existence values the sorts of things that we consider an important part of natural resource damage recovery? Do we want to reduce such values to cash as a common denominator or does ethics reject common denominators as a vehicle by which values are compromised. (v6,#1)


Dobkowski, Michael N., and Wallimann, Isidor, eds. The Coming Age of Scarcity: Preventing Mass Death and Genocide. Syracuse, NY: Syracuse University Press, 1997. 384 pages. $35.00. Fourteen articles. If present trends persist, such as population growth, loss of land resources, increased energy consumption, and limited energy resources, then the world's population cannot be sustained. The result will be ecological catastrophes, scarcity, social conflicts, and threats to human life, including the potential for mass death. (v.8,#4)


Dobson, A., J. P. Rodriquez, W. M. Roberts, and D. S. Wilcove, "Geographic Distribution of Endangered Species in the United States," Science 276 (January 24, 1997):550-. Species listed by the federal government are distributed in regional "hot spots." "The amount of land that needs to be managed to protect currently endangered and threatened species in the United States is a relatively small proportion of the land mass." With several replies in Science 276 (April 25) objecting that the "hot spots" approach is biased and does not adequately represent desirable conservation priorities, including one letter by all three editors of Conservation Biology (David Ehrenfeld, founding editor; Reed F. Noss, editor; and Gary K. Meffe, incoming editor) that the report is likely to be misused if protection is granted to these "hot spots," and development allowed elsewhere without attention to conservation priorities on the landscape as a whole. (v8,#2)

Dobson, Andrew P., Carper, E. Robin. "Infectious Diseases and Human Population History," Bioscience 46(no.2, Feb.1996):115. Throughout history the establishment of disease has been a side effect of the growth of civilization. (v7,#1)
Conservation biology is one of the fastest-growing fields of modern scientific research. It is an applied discipline that integrates principles of natural and social sciences with the objective of achieving the long-term persistence of biodiversity on Earth. This article reviews current trends in conservation biology, using a hierarchical organization to present the principle domains of research. These domains range from the largest level of ecosystems and communities, to the intermediate level of species and populations, and down to the smallest level, that of the individual and genes.


Dobson, Andrew, "Drei Konzepte ökologischer Nachhaltigkeit" (article in german). Three conceptions of environmental sustainability. Natur und Kultur, Vol. 1/2, 2000, pp. 62-85. Abstract: The concept of environmental sustainability is usually approached either definitionally or discursively. Both these approaches have their limitations. Better is an analytical strategy revolving around the distillation from the literature of the questions to which any theory of environmental sustainability would have to have an answer. This produces a framework for analysis that can be transformed into a typology by grouping the answers to those questions into "conceptions of sustainability". Two "diagnostic packages" are proposed for determining the causes of, and solutions to, unsustainability. (v.11,#4)


Dobson, Andrew, "Genetic Engineering and Environmental Ethics," Cambridge Quarterly of Healthcare Ethics (Cambridge University Press) 6 (1997):205-221. We can splice genes, but ought we to do so. Even to decide to do so some of the time assumes ethical decisions. Relevant factors include human welfare, but also the integrity (perhaps rights) of animals and plants. The really novel dimensions of environmental ethics, however, involve duties toward species, ecosystems, and even Earth. Genetic engineering (transgenics) differs from genetic selection (as in agriculture). Genetic engineering represents a quantum leap in terms of advances in manipulation that make possible practices of which we have no ethical experience. Genetic engineering could be the ultimate "technological fix". That we seek to patent the results of genetic engineering shows our sense of absolute ownership. Genetic engineering interferes with the "telos" of animal and plant life. One cannot treat the transgenic organism as the species
from which it has been engineered. So far as genetic engineering results in a re-designed biosphere, it represents dissatisfaction with Earth as our home planet. Environmental ethics suggests establishing limits in unusual places, places that go to the heart both of genetic engineering and our relationship with the natural world. Dobson is in politics at Keele University, England. (v.13, #3)


Dobson, Andrew, Conservation and Biodiversity. San Francisco: W.H. Freeman, 1995. 256 pages. $ 32.00. A broad overview of the scientific issues in preserving biodiversity. (v8,#2)

Dobson, Andrew, Citizenship and the Environment. New York: Oxford University Press, 2004. Ecological citizenship cannot be fully articulated in terms of the two great traditions of citizenship--liberal and civic republican. Dobson develops a "post-cosmopolitan" theory of citizenship and argues that ecological citizenship is an example and an inflection of it. Ecological citizenship focuses on duties as well as rights, and these duties are owed non-reciprocally by those individual and communities who occupy unsustainable amounts of ecological space to those who occupy too little.

Dobson, Andrew. "Biocentrism and Genetic Engineering." Environmental Values 4(1995):227-239. I consider the contribution that a biocentric perspective might make to the ethical debate concerning the practice of genetic engineering. I claim that genetic engineering itself raises novel ethical questions, and particularly so when confronted with biocentric sensibilities. I outline the nature of these questions and describe the biocentric basis for the. I suggest that fundamentalist opposition to projects of genetic engineering is unhelpful, but that biocentric claims should now be a feature of ethical consideration. I conclude, though, that while environmental ethicists can contribute powerfully to debates concerning the future of genetic engineering, the ultimate direction it takes is likely to be beyond their control. KEY WORDS: Environmental ethics, biocentrism, genetic, engineering, species. Dobson is in the politics department, Keele University, UK. (EV)

Dobson, Andrew. "Deep Ecology." Cogito 3:1 (1989): 41-46. This article begins as an introduction to the basic ideas and problems of deep ecology, but then concludes with the criticism that deep ecology is too concerned with philosophical speculation and contemplation to develop a meaningful political praxis. The lack of political involvement is an important criticism, since deep ecologists often answer their philosophical critics with the claim that deep ecology is a political movement, not a doctrine. Dobson identifies two strands of deep ecology: the search for intrinsic value and the alteration of consciousness, but only the second is generally identified with deep ecology. A reply to Dobson was written by Robin Attfield, "Deep Ecology and Intrinsic Value: A Reply to Andrew Dobson," Cogito 4:1 (1990). (Katz, Bibl # 2)

Dobson, F. Stephen, Jinping Yu, and Andrew T. Smith, "The Importance of Evaluating Rarity," Conservation Biology 9(1995):1648-1651. The first two authors are in zoology and wildlife science at Auburn University, the last in zoology at Arizona State University. (v6,#4)

Dodds, WK; Gido, K; Whiles, MR; Fritz, KM; Matthews, WJ, "Life on the Edge: The Ecology of Great Plains Prairie Streams", BioScience 54 (no.3, 2004): 205-216(12). Great Plains streams are highly endangered and can serve as model systems for studying disturbance ecology and related issues of resistance and resilience in temperate freshwaters. The future for Great Plains streams is bleak, given the land-use changes and water-use patterns in the region and the large areas required to preserve intact, ecologically functional watersheds.

Dodds, Walter K., "The Commons, Game Theory, and Aspects of Human Nature that May Allow Conservation of Global Resources," Environmental Values 14(2005): 411-425. Fundamental aspects of human use of the environment can be explained by game theory. Game theory explains aggregate behaviour of the human species driven by perceived costs and benefits. In the 'game' of global environmental protection and conservation, the stakes are the living conditions of all species including the human race, and the playing field is our planet. The question is can we control humanity's hitherto endless appetite for resources before we irreparably harm the global ecosystem and cause extinction of even more species? The central problem is that some proportion of the individuals or groups will behave selfishly. The inducement for using more than a fair share, or 'cheating', increases as that resource becomes rarer, thus the benefits of cheating increase. In addition, the total number of people is increasing, so the proportion of cheaters must decrease to even keep total resource use constant. Cost benefit analysis of the effect of regulation and incentives on potential cheaters may provide a rational approach to controlling environmental problems. While it is debatable that environmental values are constant across cultures, communal use of resources seems to follow global rules. Cooperative use and punishment of those who use more than their share appear to be ubiquitous in human societies. Schemes for controlling human impact on the global environment must take into consideration basic behaviours including development of social norms and the positive feedback created because resources become more valuable with increasing rarity leading to more incentive for consumption. Dodds is in biology, Kansas State University, Manhattan, KS. (EV)

Doeleman, J. A. "On the Social Rate of Discount: The Case for Macroenvironmental Policy." Environmental Ethics 2(1980):45-58. Concern for the rapidly growing scale and intensity of the human exploitation of the environment, in particular the alienation of natural ecosystems, but also resource exhaustion, pollution, and congestion, leads one to wonder about the short time horizons allowed for in decision making. Time preference is dictated by the rate of interest, allowing in practice a horizon often not exceeding several decades. I argue that this is unsatisfactory. Some minimal social rate of discount should not be enforced. Instead, it is more feasible to set absolute environmental standards, thereby introducing quantity constraints on our decision making, within which time preference can be permitted to find its own level. This acknowledges that the myopia of human vision may not be a flaw but rather a biological design which has served us well in evolution. It may, therefore, be better to change the rules by introducing self-imposed collective constraints than to try to change the shortsightedness of people in their day-to-day grass-roots decision making. Doeleman is in the department of economics, University of Newcastle, New South Wales, Australia. (EE)


Dolan, Coby C. "The National Grasslands and Disappearing Biodiversity: Can the Prairie Dog Save Us From an Ecological Desert." *Environmental Law* 29(no. 1, 1999):213-. Mr. Dolan examines the current condition of the national grasslands and the role the prairie dog may play in the preservation of this disappearing ecosystem. He analyzes the Forest Service's planning process for federally protected grasslands and the inadequacy of the current regulatory structure both to protect species and to allow court review of agency actions. Dolan argues in favor of using the prairie dog as a keystone species because of its unique role in preserving grassland health. (v.11,#1)


Dombrowski, Daniel A., *Not Even a Sparrow Falls: The Philosophy of Stephen R. L. Clark*. East Lansing: Michigan State University Press, 2000. Clark, argues Dombrowski, is a brilliant and overlooked philosopher. Clark ranges widely over the philosophy of religion and over the human treatment of animals, as well as social philosophy. A synthesis of both is challenging, especially as Clark is sometimes locally obscure but globally clear. Three parts of the book analyze: (1) God, (2) animals, and (3) polis. Clark's dipolar theism has awesome originality, if also problems. Clark's treatment of animals places them in a theistic metaphysics. True community differs from mere society, the latter is the lair of liberalism. In the formation of true community, Clark returns to religion. Clark will eventually be seen as a philosopher who is very important for our generation, but the furious intensity of some of Clark's polemics as well as the broadness of some of his
brush strokes sometimes get in the way of our ability to appreciate his greatness as a thinker. Dombrowski is at Creighton University. (v.13,#2)

Dombrowski, Daniel, "Individuals, Species, Ecosystems: A Hartshornian View." Between the Species 4 (1988): 3-10. A defense of a metaphysics of individualism applied to animals, species, and the natural world. For a comment on this paper see Eric Katz, "Methodology in Applied Environmental Ethics," same issue, pp. 20-23. (Katz, Bibl # 2)


Dombrowski, Daniel A., "Bears, Zoos, and Wilderness: The Poverty of Social Constructionism," Society and Animals 10(no. 2, 2002):195-202. Dombrowski is in philosophy, Seattle University, WA. Defends Holmes Rolston's realism vs. social construction, using bears in zoos as a case in point. There is a difference between a bear in a zoo and a bear in the wild. This difference legitimates the belief that the former is an attenuated version of the latter. The danger posed by a bear in the wild is not due to an overly active imagination. The experience of sublime beauty (in contrast to mere cuteness) in the presence of a wild bear is only partly of one's own doing. Although our frameworks (theories, zoos, etc.) are social constructs, the real world against which we test and evaluate them is not a social construct. Good zoos are better than bad ones, but naturalistic zoo environments for bears are not nearly natural ones, no matter what social constructionists may say about the matter. Dombrowski is in philosophy, Seattle University, WA.


