Tabarelli, M; Cardoso da Silva, JM; Gascon, C, "Forest fragmentation, synergisms and the impoverishment of neotropical forests", *Biodiversity and Conservation* 13 (no.7, 2004): 1419-1425(7).

Tabor, Joseph A. and Hutchinson, Charles F. "Using Indigenous, Knowledge, Remote Sensing and Sustainable Development," *Indigenous Knowledge and Development Monitor* (published by Ciran/NUFFIC in the Netherlands) 2(1)(1994): 1-6. The *IK&D Monitor* is an excellent source of information on people and projects in this area. For more information, contact Aake Tick (tick@nufficsc.nl) or write the editorial office: Centre for International Research and Advisory Networks (CIRAN)/NUFFIC, P.O. Box 29777, 2502 LT The Hague, The Netherlands. (v6,#4)


*Taiga-News: Newsletter on Boreal Forests* is a newsletter that watches developments threatening, or protecting, boreal forests in both hemispheres. Contact Taiga Rescue Network, Ajtte, Box 116, S-962 23 Jokkmokk, Sweden. Phone: 46 (country code) 971 (city code) 17037. Fax: 12057. (v5,#3)

Tait, Malcolm, "Bessie and the Gaur," *The Ecologist* 30(no. 9, Dec. 1, 2000):46-47. A cow named Bessie was used in an attempt to clone a gaur, an endangered ox-like animal from Asia. Attempt failed. Cloning extinct or endangered animals is not the future of conservation--it is merely an excuse to carry on our destructive ways. (v.12,#2)

Taiwan Christian Ecological Center, Taipei. The Center produces a number of educational materials on environmental ethics, sustainable development, and Christian stewardship of creation. Recent materials interpret the proposed Earth Charter for Taiwan, and the Center was involved in the 2001 Asia Pacific Earth Charter conference in Brisbane, Australia. Another publication is on "Natural Aesthetics." The group sponsored the translation into Chinese of Dieter T. Hessel's *After Nature's Revolt: Eco-justice and Theology* (originally Fortress Press, 1992). Contact: Nancy Tzu-Mei Chen, Secretary General, 1F. # 3, Lane 269, Roosevelt Road Section 3, 106 Taipei, Taiwan. E-mail: tctcnvr@ms6.hinet.net. Fax 886-2-23699885.


interviews with the scientists most active today in the mission to preserve biodiversity, including Peter Raven, Thomas Lovejoy, Jane Lubchenco, and Paul Ehrlich. He also looks at the work of twentieth-century forerunners of today’s conservation biologists--Aldo Leopold, Charles Elton, Rachel Carson, David Ehrenfeld--and points out their contributions to the current debates. He takes readers to Costa Rica, where a group of scientists is using biodiversity to remake nature and society. An extended section profiles the thoughts and works of E.O. Wilson. (v8,#1)

Takacs, David, The Idea of Biodiversity. Philosophies of Paradise. Baltimore: Johns Hopkins University Press, 1996. Biodiversity as a social construct. "It is difficult to distinguish biodiversity, a socially constructed idea, from biodiversity, some concrete phenomena" (p. xv). "This book is about the dialectic between two natures: nature, the real world that surrounds us, and "nature," how we portray the world. Or, rather, it is about the dialectic between biodiversity, the notional totality of life on this planet, and biodiversity, the term biologists have concocted as an approximation for that totality: a scientized synonym for nature, imbued with the values biologists cherish. The term biodiversity is only a decade old, but it stems from nature and wilderness, notions whose roots burrow deep into human history. In a rare opportunity to watch the conscious creation and dissemination of a new paradigm of our conceptions of nature, we are able to examine how and why biologists have concocted and promoted the word" (pp. 105-106).

The originator and chief advocate, and constructor, of biodiversity is E. O. Wilson. "Wilson is stitching together nothing less than a new 'natural' religion, with biodiversity as the icon of worship. He seeks to lead a corps of renaissance biologists acolytes in the mission to spread the new eco-gospel" (p. 310). Takacs interviewed some 40 biologist / advocate / constructors of biodiversity. He is convinced "biodiversity" is constructed, a new religion; but he halfway believes it himself, and he does want to respect and save nature. (v.13,#1)

Takeik, Milton, "Modernisation and its Lost Horizons," Environmental Politics (Summer 1997):173-.


Talbert, Matthew. "Contractualism and Our Duties to Nonhuman Animals." Environmental Ethics 28(2006):201-215. The influential account of contractualist moral theory offered recently by T. M. Scanlon in What We Owe to Each Other is not intended to account for all the various moral commitments that people have: it covers only a narrow though important range of properly moral concerns and claims. Scanlon focuses on what he calls the morality of right and wrong or, as he puts it in his title, what we owe to each other. The question arises as to whether nonhuman animals can be wronged in the narrow sense of a moral wrong with which contractualism is concerned. Can we owe things to nonhuman animals? Scanlon is sensitive to the importance of this question, but he ultimately favors an account in which the perspectives of nonhuman animals are not explicitly included in contractualist theorizing. Nevertheless, it appears that contractualism, largely as Scanlon conceives it, can accommodate duties to nonhuman animals. Moreover, if contractualism cannot make this accommodation, then its status as a theory that answers to important common-sense moral intuitions becomes questionable in ways that extend beyond its failure to live up to intuitions many share about the status of nonhuman animals. (EE)


Talbott, Steve, "A Conversation with Nature," *The New Atlantis*, No. 3, Fall 2003, pages 34-46. Between the extremes of ridding nature of all human influence and total management of nature, perhaps we humans can have a conversation with nature. "I would like to think that what all of us, preservationists and managers alike, are really trying to understand is how to conduct an ecological conversation. We cannot predict or control the exact course of a conversation, nor do we fall any such need--not, at least if we are looking for a good conversation. Revelations and surprises lend our exchanges much of their savor. We don't want predictability; we want respect, meaning coherence. A satisfying conversation is neither rigidly programmed nor chaotic, somewhere between perfect order and total surprise we look for a creative tension, a progressive and mutual deepening of insight, a sense that we are getting somewhere worthwhile." (p. 36). Talbott is a senior researcher at the Nature Institute. (v. 15, # 3)

Talbott, Steven. "The Language of Nature." *The New Atlantis* No. 16 (Winter 2007): 41-76. Nature A speaks, or has meaning to those who encounter it sensitively, but science has had a tendency to mechanize this nature and drain it of this meaning. Talbott is a researcher at the Nature Institute. E-mail: stevet@oreilly.com.


Taliaferro, Charles. "The Environmental Ethics of the Ideal Observer." *Environmental Ethics* 10(1988):233-50. The ideal observer theory provides a fruitful framework for doing environmental ethics. It is not homocentric, it can illuminate the relationship between religious and nonreligious ethics, and it has implications for normative environmental issues. I defend it against criticism raised by Thomas Carson and Jonathan Harrison. Taliaferro is in the philosophy department, St. Olaf's College, Northfield, MN. (EE)


Tallacchini, Mariachiara, *Diritto per la natura: Ecologia e filosofia del diritto* (Law for Nature: Ecology and Philosophy of Law). Torino: Giappichelli, 1996. 410 pages. ISBN 88-348-6139-6. Lire 40.000. Inadequate attention has so far been paid to philosophical reflection on the bases of environmental law, that is, on the conception of the relation between human beings and nature implicit in the growing legal concern with the environment. "Shallow" and "deep" ecophilosophies offer opposite ways of solving the tormented relationship between human beings and nature. Shallow ecologies, here called "environmentalist," hold an anthropocentric point of view and attribute to nature an instrumental value. Deep ecologies, here called "ecologist" philosophies, instead take an ecocentric point of view, that of the biosphere, and claim for nature an intrinsic value. "Environmentalisms" do not uphold great innovations in the relationship with nature, only a cautious management of resources; "ecologisms" introduce an attempt to "think like a mountain" and so inspire human actions with the principle of non-interference in ecosystemic processes.

Italian laws on the environment appear as an inextricable entangling of not always consistent norms, due to the lack of a specific constitutional rule protecting the environment as a fundamental value. They reveal an attitude aimed more at repairing nature than preventing damage. European law consists almost of principles, and the original economic inspiration of the 1956 Rome treaties is difficult to reconcile with the ecological caring implicit in the Maastrict agreements. International law, lastly, appears torn between old principles, which still recognize single states as autonomous sovereign units and the new global reality, which makes of the Earth a single common home.
What are the links between positive law and environmental philosophies? Legal system risk failing in their intent to safeguard the environment unless they have a consistent sustainable attitude as a basis for decisions. From remote times, law has been responsible for environmental degradation, an anthropocentric ideology. After a critical examination of the new rights for the protection of the biosphere (human right to the environment, animal rights, nature's rights), the author outlines, with the idea of "law for nature," a legal framework for an adequate protection of nature. From the methodological point of view, there is the assumption of a systemic Gestalt in line with deep ecology. From the axiological point of view there is the adoption of a weak, humble anthropocentrism, in line with the most advanced approaches of shallow ecology. From this paradigm "ecological normativity" flows. Sustainable law "must" have three elements:

1. Normativity of limits (law of limits). The finiteness of the world becomes the starting point from which to define the rights and the concrete basis for the goal of uncertainty.
2. Normativity of uncertainty (law of uncertainty). The uncertainty of ecological forecasts produces the need for a precautionary approach (as, for example in the precautionary principle of the Rio Declaration).
3. Normativity of Gestalt (the law of Gestalt). It is necessary to elaborate new legal concepts, because ecological entities cannot always be grasped by traditional legal tools.

Tallacchini is a researcher in philosophy of law at the University of Florence. Address: Dipartimento di Teoria e Storia del Diritto, Piazza Indipendenza 9, 50129 Firenze, Italia. Tel. 39-55-496533/496610. Fax 39-55-474756. E-mail: mctall@tsd.unifi.it (v.8,#4)

Tallacchini, Mariachiara, "A legal framework from ecology," Biology and Conservation 9(2000):1085-1098. Abstract. This paper proposes some legal principles for environmental protection as outlined from ecology. Such an environmental legal framework consists essentially of three criteria which deal (1) with ecological limits, (2) Gestalt and (3) uncertainty. These guidelines for an ecologically-oriented law are defined as normative because they show that there is a link between ecological descriptions and legal prescriptions. Key words: ecology, environmental normative principles, law. Tallacchini is in law, Dipartimento di Teoria e Storia de Diritto, University of Florence, Italy. (v.13,#1)

- Barr, James, "Uomo e natura. La controversia ecologica e l'Antico Testamento (Man and Nature: The Ecological Controversy in the Old Testament)," 1972.
- Leopold, Aldo, "L'etica della terra (The Land Ethic)," 1949.
- Sagoff, Mark, "La preservazione dell'ambiente naturale (On Preserving the Natural Environment)," 1974.
- Nuyen, A. Tuan, "Un'etica antropocentrica per gli animali e la natura (An Anthropocentric Ethic towards Animals and Nature)," 1981.
In English. The environment is a fairly recent object for law and rights. The need to place limits of human intervention in the environment has led to two opposing theories of rights: (1) the human right to the environment, which protects man from man in the exploitation of nature, and (2) the rights of nature, which protect nature from man. The environment as an object of a human right is the expression of the so-called third generation of human rights--whose reference-value is solidarity, "freedom together,"--and aims at defending human beings from environmental degradation produced by industrial development. The configuration of the rights of nature swings between extreme conceptions: a minimal one, which merely exploits the emphasis of the language of rights to refer to human duties; a maximal one, according to which "biorights" are "the rights of unique landscapes to remain untouched." The first considers subjective rights as a mere persuasive formula, the second leads to the contradictory consequence whereby the complete intactness of nature demands the disappearance of man and of law. But if the expression "rights of nature" is to have any meaning at all, the meaning is to be sought by excluding these two definitions. (v.8,#4)

Tallacchini, Mariachiara. "A Legal Framework from Ecology," Biodiversity and Conservation 9(no. 8, 2000):1085-1098. Abstract. This paper proposes some legal principles for environmental protection as outlined from ecology. Such an environmental legal framework consists essentially of three criteria which deal (1) with ecological limits, (2) Gestalt, and (3) uncertainty. These guidelines for an ecologically-oriented law are defined as normative because they show that there is a link between ecological descriptions and legal prescriptions. Key words: ecology, environmental normative principles, law.

Tallmadge, John. "Saying You to the Land." Environmental Ethics 3(1981):351-63. In formulating the concept of a "land ethic," Aldo Leopold suggested that true conservation would begin when we enlarged our sense of community to include other organisms besides human beings. This cannot be done, I argue, until we begin viewing other beings in nature as worthy of existence on their own terms, rather than simply as means to human ends. I use Martin Buber's philosophy of dialogue, as expounded in "I and Thou", to shed light on the spiritual roots of our environmental crisis and show how we can appreciate beings in nature if we encounter them as persons rather than things. Applying Buber's concepts to the experiences of backpackers suggests that wilderness travel can help individuals develop habits of mind conducive to "I-You" relations, thereby enhancing our life with other people as well as with our natural environment. Tallmadge is in the department of English, Carleton College, Northfield, MN. (EE)

Tallmadge, John. Meeting the Tree of Life: A Teacher's Path. Salt Lake City: University of Utah Press, 1997. 220pp. $44.95 cloth, $18.95 paper. Tallmadge describes a young teacher's coming of age through wilderness adventures framed by the study of nature writing. His experiences in
New England, Utah, Wyoming and Minnesota's canoe country help him discover what true teaching and personal survival really mean. (v8,#1)


Tamburrino, Antonio, Evoluzione Ambientale, Guiffre’ Editore 1988, Libera Universita' Internazionale deli Studi Sociali, Roma, Italy. L. 36,000. 480 pages. Another Italian work bearing on environmental ethics. (v2,#1)

Tammemagi, Hans. The Waste Crisis: Landfills, Incinerators, and the Search for a Sustainable Future. New York: Oxford University Press, 1999. 288 pp. $24. The magnitude and complexity of the waste management in North America, focusing on municipal wastes and placing them in the perspective of other wastes such as hazardous, biochemical, and radioactive debris. Also the components of an integrated waste management program, including recycling, composting, landfills, and waste incinerators, and the scientific and engineering principles underlying these technologies. (v.10,#3)


Tangley, Laura, "The Case of the Missing Migrants," Science 274(1996):1299-1300. Are new methods of cultivating coffee in Latin America bad for birds? Some researchers say that shift from shade to sun plantations is hastening the decline of songbirds. (v7,#4)

Tangley, Laura (and others), "The Growing Threat of Wildlife Disease," National Wildlife 41(no. 3, April/May 2003):37-44. West Nile virus, chronic wasting disease, and other diseases that threaten to move from wildlife to humans, often facilitated by crowding and modern means of travel.

Tangley, Laura, "How Many Species Exist," National Wildlife 37 (no. 1, December/January 1999):32-33. The question takes on increasing significance as plants and animals vanish before scientists can identify them. 1.7 million have been named. 13,000 more are named each year. Most of the unnamed ones are invertebrates. There are fewer than 200 scientists in the world who can name tropical beetles, a group that may account for one-third of all the species on Earth. Scientists are so much in the dark that estimates of the unknown invertebrates vary widely, from 3 to 5 to 10 billion species. (v.9,#4)

Tanke, Joseph J., AtThe Care of the Self and Environmental Politics: Towards a Foucaultian Account of Dietary Practice, @ Ethics and the Environment 12(no. 1, 2007):79-96. This essay appropriates the understanding of ethics developed by Michel Foucault in his courses at the College de France from 1980 until his death in 1984, with the aim of formulating a progressive environmental politics. As such, it attempts to navigate some of the long-standing divides between the movement for animal rights and environmental ethics proper, finding in the practice of vegetarianism a form of self-relation that is conducive to critical forms of speech and politics. The final phase of Foucault's work is replete with insights into how the care of the self can serve as a resistance to forms of power and political stasis. This paper presents these unpublished materials, allowing for a glimpse of the unknown Foucault, and reinterprets vegetarianism as a form of self-practice that is linked with truth and critical speech. Tanke is at Boston College, Boston.


Tanner, Randy, "Inholdings within Wilderness: Legal Foundations, Problems, and Solutions," International Journal of Wilderness 8(no. 3, December 2002):9-14. Legislation varies but typically owners of inholdings have to be given "reasonable use and enjoyment" of their lands, though these uses are not to disturb the quality of or be incompatible with the surrounding wilderness. Owners are to be given "adequate access" (which may not be motorized access) or the government shall offer exchange of land of approximately equal value. Most of the debate turns on what access is adequate and whether the offer of exchange must be accepted in lieu of access. Condemnation on Western wilderness is possible, but requires an Act of Congress. Condemnation on Eastern wilderness is possible by agency action, but has never been used. A legal article, worth an ethical analysis. Tanner is a graduate student the University of Montana.


Tanner, Thomas, ed., Aldo Leopold: The Man and His Legacy. Published in 1987, this book is still available from a somewhat atypical publisher and many interested in environmental ethics have probably neglected to obtain it. This volume resulted from an Aldo Leopold Centennial Celebration at Iowa State University. Contains 13 essays by Susan Flader, Baird Callicott, Roderick Nash, Curt Meine, Raymond Dasmann, Bruce Babbitt and others, and reminiscences by members of Leopold’s family, Carl Leopold, Estella Leopold, Luna Leopold, Nina Leopold Bradley, and Frederic Leopold. Published by the Soil Conservation Society of America, 7515 Northeast Ankeny Road, Ankeny, Iowa 50021. $ 10.00. Phone 515/289-2331 or 1-800-THE-SOIL. (v2,#2)

Tanner, William F., “‘Planet Earth’ or ‘Land’?” Perspectives on Science and Christian Faith 49 (no. 2, June 1997):111-115. Ancient Greek and Hebrew words which are commonly translated as "earth" ("Earth") or "world" in the English Bible do not refer to the planet on which we live, but
rather to "land," "country," "ground," "soil" or "dirt." The meaning of "all the Earth" is vastly different from "all the land." The concept of our home as a planet was not known until many centuries later. The discovery by geographers that the Earth is essentially a sphere is not closely related to the equally important discovery that it is one of the planets. Modern English dictionaries do not invariably make the necessary distinctions, in some instances even citing "earth" (without an initial capital E) as the name (identification) of our planet, although other planets, such as Venus, are identified with a capital initial letter. The result is linguistic confusion and ambiguity. Tanner is at Florida State University. (v8,#3)


Tantillo, James, "Sport Hunting, Eudaimonia, and Tragic Wisdom," Philosophy in the Contemporary World 8 (Number 2, Fall-Winter 2001):101-112. Anti-hunters frequently overlook or underestimate the positive values associated with reflective sport hunting. In this essay I characterize the value of hunting in the context of an Aristotelian virtue ethic. Sport hunting done for the purpose of recreation contributes heavily to the eudaimonia (flourishing) of hunters. I employ Aristotelian insights about tragedy to defend hunting as an activity especially well-suited for promoting a range of crucial intellectual and emotional virtues. Reflective sport hunters develop a "realistic awareness of death" and experience what may be called "tragic" pleasure, which yields the important intellectual virtue of tragic wisdom. Tantillo has just finished a Ph.D. on hunting ethics in the Department of Natural Resources, Cornell University. (v.13,#2)


Tardiff, Andrew, "A Catholic Case for Vegetarianism," Faith and Philosophy 15(1998):210-222. Very few Catholics become vegetarians for moral reasons, and virtually no one would expect them to since vegetarianism seems to go hand in hand with views which are incompatible with the Catholic faith. But the Catholic Church accepts principles--widely accepted by others, too--which imply a conditional, though broadly applicable, obligation to avoid killing animals for food. Catholic thinkers have not hitherto applied these principles to vegetarianism, but have long used them in other ways. The case is built on texts from St. Thomas Aquinas and the Catechism of the Catholic Church. Tardiff is at Rhode Island College. (v.9,#3)


Tarlock, A. Dan, "The Nonequilibrium Paradigm in Ecology and the Partial Unraveling of Environmental Law," Loyola of Los Angeles Law Review 27 (no. 3, 1994):1121-. To a large extent, science undergirds, shapes, and legitimizes environmental law; it enables us to identify problems and craft solutions. For the past twenty-five years, lawmakers have looked to the equilibrium paradigm--popularly called the balance of nature--as the foundation for a superstructure of environmental rules. But ecologists have rejected this paradigm and replaced it with a nonequilibrium paradigm. The basis for environmental law is unraveling. Analysis of the ideas behind each paradigm and the implications for environmental law. Environmental law should respond to this paradigm shift by creating a framework for continuous dialogue between scientists and public policy makers. (v.10,#2)


Tarrant, Michael A., Glenn E. Haas, and Manfredo, Michael J. "Factors Affecting Visitor
Evaluations of Aircraft Overflights of Wilderness Areas." Society & Natural Resources 8 (no. 4, July 1995):351-

Tarrant, Michael A., H. Ken Cordell, and Gary T. Green, "PVF: A Scale to Measure Public Values of Forests," Journal of Forestry 101(no. 6, 2003):24-30. A 12-point scale for measuring the relative importance of national forest resources, both economic and noneconomic, to the American public. There are three latent factors: protection, amenity, and outputs. In surveys, protection values are significantly higher for women, urban residents, and younger respondents. Decisions that fail to include economic nonuse values in benefit-cost analyses may underestimate the total value of forest protection. Over the past 40 years, there has been a paradigm shift toward a more inclusive orientation that recognizes both economic and noneconomic values. Tarrant is in forest resources, University of Georgia, Athens. Cordell and Green are with the USDA Forest Service, Southern Research Station, Athens, GA.

Tarrant, MA; Cordell, HK; Green, GT, "PVF: A Scale to Measure Public Values of Forests," Journal of Forestry 101(no.6, 2003):24-30. (v.14, #4)

Tarrant, Michael A., and H. Ken Cordell, "Amenity Values of Public and Private Forests: Examining the Value-Attitude Relationship," Environmental Management 30(no. 5, 2002):692-703. Public values toward forests have changed since the late 1980s from a commodity-oriented perspective toward a more inclusive (commodity and non-commodity) orientation. The authors use a survey involving wood production (a utilitarian value), clean air (a life support value), scenic beauty (an aesthetic value), and heritage (a spiritual value). They survey over five hundred persons of differing ages, ethnic backgrounds, and deal with both public and private forests. Tarrant is in the School of Forest Resources, University of Georgia, Athens. Cordell is with the U.S. Forest Service, Southern Research Station, Athens, GA.


Tausch, Robin J., Peter E. Wigand, and J. Wayne Burkhardt, "Viewpoint: Plant Community Thresholds, Multiple Steady States, and Multiple Successional Pathways: Legacy of the Quaternary?," Journal of Range Management 46(1993):439-447. Ecological theory that has been the basis of vegetation management for most of this century is now being questioned. The legacy of Quaternary climate change is that plant communities are far less stable than they appear to be from our perspective (at least in the U.S. West). They are unique at each location, difficult to define, and communities that are relics from a previous environment can be sensitive to small or transient environmental changes. Many ecological principles and concepts, and ecosystem paradigms derived from them, require revision to incorporate this variation. Plants adapt to climate change as much by migrating as by genetic adaptation. In ecosystems, various plants are entering and leaving at various times. Many ecosystems have no one steady state, many can follow multiple successional pathways, often depending on small changes at threshold points. This calls for more hands on management and more managerial decisions about the routes preferred, since there is no one natural state to be preferred. Tausch is at the US Forest Service Intermountain Research Station, Reno, Nevada, and Wigand and Burkhardt are at the University of Nevada. (v5,#4)

Tauson, Ragnar, "Research Approaches for Improving the Physical Welfare and Environment of Laying Hens", Journal of Agricultural and Environmental Ethics 6(1993), Supplement. Introductory studies at the Funbo-Lvsta Research Station, which included detailed observations of laying hens in commercial cages of different designs, revealed that there were large
differences in cages with respect to bird welfare. Some findings were quite striking and had not been reported earlier, e.g. concerning plumage condition, foot health, frequency of trapped hens and neck skin atheroma. After discussion of the results with the manufacturers involved, a series of subsequent trials with modified as well as completely new cages was conducted which resulted in significant improvements in the welfare traits mentioned and often also improved the economics of egg production. The studies increased concern and awareness among most participating manufacturers and considerably affected cage design in many European countries. This development was followed by other additional design innovations studied on a small scale, e.g. the introduction of claw abrasive tapes and perches. In Sweden several of the findings have influenced subsequent animal welfare legislation, and recommendations based on the findings have also been proposed in other countries. A similar approach has been used in developing alternative systems like aviaries. In many respects the results reveal similar problems but of another character, and in particular involve foot health and trapping of hens. Because of the structure and large group sizes in the aviaries studied, the relative speed of development is considerably reduced as compared to cages. Due to the conditions required for alternative systems in Sweden by the Agricultural Committee, it seems that multiple-tiered aviary-like systems will require considerable research before they can become approved and accepted. This is due to factors such as the working environment with its very high content of respirable dust and unsuitable ergonomy, erratic outbreaks of feather pecking and cannibalism, the need for medication against endo-and-ecto-parasites and hence the question of residuals in the eggs, and generally low predictability. Tauson is in the Department of Animal Nutrition and Management, Swedish University of Agricultural Sciences, Funbo-Lövsta Research Station, 755 97 Uppsala Sweden.

Taylor, Angus, Animals and Ethics: An Overview of the Philosophical Debate Guelph, Ontario: Broadview Press, 2003. Traces the background of these debates from Aristotle to Darwin, and he provides fair-minded commentaries on the positions of such influential and contemporary philosophers as Peter Singer, Tom Regan, R.G. Frey, and Peter Carruthers. Discussions of virtue ethics and Rawlsian contractualism. A previous edition of this book appeared under the title Magpies, Monkeys, and Morals.

Taylor, Angus, "Animal Rights and Human Needs," Environmental Ethics 18(1996):249-264. The idea that animal rights can be married to environmental ethics is still a minority opinion. The land ethic of Aldo Leopold, as interpreted by J. Baird Callicott, remains fundamentally at odds with the ascription of substantial rights to (nonhuman) animals. Similarly, Laura Westra's notion of 'respectful hostility,' which attempts to reconcile a holistic environmental ethic with 'respect' for animals, has no place for animal rights. In this paper, I argue that only by ascribing rights to sentient animals can an environmental ethic avoid an unacceptable degree of anthropocentrism because only a rights-based environmental ethic can prohibit humans from significantly interfering with sentient animals when human vital needs are not at stake. A rights view that permits significant interference when it is required for the satisfaction of human vital needs avoids problems that otherwise plague a rights view. The 'vital-needs rights view' reconciles the rights of animals with the satisfaction of human vital needs including the vital need to have a flourishing natural environment suggesting a possible alliance between animal rights and deep ecology and revealing the connections among vital needs, capitalism, and environmental degradation. Taylor is in philosophy, University of Victoria, B.C. (EE)

Taylor, Bob Pepperman. "John Dewey and Environmental Thought." Environmental Ethics 12(1990):175-84. In response to Chaloupka's discussion of Dewey's "social aesthetics," I argue, first, that Chaloupka has failed to fully appreciate the democratic, political foundation of Dewey's aesthetic sensibility and, second, that his description of Dewey's naturalism is ambiguous and misleading. I conclude that Dewey does have things to say to environmental thinkers, but that his views regarding environmental issues are much less unique than Chaloupka suggests. His work stands more as a democratic challenge to environmentalists than as a guide for their thought. Taylor is in the department of Political Science, University of Vermont, Burlington, VT. (EE)

Taylor, Brad W., and Rebecca E. Irwin, "Linking Economic Activities to the Distribution of Exotic Plants," Proceedings of the National Academy of Sciences of the United States of America (PNAS) 101(no. 51, December 21, 2004):17725-17730. In a study of several hundred exotic plants to try to establish a pattern of their establishment, the strongest predictor for why aliens are where they are is real estate activity. Taylor is in zoology, University of Wyoming, Laramie; Irwin is in ecology, University of Georgia, Athens.


Ecological resistance movements are proliferating around the world. Some are explicitly radical in their tactics while others have emerged from a variety of social movements that, in response to environmental deterioration, have taken up ecological sustainability as a central objective. This book brings together a team of international scholars to examine contemporary movements of ecological resistance. The first four sections focus on the Americas, Asia and the Pacific, Africa, and Europe, and the book concludes with a selection of articles that address the philosophical and moral issues these movements pose, assess the trends found among them, and evaluate their impacts and prospects.


Bron Taylor is Director of Environmental Studies at the University of Wisconsin-Oshkosh. Adress: c/o Dept. of Religious Studies and Anthropology, Oshkosh, WI 54901. PH/FAX 414-235-7478, 414-424-7183 Office, Office FAX 414-424-0882; E mail: taylor@vaxa.cis.uwosh.edu. (v6,#4)


Taylor, Bron, ed., Encyclopedia of Religion and Nature, 2 vols. Continuum, 2005. The introduction, early reviews, sample entries (including a religion focused "Environmental Ethics" entry by the volume's editor) and other information, are available online. This work is chronologically, geographically, and theoretically comprehensive, with 1000 entries from 520 contributors, including many ISEE members. Extensive information about this and related volumes is available at: http://www.religionandnature.com. Taylor is in the Graduate Program in Religion and Nature, Department of Religion, University of Florida.

Taylor, Bron. "Earth First! Fights Back." Terra Nova 2, no. 2 (Spring 1997): 27-41. Examines the recent escalation of direct action resistance to logging, focusing on the campaigns at Cove-Mallard, Idaho, and Warner Creek, Oregon. Argues that given the record of government lawlessness in its administration of biodiversity-related environmental law, direct action resistance is morally justifiable and yet, grassroots activists must also redouble efforts to defend and strengthen environmental laws and increase citizen vigilance with regard to them. This latter endeavor is essential if activists are to force the government to employ the best science in its decision making and comply with its own statutory obligations. (v8,#2)


Taylor, Bron. "Earthen Spirituality or Cultural Genocide? Radical Environmentalism's Appropriation of Native American Spirituality." Religion 27 (1997): 183-215. The appropriation by non-Indians of Native American religious practices has become a highly contentious phenomenon. The present analysis focuses on the controversy as it has unfolded within the 'Deep Ecology' or 'Radical Environmental' Movement in North America. Taking as its central case study Earth First!, the radical vanguard of this movement, it describes the diverse forms such borrowing takes, the plural American Indian and non-Indian views shaping the ensuing controversy, and the threats this controversy poses to a nascent and fragile Indigenous-Environmentalist alliance. Concluding reflections address the ethics of appropriation with the aim of reducing the tensions attending these phenomena. (v8,#2)


Taylor, David A. "Saving the Forest for the Trees: Alternative Products from Woodlands," Environment 39(no. 1, 1997):6. Local communities around the world have begun to develop markets for a diverse array of products from fruit to insecticides to cloth that make preserving rather than logging forests the priority. (v8,#1)


Taylor, Doreceta E., Diversity in Environmental Institutions: Summary Results of the MELDI Studies. Ann Arbor, MI: University of Michigan School of Natural Resources and Environment, August 2005. A study of the Minority Environmental Leadership Development Institute (MELDI). 23 page booklet. www.umich.edu/meldi Ethnic diversity in the environmental field. A 1990 poll of the largest environmental nonprofits found that only 14 (1.9%) of the 745 workers of the Audubon Society, Friends of the Earth, Natural Resources Defense Council, and Sierra Club were minorities. A 2002 report that examined diversity in 61 organizations in the Natural Resources council of America found that 11.5% of the 6,347 staff and 9.6% of the 1,324 board members of these organizations were minorities. Many question whether minorities have the similar levels of concern for the environment as whites. A study of these issues.
Taylor, Ericka. "The Undergraduate Experience-Exploration in Human Ecology." Human Ecology Forum 24 (Winter 1996): 5. The college is distinguished by its community contacts, extension programs, and land-grant mission to the state. New students are introduced to these and other aspects of the college through an expanded orientation program. (v7, #3)


Taylor, Estelle. "Fishing for Control," Alternatives 24(no. 2, spring 1998):7-. Former enemies join forces as BC coastal communities seek to manage their own fisheries. (v9,#2)


Taylor, J. E., "Review of: Margaret Beattie Bogue, Fishing the Great Lakes: An Environmental History," Environmental History 6(no.4, 2001): 639. (v.13,#2)


Taylor, Jane, Lawson, Andrew. The English Garden Cottage. London: Orion of Weidenfeld and Nicolson, 1994 (distributed by Trafalgar Square, North Promfet, VT 05053; 800 423 4525). Prowling through the countryside, photographer Lawson catches infinite variations of the endearing style of cottage gardens--clematis in cascades, grappling roses, walkways massed with medleys of color. Author Taylor finds the wisdom at work in this calculated riot, and how it all evolved from medieval herbs through imported wonders brought down from the big house. England grew more salad greens in the 16th century than in the 20th, and that red flowers planted near the house kept the devil away. Like old cottage walls, the lore of their gardens has layers. (v7,#1)


Taylor, Martin F.J.; Suckling, Kieran F.; Rachlinski, Jeffrey J., "The Effectiveness of the Endangered Species Act: A Quantitative Analysis," BioScience 55(no.4, April 2005):360-368(9). Population trends for 1095 species listed as threatened and endangered under the Endangered Species Act were correlated with the length of time the species were listed and the presence or absence of critical habitat and recovery plans. Species with critical habitat for two or more years were more than twice as likely to have an improving population trend in the late 19= 90s, and less than half as likely to be declining in the early 1990s, as species without. Species with dedicated recovery plans for two or more years were significantly more likely to be improving and less likely to be declining than species without. The proportion of species improving increased, and the proportion declining decreased, with increasing time listed throughou= t the 1990s, irrespective of critical habitat and recovery plans. On the basis of these results, we recommend increased funding for earlier listing of imperiled species and prompt provision of critical habitat and recovery plans.


Taylor, Paul, "In Defense of Biocentrism," *Environmental Ethics* 5(1983):237-243. Taylor is a leading proponent of the "biocentric" outlook on moral valuation of nature: all natural entities have an equal inherent worth. Here he answers some criticisms of his view. Of particular interest is his distinguishing the content of the theory from both its practical significance and its psychological motivations. But he also admits that respect for individuals is not truly "ecological" and that the killing of natural entities is sometimes permissible. Thus the theory does not seem to be a proper basis of environmental protection. (Katz, Bibl # 1)

Taylor, Paul W., "Are Humans Superior to Animals and Plants?" *Environmental Ethics* 6(1984):149-60. Louis G. Lombardi's arguments in support of the claim that humans have greater inherent worth than other living things provide a clear account of how it is possible to conceive of the relation between humans and nonhumans in this way. Upon examining his arguments, however, it seems that he does not succeed in establishing any reason to believe that humans actually do have greater inherent worth than animals and plants. Taylor is in the philosophy department, Brooklyn College of the City University of New York, Brooklyn, NY. (EE)


Taylor, Paul W., "In Defense of Biocentrism." *Environmental Ethics* 5(1983):237-43. Gene Spitler has raised certain objections to my views on the biocentric outlook: (1) that a factual error is involved in the assertion that organisms pursue their own good, (2) that there is an inconsistency in the biocentric outlook, (3) that it is impossible for anyone to adopt that outlook, and (4) that the outlook entails unacceptable moral judgments, for example, that killing insects and wildflowers is as morally reprehensible as killing humans. I reply to each of these points, showing that the biocentric outlook on nature is not only a possible, but also a reasonable world view. Taylor is in the philosophy department, Brooklyn College of the City University of New York, Brooklyn, NY. (EE)

Taylor, Paul W., *Respect for Nature: A Theory of Environmental Ethics*. Princeton: Princeton University Press, 1986. Pp. ix, 329. This book is essential reading: it is the first book-length treatment of environmental ethics from the perspective of non-anthropocentric "intrinsic" natural value (although Taylor rejects this terminology). Taylor's position is not new or surprising, since he has been developing it in a series of articles in *Environmental Ethics* since 1981; nevertheless, this long treatment of the argument adds to the power of his views. The argument grounds a precise set of normative rules regarding the human treatment of nature on a particular axiology of natural value. Taylor's "theory of environmental ethics" has three components: First, there is a belief system or world view, which he calls the "biocentric outlook on nature." A moral agent who holds this outlook is informed by current biological and ecological knowledge to conceive of himself and all humanity as members of "Earth's Community of Life." From this perspective, all living things are "unified systems of organized activity" that seek their own good. The biocentric outlook also denies human superiority; in theory, at least, it calls for a radical bioegalitarianism. Second, those who hold the biocentric outlook will adopt a particular moral attitude, "Respect for Nature," which involves valuing the individual natural living entities of the world as having inherent worth, i.e., value not based in any way on human purposes or experiences. Third, then, this attitude of respect for nature requires the formation of definite normative standards or
Taylor is attempting to create an environmental ethic modelled after Kant's respect for persons; the difference is that natural wildlife takes the place of Kantian rational autonomous agents as the foci of moral value. This parallel between environmental ethics and human-centered ethics adds plausibility to the enterprise; yet the symmetry must fail, and does. Although Taylor denies human superiority, he devotes the entire last chapter to a discussion of conflicts between humans and wildlife which pays only lip service to a true bioegalitarianism. For Taylor, it is permissible for humans to sacrifice basic interests of nonhuman wildlife for the sake of nonbasic human interests, when "the human interests involved are so important that rational and factually informed people who have genuine respect for nature are not willing to relinquish the pursuit of those interests even when they take into account the undesirable consequences for wildlife" (p. 280). So much for the denial of human superiority! Taylor's theory fails—fails into contradiction—because of its individualism. A moral attitude which respects all living things must degenerate into an exceedingly complex casuistry, usually to the detriment of the natural environment. A successful environmental ethic will find value in nature as a whole, not merely in the individuals that comprise natural systems. Contains a good, but limited, bibliography. (Katz, Bibl # 1)

Taylor, Paul W. "The Ethics of Respect for Nature." Environmental Ethics 3(1981):197-218. I present the foundational structure for a life-centered theory of environmental ethics. The structure consists of three interrelated components. First is the adopting of a certain ultimate moral attitude toward nature, which I call "respect for nature." Second is a belief system that constitutes a way of conceiving of the natural world and of our place in it. This belief system underlies and supports the attitude in a way that makes it an appropriate attitude to take toward the Earth's natural ecosystems and their life communities. Third is a system of moral rules and standards for guiding our treatment of those ecosystems and life communities, a set of normative principles which give concrete embodiment or expression to the attitude of respect for nature. The theory set forth and defended here is, I hold, structurally symmetrical with a theory of human ethics based on the principle of respect for persons. Taylor is in the philosophy department, Brooklyn College of the City University of New York, Brooklyn, NY. (EE)

Taylor, Peter J., and Buttel, Frederick H., "How Do We Know We Have Global Environmental Problems? Science and the Globalization of Environmental Discourse," Geoforum (UK) 23(no. 3, 1992):405-416. Science has a central role in shaping what count as environmental problems. This has been evident most recently in the success of planetary science and environmental activism in stimulating awareness and discussion of global environmental problems. We advance three propositions about the special relationship between environmental science and politics: (1) in the formulation of science, not just in its application, certain courses of action are facilitated over others; (2) in global environmental discourse, moral and technocratic views of social action have been privileged; and (3) global environmental change, as science and movement ideology, is vulnerable to deconstructive pressures. These stem from different nations and differentiated social groups within nations having different interests in causing and alleviating environmental problems. We develop these propositions through a reconstruction of The Limits to Growth study of the early 1970's, make extensions to current studies of the human/social impacts of climate change, and review current sources of opposition to global and political formulations of environmental issues. Taylor is in science and technology studies, Cornell University, Ithaca; Buttel is in rural sociology, University of Wisconsin, Madison. (v.10,#1)


Taylor, Shirley, Todd, Peter. "An Integrated Model of Waste Management Behavior: A Test of
Household Recycling and Composting Inte-


Taylor, Sarah McFarland. Green Sisters: A Spiritual Ecology. Cambridge, MA: Harvard University Press, 2007. Green sisters are environmentally active Catholic nuns who are working to heal the earth as they cultivate new forms of religious culture. Taylor gives a firsthand understanding of the practice and experience of women whose lives bring together Catholicism and ecology, orthodoxy and activism, traditional theology and a passionate mission to save the planet. Green sisters explore ways of living a meaningful religious life in the face of increased cultural diversity and ecological crisis and an understanding of the connections between women, religion, ecology, and culture.