Domosh, Mona, "Sexing feminist geography," Progress In Human Geography. 23 (No. 3, 1999): 437-. (v.11,#4)


Domsky, Darren. "Evaluating Callicott’s Attack on Stone’s Moral Pluralism1," Environmental Values 10(2001):395-415. J. Baird Callicott is well known in environmental philosophy for his attack on Christopher D. Stone’s moral pluralism. Although his attack has drawn attention from critics and has been labelled problematic for various reasons, I argue that it fails entirely. Each of Callicott’s three distinct criticisms proves to be not only weak on its own terms, but, perhaps surprisingly, as effective against Callicott’s own communitarian position as it is against Stone’s pluralist one. I show that Callicott’s attack is not only wholly ineffective in targeting Stone, but that even if it were so effective it would on every count be just as effective in targeting its own originator. Keywords: J. Baird Callicott, Christopher D. Stone, moral pluralism, communitarianism, ethical monism, environmental ethics. Darren Domsky is in the Department of Philosophy York University, Toronto, Ontario, Can. (EV)
Domsky, Darren. "The Inadequacy of Callicott's Ecological Communitarianism." Environmental Ethics 28(2006):395-412. J. Baird Callicott defends a communitarian environmental ethic that grounds moral standing in shared kinship and community. This normative theory is unacceptable because it is out of sync with our considered moral judgments as environmental philosophers. Ecological communitarianism excludes in advance entities that would obviously qualify for moral standing, and scuttles itself in the process. (EE)

Domsky, Darren, "Keeping a Place for Meta Ethics: Assessing Elliot's Dismissal of the Subjectivism/Objectivism Debate in Environmental Ethics," Metaphilosophy 35 (5), (October 2004): 675-94. Robert Elliot claims that the meta ethical distinction between subjectivism and objectivism is unimportant in environmental ethics. He argues that because a sufficiently sophisticated subjectivist can accommodate all of the intrinsic value an objectivist can, even in apparently problematic situations where humans either do not exist or do not have the relevant values, and because meta ethical commitments fail to have any normative or motivational impact on rational debate, it makes no difference whether an environmental ethicist is a subjectivist or an objectivist. Elliot's dismissal, however, is unjustified. As it turns out, objectivists argue differently than subjectivists, are motivated differently than subjectivists, and are able to make a greater range of intrinsic value claims than subjectivists. If Elliot's arguments have any appeal at all, it is only because he blurs the fundamental meta ethical distinction in the first place and defends a subjectivism so objectivist that it is almost unrecognizable as subjectivism. Domsky is visiting assistant professor of philosophy at Auburn University, Alabama.


Donahue, Brian, Reclaiming the Commons: Community Farming and Forestry in a New England Town. New Haven: Yale University Press, 1999. 288 pages. $ 27.50. Donahue was a founder of Land's Sake, a community farm in Weston, Massachusetts, and teaches at Brandeis University. (v.9,#4)


Donato, D. C., et al., "Post-Wildfire Logging Hinders Regeneration and Increases Fire Risk," Science 311(20 January 2006):352. Postfire or salvage logging is often claimed not only to use such wood economically but also to reduce further fire risk; it may also be claimed that forests will not adequately regenerate without intervention. But these authors find the opposite, studying regeneration after the 2002 Biscuit Fire, Oregon, in a largely Douglas fir forest, where some areas were salvage logged and others not. Unexpectedly, by disturbing the soil, salvage logging reduced conifer seedling regeneration by 73 percent. Also loggers left behind brush and added kindling to the forest floor, making low level surface fires more likely. The authors are largely with the Department of Forest Science, Oregon State University. But the article produced a fire at Oregon State, when another group of faculty members (and some from the U.S. Forest Service) tried to delay print publication claiming that the article had serious shortcomings. Stokstad, Erik, "Salvage Logging Research Continues to Generate Sparks," Science 311 (10 February 2006): 761.
Doniger, David D., Antonia V. Herzog, Daniel A. Lashof, "An Ambitious, Centrist Approach to Global Warming Legislation," *Science* (3 November 2006):764-765. The longer we wait to do something about global warming the more difficult it becomes. A slow start leads to a crash finish. These authors, with the National Resources Defense Council, Washington, propose a system of legislated economic incentives that they claim is aggressive and feasible.

Donlan, Josh, et al (half a dozen, including Dave Foreman, Michael Soulé), "Re-wilding North America," *Nature* 436 (18 August, 2005): 913-914. Bring back the Pleistocene. A plan to restore charismatic megafauna (horses, camels, asses, cheetahs, elephants, lions) that disappeared 13,000 years ago from Pleistocene North America, proposed as an alternative conservation strategy. Where the megafauna to be restored no longer exist elsewhere in the world, closely related proxies will be used—as with the elephants and lions. The plan starts small and is experimental and incremental (for example, with reintroduction of the Bolson tortoise, which can weigh 100 pounds, once common in the U.S. and now found rarely in Mexico). Next step might be on some (well-fenced) 200,000 acre private ranch in the U.S. Southwest.


Donnelley, Strachan, "Trout, Salmon, and Rivers: Saving the Human and Natural Future." A report from an exploratory meeting of the Hastings Center, Trout, Salmon, and Rivers Project. The salmon problem, besides its immediate interest and relevance, with many natural and social values at stake, is a bellwether for further environmental conflicts and their resolution. Contact Strachan Donnelley, The Hastings Center, 255 Elm Road, Briarcliff Manor, NY 10510, USA. (v6,#2)

--Donnelley, Strachan, "Civic Responsibility and the Future of the Chicago Region"
--Adelmann, Gerald W., "Reworking the Landscape, Chicago Style"
--Heltne, Paul, "Basic Concepts of Ecology and Evolutionary Biology" (with reference to the Chicago region)
--Engel, Joan Gibb, "Who Are Democratic Ecological Citizens?"
--Engel, J. Ronald, "The Faith of Democratic Ecological Citizenship"
Articles are products of a four-year symposium of ethicists and Chicago civic leaders on long-term responsibilities to humans and nature in the Chicago metropolitan region. The key ethical concept proposed is that of "democratic ecological citizenship" understood within an evolutionary and ecological conceptual framework. (v.10,#1)

Donnelley, Strachan, Charles R. McCarthy, and Rivers Singleton, Jr., "The Brave New World of Animal Technology," *Hasting Center Report* 24, no. 1 (1994), special supplement, pages S1-S31. New biotechniques manipulate the very character of animal being, with the power to alter nature radically. Are these manipulations ethically legitimate? Biotechnological manipulations threaten the fundamental character of animal species that have arisen in historically deep evolutionary and ecological contexts. Like the recombinant DNA technology that preceded them, transgenic organisms are probably unbounded in potential application. However, from a strictly scientific perspective, there seems to be nothing radically novel about transgenic organisms. Humans have bred animals for millennia. All living organisms are in an evolutionary sense transgenic to the extent that they share common genes. My dog and I share common genetic information. But modern technology allows us to accelerate the process of genetic diversification and to cross much broader evolutionary boundaries.
Individually and collectively we do not live in a single morally harmonious world, rather we confront an ineradicable moral plurality, each claiming attention and not readily coordinated with the others. In much science, there is no serious concern with the moral significance of animals, thought to be without intrinsic value. But there is sometimes a conviction that natural systems run to their own amoral rhythms that for pragmatic reasons we should not significantly undermine. Also, there is growing a direct moral concern for intrinsic values in these forms of life. Nature in a crucial sense is the all-inclusive domain of domains, the context of contexts, and what must finally be protected. Nevertheless, nature is no realm of essentialist perfection. Rather, our biosphere is an extraordinary, historically particular and "chaotically orderly" realm of dynamic and systemically related "imperfections"; individual organisms more or less well-adapted to worldly life, changing in evolutionary/ecological time. We should understand ourselves and our embedded existence in an animate nature that is ultimately significant, yet imperfectly good. The authors are with the Hastings Center.


Donnelly, R; Marzluff, Jm, "Importance of Reserve Size and Landscape Context to Urban Bird Conservation," Conservation Biology 18(no.3, 2004):733-745. (v. 15, # 3)

Donner, Wendy. "Inherent Value and Moral Standing in Environmental Change." pages 52-74 in Hampson, Fen Osler, and Reppy, Judith, Earthly Goods: Environmental Change and Social Justice (Ithaca, New York: Cornell University Press, 1996). Donner criticizes the animal rights/welfare theories of Tom Regan and Peter Singer; the land ethic of Aldo Leopold and J. Baird Callicott; deep ecology; and the ecofeminism of Karen Warren, Val Plumwood, and others. Regan and Singer do not have an environmental ethic, only an ethics for using the environment to satisfy the preferences of sentient animals, including humans. Of Callicott's land ethic: "The result is an uneasy mixture that neither quells the concerns of critics nor provides clear guidelines for cases of conflict" (p. 61). "Thus there are serious problems with the land ethic: an analysis of value that does not support the value claims of the theory; a lack of guidance on how weighings of very different elements are to be carried out; and decisions that are troubling at best, horrifying at worst" (p. 65).

Of ecofeminism: "Consensual decision is ... welcome when it works. But when consensus does not work, and we are faced with genuine and painful conflict, then ecofeminism provides little guidance in particular cases if the conflicting claims are all seen as being of equal value" (p. 69). "Can one who has serious concerns for the well-being of the environment trust the human capacity to care more than the human capacity to reason and value? (p. 70). Deep ecology has an unworkable concept of a self indistinguishable from the environment. Environmental ethics needs a concept of self-in-relationship. "There is no fusion of two into one but a complement of two entities acknowledged as separate, different, independent, yet in relationship" (quoting Karen Warren) (p. 74). Donner teaches philosophy at Carleton University in Ottawa. (v8,#1)

Donner, Wendy, "The Self and Community in Environmental Ethics," pages 375-389 in Warren, Karen J., ed., Ecofeminism: Women, Culture, Nature (Bloomington, IN: Indiana University Press, 1997). "The critique of reason, rationality, and universal principles as male concepts is a familiar theme in many environmentalist, feminist, and ecofeminist writings. This critique rarely sorts out the forms of rationality and universalizability that are of legitimate concern for feminists and environmentalists from those that are valuable or essential to retain. ... It makes no more sense to condemn rationality in general because it has been ill used to attempt to justify domination and aggression than it makes sense to condemn emotion in general because rate and hatred have been the impetus for genocide and torture." Donner is in philosophy at Carleton University in Ottawa. (v.9,#4)
Doogue, Edmund, "Poverty's Toll" (Report on the UN World Summit for Social Development, March 1996 in Copenhagen), One World (Geneva, Switzerland, World Council of Churches) No. 205, May 1996, pages 4-6. From UN figures, twenty percent of the world's population, the world's richest people, own almost 83 percent of the world's wealth and another twenty percent, the world's poorest people, own only 1.4 percent of the world's wealth. Over the past 30 years, the distribution of wealth has become more unequal. The Summit produced many resolutions and demands for reform, but "the check came back from the bank of justice marked `insufficient funds.'"

Dooming, Daryl, "Evolution, Evil and Original Sin," America 185(November 12, 2001):14-21. "There is virtually no known human behavior that we call `sin' that is not also found among nonhuman animals."

Doppelt, Bob, Mary Scurlock, Chris Frissel, and James Karr, Entering the Watershed: A New Approach to Save America's River Ecosystems. Washington: Island Press, 1993. $ 27.50 paper. $ 55.00 hardcover. 510 pages. A study of ecological integrity in rivers to develop new federal riverine protection and restoration policy alternatives. (v4,#3)

Dore, Mohammed H. I., "The Problem of Valuation in Neoclassical Environmental Economics," Environmental Ethics 18(1996):65-70. In this paper I argue that the criterion of valuation in neoclassical economics is flawed because it is not an invariant measure of value. It is invariant only when unrealistically restrictive conditions are imposed on the class of admissible utility functions, which in fact makes it a special case. The only sensible alternative is to turn to classical value theory based on real sacrifices or opportunity costs. Dore is in economics, Brock University, Ontario, Canada. (EE)


Dotto, Lydia, "Proof or Consequences," Alternatives 26 (No. 2, Sprg 2000): 8- . Skeptics say we should wait for proof before taking action on climate change. If they turn out to be right, we'll have saved a lot of bother. But if they're wrong... (v.11,#2)


Dovers, Stephen, ed. Australian Environmental History: Essays and Cases. New York: Oxford University Press, 1995. 288pp. $39. Three overview essays explore the nature of Australian landscapes, the ways in which they have been used and abused, and attitudes and perceptions about them. Seven case studies explore the history of the Australian human-environment interaction. Included are analyses of small districts, large regions, and national resource centers, from the great reefs to the arid center. (v8,#1)


Dower, Nigel, "Worth Sustaining? Reply to Attfield and Wilkins." Environmental Values 3(1994):159-160. Robin Attfield and Barry Wilkins take me to task for suggesting that `sustainable' means `worthy of being sustained'. The burden of their criticism is that in defining it this I am making it cover too much and thus robbing `sustainable' of its normal and serviceable meaning `capable of being sustained'. What I meant to convey, but now I realize did not make clear enough, was that `sustainable' in the evaluative sense was not a rival or substitute sense but an additional sense. Dower is at the Department of Philosophy, University of Aberdeen, U.K. (EV)


Dower, Nigel, "Does Global Citizenship Require Modern Technology?" CPTS Ends and Means (Journal of the University of Aberdeen Centre for Philosophy, Technology and Society), 5(no. 1, spring 2001): 9-24. Yes and no, with a lot of highly contentious issues in between. Yes, if one seeks to be someone who can effectively exercise global responsibility in the modern world. No, if (like Stoics of old, without technology) one has a conception of self identity and human being that accepts a global citizenship. "Modern technology is necessary for the actualisation of the idea of global citizenship in the modern world (though it is not necessary for the idea itself)" (p. 11). "Global citizenship then requires modern technology, not in the sense of needing it as it is, but in the sense of its being grounded in the facts of modern technology. We have seen this in at least three ways: as the causal context of our global problems, as that which enables global citizenship to be effectively expressed in action, but also as something to be controlled, modified and developed in the light of our global values. Perhaps we could conclude by saying that technology needs a global human face, but at the same time that global citizenship needs a flexible but strong technological backbone" (p. 24) Dower is in philosophy, University of Aberdeen, Scotland. (v.12,#3)
Dower, Nigel, *World Ethics: The New Agenda*. Edinburgh: University of Edinburgh Press, 1998. As world citizens we have duties that are global in scope and the relations between states should be governed by this cosmopolitan ethic. Dower (a) explores the nature of world ethics, by identifying the different ways of thinking about ethics which underlie both the rejection of world ethics and the endorsement of it; (b) defends a normative cosmopolitan theory that steers a middle way ("solidarity with diversity") between traditional objectivism and a modern "liberal" paradigm; (c) applies the theory to war and peace, world poverty, the environment and the United Nations.


Dower is Senior Lecturer in the Department of Philosophy, University of Aberdeen and has been active in the International Development Ethics Association.


Dower, Nigel, ed., *Ethics and Environmental Responsibility*. Aldershot, UK: Gower Publishing, 1989. Pp. 155. A slim and over-priced ($58.95) collection of six original essays on various aspects of environmental ethics. The first two essays, by Nigel Dower and Eric Matthews, concern general theoretical questions about value and the nature of environmental ethics. The other four chapters are more specific: J. R. Cameron on future generations; Hugh LaFollette on animal rights; Peter Wenz on environmental policy and democratic decision-making; and Daniel Shaw on risk analysis in the nuclear power industry. Useful, selected bibliography.


Dower, Nigel. "Biotechnology and the Third World," *CPTS Ends and Means* 1 (Autumn 1996): 26-31. This is a journal published by the Centre for Philosophy, Technology, and Society, Aberdeen (Scotland) University, also available as an electronic journal. Several issues are identified regarding biotechnology and the third world: (1) Import substitution, (2) promotion of new genetically engineered seeds or animals which creates dependency in farmers using them, marginalizes farmers who do not, and threatens biodiversity, (3) Northern dominance in the global economy, reinforced by the patent system, (4) expropriation of genetic material from the Third World and then the return of it with value-added to the Third World. Dower is in philosophy at the University of Aberdeen.
Dower, Nigel. "Human Development - Friend or Foe to Environmental Ethics?" Environmental Values 9(2000):39-54. ABSTRACT: This article is premised on the assumption that in order for us adequately to protect our environment, significant adjustments need to be made to the ways we pursue and think about development - adjustments not merely to technologies but also to life-styles. In this respect the emphasis in much recent development literature on human development is to be welcomed as a useful corrective to definitions of development in terms of economic growth, though there is still a danger of anthropocentric assumptions. It is argued that, given suitable interpretations or conceptions of development and environment, environmental care can be, and should be, integrated into authentic human development. Proposals for such conceptual alignment stem both from seeing the relevant community in which development qua desirable change is to take place as the biotic community, and from seeing development as desirable change in the total environment, both natural and artificial, regarded as a social field of significance. Such conceptual adjustments are a significant part, but of course only a part, of what needs to be done to bring public policy more into line with proper care for the environment. KEYWORDS: community, development, environment, evaluation, field of significance, growth, human, rationality, sustainability. Dower is in the Department of Philosophy University of Aberdeen, U.K.  (EV)

Dower, Roger, Ditz, Daryl, Faeth, Paul, et al., Frontiers of Sustainability, Environmentally Sound Agriculture. Washington, D.C.: World Resource Institute, 1997. 415pp. $35.00 paper. The authors examine environmental performance and trends in four key economic sectors: agriculture, electricity generation, transportation, and pulp and paper manufacturing. They map out the implications of potentially dangerous developments and detail methods for reducing or managing these threats without inhibiting American technical and economic prowess.  (v8,#1)

Dower, Roger; Ditz, Daryl; Faeth, Paul; Johnson, Nels; Kozloff, Keith; and MacKenzie, James. Frontiers of Sustainability: Environmentally Sound Agriculture, Forestry, Transportation, and Power Production. Washington, DC: Island Press, 1997. Tables, figures, index. 415 pages. $34 U.S. paper. ISBN 1-55963-546-0. The authors are researchers at the World Resource Institute, and their essays build on the recommendations of the President's Council for Sustainable Development. All analyses are new and interdisciplinary. Much-needed rules and measurements are presented regarding progress toward sustainability for the U.S. The book is aimed at environmental professionals; business people who work in agriculture, forestry, transportation, and power production; students; and federal, state, and local policymakers. (v.8,#4)

Dowie, Mark, Losing Ground: American Environmentalism at the Close of the Twentieth Century. Cambridge, MA: MIT Press, 1995. 317 pages. $25. Dowie argues that the national environmental movement is risking irrelevance because the people leading its largest organizations are too white, too male, too elite, too polite, and too involved with Washington. For instance, CEOs often sit on boards of environmental organizations like the National Wildlife Federation and the Sierra Club. The environmental movement is losing its strong grassroots support. The so-called Wise Use Movement--a loose coalition of property owners, ranchers, small-business executives, and municipal officials--has gained considerable clout with the grassroots. "American land, air, and water ... would be in far better condition had environmental leaders been bolder, more diverse in class, race, and gender; less compromising in battle; and less gentlemanly in their day-to-day dealings with adversaries." For a contrasting book, published at the same time, see Easterbrook, Gregg, A Moment on the Earth. Dowie is a former editor and publisher for Mother Jones magazine. (v6,#2)

The potential dangers associated with grand jury subpoenas and search warrants and advice on how best to prepare for and respond to them. (v7,#2)

Downs, Willard and Newton, Kelley Ann, "Legal Implications in Development and Use of Expert Systems in Agriculture", Journal of Agricultural Ethics 2(1989):53-58. Applications of Artificial Intelligence, particularly Expert Systems, are rapidly increasing. This science promises to give computer-based systems the capability of reasoning and decision making in near "human-like" fashion. The legal issues surrounding Expert Systems have not yet been fully tested and defined by the courts. Developers and users of Expert Systems must consider these factors for each particular application. Downs is in agricultural engineering, Oklahoma State University, Stillwater. Newton is an independent consultant in Los Angeles.


Dragomirescu, Simina, Cristina Muica, and Turnock, David. "Environmental Action during Romania's Early Transition Years." Environmental Politics 7(no.1, Spring 1998):162-. (v10,#4)


Drake, J. M. and Bossenbroek, J. M., "The Potential Distribution of Zebra Mussels in the United States," BioScience 54(no. 10, 2004): 931-941(11). The range expansion of zebra mussels (Dreissena polymorpha) in North America has been rapid and costly in both economic and ecological terms. Joint social, political, and scientific ventures such as the 100th Meridian Initiative aim to reduce the spread of zebra mussels by eliminating the unintended transport of the species and preventing its westward expansion. Here we forecast the potential distribution of zebra mussels in the United States by applying a machine learning algorithm for nonparametric prediction of species distributions (genetic algorithm for rule set production, or GARP) to data about the current distribution of zebra mussels in the United States and 11 environmental and geological covariates. Our results suggest that much of the American West will be uninhabitable for zebra mussels. Nonetheless, some catchments along the West Coast and in the southeastern United States exhibit considerable risk of invasion and should be monitored carefully. Possible propagule dispersal to these places should be managed proactively. (v.14, #4)


Drake, John M; Bossenbroek, Jonathan M, "The Potential Distribution of Zebra Mussels in the United States", BioScience 54(no.10, 1 October 2004):931-941(11). The range expansion of zebra mussels (*Dreissena polymorpha*) in North America has been rapid and costly in both economic and ecological terms. Joint social, political, and scientific ventures such as the 100th Meridian Initiative aim to reduce the spread of zebra mussels by eliminating the unintended transport of the species and preventing its westward expansion. Here we forecast the potential distribution of zebra mussels in the United States by applying a machine-learning algorithm for nonparametric prediction of species distributions (genetic algorithm for rule-set production, or GARP) to data about the current distribution of zebra mussels in the United States and 11 environmental and geological covariates. Our results suggest that much of the American West will be uninhabitable for zebra mussels. Nonetheless, some catchments along the West Coast and in the southeastern United States exhibit considerable risk of invasion and should be monitored carefully. Possible propagule dispersal to these places should be managed proactively.