Taylor, Bob Pepperman, Review of Matthew Humphre

Tchudi, Stephen, ed., Change in the American West: Exploring the Human Dimension. Reno, NV: University of Nevada Press, 1996. 276 pages. $ 14.95. How the humanities can help to survive the changes in the American West. Published by the Nevada Humanities Committee through a grant from the National Endowment for the Humanities. (v7,#2)

Tear, T. H. E. A., "How Much Is Enough? The Recurrent Problem of Setting Measurable Objectives in Conservation," Bioscience 55(no. 10, October 2005): 835-849. International agreements, environmental laws, resource management agencies, and environmental nongovernmental organizations all establish objectives that define what they hope to accomplish. Unfortunately, quantitative objectives in conservation are typically set without consistency and scientific rigor. As a result, conservationists are failing to provide credible answers to the question "How much is enough?" This is a serious problem because objectives profoundly shape where and how limited conservation resources are spent, and help to create a shared vision for the future.


Teel, Tara; Bright, Alan; Manfredo, Michael; Brooks, Jeffrey, "Evidence of Biased Processing of Natural Resource-Related Information: A Study of Attitudes Toward Drilling for Oil in the Arctic


Teichman, Jenny, *Social Ethics: A Student's Guide*. Oxford: Blackwell Publishers, 1996. Part Two is "A Defence of Humanism," and within this Chapter 5 is "Human Beings and the Other Animals." Extremes are that only humans count and that all animals count equally. "Given that both forms of extremism are wrong we can say that there must be a queue of moral concern" (Mary Midgeley). Our problem is to arrange the queue. This is not an easy task. Placing human beings at the head of the queue is only the beginning; how are we to rank the apes and the dolphins and the whales and the tigers and our domestic pets? How much weight should we give to cultural factors? Won't our own human lives be seriously impoverished if we ignore cultural factors? Finally, it is agreed on all sides that our moral obligations belong to us because we are human. Is that itself a 'speciest' theory? I shall have to leave these questions about the queue for readers to think about and answer if they can. But here is a final question. Is it because humanity is no more important than the other animals that we should be compassionate to them? Or is it because we are higher than they are?" Teichman is a Fellow of New Hall, Cambridge University.


Teisl, Mario F. and Roe, Brian, "Environmental Certification: Informing Consumers about Forest Products," *Journal Of Forestry* 98 (No. 2, Feb 01 2000): 36-. Consumer research highlights the communications issues surrounding the environmental certification and labeling of forest products. (v.11,#2)


Teixeira, Maria Gracinda C. *Energy Policy in Latin America: Social and Environmental Dimensions of Hydropower in Amazonia*. Brookfield, Vt.: Ashgate, 1996. 368 pp. $76.95. A criticism of the policy of energy produccion in Brazilian Amazonia focusing on the dramatically accumulated social and environmental debt resulting from the way Amazonia rivers have been utilized to provide hydropower and to sustain an export oriented industrial economy. (v8,#2)

Teko-ha: Boletin de la Red Latinoamericana de Ecologia Social (Teko-ha: Bulletin of the Latin-American Network on Social Ecology) is published in Spanish quarterly by the Centro Latino-
america de Ecología (Latin-American Center of Social Ecology), Casilla de Correo 13000, 11700 Montevideo, Uruguay. "Teko-ha" is an aboriginal word that includes the self in its natural environment. There are short articles, notices, issues, and, in each issue, a list of recent publications in social ecology, environmental ethics, and related fields, with particular attention to Latin America. (v3,#2)


Television Trust for the Environment, The. 46 Charlotte Street, London W1P 1LX, is a British nonprofit organization founded in 1984 by Central Television (U.K) and the United Nations Environment Programme. They have produced a paperback book, Switching on to the Environment, that describes and evaluates one hundred films on environment and development, most of which are also available in VCR format. The films/videotapes are often European, mostly about development and environment in lesser developed countries, nearly all produced in the 1980's, nearly all originally shown on television in the country of origin. Most are available in English. The book has both a thematic and country index. Television Trust for the Environment also produces Moving Pictures Bulletin, a quarterly guide to films on development and the environment. (v1,#1)


- Henk A.M.J. tenHave (ten Have): A Introduction: Environment, Ethics, and Policy. @
- Tongjin Yang: ATowards an Egalitarian Global Environmental Ethics.@
- Holmes Rolston: AIntrinsic Values on Earth: Nature and Nations.@
- Robin Attfield: AEvironmental Ethics and Global Sustainability.@
- Emmanuel Agius: ATEnvironmental Ethics: Towards an Intergenerational Perspective.@
- Alan Holland: AMust We Give Up Environmental Ethics?@
- Mark Sagoff: AEvironmental Ethics and Environmental Science.@
- Teresa Kwiatkowska: ALet Earth Forever Remain: Putting Environmental Ethics to Work.@
- Johan Hattingh: ATThe Start of the Art in Environmental Ethics as a Practical Enterprise: A View from the Johannesburg Documents.@

Tennant, Alan, On the Wing: To the Edge of the Earth with the Peregrine Falcon. New York: Alfred Knopf, 2004. Following peregrine falcons to see where they pick up the toxics that imperil the species, and using this as an icon for the future of humans on Earth. With admiration for one of the most impressive achievements of evolutionary natural history, the peregrine falcon with its skills in flight, and dismay at the human callousness that puts first it and then ourselves in jeopardy. (v.14, #4)

Tennessee Law Review, vol. 56, no. 1 (Fall 1988) is a symposium "Developing an Environmental Ethos: Christopher Stone and Earth and Other Ethics" with articles by Stone and others: Milner S. Ball, "Moral Pluralism, the Tardis and Rattlesnakes"; Stephen Toulmin, "The Case for Cosmic Prudence"; A. Dan Tarlock, "Earth and Other Ethics: The Institutional Issues"; and the Sagoff article below. (v1,#4)

We should focus on "functional government that is capable of making things happen on the ground." The U.S. example of federal lands, abused though these often are, is as promising a model as any for third-world nations--if and only if there is government with integrity. Further, parks and reserves will often need to be uninhabited, even areas that were long inhabited by indigenous peoples, since the modern ones have chainsaws and guns, and escalating numbers. "Nature can be saved, but only through a thoughtful combining of good science and strong institutions. Right now, much of the world benefits from neither. We have a long way to go before anyone can feel comfortable about the future of nature. And there is no time to lose in getting on with the journey." Terborgh is a tropical biologist and ornithologist at the Duke University Center for Tropical Conservation.

Reviewed by Bill McKibben, New York Review of Books 46 (no. 13, Aug. 12, 1999):44-45, who quarrels with Terborgh's exclusion of people from reserves, citing the Adirondack mountain park in New York, where he lives, as a better model. (v.10,#3)


Terrie, Philip G., *Contested Terrain: A New History of Nature and People in the Adirondacks*. Syracuse, NY: The Adirondack Museum/Syracuse University Press, 1997. 223 pages. $30 cloth. "I want to show that the history of the Adirondacks is a tale of contested terrain and to connect current conflicts to their historical, social, and cultural roots." Terrie wants "to bring to the dialogue certain groups, mainly the year-round residents, whose voice has been noticeably absent from most previous efforts to write Adirondack history." 


Tester, Keith, "The British Experience of the Militant Opposition to the Agricultural Use of Animals", *Journal of Agricultural Ethics* 2(1989):241-251. This article discusses the militant political opposition to the agricultural use of animals. It relates specifically to developments in the United Kingdom. It surveys two of the main ideas that advocate a transformation of the treatment of animals and shows how they have led to acts like arson, burglary, and the destruction of property. Tester is in social policy and sociology at the University of Leeds, England.

Tester, Frank, and Drover, Glen. "Offsetting Corporate Trade: Free Trade, Community Development and Alternative Trade in the South Pacific," *Alternatives* 22(no.1, Jan.1996):16-. Community development initiatives and alternative trading arrangements point to more ecologically and socially attractive approaches to development. (v6,#4)

Tétreault, Mary Ann, "Formal Politics, Meta-Space, and the Construction of Civil Life," *Philosophy and Geography* 2 (1998): 81-97. Tétreault is a professor in the Department of Political Science at Iowa State University of Science and Technology. (P&G)

Teutsch, Gotthard M., "Mensch und Mitgeschöpf unter ethischem Aspekt (Humans and Fellow Creatures from an Ethical Aspect," *Altex: Alternativen zu Tierexperimenten* (Heidelberg), 18(no. 4, 2001):227-259. In German. A summary of recent literature, with a focus on that in German. Teutsch lives in Bayreuth, Germany. (v.13, #3)


Theobald, P., "The Advent of Liberalism and the Subordination of Agrarian Thought in the United States", *Journal of Agricultural and Environmental Ethics* 5(1992)161-182. This essay contends that the ascendancy of Western liberalism after the Enlightenment worked catalytically on the development of both the Industrial Revolution and a "modern agrarianism" based on the widespread dispersal of small-scale property ownership. One aim of this essay is to sort out the differences in liberal rhetoric, industrialism, and agrarian philosophical tradition and examine their implications for a contemporary reconsideration of agrarian thought. Theobald is in educational curriculum and instruction at Texas A&M University, College Station.


Theology & Public Policy has a special double issue (Summer and Winter, 1996): *The Ethics of Population, Consumption, and Environment*. There are two general articles and several case studies, with commentaries. Contact: Churches' Center for Theology and Public Policy, 4500 Massachusetts Avenue., N.W., Washington, DC 20016-5690. 202/885-8648.


--Hessel, Dieter. "Ecumenical Ethics for Earth Community," *Theology & Public Policy* 8(nos. 1&2, 1996):17-29. The ecumenical movement worldwide and in the U.S. spanning more than three decades has acquired a normatively rich understanding of "just, sustainable, and participatory society," and the imperatives of "justice, peace, and the integrity of creation." This ethical perspective has theological roots in visions of Creation's Sabbath, the Kingdom of God, and a flourishing Earth Community.


Thero, Daniel P. "Rawls and Environmental Ethics: A Critical Examination of the Literature." Environmental Ethics 17(1995):93-106. The original position contractarian model of ethical reasoning put forth by John Rawls has been examined as a basis for an environmental ethic on three previous occasions in this journal and in Peter Wenz's Environmental Justice. In this article, I critically examine each of these treatments, analyzing the proposals offered and identifying their shortcomings. I find a total of seven different proposals in this literature for modifying Rawls' theory to augment its adequacy or as a ground environmental ethics. The diverse difficulties that arise in attempting to apply Rawls suggest the conclusion that Rawlsian ethics may not be a suitable foundation for an adequate long-term environmental ethics. Thero is in the department of philosophy, State University of New York, Albany. (EE)

Thiel, Jo, Land Communities, Land Ethics, and Private Land, M.A. thesis, Colorado State University, fall 2001. Three metaphysical views of land are analyzed: the market view, the mechanistic view, and the land community view. The land community view is most adequate and leads to a land ethic, with the goal of land health, distinguished from the pristine integrity of wild nature. Land health is the responsibility of private landowners as well as appropriate public policy. Land owners must envision themselves as members of three types of community in order correctly to pursue a land ethic: the ecosystemic community, the ethical community, and the social community. Thiel is now in a Ph.D. program with the University of Colorado, Denver, in public affairs, focusing on non-profit environmental organizations and their role in environmental policy. Holmes Rolston was the principal advisor. (v.12,#3)

Thiele, Leslie Paul. Environmentalism for a New Millennium: The Challenge of Coevolution. New York: Oxford University Press, 1999. 336 pp. $28. Coevolutionary thought and action grounded in the interdependence of humans and nature in a global context. With the goal of sustainable development in mind, contemporary environmentalists argue that human livelihoods must be integrated into complex and evolving ecological systems. This affirmation of coevolutionary interdependence has brought coherence to an inherently diverse social movement. (v.10,#3)

Thiele, Leslie Paul. "Nature and Freedom: A Heideggerian Critique of Biocentric and Sociocentric Environmentalism." Environmental Ethics 17(1995):171-190. A reformulation of our understanding of freedom is required if we are adequately to confront the environmental crisis. Engaging the debate between biocentric ecologists and sociocentric ecologists, I argue that the biocentric effort to ascribe rights (negative liberty) to nature is misbegotten. In turn, I suggest that the sociocentric effort to seek ecological realignment through the extension of human reason (positive liberty) is equally problematic. Martin Heidegger, who rejects both "negative" and "positive" notions of liberty, offers an understanding of human freedom that constitutes an ecologically attuned alternative. Thiele is in the department of political science, University of Florida. (EE)

Thingmount Working Paper Series on Philosophy and Conservation is a series jointly sponsored by the British Association of Nature Conservation and the Department of Philosophy at Lancaster University. The title, "Thingmount" recalls a Viking term for a flat-topped mound used as a place of assembly, examples of which are found in the English Lake district. Some titles: Kate Rawles and Alan Holland, "The Ethics of Conservation"; Gill Aitken, "Extinction"; Gill Aitken, "Rarity"; Alan Holland and John O'Neill, "The Integrity of Nature over Time"; Jane Howarth, "In Praise of Backyards"; and others. Contact: The Secretary--Thingmount, Department of Philosophy, Furness College, Lancaster University, Lancaster, LA1 4YG, UK. (v7,#2)


This bibliography contains *ISEE Newsletter* entries, vols. 1-13, 1990-2002, but not 2003 *Newsletter* entries. They will be merged into this document spring 2004. They can meanwhile be searched in the separate quarterly newsletters at the ISEE website.


Thomas, Christopher Jon, *A Philosophical Justification for the Legal Rights of Animals*, M.A. thesis, Colorado State University, 2005. Previous attitudes and reasoning about human duties to domestic animals, which are largely based on duties to owners of the animals, are inadequate. This is partly because of our increased capacities to exploit animals and partly because of increasing ethical sensitivities. Domestic animals need now to be given rights, and such rights ought to be increasingly adopted into law. An examination of theory and practice in law and its application to extending legal rights to animals.


Thomas, Emyr Vaughan, "Rolston, Naturogenic Value and Genuine Biocentrism," *Environmental Values* 6(1997):355-360. ABSTRACT: Holmes Rolston Ill attempts to get us to recognise nature as an objectively independent valuational sphere with its own activity of defending value. But in inspiring our ...psychological joining (with) on-going planetary natural history... what his account ultimately does is assimilate nature to the human. For, on his account, we find value in nature through a recognition that something that goes on in us (namely, defending value) also occurs in the natural world. That, it is argued, is far from the authentically deep form of biocentrism that is implicitly his ideal. The real depth to a biocentric viewpoint is to be found through a route other than the one taken by Rolston. Moreover, it is a route that has nothing to do with advancing the idea of what I call a naturogenic value--a value generated by nature. Rather, it relates to seeing nature as other than the human (as illustrated with reference to Emerson), in a way that is
genuinely unsullied by the claims of self which, in the case of human beings, are the most elemental supports for a species perspective. Directorate of Policy and Science, Countryside Council for Wales, Ffordd Penrhos, Bangor, LL57 2LQ, UK. With reply by Rolston.  (EV)

Thomas, Christine L., "One Hundred Twenty Years of Citizen Involvement with the Wisconsin Natural Resources Board," Environmental History Review, vol. 15, no. 1, spring 1991. Thomas is a professor of resource management at the University of Wisconsin-Stevens Point. (v2,#2)

Thomas, Jack Ward, "Restoring the Agency's Environmental Ethic," Inner Voice (Association of Forest Service Employee's for Environmental Ethics), vol. 6, no. 1 (January-February 1994). Jack Ward Thomas has recently been named chief of the U.S. Forest Service, replacing Dale Robertson, a highly symbolic replacement, since Thomas was a key figure in the spotted owl report, and Robertson, though in many ways a moderate, was too much associated with the timber cutting past. "In brief, a land ethic is nothing more than the acceptance of constraints on human treatment of land in the short term to ensure long-term preservation of the integrity, stability, and beauty of the biotic community." "Such interest in a land ethic on the part of land management professionals has, for whatever reason, trailed behind the demands of a highly vocal segment of the public around the world." "Without skilled and ethical practitioners of biopolitics in natural resource management, natural resources cannot be managed. Biological information is not derived through immaculate conception, and politics can as readily be ennobling as corrupting." "We live in an age of euphemisms, half truths, obfuscation, double-talk, and double think. ... Tell the truth, all the truth, all the time. It is the right thing, the healthy thing, the professional thing to do." "Questions about ethical behavior do not ordinarily come in the form of a clear-cut challenge to honor and courage." A longer article is in Joyce K. Berry and John C. Gordon, eds., Environmental Leadership (Washington, DC: Island Press, 1993). (v5,#1)

Thomas, Jack Ward and Burchfield, James, "Comments on "The Religion of Forestry: Scientific Management," Journal of Forestry 97(no. 11, Nov 01 1999):10-. Foresters strive to satisfy the objectives of their employers and are accustomed to working within a political and social context. Civil discourse, informed by science, is the method for revolving inevitable conflicts over resource use. (v.11,#1)


Thomas, Rosamund M., ed. Teaching Ethics, Volume Three: Ethics and The Environment. Cambridge, UK: Centre for Business and Public Sector Ethics, and London: HMSO (Her Majesty's Stationery Office) and Ethics International Press, Ltd. 1996. 805 pp. ISBN 0 11 7020591. Environmental ethics from a business and policy perspective. These articles are not written by professional philosophers, but by professionals in business and government concerned for environmental responsibility. A massive volume. Some of these papers resulted from conferences held at the Cambridge Centre for Business and Public Sector Ethics on the environment. Contains the following:

--Slater, R.W., "Changing the Way We Govern--Sustainable Development in Canada," pages 1-30
--Osborn, F.A. (Derek), "Government Responsibility for the Environment: The United Kingdom
Experience." pages 31-38
Gentry, Bradford S., "Differences in European and United States Approaches to Environmental Issues," pages 39-68
--Taylor, Derek, "Working with the Local Community to Produce a Local Agenda 21 Programme for a Sustainable Environmental: The Lancashire Model," pages 69-94
--Thomas, Christopher, "A Systematic Approach to the Adoption of Environmentally Responsible Management," pages 97-111
--Stapleton, Julian, "The Environmental Imperative: An Industrial Perspective," pages 113-148
--Western, D.J., "Environmental Issues in Electricity Generation," pages 149-176
--Joy, David, "Quarrying in the Dales: Some Recent Developments," pages 183-189
--Jain, R.B., "The Bhopal Disaster Case," pages 191-237
--Carey, Bernard, "Environmental Ethics: A Framework for Analysis (With Special Reference to Environmental Audit)," 241-267. Includes a list of environmental legislation in New South Wales, Australia.
--Adams, Trevor, "Criminal and Civil Liability." 271-290
--Tuppen, Chris, "Communicating with Customers--Some Environmental Dilemmas," 293-311
--Frederickson, H. George, "Should There Be Social Equity Between Generations?" pages 313-326
--Thomas, Rosamund, "Nuclear Energy and Environmental Ethics," pages 327-347
--"This Common Inheritance: Britain's Environmental Strategy: First Principles (United Kingdom White Paper 1990)", pages 393-431
--Royal Commission on Environmental Pollution (United Kingdom): Sixteenth Report: Freshwater Quality," pages 433-458
--Ishi, Hiroyuki, and Shimbun, Asabi, "Basic Environmental Attitudes in East and West--Why Do the Japanese Eat Whales?", pages 461-479
--"EC (European Communities) Eco-Management and Audit Scheme," pages 483-510
--Supreme Court of India, "Union Carbide Corporation v. Union of India," pages 513-618
--Berry, R. J. (Sam), "Environmental Knowledge, Attitudes and Action: A Code of Practice," pages 697-714

Thomas, V. G. and Kevan, P. G., "Basic Principles of Agroecology and Sustainable Agriculture", Journal of Agricultural and Environmental Ethics 6(1993):1-20. In the final analysis, sustainable agriculture must derive from applied ecology, especially the principle of the regulation of the abundance and distribution of species (and secondly their activities) in space and time. Interspecific competition in natural ecosystems has its counterparts in agriculture, designed to divert greater amounts of energy, nutrients, and water into crops. Whereas natural ecosystems select for a diversity of species in communities, recent agriculture has minimized diversity in favour of vulnerable monocultures. Such systems show intrinsically less stability and resilience to perturbations. Thomas is in zoology at the College of Biological Science, University of Guelph, Ontario. Kevan is in environmental biology at Ontario Agricultural College, University of Guelph, Ontario.

shot deposited in fields and woodlands near shooting ranges and intense, upland, hunting adds an enormous tonnage of lead to environments, worldwide. This contamination is not remedied by banning lead shot use only for waterfowl hunting. Lead pellets disintegrate extremely slowly, during which time they may be ingested from the soil by wild birds, livestock, or silage-making machinery, and cause sublethal or fatal lead poisoning. Lead pellet corrosion products contaminate soil, surface waters, and ground waters, often exceeding permissible levels. In heavily contaminated sites, earthworms ingest lead compounds which are bioaccumulated in higher consumers of food webs. Non-toxic substitutes made from steel or bismuth are available internationally, but nations are slow to require their use due to hunters and international sport shooting organizations opposing the use of non-toxic substitutes and overt emphasis by government agencies on the burden of scientific proof for every situation, rather than taking preventative action according to the Precautionary Principle. The ethical approach of Denmark and The Netherlands, which banned all uses of lead shot, is advocated as a precedent for other nations to adopt. (JAEE)

Thomas, Vernon G., "Attitudes and Issues Preventing Bans on Toxic Lead Shot and Sinkers in North America and Europe," Environmental Values 6(1997):185-200. ABSTRACT: It is paradoxical that lead shot and fishing sinkers are still used widely, given society's understanding of lead contamination and avian lead toxicosis. The statutory action taken by governments varies from total bans on both lead products to no regulation of either shot or sinkers. Many government agencies and field sport organisations are reluctant to use the precautionary principle and the polluter pays principle and regulate use of available non-toxic substitutes. The attitudes of individuals towards their roles in environmental lead contamination and remediation reflect marked self-deception about the need for changes and the benefits to be derived from substitution. Fatal lead poisoning of highly symbolic, revered species such as British mute swans and American bald eagles promoted development of national regulations to ban lead shot and fishing weights. Despite the parallels between these countries reforms, there has been little parity between the banning of lead shot and fishing sinkers. Department of Zoology College of Biological Science, University of Guelph, Guelph, Ontario, N1G 2W1, Canada. (EV)


Thomashow, Mitchell. Ecological Identity: Becoming a Reflective Environmentalist. Cambridge, MA: The MIT Press, 1995. 268 pages. $ 25.00. How environmental studies can be taught from a different perspective, one deeply informed by personal reflection. Constructing an ecological identity using the direct experience of nature as a framework for personal decisions, professional choices, political actions, and spiritual inquiry. John Muir, Henry David Thoreau, and Rachel Carson are environmental archetypes, though today we have also to consider new emphases, such as ecofeminism and bioregionalism. Tries to make peace within the environmental movement by exploring the spiritual benefits of activism. Thomashow is in environmental studies at Antioch New England Graduate School. (v6,#3)


Thompson, Charis M., "Ranchers, Scientists, and Grass-roots Development in the United States and Kenya," Environmental Values 11(2002):303-326. Two initiatives in community-based biodiversity conservation are examined. I describe key aspects of the formation in the mid 1990s of the Malpai Borderlands Group of the Southwest US, and the reorganization of the Kenya Wildlife Service during 1994-6 and their legacies since then. I review how history, ownership, membership, and valuation were appealed to, created, maintained, and contested in defining what should be saved, by and for whom, and how in each. I also suggest the central role of science and relatively mundane technologies in coordinating these parameters. Success or "best practice" as applied to the conjunction of biodiversity conservation and development depends upon this work in contesting and establishing history, ownership, membership and valuation. (EV)


Thompson, Adeyinka Christopher, Ethics in International Politics? The Contradictions and Ethical Implications of Foreign Aid in Africa, Ph.D. thesis, Michigan State University, 2000. Independence brought, for many African peoples, a return not only to repressive government, but also to economic decline and hardship. Some have blamed the international community--primarily the Western or developed nations. I make an ethical analysis of the relationship between African nations and the developed world--with specific reference to foreign aid. Normative questions are central to international relations; actors in international relations cannot but raise normative questions. There is an obligation for Western developed nations to assist poor under-developed Third world (in particular African) nations. A case study of aid to Somalia. Three key issues facing African nations--(1) what type of democracy is suitable; (b) corruption; and (c) compromising sovereignty by allowing intervention. This complexity reinforces the need for ethics in international politics. Without morality to evaluate our actions we will be unaware of what we are doing. The advisor was Martin Benjamin.


Thompson, Gary L.; Shelley, Fred M.; and Wije, Chand, eds. Geography, Environment, and American Law. Niwot, CO: University Press of Colorado, 1996. The rapidly growing interface between geography and the American legal system resolving problems associated with land use, water resources, mineral development, and related issues. Geography as a useful framework for analyzing complex human-environmental challenges. Thompson is in geography at the University of Oklahoma, Shelley in geography and planning at Southwest Texas State University, Wije is a dean for research at Austin Community College, Texas. (v7, #3)

Thompson, Gary L, Fred M. Shelley, and Chand Wije, eds., Geography, Environment, and American Law. Niwot, CO: University Press of Colorado, 1996. 216 pages. Cloth, $ 39.95. The interface between geography and the American legal system. The interpretive and analytical skills of professional geographers applied to environmental issues as these complement the analyses of legal scholars in resolving problems associated with land use, water resources, mineral development, and related issues. Thompson is in geography at the University of Oklahoma, Shelley in geography at Southwest Texas State University in San Marcos. Wije is a dean for research at Austin Community College, Austin, Texas. (v7,#2)

Thompson, Janna, "A Refutation of Environmental Ethics," Environmental Ethics 12(1990):147-160. Environmental ethics as practiced by Taylor, Routley, and Rolston is a dead end. It is not a true ethic because it fails to provide a consistent account of value. The central problem is the level of value application---individuals, systems, etc. Thompson believes that any arguments for one kind of value entity can be applied to all entities, including parts of entities or machines. Thompson's alternative is a value based on sentience and point-of-view, but this position seems similarly arbitrary. (Katz, Bibl # 2)

Thompson, Janna. "Environment as Cultural Heritage." Environmental Ethics 22(2000):241-258. Arguments for the preservation of natural objects and environments sometimes appeal to the value of those objects as cultural heritage. Can something be valuable because of its relation to the historical past? I examine and assess arguments for preservation based upon heritage value and defend the thesis that we have an obligation to appreciate what our predecessors valued and to value those things that have played an important role in our history. I show how this conception of our obligations can be used to defend the preservation of natural objects and environments including wilderness areas. (EE)

Thompson, Janna. "A Refutation of Environmental Ethics." Environmental Ethics 12(1990):147-60. An environmental ethic holds that some entities in nature or in natural states of affairs are intrinsically valuable. I argue that proposals for an environmental ethic either fail to satisfy requirements which any ethical system must satisfy to be an ethic or they fail to give us reason to suppose that the values they promote are intrinsic values. If my arguments are correct, then environmental ethics is not properly ethics at all. Thompson is in the philosophy department, La Trobe University, Victoria Australia. (EE)

Thompson, Janna. "Aesthetics and the Value of Nature." Environmental Ethics 17(1995):291-305. Like many environmental philosophers, I find the idea that the beauty of wildernesses makes them valuable in their own right and gives us a moral duty to preserve and protect them to be attractive. However, this appeal to aesthetic value encounters a number of serious problems. I argue that these problems can best be met and overcome by recognizing that the appreciation of natural environments and the appreciation of great works of arts are activities more similar than many people have supposed. Thompson is in philosophy, La Trobe University, Bundora, Victoria, Australia. (EE)


Thompson, Jr., Barton H., "Judicial Takings," Virginia Law Review 76(1990):1449-1544. More than you ever wanted to know about "takings" legislation and history, also a good introduction to a topic of increasing interest in environmental conservation. Thompson concludes that takings jurisprudence is quite muddled, and variously applied in legislative, administrative, and judicial branches of government. The concept of private property has undergone steady change in recent decades and courts are often disinclined to intervene when government uses its power to limit the permissible actions of private property holders, as, for instance, in environmental regulations. Burton is at the Stanford Law School. (v5,#4)
Thompson, JR; Elmendorf, WF; McDonough, MH; Burban, LL, "Participation and Conflict: Lessons Learned From Community Forestry," Journal of Forestry 103 (no. 4, June 2005): 174-178.


Thompson, Paul B. The Spirit of the Soil: Agriculture and Environmental Ethics. New York: Routledge, 1995. 196 pages. $14.95 paper. Environmentalists should think more deeply about the ethical dimensions of agriculture's impact on the environment. Environmental problems in industrial agriculture such as the use of chemical pesticides and biotechnology. Four worldviews that frame these issues: productionism, economics, stewardship, and holism. Potential responses in environmental ethics according to differing philosophical priorities. An open-ended account of sustainability designed to minimize hubris and help recapture the spirit of the soil. Thompson teaches philosophy at Texas A & M University. (v6,#1)


Thompson, Paul B., "Ethics in Agricultural Research", Journal of Agricultural Ethics 1(1988):11-20. Utilitarian ethics provides a model for evaluating moral responsibility in agricultural research decisions according to the balance of cost and benefits accruing to the public at large. Given the traditions and special requirements of agricultural research planning, utilitarian theory is well adapted to serve as a starting point for evaluating these decisions, ut utilitarianism has defects that are well documented in the philosophical literature. Administrators who are sensitive to the strengths and weaknesses of utilitarian ethics are equipped to make a better allocation of research effort. Thompson is in agricultural economics at Texas A&M University, College Station.

Thompson, Paul B., "Animals in the Agrarian Ideal", Journal of Agricultural and Environmental Ethics 6(1993). Thomas Jefferson, Ralph Waldo Emerson and other American intellectuals of the 18th and 19th century created an agrarian ideal for farming that stressed the formation of moral virtue, citizenship values and personal character. This agrarian ideal provides a contrast to utilitarian norms, which value farming in terms of efficiency in producing food commodities. Thus, while efficiency criteria might be used to justify production practices that minimize management costs in animal agriculture, the agrarian ideal instead stipulates a role relationship between humans and animals as the norm for evaluating a farmer's use of animals. An anecdotal account of the agrarian ideal in modern times is presented using children's literature. Thompson is in the Center for Biotechnology Policy and Ethics, Institute for Biosciences and Technology, Department of Philosophy, Department of Agricultural Economics, Texas A&M University, College Station, TX 77843-4355.

Thompson, Paul B., "Food Biotechnology's Challenge to Cultural Integrity and Individual Consent," Hastings Center Report 27 (no. 4, July-August 1997):34-38. Consumer response to genetically altered foods has been mixed in the United States. While transgenic crops have entered the food supply with little comment, other foods, such as the bioengineered tomato, have caused considerable controversy. Objections to genetically engineered food are varied, ranging from the religious to the aesthetic. One need not endorse these concerns to conclude that food biotechnology violates procedural protections of consumer sovereignty and religious liberty. Consumer sovereignty, a principle especially valued in this country, requires that information be made available so each individual or group may make food choices based on their own values.
As yet, there is no policy provision for informing consumers about the degree to which food has been genetically engineered. Thompson is in philosophy and agricultural economics at Texas A&M University. (v8,#3)


ABSTRACT. The National Agriculture Biotechnology Council appointed an ad-hoc subcommittee on ethics, March 1995. Their report: 1. Each NABC member institutions should ensure that subject matter on ethical issues associated with food and agricultural biotechnology is systematically integrated into the curriculum of their institution. The pattern of implementation will vary at each institution, but we expect that some combination of the following three strategies will be employed at most institutions.

a) Modules Included in Basic and Applied Science Courses
b) Modules Included in General Courses on Applied Ethics
c) Special courses on Ethics and Food Biotechnology

2. Each NABC member institution should develop an institutional mechanism for supporting faculty interest and research on ethical issues. Again, implementation will vary. In some institutions, an informal network of interested colleagues will fulfill this function, but in many places an annual workshop or a formal faculty/center will be needed to carry this out.

3. Each NABC institution should include information on ethical issues in its public education programs on biotechnology. Extension and public policy education materials should be developed and NABC institutions should actively disseminate materials on ethical issues beyond the campus.

4. NABC should support these efforts of member institutions by sponsoring regular workshops or conferences on ethical issues, aiding in the development of modules and teaching materials, and aiding in the dissemination of materials in both printed and electronic form. In particular, NABC should support these efforts by raising funds from member institutions, from foundations and government agencies, and from the private sector, including commercial biotechnology companies. (JAEE)

Thompson, Paul B. "Ethical Issues in Livestock Cloning," Journal of Agricultural and Environmental Ethics 11(1999):197-217. Although cloning may eventually become an important technology for livestock production, four ethical issues must be addressed before the practice becomes widespread. First, researchers must establish that the procedure is not detrimental to the health or well-being of affected animals. Second, animal research institutions should evaluate the net social benefits to livestock producers by weighing the benefits to producers against the opportunity cost of research capacity lost to biomedical projects. Third, scientists should consider the indirect effects of cloning research on the larger ethical issues surrounding human cloning. Finally, the market structure for products of cloned animals should protect individual choice, and should recognize that many individuals find the prospect of cloning (or consuming cloned animals) repugnant. Analysis of these four issues is complicated by spurious arguments alleging that cloning will have a negative impact on environment and genetic diversity. (JAEE)

Thompson, Paul B. "Uncertainty Arguments in Environmental Issues." Environmental Ethics 8(1986):59-75. A large part of environmental policy is based upon scientific studies of the likely health, safety, and ecological consequences of human actions and practices. These studies, however, are frequently vulnerable to epistemological and methodological criticisms which challenge their validity. Epistemological criticisms can be used in ethical and political philosophy arguments to challenge the applicability of scientific knowledge to environmental policy, and, in turn, to challenge the democratic basis of specific environmental policies themselves. Uncertainty arguments thus draw upon philosophy of science, epistemology, ethics, and political
philosophy to establish conclusions of practical relevance to environmental quality. A theory of how and when uncertainty arguments ought to be given credence in environmental decision making requires an account of how scientific research ought to be integrated into environmental policy generally, plus an account of how public environmental policy is to be set in a democracy.

Thompson is in the department of Agricultural Economics, Texas A & M University, College Station, TX. (EE)

Thompson, Paul B. "Conceptions of Property and the Biotechnology Debate." BioScience 45 (no. 4, April, 1995): 275-282. Philosophical concepts of property applied to biotechnology can help evaluate the relative strengths and weaknesses of arguments offered to justify alternative political positions. Two broad philosophical approaches to property are: (1) one in terms of rules to produce ethical goals such as social welfare or personal liberty, and (2) one that treats the property status of an entity as an ontological question. Natural law and labor theories are ontological approaches, the former influential in Europe. Protection through patents and copyrights has largely been defended on instrumental grounds, such as enhancing economic growth, especially in the United States. Thompson is in philosophy at Texas A & M University. (v6,#1)


Thompson, Paul B. "The Reshaping of Conventional Farming: A North American Perspective." Journal of Agricultural and Environmental Ethics 10(2001):217-229. Debates over the future of agriculture in North America establish a dialectical opposition between conventional, industrial agriculture and alternative, sustainable agriculture. This opposition has roots that extend back to the 18th century in the United States, but the debate has taken a number of surprising turns in the 20th century. Originally articulated as a philosophy of the left, industrial agriculture has utilitarian moral foundations. In the US and Canada, the articulation of an alternative to industrial agriculture has drawn upon three central themes: the belief that agriculture is, in some way, tied to democracy; the belief that complex bureaucratic organizations are inherently opposed to human interests; and the belief that the family farms characteristic of 19th century North America tend to produce people of superior moral character. It has proved difficult to weave these themes into a coherent vision of agriculture for the 21st century. Often, risk and health-based concerns are the basis for public criticism of conventional agriculture, but these do not conflict with the utilitarian orientation of the industrial model, and are easily incorporated into it. If there is to be a philosophical debate over the future of agriculture, we must find some way to rehabilitate the quasi-Aristotelean view of agriculture that emerges from the three critical themes noted above. Keywords: agrarianism, industrial agriculture, sustainable agriculture, US agricultural history, virtue ethics. Thompson is in Department of Philosophy, Purdue University, West Lafayette, IN. (JAEE)

Thompson, Paul B., "Uncertainty Arguments in Environmental Issues," Environmental Ethics 8(1986):59-75. An interesting discussion of the use and misuse of uncertainty arguments in the formation of public policy regarding the environment. (Katz, Bibl # 1)


Thompson, Paul B. "Need and Safety: The Nuclear Power Debate." Environmental Ethics 6(1984):57-69. Many arguments for and against nuclear power can be analyzed according to a matrix of logically competing claims on the need and safety of nuclear power. Logical analysis
of the arguments reveals their philosophical basis and contributes to an understanding of their explanatory appeal. The evidential value of claims made in the arguments of both supporters and opponents depends upon familiar issues in the philosophy of language and the philosophy of science. Thompson is in the department of Agricultural Economics, Texas A & M University, College Station, TX. (EE)


Thompson, Paul B., "Ethics and the Genetic Engineering of Food Animals," Journal of Agricultural and Environmental Ethics 10(1997):1-23. Biotechnology applied to traditional food animals raises ethical issues in three distinct categories. First are a series of issues that arise in the transformation of pigs, sheep, cattle, and other domesticated farm animals for purposes that deviate substantially from food production, including for xenotransplantation or production of pharmaceuticals. The second series of issues relate to animal welfare. The principle of welfare conservation prohibits dysfunctional genetic engineering of food animals, but would permit altering animal's biological functions, especially when to do so improves an individual animal's well being. (JAEE)


Thompson, Richard P., "Compensated Takings and Negotiated Solutions," Journal of Forestry 91 (no. 4, April 1993):14-18. The author claims that increased regulations of what private landowners may and may not do on their forest lands amounts to partial takings, and finds that courts are increasingly recognizing this, although they still lean too much to extend police powers protecting from harm in environmental cases. There is a limited ability of regulatory law to impart respect and stewardship for natural resources; one cannot legislate morality. Landowners must be given incentive. One simple method is to compensate landowners for legitimate losses from takings due to environmental regulation. But one should also view landowners as partners with society in conservation and negotiate with them directly on mutual issues. Thompson is in natural resource management, California Polytechnic State University, San Luis Obispo. (v5,#4)

Thompson, Stewart, Anna Larcom, and Lee, John T., "Restoring and Enhancing Rare and Threatened Habitats Under Agri-environment Agreements: A Case Study of the Chiltern Hills Area of Outstanding Natural Beauty, UK." Land Use Policy 16(no. 2, April 1999):93-. (v.11,#1)


Thompson, Paul B., ANorton==s Sustainability : Some Comments on Risk and Sustainability,@ Journal of Agricultural and Environmental Ethics 20(2007):375-386. Bryan Norton=s 2005 book Sustainability describes a pragmatic approach to environmental philosophy that stresses philosophy=s role as one of mediating between scientific and ordinary language. But on two topics, Norton=s approach is not pragmatic enough. In the case of his discussion of risk, he accedes to a scientific notion that fails to acknowledge the way that ordinary usage of the word risk involves pragmatic links to human action and moral responsibility. With respect to the word sustainability, his analysis fails to acknowledge important scientific work that characterizes the functional integrity of system cycling, opting instead for usage grounded either in economic accounting or in an even less substantive sense of a broad social movement for environmental improvement. On each of these topics, adherence to the pragmatic orientation of Norton=s philosophy results in a different analysis of the concepts in question.