Dramstad, Wenche, Olson, James, Forman, Richard. Landscape Ecology Principles in Landscape Architecture and Land-Use Planning. Covelo, CA: Island Press, 1996. 80 pp. $17.95 paper. A concise handbook that lists and illustrates key principles in the field, and presents specific examples from around the world of how those principles can be applied across a range of scales and diverse types of landscapes. (v7,#4)

Draney, Michael L., "Ethical Obligations toward Insect Pests," Ethics and the Environment 2(no. 1, 1997):5-23. This paper examines the implications of considering the values and rights of insect pests in determining which insect control efforts to pursue. This consideration will depend on the scale of the control effort, that is, whether the control operates at the level of individual pest organisms, populations, or the entire pest species. I argue that an individual organism's rights cannot be taken into account in planning insect control, because of the practical impossibility of granting it anything but infinitesimal moral significance. However, in harming populations of insects, numbers become important and effects on local ecosystems should be considered. Given this, it still may be right to control or even eliminate a population if its negative value to humans is sufficiently high in relation to its ecological value. Eradication of a species involves irrevocable loss. I propose that species are unique individual entities (as opposed to abstract classes of organisms) and that our ethical obligations to insect pests lie in acknowledging the right of these species to continued, if controlled, existence. At this level, they must receive moral consideration in any actions taken. Draney is in the Ph.D. program in entymology at the University of Georgia. (E&E)

Draper, Elaine, Risky Business. Cambridge, UK: Cambridge University Press, 1991. Many persons in industry are currently arguing that certain environmental toxic substances are not hazardous in general, but hazardous only to particularly susceptible individuals. Hence they argue for genetic screening to avoid hiring genetically susceptible individuals, instead of lowering work-place exposure to toxic chemicals. Draper argues against this view and, in an excellent book, takes on the entire chemical industry.(v3,#2)

Draper, Elaine, Risky Business (New York: Cambridge University Press, 1991). This is a study in occupational diseases, caused by industrial environments that put employees at risk. Draper, a sociologist, claims there is what amounts to "genetic testing" in the workplace. She analyzes the fundamental underlying reasons, social and economic, for this phenomenon. Chemical corporations are aware of the high cost of litigation and compensation when employees are harmed on the job, those who manufacture and transport chemicals. So they attempt to screen
those who are more susceptible and deny them employment. This can include women who are, or may become, pregnant. (v3,#3)


Dreifus, Claudia, "A Conversation with Luis F. Baptista: A Birdman Ponders the Songs of Sparrows," *New York Times* (5/16/00). Aesthetic sense of birds and humans are similar. Luis Baptista, curator of ornithology for the California Academy of Sciences, claims that "we can actually show that birds have an aesthetic sense similar to ours. If you take female great reed warblers, stick them with female hormones, put them in a soundproof box and play for them recordings of male songs--some beautiful and some yuckie--you will see that they solicit copulation more from the beautiful songs than the yuckie ones. That means that the females actually prefer beautiful songs, even what humans consider beautiful." Woodpeckers are "instrumentalists": They peck for bugs but also to "make music because they don't have vocal songs like song birds." They find a log that makes the correct sound and then pound on it with a specific rhythm. Hermit thrushes sing in the pentatonic scale used in Far Eastern music and the canyon wren sings in the chromatic scale. Baptista also suggests that birds sometimes sing for pleasure, if they are well fed and relaxed. Birds communicate messages with sound as well. Chickens, if shown a picture of a racoon, will make a clucking sound quite different from the sound that they make when shown a picture of a falcon, and other chickens will look around or up depending on the sound. Bird dialects, Baptista argues, are determined by what sound will carry best in the bird's home environment: Oak forest bird songs carry farther in oak forests than in coniferous forests (and vice versa for songs produced by birds that live in coniferous forests). (v.11,#2)

Dreifus, Claudia, "Friends Matter for Reclusive Creature of African Forest," *New York Times*, October 12, 2004, p. D4. The rare and endangered okapi in eastern Congo. An okapi is quite small, has the hindquarters of a zebra, the body of an antelope, and the face of a giraffe. It is quite elusive, shy, lives in deep forests, and looks like something you wouldn't believe. The Wildlife Conservation Society in Congo seeks to preserve them. (v.14, #4)


Drengson, Alan R. "Shifting Paradigms: From the Technocratic to the Person-Planetary." *Environmental Ethics* 2(1980):221-40. In this paper I examine the interconnections between two paradigms of technology, nature, and social life, and their associated environmental impacts. The dominant technocratic philosophy which now guides policy and technological power is mechanistic. It conceptualizes nature as a resource to be controlled fully for human ends and it threatens drastically to alter the integrity of the planet's ecosystems. In contrast, the organic, person-planetary paradigm conceptualizes intrinsic value in all beings. Deep ecology gives priority to community and ecosystem integrity and seeks to guide the design and applications of
technology according to principles which follow from ecological understanding. I describe this shift in paradigms and how it affects our perceptions, values, and actions. Drengson is in the department of philosophy, University of Victoria, Victoria, B.C., Canada. (EE)

Drengson, Alan R., Beyond Environmental Crisis: From Technocrat to Planetary Person. New York: Peter Lang, 1989. Pp. xii, 259. Drengson is editor of The Trumpeter, a journal of ecophysics with an emphasis on deep ecology. This book is a greatly revised version of Drengson's 1983 text, Shifting Paradigms: From Technocrat to Planetary Person. It is a detailed exploration of the process of ecophysics, illustrating how a committed individual can develop an ecological "planetary" consciousness. Drengson combines scholarly philosophical literature with ecological thought, philosophy of technology, and Eastern philosophy to present a method for the transformation of consciousness. This book is not the presentation of a system, nor an argument for its acceptance, but an analysis of the deepest structures of Western thought that have engendered the environmental crisis. "The fundamental purpose of this book is to exemplify a philosophy of appropriate philosophizing as both a pure and applied art that can be practiced as a way to the realization of The Way, which is not only the Way of Nature but the great spiritual path taught as the core of all authentic paths" (p. 5). The strength of the book is an analysis of the dominant technological paradigm in which Western society is embedded. Even for those unwilling to follow Drengson on "the way," the critical analysis of contemporary consciousness is extremely worthwhile. Contains an excellent bibliography and a series of appendices that provide accessible charts and diagrams of the main points. (Katz, Bibl # 2)

Drengson, Alan and Yuichi Inoue, eds., The Deep Ecology Movement: An Introductory Anthology. Berkeley, CA: North Atlantic Books, 1995. 293 pages. $ 14.95. Contributors include Arne Naess (multiple articles), George Sessions, Gary Snyder, Alan Drengson, Bill Devall, Freya Mathews, Warwick Fox, David Rothenberg, Michael E. Zimmerman, Patsy Hallen, Dolores LaChapelle, Pat Fleming, Joanna Macy, John Rodman, and Andrew McLaughlin. Drengson taught philosophy at the University of Victoria and edited The Trumpeter until his recent retirement. Inoue teaches environmental studies at Sangyo University, Nara, Japan, and is translating the anthology into Japanese. (v7,#2)

Drengson, Alan, The Practice of Technology: Exploring Technology, Ecophysics, and Spiritual Disciplines for Vital Links. Albany, NY: State University of New York Press, 1996. 232 pages. $ 19.95 paper. Modern industrial technology has an underlying agenda: to redesign the human and natural worlds to conform to the monoculture models of Western society. In contrast, ecological and social responsibility should be built into the design of new technology, based on ecosophy, which enables humans to harmonize with their specific places and ecological contexts. Our current problems, such as the environmental crisis, violence, social injustice, dehumanization, and alienation cannot be diagnosed, let alone cured, without understanding the role of technological forces and practices in contemporary civilization. Drengson taught philosophy at the University of Victoria and edited The Trumpeter until his recent retirement. (v7,#2)

Drengson, Alan. "Way of Wild Journeying," Wild Earth 7(no.1, 1997):70. (v8,#2)

Drengson, Alan. The Practice of Technology: Exploring Technology, Ecophysics, and Spiritual Disciplines for Vital Links. Albany, NY: State University of New York Press, 1995. 232 pages. $ 20.00 paper. Modern industrial technology seeks to redesign the human and natural worlds to conform to the monoculture models of Western society. But ecological and social responsibility should be built into the design of new technology, practices based on ecosophy (ecological wisdom). Our current problems cannot be solved without understanding the role of technological forces in modern civilization. Drengson teaches philosophy at the University of Victoria. (v6,#3)
Drenthen, Martin. "Het zwijgen van de natuur [in Dutch: The silence of nature]," Filosofie & Praktijk 17/4 (winter 1996), pp. 187-199. The environmental philosophical community in the Netherlands is being divided by a controversy between postnaturalistic postmodern constructivism and a more phenomenology-oriented, hermeneutic approach to nature. I show that the postmodernist critique of traditional environmental philosophy rightfully points to a problem that until recently has been neglected by Dutch environmental philosophers: the problem that there exist a plurality of normative notions of nature. Next, I show that the postnaturalistic position itself rests on a contradiction. Postnaturalism claims neutrally to facilitate the democratic debate between different normative approaches to nature, but in fact, itself implicitly presupposes a particular (modern) concept of nature, that is: it favors one of the voices within the debate. Finally, I argue that these controversies are the inevitable result of a fundamental ambiguity within our current moral understanding of nature, that should be reflected adequately. Drenthen is philosopher at the Center for Ethics of the University of Nijmegen, the Netherlands.

Drenthen, Martin, and Kockelkoren, Petran, "Het milieu van de filosofen; 20 jaar milieufilosofie in Nederland [in Dutch: The environment of the philosophers; an overview of the major environmental philosophical issues in the Netherlands in the last 20 years]," Filosofie & Praktijk, 20/4 (winter 1999), pp. 197-191. Petran Kockelkoren is a philosopher at Twente University, the Netherlands. E-mail: P.J.H.Kockelkoren@wmw.utwente.nl


Environmental ethicists, each in their own way, struggle with the moral sense of nature. Whether or not this is explicitly admitted, each normative position within the debate turns out to rely on a particular normative concept of nature. However, the use of any of these particular normative interpretations cannot be legitimized. The starting point of this inquiry is the assumption that today's environmental crisis is intrinsically related to this ambiguity with regard to the normative meaning of nature. This ambiguity has a foundational character, and the conflicts and dilemmas that stem from it cannot be solved easily.