Thoreau, Henry David. Journal, Volume 4: 1851-1852. Edited by Leonard N. Neufeldt and Nancy Craig Simmons. Princeton: Princeton University Press, 1992. 787 pages. $ 39.50. Daily records, observations, thoughts, showing how Thoreau rejoiced in particulars, turning over a stone in midwinter to find crickets and ants, feeling that a white pine tree (which loggers targeted) "seems the emblem of my life--it stands for the west--the wild" (p. 480), his botanical studies, his bird lists, his aesthetic recommendations to make a landscape picturesque, and much
more. Appreciation of the natural world is encouraged by the spatial and temporal scale provided by the nearly lost pastime of walking with leisure to poke. Thanks to Jerome A. Stone, William Rainey Harper College, Palatine, IL. (v5,#2)


Thoreau, Henry David, Faith in a Seed. Washington, DC: Island Press/Shearwater Books, 1993. Edited by Bradley P. Dean. The first publication of Thoreau's last manuscript. "Though I do not believe that a plant will spring up where no seed has been, I have great faith in a seed. Convince me that you have seen a seed there, and I am prepared to expect wonders." (v4,#1)


Thornhill, R., "Darwinian Aesthetics," pages 543-572 in C. Crawford and D. Krebs, eds., Handbook of Evolutionary Psychology (Mahway, NJ: L. Erlbaum, 1998). We are emotionally attracted to features of the physical and social environment that are likely to increase our fitness, which we experience as beautiful. (v.13,#4)

Thornton, Alex and McAuliffe, Katherine, "Teaching in Wild Meerkats," *Science* 313(2006):227-229. Teaching is ubiquitous in humans but has been difficult to demonstrate in animals. Most attempts to find it involve primates, with little or no clear success. A usual definition of teaching involves intent to teach and ideas passing from mind to mind, with teacher correcting pupil. These authors use a similar, but importantly different definition: "Teaching is characterized by the active involvement of experienced individuals in facilitating learning by naive conspecifics." (If so, a mother hen scratching, finding food, and calling her chicks to eat and imitate her is teaching). These authors find, interestingly, that wild meerkats (an African rodent) teach. Meerkats live in demanding environments and catch and eat scorpions (about 4.5% of what they eat). These scorpions have stingers on their tails that can kill meerkats; they also have harmful pincers. Adult meerkats will first kill scorpions and feed them to their young. When the young are older, they maim the scorpions and let the young catch them. It seems that the adults differentially maim the scorpions depending on the advancing skills of the juveniles. Adults remove the stinger for the naive young, but with more experienced young they do not. So they gradually introduce pups to live prey. The authors do not think this involves a theory of mind, but such "teaching can be based on simple mechanisms without the need for intentionality and the attribution of mental states." In fact, they think this kind of teaching may be present in ants. The authors are in zoology, Cambridge University.


Throop, Bill, "Humans and the Value of the Wild," *Human Ecology Review* 3(no. 1, 1996):3-7. An account of wildness according to which a human trait is wild to the extent it is not caused by humanized environments. (v.13,#1)


--Robert Elliot, "Faking Nature."
--William Throop, "Eradicating the Aliens: Restoration and Exotic Species."
--William R. Jordan, III, "'Sunflower Forest': Ecological Restoration as the Basis for a New Environmental Paradigm."


Thurston, Harry, "When It Became a New Species, a Tiny Songbird Was Thrust into the Limelight." National Wildlife 36, no. 4, June/July 1998, pp. 18-19. Bicknell's thrush in New England has been declared a new bird species in a taxonomic revision by ornithologists. The bird, known since 1881, was previously classified a subspecies of the more widespread gray-cheeked thrush. Henri Ouellet, a researcher at the Canadian Museum of Nature (the thrush is also found in parts of Canada) discovered that the breeding and wintering ranges of the two thrushes do not overlap, the songs are decidedly different, and no interbreeding occurs. The decision has brought the bird into intense study, with conservation versus development implications. (v9,#2)

Thurston, Harry, "Last Look at Paradise?" (Galápagos Islands), International Wildlife 27(no. 3, May/June 1997):12-21. The primordial world of the Galápagos is under siege from people. In the past thirty years, he number of people who reside on the islands has risen seven-fold, putting pressures on the vulnerable wildlife. The government in Ecuador faces a tough battle trying to preserve the unique animals while responding to citizens' demands for an improved standard of living. Newcomers from the mainland have a gold-rush mentality that would exploit wildlife rather than protect it. Many disregard protection laws and are overfishing the islands' rich oceans. About 50,000 tourists come each year, but do little harm because Ecuador manages tourists closely. (v8,#2)

Thwaites, Vivonne, "Karra: Karrawirraparri-river red gum-Eucalyptus camaldulensis," Ethics and the Environment 8(no. 1, 2003):51-60. Karra was a visual arts project devised for the 2000 Adelaide Festival in Australia. Its focus was the River Red Gum, quite justifiably an Australian icon, and once the most widespread tree in south eastern Australia. The project comprised an installation by three artists and a forty-page publication with essays and visual material from many contributors. The intention of the project (which I developed and oversaw as curator) was twofold. First, I hoped that an examination of the River Red Gum from a number of points of view might help people connect with the tree itself, and more broadly with this place non-Aboriginal Australians so uneasily inhabit. Second, given the tree's central place in Australia's inland waterways; I wanted the art to help people consider the urgent problems facing this ecosystem, such as increased salinity, diminished water flow and environmental degradation. This subject had particular relevance for South Australians, as our state is so dependent on the Murray-Darling River system. For example, in February 1999 the Commonwealth Scientific and Industrial Research Organisation published a media release on "Salt: Australia's Greatest Battle," declaring that we stand to lose a large fraction of our native biodiversity to salinity, and that native trees "remain the front line answer." Thwaites is a freelance curator in Adelaide, Australia. (E&E)

Tian Haiping, "Who can follow eco-ethic", Nanjing Industry University 2002(1)

Tiberghien, Gilles, Land Art. New York: Princeton Architectural Press, 1995. 311 pages. ISBN 1-56898-040-X. Originally published in French, Éditions Carré, 1993 under ISBN 2-908393-18-2. A coffee table size and style book detailing earthworks, photographs, sketches, with accompanying text, interpretation, criticism. "In seeking to find new parameters that allow a definition of what art is, the Land Art artists have produced new objects. Their move away from museums and galleries is also a desire to reinvent art, in a certain sense. But moving away from these spaces is also extending them. ... In using earth as a medium and material, they have not attempted to make nature into a new museum, ... Land Art is not primarily an art of landscape. ... The earth, dirt, on the other hand, with its power of provocation (simply from the troubling effect of its presence) ... is what gives Land Art acts their radicalism. ... The deserts, the quarries, the abandoned mines, the distant plains, and the mountainous summits give us the
sense of a world where art takes on a new meaning, where museums disappear, and humanity is eclipsed.” For philosophical commentary, see Peter Humphrey, "The Ethics of Earthworks," Environmental Ethics 7(1985):5-21; Allen Carlson, "Is Environmental Art an Aesthetic Affront to Nature?", Canadian Journal of Philosophy 16(1986):635-50. (v7,#4)

Tickell, Crispin, "The Quality of Life: What Quality? Whose Life?" Environmental Values Vol.1 No.1(1992):65-76. ABSTRACT: As a consequence of industrialization, we face unprecedented pressures on the carrying capacity of the earth. Desertification, pollution and global climate changes can only increase these pressures, and will cause vast increases in the number of refugees and widespread risks to human health. Increasing inequalities between rich and poor nations are potential causes of conflict. Since the industrial countries are mainly responsible for our economic problems, they must give a lead in global arrangements to alleviate them. A major change in our habitual patterns of thought is essential, in which we reassess how we perceive values, and how we measure wealth and well-being. This must be accompanied by governmental action: on population numbers and the refugee problem; on the efficient use of energy; on new methods of land use, and on regulation of damaging industrial activities. To act in these ways, governments must reorganize their domestic policies and increase international co-operation. KEYWORDS: Climate change, economic values, environmental policy. Green College, Woodstock Road, Oxford, UK.

Tiegs, Scott; O'leary, John; Pohl, Molly; Munill, Carrie, "Flood disturbance and riparian species diversity on the Colorado River Delta," Biodiversity and Conservation 14(no.5, May 2005):1175-1194(20).


Tillman, David, and John A. Downing. "Biodiversity and Stability in Grasslands." Nature 367(1994):363-365. In a manipulated study of grasslands, which increased diversity by adding nitrogen, more diverse plant communities were more resistant to and recovered more fully from drought. Evidence for the often contested diversity-stability hypothesis, though not the alternative hypothesis that most species are functionally redundant. The preservation of biodiversity is essential for the maintenance of stable productivity in ecosystems. Tillman is in ecology at the University of Minnesota; Downing in biology at the University of Montreal. (v6,#3)

Tilzey, Mark, "Natural Areas, the whole countryside approach and sustainable agriculture," Land Use Policy 17(no.4, OCT 01 2000):279- . (EE v.12,#1)


Timbrell, John, The Poison Paradox: Chemicals as Friends and Foes. Oxford: Oxford University Press, 2005. Natural and manufactured chemicals to which humans are exposed, how they are toxic and the differing reactions humans can have to them. Timbrell claims to debunk the myth that natural is good and man-made is bad. Timbrell is at King's College London.
Time, "Owl vs. Man," June 25, 1990. The timber industry says that saving this spotted owl will cost 30,000 jobs. It isn't that simple. "There is no way to avoid hard choices. The U. S. will have to recognize that no society can have it all at all times--unfettered harvesting of natural resources, full employment and a healthy and rich environment. The soft hoot of the owl, an ancient symbol of wisdom and foresight, beckons us to resolve both its future and our own."

Time, "A Sizzling Scientific Debate," April 30, 1990. Skeptics say evidence for the greenhouse effect is not so hot. But many scientists counter that failure to curb CO$_2$ emissions amounts to a dangerous experiment with the atmosphere.

Time, "Where the Sky Stays Dark," May 28, 1990. The lifting of the Iron Curtain reveals the planet's most polluted region. Central Europe especially is an environmental disaster, with substantial percentages of the population afflicted with environmental diseases.


Time, January 15, 1990, contains a cover story on Antarctica. Once inaccessible and pristine, the white continent is now threatened by spreading pollution, budding tourism, and the world's thirst for oil. Many environmentalists believe the only way to preserve the continent's wonders is to set up a world park, where most development would be barred. But the first priority is to get an agreement to curb minerals exploration.

Time, "The Rape of Siberia." Cover story, Sept. 4, 1995. Siberia is an epic landscape steeped in tragedy, a tortured land. Siberia suffered greatly under communism. Now the world's capitalists covet its riches and that may be worse for the conservation of a majestic landscape.

Time, October 16, 1989, contains a cover story on the slaughter of elephants for ivory. Elephants face a grim struggle against greed and deceit. Whole families are an increasingly rare sight. The older animals have been wiped out in many herds, and younger ones are now the targets. Poachers must take more tusks to get the same amount of ivory. From the bloody hands of poachers into the stashes of smugglers, ivory moves across Africa under the noses of often corrupt officials. By many routes, some direct and some devious, much of the trade flows to Hong Kong. The final destination is most often Japan, where exquisite carving is a tradition.


Tinker George E., "An American Indian Theological Response to Ecojustice," Ecotheology No 3
Tinker, Carherine, "A `New Breed' of Treaty: The United Nations Convention on Biological Diversity," Pace Environmental Law Review 13 (no. 1, 1995):191-218. From a legal standpoint, there are a number of theoretical questions underpinning the language of the Treaty which remain unanswered and unanalyzed, which may plague efforts to interpret or implement the Convention. Tinker is in law, Chapman University School of Law, Orange, CA. (v8,#2)


Tisdell, Clem; Wilson, Clevo, "The publics knowledge of and support for conservation of Australia's tree-kangaroos and other animals", Biodiversity and Conservation 13(no.12,November 2004):2339-2359(21).


Toadvine, Ted, "Naturalizing Phenomenology," Philosophy Today 43, SEEP Supplement (1999):124-131. "Most of us would like to find a secure home somewhere between uncritical nostalgia for the pristine wilderness that never was and those strands of social constructionism that deny the plausibility of any reference to reality apart from human interpretation" (p. 124) "Environmental thinking needs phenomenology, but also ... phenomenology needs environmental thinking, ... it requires the insights inspired by our current ecological consciousness to revise its own methodological procedures." This requires a "naturalized phenomenology" (p. 125. Toadvine is in philosophy, Emporia State University, Emporia, KS.

Toadvine, Ted. "Limits of the Flesh: The Role of Reflection in David Abram's Ecophenomenology." Environmental Ethics 27 (2005):155-170. David Abram's The Spell of the Sensuous: Perception and Language in a More-Than-Human-World convincingly demonstrates the contribution that phenomenology, especially the work of Maurice Merleau-Ponty, can make to environmental theory. But Abram's account suffers from several limitations that are explored here. First, although Abram intends to develop an "organic" account of thinking as grounded in the sensible world, his descriptions castigate reflection and reverse, rather than rethinking, the traditional hierarchy between mind and body. Second, Abram's emphasis on perceptual reciprocity as the basis for an environmental ethic underplays the importance of the symbolic level of our interaction with others. Merleau-Ponty's later work, in particular his account of the reversibility of flesh, offers a fruitful alternative to Abram's methodology. (EE)


Western technological thought. This book throws together several poor philosophy essays—often by nonphilosophers—with works of anthropology, fiction, poetry, and personal reminiscence. Of some interest is George Sessions, "Ecological Consciousness and Paradigm Change," (pp. 28-44) which is a distillation of some of his book on Deep Ecology. Also Arne Naess, "Identification as a Source of Deep Ecological Attitudes," (pp. 256-270), in which he argues for an expanded vision of the self—but he admits that his view rests on an intuition, not an argument (p. 266). Garrett Hardin's article, "Discriminating Altruisms" (pp. 182-205) is the best paper in the book. Hardin argues for a limited "self-interested" altruism based on biological kinship. It is symptomatic of the Deep Ecology movement (and of this collection) that Hardin's essay appears here—he is not a proponent of Deep Ecology. (Katz, Bibl # 1)


--Greene, Marjorie, "The Trials and Tribulations of Philosophy and Farming"
--Rothenberg, David, "Wild Thinking: Philosophy, Ecology, and Technology" (v10,#4)


Todd, Helen and Christos Zografos, "Justice for the Environment: Developing a Set of Indicators of Environmental Justice for Scotland," Environmental Values 14(2005):483-501. This paper explores the context of environmental justice (EJ) in Scotland, and presents a case study whereby the main attributes for an indicator of EJ were identified, encompassing procedural and distributive aspects of justice. Through a participatory process, weights were assigned using a Multi-Criteria Analysis tool, the Analytical Hierarchy Process (AHP). Results show that overall, environmental injustices are mostly associated by respondents to unequal distribution of health burdens due to pollution, yet greater weight is attached to procedural justice by community environmental activists. The paper suggests that AHP may be applied to many situations and could form a basis for the development of tools to address and deliver EJ in Scotland. Todd is based in Edinburgh and Zograflos is with the Land Economy Research Group, Scottish Agricultural College, Edinburgh. (EV)

Todd, Ivan, Phenomenological Fragments in a Year of Roads Protests, Master's Thesis, Department of Philosophy, Lancaster University, September 1995.
Todd Anne Marie, "The Aesthetic Turn in Green Marketing: Environmental Consumer Ethics of Natural Personal Care Products," *Ethics and the Environment* 9(no. 2, 2004):86-102. Green consumerism is on the rise in America, but its environmental effects are contested. Does green marketing contribute to the greening of American consciousness, or does it encourage corporate greenwashing? This tenuous ethical position means that eco-marketers must carefully frame their environmental products in a way that appeals to consumers with environmental ethics and buyers who consider natural products as well as conventional items. Thus, eco-marketing constructs a complicated ethical identity for the green consumer. Environmentally aware individuals are already guided by their personal ethics. In trying to attract new consumers, environmentally minded businesses attach an aesthetic quality to environmental goods. In an era where environmentalism is increasingly hip, what are the implications for an environmental ethics infused with a sense of aesthetics?

Todd, Ivan, *Phenomenological Fragments in a Year of Roads Protests*, Master's Thesis, Department of Philosophy, Lancaster University, September 1995. (v7,#1)


Tolman, Charles. "Karl Marx, Alienation, and the Mastery of Nature." *Environmental Ethics* 3(1981):63-74. Donald Lee's account in "The Marxian View" is inaccurate in asserting the centrality of an abstract conception of alienation based on a speculative understanding of human nature. This was precisely the view rejected by Marx in 1845. The development of Marx's materialist conception of human nature is traced in order to show the importance to his analysis of the forces and relations of production. Some specific difficulties in Lee's account are discussed, and the broad implications of Marxist theory regarding environmental problems and the mastery of nature are presented. Tolman is in the department of psychology, University of Victoria, Victoria, B.C. (EE)

Toman, Michael, "Values in the Economics of Climate Change," *Environmental Values* 15(2006):365-379. Economics has played an important role in assessing climate change impacts, and the effects of various individual and policy response strategies. Proponents of a key role for economics in analysis of climate change policies and goals argue that its capacity to incorporate and compare a variety of costs and benefits makes it uniquely useful for normative assessment. Critics of economic analysis of climate change have questioned not only its empirical capacities, but also its fundamental usefulness given some of the important but often implicit assumptions on which it is based. After reviewing this debate and its implications for public policy on climate change, the paper sketches a way in which more technical economic
analysis and public dialogue might be combined. (EV)


Tomasello, Michael, and Call, Josep, Primate Cognition. New York: Oxford University Press, 1997. 517 pages. "The experimental foundation for claims that apes are 'more intelligent' than monkeys is not a solid one, and there are few if any naturalistic observations that would substantiate such broad-based, species-general claims" (pp. 399-400). (v.8,#4)


Tomasini, Floris J-W., Sublime and the Ridiculous, Master's Thesis, Department of Philosophy, Lancaster University, September 1995. (v7,#1)

Tomassi, Paul, "On the Metaphysics of Informed Environmental Concern," American Philosophical Quarterly 40(no. 4, 2003):333-343. "The main aim of this paper is to show that the metaphysical questions which bear upon environmental thinking are equally as 'classical' in character as those which bear any other area of discourse." "The issue here is not merely the nature of environmental concern but the nature of the metaphysical grounds which could underpin such concern." "One traditional metaphysical dispute which prima facie is likely to impinge upon environmental concern [is] realism vs. anti-realism." "Informed environmental concern is consistent with much stronger, more robustly metaphysical, realist positions." "The kinds of intuitions which most naturally lend themselves to explaining the forward-looking character of informed environmental concern are consistent with scientific realism but inconsistent with scientific anti-realism." "If environmental concern does involve objective modal elements then it seems likely that only realism will be adequate to providing an account of the metaphysical grounds underpinning such concern." "It would appear that the questions of environmental philosophy do indeed have properly metaphysical teeth." Tomassi is at the University of Aberdeen. (v. 15, # 3)


Topfer, Klaus, "Whither After The Hague," Science 292(2001):2095-2096. Although the Hague conference on climate change failed about what action to take, the talks did succeed in building an almost unanimous conviction among governments that potential climate change is a serious problem. Taking no action at all will be more expensive than taking preventative action now. Töpfer is Executive Director, United Nations Environment Programme, Nairobi, Kenya. (v.12,#2)

Torgerson, Douglas, "The Paradox of Environmental Ethics." Alternatives Vol. 12, no. 2 (Winter 1985):26-36. The paradox is that man is at once dethroned from his supreme position in the hierarchy of nature, but he still remains the valuer, the judge of environmental morality. A look at the metaethical basis of environmental ethics, based on a new conception of reason and value as developed by the theory of communicative ethics. (Katz, Bibl # 1)

Torgerson, Douglas, "The Paradox of Environmental Ethics," Alternatives (Faculty of Environmental Studies, University of Waterloo, Ontario) 12 (no. 2, Winter 1985):26-36. The paradox of environmental ethics is that it de-centers the human and, at the same time, places humanity at the center of things. Grouped together in social artifice, people typically take for granted their peculiarly human world. Ecological sensitivity would involve a transformation in the human perception of nature. Environmental ethics is possible, but it remains all-too-human. Torgerson teaches policy studies at Trent University, Peterborough, Ontario.

--May, Robert M., "The Modern Biologist's View of Nature," pages 167-182. "I believe that we should cherish and conserve diversity primarily for the ethical reason that we now recognize we are no more, though no less, than a part of it" (p. 182). (v.10,#1)

Torrance, John, ed., The Concept of Nature. New York: Oxford University Press, 1993. 138 pages. Six authors on Greek, medieval, and modern conceptions of nature. Includes Elliott Sober on Darwinism, Roger Penrose on physical nature, and Robert May on molecular and population biology. Torrance teaches comparative literature at the University of California, Davis, and is a founding member of the Nature and Culture Program there. (v.10,#3)


Tovey, Hilary, "Theorising Nature and Society in Sociology: The Invisibility of Animals," *Sociologia Ruralis* (European Society for Rural Sociology) 43(no. 3, 2003):196-215. Despite an increasing intellectual and social interest in the animals question in recent decades, animal remain largely invisible in social science texts. Even in environmental sociology texts, animals figure largely as biodiversity or wild species. Sociology tends to absorb animals into wild nature with virtually nothing to say about the huge numbers of domestic, service, or function animals; and it tends to recognize animals only in the form of generic types, without individual character or experience. In rural life, animals, especially domestic animals, are central to human society in a range of ways. Relations between farms and their animals are important for the formation of farmer identity and local farming culture. Animals are a key element in rural-urban relationships. Rural sociology needs to start developing its own approach to including animals in theorising society. Tovey is in sociology, Trinity College, Dublin.

Towery, Twyman L., *The Wisdom of the Wolves: Nature's Way to Organizational Success*. Franklin, TN: Wessex House Publishing (P. O. Box 681753, Franklin, TN 37068-1753. The wolves as a moral tutor, or at least as a provocative symbol. So much for the big bad wolf! The wolf credo: Respect the elders. Teach the young. Cooperate with the pack. Play when you can. Hunt when you must. Rest in between. Share your affections. Voice your feelings. Leave your mark. The strength of the wolf is the pack, and the strength of the pack is the wolf. First there was the woman who runs with the wolves, and now, for the men, maybe women too, there is the wisdom of the wolves. Twyman is a Nashville, Tennessee, counseling psychologist and organizational management consultant. (v7,#1)

Towner, W. Sibley, "The Future of Nature" Interpretation: A Journal of Bible and Theology 50 (no. 1, January 1996):27-35. Bible and biology agree: Human beings cast the biggest shadow over the future of nature. At the end of the millennium we face a choice: We can continue to overuse and exploit our ecosphere or we can exercise tender "dominion" in the world, as God's agents here.

Townley, Cynthia, "Intellectual Property and Indigenous Knowledge," *Philosophy and Public Policy Quarterly* 22 (no. 4, Fall 2002):21-26. Westerners see indigenous knowledge as property to be obtained and used as a commodity. Indigenous peoples are more likely to see knowledge as a gift. But receiving such a gift involves respect for the giving persons and traditions, not just treating the knowledge as a commodity separable from the givers. Townley is in philosophy, University of Nevada at Las Vegas.

Townsend, Ellen, "Ecological Modernisation in Poland," *Environmental Politics* 8 (No. 4, 1999 Winter): 211- . (v.11,#4)

Townsend, M., "Environmental Refugees" Ecologist 32(no.6, 2002): 22-25. Despite the UN's refusal to grant them refugee status, the numbers of people being forced to leave their homes because their environments are uninhabitable is increasing by the year. (v.13,#4)


Trachtenberg, Zev, "The Takings Clause and the Meanings of Land," *Philosophy and Geography*
Trachtenberg is assistant professor of philosophy at the University of Oklahoma. (P&G)

--Trachtenberg, Zev, "Introduction: How Can Property Be Political?" pages 303-310. Although the goal of protecting the natural environment has gained increasing importance over the last generation, in recent years there is the charge that this is inconsistent with respect for property rights. The conflict between environment and property has emerged as one of the thorniest political issues of the day, one which is national in scope but which has immediate meaning for every community.
--Trachtenberg, Zev, "The Environment: Private or Common Property?", pages 399-403, response to the preceding papers. Trachtenberg teaches philosophy at the University of Oklahoma. (v9,#2)

Tracy, C. Richard, and Brussard, Peter F. "The Importance of Science in Conservation Biology." Conservation Biology 10, no.3 (1996): 918. (v7, #3)

Train, Russell E., "Religion and the Environment," Renewable Resources Journal, Summer 1990. Environmental concerns have been "one of the most fundamental concerns to agitate human society within living memory" and yet there has been an "almost total obliviousness of organized religion toward the environment." An article based on an address to the North American Conference on Religion and Ecology, May 18, 1990 in Washington, D.C. (v1,#4)

Trainor, Sarah Fleisher, "Realms of Value: Conflicting Natural Resource Values and Incommensurability," Environmental Values 15(2006): 3-29. Divergent values are often at the heart of natural resource conflict. Using discord over the Grand Staircase-Escalante National Monument in southern Utah, U.S.A. as a case study, I propose that values are perceived as incommensurate because they reflect different realms, with which there exist distinct concepts of what it means to value and distinct, irreducible forms of value expression. I further argue that collaborative, discursive processes are one way to account for plural values in policy and decision making without requiring a common metric, yet they are not without theoretical and practical challenges. (EV)

Tranger, Bruce, "Environmentalism and Education in Australia," Environmental Politics (Summer 1997):123-. (v.8,#4)


Transactions of the 57th North American Wildlife and Natural Resources Conference, 1992, contains the papers from two sessions of interest. Special Session 5: Biological Diversity in Wildlife Management, nine papers, for example: genetic diversity in captive breeding and
reintroduction programs, international issues, faunal mixing and faunal integrity. This session is available in reprint from U. S. Fish and Wildlife Service, National Ecology Research Center, 4512 McMurray Avenue, Fort Collins, CO 80525. Special Session 6: Biological Diversity in Aquatic Management, ten papers, including Edwin P (Phil) Pister, "Ethical Considerations in the Conservation of Biodiversity," papers on degradation caused by introduced fishes, on the reintroduction of native species, and on public policy as this affects fish conservation. This has also been reprinted by the American Fisheries Society. (Thanks to Phil Pister). (v3,#4)

Travis, Lee A. and Oliver F. Williams, eds., The Pharmaceutical Corporate Presence in Developing Countries. Notre Dame, IN: University of Notre Dame press, 1993. 488 pages. $34.95 cloth. 33 contributors. All aspects of the issue, including intellectual property rights. The ethical concerns of multinational corporations in the production, distribution, and use of pharmaceuticals in Africa, Asia, and Latin America. The authors teach business at Notre Dame. (v4,#1)

Trefil, James S., Are We Unique: A Scientist Explores the Unparalleled Intelligence of the Human Mind. New York: Wiley, 1997. 242 pp. Trefil claims that animal minds are not only different in degree of intelligence but in the kinds of consciousness they are capable of. Also, despite the achievements of computer designers, no computer of any kind will ever be able to replicate the human intelligence. Trefil teaches physics at George Mason University and is science commentator for National Public Radio. (v8,#2)

Trefil, James, Human Nature: A Blueprint for Managing the Earth--by People, for People. New York: Times Books/Henry Holt Co., 2004. Trefil is concerned about the state of the Earth, but only for the sake of people. His bottom line, often repeated, is that the global ecosystem should be managed for the benefit of humans. Forget about caring for animals, plants, species, or ecosystems for any good of their own, or intrinsic values. If we like them, they are ours to keep. If we don't like them, who cares if they vanish. We might even need to get them out of our way. Trefil has an optimistic view of the power of technology to transform the Earth into a more useful place for us humans. Trefil is a physicist at George Mason University. Reviewed by Michael Ruse, "My World, and Welcome to It," New York Times Book Review, July 4, 2004, p. 22. (v. 15, # 3)

Trefil, James, "Modeling Earth's Future Climate Requires both Science and Guesswork," Smithsonian, Dec. 1990. "Predictions of global warming, catastrophic or otherwise, depend on both what we do know and our assumptions about what we don't. I have seen a piece of the 21st century and I don't like it very much. We are going to face serious problems, and we will have to face them while the scientific evidence for the seriousness (and even the existence) of the problems is clouded by doubt and controversy. Worse, the aspects of scientific knowledge presented to the public will appear contradictory and ambiguous, and will give us little on which to make our decisions." Useful article, readable by undergraduates, and sets the stage for discussion of the ethical puzzles of decisions made on incomplete scientific knowledge, probabilities, involuntary risks, and so on. James Trefil is a well-known physicist and author at George Mason University. (v1,#4)


Treves, A; Naughtontreves, L; Harper, EK; Mladenoff, DJ; Rose, RA; Sickley, TA; Wydeven, AP, "Predicting Human-Carnivore Conflict: A Spatial Model Derived from 25 Years of Data on Wolf Predation on Livestock", Conservation Biology 18 (no.1, 2004): 114-125.


Trimble, Stephen, and Terry Tempest Williams, compilers, Testimony: Writers of the West Speak on Behalf of Utah Wilderness. Minneapolis, MN: Milkweed Editions (430 First Avenue North, Suite 400, Minneapolis, MN 55401), 1996. ISBN 1-57131-212-0. $ 6.96. 115 pages. Originally created and presented as a limited edition to Congress, as an effort to communicate through literary art the urgent need to preserve threatened lands. Literature for a land ethic. The historical and spiritual importance of public lands, and how, if we value wilderness, we must take action to preserve it. Selections from William Kittredge, Barry Lopez, John McPhee, Scott Momaday, Margaret E. Murie, Gary Paul Nabhan, T. H. Watkins, Charles Wilkinson, Terry Tempest Williams, Ann Zwinger, and others. "If writing itself can be an act of public service, then this collection is it." - Bill Bradley, U. S. Senator.

Trombulak, Stephen C., "How to Design an Ecological Reserve System," paper published by Wild Earth, 1997. $ 5.00 from Wild Earth, P. O. Box 455, Richmond, VT 05477. Detailed guidance for nonscientists on how to design science-based ecological reserves. Trombulak teaches biology and environmental science at Middlebury College, Vermont. (v8,#3)

Tropical Resources Institute, The, Yale School of Forestry and Environmental Studies, publishes a newsletter, Tri News, with short articles reporting conservation issues, usually by their Ph.D. candidates who are working internationally. For example: Vasant Saberwal, "Lion-Human Conflicts in the Gir Forest and Adjoining Areas (a Wildlife Sanctuary and National Park in India)" in the Spring 1991 issue. There were 70 human injuries and 16 deaths in the last year in this area, much escalated from previous years. Part of the problem is baiting lions for tourist viewing, which decreases lion wariness; part of the problem is compassionate feeding and medically assisting old or wounded animals, rather than letting them starve, again decreasing lion wariness. Saberwal concludes that lions need to be culled and hunted to make them more wary. Tropical Resources Institute, Yale School of Forestry and Environmental Studies, 205 Prospect Street, New Haven, CT 06511. (v2,#2)


Troyer, James R., Nature's Champion: B. W. Wells, Tar Heel Ecologist. Chapel Hill, NC: University of North Carolina Press, 1993. B. W. Wells (1884-1978) was a pioneering ecologist at then North Carolina State College (now University), through whom thousands of North Carolinians learned to appreciate and protect nature, long before ecology and conservation became popular causes. Troyer teaches biology at North Carolina State University. (v7,#1)

Trudgill, Steve, The Terrestrial Biosphere: Environmental Change, Ecosystem Science, Attitudes, and Values. Harlow, UK: Pearson Education/Prentice Hall, 2001. A British humanistic geographer's effort to blend nature and culture, science and values. A repeated theme is that "ecosystems are renewable but not repeatable" so "if we can't improve predictability, we have to increase adaptability" (p. ix). We need "ecology for people." "The Greens' have often used an evangelical zeal which doesn't work as it alienates many people; it would be better to try for a `win-win' where ecology is for people in a combined ecological, economic and social justice context" (p. 3).

Trudgill accentuates social constructions. "One might say that reality is defined by our concepts of reality or even that illusion is the only reality. If this is so, then it is important to examine our constructs and concepts, as this book attempts to do, because our concepts about
ecosystems act to influence the way we treat the world and indeed the way we imagine and manage the terrestrial biosphere... "A man looks at reality and brings to it his own limitations" [quoting Steinbeck]. In other words, our concepts both facilitate and limit our outlook" (p. 21).

"Science has a great deal to contribute in the simpler, mechanical, verifiable systems, but in the 'loose', less tangible and unverifiable constructions like ecosystem and landscape, science is a foundation but it has little to offer in the sense that it can't decide what views people will hold and how they will act" (p. 41). "Nature conservation should perhaps be re-named species conservation, habitat conservation, diversity conservation, or even preferred state conservation, because it does not seem to be much about conserving nature, that is leaving nature to get on with itself" (p. 130)." In result, Trudgill takes a dim view of wilderness conservation; 'wilderness is a concept as much as a place. His outlook much better fits the British landscape. "Green spaces in cities and gardens are the 'acceptable' face of nature, involving elements of (therapeutic) involvement but with control of nature" (p. 105).

Trudgill is in Biogeography and Environmental Management, Department of Geography, Cambridge University. (v.13, #3)

Trudgill, Stephen, "Psychobiogeography: Meanings of Nature and Motivations for a Democratized Conservation Ethic," Journal of Biogeography 28(2001):677-698. The language of ecosystem science is pervaded by value-laden terms such as pristine, fragile, disturbance, balance, dominance and alien species. Such terms have high status and are often used in the rhetoric of the conservation ethic. Here, I consider the possibility of the use of less value-laden terms such as change, increase, decrease and so on. This would distinguish between values and perceived trends or states and leave ecosystem science to deal with what is verifiable. However, I also consider the opposite point of view, in that the value-laden terms, like "the balance of nature", relate to how a wide range of people feel about nature and are effective emotive motivators of the conservation ethic in society, providing a common language for a discourse between ecosystem scientists and other people. Trudgill teaches biogeography, Department of Geography, Cambridge University. (v.13, #3)

Trueheart, Charles, "Canal Plan in France Stranded," Washington Post (7/30/97): A18. Planned French canal would link the North Sea with the Mediterranean. A 143-miles long canal with 15 dams, 24 locks and hundreds of bridges would link the Rhine River that flows to the North Sea with the Saone and Rhone Rivers that flow South into the Mediterranean. Promoted for nearly 40 years by the French government, the canal would be three times as long as the Panama Canal and would cut some villages in two with 25-foot dikes. Local politicians who supported the canal were recently thrown out of office and replaced with canal opponents. While the French government buys up land in the path of the canal, locals split ownership of the land to make it more difficult to acquire or expropriate. One member of anti-canal forces said that if the project is not killed, "We are ready to fight. This canal would make us terrorists." (v8,#3)


Trumbull, Mark. "Competition Is Watchword at Conference of Utilities." The Christian Science Monitor, 17 June 1994, p. 8. Deregulation is encouraging competition, especially from alternative technologies such as wind generators. (v5,#2)


Trumpeter, The, Spring 92, vol. 9, no. 2, is a special issue on "The Long Range, Deep Ecology Movement and Arne Naess." Sixteen articles. Also a comprehensive bibliography of works by Arne Naess. Alan Drengson, Editor of The Trumpeter, seeks a new editor for the journal. For suggestions, contact him at Lightstar Press, P. O. Box 5853 Stn B, Victoria BC V8R 6S8, CANADA. (v3,#3)


Trumpeter, The 7:2, Spring 1990, is a special issue devoted to ecosophic practices in forestry and farming. Address: P. O. Box 5853 Stn B, Victoria, B. C. V8R 6S8, Canada. (v1,#2)

Trumpeter, The, vol. 8, spring 1991, no. 2, is on the theme "Meaning, Ecocentrism, and Ecosophy," featuring five articles on ecofeminism. (v2,#2)

Trumpeter, The, volume 15, is an electronic journal, now on website: http://trumpeter.athabascau.ca. Bruce Morito is editor, Global and Social Analysis, Athabasca University, 1 University Drive, Athabasca, AB T9S 3A3, Canada. Phone: (780) 675-6143; fax: (780) 675-6186. (v10,#4)

Trumpeter, The, Fall 1990, is a special issue on "Wild Animals and Human Life." Twelve short articles. (v1,#4)

Trumpeter, The: Journal of Ecosophy. PO Box 5853 Stn B, Victoria, B.C. V8R 6S8 Canada. This is a major source of material from the perspective of deep ecology, or as editor Alan Drengson now terms it, "ecosophy (ecological harmony and wisdom)." From both a scholarly and nonscholarly perspective, the focus of the journal is interdisciplinary. Articles are generally short, and are often reprints from other academic journals. (Katz, Bibl # 2)

Trzyna, Thaddeus C., Elizabeth Margold, and Julia K. Osborn, World Directory of Environmental Organizations, 5th ed. Sacramento, CA: California Institute of Public Affairs (P. O. Box 189040, Sacramento, CA 95818), 1996. 232 pages. $50.00 Published in cooperation with IUCN, the Sierra Club, and Earthscan. 2,600 organizations in over 200 countries (so it is claimed, but are there 200 countries?). (v7,#2)

Trzyna, Thaddeus, C. ed. *A Sustainable World: Defining and Measuring Sustainable Development*. Sacramento: International Center for the Environment and Public Policy, 1995. Published for IUCN. Fourteen articles: sections: Sustainability and Sustainable Development: What Do They Mean? Measuring Progress. Indicators of Sustainability. Sample articles: David A. Munro, "Sustainability: Rhetoric or Reality?"; Denis Goulet, "Authentic Development: Is it Sustainable?"; Calvin Nhira, "Poverty Alleviation and Sustainability: The Case of Zimbabwe" (In Zimbabwe, the environmental crisis has become worse in the period of independence; the elite care for themselves at the expense of the poor; poverty alleviation measures in Zimbabwe have not been sustainable" (p. 236). Trzyna is Chair of the IUCN Commission on Environmental Strategy and Planning, and at the Center for Politics and Economics of The Claremont Graduate School. (v6,#3)


Tuan, Yi-Fu, *Passing Strange and Wonderful: Aesthetics, Nature, and Culture*. Washington, DC: Island Press/Shearwater Books, 1993. 288 pages. Aesthetic needs are basic, not secondary, essential parts of life and society. The aesthetic is not one aspect of culture but its central core. Starting with the building blocks of aesthetic experience--sight, hearing, smell, touch, taste--Tuan gradually expands his analysis to include art, architecture, literature, philosophy, music, and landscape. How can the aesthetic become a moral and political force? How the aesthetic operates in four widely disparate cultures: Australian aboriginal, Chinese, medieval European, and modern American. Tuan is professor of geography at the University of Wisconsin, Madison. (v4,#1)

Tuan, Yi-Fu. *Space and Place: The Perspective of Experience*. Minneapolis: University of Minnesota Press, 1977. Sense of place. (v8,#1)


Tucker, Gene M. "Rain on a Land Where No One Lives: The Hebrew Bible on the Environment." *Journal of Biblical Literature* 116, no. 1 (Spring 1997): 3-17. This is the Presidential Address delivered 23 November 1996 at the Annual Meeting of the Society of Biblical Literature in New Orleans, Louisiana. The article is exegetical and in response to the deluge of materials resulting from Lynn White's "The Historical Roots of Our Ecological Crisis." Tucker' footnotes to that literature are especially helpful. Tucker concludes that the biblical texts, as with all biblical interpretation, contain both problems and possibilities. All of the Hebrew traditions assume that
human beings are both in and of the world, and that humans have a distinctive place in creation. Some texts attack hierarchical structures, and some emphasize humankind's identification with the rest of the world. Their distinction is that humans are "the ones addressed by God (Job) or speak to God (Psalm 104)" (p. 16). Tucker is Prof. of Hebrew Bible at Emory University, Atlanta, GA. (v8,#2)


Tucker, Mary Evelyn, Moral and Spiritual Cultivation in Japanese Neo-Confucianism: The Life and Thought of Kaibara Ekken (1630-1714) (Albany: SUNY Press, $ 16.95 paper. A study that reflects the possible basis for an environmental ethics in Neo-Confucian thought. The author is in the Department of Religion at Bucknell University and is teaching a course on Religion and Ecology. She has a particular interest in religious attitudes towards nature in Buddhism, Confucianism, Taoism, and Shinto. (v1,#3)


Tucker, Mary Evelyn, and Grimm, John, "Religions of the World and Ecology: Discovering Common
Ground," Religious Studies News (American Academy of Religion), May 1999, page 11. A report of ten conferences held at the Center for the Study of World Religions at Harvard University, between May 1996 and July 1998. Several published volumes are resulting from the conferences, and there is an ongoing Forum on Religion and Ecology. Tucker and Grimm are at Bucknell University and coordinated the series of conferences. (v.10,#2)

Tucker, Mary Evelyn, and Grimm, John, eds., Evolving Values for an Earth Community, theme issue of Earth Ethics, vol. 10, no. 1, Fall 1998. Washington, DC: Center for Respect of Life and Environment. A series of ten conferences was held at the Center for the Study of World Religions at Harvard University from May 1996 until July 1998 sponsored by CSWR in collaboration with the Center for Respect of Life and Environment and Bucknell University. This issue includes short articles written by area specialists to summarize key resources of the religious traditions featured in the conference series.