In order to clarify this relation between the environmental crisis and the crisis in morality, we analyze the relation between nature and morality in the work of the late 19th century German philosopher Friedrich Nietzsche, and ask whether his philosophy can help us clarify the problematic relationship between nature and morality in contemporary environmental ethical debates.

From Nietzsche's viewpoint, environmental ethics appears as a paradoxical undertaking, on the one hand, interested in nature in so far as it transcends human seizures of power (wildness as a critical concept), on the other hand restricted in its possibility to model this interest on anything else than yet another interpretative appropriation. That is to say, we can only articulate the moral significance of nature "itself" by interpreting it, but each interpretation inevitably implies a moment of appropriation. However, some environmental ethicists appear to do more justice to this profound problematic character of our relationship with nature by explicitly acknowledging the inaccessibility and radical otherness of wild nature. The newly developed perspective is tested on its fruitfulness for the Dutch case of "new nature development". In this debate on ecological reconstruction, the concept of wildness functions as a moral concept, albeit a paradoxical one. This idea of wildness is hermeneutically elaborated. In a time where "real" wildernesses no longer seem to exist, we are fascinated by the idea of wildness as something beyond our ability to control and appropriate. Wildness thus poses a (moral) limit to human appropriations of nature, it is a critical border concept that puts the human, moral order in perspective.
Drenthen, Martin, "De natuur als strijd van interpretaties [Nature as a struggle of interpretations; on the relation between nature and morality in the work of Friedrich Nietzsche]." In: Al het goede uit de natuur; Ethiek op de tweesprong tussen zijn en behoren. CEKUN-cahier 4, CEKUN, Nijmegen 1998, pp. 23-36. Nietzsche's philosophy shares a common characteristic of ancient stoic philosophy in the sense that it does not presuppose a distinction between facts and values. (v.11,#1)

Drenthen, Martin, "Maakbare natuur, waanzinnige oase of wonderlijke wereld? [Makeable nature, wild oasis or wonderful world?]." In: H. Geerst (ed.) Maakbaarheid, macht en matigheid (Annalen van het Thijmgenootschap). Nijmegen: Valkhof Pers, 1998, pp. 41-46. I argue that both proponents and opponents of environmental restoration--the reconstruction of "natural landscapes" in the Netherlands--share a common concept of nature in which nature is defined as absence of human activity. In the work of the Dutch writer Koos van Zomeren, however, a concept of nature can be discerned, in which nature is fully penetrated with stories, meanings, histories and plays as such a key role in human life. (v.11,#1)

Drenthen, Martin, "Onze schizofrene benadering van de natuur [In Dutch: Our schizophrenic approach to nature; On sustainability, science and conceptions of life], in: V. Poels (eindred.), Het milieu als offerplaats; Over milieuproblematiek, levensbeschouwing en duurzame ontwikkeling, Damon, Best 1998, pp. 195-219. I argue that we can only understand the factual use of the notion of sustainability within political debates on environmental issues, when we take into account the different moral meanings of "nature" that are implied in the different worldviews and conceptions of good life. A distinction should be made between an anthropocentric use of the term sustainability, where nature is seen as a limited resource that should be saved for future generations, and a second, more vague use of the term, that has a more "non-anthropocentric" character. In this second approach, nature is seen as a moral framework: to live in a sustainable way, means to live in accordance with the "way of nature", to respect the rhythm of nature and so on. I show that this second type of moral reasoning has become problematic in our pluralistic age. On the other hand, I argue, the modern approach to these kinds of moral experiences, in which these experiences are treated as if they only reflect singular, subjective individual preferences, does not articulate these experiences adequately. Understanding the different moral meanings of nature that factually play a role in current debates, requires an openness for the factual ambivalence of our moral experiences of nature. (v.11,#1)

Drenthen, Martin. "The Paradox of Environmental Ethics: Nietzsche's View of Nature and the Wild." Environmental Ethics 21(1999):175. In this paper, I offer a systematic inquiry into the significance of Nietzsche's philosophy to environmental ethics. Nietzsche's philosophy of nature is, I believe, relevant today because it makes explicit a fundamental ambiguity that is also characteristic of our current understanding of nature. I show how the current debate between traditional environmental ethics and postmodern environmental philosophy can be interpreted as a symptom of this ambiguity. I argue that, in light of Nietzsche's critique of morality, environmental ethics is a highly paradoxical project. According to Nietzsche, each moral interpretation of nature implies a conceptual seizure of power over nature. On the other hand, Nietzsche argues, the concept of nature is indispensable in ethics because we have to interpret nature in order to have a meaningful relation with reality. I show that awareness of this paradox opens a way for a form of respect for nature as radical otherness. (EE)


Drew, Simon, The Modern Self and Environmental Philosophy, Master's Thesis, Department of Philosophy, Lancaster University, September 1995. (v7,#1)
Drew, Christopher, and Richard A. Oppel, Jr., "Friends in the White House Come to Coal's Aid," New York Times, August 9, 2004, A 1, A11. Mountaintop mining, with reduced safety proposals are now being proposed by David Lauriski. When he first proposed the changes he was top executive of a Utah mining company, and his proposals got nowhere because of objections by union officials and safety experts. But now the proposals are again being made by David Lauriski, himself head of the Mine Safety and Health Administration. (v. 15, # 3)


Drexler, Madeline, Secret Agents: The Menace of Emerging Infections. Washington, DC: Joseph Henry (National Academy), 2002. We are under siege from microbes, germs invade our bodies. "The most ceaselessly creative bioterrorist is still Mother Nature. And her microbial operatives are still around us, thriving in the shadows, ready to pounce when conditions are right" (dust jacket). Militaristic metaphors abound in an otherwise well-organized and detailed account. And there is genuine concern for emerging diseases, partly from their rapid transportation in modern societies, partly from their evolving of resistance to drugs.

But the relation between humans and microbes is much more subtle, and the metaphor needs analysis. Tony McMichael, in a review in Science, concedes "the ecological imperatives that microbes, like all other species, display. Though the unplanned hit-or-miss processes of biological evolution, microbes often take advantage of changes in human ecology: meat-eating, livestock herding, urban living, storing of food, transfusing of blood, and so on." But "it's time to stop the war metaphor." "This perspective maligns microbial intent. ... Mother Nature does not deliberately brew bioweapons. Rather, we humans are only one species among countless millions on Earth, and most of those millions are microbes. ... 90% of the cells in our body are bacteria, many of which pay for their board by rendering useful biological support services. Without microbes, we could not ferment the fibrous component of our morning muesli, and cows could not eat grass, and termites could not chew wood. If we are to achieve a new equilibrium with an increasingly globalized microbial world, then we must think in terms of ecological balance, not ambush and arms race." Review in Science 295 (22 February 2002):1469. (v.13,#2)


Driscoll, Cathy, and Mark Starik, "The Primordial Stakeholder: Advancing the Conceptual Consideration of Stakeholder Status for the Natural Environment," Journal of Business Ethics 49(# 1, 2004):55-73. Stakeholder analysis in managerial decision-making typically includes only humans but it ought to include the natural environment as well. Analysis of who and what can count as a stakeholder; detailed survey of the literature. In addition to considerations of power, legitimacy, and urgency, a fourth dimension is proximity. By a comprehensive account the natural environment is the primary and primordial stakeholder of the firm. Driscoll is in management, Sobey School of Business, Saint Mary's University, Halifax, Nova Scotia. Starik is in strategic management and public policy, George Washington University School of Business and Public Management, Washington.

Driver, B. L., ed., Contributions of Social Sciences to Multiple-Use Management: An Update (Fort Collins, CO: Rocky Mountain Forest and Range Experiment Station, October 1990), USDA Forest Service, General Technical Report RM-196. Articles on the ways in which social sciences can enable a better valuing of nature and natural resources. (v1,#4)

Contains:

--Editors, "Nature and the Human Spirit: Overview".
--Elsner, Gary, Lewis, Darrell, Snell, Frank, Spitzer, William, "The Role of Public Lands in Maintaining and Rejuvenating the Human Spirit".
--Peterson, George. "Four Corners of Human Ecology: Different Paradigms of Human Relationships with the Earth".
--Kaza, Stephanie. "Comparative Perspectives of World Religions: Views of Nature and Implications for Land Management".
--Roberts, Elizabeth. "Place and Spirit in Public Land Management".
--Goodale, Thomas, Godbey, Geoffrey. "Hard-to-Define Values as Dimensions of Leisure".
--Montes, Sharon. "Uses of Natural Settings to Promote, Maintain, and Restore Human Health".
--Kopper, Philip. "Against Uniformity: Prehistoric Language Lessons for Modern Land Managers".
--Redmond, Louis. "Diverse Native American Perspectives on the Use of Sacred Areas on Public Lands".
--Bagby, Rachel. "African American Naturifocal Values".
--Garcia, Maria Teresa. "Hispanic Perspectives and Values".
--Henderson, Karla. "Feminist Perspectives, Female Ways of Being and Nature".
--Madson, Chris. "In the Open: Wild Places and the American Character".
--Budd, Bob. "Lessons for the Cinnamon Mare".
--Tims, Doug. "The Perspective of Outfitters and Guides".
--Driver, Susan. "Values of Nature for Artists and Artists' Interpretations of These Values for Society".
--Rey, Mark. "Private Forest Landowners and an Emerging Land Management Ethic".
--Birckhead, Jim. "'Dreaming' Down Under: The Cultural Politics of People and 'Country'".
--Sidaway, Roger. "Current Environmental Issues in Urban Western Europe and their Relevance to a New Land Management Ethic".
--Reunala, Aarne. "Cultural and Spiritual Forest Values in Scandinavia".
--Grumblin, Ed. "Beyond Conservation and Preservation in American Environmental Values".
--Baltic, Tony. "Technology and the Evolution of Land Ethics".
--Magary, Frank. "A Few Observations on Design for Spiritual Values".
--Greene, Thomas. "Cognition and the Management of Place".
--Bacon, Warren. "Multisensory Landscape Aesthetics".
--Bruns, Don, Stokowski, Patricia. "Sustaining Opportunities to Experience Early American Landscapes".
--Lee, Martha, Tainter, Joseph. "Managing for Diversity in Heritage Values".
--McAvoy, Leo, Lais, Greg. "Hard-to-Define Values and Persons with Disabilities".
--Hammond, Herb, Judy, Stephanie. "Belief, Wholeness, and Experience: Sensitizing Professional Land Managers to Spiritual Values".
--Roggenbuck, Joseph, Driver, B.L. "Public Land Management Agencies, Environmental Education, and an Expanded Land Management Ethic".
Drolette, Dan, "Wide Use of Rabbit Virus Is Good News for Native Species," *Science* 275(1997):154. A virus deliberately and recently released is having dramatic results killing Australia's introduced European rabbits. Showy groundsel has returned, and, unexpectedly, the numbers of western grey kangaroos are increasing. A dozen rabbits were released in the 1840's and now there are 300 million. The response in recovered vegetation is impressive. A virus introduced in the 1950's lost its effectiveness. Some fear the virus may jump species, but there is no evidence of this so far. Feral cats, also a pest, which fed on the rabbits, may also have been reduced, and it does not seem that the cats are switching prey to native species. (v8,#1)

Drucker, Merrit P. "The Military Commander's Responsibility for the Environment." *Environmental Ethics* 11(1989):135-52. I argue that military commanders have professional responsibilities for the environment in both peace and war. Peacetime responsibilities arise out of the commander's general responsibilities as an agent of the state. Wartime responsibilities are part of the commander's responsibility to protect noncombatants and to protect an environment that is the inherently valuable heritage of mankind. Commanders must assume some risk to protect the environment. I conclude that we must stop not only the environmental damage caused by war, but also war itself if we are to remain a viable species. Drucker is a major in the U.S. Army. (EE)

Drucker, Claudia. "Hannah Arendt on the Need for a Public Debate on Science." *Environmental Ethics* 20(1998):305-16. I discuss Arendt's claim that science and its uses should become a matter of political discussion. The suggestion that science can be discussed and monitored by lay people is based on her interpretation of modern science. Modern science results from a flight from the human condition, which in her view should be reversed by means of the public debate. I conclude that Arendt's political approach should in fact be called a moral approach. Arendt's arguments can be reduced to a traditional humanistic critique of science, interpreted as a version of Kant's antinomy between the cognitive and the moral interests of reason, according to which scientists must be prevented from treating human beings as a natural species like any other. Drucker is in philosophy, Universidade de Brasilia, Brasilia, Brazil. (EE)


Drury, Jr., William Holland (1921-1992). *Chance and Change: Ecology for Conservationists*. Edited by John G. T. Anderson. Berkeley: University of California Press, 1998. 223 pages. $ 25. Most of the environmental movement has ignored or rejected the changes in thinking that have infiltrated ecological theory since the 1970's. Disorder is what makes the natural world work, and clinging to the romantic notion of nature's grand design only saps the strength of the conservation movement. Humans tend to impose more structure and order on landscapes, when they interpret them, than is in fact there. What is actually there is a vital and dynamic collection of organisms, each with its own strengths and weaknesses, each selected over vast periods of
time to do as well as possible under a conflicting array of changes. Evolution can involve a
tendency toward greater and greater liberation from environmental constraints, including other
organisms, rather than the ever-stronger dependencies proposed by community ecologists.
Natural selection is not so much bleak in extreme, "nature red in tooth and claw," as a source of
continuous hope and possibility. Drury, an ornithologist and botanist, taught biology at the
College of the Atlantic, Bar Harbor, Maine. (v.9,#3)

Oxford University Press, 1997. 220 pages. An analysis of the main discourses that have
dominated environmental affairs during the last three decades. Sample chapters: "Making Sense
of Earth's Politics: A Discourse Approach"; "Leave It to the People: Democratic Pragmatism";
"Industrial Society and Beyond: Ecological Modernization"; "Save the World through New
Consciousness: Green Romanticism"; "Save the World through New Politics: Green Rationalism";
and Dryzek's conclusion: a reinvigorated "Ecological Democracy." Dryzek teaches political
science at the University of Melbourne, Australia. (v.9,#4)

Dryzek, John S., Review of: Humphrey, Matthew, Preservation versus the People? Nature,

Dryzek, John S. "Political and Ecological Communication." Environmental Politics 4(Winter
1995):13. (v7,#2)

Dryzek, John, Downes, David, Hunold, Christian, Herses, Hans-Kristian, and Schlosberg, David,
Green States and Social Movements: Environmentalism in the United States, United Kingdom,
movement is a transformation of the state and society on a par with earlier transformations that
gave us first the liberal capitalist state and then the welfare state. Such a transformation is now
most likely in Germany, and least likely in the United States, which has lost the status of
environmental pioneer that it gained in the early 1970's. Dryzek is at Australian National
University. (v.14, #4)

Dryzek, John S. "Green Reason: Communicative Ethics for the Biosphere." Environmental Ethics
12(1990):195-210. Exclusively instrumental notions of rationality not only reinforce attitudes
conducive to the destruction of the natural world, but also undermine attempts to construct
environmental ethics that involve more harmonious relationships between humans and nature.
Deep ecologists and other ecological critics of instrumental rationality generally prefer some kind
of spiritual orientation to nature. In this paper I argue against both instrumental rationalists and
ecological spiritualists in favor of a communicative rationality which encompasses the natural
world. I draw upon both critical theory and recent scientific intimations of agency in nature.
Dryzek is in the department of Political Science, University of Oregon, Eugene, OR. (EE)

Dryzek, John, "Green Reason: Communicative Ethics for the Biosphere," Environmental Ethics
12(1990):195-210. Dryzek argues that the current criticism of instrumental rationality by
environmental philosophers is justifiable, but that the adoption of an alternative conception of
"ecological spirituality" as a replacement for rationality is a mistake. He suggests the
development of a rationality based on the "communicative" model developed by the Frankfurt
school. This is a subtle and provocative argument with good criticisms of the standard positions
in environmental ethics. Dryzek's proposals for the development of "green reason" are
admittedly sketchy, and seem to be based too much on a Gaia-like hypothesis, in which the Earth
is seen as an agent. (Katz, Bibl # 2)

book concerns the analysis of "social choice mechanisms"---the "means through which a
society ...determines collective outcomes" (p. 7). Dryzek develops a concept of "ecological rationality," the ability of human and natural systems to deal with environmental problems, and then applies this to mechanisms of social choice to produce a more enlightened model of decision-making. One result is the need to incorporate "practical reason"---i.e., consideration of ends---into social choice mechanisms. (Katz, Bibl # 2)


Dua, Kamal Kumar, Bhagavad Gita and Environment. Delhi, India: Koshal Book Depot (3611/5, Narang Colony, Tri Nagar, Delhi 110 035, India), 1988. ISBN 81-86050-07-8. Indian rupees 400. US$ 60.00. Dua is in the Department of Zoology, Dayalbaugh Education Institute, Dayalbagh, Agra, India.

Dubos, René J., "Humanizing the Earth," Science 179(23 February 1973):769-772. The disastrous ecological consequences of many past and present human activities point to the need for greater knowledge and respect of natural laws. But "Nature knows best" is not really meaningful or wise advice. The symbiotic interplay between humans and nature can general ecosystems more diversified and more interesting than those occurring in the state of wilderness. Dubos was a biologist at Rockefeller University.

Duchesne, M., Cote, S.D. and Barrette, C., "Responses of woodland caribou to winter ecotourism in the Charlevoix Biosphere Reserve, Canada," Biological Conservation 96(no.3, 2000):311-318. (EE v.12,#1)


Duda, Mark Damian, Bissell, Steven J., and Young, Kira C., Wildlife and the American Mind: Public Opinion on and Attitudes toward Fish and Wildlife Management. Harrisonburg, VA: Responsive Management, 1998. (Responsive Management National Office, 130 Franklin St., P. O. Box 389, Harrisonburg, VA 22801). Overview of the human element in fish and wildlife management, measuring public opinion, marketing, agencies, laws, law enforcement, the value of wildlife,
wildlife levels and cultural carrying capacity, threatened, endangered, and nongame wildlife, large predator reintroduction, nuisance animals and animal damage, consumptive uses of wildlife, animal rights, animal welfare, habitat protection, landowner issues, fishing and the angler, and much more. Duda is executive director of Responsive Management, Bissell was long with Colorado Division of Wildlife, now retired. (v.11,#1)

Duda, Mark Damian, Bissell, Steven J., Young, Kira C., "Factors Related to Hunting and Fishing Participation in the United States," Transactions of the 61st North American Wildlife and Natural Resources Conference, 1996, pp. 324-337. Findings of a three year study, said to be the most exhaustive review, data collection, and analysis of any nationwide study of hunting and fishing to date. Hunting, and, to a slightly lesser degree, fishing are primarily activities that can be understood as sociological phenomena centered on and about the American family. Biological considerations are of importance, but wildlife and fishery management programs that focus on the resource itself, rather than the hunter and the angler, will not promote continued utilization, but may contribute to the decline in participation and reduced satisfaction. Duda and Young are with Responsive Management, Harrisonburg, Virginia; Bissell with the Colorado Division of Wildlife. (v8,#1)


Dudley, Nigel, Gilmour, Don, and Jeanrenaud, Jean Paul, Forests for Life. Gland, Switzerland: World Wildlife Fund, 1996. Problems facing the world's forests. Often pessimistic, but the many possible positive steps being taken are also highlighted. (v7,#4)


Duerr, William A., "Forestry's Upheaval," Journal of Forestry 84 (no. 1, January 1986):20-26. Advances in Western civilization are redefining the profession. "What matters is not biological but social renewability. ... The public forest preserved from logging is timber used up, just as really as though the land had been cleared and paved with asphalt." In the future, "in recreation,
emphasis on wilderness will be softened in favor of less elitist resources." Duerr was Distinguished Professor of Forestry, State University of New York, Syracuse, and has more recently been at Virginia Tech, Blacksburg. (v3,#1)

Duffin, Stephen J. "The Environmental Views of John Locke and the Maori People of New Zealand." Environmental Ethics 26(2004):381-401. In recent years, the trend in environmental ethics has been to criticize the traditional Western anthropocentric attitude toward nature. Many environmentalists have looked toward some of the views held by indigenous peoples in various parts of the world and argue that important ecological lessons can be learned by studying their beliefs and attitudes toward nature. The traditional Western viewpoint has been labeled as a form of shallow environmentalism, allowing few rights for anything other than human life. In contrast, indigenous peoples are seen as respecting all things. Thus, the claim is made that the latter's ecological views are deeper than those of Western views. John Locke is often placed at the center of this tradition that is associated with indifference to the environment. Yet, a comparison of the fundamental beliefs that drive the environmental ethics of the Maori people with those of John Locke reveals surprising similarities. It may well be the case that any adoption by the West of another culture's view would be too difficult given that there are so many foundational beliefs that are alien to the West, but which are nevertheless required to drive such an ethic. Nevertheless, if we can find similarities between various views, such as those of the Maori and Locke, we may have a greater appreciation of one another's beliefs and hence less reluctance to adopt them if they will benefit the environment. Our efforts could then perhaps be directed toward putting environmental ethics into practice rather than fighting over which doctrine is the correct one. (EE)

Duffus, David A., and Philip Dearden, "Recreational Use, Valuation, and Management of Killer Whales (Orcinus orca) on Canada's Pacific Coast," Environmental Conservation 20 (no. 2, Summer):149-156. Killer whales are among the most spectacular of all animals to see in the wild, and recreational watching of them has increased dramatically. The authors analyze surrounding issues: the experiences people have, economic benefits to communities, possible harassment of the whales, management issues, and whether the Canadian experience can be a model for whale and dolphin watching elsewhere. The authors are in geography at the University of Victoria, British Columbia. (v5,#4)

Duffy, David Cameron and Albert J. Meier, "Do Appalachian Herbaceous Understories Ever Recover from Clearcutting?" Conservation Biology 6(1992):196-201. The answer is no--at least for a very long time. In a study of sites from 45 to 87 years later, the understory was only one-third as abundant as in the original primary forest. This article was featured in a story in the New York Times, "Study Casts Doubt on Belief in Self-Revival of Cleared Forests," by Catherine Dold, September 1, 1992, p. B9. (Thanks to Doug Daigle.) (v3,#3)


Dugger, Celia W., "W.H.O. Supports Wider Use of Malaria vs. Malaria," New York Times online, September 16, 2006. DDT is the most effective insecticide and poses no health risk when sprayed in small amounts on the inner walls of people's homes.