--Tucker, Mary Evelyn, and Grim, John, "Religions of the World and Ecology: Discovering the Common Ground."
--Fink, Daniel B., "Judaism and Ecology: A Theology of Creation."
--Hessel, Dieter T., "Christianity and Ecology: Wholeness, Respect, Justice, Sustainability."
--Denny, Frederick M., "Islam and Ecology: A Bestowed Trust Inviting Balanced Stewardship."
--Grim, John, "Indigenous Traditions and Ecology."
--Chapple, Christopher Key, "Hinduism, Jainism, and Ecology."
--Swearer, Donald K., "Buddhism and Ecology: Challenge and Promise."
--Tucker, Mary Evelyn, "Confucianism and Ecology: Potential and Limits."
--Miller, James, "Daoism and Ecology."
--Bernard, Rosemarie, "Shinto and Ecology: Practice and Orientations to Nature." (v.10,#2)


Tucker, Mary Evelyn, and Grim, John A., eds., Religion and Ecology: Can the Climate Change, Daedalus 130, no. 4, Fall 2001. Theme issue. Contents:
-George Rupp, "Religion, Modern Secular Culture, and Ecology"
-Michael B. McElroy, "Perspectives on Environmental Change: A Basis for Action"
-Donald A. Brown, "The Ethical Dimensions of Global Environmental Issues"
-J. Baird Callicott, "Multicultural Environmental Ethics"
-Hava Tirosh-Samuelson, "Nature in the Sources of Judaism"
-S. Nomanul Haq, "Islam and Ecology: Toward Retrieval and Reconstruction"
-Vasudha Narayanan, "Water, Wood, and Wisdom: Ecological Perspectives from the Hindu Traditions"
-Christopher Key Chapple, "The Living Cosmos of Jainism: A Traditional Science Grounded in Environmental Ethics"
-Donald K. Swearer, "Principles and Poetry, Places and Stories: The Resources of Buddhist Ecology"
-Tu Weiming, "The Ecological Turn in New Confucian Humanism: Implications for China and the World"
-James Miller, "Envisioning the Daoist Body in the Economy of Cosmic Power"
-Jack D.Forbes, "Indigenous Americans: Spirituality and Ecos"
-Bill McKibben, "Where Do We Go from Here?" (v.12,#4)

Tucker, Mary Evelyn and John Grim, series editors, Religions of the World and Ecology, General Editor, Lawrence Sullivan. Published by the Center for the Study of World Religions at Harvard
University and distributed by Harvard University Press. The series volumes are:


Tucker, Mary Evelyn, and John Grim. AThe Greening of the World's Religions. @ Chronicle of Higher Education, The Chronicle Review. February 9, 2007. Although religions have often turned from the turbulent world in a redemptive flight to a serene, transcendent afterlife, new emphases are appearing that will energize and support a new generation of leaders in the environmental movement. Tucker is currently a visiting scholar in the Bioethics Institute at Yale University.

Tudge, C., "The Rise and Fall of Homo sapiens sapiens," Philosophical Transactions of the Royal Society, London, B 325 (1989):479-488. Human beings have broken the ecological `law' that says that big, predatory animals are rare. Two crucial innovations have enabled us to alter the planet to suit ourselves and thus permit unparalleled expansion: speech and agriculture. However, natural selection has not equipped humans with a long-term sense of self-preservation. Our population cannot continue to expand at its present rate for much longer, and the examples of many other species suggest that expansion can end in catastrophic collapse. Survival beyond the next century in a tolerable state seems most unlikely unless all religions and economies begin to take account of the facts of biology. If this occurred, it would be a step in cultural evolution that would compare in import with the birth of agriculture. "I take it also to be self-evident that ours is not the only important species; that other creatures have a `right' to occupy this planet, and that we at times have to bow to their needs, even at cost to ourselves."


Tulibacki, W., Etyka i naturalizm (Ethics and Naturalism), ART Publishers, Olsztyn, 1998. (v.13,#4)

Tullock, Gordon, *The Economics of Non-Human Societies*. Tucson, AZ: Pallas Press, 1994. 87 pages. The author offers a general theory of “bioeconomics” encompassing both human and non-human societies. His strategy is to apply to non-human societies the tools that have developed in economics. Specifically, the behavior of the social insects can be thought of as the interaction of preference functions and the environmental consequences of individual behavior. Insects have their preferences instinctively, but are selected for reciprocal cooperation doing what is in the self-interest of each. An "invisible hand" naturally selects the most efficient hive. Humans have their preferences with options in choice but act in their self-interests; Adam Smith's "invisible hand" selects for economic efficiency. From this, Tullock develops a theory that, in principle, is capable, he claims, of predicting whether a given species will survive in a particular niche. Nevertheless, he adds, "I do not think that studying the non-human societies is of help to the student of human societies" (p. 83). For a review see Clarence C. Morrison, "The Economics of Non-Human Societies," *Atlantic Economic Journal* 23(1995):318-322. Tullock is an economist at the University of Arizona known for his application of economic theory to problems in political science. (v7,#1)


Turco, Richard P. *Earth Under Siege: From Air Polution to Global Change*. New York: Oxford University Press, 1996. 544pp. $21.95 paper, $50 cloth. Based on the author’s popular course at UCLA, this text introduces the non-science major to a basic understanding of how the physical environment surrounding us functions, and why human activities are affecting it, while simultaneously providing sufficient supporting details to hold the interest of science majors. (v8,#1)

Turkovic, Vera, "A Dialogue between Nature and Culture in the Fine Arts" (in Croatian), *Socijalna Ekologija (Social Ecology)* 11(no. 4, 2002):317-329. A representative article from a journal that continues now more than a decade as the leading journal dealing with environmental ethics from Croatian scholars. There are abstracts of articles in English. ISSN 1330-0113.

Turner, B. L., II; Clark, William C.; Kates, Robert W.; Richards, John F.; Mathews, Jessica T.; and Meyer, William B. Adams, eds. *The Earth as Transformed by Human Action: Global and Regional Changes in the Biosphere Over the Past 300 Years*. New York: Cambridge University Press, 1993. 729 pages. $44.95 cloth. "An highly laudable undertaking by geographers to put it all together. It will be used by all scholars, teachers, and students concerned with the environment and its management--or mismanagement--by humans every where on our planet.”


Turner, Derek and Laureen Hartzell "The Lack of Clarity in the Precautionary Principle," Environmental Values 13(2004):449-460. The precautionary principle states, roughly, that it is better to take precautionary measures now than to deal with serious harms to the environment or human health later on. This paper builds on the work of Neil A. Manson in order to show that the precautionary principle, in all of its forms, is fraught with vagueness and ambiguity. We examine the version of the precautionary principle that was formulated at the Wingspread Conference sponsored by the Science and Environmental Health Network in 1998. That version fails to indicate who must bear the cost of precaution; what constitutes a threat of harm; how much precaution is too much; and what should be done when environmental concerns and concern for human health pull in different directions. Whether this vagueness is a strength or weakness of the principle, depends on what purpose(s) the precautionary principle is supposed to serve. Turner is in philosophy Connecticut College, New London, CT. Hartzell is in philosophy, Stanford University, Stanford, CA. (EV)

Turner, Derek D., "Are We at War with Nature?" Environmental Values 14(2005): 21-36. A number of people, from William James to Dave Foreman and Vandana Shiva, have suggested that humans are at war with nature. Moreover, the analogy with warfare figures in at least one important argument for strategic monkeywrenching. In general, an analogy can be used for purposes of (1) justification; (2) persuasion; or (3) as a tool for generating novel hypotheses and recommendations. This paper argues that the analogy with warfare should not be used for justificatory or rhetorical purposes, but that it may nevertheless have a legitimate heuristic role to play in environmental philosophy. Turner is in philosophy, Connecticut College, New London, CT. (EV)

Turner, Derek D., "Monkeywrenching, Perverse Incentives and Ecodefence," Environmental Values 15(2006): 213-232. By focusing too narrowly on consequentialist arguments for ecosabotage, environmental philosophers such as Michael Martin (1990) and Thomas Young (2001) have tended to overlook two important facts about monkeywrenching. First, advocates of monkeywrenching see sabotage above all as a technique for counteracting perverse economic incentives. Second, their main argument for monkeywrenching - which I will call the ecodefence argument - is not consequentialist at all. After calling attention to these two under-appreciated aspects of monkeywrenching, I go on to offer a critique of the ecodefence argument. Finally, I show that there is also a tension between the use of cost/benefit analysis to justify particular acts of ecosabotage and the clandestine nature of those acts. (EV)

Turner, Frederick, Rebirth of Value: Meditations on Beauty, Ecology, Religion and Education (Albany: SUNY Press, 1991). 188 pages. $ 12.95 paper. A holistic approach, with an emphasis on universalism. The common features of myths and works of art the world over militate against relativistic, historicist interpretations of culture. The experience of beauty is a feedback from nature. Turner is professor of arts and humanities at the University of Texas at Dallas. (v2,#2)


relationship with the nonhuman world must be a spiritual one. The nonessential manipulation and
management of wild ecosystems by biologists and others is unacceptable. Wildlife biologists
introducing wolves to Yellowstone, with collars on the wolves, tracking them on the internet, are
instances of this management mentality: these are not wild wolves at all. Most outdoor recreation
is superficial and destructive, resulting from human desires use wilderness for their recreational
pleasures.

The dominant economic paradigm must be marginalized for the good of both humans and
nonhumans. Commercializing everything, including the natural environment, merely feeds into the
paradigm that's causing the problem. "We must examine processes at the heart of modernity that
are only vaguely understood, however pernicious their consequences for the wild earth,
processes that not only destroy the wild but diminish our experience of the wild" (p. xiii). "What
we need now is a culture that deeply loves the wild earth" (p. xvii). Turner lives in a remote
ranch on the Mexican border during the winter and in Grand Teton National Park in the summer,
where he is a mountain guide. He once taught philosophy at the University of Illinois. But he
now finds of little importance "the byzantine world of environmental philosophy -- (one of the)
elements, I believe, of 'shallow' ecology" (p. xv). He has a book on the Tetons, published by
Henry Holt.

There is an interview with Turner in Wild Duck Review (Nevada City, CA), December
1996, and a discussion in the February 1997 issue, including a response by George Sessions,
particularly to Turner's claim that deep ecology contains no first rate thinkers (although Turner
concedes that Arne Naess influenced him greatly, enough to persuade him to leave philosophy,
p. xv). Sessions also speaks to Turner's intense dislike of management in conservation biology.
(v.9,#3)


Turner, James Morton, "Charting American Environmentalism's Early (Intellectual) Geography,
1890-1920," Wild Earth 10(no. 2, Summer 2000):18- . (v.12,#2)

choice in energy policy is whether to continue to burn fossil fuels and find technologies to
sequestrate the CO₂, or to find alternative, renewable energy sources. The former is rather like
discovering that smoking is bad for you, and taking up running for exercise, while continuing
smoking. A more intelligent choice is available renewable energy. Taylor is with the National
Renewable Energy Laboratory, Golden, CO. In a series of articles on "Powering the Next
Century" in this issue of Science. (v.10,#3)

Turner, John H. "The Selective Prosecution Defense to Environmental Enforcement After United
which selective enforcement claims can be successfully raised in environmental enforcement
proceedings.

Turner, Keith, producer. Crépeau, Alexandra, director. "From the Ground Up: Green and


Turner, Matthew D., "Conflict, Environmental Change, and Social Institutions in Dryland Africa:
Limitations of the Community Resource Management Approach," Society & Natural Resources

Turner, MG; Pearson, SM; Bolstad, P; Wear, DN, "Effects of land-cover change on spatial pattern of forest communities in the Southern Appalachian Mountains (USA)," Landscape Ecology 18(no.5, 2003):449-464. (v.14, #4)


Turner, R. Kerry, Button, Kenneth, and Nijkamp, Peter, eds. Ecosystems and Nature: Economics, Science and Policy. Cheltenham, Gloucester, UK: Edward Elgar Publishing Co., 1999. 38 articles. Not cheap: $125.00, $ 205.00. Brings together the work of leading authors in biodiversity research. Provides readers with a broad interdisciplinary perspective on major issues in biodiversity, including economics, natural science, management and ethics. Part I introduces some fundamental scientific and socio-economic concepts and analysis in order to illustrate the complexities involve. Part II deals with the valuation of ecosystems with special emphasis on the main biomes, wetlands, marine systems, grasslands and agriculture. Part III covers the problem of value appropriation and the relevant constraints and available policy instruments. Part IV focuses on the difficult ethical issues that surround use and conservation of biodiversity. Contributors include:
* Bockstael, N., Constanza, Robert et al., "Ecological Economic Modeling and Valuation of Ecosystems."
* Norton, Bryan G. "Evaluating Ecosystem States: Two Competing Paradigms."
* Perrings, Charles, and Pearce, David, "Threshold Effects and Incentives for the Conservation of Biodiversity."
* Rolston, Holmes, "Valuing Wildlands."
* Gadgil, Madhav, "Conserving Biodiversity as if People Matter: Case Study from India."
* Randall, Alan, "The Value of Biodiversity."

Turner is Director of the Centre for Social and Economic Research on the Global Environment (CSERGE), University of East Anglia and University College London, UK. Button is Professor of Public Policy, Institute of Public Policy, George Mason University, US. Peter Nijkamp, is Professor in Regional, Urban, and Environmental Economics, Free University, Amsterdam, The Netherlands. (v.11,#3)


Turnhout, Esther, Matthijs Hisschemööller and Herman Eijsackers, "The Role of Views of Nature in Dutch Nature Conservation: The Case of the Creation of a Drift Sand Area in the Hoge Veluwe National Park," *Environmental Values* 13(2004):187-198. Nature conservation requires choices about what sort of nature should be protected in what areas and includes value judgments on what nature is and/or should be. This paper studies the role of differing views of nature in nature conservation. A case study on the creation of a drift sand area in the Netherlands illustrates how nature conservation disputes can be understood as a conflict in views of nature. The authors are in earth and life sciences, Institute of Ecological Science, Vrije Universiteit, Amsterdam. (EV)


--Elliott, Lorraine M., "Women, Gender, Feminism and the Environment"

Turpin, Jennifer and Lois Ann Lorentzen, eds., *The Gendered New World Order: Militarism, the Environment, and Development*. New York: Routledge, 1996. 264 pages, Hardback and paper. Ecological security seems increasingly precarious and battles over land and models of economic development now lead to military conflicts. This volume addresses the compelling issue of how gender connects the global problems of militarism, underdevelopment, and environmental decay. Scholars from around the world make connections between such seemingly disparate issues as refugees, polluted waters, bombed villages, massive dam projects, starving children, deforestation, nuclear arms buildup, and the rights of women. (v7, #3)


Tweeten, Luther, "Public Policy Decisions for Farm Animal Welfare", *Journal of Agricultural and Environmental Ethics* 6(1993). The highly divergent attitudes of people in the United States regarding animal welfare versus human welfare inhibit formulation and legislative approval of a consensus policy. The lack of consensus is a matter both of divergent values and of inadequate knowledge. This paper makes a case that the policy process presents a major hurdle to animal rights proponents because the agricultural committees through which legislation must pass are controlled by legislators favourable to producers’ interests. This report briefly reviews animal welfare policies in the U.S. The conclusion is that animal welfare legislation has been rather freely extended to transport, slaughter, and experimentation but has not yet been extended to animals on farms. Many recommendations made by animal welfare advocates are consistent
with conventional standards of good farm management and profit. At issue is to what extent these recommendations should be made legally enforceable mandatory rules. It is important to separate potential animal welfare reform into two categories: (1) legislation which is economically profitable to producers; and (2) legislation which is economically unprofitable. The former ordinarily will not require the force of law, since a program of education by the Cooperative Extension Service, other agencies, and the media ordinarily will suffice. Tweeten is in the Department of Agricultural Economics and Rural Sociology, The Ohio State University, 228 Agricultural Administration Building, Columbus, OH. 43210-1066.


Twine, Richard T., "Ma(r)king Essence--Ecofeminism and Embodiment," Ethics and the Environment 6(no. 2, 2001):31-58. Ecofeminism can consolidate its tradition of elucidating the interconnections between different oppressions by expanding upon its philosophy of the body. By looking at the ways in which particular bodies become 'marked', and so devalued, ecofeminism can point towards various unexpected and creative coalitions. Here I concentrate especially upon two intertwined sets of markings, namely those related to aesthetic discourses and those related to discourses of Western reason. I argue that both of these ultimately revolve around notions of control of the body as being constitutive of Western ideas of human identity. Moreover, I want to affirm that those ideas which encourage us to devalue certain bodies stem from discourses related to nature and animality. Through considering how ecofeminism might re-think embodiment, I argue for an alternative conception which stresses the inherent vulnerability and agency of human embodiment. Twine is finishing a Ph.D. in sociology, Manchester Metropolitan University, UK. (E&E)


Tybirk, K, H. F. Alroe, and P. Frederiksen, "Nature Quality in Organic Farming: A Conceptual Analysis of Considerations and Criteria in a European Context," Journal of Agricultural and Environmental Ethics 17(2004):249-274. Nature quality in relation to farming is a complex field. It involves different traditions and interests, different views of what nature is, and of valuing nature. Furthermore there is a general lack of empirical data on many aspects of nature quality in the farmed landscape. In this paper we discuss nature quality from the perspective of organic farming, which has its own values and goals in relation to nature - the "Ecologist View of Nature." This is in contrast to "Culturist View" characteristic of much conventional agriculture and the "Naturalist View" characteristic of the traditional biological approach to nature quality. This threefold distinction forms a framework for exploration of nature quality criteria in the farmed landscape. The traditional work on nature quality has mainly focussed on biological interests based on a Naturalist View of Nature. In this paper we will explore how criteria for nature
quality based on the Ecologist View can be developed and thereby feed into the ongoing
discussion of the development of the organic farming practices. We suggest additional criteria
for nature quality based on an Ecologist View of Nature: biodiversity, habitat diversity, extent and
structure, functional integrity of habitats and agro-ecosystems, landscape integrity, accessibility,
and experientiality. The larger set of Naturalist and Ecologist criteria can provide a wider and
more balanced basis for developing nature quality indicators that are relevant in the farmed
landscapes. This broader approach to nature quality is also expected to benefit the general
societal discussions and decisions on farming and nature. Keywords: accessibility, aesthetics,
agriculture, biodiversity, biological integrity, conservation, functional integrity, habitat, landscape,
view of nature. Tybirk is with the National Environmental Research Institute, Department of
Wildlife Ecology and Biodiversity, Denmark. Alroe is at the Danish Research Centre for Organic
Farming, Tjelle, Denmark. Fredericksen is at the National Environmental Research Institute,
Department of Policy Analysis, Roskilde, Denmark. (JAE)


Tyson, C8; Worthley, TE, "Managing Forests within a Watershed: The Importance of Stewardship," Journal of Forestry 99(no. 8, 2001):4-10. (v.13,#1)


Ulanowicz, Robert E., "Ecosystem Dynamics: a Natural Middle," *Theology and Science* 2(no. 2, 2004):231-253. *Theology and Science* is the new journal of the Center for Theology and Natural Science, Graduate Theological Union, Berkeley. Ecosystem science offers opportunities for reconciling science and religion. Conflicts between science and religion revolve about fundamental assumptions more than they do facts or theories. The key postulates that have guided science since the Enlightenment (particularly the determinism and reductionism) appear to be wholly inadequate to describe the development of ecosystems (which are more open and holistic). An emended set of tenets adequate to the ecological narrative also significantly ameliorates the adversarial nature of the dialogue between scientists and theologists. Thoughtful account by a well-known ecologist. Ulanowicz is at the University of Maryland Center for Environmental Science. (v.14, #4)

Ulfelder, Jay. *A Natural-Resource Wealth and the Survival of Autocracy*. @ *Comparative Political Studies* Vol. 40, no. 8 (2007): 995-1018. Does natural-resource wealth impede transitions to democracy? This article revisits this question with an event history design that differs from the approach used in other recent statistical tests of rentier state theory. The research confirms that autocracy is typically more durable in countries with substantial resource wealth, and the author finds this effect is robust to other measures proposed to explain the dearth of democracy in the Middle East or the Muslim world.


*Undercurrents: A Journal of Critical Environmental Studies*. An annual publication of graduate students in the Faculty of Environmental Studies, York University, 4700 Keele Street, North York, Ontario M3J 1P3. The theme of volume 1 (1989) was "Human Interaction with the Natural Environment," and the theme for Volume 2 (1990) was "Nature, Culture, Self." Of special interest are several papers on deep ecology and feminism. (Katz Bibl #2)

*Undercurrents: A Journal of Critical Environmental Studies* is produced annually by the Faculty of Environmental Studies, York University, Ontario. The 1991 theme is "The Representation and Domination of Nature." $5.00. Contact: Faculty of Environmental Studies, York University, 4600 Keele Street, North York, Ontario M3J 1P3, Canada. (v2,#1)

*Undercurrents: A Journal of Critical Environmental Studies* is a journal produced by graduate students of the Faculty of Environmental Studies, York University, 4700 Keele Street, North York, Ontario M3J 1P3, Canada, now in its fourth issue. (v3,#2)

UNESCO, World Directory of Academic Research Groups in Science Ethics. Science Policy Studies and Documents, No. 73. Paris: UNESCO, 1993. 168 pages. Listings and details of 250 such groups throughout the world, including (no. 233) the International Society for Environmental Ethics. United Nations Educational, Scientific, and Cultural Organization, 7, place de Fontenoy, 75700 Paris, France. With an index of researchers as well as of research groups. Also lists publications of these groups. (v4,#2)
United Nations Educational, Scientific, and Cultural Organization (UNESCO), "Ethics of Space."
Online at:
http://www.unesco.org/opi2/ethics/space.htm
Space is for the use of all human beings on earth, part of the common heritage of humankind, to which all persons ought to have equal access.  (v.13,#4)

United Nations Commission on Human Rights, Human Rights and the Environment. Document E/CN.4/Sub.2/1994/9. July 6, 1994. 92 pages. This is the final report from a four-year study on human rights and the environment to the U.N. Subcommission on Prevention of Discrimination and Protection of Minorities, a subcommission of the UN Commission on Human Rights, to which subcommission this assignment was delegated. The report was prepared by special rapporteur Fatma Zohra Ksentini and discusses the many ways in which environmental degradation interferes with the enjoyment of recognized human rights and confirms widespread legal recognition of this linkage. The report asks the Commission to appoint authorized persons to monitor situations that involve human rights and the environment, though the Commission has stopped short of doing so, asking for further comment by governments and NGO's. The document is also available in French and Spanish. Of some interest is Annex III, which summarizes constitutional provisions relative to environmental protection in over sixty nations. A U.S. contact monitoring these developments is the Sierra Club Legal Defense Fund, 180 Montgomery St., Suite 1400, San Francisco, CA 94104-4209. (v6,#4)

United Kingdom. Some notes on environmental philosophy in the United Kingdom are in the ISEE Newsletter, vol. 4, no. 3, Fall 1993.

University of Illinois Law Review, vol. 1986, no. 2, is a symposium, Stewardship of Land and Natural Resources, with 14 articles, all relevant to environmental ethics. The three main areas are philosophy of resource control, distribution of water rights, and land and urban growth. Some representative articles:
--Charles E. Little, "Has the Land Ethic Failed in America? An Essay on the Legacy of Aldo Leopold"
--Lynda L. Butler, "Defining a Water Ethic Through Comprehensive Reform: A Suggested Framework for Analysis"
--Eric T. Freyfogle, "Water Justice"
--James M. Caragher, "The Wilderness Ethic of Justice William O. Douglas"
--Lynton Keith Caldwell, "Land and the Law: Problems in Legal Philosophy"
The issue is available for $ 7.00 from the College of Law, 76 Law Building, 504 East Pennsylvania Ave., Champaign, IL 61820. (v1,#3)

Unruh, JD, "Poverty and property rights in the developing world: not as simple as we would like," Land Use Policy 19(no.4, 2002): 275-276.

Unterberger, Glenn L. "Let's Make a Deal: Transferring Pollution-Reduction Credits." Natural Resources and Environment 10, no.4 (1996): 28. (v7, #3)


Upbin, Bruce, "Don't Tell the Whale Lovers," Forbes, October 20, 1997, pp. 153-154. The 2-inch long Antarctic krill, Euphausia superba, is waiting to be exploited, one of the world's last untapped resources. Schools of krill extend up to fifty miles square, the diet of great whales, seals, and penguins. A Canadian entrepreneur, David Saxby, has founded Biozyme Systems to
exploit the resource. Aquaculture is a $34 billion industry, and farmed fish have to be fed. If fed a diet laced with krill, fish eat better and more than with the present foods, often laced with anchovy. Bixby sold $3 million worth of krill in 1997, and hopes for $45 million worth next year. (v.8,#4)


Urbina, Ian, "Lake Cleanup To Be Ordered in Syracuse," New York Times, November 29, 2004, p. A21. Honeywell is being ordered by New York state authorities to dredge Onondaga Lake, because of mercury pollution there (and other toxics) going back to pollution caused by Allied Chemical, since merged with Honeywell. Estimated cost $448 million. But the cleanup standards are less stringent than would be imposed by the Environmental Protection Agency, which might cost $2.3 billion. (v.14, #4)

Uriarte, Maria, Holly A. Ewing, Valerie T. Eviner, and Kathleen C. Weathers. AConstructing a Broader and More Inclusive Value System in Science.@ BioScience Vol. 57, no. 1 (2007): 71-8. A scientific culture that welcomes a diversity of participants and addresses a broad range of questions is critical to the success of the scientific enterprise and essential for engaging the public in science. By favoring behaviors and practices that result in a narrow set of outcomes, our current scientific culture may lower the diversity of the scientific workforce, limit the range and relevance of scientific pursuits, and restrict the scope of interdisciplinary collaboration and public engagement. The scientific community will reach its full intellectual potential and secure public support through thorough, multi-tiered initiatives that aim to change individual and institutional behaviors, shift current reward structures to reflect a wider set of values, and explicitly consider societal benefits in the establishment of research agendas. We discuss some shortcomings and costs of the current value system and provide some guidelines for the development of initiatives that transcend such limitations.


US Fish and Wildlife, Endangered and Threatened Wildlife and Plants: Animal Candidate Review,


US Forest Service, *Managing Air Resources in the Rocky Mountain Region*. July 1993. Contains a section on "Wilderness Air Resource Management Philosophy" with fourteen premises of the study. 1. Wilderness is not merely a commodity for human use and consumption. Wilderness ecosystems have intrinsic values other than user/public concerns. 2. The objective of Wilderness management is to offer a natural user experience, rather than an enjoyable one. 3. All Wilderness components are equally important; none are of lesser value than others. 4. A Wilderness component is important even if users of the Wilderness are unaware of its existence. 5. All life forms are equally important. For example, microorganisms are as essential as elk or grizzly bears. 6. The goal of Wilderness management is to protect not only resources with immediate aesthetic appeal (i.e. sparkling clear streams) but also unseen ecological processes (such as natural biodiversity and gene pools." And more. Contact Dennis Haddow, Air Program Manager, U.S. Forest Service, Rocky Mountain Region, Box 25127, Lakewood, CO 80225-0127. (v4,#3)


Vaaarst, Mette, Lis Alban, Lisbeth Mogensen, Stig Milan, Thamsborg and Erik Steen Kristensen. "Health and Welfare in Danish Dairy Cattle in the Transition to Organic Production: Problems, Priorities and Perspectives." *Journal of Agricultural and Environmental Ethics* 10(2001):367-390. During the past few years, organic dairy farming has grown dramatically in Denmark. Consequently, an increasing number of people are encountering this method of production for the first time. Amongst these, many veterinarians have suddenly had to deal with organic herds in their home district, and, meeting examples of poor animal welfare, they have recently started to express some concerns.
Against this background, a so-called "Synthesis of Knowledge" project was initiated to examine the health and welfare of dairy cattle and the use of medication in the transition to organic production. The aim of the project was to investigate associated problems from the point of view of the dairy herd. Based on qualitative research interviews with vets and agricultural advisors, as well as focus group interviews with farmers who had recently converted from conventional to organic farming, an expert panel attempted to identify problem areas and possible solutions. The problems related to (a) the adjustment to new and unknown practices, (b) poor management in general, and (c) inappropriate legislation for organic farming.

One problem area was the rearing of dairy calves, particularly with regard to the establishment of postpartum relationships between cow and calf, group housing, and the grazing of young animals. A "natural life" was identified as being fundamental to organic animal husbandry. In terms of animal welfare, this concept can be understood as a way of living in which the calf is allowed to express its natural behavior and satisfy its natural needs. Essentially, the conditions needed for good calf welfare require the compatibility and interplay of elements from "nature" (the natural life; including opportunities to satisfy natural needs) and "culture" (farmer management skills; exercise of care). These elements should be balanced to ensure animal welfare in organic herds. Keywords: animal welfare, conversion, dairy calves, natural, organic dairy farming. The authors are in the Department for Animal Health and Welfare Danish Institute of Agricultural Sciences Research Centre, Foulum, Tjele, Netherlands. (JAEE)

Vacation Trends," The Christian Science Monitor 89 (11 July 1997): 10-11. Interesting statistics on vacationing. "Outdoors" accounts for 17%, of which 85% is camping; "State/National Parks," 10%. Travel is a $460 billion industry in the U.S., the third largest. Americans will make 230 million trips this summer. (v8,#2)

Vadnjal, Dan, and O'Connor, Martin, "What is the Value of Rangitoto Island?" Environmental Values 3(1994):369-380. Contingent Valuation has been promoted as a catch-all approach to environmental valuation. While there have been numerous attempts in recent years to place monetary values on environmental amenities, studies have often reported a high frequency of protest, zero, or inordinately large dollar-value responses. This paper reports on the results of a survey designed to obtain information on how people actually interpret questions of paying to avoid changes in their views of Rangitoto Island. Evidence suggests that the meaning respondents attach to the actual dollar values they offer or bid are inconsistent with the conventional logic that underlies Contingent Valuation. Instead, respondents might be seen to be expressing views about how things ought to be in society, and that is simply not right to develop Rangitoto Island. Vadnjal is at Darwin College, Cambridge. O'Connor is in the Department of Economics, University of Auckland, New Zealand. (EV)


before European settlement was a ‘pristine’ natural landscape has been largely replaced by the view that the precontact landscape was ‘humanized’ by native peoples. While having merit, the contemporary emphasis on ubiquitous human agency is overstated: large parts of the United States, particularly in the American West, may have been essentially natural, their landscapes characterized by processes of nature rather than people. Yosemite National Park is used here as an example to illustrate this point. The desire to visualize humanized landscapes in the pre-European era derives from social ideologies, rather than from careful assessment of ecological facts. Furthermore, those ideologies also monolithically stigmatize wilderness enthusiasm as superficial. The model of the pristine landscape has merit—its applicability in any given locale being an empirically testable proposition—and it should serve as a guide for management of natural areas” (Abstract, p. 231). In the Yosemite case, based on ecological and archaeological evidence, "even given the most generous interpretation of what was 'humanized,' much of the park was 'natural'—in the sense that its landscape characteristics were determined by natural processes" (p. 234). Vale is in geography, University of Wisconsin. For an opposite view see: Bonnicksen, Thomas M., America's Ancient Forests: From the Ice Age to the Age of Discovery (New York: John Wiley and Sons, 2000). (v.12,#4)


Valente, Christina M., and William D. Valente. *Introduction to Environmental Law and Policy: Protecting the Environment through Law.* St. Paul, MN: West Publishing Co., 1995. 441 pages. Hardcover. An excellent introduction that is half the length of the Plater et al volume (also by West Publishing), suitable for semester-length course. Both Valentes are at Villanova University; Christina Valente is also with the U.S. Environmental Protection Agency. (v6,#1)


van Wensveen, Louke, "Attunement: An Ecological Spin on the Virtue of Temperance,"
Philosophy in the Contemporary World 8 (Number 2, Fall-Winter 2001):67-78. Within an environmental virtue ethic belongs moderation for the sake of ecojustice. Named attunement, this virtue both resembles and differs from Aristotelian and Thomistic articulations of temperance. Principally expressed as frugality and moderation in diet, it includes: sensitivity to limits, acceptance of limits, joyous contentment, creativity, and readiness to sacrifice. Van Wensveen is in the Department of Theological Studies, Loyola Marymount University, Los Angeles.

van Bogaert, Louis-Jacques, "Sentence and Moral Standing," South African Journal of Philosophy 23(no. 3, 2004):292-301. Sentence is often used in the advocacy of animal rights and welfare, but sentence is not a simple but a complex phenomenon and requires closer analysis. Sentence is more than feeling pleasure and pain and pain is an inborn protection required to fit into the world rather than the substance of evil. Various accounts of the nature of sentience. Sentence is often altered or reduced by advocates to fit the argument. Sentence comes across a spectrum and in degrees. The emphasis on pain in sentience leads to misunderstanding. The paper also addresses issues in abortion. van Bogaert is in philosophy, University of Stellenbosch, South Africa.

Van Den Bergh, JCJM; Rietveld, P, "Reconsidering the Limits to World Population: Meta-analysis and Meta-prediction", BioScience 54 (no.3, 2004): 195-204(10). We performed a meta-analysis on the basis of 69 past studies that have assessed a limit to the world population. The estimates of this limit range from 0.5 billion to 1 x 1021 billion people. A meta-analysis allows us to see what overall picture emerges when different methods, limiting factors, levels of aggregation, and data are taken into account. Limiting factors for the world population include water availability, energy, carbon, forest products, nonrenewable resources, heat removal, photosynthetic capacity, and the availability of land for food production. Methods employed in the population studies include spatial extrapolation, modeling of multiple regions, temporal extrapolation, actual supply of a resource, hypothetical modeling, and dynamic systems modeling. Many studies rely on important assumptions about the level of technology, the energy intake per person, and the available arable land. The meta-analysis employs both descriptive statistics and regression analysis. We used the findings of these analyses to propose a number of meta-estimates of limits to world population. When taking all studies into account, the best point estimate is 7.7 billion people; the lower and upper bounds, given current technology, are 0.65 billion and 98 billion people, respectively. We offer a range of other conditional estimates as well. An important conclusion of this study is that recent predictions of stabilized world population levels for 2050 exceed several of our meta-estimates of a world population limit.


Van de Pitte, M. M. ""`The Female is Somewhat Duller': The Construction of the Sexes in Ornithological Literature." Environmental Ethics 20(1998):23-39. I review ornithological literature in order to demonstrate that conventions of description and illustration, as well as some aspects of biological theory relating to birds, put a strong focus on male birds. I criticize the sexist aspects of ornithology from the standpoint of recent feminist philosophy of science, establishing connections between the ways in which we view animals and the ways in which we view ourselves and arguing that it is costly to humans, specifically women, to suggest that females of the nonhuman species are biologically inadequate in relation to their male counterparts. Finally, I note that failure to notice and excise residual sexism in animal science also encourages people to be inattentive to and less considerate of a large and significant part of nature. I conclude with some suggestions for reform. Van de Pitte is in Philosophy, University of Alberta, Edmonton.

Van Putten, M., "Toward a New Environmental Insurgency," Bioscience 55(no.9, September

Van Wensveen, Louke, Dirty Virtues: The Emergence of Ecological Virtue Ethics. Prometheus Books, 2000. Careful attempt to marry environmental ethics and virtue ethics. Van Wensveen argues that there already exists a flourishing "virtue language" among environmental writers and activists. Her book attempts to describe this discourse and clarify its logic of justification. Particularly interesting is the way such an ecological virtue ethics ("EVE") both builds on and challenges traditional notions of virtue. Separate chapters focus on Murray Bookchin and Thomas Berry, representing two very different attempts to develop an EVE. Aristotelian, Thomistic and feminist perspectives on virtue are thoroughly canvassed. Van Wensveen insists that any viable ecological virtue ethics must be non-anthropocentric: human flourishing and non-human flourishing must both be taken into account in our actions. Indeed, these cannot be separated, since flourishing ecosystems provide the physical, intellectual and spiritual resources for true human flourishing.

Van Wensveen insists that any viable ecological virtue ethics must be non-anthropocentric: human flourishing and non-human flourishing must both be taken into account in our actions. Indeed, these cannot be separated, since flourishing ecosystems provide the physical, intellectual and spiritual resources for true human flourishing. (v.11,#1)


VanBueren (Van Bueren), Edith T. Lamerts and Paul C. Struik, "Integrity and Rights of Plants: Ethical Notions in Organic Plant Breeding and Propagation," Journal of Agricultural and Environmental Ethics 18(2005):479-493. Organic farming acknowledges the integrity of plants as an essential element of its natural approaches to crop production. For cultivated plants, integrity refers to their inherent nature, wholeness, completeness, species-specific characteristics, and their being in balance with their (organically farmed) environment, while accomplishing their natural aim. We argue that this integrity of plants has ethical value, distinguishing integrity of life, plant-typic integrity, genotypic integrity, and phenotypic integrity. We have developed qualitative criteria to ethically evaluate existing practices and have applied these criteria to assess whether current plant breeding and propagation techniques violate the integrity of crop plants. This process has resulted in a design of a holistic, scientific approach of organic plant breeding and seed production.

Our evaluation has met considerable criticism from mainstream crop scientists. We respond to the following questions: (1). Can ethics be incorporated into objective crop sciences? (2). What is the nature of the intrinsic value of plants in organic farming? We argue that criteria to take integrity into account can only be assessed from a holistic perspective and we show that a holistic approach is needed to design such ethical notions in a consistent way. Key words: integrity - intrinsic value - natural aim - naturalness - organic breeding - organic plant propagation - plant rights - respect. Van Bueren is at the Louis Bolk Institute, Driebergen, LA, The Netherlands. Struik is with the Plant Sciences Group, Crop and Weed Ecology, Wageningen University, Wageningen, The Netherlands. (JAEE)

vanBuren (van Buren), John. "Critical Environmental Hermeneutics." Environmental Ethics 17(1995):259-275. Local, national, and international conflicts over the use of forests between logging companies, governments, environmentalists, native peoples, local residents, recreationalists, and others--e.g., the controversy over the spotted owl in the old-growth forests of the Northwestern United States and over the rain forests in South America--have shown the need for philosophical reflection to help clarify the basic issues involved. Joining other philosophers who are addressing this problem, my own response takes the form of a sketch of
the rough outlines of a critical environmental hermeneutics. I apply hermeneutics, narrative theory, and critical theory to environmental ethics, and use this hermeneutical theory as a method to illuminate the "deep" underlying issues relating to the perception and use of forests. In applying this method, I first take up the analytical problem of identifying, clarifying, and ordering the different interpretive narratives about forests in terms of the underlying epistemological, ethical, and political issues involved. I then address the critical problem of deciding conflicts between these different interpretations of forests by working out a set of legitimation criteria to which all parties concerned would ideally be able to subscribe. van Buren is in the philosophy department, Fordham University. (EE)


denBELT (van den Belt), Henk, and Gremmen, Bart, "Between Precautionary Principle and "Sound Science": Distributing the Burdens of Proof," Journal of Agricultural and Environmental Ethics 15(no. 1, 2002):103-122. Opponents of biotechnology often invoke the Precautionary Principle to advance their cause, whereas biotech enthusiasts prefer to appeal to "sound science." Public authorities are still groping for a useful definition. A crucial issue in this debate is the distribution of the burden of proof among the parties favoring and opposing certain technological developments. Indeed, the debate on the significance and scope of the Precautionary Principle can be fruitfully re-framed as a debate on the proper division of burdens of proof. In this article, we attempt to arrive at a more refined way of thinking about this problem in order to escape from the existing polarization of views between "guilty until proven innocent" and "innocent until proven guilty." This way of thinking also enables a critical review of current demarcations between risk assessment and risk management, or science and politics, and of the morally laden controversy on the relative importance of type-I and type-II errors in statistical testing. KEY WORDS: biotechnology, burden of proof, Precautionary Principle, type-I and type-II errors. The authors are with Applied Philosophy, Wageningen, Netherlands. (JAEE)


Vandenkoomhuys, Phillippe et al, "Extensive Fungal Diversity in Plant Roots," Science 295(15 March 2002):2051. More biodiversity in surprising places, this time an extraordinary diversity of species inhabiting the roots of plants, from every major fungal group, including many unidentified species, and often involved in symbiotic relationships with the plants. The lead author is at the University of York, UK. (v.13,#2)


environmental ethics and green political theory: the oft-assumed division between those thinkers for whom humanitarian goals remain prominent but who situate them within a normative framework stressing environmental sustainability and those thinkers who reject any distinctively humanitarian interests as untenably anthropocentric. In posing the problem as a moral dilemma between feeding people and saving nature, light and dark green value theories are made to appear in stark contrast, with the former prescribing the delivery of food aid to relieve hunger-related suffering, and the latter rejecting that call. This supposed dilemma between feeding people and saving nature is a false one. The real problem is a moral elitism on the part of developed countries where an insidious form of selfishness overemphasizes the role of population and obscures the roles of highly variable rates of consumption upon current environmental ills. An examination of the exemplary case of food politics shows that the exaggerated differences in policy implications of these two value theories can be diminished and that there is potential for common cause. (EE)

Vanderheiden, Steve. "Rousseau, Cronon, and the Wilderness Idea." William Cronon has recently argued that the current debate concerning justifications for protecting wilderness relies upon conceptions of natural value premised upon a nature/society dualism that originated in older nature writing but which still animates contemporary thinking. This dualism, he argues, prevents adequate realization of the human and social places in nature, and is ultimately counterproductive to the task of articulating the proper relationship between humans and the natural world. While the origin of one of these conceptions of natural value (the frontier) can be traced back to Rousseau, I argue that Rousseau's writings reveal a far more complex and nuanced treatment of the value of nature in and for society (and the persons that compose it) than has thus far been acknowledged. Moreover, by unpacking several arguments made by Rousseau on behalf of the stewardship and accessibility of natural areas, one cannot only gain a more accurate view of Rousseau's environmental thought than is ordinarily recognized by authors who focus on his primitivism and anti-modern critique, but also some insights that may help bridge the nature/society dualism plaguing contemporary environmental ethics and noted by Cronon. Environmental Ethics 24(2002):169-188. (EE)


vanderHeijden (van der Heijden), Hein-Anton, "Ecological Restoration, Environmentalism and the Dutch Politics of `New Nature'," Environmental Values 14(2005):427-446. 'New nature' refers to the current practice in which ten thousands of hectares of superfluous agricultural lands are `given back to nature', compensating for the loss of `old nature' in other parts of the Netherlands. Around the issue of `new nature' two discourses have emerged. In each discourse different environmental values are emphasised: about what nature is or could be; about the relationship between nature, agriculture and development; about ecological mitigation, and so on. Whereas the Dutch branch of WWF is the most active promoter of the sectorial nature development discourse, environmental groups like Friends of the Earth try to weigh these sectorial interests against the background of increasing environmental degradation. van der Heijden is in political science, University of Amsterdam, The Netherlands. (EV)


conservation with local economic development. When linked as a world network, they create the possibility of a truly global approach to biodiversity research and preservation. (v8,#2)


t VanderMerwe (van der Merwe), W. L., "African Philosophy and Multiculturalism," South African Journal of Philosophy / Suid-Afrikaanse Tydskrif vir Wysbegeerte 16(no. 3, August 1997):73-78. African philosophy is multicultural and, though not unique in this respect, is significant as it exemplifies in a paradigmatic way the historical and cultural contingency or contextual particularity of philosophy. The increasing globalization of modern culture does not mean increasing cultural homogeneity; rather there is the extension of cultural differences and multicultural as a common feature of societies. This is a theme issue on identity, difference, and community. van der Merwe is at the University of Stellenbosch and editor of this journal. (Africa)

VanderMerwe (Van der Merwe), P. and Saayman, M., "Game farms as sustainable ecotourist attractions," Koedoe. (Research Journal, South African National Parks) 48(no. 2, 2005):1-10. Ecotourism is important in South Africa, including that on game farms, with about 7,000 in South Africa. Some 80% of wildlife conservation is taking place on private lands. Operators are concerned about sustainability. But they often do not work closely with the local community to develop partnerships in which the local community has a stake, and they often do not use local entrepreneurs in the development of their initiatives. The authors are in Tourism and Leisure Studies, North-West University, Potchefstroom Campus, Potchefstroom, South Africa.

VanderMerwe (Van der Merwe), CF 1990. Justice, Peace and the integrity of creation and the involvement of the church. Word and context 1:1, 16-25. (Africa)

vanderMey (van der Mey), Leo M. "Sustainable Development in Dutch Policy: A National Response to an International Appeal," The Journal of Environment and Development 4, no. 2 (Summer 1995): 205-. (v6,#4)


VanderRyn (Van der Ryn), Sim, and Stuart Cowan. Bringing Design to Life. Washington: Island Press, 1996. Case studies, images, and theory to envision how the living world and the humanly designed world can be rejoined by taking ecology as the basis for design. (v6,#4)

vanderSteen (van der Steen), Wim J. "The Demise of Monism and Pluralism in Environmental Ethics." Environmental Ethics 17(1995):209-220. Peter Wenz has recently distinguished various forms of moral pluralism in an effort to dissolve the controversy over monism and pluralism. I argue that the distinctions are not really helpful once the methodology and the substance of science are brought to bear on ethics. Theories in ethics and science alike are subject to context-dependent methodological trade-offs. Hence, the category of theories should be heterogeneous. Monism and pluralism are at cross-purposes since they endorse different unanalyzed notions of theory. Awareness of heterogeneity among theories is helpful in dismissing the controversy. van der Steen is in biology, Free University, Amsterdam. (EE)

vanderWal (van der Wal), G. A., *De omkering van de wereld: Achtergronden van de milieucrisis en het zinloosheidsbesef* [in Dutch: *Inverting the world: Backgrounds on the environmental crisis and the sense of loss of meaning*], Baarn: Ambo, 1996. An investigation the deeper causes of the environmental crisis and other problems to which modernity has given rise. Van de Wal is professor in environmental philosophy at the Erasmus University of Rotterdam, Netherlands. (v.11,#1)


VanDeVeer, Donald, "Interspecific Justice," *Inquiry* 22(1979):55-79. What treatment of animals is morally acceptable cannot be decided in any straightforward way by appeals to equal consideration of interests or to animal rights. One must survey a variety of proposals as to how we ought to adjudicate interspecific conflicts of interests--proposals that are both "speciesist" and "non-speciesist." A proposal is here defended as the most reasonable: two-factor egalitarianism, which incorporates (1) the level of importance (basic or peripheral) to each being in a conflict of interests, and (2) the psychological capacities of the parties whose interests conflict. This view is compared with the views of Tom Regan and Peter Singer. The view provides a non-anthropocentric basis for discounting the interests of sentient animals. VanDeVeer is in philosophy at North Carolina State University.

VanDeVeer, Donald, and Pierce, Christine, *The Environmental Ethics and Policy Book*. Wadsworth, 1998. Second edition. The editors have incorporated numerous suggestions from instructors using the book. The revision is significant. There are 29 new readings and new sections on Future Generations, Sustainability, and Corporate Responsibility. New "Sidelights" include: Obstacles to Reasoned Discussion, On Mt. Mitchell, Overpopulation or Over Consumption, Let's Transform the Military, A Resistance Movement of One's Own. Also new are an internet environmental resources section, glossary, and a geological time chart. This edition is in paperback and hopefully not as expensive as other Wadsworth titles. The editors are in philosophy at North Carolina State University. (v8,#2)


VanDeVeer, Donald and Christian Pierce, eds., *The Environmental Ethics and Policy Book: Philosophy, Ecology, Economics*. Belmont, CA: Wadsworth Publishing Co., 1994. 649 pages. Hardcover. $ 40.50. Features interdisciplinary crossovers between philosophy and politics and economics more than some of the others. Sections: I. An Introduction to Ethical Theory. II. Western Religions and Environmental Attitudes. III. The Other Animals. IV. Constructing an Environmental Ethic, divided into A: The Broader, Biotic Community, B: Approaches to Conflict Resolution, C: Deep Ecology and Social Ecology, and D. Ecofeminism. V. Economics, Ethics, and Ecology, divided into A. Letting the Market Decide, B. Cost-Benefit Analysis, and C. Ecological Sustainability. VI. Problems and Environmental Policies, divided into A. Human Population and Pressure on Resources, B. From the Commons to Property, C. Preserving Biodiversity, D. Forests and Wilderness, and E. Degrading the Planet. VII. Varieties of Activism. A wide ranging and well conceived text. Also a useful bibliography of medium length, with directions to more extensive bibliographies. One drawback is the price. It is only in hardcover at a list price of $ 40.50. Both authors are philosophers at North Carolina State University, and also the editors of People, Penguins, and Plastic Trees. (v4,#3)

VanDierendonck (Van Dierendonck), Machteld C., and De Vries, Michiel F. Wallis. "Ungulate Reintroductions: Experiences with the Takhi or Przewalski Horse (Equus ferus przewalskii) in Mongolia." *Conservation Biology* 10, no.3 (1996): 728. (v7, #3)

vanDommelen (van Dommelen), Ad van, ed. *Coping with Deliberate Release: The Limits of Risk Assessment*. Tilburg, The Netherlands: International Centre for Human and Public Affairs, 1996. 256 pages, index. ISBN 90-802139-4-2. Dfl 69,.- (Dutch guilders). The fifteen chapters of this volume are the concerted attempt of internationally distinguished authors from Europe, the United States and Japan to map promises and perils in the emerging social and political landscape of modern biotechnology. The limits of risk assessment in relation to the deliberate release of genetically modified organisms are addressed with regard to the 'Scientific Backgrounds' (Part I), the 'Regulatory Practice' (Part II), and the 'Political Conditions' (Part III). Contributions by Philip Regal, Sheldon Krimsky, Christine von Weizscker, Les Levidow, and others. (v7, #3)

vanDommelen (van Dommelen), A., "Precaution and the Methodological Status of Scientific (Un)certainty." *Journal of Agricultural and Environmental Ethics* 15(no. 1, 2002):123-139. An effective application of the Precautionary Principle (PP) hinges on the stipulation that, "a lack of scientific certainty shall not be used as a reason for postponing measures." The practical consequences of this expression are presently not clear enough in most contexts of use to enable constructive communication and therefore the PP is not sufficiently operational now. A pragmatic and fundamental methodology for understanding scientific (un)certainty in different practical contexts needs to be put in place to create a communicative basis for effective precaution. Lack of clarity about problem definition and problem ownership creates artificial controversies that will obstruct a precautionary approach. Given the fact that different practical contexts of scientific (un)certainty exist, it may seem from one context as if no precaution is warranted whereas concerns from another relevant context may suggest otherwise. Therefore, an integrative methodological framework for communicating about scientific (un)certainty is sorely needed in international policy-making. By putting a focus on the relevance of specified research questions for the objective of taking precaution, a communicative methodology may be adopted that is dedicated to the design properties of a sustainable future. Precaution cannot be operationalized without a methodological basis that allows for effective transparency and evades the stalemates of artificial controversy. Existing debate methodologies have so far not managed to accommodate these pressing demands. KEY WORDS: communication, controversy, debate, methodology, Precautionary Principle, transparency, uncertainty. van Dommelen is with the Institute for Environmental Studies, Amsterdam, The Netherlands. (JAEE)


VanDyke (Van Dyke), Fred, Mahan, David C., Sheldon, Joseph K., and Brand, Raymond H., *Redeeming Creation: The Biblical Basis for Environmental Stewardship*. Downer’s Grove, IL: InterVarsity Press, 1996. Four Christian biologists address the ecological crisis. (v.8,#4)

VanDyke (Van Dyke), Fred. "Between Heaven and Earth-Evangelical Engagement in Conservation." *Conservation Biology* 19 (no. 6, 2005), 1693-1696.


VanDyke, Jon M. (Van Dyke), Durwood Zaelke, and Grant Hewison, eds., *Freedom for the Seas in the Twenty-first Century: Ocean Governance and Environmental Harmony*. Washington, DC: Island Press, 1993. 430 pages. $27.50, paper. The contributors want to change the prevailing concept of freedom of the seas to that of freedom for the seas, where the primary goal is the protection of ecological vitality in ocean systems. Van Dyke is professor of law at the University of Hawaii, Daelke and Hewison are at the Center for International Environmental Law in Washington. (v4,#2) (v4,#3)


Vane-Wright, R. I., C. J. Humphries and P. H. Williams, "What to Protect?--Systematics and the Agony of Choice," *Biological Conservation* 55(1991):235-254. Note that this is a different journal from *Conservation Biology*; it is published in the UK. The authors propose an index of taxic diversity. This index is superior to the usual counts of species richness and abundance, because it incorporates factors of taxonomic distinctness and information encoded by cladistic relationships. Two species of rats contain less taxic diversity than a one species of rat and a panda. The index also gives attention to faunal and flora regions from which diversity originates. The index can be quantitatively expressed. Such an approach can be of vital importance in deciding what to protect and how to protect it, especially where we cannot protect everything and often have to act swiftly. The authors are with the Biodiversity Programme, Departments of Botany and Entomology, The Natural History Museum, London. (v3,#4)


vanHeerden (van Heerden), J., ed. *Lions and Leopards as Game Ranch Animals*. Proceedings of a Symposium, October 1997. Wildlife Group of the South African Veterinary Association. Onderstepoort, South Africa. 265 pages. Rand 110.00. U.S. $ 45.00. ISBN 1-875088-1. Ecotourism is a major and burgeoning industry in southern Africa, and tourists want to see the "Big Five": lion, leopard, elephant, buffalo, and rhino. "Game ranches," as they are called, offer tourists an opportunity to see them, with some puzzles about keeping wild animals within reasonably likely view of their customers. Twenty-six contributions to this issue. Biology of the predators and prey, interactions of predators with humans, capture and care techniques,
diseases, and conservation issues. (v.9,#3)

vanHeere, Daan, (van Heere) "Ecological Worries, Europe 1992," One World (World Council of Churches), No. 167, July 1991. Environmental concerns are still playing second fiddle to economic issues in the coming integration of Europe. The Single European Act comes into effect in full force in 1992 and brings with it ecological concerns, since the emphasis is on growth rather than sustainable development in a Europe already rather badly straining its environment. Plants are becoming extinct; polluted rivers and polluted air are the rule rather than the exception; in many places the land has been poisoned; the variety of animals is decreasing. The low priority given to environmental concerns in the process of European integration does not at all reflect European public opinion, however. One particular concern is that free traffic in a Europe without boundaries will greatly increase automotive pollution, including acid rain. (v2,#3)

Vanin, Cristina, "The Significance of the Incarnation for Ecological Theology: A Challenging Approach," Ecotheology Vol 6 (Jul 01/Jan 02):108-122. cdvanin@uwaterloo.ca In this paper I will examine James Nelson's work in sexual ethics, particularly his attention to the significance of the incarnation for human thinking about the body (James Nelson is professor of Christian Ethics at United Theological Seminary of the Twin Cities, Minnesota, USA). Nelson argues that what the incarnation implies for an adequate understanding of human sexuality, in fact, extends beyond human beings to include the whole of the created order. I will indicate briefly that his work on the experience of embodiment is in keeping with work done on the body by other Christian writers, such as Sallie McFague. While Nelson's work is situated within the larger conversation on the meaning of the body, I argue that his methodological insights offer a unique way to develop a theology that responds to the contemporary ecological crisis. Because it attends to the immediate and personal experience of alienation from the body, it can provide strong roots for the growth of an extensive ecological worldview.

VanKooten (Van Kooten), G. Cornelis, Land Economics and Sustainable Development: Economic Policies and the Common Good. Vancouver, BC: University of British Columbia Press. 450 pages. $ 49.95 Canadian, cloth. Much policy is not chosen to maximize the common welfare but for a mixture of policy goals. Van Kooten strongly favors market solutions to public policy problems, where these can be arranged. Government can only serve to facilitate such solutions; venturing further into the fray, government is likely to make things worse rather than better. The last section discusses ethics, religion, and philosophy in relation to natural resource management. (v5,#3)

VanLare (Van Lare), Paula, Growing Toward More Efficient Water Use: Linking Development, Infrastructure, and Drinking Water Policies. US: Environmental Protection Agency, Development, Community, and Environment Division (DCED), 2006. EPA 230-R-06-001. For a copy send e-mail to smartgrowth@epa.gov. Online at <www.epa.gov/smartgrowth>. Water and growth. I. The challenges of meeting demand for drinking water (requiring $263 billion over the next 20 years). II. Accommodating growth and minimizing its effects on water consumption and distribution. III. What water policies can support the wisest growth? The U.S. West, poor in water, is often the most consumptive, using per capita twice the national average. But cities in the East are finding themselves increasingly short of water, often limiting their growth. Well-written and researched, though with the expected EPA tendency to keep growth sacrosanct (i.e. "smart").

VanManen (van Manen), Frank T., Pelton, Michael R. "A GIS Model to Predict Black Bear Habitat Use," Journal of Forestry 95(no.8, 1997):6. (v8,#3)


VanRooijen (Van Rooijen), Jeroen, "Backgrounds of Students of Behavior in Relation to their Attitude Toward Animal Well-Being", Journal of Agricultural Ethics 2(1989):235-240. Knowledge of the backgrounds of students of behavior working in the field of applied animal behavior science may help to recognize their influence on conclusions reached in a particular study and on more general points of view. Some types considered are eco-ethologists, behaviorists, behavior physiologists, ethologists, and zootechnicians. Van Rooijen is the Netherlands.

VanRoon (Van Roon), Marjorie, and Stephen Knight, Ecological Context of Development: New Zealand Perspectives. New York: Oxford University Press, 2005. Environmental planning in New Zealand, with attention to ecological principles. The authors are at the University of Auckland.


vanTatenhove (van Tatenhove), Jan P.M., and Leroy, Pieter, "Environment and Participation in a Context of Political Modernisation," Environmental Values 12(2003): 155-174. This article discusses the relation between environment and participation in the context of different stages of political modernisation. We focus on the dynamics of environmental policy on the one hand, and the organisation of political participation on the other. The central argument is that participation is inextricably linked to environmental issues, but that their relation differs substantially over the various stages of the institutionalisation of environmental policy. While in the 1970s supplementary forms of participation dominated, the societalisation and marketisation of environmental policies from the late 1980s has given rise to new opportunities for participation, implying a more rule-altering potential. (EV)


VanWilgen (Van Wilgen), Brian W., Cowling, Richard M., Burgers, Chris J., "Valuation of Ecosystem Services", Bioscience, 46(No.3, 1996):184-. A case study from South African fynbos ecosystems. (v7,#1)

vanWyck (van Wyck), Peter C., Primitives in the Wilderness: Deep Ecology and the Missing Human Subject. Albany, NY: State University of New York Press, 1997. Deep ecology encounters contemporary social and cultural theory. van Wyck claims critically to expose deep ecology's essentialist and foundationalist commitments involving the Enlightenment, modernity, systems theory, anthropocentrism, the figure of wilderness, the trope of the primitive, and the imagined promise of posthistoric primitivism. Deep ecology (and much of contemporary environmental thought) has remained blind to the lessons (and possibilities) of contemporary social and poststructural theory. Haraway's figure of the cyborg and situated knowledges, Deleuze's conception of an image of thought, Foucault's panopticon, Trinh on ethnographic authority, Lingis on the "other," Torgovnick and Clastre on the primitive and power, and Vattimo's "weak thought"--all with a view to a better understanding of the human subject in environmental philosophy. van Wyck is a doctoral candidate at McGill University. (v8,#2)


Varandas Martins da Silva, Maria José, O Valor da Natureza: Caminhos para uma Ética Ecocentrada (Values in Nature: Toward an Ecocentric Morality). Faculdade de Letras da Universidade Clássica de Lisboa, 2000. M. A. thesis. In Portuguese. A semantic analysis of the concepts of intrinsic value, inherent value, and instrumental value in nature, within Greek philosophy, the Judeo-Christian tradition, and modern philosophy. Nature is conceived as a "dominum" and humans are entities apart from nature. The contemporary environmental crisis is a consequence of this worldview. Philosophy must rethink the relations between humans and nature and leave this closed anthropocentrism. Among environmental ethicists, Holmes Rolston, III and Baird Callicott have responded to the need for a genuine environmental ethics in which nature has intrinsic value. The "land ethic" is an ethic that can reconcile humans and nature, understanding humans as "being with" all that is. Authentic humanity has sensibility, sympathy, and compassion, qualities that are the basis of a genuine moral sense and an ethic of responsibility. (v.12,#4)

Vardy, Peter, and Grosch, Paul, The Puzzle of Ethics. Armonk, NY and London, UK: M. E. Sharpe, 1997. Earlier published in the UK in 1994 by Fount Paperbacks. A summary introduction to ethics. Chapter 16, "Animal Rights," is a short but competent introduction, featuring Peter Singer, and Bernard Williams in reply. Chapter 17 is "Environmental Ethics," the is/ought controversy, three categories of environmental ethics: (1) humanist theories, (2) biocentric theories, and (3) eco-holistic theories; Bernard Williams' account. Vardy and Grosch conclude: "Any talk of environmental ethics is bound, to a greater or lesser extent, to be anthropocentric, or human-centered, for the simple reason that philosophy in general and moral reasoning in particular are straightforward human activities. ... Therefore our concern for the environment is bound to be human-centered" (p. 224). Vardy is in philosophy at Heythrop College, London University. Grosch is in philosophy at the College of St. Mark and St. John, Plymouth, UK. (v9,#2)

Vardy, Peter, and Grosch, Paul, The Puzzle of Ethics. Armonk, NY: M. E. Sharpe, Inc., 1997. 238 pages. $ 18.95. Chapter 16 is Animal Rights; Chapter 17 is Environmental Ethics. Vardy is at the University of London. Grosch is at the College of St. Mark and St. John, Plymouth, UK. (v9,#1)


Varner, Gary E., "Environmental Law and the Eclipse of Land as Private Property," in Frederick Ferré and Peter Hartel, eds., Ethics and Environmental Policy (Athens, GA: University of Georgia Press, 1994), pages 142-160. As environmental laws and regulations proliferate, we increasingly treat land as a public resource owned in common and held by individuals only a stewardship or trust capacity. With particular discussion of Lucas v. South Carolina Coastal Commission. Also discussion of the takings controversy. The notion that ecological processes ought to be regarded as public goods like air, oceans, and wildlife, which all individuals have a right to use, allows us to construe environmental regulation as an exercise of police power, as designed to prevent harm. But what is really left of the concept of land as private property after
we have done this? Varner is in philosophy and humanities at the Center for Biotechnology Policy and Ethics, Texas A&M University, College Station.

Varner, Gary E. "No Holism without Pluralism." Environmental Ethics 13(1991):175-79. In his recent essay on moral pluralism in environmental ethics, J. Baird Callicott exaggerates the advantages of monism, ignoring the environmentally unsound implications of Leopold's holism. In addition, he fails to see that Leopold's view requires the same kind of intellectual schizophrenia for which he criticizes the version of moral pluralism advocated by Christopher D. Stone in Earth and Other Ethics. If it is plausible to say that holistic entities like ecosystems are directly morally considerable--and that is a very big if--it must be for a very different reason than is usually given for saying that individual human beings are directly morally considerable. Varner is in the philosophy department, Texas A & M University, College Station, TX. (EE)


Varner, Gary, In Nature's Interests? Interests, Animal Rights, and Environmental Ethics. New York: Oxford University Press, 1998. 154 pages. $39.95. Varner characterizes "two dogmas of environmental ethics": the assumptions that animal rights philosophies and anthropocentric views are each antithetical to sound environmental policy. Beginning from the view that all and only entities with interests have moral standing, Varner defends a biocentric individualist stance with affinities to both animal rights and anthropocentric views. He argues that every living organism has interests which ought, other things being equal, to be protected, but that some interests take priority over others. In particular, he defends a sentientist principle giving priority to the lives of animals with conscious desires and an anthropocentric principle giving priority to certain very inclusive interests which only humans have. He then shows that these principles are not only consistent with, but provide significant support for, the goals on the environmentalist agenda. Along the way, Varner surveys problems facing attempts to develop a holistic environmental ethic, provides a careful analysis of the notion of desire and its scope in the animal kingdom, and improves upon available arguments for the claim that nonconscious organisms possess morally significant interests. (v.9,#3)

Varner, Gary E., "What's Wrong With Animal By-Products?", Journal of Agricultural and Environmental Ethics 7(1994):7-18. The question, "What (if anything) is wrong with animal by-products?" cannot always be adequately answered by looking at the conditions under which animals live out their productive lives. If we look beyond the conditions under which milk cows live, we can better understand some animal rights activists' reasons for objecting to dairy products. Today, beef slaughter is vastly more humane than poultry slaughter, but if beef slaughter industry is judged immoral, the contemporary dairy industry should be judged similarly immoral, because the two are wedded. Varner is in philosophy and humanities at the Center for Biotechnology Policy and Ethics, Texas A&M University, College Station.

Varner, G. E., John Lemons, and Donald A. Brown. "Congress, Consistency, and Environmental Law." Environmental Ethics 12(1990):311-27. In passing the National Environmental Policy Act of 1969 (NEPA), Congress committed the nation to an ethical principle of living in "productive and enjoyable harmony" with the natural environment. Thus understood, NEPA can be given either (1) a technology-forcing interpretation or (2) an intelligent decision-making interpretation. We argue that in its subsequent decision to site a high-level nuclear waste repository at Yucca Mountain, Nevada, Congress acted inconsistently with this principle under either interpretation. We conclude that for the foreseeable future, the only way to handle the nation's nuclear wastes consistent with the environmental goal enunciated in NEPA is to leave them in temporary surface storage facilities, prohibit the licensing of any new nuclear power plants, and take all appropriate steps to reduce the nuclear weapons industry. Varner is in the philosophy department, Texas A & M University, College Station, TX. (EE)
Varner, Gary E., "Biological Functions and Biological Interests," *Southern Journal of Philosophy* 28 (Summer 1990): 251-271. Varner defends the empirical claim that plants have needs in some sense in which simple artifacts do not, and the normative claim that those needs qualify plants for direct moral consideration. Using the concept of a biological function, we can specify, in a nonarbitrary way, what is and is not in the "biological interests" of a plant, and we can say that plants have interests without implying that simple artifacts do. Certain inadequacies of the dominant mental state theory of individual welfare suggest that such "biological interests" are morally genuine interests, which qualify their possessor for direct moral consideration. Varner critiques and attempts to improve on work by Goodpaster, Taylor, and others, showing that these authors have not paid sufficient attention to the philosophy of biology and as a consequence none has as yet identified a genuine distinction consistent with contemporary philosophy of biology that allows us to attribute interests to a non-conscious organism without implying that simple artifacts do also. Varner is Visiting Assistant Professor in the Department of Philosophy at Texas A & M University.

Varner, Gary E., *Interests: Their Nature, Scope, and Significance*, 1988, University of Wisconsin-Madison, Ph.D. thesis. Moral agents have direct, prima facie duties toward any entity that has interests. Preference interests are probably present in all animals with a functional prefrontal cortex, and probably not present in any non-mammalian creature. Having desires does not require having true language of the kind that humans have. All and only individual living organisms have welfare interests, analyzed on the model of needs. Such a view is not impracticable but there are practicable means of adjudicating such interests. Desires ought to be given preference over biologically defined needs and the "ground projects" of humans ought to be given precedence over all interests of non-human beings. Still, humans as moral agents can, on consideration of the interests of non-human creatures, sometimes accommodate these interests. The thesis advisor was Jon H. Moline. Varner teaches philosophy at Texas A and M University.


Varner, Gary, "The Prospects for Consensus and Convergence in the Animal Rights Debate," *Hastings Center Report* 24 (no. 1, 1994): 24-28. Those who conduct research on animals and those who advocate on behalf of animals have more in common than is generally supposed. The apparent intransigence of opposing parties is more a function of political posturing than theoretical necessity, and continuing to paint the situation as a standoff serves the interests of neither side. A critical look at the philosophical bases of the animal rights movement reveals surprising potential for convergence (agreement at the level of policy despite disagreement at the level of moral theory) and, in some cases, consensus (agreement at both levels. Recognizing this should make defenders of animal research take animal rights views more seriously and could refocus the animal rights debate in a constructive way. Varner is in philosophy at Texas A & M University.

Varner, Gary E. "Do Species Have Standing?" *Environmental Ethics* 9(1987):57-72. In a recent article Christopher D. Stone has effectively withdrawn his proposal that natural objects be granted legal rights, in response to criticism from the Feinberg/McCloskey camp. Stone now favors a weaker proposal that natural objects be granted what he calls legal considerateness. I argue that Stone's retreat is both unnecessary and undesirable. I develop the notion of a *de facto* legal right and argue that species already have legal rights as statutory beneficiaries of the Endangered Species Act of 1973. I conclude that granting certain nonhuman natural entities legal rights is both more important and less costly than Stone and his critics have realized, and that it is not Stone's original proposal which needs rethinking, but the concept of interests at work in the Feinberg/McCloskey position. Varner is in the philosophy department, University of Wisconsin, Madison, WI. (EE)
Varner, Gary E. "The Schopenhauerian Challenge in Environmental Ethics." *Environmental Ethics* 7(1985):209-29. Environmental holism and environmental individualism are based on incompatible notions of moral considerability, and yield incompatible results. For Schopenhauer, every intelligible character--every irreducible instance of formative nature--defines a distinct moral patient, and for him both holistic entities and the individual members of higher species have distinguishable intelligible characters. Schopenhauer's neglected metaethics thus can be used to generate an environmental ethics which is complete in the sense of synthesizing holism and individualism while simultaneously meeting Tom Regan's (implicit) demand that an environmental ethics make moral patients of natural objects. Varner is in the philosophy department, University of Wisconsin, Madison, WI. (EE)


Varner, Gary E., "In Defense of the Vegan Ideal: Rhetoric and Bias in the Nutritional Literature", *Journal of Agricultural and Environmental Ethics* 7(1994):29-40. Much of the scientific literature on vegetarian nutrition leaves one with the impression that vegan diets are significantly more risky than omnivorous ones, especially for individuals with high metabolic demands (such as pregnant or lactating women and children). But nutritional researchers have tended to skew their study populations toward "new vegetarians", members of religious sects with especially restrictive diets and tendencies to eschew fortified foods and medical care, and these are arguable the last people we would expect to thrive on vegan diets. And, in spite of these methodological and rhetorical biases, for every nutrient which vegans are warned to be cognizant of, there is reason to believe that they are not significantly greater risk of nutritional deficiency than omnivores. Varner is in philosophy and humanities and biotechnology policy/ethics at Texas A&M University, College Station.


Varner, Gary E., "The Takings Issue and the Human-Nature Dichotomy," *Human Ecology Review* 3(no. 1, 1996):12-15. The wise-use movement's position on takings compensation depends on an implausible separation of humans from the ecosystems on which we depend. They call for compensation when environmental regulation is forced upon them, even when such regulation is protecting ecosystemic goods and preventing their harm to others. Environmentalists (advocating regulation) are insisting on harmonious human relationships with nature. Varner is in philosophy, Texas A&M. (v.13,#1)


Varner, Gary. "The Environmentalists' Conception of Harm to Others." In Larry D. White, ed., *Private Property Rights and Responsibilities of Rangeland Owners and Managers*, pp. 55-59. College Station, Texas: Texas A&M University, 1995. Proceedings from a conference of the Texas Section of the Society for Range Management. Eminent domain is used to secure some public good. Police power is used to prevent harm to others. Wetlands and endangered species legislation can be construed as designed to prevent harm to others, but some conceptual work
here remains to be done. There is a need to draw better analogies with traditionally recognized public goods put in jeopardy by adverse land uses, also a need to stress the way general trends in land management can adversely affect ecological processes when the actions of private individuals would not. Varner teaches philosophy at Texas A&M University. (v6,#3)

Varner, Gary. "The Takings Issue and the Human-Nature Dichotomy," Human Ecology Review 3, 1 (Autumn 1996): 12-15. Environmentalists are sometimes criticized for implausibly separating human beings from nature. However, in the debate between the "wise-use" and environmental movements, it is the proponents of "wise-use," not the environmentalists, who implausibly divide human beings from nature. The "wise-use" movement calls for landowners to be compensated whenever environmental regulations reduce the economic value of their land. However, a well-established principle of Constitutional law is that compensation is not required if the regulations prevent harm to others. Insofar as they can plausibly be construed as preventing harm to others, then, environmental regulations can be enforced without running afoul of the just compensation clause of the Fifth Amendment. Varner argues that while the public trust doctrine of U.S. common law can be extended to cover ecological processes on which the long-term well-being of the nation and its people depend, environmentalists must do a better job of articulating how this is so. In doing so, environmentalists will show that the wise use movement's position depends on an implausible separation of humans from the ecosystems on which they depend. Varner teaches philosophy at Texas A&M University. (v8,#1)


Varzi, Achille C., "Vagueness in geography," Philosophy and Geography 4 (No. 1, 2001): 49-65. Some have argued that the vagueness exhibited by geographic names and descriptions such as 'Albuquerque', 'the Outback', or 'Mount Everest' is ultimately ontological: these terms are vague because they refer to vague objects, objects with fuzzy boundaries. I take the opposite stand and hold the view that geographic vagueness is exclusively semantic, or conceptual at large. There is no such thing as a vague mountain. Rather, there are many things where we conceive a mountain to be, each with its precise boundary, and when we say 'Everest' we are just being vague as to which thing we are referring to. This paper defends this view against some plausible objections. Varzi is Associate Professor of philosophy at Columbia University. (P&G)


the Institute of Philosophy, Russian Academy of Sciences, and is recently deceased; Ernolaeva is a researcher with that Institute. (v4,#3)

Vasilenko, L. I., "Ecological Ethics, from Naturalism to Philosophical Personalism" (in Russian), Voprosy Filosofii (Questions of Philosophy), Issue 3, 1995, pages 37-42. (v.10,#3)

Vaske, Jerre J., Donnelly, Maureen P., Williams, Daniel R., and Jonker, Sandra, "Demographic Influences on Environmental Value Orientations and Normative Beliefs about National Forest Management," Society and Natural Resources 14(2001):761-776. In a survey of Colorado residents, a biocentric/anthropocentric value orientation continuum predicts respondents' norms toward national forest management. Individuals who have lived longer in the state and those with more income tend to be more anthropocentric. Females and those with higher education levels tend to be more biocentric. Donnelly, and Jonker are in the Department of Natural Resource Recreation and Tourism, Colorado State University. Williams is at the Rocky Mountain Research Station, US Forest Service, Fort Collins, CO. (v.13,#3)


Vatn, Arild. "The Environment as a Commodity." Environmental Values 9(2000):493-509. Abstract: This paper addresses problems related to transferring market concepts to non-market domains. More specifically it is about fallacies following from the use of the commodity concept in environmental valuation studies. First of all, the standard practice tends to misconstrue the ethical aspects related to environmental choices by forcing them into becoming ordinary trade-off problems. Second, the commodity perspective ignores important technical interdependencies within the environment and the relational character of environmental goods. These are all properties that have made many such goods escape the commoditisation pressure of markets in the first place. Further, it is shown that these interdependencies are the source of some of the ethical dilemmas observed. Finally, inherent characteristics of the environment tend to make the concept of the margin, so indispensable to economic calculus, either difficult or irrelevant to define. The commodity 'fiction' twists the perception of the environment from systems preservation to items use or transformation. This is a problem of increased importance as we approach potential systems perturbations. Keywords: Economic theory, environmental ethics, systems theory, valuation. Arild Vatn is in the Department of Economics and Social Sciences, Agricultural University of Norway, Postbox 5033, 1432 Aas, Norway. (EV)


Vaughan, Ray, Essentials of Environmental Law. Rockville, Md: Government Institutes, 1994. 182 pages. Paper. $ 42. Good book but considerably overpriced. Federal statutes that limit government and industry action. Natural resource laws. Wildlife laws. State laws and regulations. Toxic torts. How to identify and resolve environmental problems. "In essence, the most fundamental measure of any environmental legal system will be how we human beings view our fellow earthlings and what we are willing to do for them and their survival even when there is no readily apparent corresponding benefit for ourselves. Even in the one law most designed to address the decline of other species, the Endangered Species Act, we have not truly attempted to address what value a species is in and of itself and what value another species may put on us. The fundamental ethics of an honest and open relationship with the Earth, other species, and even our fellow human beings have not been attempted in environmental laws, and so, those laws fail to truly protect the environment and other beings. Consequently, those laws also fail to protect human beings at anything more than a rudimentary level of insuring survival of our species and of insuring the economic vitality of society" (Preface). Vaughan is an environmental lawyer in Alabama. This publisher also publishes state environmental law handbooks to almost all of the states. (v5,#4)


Väyrynen, Kari, "Virtue Ethics and the Material Values of Nature," Philosophy in the Contemporary World 8 (Number 2, Fall-Winter 2001):137-148. For Aristotle, man is part of nature, a "political animal" with the faculty of reason. In this sense, Aristotelian virtue ethics can be said to relate virtues to nature. On the one hand, virtues lean on the natural dispositions of man as a social animal. On the other hand, virtues are connected to praxis, that is, with man's active realization of his inherent biological, social and cultural potential.Recently, the material value ethics of Max Scheler and Nicolai Hartmann developed the Aristotelian tradition in a naturalistic direction, posing the problem of the value of life and connecting this question to the question of virtue. Virtues sensitize us to values and are, therefore, especially important for ethical praxis. I claim that precisely because of its historical and cultural concreteness, virtue ethics can be successfully applied to environmental issues. In critical connection with common mentalities, naturalistic virtue ethics can be a politically effective way of ethical thinking.Vayrynen is in the Department of History, Academy of Finland, Oulu, Finland. (v.13,#2)


Veatch, Robert M., Gaylin, Willard, Steinbock, Bonnie. "Can the Moral Commons Survive
Autonomy?", The Hastings Center Report 26(no.6, 1996):41. (v7,#4)


Verbeek, Bernhard: "Kultur: Die Fortsetzung der Evolution mit anderen Mitteln (in German: Culture: The Continuation of Evolution with different means), Natur und Kultur 1 (No. 1, 2000):3-16. Genetic programmes generate human brains; these induce psyches which interact and produce a new type of evolutionary phenomenon: culture. It is true that the existence of culture depends on genetic programmes, which are hostile to alteration, but changes in culture neither depend strictly on new generations nor on changes in genes. A result of this is the breathtaking alteration of planet earth. The tree of those parts of culture which are the same all over the world still blossoms, but it will saw itself off its roots, if the accelerated culture continues processing in blind haste as the organismic evolution. (v.11,#2)

Verburg, Rudi M. and Vincent Wiegel. "On the Compatibility of Sustainability and Economic Growth." Environmental Ethics 19(1997):247-265. It is generally assumed that sustainable development and economic growth are compatible objectives. Because this assumption has been left unspecified, the debate on sustainability and growth has remained vague and confusing. Attempts at specification not only involve clarification of the interrelation of the two concepts, but also, we argue, require a philosophical approach in which the concepts of sustainability and economic growth are analyzed in the context of our frame of reference. We suggest that if the notion of sustainability is to be taken seriously, the conflicting conceptual and normative orientations between the two concepts require the reconsideration of our frame of reference. Verburg and Wiegel are both in economics and philosophy at Erasmus University, Rotterdam, The Netherlands. (EE)


Verhoog, H. "The Concept of Intrinsic Value and Transgenic Animals", Journal of Agricultural and Environmental Ethics 5(1992):147-160. Much has already been written on the concept of "intrinsic value", but until now not in connection with biotechnology in general and the creation of so-called "transgenic organisms" in particular. I will concentrate on transgenic animals in this paper. The creation of transgenic animals by means of modern techniques of genetic manipulation is evaluated in the light of different interpretations of the concept of intrinsic value: zoocentric interpretation, biocentric or ecocentric approach. Verhoog is in the Institute of Theoretical Biology, Leiden University, The Netherlands.