Duke, Lynne, "Limited Trade in Ivory Approved," Washington Post 6/20/97: A16. CITES approves limited trade in ivory. The U.N. Convention on International Trade in Endangered Species (CITES) downgraded the protected status of elephants in three southern African nations, allowing some trade in ivory for the first time in nearly a decade. The ban was put in place in 1989 after rampant poaching had reduced the elephant population by 50% during the 1980s. Since the ban, the African elephant population has grown from 50,000 to 60,000. Zimbabwe, Namibia, and Botswana will use the moneys from selling an annual quota of their ivory stockpile to fund "sustainable use" conservation and development programs in communities affected by the elephant's protected status. The U.S. opposed the lifting of the ban. Reflecting a widespread sentiment, one African official described the decision as "a victory for African sovereignty and their right to the utilization of their natural resources in a sustainable manner without dictation from the industrialized countries." Japan's and Norway's request to lift hunting and trade restrictions on commercial whaling was turned down. For a provocative editorial supporting the lifting of the ban, see Wendy Marston, "The Misguided Ivory Ban and the Reality of Living with Elephants," Washington Post (6/8/97): C2. (v8,#2)


Duncan, Ian J.H., "Welfare is to do with What Animals Feel", Journal of Agricultural and Environmental Ethics 6(1993), Supplement. Although it is not possible to give the term "welfare" a precise scientific definition, nevertheless it is a useful term which describes a distinct phenomenon. It is argued that it is only appropriate to consider the welfare of sentient animals such as the vertebrates and higher invertebrates. Sentient is defined as "capable of feeling" and the view is expressed that welfare may be all to do with what animals feel. The "pine tree argument" is developed, according to which one questions whether or not the phenomenon suspected of being welfare can be applied sensibly to pine trees; if it can, then it is not welfare. Application of the pine tree argument leads to the conclusion that welfare is not simply health, absence of stress, or biological fitness. It is concluded that welfare is indeed all to do with what animals feel. The consequence of this conclusion is that methods to assess welfare should be
aimed at asking animals what they feel about the conditions under which they are kept and the procedures to which they are exposed. Duncan is in the Department of Animal and Poultry Science, University of Guelph, Guelph, Ontario Canada N1G 2W1.

Dundon, Stanislaus J., "Development Aid: The Moral Obligation to Innovation", Journal of Agricultural and Environmental Ethics 4(1991):31-48. The prominent, though not exclusive, role of basic needs strategies to attain ethically acceptable development goals raises the question of the ability of development agencies to find and employ basic needs strategies. The obligation to prevent severe human suffering leads to the obligation to employ basic needs strategies to attain basic needs goals. The history of failure by development agencies in finding and employing basic needs tools leads to a further obligation to cultivate bureaucratic environments which foster profound innovation. This requires not only new tools but also new bureaucratic behaviour. An understandable obstacle to simultaneously technological and bureaucratic innovation lies in the tension between "responsible behaviour" and "behaviour promoting fundamental change." Since this tension is based on the unpredictability of creative change, a series of axioms and corollaries which reduce the unpredictability is given. They include: (1) an obligation to seek innovation; (2) a clear statement of basic needs goals and intent to use some basic needs tools; (3) increase in effective knowledge of the poor and their survival strategies; (4) bureaucratic learning flexibility; (5) participatory development and allied emphasis on sustainable resource technologies. The embodiment of these in the "learning" process approach is illustrated.

Dunkiel, Brian S. "Should Tax Policy be Subject to NEPA?", Environment 38(No.10, 1996):16. Although tax policy has significant impacts on the environment, neither the U. S. Treasury nor the IRS routinely do environmental assessments. (v7,#4)

Dunlap, Julie Jeanette, Ethical Reasoning about Animal Treatment and its Relationship to Moral Development. Ph.D. dissertation. New Haven, CT: Yale University, 1987. Kohlberg's moral development extended to pets and wildlife. A study of some 80 boys in the eighth and twelfth grade in Connecticut. Are boys capable of using consistent patterns of reasoning about animal treatment dilemmas? Yes. Are there different levels of reasoning? Yes. Do these levels advance during maturation? Yes, but the advance is faster with ethical issues about humans, and faster regarding higher animals than lower ones. Does the amount of environmental interaction influence this thinking? No, and suburban boys may be more advanced than rural boys.


Dunlap, Riley E., Van Liere, Kent D., Mertig, Angela G., and Jones, Robert Emmet, "Measuring Endorsement of the New Ecological Paradigm: A Revised NEP Scale." *Journal of Social Issues* 56(Fall, 2000):425-442. This article provides a revised and expanded "NEP Scale" that replaces the one originally published in 1978 that has become the most widely used measure of endorsement of an ecological paradigm or worldview. Dunlap is in environmental sociology, Department of Sociology and Department of Rural Sociology, Washington State University, Pullman, WA. E mail: dunlap@wsu.edu or dunlapr@earthlink.net. (v.12,#2)

Dunlap, Riley E., George H. Gallup, Jr., and Alec M. Gallup, "Of Global Concern: Results of the Health of the Planet Survey," *Environment* 35(November, 1993):7-15, 33-39. The first journal article reporting results from the Gallup Institute's 1992 Health of the Planet Survey. The survey was taken in 24 nations and involved over 30,000 respondents worldwide in face-to-face interviews, the poor as well as the wealthy. The largest environmental survey ever conducted. Results challenge the conventional view that residents of the less-economically developed nations are less concerned about environmental quality than their counterparts in wealthier countries. Dunlap is professor of sociology at Washington State University. (v4,#4)

Dunlap, Riley E., Xiao Chenyang, and McCright, Aaron M., "Politics and Environment in America: Partisan and Ideological Cleavages in Public Support for Environmentalism," *Environmental Politics* 10(no. 4, 2001):23-48. Early environmentalism was often non-partisan, but the staunch anti-environmentalism of Reagan destroyed all pretense of environment being non-partisan. The current Bush administration, at least in the conservative wing, is strongly opposed to environmental protection. The gap between Republican and Democratic support for environmental legislation has grown substantially. But the mass public is less polarized on these issues than are political elites. Dunlap is in environmental sociology, Washington State University. (v.13,#2)


Dunlap, Thomas R., "Environmentalism, a Secular Faith," *Environmental Values* 15(2006):321-330. Much of American environmentalism's passion and political power, as well as shortcomings and tactical failures, have their origin in the movement's demands for new attitudes toward nature as well as new laws and policies. A full understanding of environmentalism requires seeing it as a secular faith, movement concerned with ultimate questions of humans' place and purpose in the world. This perspective explains much about its development, its emphasis on individual action,
the vehemence of its opposition, and its political failure in the last generation. Comparisons with other national environmental movements, not considered here, constitute an important topic for further research. (EV)

Dunlap, Thomas R., "Finding Value in Nature," *Environmental Values* 15(2006): 331-341. This paper explores the idea that a proper valuing of natural environments is essential to (and not just a natural basis for) a broader human virtue that might be called 'appreciation of the good'. This kind of valuing can explain, without any commitment to a metaphysics of intrinsic values, how and why it is good to value certain natural phenomena for their own sakes. The objection that such an approach is excessively human-centred is considered and rebutted. (EV)

Dunn, James R., and Kinney, John E., *Conservative Environmentalism*. Westport, CT: Quorum Books, 1996. 275 pp. Environmentalism from the right: Chapters: Agriculture and Soil. Forests, Trees, and Floral Diversity. Wildlife. Water and Water-Related Resources. Sanitation and Disease. The Environment, Rich and Poor (Chapter 7). A sample from Chapter 7: America's environmental problems are usually measured in parts per million, billion, or trillion, often impossible to measure and the public must be told of their existence. They are mostly media events. The Third World's environmental problems are desperate and the poor, hungry, and diseased feel them every day. Morale: Conserve (and improve) our way of life; fix theirs. Chapters, continued: Wealth and the Environment Quantified. Sustainable Development versus Resource Multiplication. Politics and the Environment. Causes of Public Confusion. Regulations and Environmental Priorities. The Cultural-Environmental War. Toward a Better Environment. Thirty-one Environmental Principles. Principle 31, with emphasis: Virtually every human activity we see as needed to improve the environment is opposed or not acknowledged by leftist environmentalism. (p. 241). Toward a Better World for Future Generations. A bibliography is divided into "Left-Compatible or Liability Culture Books" (such as Rachel Carson and Al Gore), and "Conservative-Compatible or Asset Culture Books" (such as Gregg Easterbrook). Some extracts will make useful class readings and discussion material. Dunn was a longtime professor of environmental geology at Rensselaer Polytechnic Institute, now a consultant. Kinney is an environmental consultant and engineer. (v8,#2)

Dunn, Steve, Friedman, Robert, and Baish, Sarah, "Coastal Erosion: Evaluating The Risk," *Environment* 42(no. 7, Sep. 1, 2000):36-. Severe storm events and global warming contribute to seacoast degradation and destruction. Scientists and policy makers are trying to develop strategies to alleviate the damage. (v.12,#2)


Dunsmore, Roger, *Earth's Mind*. Albuquerque, NM: University of New Mexico Press, 1997. Thirteen essays on Native American literature. Mind is something larger and more pervasive in nature than the Western tradition has usually considered and this suggests respect for nature and Earth's mind as central to survival and conveys the essential wildness of mind. Dunsmore teaches in the Liberal Studies Department, University of Montana. (v.10,#1)


Dupré, John. Humans and Other Animals. Oxford: Oxford University Press, 2002. The ways in which we characterize animals, including humans. It is a mistake to think that each organism has an essence that determines its necessary place in a unique hierarchy. We should reject the misguided concepts of a universal human nature and normality in human behavior. We must take a pluralistic view of biology and of human life. Dupré is at the University of Exeter, UK.