Verhoog, Henk, Matze, Mirjam, Van Bueren, Edith Lammerts, and Baars, Ton, "The role of the concept of the natural (naturalness) in organic farming," Journal of Agricultural
Producers, traders, and consumers of organic food regularly use the concept of the natural (naturalness) to characterize organic agriculture and or organic food, in contrast to the unnaturalness of conventional agriculture. Critics sometimes argue that such use lacks any rational (scientific) basis and only refers to sentiment. In our project, we made an attempt to clarify the content and the use of the concepts of nature and naturalness in organic agriculture, to relate this conception to discussions within bioethical literature, and to draw the implications for agricultural practice and policy.

We conclude that the idea of "naturalness" can be used to characterize organic agriculture and to distinguish it from conventional agriculture, but only if naturalness not only refers to not using chemicals but also to ecological principles and respect for the integrity of life. Thus perceived, the principle of naturalness can also serve as a guide to future developments in the field of organic agriculture. As part of the holocentric ethics of organic farming the value of naturalness has three dimensions: a cognitive one, an emotive one, and a normative one. KEY WORDS: concept of nature and naturalness, environment, ethics, farm ecology, integrity of life, organic agriculture and food. (JAEE)

Verissimo, Adalberto, Cochrane, Mark A., and Sousa, Jr., Carlos, "National Forests in the Amazon," Science 297(20 August 2002):1478. Brazil has vast natural resources and a great need for economic development. The Brazilian government is planning to balance Amazonian development with a new forest policy involving managed timber production and a greatly expanded system of National Forests (Flonas). By 2010, 40 million hectares of new Flonas will be created, an area as large as Spain. The scale of this initiative is equivalent to the 1908 establishment of the U.S. National Forest system and is unprecedented in the tropics. The authors are with the Instituto do Homen e Meio Ambiente da Amazônia, Belém, Brazil. (v.13,#4)

Vermeij, Geerat J., Nature: An Economic History. Princeton, NJ: Princeton University Press, 2004, 2006. The universal truth on Earth is that organisms compete for scarce resources, and this universal truth unites three disciplines: economics, evolution, and cultural history, disciplines that otherwise have developed in mutual isolation. All three competitive processes develop cooperation, adaptation, and feedback. Historical patterns in both human and nonhuman evolution follow from this principle. Vermeij is in geology, University of California, Davis.


Vermeir, Iris, and Wim Verbeke, "Sustainable Food Consumption: Exploring the Consumer 'Attitude - Behavioral Intention' Gap," Journal of Agricultural and Environmental Ethics 19(2006):169-194. Although public interest in sustainability increases and consumer attitudes are mainly positive, behavioral patterns are not univocally consistent with attitudes. This study investigates the presumed gap between favorable attitude towards sustainable behavior and behavioral intention to purchase sustainable food products. The impact of involvement, perceived availability, certainty, perceived consumer effectiveness (PCE), values, and social norms on consumers' attitudes and intentions towards sustainable food products is analyzed. The empirical research builds on a survey with a sample of 456 young consumers, using a questionnaire and an experimental design with manipulation of key constructs through showing advertisements for sustainable dairy. Involvement with sustainability, certainty, and PCE have a significant positive impact on attitude towards buying sustainable dairy products, which in turn correlates strongly with intention to buy. Low perceived availability of sustainable products explains why intentions to buy remain low, although attitudes might be positive. On the reverse side, experiencing social pressure from peers (social norm) explains intentions to buy, despite rather negative personal attitudes. This study shows that more sustainable and ethical food consumption can be stimulated through raising involvement, PCE, certainty, social norms, and perceived availability.

Keywords: attitude - behavior - consumer - food - sustainable consumption. Vermeir is in Department of Business Administration, Hogeschool Gent, Gent, Belgium. Verbeke is in the
Versfeld, Martin (Marthinus) (1909-1995), "On the Rights of Man and the Rights of Rocks," pp. 199-209 in Versfeld, Sum: Selected Works. Cape Town: The Carrefour Press, 1991. (The title: Sum is from Descartes’ Cogito, ergo sum.) Earlier, privately printed. “We were to hear a lot about the rights of man the developer and nothing about the rights of rocks. But this attitude to nature does not seem to me to make sense. It is highly artificial. In our ordinary experience, rocks have character and individuality and answer back. I know a sandstone wall where every rock speaks out its name. Stones sparkle with a manifold difference ... I submit that one can't write off the whole tradition of sacred stones and places ... as though it were simply due to a pre-scientific ignorance. ... Rocks, then, have enjoyed a good deal of reverence. If you see them at Stonehenge or Carnac the word ‘enjoy' does not seem entirely misplaced. Perhaps it is not so much a case of anthropomorphism as of symbiosis, a kind of life in rocks which our ancestors sensed when they maintained that some megaliths walked.” Versfeld taught philosophy for many years at the University of Cape Town. (v6,#3)

Versfeld, Martin (Marthinus) (1909-1995), "The Egology of Ecology," pp. 221-230 in Versfeld, Sum: Selected Works. Cape Town: The Carrefour Press, 1991. What it means to be an "ego" in an "eco-system." The ego is an unreal self, a self-enclosed inner world; but the self is in reality always in an environment, which contains other humans and their artifacts, but also a natural world. "Real conservation is the freeing of Being, and it has its source and end in the freeing of inner being." "It will not profit us to gain the whole world if we do not creatively conserve ourselves." "When you chop down a tree, make sure that you are not chopping down the tree of life, the Paradise Tree." "Realize that you are not in the body, but the body in you, and the outer world, which is continuous with your body, shares in your salvation.” Versfeld taught philosophy for many years at the University of Cape Town.


Vesilind, P. Aarne, "Vestal virgins and engineering ethics," Ethics and the Environment 7(2002):92-101. Professional engineers are bound, by their code of ethics, to place paramount the health, safety, and welfare of the public. If the "public" includes future people, then the engineer is also morally responsible for not destroying the supporting environment that will make future generations possible. In this essay I suggest that the present engineering codes of ethics are inadequate in addressing the problem of maintaining environmental quality. Engineers can, while staying well within the bounds of the present codes of ethics, destroy or modify the environments that support the global ecosystem and in such manner kill future humans on a grand scale. The moral responsibilities of engineers must therefore include the commitment to provide a high quality and sustainable environment for future generations and this requires that the engineering codes of ethics be modified to encourage engineers to make decisions that promote environmental stability and sustainability. (E&E)

Vest, Jay Hansford C. "The Philosophical Significance of Wilderness Solitude." Environmental Ethics 9(1987):303-30. With the enactment of the Wilderness Act, wilderness solitude has become a major issue in the assessment and designation of wilderness areas. Interpreting this solitude criterion to mean loneliness, federal agencies have judged wildlands according to their "isolation potential." This perspective is highly inaccurate given the etymological derivation of solitude--"soul-mood." Wilderness solitude is in fact a communion with wild nature. Philosophically it reflects a wilderness episteme and land aesthetic grounded in organicism. The natural aesthetic categories of Sole--the rare or unique --and the Sublime properly reflect the intent of wilderness solitude in cognitive experience. The result of this experience is an "at-one-ment" with wild nature affirming religious rapture and ecological egalitarianism. Consequently, federal agencies ought to employ wilderness review criteria grounded in natural aesthetic theory. Vest is a visiting scholar in the department of religious studies, University of Montana, Lolo, MT. (EE)


Vickery, Jim Dale, "A Necessary Violence," Backpacker, October 1993. The author lives in a lakeside cabin near the Boundary Waters Canoe Area in Minnesota. There are deer near his cabin, whom he has given names, and one afternoon he watches a wolf attack a deer but fail to kill it. Thinking about the deer's suffering, sixteen hours later he decides to mercy-kill it. "It's okay," I said softly to the yearling, then cocked my gun and aimed it at her forehead. Her eyes were clear and soft, resigned yet aware of our mutual recognition of imminent death. She never took her eyes off mine as I apologized in my heart. A connection was made, some heightened pack deep and everlasting, one we alone would know, as I followed through with what I had to do." He follows those who eat the carcass. "The yearling was becoming raven and wolf, flowing back into the land." (v4,#4)

Victor, David G., Raustiala, Kal, Skolnikoff, Eugene B., eds. The Implementation and Effectiveness of International Environmental Commitments: Theory and Practice. Cambridge, MA: MIT Press, 1998. 686 pp. Paper $25, Cloth $50. Contributors examine how international environmental agreements are put into practice. Their main concern is effectiveness--the degree to which such agreements lead to changes in behavior that help to solve environmental problems. Their focus is on implementation--the process that turns commitments into action. (v.9,#4)


Vicotorin-Vangerud, Nancy M., "The Sacred Edge: Seascape as Spiritual Resource for an Australian Eco-eschatology," Ecotheology Vol 6 (Jul 01/Jan 02):167-185. n.victorin-vangerud@central.murdoch.edu.au In the Australian context, the desert or bush landscape has provided the primary sense of place for spiritual and ecotheological reflection. But what is it
about Australians and the sea? This exploration makes the case that a spiritual sense of place as seascape can inform the constructive work of Australian eco-eschatology. By shifting perspectives from desert fathers to ocean mothers, an alternative spiritual map can be imagined that renames the geographical margins as a sacred edge. Through the ocean-wisdom of life’s risk, fluidity and dynamic openness, the article explores the critical construction of an eco-eschatology of dis/closive possibility.


Vilkka, Leena, The Varieties of Intrinsic Value in Nature: A Naturistic Approach to Environmental Philosophy (in English). Ph.D. thesis at the University of Helsinki, November 1995. The thesis examines the varieties of intrinsic value in nature proposed by various philosophers and then progressively defends an animal-centered philosophy (zoocentrism), a life centered-philosophy (biocentrism) and an ecosystem-centered philosophy (ecocentrism), culminating in a defense of objective intrinsic value in nature and of the rights of animals. The thesis has been published in Finland, in a limited edition, and was published in 1997 by Editions Rodopi (Amsterdam/Atlanta) in their Value Inquiry Book Series, Robert Ginsburg, editor. This is the first Ph.D. thesis in Finland in environmental philosophy. (v7,#1)

and Opetusministeriö (Ministry of Environment), 1993. 68 pages. Puts together three different groups: the academic level, government professionals, and politicians, asking what Finnish forests might be in fifty years. Forests as related to Finnish social development. Short articles. Statistics. A section on the aesthetic value of forests, on the Finnish national identity and their forests, forests and economics, and the multiple values in forests. (v5,#2) (Finland)


Vilkka, Leena, "Respect for Animals: A Zoocentric Theory of Animals' Rights." Paper presented at the World Vegetarian Congress, August 8-13, 1994, in Holland. There are three basic attitudes to nature: technocentrism, anthropocentrism, and naturocentrism. There are three nature-centered positions: zoocentrism, stressing sentience, biocentrism, stressing respect for all life, and physiocentrism, stressing the well-being of the planet Earth. Zoocentrism requires respect for animals, and takes animal suffering into moral account, though one ought also morally to consider the well-being of nonsentient nature. Copy available from the author, address above. (v5,#2) (Finland)


Vilkka, Leena, "Should We Preserve Intrinsic Values in Wilderness?" Pages 160-175 in Anna-Liisa Sippola, Pirjo Alaraudanjoki, Bruce Forbes and Ville Hallikainen, eds., *Northern Wilderness Areas: Ecology, Sustainability, Values* (Rovaniemi, Finland: University of Lapland, Arctic Centre, 1995). In a volume resulting from the International Conference on Northern Wilderness Areas held there in December 1994. According to anthropocentrism, humans can value wilderness for its own sake, but nature is valueless without human valuers. From the naturocentric point of view, the value of a wilderness area is discovered in the natural history of the area. Naturocentrism is the objective intrinsic value of wilderness, according to which wild animals and plants should at least sometimes win, their intrinsic values having priority over human instrumental values. Vilkka is with the Environmental Philosophy Project, P. O. Box 12, Fin-00014, University of Helsinki, Finland. (v7,#4)

Vilkka, Lena, *Environmental Ethics: A Conceptual Analysis* (in Finnish), a licentiate at the University of Helsinki, 1991. (v5,#2) (Finland)

Villena, Marcello. Review of Antonia Cornwell and John Creedy *Environmental Taxes and...*
Vincent, Andrew. "Liberalism and the Environment," Environmental Values 7(1998): 443-459. The article scrutinises the complex relation between late twentieth century liberal and environmental thought. It concludes that if the key values of contemporary liberal and environmental thought are compared then the prognosis looks gloomy. There are implicit and deep tensions over most value questions. In order to provide a coherent focus for this analysis, the paper addresses the issue of liberal justice, namely, can liberal theories of justice be sensitively applied to environmental questions? The answer to this question is that for much environmental thought, it is the very values and practices implicit within liberal justice theory which now constitute the key environmental danger. KEYWORDS: liberalism, environmentalism, distributive justice, procedural justice, individualism, value theory. Andrew Vincent is at the University of Wales Cardiff. (EV)

Vincoli, Jeffrey W. A Basic Guide to Environmental Compliance. New York: Van Nostrand Reinhold, 1993. 258 pages. $ 45. A guide to the labyrinth of federal, state, and local requirements and controls (in the U.S). But the labyrinth must be decoded to do business, since the cost of noncompliance is steadily increasing. Further, the pressure is increased by the trend toward individual personal liability, both civil and criminal. The National Environmental Policy Act, the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, the Toxic Substances Control Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Emergency Planning and Community Right to Know Act, and on and on. (v9,#2)


Vira, Bhaskar, Rights, Property Rights and their Protection: Implications for the Analysis of Environmental Policy. OCEES Research Paper No. 2. Oxford: Oxford Centre for the Environment, Ethics and Society, Mansfield College, 1995. 35 pp. A survey of the theoretical basis of the concepts of "rights" and "property." Nine possible varieties of property right, dealing with possession, use, consumption, management, etc. This plurality of property rights is important in many cases of environmental conflict, where, for example, villagers' traditional rights to gather fuel-wood conflict with government-granted timber concessions. In the application of property rights to the environment, it is difficult to construe existence value in such way that it could be the subject of a property right. (v8,#1)

Virginia Environmental Law Journal, "Symposium: Eastern Water Law," vol. 9, no. 2, Spring 1990. Seven articles on the struggle to evolve Eastern water laws that protect the integrity of the
environment. (v1,#3)


Virtanen, Pekka, "The Role of Customary Institutions in the Conservation of Biodiversity: Sacred Forests in Mozambique," *Environmental Values* 11(2002): 227-241. Recently the role of customary local institutions in the conservation of biological diversity has become a topic of widespread interest. In this paper the conservation value of one such institution, traditionally protected forest, is studied with regard to its ecological representativity and institutional persistence. On the basis of a case study from Mozambique the paper concludes that traditionally protected forests do have a practical conservation value, especially as fire refuges and in the preservation of metapopulations of endangered species. However, it is also important to recall their spiritual aspect, which is crucial for their continuing appreciation and upholding. Even though customary institutions are still strong in the study area, they are subject to power struggles at both local and national levels. In the present context of political transition, any outside interventions regarding such local institutions as sacred forests, which have high symbolic value, should be considered carefully. (EV)

Vischer, Lukas, ed., *Rights of Future Generations, Rights of Nature: Proposal for Enlarging the Universal Declaration of Human Rights*. Study No. 19 from the World Alliance of Reformed Churches. May 1990. A group of European theologians has proposed that the World Alliance of Reformed Churches enlarge a 1976 declaration of human rights with a similar declaration extended to future generations and to nature. The proposal reads in part: "We support the attribution of rights not only to humans but also to nature, God's creation, and we reject the view that animate and inanimate nature are mere objects which stand at the arbitrary disposal of the human. ...
1. Nature—animate or inanimate—has a right to existence, that is, to preservation and development.
2. Nature has a right to the protection of its ecosystems, species, and populations in their interconnectedness.
3. Animate nature has a right to the preservation and development of its genetic inheritance.
4. Organisms have a right to a life fit for their species, including procreation within their appropriate ecosystems.
5. Disturbances of nature require a justification. They are only permissible
   --when the presuppositions of the disturbance are determined in a democratically legitimate process and with respect of the rights of nature,
   --when the interests of the disturbance outweigh the interests of a complete protection of the rights of nature, and
   --when the disturbance is not inordinate.
Damaged nature is to be restored whenever and wherever possible.
6. Rare ecosystems, and above all those with an abundance of species, are to be placed under absolute protection. The driving of species to extinction is forbidden."
The proposal is argued in five accompanying papers, including one by Jurgen Moltmann. In German and also in English. Available from the World Alliance of Reformed Churches, 150, route de Ferney, CH-1211 Geneva 20, Switzerland. Phone 22 916237. (v1,#2)


Visvader, John, "Natura Naturans: Remarks on the Nature of the Natural," Human Ecology Review 3 (no. 1, Autumn 1996): 16-18. "We need to understand both the 'natural' and the 'wild' in such a way that we can imagine giving more to the world around us than the gift of our mere absence." Visvader is at the College of the Atlantic, Maine. (v.13,#1)


Visvader, John. "Natura Naturans: Remarks on the Nature of the Natural," Human Ecology Review 3, 1 (Autumn 1996): 16-18. "We need to understand both the 'natural' and the 'wild' in such a way that we can imagine giving more to the world around us than the gift of our mere absence." Visvader teaches philosophy at the College of the Atlantic. (v.13,#1)

Vitali, Theodore R. "Sport Hunting: Moral or Immoral?" Environmental Ethics 12(1990):69-82. Hunting for sport or pleasure is ethical because (1) it does not violate any animal's moral rights, (2) it has as its primary object the exercise of human skills, which is a sufficient good to compensate for the evil that results from it, namely the death of the animal, and (3) it contributes to the ecological system by directly participating in the balancing process of life and death upon which the ecosystem thrives, thus indirectly benefiting the human community. As such, hunting is not only a natural good, but also a moral good. Vitali is in the philosophy department, St. Louis University, MO. (EE)

Vitek, William, Jackson, Wes, eds. Rooted in the Land: Essays on Community and Place. New Haven: Yale University Press, 1996. 352 pp. $35 cloth, $17 paper. The editors contend that a deeper understanding of communities is critical for the health of the planet and the human spirit. Thirty-five contributors, new and classic writings, many in the form of personal narrative, extending E. F. Schumacher's ideas about the importance of human scale, and Aldo Leopold's concept of biotic citizenship. Vitek teaches philosophy at Clarkson University; Jackson is director of the Land Institute, Salina, Kansas. (v7,#4)

Vitek, William, "Working Landscapes: People, Places, Partners," Chrysalis 8 (no. 2, 1993): 102-107. An analysis of landscapes that people make a living on, and on which they also dwell. "Working landscapes ... feed the soul, the heart, and the body." "It is not enough for us to attend to our work. We must attend to our communities. It is not enough to improve our individual lives.
We must work to improve our working landscapes. ... We must make peace with the land and its rhythms." With special reference to the Racquette River watershed in northern New York state. Vitek teaches philosophy at Clarkson University, Potsdam, NY. (v5,#3)


Vitousek, Peter M., "Beyond Global Warming: Ecology and Global Change," Ecology 75(1994):1861-1876. Three well-documented global changes are: increasing carbon dioxide in the atmosphere; alterations in the global nitrogen cycle; and ongoing land use/cover change. The carbon dioxide increase since 1800 is unique in the past 160,000 years, and likely to have climatic consequences and direct effects on biota in all Earth's ecosystems. More nitrogen is fixed annually by humans (primarily for fertilizer, also by legume crops and as a byproduct of fossil fuel consumption) than by all natural pathways combined. This alters aquatic ecosystems, contributes to eutrophication of the biosphere, and affects biological diversity. Land use has transformed one-third to one-half of Earth's ice free surface, with major effects even on otherwise pristine areas downwind and downstream. There is little uncertainty that serious changes are impending. Ecologists should speak out to help effective discussion about what can and should be done. Vitousek is in biology at Stanford University. (v5,#4)


Vivian, DJ, "Daniel S. Pierce, The Great Smokies: From Natural Habitat to National Park," Environmental History 6(no.2, 2001):331-332. (v.12,#4)


Vogel, Gretchen, "Finding Life's Limits," Science 282(1998):1399. The smallest life can be is a more or less spherical cell about 200 nanometers in diameter, because anything smaller would
not leave enough room for functioning amounts of DNA and some ribosomes. Anything smaller would involve a radically different kind of biology, so far unknown. (v.9,#4)

Vogel, Gretchen, "FDA Report Scores Chimp Research Lab," Science 286(12 November 1999):1269-1271. The Coulston Foundation, a private chimp breeding and research facility in Alamogordo, New Mexico, has been severely criticized by a U.S. Food and Drug Administration report for violating many procedures, resulting in sloppy science, and in some cases leading to chimpanzee deaths. (v.11,#1)

Vogel, Gretchen, "Conflict in Congo Threatens Bonobos and Rare Gorillas," Science 287(31 March, 2000):2386-2387. Conflict in the Congo Threatens Bonobos and Rare Gorillas. The war that has gripped the Democratic Republic of Congo for the past eighteen months, killing thousands and displacing more, is also taking a devastating toll on great apes. The front lines of the war, which involve troops from a half-dozen central Africa nations, cut through the heart of the range of bonobos, the pygmy chimpanzees. Further east, more than half of the 240 eastern lowland gorillas known in one study area have been killed by poachers. The animals are mostly killed for meat to eat by poachers and hungry troops. (v.11,#1)

Vogel, Gretchen, "Cloned Gaur a Short-Lived Success," Science 291(19 January 2001):409. Cloned Gaur a short-lived success. A baby gaur, a wild ox native to and endangered in Southeast Asia, cloned and given birth by an ordinary cow at a genetics center in Iowa, died a day after birth. But the death may be unrelated to the cloning process. (EE v.12,#1)

Vogel, Joseph Henry, Genes for Sale: Privatization as a Conservation Policy. New York: Oxford University Press, 1994. 155 pages. $29.95, hardcover. "The thesis of this book is that the creation of property rights over genetic information can make habitat preservation compete with alternative land uses" (33). This is "the baseline ethic assumed in the policy: those who benefit pay the costs associated with the benefits" (5). Vogel proposes "a gargantuan database" that can track what plants grow on whose land, with "genesteaders" who protect such land from development, and share the royalties when useful finds are made. The proposal raises all the issues of ownership of genetic diversity, plus issues of whether landownership tied to genetic diversity rights is likely to produce a just distribution of costs and benefits. He deplores the idea of a common good of mankind.

One of Vogel's provocative illustrations. Chimpanzees know what species of plants to eat when they are sick. Jane Goodall discovered this "monkey know how" (43). Some 27 species are under investigation. What if a pharmaceutical company, alerted by this chimp behavior, uses one of these plants to make a new drug? Jane Goodall should establish a property right to these plants; pharmaceutical companies should pay her when they use such plants. "The economic advice to Goodall is that she keep her findings secret until privatization eventuates" (43). But, since Jane Goodall doesn't own the land on which the chimpanzees live, nor does she own the chimpanzees, perhaps neither Goodall nor the pharmaceutical companies have a right to steal the chimp's knowledge without compensating them. This could be the solution to chimp conservation! Vogel teaches economics at the Facultad Latinoamericana de Ciencias Sociales, Quito, Ecuador. Reviewed by Holmes Rolston, III, in Conservation Biology 9(1995):1659-1660. (v6,#2)

Vogel, Steven, *Against Nature: The Concept of Nature in Critical Theory*. Albany: State University of New York Press, 1996. 288 pages. $20.95 paper. The history of the concept of nature in Critical Theory, with chapters on Lukács, Horkheimer and Adorno, Marcuse, and Habermas. The tradition has been marked by serious difficulties with respect to the concept of nature. These problems are relevant to contemporary environmental philosophy as well. A solution to them requires taking seriously—and literally—the idea of nature as socially constructed. Vogel teaches philosophy at Denison University. (v6,#4)

Vogel, Steven. "Environmental Philosophy after the End of Nature." I call for "postnaturalism" in environmental philosophy for an environmental philosophy that no longer employs the concept nature. First, the term is too ambiguous and philosophically dangerous and, second, McKibben and others who argue that nature has already ended are probably right except that perhaps nature has always already ended. Poststructuralism, environmental history, and recent science studies all point in the same direction: the world we inhabit is always already one transformed by human practices. Environmental questions are social and political ones, to be answered by us and not by nature. Many will worry that this conclusion leads to environmentally pernicious consequences, and to problems of relativism and idealism, but I argue that it does not. Practices are real, not ideal, and not all practices are equal: those that acknowledge human responsibility for transforming the world are preferable to those that don't. Environmental harm results when we do not recognize our own responsibility for the world our practices create. *Environmental Ethics* 24(2002):2339. (EE)


(1) Nature as origin. "Nature on this account functions as an immense and complex and organic whole, a massive order in which humans are embedded and out of which they emerged" (p. 169). "Nature on this first account is where we came from; it is the origin or foundation on which everything else is built, and we ignore this at our peril" (p. 170).

(2) Nature critiqued. Nature is a social construction. "The unmistakable implication of this line of argument is that nature doesn't exist" (p. 170). "The way we see and think of it never reveals to us a nature-an-sich, but always a nature from our particular social and historical perspective" (p. 171).

(3) Nature as difference. Nature "appears now as the name we might give to the otherness of the world, to that which is always left out of any attempt to grasp the world as a while and bring it entirely into the light. This is the radical form a postmodern anti-foundationalism takes" (p. 172).

(4) Nature as practice (the alternative preferred by Vogel). "We know the real world because we are involved in constituting it, ... taking the idea of 'construction' literally. It is through our practices, which are in the first instance above all laboring practices, that the world around us is shaped into the world it is." "A philosophy of practice, then, directs our attention to the built environment, which for most of us is the environment--and it is with this environment, I would argue, that 'environmental theory' ought to begin" (p. 175). "The whole environment in a certain sense is a built environment. ... There is no deep ontological difference between cities and parks" (p. 176). "There is no way nature really is, and so naturalistic attempts to find the solution to environmental problems by reading them off from nature are doomed to fail" (p. 177).

Vogel is in philosophy, Denison University, Granville, OH.

Vogel, Steven, "The Silence of Nature," *Environmental Values* 15(2006): 145-171. In claiming that 'nature speaks', authors such as Scott Friskics and David Abram implicitly agree that language use is linked to moral considerability, adding only that we need to extend our conception of language to see that non-humans too use it. I argue that the ethical significance of
language use derives from its role in dialogue, in which speakers make truth-claims, question and potentially criticise the claims of others, and provide justifications for the claims they raise themselves. Non-human entities (as a contingent matter) seem not to engage in dialogue in this sense, and none of the examples Friskics and Abram offer suggest that they do. Thus the conception of language such authors employ is too weak to support the ethical conclusions they implicitly wish to defend. (EV)

Vogel, Steven. "The Nature of Artifacts." Environmental Ethics 25(2003):149-168. Philosophers such as Eric Katz and Robert Elliot have argued against ecological restoration on the grounds that restored landscapes are no longer natural. Katz calls them "artifacts," but the sharp distinction between nature and artifact doesn't hold up. Why should the products of one particular natural species be seen as somehow escaping nature? Katz's account identifies an artifact too tightly with the intentions of its creator: artifacts always have more to them than what their creators intended, and furthermore the intention behind some artifacts might explicitly be to allow things to happen unpredictably. Indeed, to build any artifact is to employ forces that go beyond the builder: in this sense all artifacts are natural. Recognizing the naturalness of artifacts can help encourage the key environmental virtues of self-knowledge and humility. (EE)


Voges, Ian F., "Environmental Management: Implementing the Paradigm Shift," Global Strategies for Environmental Issues, NAEP 19th Annual Conference Proceedings. Washington, DC: NAEP (National Association of Environmental Professionals) Publications, 1994, pages 266-276. Environmental managers can only incorporate efficiency under their current management paradigm; they are unable to handle the recent values of sustainability and equity. This will require a new paradigm, one that places cost/benefit analyses in this larger perspective. Voges is in philosophy at the University of Stellenbosch, South Africa. (v5,#4)

Voges, F.W.J. (Ian), Sustainable Development and the Socially Embedded Firm. An Inquiry into the Nature, Causes and Transformation of Structural Unsustainability in Contemporary Liberal Capitalism. D.Phil. Dissertation at the University of Stellenbosch, South Africa, 1999. Voges argues that unsustainability is not an incidental consequence, but rather a structural feature of contemporary liberal capitalism. Sustainable development can be adequately conceptualised as intra- and intergenerational justice within the framework of Rawlsian constitutional liberalism. However, the Anglo-American model of capitalism that drives economic globalization does not represent the optimal institutional configuration for implementing intra- and intergenerational justice in the economy and corporations. The theory of associative democracy and contemporary political economics indicate that liberal capitalism can accommodate intra- and intergenerational justice if institutionally supplemented with empowered associations that play a visible role in economic and corporate governance. Promotor: Johan P. Hattingh, Co-promotor: Wouter Achterberg, University of Amsterdam. Voges is now in the office of Health and the Environment, Shell Oil Company, The Hague, Netherlands. (v.10,#1)

Vogt, Kristiina A., et al., *Forest Certification: Roots, Issues, Challenges, and Benefits*. Boca Raton, FL: Lewis Publishers, 1999. 384 pages. $ 90. Forest certification is widely accepted as a tool for identifying environmentally acceptable management of forests, both industrial and non-industrial. Five issues are typically missing: the scientific basis for certification standards; incorporation of social and natural system sustainability; the rationale for differing standards currently used to certify governmental, industrial, and non-industrial uses; the success of certification; the difficulty of certifying small landowners. All authors are at the Yale University School of Forestry and Environmental Studies. (v10,#4)

Voice, Paul. "What Do Animals Deserve?" *South African Journal of Philosophy* 14 (no. 1, February 1995): 34-38. The failure of contractarianism to assign substantive moral weight to the interests of non-human animals does not count against contractarianism as a moral theory. I show why contractarianism excludes animals from the moral domain, and go on to argue that, when proper attention is paid to the scope of moral theory, it is easily seen why animals lack full moral standing. Voice is in philosophy at the University of South Africa (UNISA), P.O. Box 392, Pretoria 0001, Republic of South Africa. (v6,#1)

Volger, John, *The Global Commons: A Regime Analysis*. New York: John Wiley, 1995. 248 pages. $69.95, 35. The global commons--the oceans, Antartica, outer space, the atmosphere--present key problems for global environmental management. "Regime theory" applied to these areas that are beyond national control, with a critical review of these concepts. The Third Law of the Sea Convention, recent developments in the rules for Antartica, the protection of the stratospheric ozone layer and the development of a climate change regime. The author is at Liverpool John Moores University, UK. (v6,#4)

Volk, Tyler, *Gaia's Body: Toward a Physiology of Earth*. Springer-Verlag, 1998. $ 27.00. Cycles, interactions in and between atmosphere, oceans, earth, and living organisms, in support of Lovelock's Gaia hypothesis. (v.9,#4)


Jeffrey A. and Keeton, William S., "The Interaction between Biological and Cultural Diversity," pp. 25-37; Plachter, Harald and Rössler, Metchild, "Cultural Landscapes: Reconnecting Culture and Nature," pp. 15-18; with sections on Africa and Arab States, Asia, Australia and the Pacific, the Americas, and Europe, for example: Hegard, Tonte, "Nature and Culture--Two Aspects of the Same Story. Norwegian Landscape Management in the 1990's," pp. 374-377; Henne, Eberhard, "The Schorfheide-Chorin Biosphere Reserve, Germany: Unique Species Diversity in a Centuries-Old Cultivated Landscape" pp. 333-349; and many more. Since 1992, outstanding cultural landscapes can be protected under the World Heritage Convention, the first international legal instrument recognizing and safeguarding such landscapes for future generations. Many of the authors feature the cultural landscapes but many also consider the integration of nature and culture, and biological conservation on such landscapes. von Droste and RÖssler are with the UNESCO World Heritage Centre, Paris. Plachter is in biology at the University of Marburg.


vonMoltke (von Moltke), Konrad, "Taking Stock in Europe," *Environment* 43(no. 1, Jan. 1, 2001):36-. State of the environment reports in the United States have been extremely useful in assessing environmental pressures. Now the European Union is facing the complications and challenges of assembling similarly effective reports. (v.12,#2)

VonWeizsäcker (von Weizsäcker), Ernst Ulrich, Lovins, Amory B., and Lovins, L. Hunter, *Factor Four: Doubling Wealth--Halving Resource Use: The New Report to the Club of Rome*. London: Earthscan, 1997. Originally in German. Resource productivity can and should grow fourfold. We can live twice as well yet use half the amount. A problematic work that lures readers with the promise of doubling their affluence while cutting resource use in half. No need to feel guilty about consumption, if you are clever about it. von Weizsäcker is at the Wuppertal Institute for Climate, Environment, and Energy in the North Rhine/Westphalian Science Centre, Germany. The Lovins are at the Rocky Mountain Institute in Aspen, Colorado.


Voss, Michael, "Resource Conservation: The Central and Southern Florida Project

Vreeland, Russell H., Rosenzweig, William D., and Powers, Dennis, W., "Isolation of a 250 Million-year-old Halotolerant Bacterium from a Primary Salt Crystal," Nature 407(19 October, 2000):897-900; and commentary, Parkes, R. John, "A Case of Bacterial Immortality?" Nature 407(19 October 2000):844-845. Immortal bacterium? Well, anyway, the oldest living organisms known. Researchers claim to have isolated bacteria 250-million-years old from tiny water inclusions in salt crystals in what was an inland sea, now New Mexico. The bacterium, in the genus Bacillus, was revived and cultured, even DNA sequenced. It is related to present day bacteria in the Dead Sea. Earlier reports have been of bacteria in bees in amber, 25-40 million years ago; other, older claims had been doubted, due to contamination. Mechanisms by which the biopolymers within it were kept from degeneration are unknown, nor, with discovery, whether bacteria need to die at all. (EE v.12,#1)


Waanders, Jason. "Growing a Greener Future? USDA and Natural Resource Conservation." Environmental Law 29(no. 1, 1999):235-. The United States Department of Agriculture (USDA) spent much of this century evolving into a giant group of agencies whose flawed mandates and organizational problems led to policies that often damaged the nation's soil and water resources. Recent changes in its mandates and structure, however, offer reason to hope that USDA may ultimately become a leader in the conservation of those resources. (v.11,#1)


Wackernagel, Mathis, and Giljum, Stefan, "Der Import von oekologischer Kapazitaet: globaler Handel und die Akkumulation von oekologischen Schulden (The import of ecological capacity: global trade and the accumulation of ecological debts)." In German. Natur und Kultur 2 (no. 1, 2001):33-54. Abstract: In a sustainable world, we should live on the interests of the planet's natural capital. However, increasing evidence suggests that humanity's ecological demand is exceeding the regenerative capacity of the biosphere. The expanding global economic activities exacerbate this trend, particularly since they allow the rich countries to overcome the constraints imposed by the limited productivity of their national ecosystems. This path of ecologically unbalanced globalization, however, will lead humanity into an impasse, since not all nations can be net-importers of ecological capacity. (v.12,#2)

Wade, Nicholas, "From Ants to Ethics: A Biologist Dreams of Unity of Knowledge," New York Times, May 12, B9, B10. A promotion piece for Edward O. Wilson's new book, Consilience. "The kind of unification he (Wilson) proposes is the outright intellectual annexation that occurs when one field of knowledge becomes explainable in terms of a more fundamental discipline." "Dr. Wilson has resurrected it (consilience) as the slogan for a program of unrivaled ambition: to unify all the major branches of knowledge--sociology, economics, the arts and religion (and ethics and philosophy) under the banner of science and in particular of the biology that has shaped the human mind." (v9,#2)

orb-weaving spider. For two weeks the growing larva sucks juices that drip from small punctures in the spider's body as the spider continues to rebuild each day its fragile circular web. On the night before the wasp larva kills its host, the spider builds a totally different web that is much stronger and serves as a platform from which the larva can safely hang its cocoon. When scientists remove the larva from the spider on what would have been the final evening, the spider builds the platform-style web for two nights and then resumes making its usual orb.


Waelbers, Katinka, Frans Stafleu and Frans W.A. Brom, "Not All Animals Are Equal: Differences in Moral Foundations for the Dutch Veterinary Policy on Livestock and Animals in Nature Reservations," Journal of Agricultural and Environmental Ethics 17(2004):497-515. The Netherlands is a small country with many people and much livestock. As a result, animals in nature reservations are often living near cattle farms. Therefore, people from the agricultural practices are afraid that wild animals will infect domestic livestock with diseases like Swine Fever and Foot and Mouth Disease. To protect agriculture (considered as an important economic practice), very strict regulations have been made for minimizing this risk. In this way, the practice of animal farming has been dominating the practices of nature management completely. If, for instance, Foot and Mouth Disease strikes an agricultural area, all wild pigs and cattle living in the nearby nature reservations have to be killed, whether infected or not. This dominant position of one practice over the other has now become problematic. While the morality of the practice of nature management seems to be very different from the morality of agriculture and agriculture has become less important from an economic point of view, the public as well as those involved in nature management no longer seem to accept the dominant position of agriculture. Accompanied by a field study with in-depth interviews. Keywords: animal welfare, foot and mouth disease, nature management, wilderness. The authors ate at the Centre for Bio-ethics and Health Law, Utrecht University, The Netherlands,


Wagle, Subodh. "TNCs as Aid Agencies? Enron and the Dabhol Power Plant", The Ecologist (1979) 26(no. 4,1996):179. TNCs are increasingly trying to portray themselves as the most efficient vehicles for achieving "development". Public money allotted for development assistance, they assert, should be provided instead as loans to the private sector. The case has been put most explicitly by the Enron Corporation, the US multinational now building the controversial Dabhol Power Plant in Maharashtra, India. Far from "bringing development", however, the TNCs are standard bearers for a new colonialism.

Wagner, Frederic H., with contributions by Wayne L. Hamilton and Richard B. Keigley, Yellowstone's Destabilized Ecosystem: Elk Effects, Science, and Policy Conflict. Oxford: Oxford University Press, 2006. The authors claim perennial mismanagement of the elk in Yellowstone. They claim elk were historically rare in the region, but that under park management enlarging elk herds have been overgrazing and seriously degrading the ecosystem. An argument heard often before, but here with new supporting data. Wagner is at Utah State University.


Wagner, Andreas, *Robustness and Evolvability in Living Systems*. Princeton, NJ: Princeton University Press, 2005. Wagner will convince even the most skeptical reader that robustness to perturbation is a pervasive aspect of biology. A cautionary note for those enamored with all the disequilibrium, chaos, and other upsets in ecosystems. The routes to such stability may differ, and some stable solutions may be impossible, since they cannot be reached without instability. Wagner is a computation and theoretical evolutionary biologist at the University of New Mexico.

Wagner, HH; Edwards, PJ, "Quantifying habitat specificity to assess the contribution of a patch to species richness at a landscape scale," *Landscape Ecology* 16(no.2, 2001):121-131. (v.12,#4)

Wagner, Michael R., Block, William M. and Wenger, Karl F., "Restoration Ecology: A New Forest Management Paradigm, or Another Merit Badge for Foresters," *Journal of Forestry* 98(no.10, OCT 01 2000):22-. If ecological restoration means finding the best outcome for a specific site based on ecological knowledge and the diverse perspectives of interested stakeholders, then foresters have earned a new merit badge as "ecological restorationist"--with 100 years of experience. (EE v.12,#1)

Wagner, Peter J., Matthew A. Kosnik, and Scott Lidgard. AAbundance Distributions Imply Elevated Complexity of Post-Paleozoic Marine Ecosystems. @ *Science* Vol. 314, no. 5803 (24 November 2006): 1289-91. Commentary on ALife=s Complexity Cast in Stone by Wolfgang Kiessling (Science Vol. 314, no. 5803 (24 November 2006): 1254-55.) The fossil record shows that since the end of the Paleozoic era, the structure of marine communities has become more complex. Biologists have the general impression that ecological communities get more complex, but lack adequate ways of measuring objectively different kinds of complexity. These authors propose such measurements. Complex distributions are essentially those in which the dominant taxa add ecological opportunity space. The big surprise, they say, is a major difference between Paleozoic (older than 250 million years) and younger communities. Complexly structured assemblages are substantially more common in more recent times.


Waks, Leonard J. "Environmental Claims and Citizen Rights," *Environmental Ethics* 18(1996):133-148. I propose a model for the development of citizen rights based on the advance of political and social rights and apply it to contemporary claims regarding environmental rights. In terms of this `claims and attenuations' model, I sketch the roles of environmental philosophers
and activists, the media and public opinion, and political insiders in the development of positive rights. I then predict a weakening of environmental claims and a marginalization of environmental philosophies as environmental claims are secured as positive rights. Waks is in Educational Leadership and Policy Studies, Temple University, Philadelphia. (EE)

Walck, Christa, Strong, Kelly C. "Using Aldo Leopold's Land Ethic to Read Environmental History: The Case of the Keweenaw Forest", Organization and Environment 14 (No. 3, September 2001) pp.261-89. Aldo Leopold's land ethic provides a useful conceptual framework for interpreting environmental histories, which may in turn be used to plan more effective future land use policies. The authors use a Leopoldian framework as a heuristic device to interpret the environmental history of the land in one small place B the Keweenaw Peninsula of Northern Michigan B where successive human purposes altered the landscape dramatically over time. This article identifies the historical role that power relations and the land ethic have played in land use and land health. The article concludes by identifying the need for community action based in a land ethic to maintain a healthy forest through sustainable use. Although it is unlikely the Keweenaw forest will return to its preindustrial state, the community can aim for a forest that exemplifies Leopold's qualities of integrity, stability, productivity and beauty. Walck and Strong are in management at Michigan Technological University. (v.13,#2)

Walck, Christa, "Healing the Divided Mind: Land as an Integrating Concept for Organizations and the Natural Environment", Organization and Environment 17 (no. 2, June 2004)

Waldau, Paul, and Kimberley Patton, eds. A Communion of Subjects: Animals in Religion. New York: Columbia University Press, 2006. Comparative and interdisciplinary study of human– animal conceptualization of animals in world religions. Thomas Berry insists that the world is a communion of subjects, not a collection of objects.@ Using the implications of this statement as a starting point, the contributors to this collection treat animals as subjects and consider how major religious traditions have incorporated them into their belief systems, myths, and rituals. Results from a conference on world religions and animals, held at the Harvard Yenching Institute, and sponsored by the Forum on Religion and Ecology and the Center for Respect of Life and Environment of the Humane Society of the U.S.


Walford, James, Phenomenology of the Sublime, Master's Thesis, Department of Philosophy, Lancaster University, September 1995. (v7,#1)

Walford, James, Phenomenology of the Sublime, Master's Thesis, Department of Philosophy, Lancaster University, September 1995.


resources for short-term gains." Adequate solutions to prevent a Faustian bargain require interdisciplinary effort from ecologists and other natural scientists, educators, economists, social scientists, media, politicians and statesmen. (v3,#3)


Walker, Brian, and Steffen, Will. Global Change and Terrestrial Ecosystems. New York: Cambridge University Press, 1996. 620 pages. $120 cloth; $44.95 paper. The early results of an international scientific research program designed to address what will happen to our ability to produce food and fiber, and what effects there will be on biological diversity under rapid environmental change and how these changes to terrestrial ecosystems will feed back to further environmental change. (v7, #3)

Walker, Brian and Henry Nix. "Managing Australia's Biological Diversity." Search (Australian and New Zealand Association for the Advancement of Science) 24(no. 6, July, 1993):173-178. Four particular gaps require attention: what and where is the biodiversity, what is its functional significance, what is needed for its persistence, and what are the appropriate management guidelines. Regional scale analyses of alternative combinations of land use can lead to policy decisions on an optimal land use target. Walker is with CSIRO Division of Wildlife and Ecology, Canberra; Nix is in environmental studies, Australian National University, Canberra. (v6,#3)

Walker, Gregg B., Daniels, Steven E., "The Clinton Administration, the Northwest Forest Conference, and Managing Conflict: When Talk and Structure Collide", Society and Natural Resources, 9(No.1, 1996):77- .


Bermuda was one covered with handsome forests of *Juniperus* but now has only remnant stands. Excessive harvesting, exotic escapes, and insect depredations have contributed to the decline of the species. (v.10,#2)

Walker, Martin J. "The Unquiet Voice of *Silent Spring.*" *The Ecologist* 29(No. 5, August 1999):322-. Rachel Carson's 1962 book *Silent Spring* helped give birth to the modern environmental movement. But what was her real legacy? (v10,#4)


Walker, Richard. *The Country in the City: The Greening of the San Francisco Bay Area*. Seattle: University of Washington Press, 2007. Walker presents an environmental history of how the jigsaw geography of Bay area=s greenbelt came into existence from the origins of recreational parks and coastal preserves in John Muir=s time to contemporary conservation easements and movements to stop toxic pollution. Lessons can be drawn for fundamental debates in
environmental history, geography, and urban planning.


Wall, Derek, ed., Green History: A Reader in Environmental Literature, Philosophy, and Politics. London: Routledge, 1994. 271 pages. Dozens of mostly quite short excerpts, from all over the spectrum of literature, philosophy, and politics. Ancient wisdom, ecology and early civilizations, Gaia, philosophical holism, the web of life, against growth, sustainable development, the Frankenstein factor (genetic engineering), peaceful protest, the city and the country, eco-feminism, spiritual awakenings, green revolutionaries, green politics, utopias. One theme is that today's environmental issues were already problems in the past. Wall teaches economics at the University of West England. (v7,#1)


Wall, James M., "Expanding our Identification Horizons," Christian Century, August 7-14, 1991. We need to be able to empathize far beyond our immediate circle. One sign of this is the growing interest in environmentally friendly products. The Wall Street Journal, extrapolating from the sense of guilt over disposable diapers, predicts that by the year 2000 it will be very difficult to sell products that are not environmentally responsible. (v2,#3)

Wallace, George N., "Law Enforcement and the `Authority of the Resource,',' Legacy: Journal of the National Association for Interpretation 1(no. 2, October/November, 1990):4-8. Moral and behavioral appeals based on the authority of law versus appeals based on respect for nature. "Wild nature can be said to have its own authority. Nature has her own rules, operates in certain ways; there are consequences when we violate that order. ... Desirable behavior is more likely to occur if people understand how their actions affect the way nature operates." "Once the person understands what is happening in nature, or in the wilderness experience of others, ... they will want to stop what is recognized as undesirable behavior." Wallace is in the Department of Recreation Resources at Colorado State University. (v2,#1)

Wallace, Mark I., "The Wild Bird Who Heals: Recovering the Spirit in Nature," Theology Today 50 (no. 1, 1993):13-28. The Bible's creation hymns teach us that we are earth creatures, mud people, molded by the cosmic potter out of the clay of earth. But many of us in the postmodern West construe ourselves differently as denizens of a shopping-mall, temperature-controlled, throw-away world in which we have little need for reidentification with the primitive soil of our ancestral origins. Others, however, hunger for a renaturalized Christianity where the palpable sense of divine presence can be touched and tasted and heard and smelled in the push and pull of natural beings and forces. Wallace is in religious studies at Swarthmore College. (v5,#4)
an associate professor of English at the University of Massachusetts, a Senior Research Associate at the Center for Policy Analysis, and presently Visiting Fullbright Professor at University College Dublin. (P&G)


Wallington, Tabatha J., Richard J. Hobbs and Susan A. Moore, "Implications of Current Ecological Thinking for Biodiversity Conservation: A Review of the Salient Issues," Ecology and Society 10: 15 (1 September 2005). A paradigm shift has occurred in ecology, from equilibrium thinking to non-equilibrium thinking, but this is not represented in management decisions for conservation. Part of the problem is that field observations have yet to provide compelling evidence for many of the relationships suggested by non-equilibrium ecology. Part of the problem is how radical the new paradigm is, since many of the claims of old ecology are still true at certain times, places, and scales. Nevertheless, non-equilibrium ecology ought increasingly be applied to management. One result favors more hands-on management and recognition that humans and nature are more entwined than before. Wallington is in social science, University of Queensland, Moore in environmental science, Murdoch University, Australia. Online. URL: http://www.ecologyandsociety.org/vol10/iss1/art15/

Wallington, Tabatha J. and Susan A. Moore, "Ecology, Values, and Objectivity: Advancing the Debate," BioScience 55(2005):873-878. The authors used a Delphi-based study of the role of values and their interpretations of ecological science in eight well-known ecologists. This involves several rounds of anonymous exchange of views looking at how empirical data is viewed differently depending on larger scientific and social contexts. Wellington is in social science, University of Queensland, Moore in environmental science, Murdoch University, Australia.


Waloszczyk, Konrad, Kryzys ekologiczny w s wietle ekofilozofii (The Ecological Crisis in the Light of Ecophilosophy), Wydawnictwo Politechniki Lodzkiej, 1996. In Polish. (v9,#2)

Waloszczyk, Konrad, Planeta nie tylko ludzi (Not Only Humans' Planet), PIW, 1997. In Polish. (v9,#2)


Waltner-Toews, David, "One Ecosystem, One Food System: the Social and Ecological Context of Food Safety Strategies", Journal of Agricultural and Environmental Ethics 4(1991):49-59. Eating is the most intimate relationship people can have with their environment. As people have migrated, in very large numbers, from various parts of the globe, as well as from the countryside to the city, they have brought to their new homes not only their intimate familial relationships, but also their intimate environmental relationships. Intra- and inter-national trade in human foods and animal feeds amounting to billions of dollars annually support these transplanted eating habits. Infectious disease agents, toxins and environmental contaminants of all sorts are globally distributed along with these foods. Furthermore, the internationalization of a substantial portion of the food industry, along with urbanization, has resulted in unrealistic consumer perceptions of food, and fostered ecologically and socially unsound food production and food safety practices, which themselves are creating new food safety problems. Effective food safety strategies, which by necessity must account for the contamination of the environment in which the food is grown, as well as the environments through which it passes on the way to the consumer, need
to be global in both breadth (socially and geographically) and depth (ecologically). As well, the desire for democratic social control now evident throughout the world, along with this diversity of culinary tastes, suggest that a successful global food safety strategy would do well to reflect the kinds of diversity and complex interactions seen in natural ecosystems.


Wan Dan, "Ecological ethic and cultural relativism", Journal of Wuhan University. 2001(5)


Wang, Z., Carpenter, C. and Young, S.S., "Bird distribution and conservation in the Ailao Mountains, Yunnan, China," Biological Conservation 92(no.1, 2000):45-. (v.11,#1)


Wang Fengnian, Li Zhengfeng, "The eco-ethical implication of daoist consumption idea", Journal


Wang Guoping, "The scientific foundation of environmental ethics and its principle", Journal of Nanjing Forest University 2002(1)


Wang, Seng, "One Hundred Faces of Sustainable Forest Management," Forest Policy and Economics 6(2004):205-213. Sustainable forest management is complex and includes much more than economics; different accounts are underlain by important philosophical differences on human relationships to nature. An adaptive, contextualized knowledge approach is desirable for operationalizing sustainable forest management. Wang is at the Pacific Forestry Centre, Canadian Forest Service, National Resources Canada, Victoria, BC.


Wang Yunmei, "Respect life and love nature: on the ecological ethics of Buddhism", Journal of Southeast University 2001(2)


Wapner, Paul, *Environmental Activism and World Civic Politics*. Albany: State University of New York Press, 1996. 238 pages. $ 16.95 paper. A detailed examination of the actions of several leading environmental nongovernmental organizations (NGO's), such as Greenpeace, the World Wildlife Fund, and Friends of the Earth, the author finds that the activities of nonstate actors are giving rise to influential forms of global governance that operate partially or even wholly outside the states system. Wapner teaches in the School of International Service at the American University, Washington. (v6,#4)


Ward, Bruce K., "Christianity and the Modern Eclipse of Nature: Two Perspectives," *Journal of the American Academy of Religion* 63(1995):823-843. Fyodor Dostoevsky is compared with Albert Camus. Both have a shared affirmation of the spiritual significance of nature, but there are revealing differences. Dostoevsky affirms nature's sanctity and presents it as compatible with Christianity and inseparable from it. Camus claims that Christianity, far from containing within itself a possible corrective to the modern denaturatation of the world, has contributed to it. There is a tension between love of beauty in nature and love of neighbor. Ward teaches religious studies at Thorneleoe College, Laurentian University, Sudbury, Ontario.


Ward, Geoffrey C., "Making Room for Wild Tigers," *National Geographic* 192 (no. 6, December 1997):2-35. Perilous, but not hopeless, the future of the world's few thousand tigers hinges on providing them with land, prey, and protection. (v.9,#3)


Wargo, John. *Our Children's Toxic Legacy: How Science and Law Fail to Protect Us From Pesticides*. New Haven: Yale University Press, 1996. 400 pages. $30. Children are more heavily exposed to some pesticides than adults and are especially vulnerable to some adverse effects. Fundamental reforms of science and law are necessary to manage the distribution of risk and contain the health risks faced by children. (v7, #3)

Warner, Stanley; Feinstein, Mark; Coppinger, Raymond; and Clemence, Elisabeth, "Global Population Growth and the Demise of Nature," *Environmental Values* 5(1996):285-301. Global human population expansion is rooted in a remarkably successful evolutionary innovation. The Neolithic transformation of the natural world gave rise to a symbiosis between humans and their domesticated plant and animal partners that will expand from a current 20 per cent to 60 percent of terrestrial biomass by the middle of the coming century. Such an increase must necessarily be accompanied by a concomitant decrease in wildlife biomass. We suggest that current trends in population growth are unlikely to abate for three reasons: first, there are intrinsic biological pressures to reproduce regardless of social engineering. Second, the character of the domestic alliance makes it a formidable competitor to wildlife; and third, the time frame before population doubling is, from a biological perspective, virtually instantaneous. We neither condone nor endorse this picture of inexorable population increase. Rather, we appeal for a change in the nature of the discussion of population among environmentalists, to focus on the question of how best to manage what wildlife will be left on the margins of a domesticated world. (EV)

Warner, Daniel M., "No Place of Grace: Recognizing Damages for the Loss of Home-Place," *8/2 Wisconsin Environmental Law Journal* 3 (Spring 2002). A significant cause of the present disastrous state of the environment is our culture's refusal to recognize the value of place. In this paper it is argued that the loss or taking of one's home-place by another is the disruption of a sustaining and nurturing relationship--that homesickness is real. The law recognizes that compensation for loss of consortium, for the loss of the "intangible elements of a marriage relationship" is appropriate--such a loss is a kind of emotional distress. Similarly, damages should be awarded in case of the loss of one's home-place, and those damages should not be limited to the market-value of the place. (v 14, #3)

Warner, Joan, et al., "The Atlantic Century?" *Business Week*, February 8, 1999, pp. 64-67, and related stories. Once again, the U.S. and Europe are the twin drivers of the world economy. Experts once predicted that the opening world markets would be global; capitalism would open up into a unified system, enriching all nations. But not so. North America and Europe are the global anchors of prosperity and stability, while the rest of the world struggles in economic limbo. Europe is emerging as an equal to the United States, especially with the euro, the common currency, and a market ($ 6.5 trillion, 9,100 listed companies) nearly the size of the U.S. market ($ 8 trillion, 9,900 listed companies). The euro will soon become the equal of the dollar. But while North America and Europe increasingly look like twin pillars of global growth, the former stars of the world economy are in a tailspin. Japan is no longer a growth engine for Asia; China is more self-obsessed and protectionist. Nor does it seem that North America and Europe need the rest of the world for growth, so much as was once thought. The new divide between the haves and the have nots could be self-perpetuating; the rich will get richer and the poor poorer. (v.10,#1)

Warner, Keith Douglass. "Are Life Patents Ethical? Conflict Between Catholic Social Teaching and Agricultural Biotechnology's Patent Regime." *Journal of Agricultural and Environmental Ethics* 10(2001):301-319. Patents for genetic material in the industrialized North have expanded significantly over the past twenty years, playing a crucial role in the current configuration of the agricultural biotechnology industries, and raising significant ethical issues. Patents have been
claimed for genes, gene sequences, engineered crop species, and the technical processes to engineer them. Most critics have addressed the human and ecosystem health implications of genetically engineered crops, but these broad patents raise economic issues as well. The Catholic social teaching tradition offers guidelines for critiquing the economic implications of this new patent regime. The Catholic principle of the universal destination of goods implies that genes, gene sequences, and engineered crop varieties are ineligible for patent protection, although the processes to engineer these should be eligible. Religious leaders are likely to make a more substantive contribution to debates about agricultural biotechnology by addressing these life patents than by speculating that genetic engineering is "playing God." Keywords: agricultural biotechnology, Catholic social teaching, economic justice, genetically modified food, patents, patents on life, patent regimes, social ethics. Warner is in the Department of Environmental Studies, University of California, Santa Cruz, Santa Cruz, CA. (JAEE)


The California attorney general filed suit against McDonalds, Burger King, and Frito-Lay, saying that they should be forced to put labels on all fries and chips warning of danger to health. French fries are the most consumed food in restaurants, soaked with trans fats, loaded with sodium and full of simple carbs, the bad kind. They are also full of a chemical called acrylamide, known to cause cancer in rats and mice—but not known to cause cancer in humans at the levels in French Fries. The U.S. Food and Drug Administration (F.D.A.) opposes the labelling on grounds that its investigation of the issue is incomplete.

Warner, Sara, Down to the Waterline: Boundaries, Nature, and the Law in Florida. Athens: University of Georgia Press, 2005. Do our rights end—or begin—at the water's edge? Analysis of the boundary separating public waters from private uplands. How advances in science and environmental attitudes have led to a more complex encounter with this ancient boundary. Public access and private ownership limits on some of Florida's most valuable land in economic terms, waterfront real estate, and, in ecological terms, marshes and wetlands.

Warner, Stanley, "Reproductive Liberty and Overpopulation: A Response," Environmental Values 13(2004):393-399. This appraisal of Carol A. Kates' "Reproductive Liberty and Overpopulation" challenges her call for world-wide population control measures - using compulsory methods if necessary - to save the world's environment. The most successful part of Kates' paper is her argument that reproductive rights are not indefeasible and nonnegotiable, but that like many rights, they are conditional and open to a balancing of individual freedom against collective community interests. But her advocacy of mandatory state population controls is flawed in several respects. First, she underestimates the force of the emerging consensus for voluntary population reductions through policies that empower women. Second, she walks on difficult ethical grounds. Are compulsory controls on reproduction ethically justified simply because humans are loathe to take the alternative route of curtailing their "individualistic" "materialistic" appetites for more economic growth and consumption? Third, Kates fails to recognise that her search for measures that immediately and directly reverse population growth would necessitate coercing an entire generation of women toward zero reproduction in order for death rates to have their effect. Lastly, problems with the feasibility of her plan and the absence of international support make it unlikely it will ever come to pass. Alternatives to Kates' policies are discussed at the close. Warner is in social science, Hampshire College, Amherst, Massachusetts. (EV)


Warren, Karen J. "The Power and the Promise of Ecological Feminism." *Environmental Ethics* 12(1990):125-46. Ecological feminism is the position that there are important connections--historical, symbolic, theoretical--between the domination of women and the domination of nonhuman nature. I argue that because the conceptual connections between the dual dominations of women and nature are located in an oppressive patriarchal conceptual framework characterized by a logic of domination, (1) the logic of traditional feminism requires the expansion of feminism to include ecological feminism and (2) ecological feminism provides a framework for developing a distinctively feminist environmental ethic. I conclude that any feminist theory and any environmental ethic which fails to take seriously the interconnected dominations of women and nature is simply inadequate. Warren is in the philosophy department, Macalester College, St. Paul, MN. (EE)


Warren, Karen J. "Environmental Justice: Some Ecofeminist Worries about a Distributive Model." *Environmental Ethics* 21(1999):151-161. I argue that the framing of environmental justice issues in terms of distribution is problematic. Using insights about the connections between institutions of human oppression and the domination of the natural environment, as well as insights into nondistributive justice, I argue for a nondistributive model to supplement, complement, and in some cases preempt the distributive model. I conclude with a discussion of eight features of such a nondistributive conception of justice. (EE)


Warren, Karen J. and Jim Cheney. "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. Warren is in the philosophy department, Macalester College, St. Paul, MN. Cheney is in the philosophy department, University of Wisconsin at Waukesha, WI. (EE)


Warren, Karen J. "Feminism and Ecology: Making Connections." *Environmental Ethics* 9(1987):3-20. The current feminist debate over ecology raises important and timely issues about the theoretical adequacy of the four leading versions of feminism--liberal feminism, traditional Marxist feminism, radical feminism, and socialist feminism. I present a minimal condition account of ecological feminism, or eco-feminism. I argue that if eco-feminism is true or at least plausible, then each of the four leading versions of feminism is inadequate, incomplete, or problematic as a theoretical grounding for eco-feminism. I conclude that, if eco-feminism is to be taken seriously, then a transformative feminism is needed that will move us beyond the four familiar feminist frameworks and make an eco-feminist perspective central to feminist theory and practice. Warren is in the philosophy department, Macalester College, St. Paul, MN. (EE)


Warren, Karen J. Review of *Ethics and the Environment*. Edited by Donald Scherer and Thomas


Warren, Marion E. with Mame Warren. Bringing Back the Bay: The Chesapeake in the Photographs of Marion E. Warren and the Voices of Its People. Baltimore: Johns Hopkins University Press, 1994. $ 45. A coffee table book with an interwoven text that reveals the problems and promises of the Chesapeake as one of the world's great estuaries. Photography is black and white and the text is from residents in the region.

Warren, Mary Anne, "The Moral Status of Nonhuman Life." Pages 370-385 in James P. Sterba, ed., Social and Political Philosophy: Contemporary Perspectives (London: Routledge, 2001). Sterba bridges anthropocentric and biocentric forms of environmental ethics with a compromise. He accords moral status to all living organisms, as well as to species and ecosystems, but retains a limited preference for human over nonhuman interests. I agree with this strategy, but disagree with the way in which his principles treat all nonhuman organisms as having essentially the same moral status. I argue that organisms of different species often differ in moral status, both because of differences in their intrinsic value, and because of their different relationships to human beings and terrestrial ecosystems. Warren is in philosophy at San Francisco State University. (v.12,#3)

Warrick, Joby, "A Growing Approach To Saving Songbirds," Washington Post (1/4/99). Shade-grown coffee protects songbirds. Your morning cup of coffee may be contributing to the demise of the birds you listen to as you sip. The latest in environmentally-correct consumption involves buying specialty coffee grown in the shade of trees that are important habitat for migratory songbirds such as the wood thrush, Baltimore oriole, and numerous species of warbler. The U.S. coffee demand has skyrocketed. The U.S. now consumes one-third of the world's coffee; it is the No. 3 import after oil and steel. In order to meet the increased demand, farmers have been cutting the trees under which coffee bushes have traditionally been grown and using direct sunlight and chemicals to increase the yield. With the decline in rainforests, coffee plantations have become an increasingly important habitat (accounting for half the land cover in some Central American provinces). Currently none of the larger national coffee chains or food retailers market bird-friendly, 100 percent shade-grown coffee. Starbucks' consumer hotline is: 1-800-23-latte. (v.10,#1)


Warrick, Joby, "120 Countries to Try to Reach Pact On Phaseout of Toxic Compounds," Washington Post (6/28/98): A3. Worldwide phaseout of some toxic chemicals? In early July, 120 countries met in Montreal to work on a U.N. treaty to phase out 12 chemicals including DDT, dioxins, and PCBs. These "persistent organic pollutants" travel long distances and concentrate in animal tissues. They are found in the bodies of marine creatures and humans thousands of miles from industrial centers. Levels of the toxins have remained constant for more than a decade, even though production of most have been banned in Western Countries for a quarter-century. At high levels, the chemicals damage the central nervous system, suppress immune responses, and disrupt reproductive systems. The World Wildlife Fund recently published a study suggesting a possible link between these chemicals and the recent die-offs of marine mammals. In developing countries, DDT remains the pesticide of choice in the fight against
malaria, a major public health threat that kills almost three million people a year. The World Health Organization continues to endorse DDT as a "most valuable tool" for controlling malaria. (v9,#2)

Warrick, Jody, "U.N. Summit Reaches an Ineffectual End," Washington Post (6/28/97) A3; and Peter Baker and Paul Blustein, "Discord on Pollution Strains United Front as Summit Concludes," Washington Post (6/23/97): A1. Rio Plus Five falls flat. A meeting in New York City of 180 countries and 44 heads of state convened to assess progress in meeting goals of the 1992 Rio de Janeiro Earth Summit was marked by charges that the North was refusing to honor aid commitments to poorer countries of the South and criticism of the U.S. for refusing to agree to specific targets for reducing emissions of CO2, the major greenhouse gas. The leaders failed to agree on a final political statement expressing global resolve to fight pollution. Some developing countries were blocking the agreement to protest the West's failure to honor aid commitments. Fierce criticism was directed at the U.S. for refusing to go along with a European proposal to reduce CO2 emissions by 15 percent below the world's 1990 output by the year 2010. At a meeting in Denver of the major industrial powers the previous week, French President Jacques Chirac said "The Americans are great polluters when it comes to carbon dioxide. The average American emits three times the amount of carbon dioxide pollution as the average Frenchman." (Overall, the U.S. produces a quarter of world's greenhouse gases.) The Clinton administration is suggesting that the European goal may not be realistic and says it will propose specific targets to be included in a global warming treaty to be signed at an international meeting scheduled for December in Kyoto, Japan. (v8,#2)

Warrick, Jody, "Whose Shade of Green?" Washington Post (4/21/97): A1. Critics of environmental education making headway. Critics who charge that much environmental teaching is biased are fighting back with a new book and with industry-sponsored seminars on environmental education. Michael Sanera's "Facts Not Fear: A Parent's Guide to Teaching Children About the Environment" makes the case that many who teach about the environment are engaged in advocacy rather than instruction and that environmental education in general is teaching children slogans and dogma, rather than getting them to think critically about the environment. Companies are presenting seminars that promote industry-developed classroom materials. One brochure produced by Exxon touted the advantages of gasoline powered over electric vehicles. In response to these criticisms, Arizona has abolished mandatory environmental study in public schools and turned control of funds for environmental education over to loggers's and cattlemen's associations. (v8,#2)


Warshall, Peter. "The Biopolitics of the Mt. Graham Red Squirrel (Tamiasciurus hudsonicus grahamensis)." Conservation Biology 8(1994):977-988. Specific administrative actions within the U.S. Forest Service and the U.S. Fish and Wildlife Service and special interest politics by the Arizona Congressional delegation and the University of Arizona, together with an astronomical consortium, prevented an accurate assessment of the status of the Mt. Graham red squirrel and implementation of alternatives to insure its survival and recovery. Two telescopes have been constructed in the squirrel's critical habitat. Warshall is with Scientists for the Preservation of Mt. Graham, Tucson, AZ. (v6,#1)

Warwick, Hugh, "Terminator too," The Ecologist 30 (No. 3, 2000 May 01): 50-. Monsanto's initial terminator technology may have been abandoned, but its successor may be worse. (v.11,#4)

Warwick, Hugh, "Guilty as charged," The Ecologist 30(no.7, OCT 01 2000):52-. Hugh Warwick reports from India on a unique 'citizens' jury' project, set up to decide the fate of GM crops. (EE v.12,#1)

Wasby, Stephen L., ed., "He Shall Not Pass this Way Again": The Legacy of Justice William O.
Douglas, (Pittsburgh: University of Pittsburgh Press, 1990). An assessment on the 50th anniversary of the appointment of Douglas to the U. S. Supreme Court, with a section on Douglas as an environmentalist. (v2,#1)


Wasserman, David and Womersley, Mick and Gottlieb, Sara, "Can a Sense of Place Be Preserved?," Philosophy and Geography 3 (1998): 191-213. Wasserman is a research scholar at the Institute for Philosophy and Public Policy, School of Public Affairs, University of Maryland. Womersley is a trainee with Maryland Sea Grant at the University of Maryland. (P&G)


Watanabe, M, "Describing the "Tree of Life": Attainable Goal or Stuff of Dreams?," *Bioscience* 52(no.10, 2002): 875-880.


Watkins, Kevin. "Free Trade and Farm Fallacies: From the Uruguay Round to the World Food Summit," *The Ecologist* 26(no.6, 1996):244. Free trade is increasingly considered to be the best way of ending world hunger. The removal of trade barriers, it is argued, will allow countries to "reap the benefits of comparative advantage" and enable domestic consumption to be met more cheaply by less costly imported supplies. But while Southern countries have been obliged under
the Uruguay Round of GATT to remove subsidies to their farmers, subsidies to Northern producers remain intact. Far from relieving hunger, liberalization is increasing food insecurity by throwing Southern producers into unequal competition with the heavily-subsidized, capital-intensive agricultural systems of the North. Millions of livelihoods will be lost as a result. An alternative trade agenda is urgently required--one that promotes greater food self-sufficiency in the South, with a focus on smallholder producers, and that accepts the need to restrict imports in the interests of tackling the underlying causes of hunger. (v8,#2)

Watkins, RZ; Chen, J; Pickens, J; Brosofske, KD, "Effects of Forest Roads on Understory Plants in a Managed Hardwood Landscape", Conservation Biology 17(no.2, 2003):411-419.


Watson, A. Elizabeth, LaBelle, Judith M. "Introduction to Planning and Land Use Management in the United States, with Some Comparisons with Canada and England," Environments 24(no.3, 1997):66. (v8,#3)


Watson, Jeff, ed. The Golden Eagle. San Diego: Academic Press, 1997. 392 pp. $49.95 paper. Watson has worked on eagles in Scotland for over 15 years and his studies provide the foundation for a treatment which also includes up to date information from work in North America, continental Europe, and throughout the world. The species' relationships in a variety of habitats. (v8,#3)

Watson, Lyall, Dark Nature--A Natural History of Evil. New York: HarperCollins, 1995. A study of the dark side of nature, made in biological terms--not from the top down, but from the bottom up. The usual (top-down) accounts of evil events and behavior that are given in religion, philosophy, and ethics fail, not because they underestimate evil, but because they misunderstand its nature. Evil is commonplace and widespread, perhaps not even confined to the human species, although it is all to easy to leap to unwarranted conclusions, particularly where other species are concerned. In evolutionary history, organisms make themselves, always a creative advance into novelty, and evil is a part of this scheme of things. It is part of the ecology of life, casting its shadow on everything that we do. As we humans choose our future, we have to understand a dark side to our own nature; but just this capacity to choose makes us special, giving us the ability to select a course for nature, instead of just submitting to the course of natural selection. (v10,#4)

Watson, Lyall, Dark Nature--A Natural History of Evil. New York: HarperCollins, 1995. A study of the dark side of nature, made in biological terms--not from the top down, but from the bottom up. The usual (top-down) accounts of evil events and behavior that are given in religion, philosophy, and ethics fail, not because they underestimate evil, but because they misunderstand its nature. Evil is commonplace and widespread, perhaps not even confined to the human species, although it is all to easy to leap to unwarranted conclusions, particularly where other species are concerned. In evolutionary history, organisms make themselves, always a creative advance into novelty, and evil is a part of this scheme of things. It is part of the ecology of life, casting its
shadow on everything that we do. As we humans choose our future, we have to understand a
dark side to our own nature; but just this capacity to choose makes us special, giving us the
ability to select a course for nature, instead of just submitting to the course of natural selection.
(v.11,#1)

Watson, Paul, Seal Wars: Twenty-Five Years on the Front Lines with the Harp Seals. Buffalo,
especially the clubbing of baby seals. Clubbing baby seals has been reduced, but killing of seals
after they are a few weeks old continues. Watson has himself been clubbed until he was
unconscious, and dragged across sharp ice and released to flounder in ice-cold seas.
Americans banned importing harp seal pelts in 1972; the European Economic Community banned
whitecoat pelts in 1983. Canada banned the baby seal hunt in 1988, though only until their white
cloths begin to molt and turn silvery grew, about two weeks after birth. Canada still has a
975,000 kill quota for "adult" seals, arguing that the seals eat codfish and harm the industry.
Watson replies that the codfish depletion is due to massive drag trawler fleets. Seal hunters
come primarily from Newfoundland, commercial hunters supplying the fur industry. Although the
EU bans importing pelts, the demand for seal pelts is growing in Norway, Denmark, and much of
Europe. Watson was a founder of Greenpeace, and later broke with Greenpeace to found
his more aggressive Sea Shepherd Society.

Watson, Paul, Ocean Warrior: My Battle to End the Illegal Slaughter on the High Seas. St.
Leonards, NSW, Australia: Allen and Unwin, 1994. 264 pages. Watson's account of his efforts
through the Sea Shepherd Conservation Society, which include many episodes of civil
disobedience in defense of whales, seals, dolphins, and other creatures of the sea. The
Canadian government once brought charges that might have sent Watson to prison for life,
spending some $ 4 million to press the charges. The charges were dismissed, except that he
was fined $ 35 for a misdemeanor. Watson was at once time with Greenpeace, but left to
pursue more aggressive civil disobedience, and he has sunk quite a number of (illegal) whaling
ships, though claims never to have physically harmed a person. (v6,#4)

Watson, R.T.; Zinyowera, M.C.; and Moss, R.H. Climate Change 1995--Impacts, Adaptations and
Mitigation of Climate Change: Scientific-Technical Analyses. New York: Cambridge University
Press, 1996. 890 pages. $95 cloth, $35.95 paper. In this report from Working Group II of the
Intergovernmental Panel on Climate Change, the lead authors and contributors assess just how
these changes will impact on earth systems, how the earth will adapt to the increase in
greenhouse gases and what mitigation options are available. (v7, #3)

Wilderness Act of 1964 is ambiguous, but this is an administrative advantage. The Act can
include underground wilderness. The longest cave in the world, the Flint Ridge Cave System in
Mammoth Cave National Park, Kentucky, should be officially declared as wilderness by
Congress, even though the surface above it is developed. Watson is in philosophy at
Washington University, St. Louis; Smith is in the office of polar programs, U.S. National Science
Foundation.

Watson, Richard A. Review of The Singer Solution to World Poverty: A Contentious Ethicist
Explains Why Your Taste for Foie Gras is Starving Children. New York Times Magazine. 6

Watson, Richard A. "Interests, Rights, and Self-Consciousness." Environmental Ethics


Watson, Richard A., "Some Philosophical Problems in Environmental Ethics," Philosophical Inquiry 11(nos. 1-2, Winter-Spring 1989):1-16.  "Logical problems, philosophically unsupported arguments, and disturbing social implications in four areas of environmental ethics: (1) eco-philosophy, ecosophy, or deep ecology; (2) eko-religion, ecomysticism, and eco-morality; (3) anti-anthropocentrism and anti-humanism; and (4) the rights of nonhuman animals, sentient nature, and abstract corporate entities."  "The environmental ethics literature is ... shot through with examples of the naturalistic fallacy" (p. 11)  "A substantial amount of what goes on in the literature of environmental ethics is either in ignorance of or in outright defiance of much that has been accomplished in philosophy since the Enlightenment" (p. 14).  "Value enters the world only under the scope of the interests, intentions, and actions of self-conscious entities" (p. 12).  Watson teaches philosophy at Washington University, St. Louis.


Watson, Richard A.  "A Critique of Anti-Anthropocentric Biocentrism."  Environmental Ethics 5(1983):245-56.  Arne Naess, John Rodman, George Sessions, and others, designated herein as ecosophers, propose an egalitarian anti-anthropocentric biocentrism as a basis for a new environmental ethic.  I outline their "hands-off-nature" position and show it to be based on setting man apart.  The ecosophic position is thus neither egalitarian nor fully biocentric.  A fully egalitarian biocentric ethic would place no more restrictions on the behavior of human beings than on the behavior of any other animals.  Uncontrolled human behavior might lead to the destruction of the environment and thus to the extinction of human beings.  I thus conclude that human interest in survival is the best ground on which to argue for an ecological balance which is good both for human beings and for the whole biological community.  Watson is in the philosophy department, Washington University, St. Louis, MO.  (EE)


Watson, Richard A. and Philip M. Smith.  "New Wilderness Boundaries."  Environmental Ethics 1(1979):61-64.  Wilderness is not a simple geographic concept and the boundaries of wilderness can never be simple geographic lines.  Wilderness boundaries depend on attitudes and appearances as much as on the physical environment.  Many areas and forms of wilderness should be protected and included within the National Wilderness Preservation System with specialized designations in terms of wilderness experience.  Watson is in the philosophy department, Washington University, St. Louis, MO.  Smith was formerly with the Office of Science and Technology Policy, Executive Office of the President, Washington, DC.


Watson, Richard A. "Self-Consciousness and the Rights of Nonhuman Animals and Nature." *Environmental Ethics* 1(1979):99-129. A reciprocity framework is presented as an analysis of morality, and to explain and justify the attribution of moral rights and duties. To say an entity has rights makes sense only if that entity can fulfill reciprocal duties, i.e., can act as a moral agent. To be a moral agent an entity must (1) be self-conscious, (2) understand general principles, (3) have free will, (4) understand the given principles, (5) be physically capable of acting, and (6) intend to act according to or against the given principles. This framework is foundational both to empirical and supernatural positions which distinguish a human milieu, which is moral, from a nonhuman milieu, which is not. It also provides a basis for evaluating four standard arguments for the rights of nonhuman animals and nature—the ecological, the prudential, the sentimental, and the contractual. If reciprocity is taken as being central to the general concepts of rights and duties, then few animals, and no natural objects or natural systems, have rights and duties in an intrinsic or primary sense, although they may be assigned them in an extrinsic or secondary sense as a convenience in connection with human interests. Nevertheless, there are some animals besides humans—e.g., especially chimpanzees, gorillas, dolphins, and dogs—which, in accordance with good behavioral evidence, are moral entities, and sometimes moral agents. On the grounds of reciprocity, they merit, at a minimum, intrinsic or primary rights to life and to relief from unnecessary suffering. Watson is in the philosophy department, Washington University, St. Louis, MO. (EE)

Watson, RT, "An International Assessment of Agricultural Science and Technology," *Bioscience* 52(no.12, 2002).