DuPuis, E. Melanie and Peter Vandergeest, eds., Creating the Countryside: The Politics of Rural and Environmental Discourse. Philadelphia: Temple University Press, 1995. 346 pages. What does it mean to save nature and rural life? Do people know what they are trying to save and what they mean by "save"? As the answers to these questions become more and more unclear, so, too, do the concepts of "environment," "wilderness," and "country." Ten contributors on people in and out of nature, constructing rurality, why people make artificial distinctions between nature and culture, and generally complaints about dualistic categories that limit our ability to think about environmental and rural problems and hamper our ability to formulate practical, realistic, and just solutions. DuPuis is an analyst of environmental policy with the New York State Department of Economic Development. Vandergeest is on the faculty of environmental studies at York University. (v7,#2)


Durning, Alan, How Much Is Enough? The Consumer Society and the Future of the Earth. New York: W. W. Norton. $ 8.95. 200 pages. 1992. The richest one-fifth of humanity causes vastly disproportionate environmental damage because of its growing demand for material goods. The consumption gap between industrialized and developing countries is 18 to 1 for chemicals, 10 to 1 for timber and energy, 3 to 1 for grain and fresh water. Ground water in the U.S. is being
pumped 25 times faster than the normal rate of replenishment. Meanwhile, surveys show there has not been any noticeable increase in personal satisfaction or happiness. (v3,#3)

Durning, Alan B., Apartheid's Environmental Toll. Worldwatch Paper 95. May 1990. 50 pages. $4.00. Worldwatch Institute, 1771 Massachusetts Ave., N. W. Washington, DC 20036. A startling paper. "Apartheid reveals with exceptional clarity the way unfairness within the human estate extends its damage into the natural estate as well." "Forced relocations and natural increase combine to give the homelands an average population density higher than all but three countries on the continent." "Air and water near mining and smelting operations are little monitored, and what monitoring is done is not reported." "Aside from oil exporters and the notoriously inefficient centrally planned economies, South Africa is the most energy-intensive country in the world." "On a per person basis, white South Africans are the world's worst greenhouse offenders." "The bantustan system leaves South Africa with a pattern of land ownership more skewed than any on the seven continents." (v1,#4)


Dustin, Daniel L., The Wilderness Within: Journeys in Self-Discovery. San Diego, CA: Institute for Leisure Behavior, San Diego State University. 1993. 153 pages. $6.95. ISBN 1-882708-52-0. Dustin finds that journeys he takes to places "out there" to the exterior world of mountains, forests, deserts, and tundra become journeys he takes "in here" in his interior world. "To me wilderness is the logical place, indeed the ideal place, to marvel at life's unfolding, to live at life's edge. It is in wilderness that we can best discard the protective armor that shields us from life itself. It is in wilderness that we can best get down to earth, that we can best open up and receive the world around us. It is in wilderness that we can best rejoice in the here and now. But the way wilderness is managed these days tends to undermine this opportunity." (p. 5) Thoughtful reflections of interest to whose who ask what happens to people in wilderness. Dustin is Distinguished Professor in San Diego State University's Department of Recreation, Parks, and Tourism. (v4,#3)

Dustin, Daniel L., and Leo H. McAvoy. "The Decline and Fall of Quality Recreation Opportunities and Environments?" Environmental Ethics 4(1982):49-57. User satisfaction as the ultimate goal of recreation planning and management is contested by a discussion of human adaptability which makes it possible for people to adjust to a progressively lower quality of recreation opportunities without loss of satisfaction. Recreation planning and management based on such satisfaction levels are then shown to perpetuate a deterioration in the quality of recreation environments themselves. To arrest this trend, a new goal for recreation planning and management is proposed based on the equation of quality of opportunity with diversity of environmental settings. The article concludes with a discussion of this goal in light of the Recreation Opportunity Spectrum (ROS) concept developed recently by members of the U. S. Forest Service. McAvoy is at the Division of Recreation, Park and Leisure Studies, University of Minnesota, Minneapolis, MN. Dustin is in the department of Recreation, San Diego State University, San Diego, CA. (EE)

Dustin, Daniel L., and Leo H. McAvoy. "Toward Environmental Eolithism," Environmental Ethics 6(1984):161-166. Eolithism is defined as the process of finding and using "junk." This, the authors argue, rather than a principle of design, should be the guiding metaphor of environmental management. (Katz, Bibl # 1)

Dustin, Daniel L., and Leo H. McAvoy. "Toward Environmental Eolithism." Environmental Ethics 6(1984):161-66. We apply two contrasting principles of human workmanship, the principles of design and eolithism, to the issue of responsible environmental stewardship. Both principles are
described and analyzed in an environmental context with an emphasis on the weaknesses of the more popular design principle and the strengths of the lesser known eolithic principle. We conclude with a discussion of the principles' complementary potential for environmental planning and management. McAvoy is at the Division of Recreation, Park and Leisure Studies, University of Minnesota, Minneapolis, MN. Dustin is in the department of Recreation, San Diego State University, San Diego, CA. (EE)

Dustin, Daniel L., and Leo H. McAvoy. "Hardining National Parks." Environmental Ethics 2(1980):39-44. The "tragedy of the commons" argument developed by Garrett Hardin is applied to problems associated with the increasing use of the national parks in the United States. The relevance of his argument to such problems is illustrated by a discussion of the proposals included in the recent Draft General Management Plan for Yosemite National Park. Implications for the future management of Yosemite and other public recreation resources conclude the article. McAvoy is at the Division of Recreation, Park and Leisure Studies, University of Minnesota, Minneapolis, MN. Dustin is in the department of Recreation, San Diego State University, San Diego, CA. (EE)

Dutcher, DD; Finley, JC; Luloff, AE; Johnson, J, "Landowner Perceptions of Protecting and Establishing Riparian Forests: A Qualitative Analysis", Society and Natural Resources 17 (no.4, 2004): 329-342(14).


Duval, R. Shannon, and David Edward Shaner. "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 at the Philosophy Dept., Furman University, Greenville, SC. Duval is a Dana Foundation Research and Teaching Assistant at Furman University, Greenville, SC. (EE)

Duvenage, JJ s.a. Natuurbewaring - 'n noodsaaklikheid. Instituut vir die bevordering van Calvinisme Studiestuk nr 23. Potchefstroom: IBC. (Africa)

Duvick, Donald N. "Biotechnology Is Compatible with Sustainable Agriculture." Journal of Agricultural and Environmental Ethics 8(1995):112-125. Biotechnology can provide appropriate new tools for use in solution of specific problems in sustainable agriculture. Its usefulness will depend in large part on the degree to which sustainable agriculturists understand the utility of biotechnology and apply it toward ends they deem important. Biotechnology can give little assistance to sustainable agriculture in the short term. It can be more useful in the medium term,
and it could be highly useful in the long term as an integral part of the art and science of plant breeding and other components of sustainable agriculture systems. (JAEE)


Dwivedi, O.P., "Vedic Heritage for Environmental Stewardship" Worldviews: Environment, Culture, Religion, vol.1, no.1. (v8,#2)


Dworkin, Ronald. Life's Dominion: An Argument about Abortion, Euthanasia, and Individual Freedom. New York: Alfred A. Knopf, 1993. 273 pages. Dworkin's main argument is that debates here are fundamentally religious disagreements, and so he asks, in Chapter 3, "What Is Sacred?" He is led to some reflections on intrinsic value in nature: "In our culture, we tend to treat distinct animal species (though not individual animals) as sacred ... another important example of something many of us take to be of intrinsic rather than instrumental value" (p. 75).

"Our concern for the preservation of animal species is also based on respect for the way they came into being rather than for the animals independently of that history. The natural processes of evolution and development themselves have a normative significance for us and this is not because the species they generated--the rhinoceros or the horned owl, for example, are superior on some independent test of animal worth to others that might have evolved if they had not, but because we consider it wrong, a desecration of the inviolable, that a species that evolution did produce should perish through our acts. Geneticists have created plants that we find instrumentally valuable: they produce food and may save lives. But we do not think artificially produced species are intrinsically valuable in the way that naturally produced species are" (pp. 78-79). Dworkin does not undertake to defend this position but rather to recognize it as a plausible and widespread conviction, one that any just law must take into account. Dworkin is professor of law at New York University and at Oxford University. (v6,#1)

Dworkin, Ronald, Life's Dominion: An Argument about Abortion, Euthanasia, and Individual Freedom. New York: Knopf, 1993. Mostly medical bioethics, but Dworkin sometimes ventures into environmental concerns. We have an obligation to protect species that goes beyond our own well-being; we think we should admire and protect them because they are important in themselves, and not just if or because we or others want to enjoy them. "Someone might say: we protect endangered species because we want the pleasure of continuing to see animals of each species, or because we want the useful information we might gain by studying them, or because it is more interesting for us that there be more rather than fewer species. But none of these arguments rings true. Many--perhaps most--of the people who consider endangered species important ... struggle to protect the species simply because they think it would be a shame if human acts and decisions caused its disappearance. So this is another important example of something many of us take to be of intrinsic rather than instrumental value" (p. 75).

Dwyer, Johanna, and Loew, Franklin M., "Nutritional Risks of Vegan Diets to Women and Children: Are They Preventable?", Journal of Agricultural and Environmental Ethics 7(1994):87-110. Women and children are at higher risk of malnutrition from consumption of unsupplemented
vegan diets than are adult males. Those who are very young, pregnant, lactating, elderly, or who suffer from poverty, disease or other environmentally induced disadvantages are at special risk. Fortunately, the risk of dietary deficiency disease can be avoided and the potential health benefits of vegan diets can be realized when diets for these groups are planned in line with the Recommended Dietary Allowances so that nutrient intakes reach or exceed recommended levels. Dwyer is in nutrition at the Tufts University Schools of Medicine and Nutrition, New England Medical Center, Boston. Loew is at the Tufts University School of Veterinary Medicine and Tufts Biotechnology Corporation, Boston and North Grafton.

Dwyer, Lynn E., and Murphy, Dennis D. "Fulfilling the Promise: Reconsidering and Reforming the California Endangered Species Act." *Natural Resources Journal* 35, no.4 (1995): 735. (v7, #3)

Dwyer, Michael J., *Sea of Heartbreak: The Extraordinary Account Of A Newfoundland Fishing Voyage*. Toronto, Canada: Key Porter Books, Toronto, Canada, 2001. ISBN 1-55263-303-9. Going fishing for turbot with gill nets is to participate in a marine massacre. Dwyer's personal environmental ethics perhaps might be designated as a form of "progressive anthropocentrism." He is not opposed to killing wildlife for a living, e.g. fishing, or hunting for food, but he signs on board a ship he comes to call "our ship of death" (p. 191), and reaches the conviction that a civilization with such a profligate attitude towards the non-human inhabitants of the marine world does not deserve to survive. Thanks to David Orton. (v.12,#4)

Dwyer, Peter D., "The Invention of Nature," Pages 157-186 in Ellen, Roy, and Fukui, Katsuyoshi, eds., *Redefining Nature: Ecology, Culture and Domestication*. Oxford, UK: Berg, 1996. "Modern thought treats nature as separate from culture and has assigned ontological priority to the former. This is analogous to the separation of environment and organism that informs much of biology. ... We are easily taught that nature is other than culture or that environment is other than organism; that cultures, like organisms, are emergent products. These understandings mesh comfortably with a tradition of thought that, for more than a century, has been underlain by an evolutionary perspective. I wish to revise, and to some extent up-end this tradition. ... I shall argue, in the domain of human affairs [that] culture should be taken as prior, nature as emergent. The sad truth may be that the idea of 'wilderness' -- that supposed last refuge of nature--is no more than an attempt to represent an imaginary place as a concrete symbol. "Nature" as Westerners know it is an invention, an artefact" (p. 157). Dwyer is a zoologist at the University of Queensland, Brisbane, with anthropological interests in subsistence peoples in Papua New Guinea. (v.13,#1)


Dybas, CL, "From Biodiversity to Biocomplexity: A Multidisciplinary Step toward Understanding Our Environment," *Bioscience* 51(no. 6, 2001):426-431. (v.13,#1)
Dycus, Stephen. *National Defense and the Environment*. Hanover, NH: University Press of New England, 1996. 306pp. $19.95 paper. In a study of the issues raised when US military might collides with environmental laws, Dycus writes, "in preparing for a fight, we must not destroy the very thing we would fight to protect."