Watts, May Theilgaard, *Reading the Landscape of America.* Rochester, NY: Nature Study Guild Publishers (P. O. Box 10489, Rochester NY 14610-0489; 800-954-2984), 1999. 368 pages. $19.95 paper. Reprint of a 1975 classic in landscape interpretation, remarkably timely. Hunched down to protect herself before a tundra summer snowstorm, she sees a tiny alpine cushion plant and figures out why the plant is tiny and hunched down. And similarly across the U.S. continent. Unexcelled in the blending of landscape ecology and lived experience on landscapes. (v.10,#2)


Contents:
Part I. Introduction to Neonaturalism
Part II. Evolutionary Ethics: Eco-Evolutionary Identification of Morality
Part III. Evolutionary Axiology and Radical Metaethical Neonaturalism (v.13,#1)


Wawrzyniak, Jan, "Suffering as a Transcendental Value," paper in English at the Jagiellonian University Symposium on Ethics, Suffering as Human Experience, Cracow, Poland, June 6-8, 1994. The conference, though largely devoted to human suffering, contained two papers on suffering in the animal world. Suffering must be valued from the point of view of sentient animals, and this makes any associated values to transcend the merely human account of any worth found in suffering. For the other paper, see Leszek Pyra, "Suffering and the Rights of Animals." Copies from Professor Jan Wawrzyniak, Institut Filozofii, Adam Mickiewicz University, 60-569 Poznan, Szamarzewskiego 91c, Poland. (v5,#3)

Wayne, Robert K. and John L. Gittleman. "The Problematic Red Wolf." Scientific American 273 (no. 1, July 1995):36-39. Is the red wolf a species or a long-established hybrid of the gray wolf and the coyote? Proving that the red wolf fits any of the traditional definitions of species has been extremely challenging. Studies of DNA fail to find diagnosable red wolf DNA sequences different from those of the coyote or gray wolf. The authors conclude that the red wolf is a hybrid and not a distinct species. Such distinctions may affect ongoing efforts to save a variety of endangered species, although the authors argue that there are, nevertheless, compelling reasons to continue protection of the red wolf. Wayne teaches biology at UCLA, Gittleman at the University of Tennessee.

Wearing, Stephen and Neil, John, "Refiguring Self and Identity Through Volunteer Tourism," Loisir et societé, Society and Leisure (Presses de l'Université du Québec) 23 (no. 2, 2000):389-419. In English. "As we travel with ourselves we see the 'other' as a world we are travelling through; but at some stage does that 'other' become part of ourselves? This paper is then about that dialogue: interpersonality, boundaries, travel, self and nature. It focuses on the volunteer tourists, as they appear to best represent the type of tourist that allows us to examine this area" (p. 390). "Volunteer tourism applies to those tourists who, for various reasons, volunteer in an organized way to undertake holidays that might involve aiding or alleviating the material poverty of some groups in society, the restoration of certain environments, or research into aspects of society and environment" (p. 394).

What is happening to the sense of self, the personal and community identity of tourists? More ordinary tourists tend to be "gazers," or "escapers," "Cartesians," "modernists." Ecotourists "interact" more significantly with nature and the local communities they visit, "embodied practice" (pp. 397-398). Ecotourists "are those who know that their future will be made of dialogue with their fellow travellers and those they meet along the way" (p. 395); this involves "postmodernized interactionism." They are "travelling to incorporate nature into the self" (p. 402). Environmental philosophers, especially eocentrist and deep ecologists, can be of help understanding and facilitating this. Wearing is at the University of Technology, Sydney. Neil is at the University of Newcastle, UK. (v.13, #3)


Weaver, David B. Ecotourism in the Less Developed World. New York: Oxford University Press, 1998. 288 pp. $56. Weaver begins with three introductory chapters which provide an economic and geographic context for ecotourism in the developing world. These are followed by studies of ecotourism in Costa Rica, Kenya, Nepal, Thailand, and the Caribbean and South Pacific. The final chapter discusses common themes and patterns in the studies and relates these to strategies for the future. Weaver is at Griffiths University, Queensland, Australia. (v.10,#3)

Weaver, Sean A. and Michael C. Morris, "Risks Associated with Genetic Modification: An Annotated Bibliography of Peer Reviewed Natural Science Publications," Journal of Agricultural and Environmental Ethics 18(2005):157-189. An annotated bibliography of peer reviewed scientific research. Risks include concerns over resistance and non-target effects of crops expressing Bt toxins, consequences of herbicide use associated with genetically modified herbicide-tolerant plants, and transfer of gene expression from genetically modified crops through vertical and horizontal gene transfer. These risks are not connected to the technique of genetic modification as such, but would be present for any conventionally produced crops with the same heritable traits. In contrast, other risks are a direct consequence of the method used in gene manipulation. These come about because of the unstable nature of the transgene and vectors used to insert it, and because of unpredictable interactions between the transgene and the host genome. The debate over the release of genetically modified organisms is not merely a scientific one; it encompasses economics, law, ethics, and policy. Keywords: animal welfare - annotated bibliography - biotechnology - Bt - environment - genetic modification - GMOs - human
health - risk assessment - transgene. The authors are in geography and earth science, Victoria University of Wellington, Wellington, New Zealand. (JAEE)


Weaver, Jace, ed. Defending Mother Earth: Native American Perspectives on Environmental Justice. Maryknoll, NY: Orbis Books, 1997. 185pp. $18 paper. These essays document a range of ecological disasters, including the devastating effects of mining, water pollution, nuclear power facilities, and toxic waste dumps. Such hazards are commonly located on or near Indian lands. (v8,#1)


Weaver, John L.; Paquet, Paul C.; and Ruggiero, Leonard F. "Resilience and Conservation of Large Carnivores in the Rocky Mountains." Conservation Biology 10, no.4 (1996): 964. (v7, #3)

Weaver, S. A., and M. C. Morris, "Science, Pigs, and Politics: A New Zealand Perspective on the Phase-out of Sow Stalls," Journal of Agricultural and Environmental Ethics 17(2004):51-66. Sows housed in stalls are kept in such extreme confinement that they are unable to turn around. In some sectors of the pork industry, sows are subjected to this degree of confinement for almost their entire lives (apart from the brief periods associated with mating). While individual confinement is recognized by farmers and animal welfare community organizations alike, as a valuable tool in sow husbandry (to mitigate against aggression), what remains questionable from an animal welfare point of view is the necessity to confine sows in such small spaces.

In 2001, the Australian Journal of Agricultural Research published a review article on the science associated with the use of the sow stall, and claimed "no scientific evidence to support the recommendation in the Code of Practice advising against housing of sows in stalls followed by housing in crates" (Barnett et al., 2001, p. 21). If all the available scientific publications on the animal welfare implications of sow stalls are consulted (many of which did not feature in the above review), then one will indeed find scientific evidence to support recommendations against the housing of sows in stalls. Because there is science on both sides of this policy divide, the argument to defend the use of sow stalls, therefore, is not one of science vs. public opinion, but one of ethics.

An analysis of the scientific arguments against the use of the sow stall should be used to encourage ethical debate on this issue. As an ethical debate, the issue of the use of the sow stall can then focus on the degree of suffering we as a society are willing to tolerate in agricultural practices, and the animal welfare costs associated with extreme economies of scale in sow stocking rates, rather than get bogged down in red herring debates over whether there is any suffering at all. Keywords: animal welfare, New Zealand, pigs, pork industry, sow stalls. The authors are in Environmental Studies, School of Earth Sciences, Victoria University, Wellington, New Zealand. (JAEE)

Weaver, Sean A., "Chronic Toxicity of 1080 and its Implications for Conservation Management: A New Zealand Case Study," Journal of Agricultural and Environmental Ethics 19(2006):367-389. Sodium monofluoroacetate (1080) is a mammalian pesticide used in different parts of the world for the control of mammalian pest species. In New Zealand it is used extensively and very successfully as a conservation management tool for the control of brushtail possums (Trichosurus vulpecula) - an introduced marsupial that has become a substantial agricultural and conservation management pest. Possums pose a threat to cattle farming in New Zealand as they are a vector for bovine tuberculosis. In protected natural areas, possum browsing is responsible for large scale defoliation of native vegetation. As with many other pesticides, there has been some degree of popular concern about the use of this toxin and its safety, with
particular reference to non-target effects. These concerns have been associated with potential non-target effects on human health, and the health of animals of recreational value (e.g., hunting dogs and game animals). This has led to the development of a strong "anti-1080" lobby in New Zealand. In contrast, this study encompasses a science-based risk analysis focusing on the potential risks to non-target native wildlife with a particular focus on chronic toxicity. It finds that there is evidence that 1080 may have endocrine disrupting capabilities (with potential relevance for non-target wildlife) but that this still needs more detailed investigation. This can be clarified by further targeted research. Further research is also needed to test the degradation rates of 1080 and its breakdown products at ecologically-relevant temperatures (i.e., winter stream temperatures - below 11°C). Such research may demonstrate that some adjustment to 1080 risk management is warranted in New Zealand, or it may help to put to rest the current controversy over the use of this cost effective conservation management tool.

Keywords: chronic toxicity - conservation - endocrine disruption - New Zealand - risk - Sodium monofluoroacetate (1080) - wildlife. Weaver is in Environmental Studies, School of Earth Sciences, Victoria University, Wellington, New Zealand.


Webb, Stephen H., On God and Dogs: A Christian Theology of Compassion for Animals. New York: Oxford University Press, 1998. $ 30.00. A Christian perspective on responsibilities to animals, the relationships between humans and their pets, particularly dogs. The relationship can and should inform broader opinions about animal welfare and moral obligations to all animals. (v.9,#3)

Webb, Stephen H., On God and Dogs: A Christian Theology of Compassion for Animals. New York: Oxford University Press, 1998. 222 pages. Animal welfare and Christian conviction. The emotional bond with companion animals should play a central role in the way we think about animals in general. Against he more extreme animal liberationists--Webb defends the intermingling of the human and the animal worlds. He imagines what it would be like to treat animals as a gift from God; indeed, animals are not only a gift to us, but they give to us. We need to attend to their giving and return their gifts appropriately. Webb teaches religion at Wabash College. (v.9,#4)


--Whitfield, John, "Biogeography: Is Everything Everywhere?" Science 310(11 November 2005):960-961. Microbiologists have long thought that the same microbes are every where. "There is no biogeography for anything smaller than 1 millimeter" (Bland Finlay), partially because the microbes and spores are blown transcontinentally in the wind, partially because these can long lie dormant. But other microbiologists are now finding that some microbes are locally specific. One problem is that the species question is not well defined at the microbe level. Many assign microbes to different species only if their DNA is less than 97% identical, but the same criteria would put all primates from lemurs to humans in one species.

Weber, Marcel, "The Aim and Structure of Ecological Theory," Philosophy of Science 66(1999):71-93. Law-like statements often play an important role in ecological theory, contrary to the views of such philosophers of science as Shrader-Frechette and McCoy, who argue that ecology can only be piecemeal, local case studies. "I show that there are ecological laws, if it is allowed that laws generalize over a restricted domain of application." The principle of competitive exclusion (that species with insufficiently differentiated fundamental niches cannot coexist at equilibrium) is such a law. Weber is at the Zentrale Einrichtung für Wissenschaftstheorie und Wissenschaftsethik, Universität Hannover, Germany. (v.10,#1)


Wee, Cecilia. "Cartesian Environmental Ethics." Environmental Ethics 23(2001):275-286. René Descartes is often thought to have exerted a pernicious influence on our views concerning the relationship of humans to the environment. The view that because animals are machines, "thoughtless brutes," they have no moral standing, and we thus have a right to use them to further our own interests, is attributed to him. A celebrated passage from the Discourse on Method adds fuel to the view that he subscribes to the "dominion" theory. I argue that this picture is misleading and unfair. Descartes does not hold the dominion theory, and there is evidence that he accords animals (and plants) moral standing. Most importantly, Descartes holds that it is a human good to subordinate one's interests to those of the larger universe. He can, in fact, be seen as a forerunner of modern ecocentrism. (EE)


Weeramantry, Christopher, *Nauru: Environmental Damage Under International Trusteeship*. New York: Oxford University Press, 1992. 416 pages. $72.00. Weeramantry is on the Commission on Inquiry on the Rehabilitation of Phosphate Lands in Nauru, an island in the South Pacific entrusted to Britain, Australia, and New Zealand. The island has quite valuable phosphate deposits and was much contested, raped, bombed in the war. International law, mandate and trusteeship, abuse of power, unjust enrichment, acquired rights and permanent sovereignty over national, natural resources. Probably the most detailed practical study of an international mandate and trusteeship ever conducted. (v3,#3)

Wege, D. C. and A. J. Long, *Priority Areas for Threatened Birds in the Neotropics*. Washington, DC: Smithsonian Institution Press, 1995. 370 pages. $32.00. From Mexico south, including the Caribbean Islands, the most important areas for bird conservation. Maps for each country. The last documented sightings of threatened birds in these areas. (v6,#4)


Weidensaul, Scott, photographs by Mark Godfrey, "The Ivory-bill and its Forest Breathe New Life," *Audubon* 55(no. 2, 2005):20-31. The ivory-bill woodpecker, not seen (reliably) for over sixty years, has again been found in the Arkansas Mississippi delta (area of Cache River National Wildlife Refuge), in a location not precisely revealed to protect the bird.

Weigert, Andrew J., *Self, Interaction, and Natural Environment: Refocusing Our Eyesight*. Albany: State University of New York Press, 1997. An analysis of how we as individuals understand environmental issues and respond accordingly. Environmental issues exist on worldwide scale, but most people do not consider the pollution they cause by operating cars or fertilizing lawns. (v9,#1)

Weikard, Hans-Peter, "A Methodological Note on Ethics, Economics, and the Justification of Action", *Journal of Agricultural and Environmental Ethics* 5(1992):183-188. Two disciplines claim to provide justification of action. Ethics gives you moral reasons to act upon, whereas economics exploits the concept of rationality. The paper discusses two theories of interdisciplinarity of ethics and economics in order to clarify the relationship. The traditional view
of a hierarchical ordering of ethics and economics is rejected, and it is claimed that there are substantial economic contributions to ethical justification. Weikard is in economics at the University of Bristol, U.K.

Weil, Robert, "Doomed Harvest: How PNTR and the WTO Threaten to Drive Chinese Farmers off the Land," Multinational Monitor, May 2000, pages 16-18. Much of Chinese agriculture is in small and scattered fields, not efficient by industrialized standards. But China is largely self-sufficient in grain and other foods. China's rural population has often moved to the cities, stressing agriculture, but the Chinese government has worked out means of price support, protective tariffs, and a responsibility system emphasizing local initiative. Permanent normal trade relations and entry into the WTO will undermine all this, and U.S. and other foreign grain companies are poised to exploit the weaknesses in Chinese agriculture. Even Chinese government sources estimate that increased imports will displace ten million peasants from their land. (EE v.12,#1)


Weiner, Douglas, R., A Little Corner of Freedom: Russian Nature Protection from Stalin to Gorbachev. Berkeley: University of California Press, 1999. How Russian scientists, despite state repression during a dark era, fought for their alternative vision of land conservation. Nature protection did not just endure in the Soviet Union, it thrived. Scientists, often quite cleverly, disguised their actions as cultural patriotism for a beloved fatherland, camouflaging their deeper intents. They anchored their success around zapovedhiki, strict nature reserves. This concept is without a Western equivalent, though nearest to our wilderness. There appeared in Russia, independently from the West, a close analogue of our wilderness idea. (v.12,#4)


Weiner, Myron. Global Migration Crisis: Challenge to State and Human Rights. New York: Harper Collins, 1995. 253 pages. $ 23.50. Immigration issues are much different in the present than they were in the past. As world populations rise, population and migration issues will become increasingly important--more and more linked to issues of national defense and social welfare. (v8,#1)


Weinstein, Tara, "Prosecuting Attacks that Destroy the Environment: Environmental Crimes or Humanitarian Atrocities?" The Georgetown International Environmental Law Review 17(no. 4, 2005):697-722. No state has ever been held accountable for environmental damage during wartime. Perhaps the time has come for change.


Weir, Jack, "An Argument for the Constitutive Goodness of the Natural Environment." *Southwest Philosophy Review* 10 (January 1994): 167-75. The key concept of a "constitutive good" is analyzed, and the methodological moves in the argument are clarified. Human nature, including individual identities, is conditioned by the environment. Moreover, a life in a sufficiently different environment would not be a human life. Hence, the environment is a constitutive good, and ought to be preserved. (v5,#3)

Weir, Jack, "Kantian Wholism: Toward a Critical Environmental Ethic," *Southwest Philosophical Studies* 11(1989):1-12. Kant's ethic is rejected by most environmental ethicists, criticized as being traditionally anthropocentric. But a Kantian-type environmental ethic is possible when Kant is supplemented by insights from recent ecological science. The resulting synthesis could be labelled "Kantian wholism" or "eco-humanism." The fundamental claim in this ethic is that it is irrationally self-destructive for rationally autonomous selves to act so as to destroy the eco-human basis of their rational self-identity. Ecological balance is necessary for both human survival and human self-identity. Normatively, based on the proposed Kantian-type wholism, our acts ought to enhance our own self-conscious rational autonomy by enhancing wholistic eco-human values. Weir teaches philosophy, Morehead State University, Morehead, KY. (v8,#3)

Weir, Jack, "Animals and Radical Translation." *Southwest Philosophy Review* 11 (January 1995). W. V. O. Quine's principle of charity and Richard Grandy's principle of humanity are applied to nonhuman animals. Weir argues that animals have at least some kinds of beliefs. (v5,#3)

Weir, Jack, "The Environmental Crisis as a Crisis of the Spirit," *Science, Technology and Religious Ideas* 5 (Fall 1994). In this paper, Weir argues that the environmental will not solved by political science (diplomacy), natural science (technology), or philosophy (a new ideology). Rather, the problem is at its deepest level a problem of the heart--one of greed and selfishness--and will not be resolved until people's characters are transformed. (v5,#3)

Weir, Jack. "Poverty, Development, and Sustainability," *Acorn: The Journal of the Gandhi-King Society* 8, no.2 (1995): 17-22. Using ideas from Tolstoy and Gandhi, Weir argues that sustainable development is a euphemism for Westernization and Capitalistic materialism and greed. The formulation of a new, nonanthropocentric environmental philosophy will likely not solve the world's environmental problems because the problem is at bottom one of human greed and finitude (which are often called "spiritual" problems). (v8,#1)


Weis, Julie A. "Eliminating the National Forest Management Act's Diversity Requirement as a Substantive Standard," *Environmental Law* 27(no.2, 1997):641. Weiss considers the U.S. Forest Service's treatment of the biodiversity standards of the National Forest Management Act (NFMA). After noting that courts have generally been highly deferential to the Forest Service's approach to biodiversity, she addresses recently proposed changes to NFMA rules, and
concludes that these changes would further reduce biodiversity protections under the statute.


Weiskel, Timothy C., "Religion, Belief, and Survival on a Small Planet," Harvard Divinity Bulletin, vol. 21, no. 4, 1992. "We must seek to derive our values from both the emerging revelations of ecosystem science and the prophetic insights of past theological traditions." Weiskel is director of the Harvard Seminar on Environmental Values and also at the Kennedy School of Government, Harvard. (v3,#3)

Weiskel, Timothy C., "Environmental Ethics and the Problem of Community," Quinnipiac/Schweitzer Journal 1, no. 2 (Fall/Winter 1994-95): 44-53. A social anthropologist, Weiskel is director of the newly created Center for the Study of Values and Public Life at Harvard Divinity School. The environment is decaying before communities summon the will to balance their way of life. The journal is available for $5 U.S. per issue: Public Relations, Quinnipiac College, 275 Mt. Carmel Ave., Hamden, CT 06518, USA. (v6,#2)

Weiss, Edith Brown and Jacobson, Harold K. "Getting Countries to Comply with International Agreements." Environment 41(No. 6, July 1999):16- . A study of eight countries and five international agreements shows that compliance with environmental accords is a multilayered and volatile process. (v10,#4)


Weiss, Edith Brown, Paul C. Szasz, and Daniel B. Magraw, International Environmental Law: Basic Instruments and References. Transnational Publishers, Inc., One Bridge St., Irvington, NY 10533. 750 pages. 1992. $ 95.00. Eighty-five documents, with lists of 870 international environmental instruments. Brown Weiss is Associate General Counsel for International Environmental Law at the Environmental Protection Agency; Szasz is former Director of the General Legal Division of the United Nations; Magraw teaches environmental law at the University of Colorado. (v4,#3)

Weiss, Rich, "Mice Made Defective to Decode Human Ills," Washington Post (6/7/98): A1. Genetically-engineered mice to have human diseases. A major new trend in biomedical research is to genetically alter mice to have biological defects that cause disease in humans. Breeds of mice, never before existing in nature, are created with inherent propensities to develop diabetes, cancer, multiple sclerosis, cystic fibrosis, arthritis, obesity, etc. These mice serve as models that allow researchers to study disease processes and possibly to develop treatments for them. For example, mice created to possess Huntington's disease have allowed researchers to identify small protein deposits in the brain never before noticed in human patients with Huntington's. Critics charge that creating defective animals treats animals as mere tools and fosters an attitude that undermines a recent trend toward more judicious and compassionate use of lab animals. Barbara Orlans of the Kennedy Institute of Ethics at Georgetown, who supports
some animal research, worries that "It's sort of carte blanche where we're going: Knock out a
gene and see what happens." Mice with deformed genitals, without legs, with a single, Cyclops-
like eye, and massive head deformities have all been produced. Rebecca Dresser, a bioethicist
at Case Western Reserve, suggests we are creating animals "genetically programmed to suffer." 
 Bernard Rollin, a philosopher at Colorado State University, says "there really is something
primordially horrible about replicating animals that will suffer endlessly." Another philosopher,
Paul Thompson of Purdue University, says: "I can rationalize some harm to an individual animal in
exchange for a valuable research result. But when we are in such a dramatic position of control
that we are designing these animals from scratch, this is a different issue. ... This notion that we
can own, buy and exchange fundamental life processes can lead to a fundamental
transformation of how we understand life as sacred." Andrew Rowan, a senior VP of the
Humane Society of the U.S., along with a coalition of other groups, has recently petitioned the
government to reverse its policy under which mice and rats are specifically exempted from the
Animal Welfare Act, the primary federal statute that protects lab animals. Many European
countries have shown greater concern about these issues. In Holland, lab animals--including
mice and rats--were recently deemed to have "inherent value," a status that requires a higher
level of physical and psychological care. The citizens of Switzerland are voting on a
constitutional referendum that would ban the creation of--or research on--engineered animals.
The referendum would also ban the release of genetically engineered microbes and plants into
the environment and would limit the patenting of life forms. All of these are common practice in
the U.S.. For letters to the editor about the article, including one in which Frankie Trull, President
of the Foundation for Biomedical Research, asserts that "Unless one is willing to take the morally
offensive view that the lives of mice are equal to the lives of people, it would be unethical not to
use such a tool," see "Of Mice and Medicine," Washington Post (6/22/98): A20. (v9,#2)

(3/7/97): A3. See under: Kolata, Gina, "With Cloning of a Sheep, the Ethical Ground Shifts," New
York Times (2/24/97): A1. (v8,#1)

Weiss, Edith Brown. In Fairness to Future Generations: International Law, Common Patrimony
and Intergenerational Equity. Dobbs Ferry, NY: Transnational, 1989. (v8,#3)

Weiss, Rick, "When is Food 'Organic'? USDA Proposes 1st Rules," Washington Post (12/16/97):
A1. Definition for "Organic" Food. The US Agriculture Department has put out for public comment
proposed national rules that specify what types of foods can be marketed as organic. The rules
require the use of environmentally-sound farming practices to maintain water and soil quality,
severely limit the use of synthetic chemicals, and specify handling practices for animals.
Processed foods would have to contain at least 95 percent organic ingredients to be labeled
"organic." Organic meat would have to come from animals raised under "living conditions
adequate to promote the health of the animal;" routine use of antibiotics and other drugs in
healthy animals would be prohibited. Although a congressionally-mandated panel of experts had
recommended that foods that are genetically-engineered, irradiated, or fertilized with sewage
sludge be precluded, the proposed guidelines do not require this and explicitly allow the use of a
genetically-engineered bacterial pesticide. The panel also had recommended that confinement of
animals without space for movement or access to the outdoors be allowed only temporarily due
to illness or inclement weather. The guidelines were criticized by animal-care activists for
backing away from this requirement and allowing "organically-raised" animals to be confined
indefinitely in crowded factory-farm conditions. The guidelines would also allow milk to be sold
as organic even it came from a cow that had been on antibiotics or other drugs "relatively
recently." The proposed rules could shape the $3.5 billion organic foods industry which is
growing at 20 percent a year. The stronger the rules, the more likely organic farming--currently
dominated by small and medium sized farms of 100 acre or less--can continue to avoid being
taken over by large agribusiness. (v.8,#4)

Patents on Human-Animal Chimeras? Cellular biologist Stuart Newman and anti-biotechnology activist Jeremy Rifkin are seeking a patent on creatures that are part human and part animal (as well as a patent on a process of making such hybrids). They have not made such creatures and have no intention of doing so. Rather, their aim is to reignite debate about the morality of patenting life forms and engineering humans, activities they believe to be immoral. Patents are available on the basis of detailed descriptions of an invention, even if it is not made or used. They give owners exclusive 20-year rights to their inventions, and Newman would use the patent to block anyone else from commercializing such processes or creatures. To date, 79 animal patents have been issued, including patents on birds, fish, and sheep.

Patents are not allowed on human beings, because the patent office has ruled that this would violate the 13th Amendment to the Constitution which bans slavery. But a number of patents have been issued for human genes and cell lines, as well as for animals that contain human genes and cells. The question these activists are forcing is: How human must something be before patents will be denied? The application is for a technique that mixes human embryo cells with embryo cells from some other animal (such as a monkey or ape) and then transfers the fused single embryo into a surrogate mother (human or other animal). The method is an updated version of one that ten years ago successfully produced "geeps," creatures that were part goat and part sheep. Because people and monkeys are more closely related to each other than sheep and goats, Newman believes the technique would work to produce human-animal chimeras of unpredictable nature. Such creatures might be useful for understanding human development, as organ donors, and for toxicity testing of human tissues.

Unlike the European patent office that can reject patents on moral grounds, the U.S. patent office is not empowered to take ethical criteria into account. The hope is that the courts and Congress will rethink the current liberal policy concerning patenting of life forms. (v9,#1)


Welchman, Jennifer. "The Virtues of Stewardship." *Environmental Ethics* 21(1999):411-423. What virtues do good stewards typically have and can these virtues move people to be good stewards of nature? Why focus on the virtues of stewards rather than on trying to construct and defend morally obligatory rules to govern human behavior? I argue that benevolence and loyalty are crucial for good stewardship and these virtues can and do motivate people to act as good stewards of nature. Moreover, since it is a matter of dispute whether rational considerations can move us to perform a given act in the absence of disposition to do so, I argue we should try to determine which moral dispositions (if any) will motivate people to be concerned for the environment so that the development of environmentally sensitive character may be encouraged. (EE)
Welchman, Jennifer, "Is ecosabotage civil disobedience?," *Philosophy and Geography* 4 (No. 1, 2001): 98-107. According to current definitions of civil disobedience, drawn from the work of John Rawls and Carl Cohen, eco-saboteurs are not civil disobedients because their disobedience is not a form of address and/or does not appeal to the public's sense of justice or human welfare. But this definition also excludes disobedience by a wide range of groups, from labor activists to hunt saboteurs, either because they are obstructionist or because they address moral concerns other than justice or the public weal. However earlier definitions of civil disobedience were not so narrow. I review the development of the current definition and the circumstances of its acceptance. I argue that the circumstances which help to explain the attractiveness of the Rawls/Cohen formulations in the 1970s are no longer applicable and that the question of civil disobedience should be revisited. I suggest a wider definition according to which at least some types of eco-sabotage would be civil disobedience. Welchman is Associate Professor of Philosophy at the University of Alberta. (P&G)


Welford, Richard, Starkey, Richard, eds. *Business and the Environment: A Reader.* Bristol, PA: Taylor and Francis, 1996. 284pp. $24.95 paper. This book brings together the work of leading experts in the field of business and the environment. It contains contributions to the various debates and discussions currently taking place around the world. Its goal is to enable the reader to become better aware of the complex issues facing business and better to understand what businesses need to do to contribute to sustainable development for the future.

Welker, Michael, *Creation and Reality.* Minneapolis: Fortress Press, 1999. 102 pages. $13.00 paper. Six essays in major reconsideration of creation as a theological theme, in the light of both biological science and environmental issues, emphasizing creation as not so much unilateral act of God (the classical view) as interactive creation with creatures engaged in making themselves. "The mandate of dominion aims at nothing less than preserving creation while recognizing and giving pride of place to the interests of human beings. In all the recognizing and privileging of the interests of human beings, the central issue is the preservation of creation in its complex structures of interdependence. The expansion of the human race upon the earth is inseparable from the preservation of the community of solidarity with animals in particular, and inseparable from the caretaking preservation of the community of solidarity with all creatures in general. God judges human beings worth of this preservation of creation. They are to exercise dominion over creatures by protecting them. Human beings acquire their power and their worth precisely in the process of caretaking. The mandate of dominion according to Genesis 1 means nothing more and nothing less" (p. 73). Welker is a Reformed theologian at Heidelberg University, with considerable residency in the United States. (v.10,#2)


Wells, Michael P. "The Social Role of Protected Areas in South Africa," Environmental Conservation 23(no.4 1996):322. (v8,#3)

Wells, M., "Biodiversity Conservation, Affluence and Poverty: Mismatched Costs and Benefits and Efforts to Remedy Them," Ambio 21(1992):237-242. "In general, while there is growing recognition that many of the benefits from conserving biodiversity go to the world as a whole, in many cases the costs are borne at national and local levels. The heaviest burden tends to be borne by poorer countries, and especially by impoverished people living in remote rural areas of these poor countries in the proximity of protected areas" (p. 237).


Welsh, MM, "Reaction of the National Environmental Groups to Devolution", Society and Natural Resources 17 (no.4, 2004): 293-304(12).


Wenhua, Li and Zhao Xianying, China's Nature Reserves (Beijing: Foreign Languages Press, 1989), 190 pages. Li Wenhua is one of China's foremost ecologists; Zhao Xianying is a geobotanist who has studied in the United States. Quite useful general introduction to nature reserves in China. The rationale they give: resources, aesthetics, scientific research, environmental protection, education, tourism. Humans have, in the past, had the wrong attitude toward nature, one of exploitation. "We once judged our ability to squeeze nature for all its worth as an important indication of humankind's civilization and progress. Often as not, the cost of our conquests over nature was the devastation of those elements so vital to our own existence, the earth's environment and natural resources. We were, in effect, destroying our own life-support system. Living in harmony with our planet means cherishing and protecting the natural world" (pp. 1-2). China was late forming any conservation strategy. The first reserve was in 1956, and nineteen reserves were set up by 1966, but most of these gains lost in the Cultural Revolution. Since 1976 there has been steady improvement. By late 1981 there were
76 reserves, by 1986 there were 383. A goal is 500 reserves by 2000. But one must use considerable care; many of these are paper reserves only (the designation as a reserve of the forests that remain on a former Buddhist temple site, although the area may be much used).

(China)


Wensveen, Louke van. "Ecosystem Sustainability as a Criterion for Genuine Virtue." *Environmental Ethics* 23(2001):227-241. I propose an ecologically attuned criterion for genuine virtue, namely, the criterion of ecosustainable virtue: a genuine virtue includes the goal of ensuring ecosystem sustainability. I show how this criterion emerges from environmental practice and how it can be supported by syllogistic reasoning. (EE)


Wenz, Peter S., "Leopold's novel: The land ethic in Barbara Kingsolver's *Prodigal Summer*," *Ethics and the Environment* 8(no. 2, 2003):106-125. *Prodigal Sunner* corresponds to Aldo Leopold's call for "a land ethic [that] changes the role of Homo sapiens from conqueror of the land-community to plain member and citizen of it." People should "respect ... fellow-members and also ... the community as such." Barbara Kingsolver explains Leopold's key ideas and updates the Land Ethic by showing how it might guide people today. The present paper selectively displays this relationship, and then suggests some pedagogical advantages of fiction. Wenz is in philosophy, University of Illinois at Springfield. (E&E)


Wenz, Peter S. "Environmental Justice through Improved Efficiency." *Environmental Values* 9(2000):173-188. Abstract: Environmentalists can convince others to adopt nature-friendly policies through appeal to commonly-held values. Efficiency and justice are such values in industrial societies, but these values are often considered at odds with each other and with policies that preserve land and reduce pollution. The present paper analyses the notion of efficiency and argues that transportation policies that environmentalists favour - substitution of intercity rail and urban mass transit for most automotive forms of transport - are both efficient
and just. Keywords: Automobiles, efficiency, justice, mass transit, rail, transportation. Peter S. Wenz is in Philosophy at the University of Illinois at Springfield, Sch. of Liberal Arts/Sciences Brookens 482, Springfield, IL 62794-9243, USA. (EV)


Part III. Environmental Synergism. Environmental synergists believe that synergy exists between respect for people and respect for nature. Overall and in the long run, simultaneous respect for people and nature improves outcomes for both. ... Respect for nature promotes respect for people, so the best way to serve people as a group is to care about nature for itself" (p. 169). (This seems to be something like Bryan Norton's convergence hypothesis.) 8. Human Rights, Agriculture, and Biodiversity (sustainability, high-tech agriculture, fouling our own nest, anthropocentrism or synergism). 9. Ecofeminism and Environmental Justice. 10. Religion and Nature (playing God, hermeneutics, narratives, grand narratives, deep ecology, stewardship, Native American religion).


In the course of the book Wenz considers the views of Thomas Berry, Wendell Berry, J. Baird Callicott, Jane Goodall, Garrett Hardin, David Korten, Aldo Leopold, Arne Naess, Val Plumwood, Daniel Quinn, Tom Regan, Holmes Rolston, III, Vandana Shiva, Julian Simon, Peter Singer, and Karen Warren. Wenz is in philosophy at the University of Illinois/ Springfield; earlier works include Nature's Keeper (1988) and Environmental Justice (1988). (EE v.12,#1)


Implications. Practical Suggestions for agriculture, international trade, transportation, energy, equity, population control. Living with Nature. (v9,#1)


Wenz, Peter S. "Environmental Synergism." Some anthropocentrists, such as Bryan Norton, claim that intergenerational anthropocentrism provides the best rationale for protecting biodiversity. Some nonanthropocentrists, such as J. Baird Callicott and Eric Katz, disagree. In the present paper, I analyze different varieties of anthropocentrism, argue for adopting what is here called multicultural anthropocentrism, and then advance the following thesis of environmental synergism: combining multicultural anthropocentrism with nonanthropocentrism enables synergists to argue more cogently and effectively than either anthropocentrists or previous nonanthropocentrists for policies that both protect biodiversity and maximize long-term welfare for human beings as a group. Environmental Ethics 24(2002):389-408. (EE)


Wenz, Peter. "Ethics, Energy Policy, and Future Generations." Environmental Ethics 5(1983):195-209. Conflicts can arise between energy policies pursued in the interests of present people and the needs of future people for environmental and social conditions conducive to human well-being. This paper is addressed primarily to those who believe that we have moral obligations toward people of the distant future, and who consider these obligations to affect the range of energy policies which we are morally entitled to pursue. I examine utilitarian, contractarian, and formalist ethical theories to determine which provide adequate ethical bases for this moral conviction. I argue that utilitarian theories lead to bizarre prescriptions concerning energy policies that affect people of the distant future. Contractarian theories, on one interpretation, fail to support any moral concern at all for such people and, on another, exclude some relevant dimensions of moral concern, i.e., beneficence, and provide policy planners with inadequate guidance in the face of moral dilemmas. Only formalism, for example, that of W. D. Ross, supports a moral concern for people of the distant future, and yields reasonable prescriptions concerning energy policies that affect such people. Wenz is in the philosophy program, Sangamon State University, Springfield, IL. (EE)


Wenz, Peter. "Minimal, Moderate, and Extreme Moral Pluralism." Environmental Ethics 15(1993):61-74. Concentrating on the views of Christopher Stone, who advocates moral pluralism, and J. Baird Callicott, who criticizes Stone's views, I argue that the debate has been confused by a conflation of three different positions, here called minimal, moderate, and extreme moral pluralism. Minimal pluralism is unexceptional because all known moral theories are minimally pluralistic. Extreme pluralism is defective in the ways that Callicott alleges and, moreover, is inconsistent with integrity in the moral life. However, moderate pluralism of the sort
that I advance in *Environmental Justice* is distinct from extreme pluralism and free of its defects. It is also consistent with Callicott's version of Aldo Leopold's land ethic, which is itself moderately pluralistic. Wenz is in the philosophy Program, Sangamon State University, Springfield, IL. (EE)


Because commercialism tends toward environmental degradation, selection and treatment of the philosophical canon are environmental matters. Environmentalists and others who teach early modern and modern philosophy should, I argue, alter typical pedagogical approaches that (usually unwittingly) reinforce common assumptions underlying commercialism and promote anti-environmental perspectives. Typical treatments of Hobbes, Locke, Descartes, Kant, Hume, and Bentham focus on human selfishness, mind-body dualism, the subjectivity of values, and the mathematical nature of reality, positions that are frequently identified as contributing causes both of the environmental crisis and of commercialism. The alternative, I argue, is to place canonical thinkers in historical perspective within a history of ideas that also includes such writers as Montaigne, Erasmus, Reid, Burke, Goethe, and Emerson. Such courses can be historically accurate, pedagogically sound, and environmentally benign. Wenz is in philosophy at the University of Illinois, Springfield. (EE)


Wernstedt, Kris and Robert Hersh, "Brownfields Policy Reform in Wisconsin: A New Regulatory Culture," *Resources* (Resources for the Future), Spring 2004, Issue No. 153, pp. 14-17. Brownfields (sites with real or perceived pollution problems) number in the hundreds of thousands, perhaps as many as a million in the U.S., and under Superfund and related laws developers are afraid of them, as they can become responsible for inherited problems. Often new land is developed rather than incur the risks of reclaiming brownfields. The state of Wisconsin has a new approach to cleanup and development of brownfields. (v. 15, # 3)

Wersal, Lisa. "Islam and Environmental Ethics: Tradition Responds to Contemporary Challenges." *Zygon* 30(1995):451-459. The insights of Islamic scholars as they examine the interaction of Islam and the West facing environmental issues. The Western view that separates religion and science, value and fact, in particular differs from Islamic tradition, which sees all facets of life and affairs interconnected by virtue of their common source, the Creator. As traditional Islamic values have been abandoned to adopt Western technologies, environmental problems have
intensified in the Muslim world. Muslim scholars urge a return to Islamic ideals that reflect a sacramental view of the physical universe, and they champion the revival of an Islamic science that synthesizes empirical study and symbolic cognition. Wersal lives in St. Paul, MN. (v6,#3)

Wersal, Lisa. "Islam and Environmental Ethics." Zygon 30, no. 3 (September 1995): 451-60. (v7,#1)


Wesley, E. and F. Peterson. "The Ethics of Burden Sharing in the Global Greenhouse," Journal of Agricultural and Environmental Ethics 11(1999):167-196. The Kyoto Protocol on global warming has provoked great controversy in part because it calls for heavier burdens on wealthy countries than on developing countries in the effort to control climate change. The U.S. Senate voted unanimously to oppose any agreement that does not require emissions reductions in low-income countries. The ethics of this position are examined in this paper which shows that there are good moral reasons for supporting the provisions of the Kyoto Protocol. Such a conclusion follows easily from considerations of distributive justice but can also be supported by more narrowly selfinterested arguments. KEY WORDS: global warming, ethics, distributive justice, development, U.S. politics

West, Patrick C. and Steven R. Brechin, eds., Resident Peoples and National Parks: Social Dilemmas and Strategies in International Conservation (Tempe: University of Arizona Press, 1991). 420 pages. $29.95. National Parks in the U.S. are protected from human exploitation and habitation but the American model may not always be relevant to other economic, social, and cultural contexts. Examples of parks from around the world to address the rights of third world peoples faced with relocation or blocked from access to essential resources. An examination of the moral issues associated with moving peoples, particularly disadvantaged ones, in the name of conserving representative ecosystems. (v2,#1)

West, Karen, "Ecolabels: The Industrialization of Environmental Standards," The Ecologist 25 (no. 1, January 1, 1995):16- . Ecolabelling schemes are being promoted by governments and industry as substitutes for environmental regulation. Without the backing of legally-binding standards, however, ecolabelling is little more than a marketing gimmick, providing minimal protection for the environment or for the consumer. Under GATT, even this weak instrument could be ruled a barrier to trade. (v6,#2)


Westing, Arthur H., "Core Values for Sustainable Development," Environmental Conservation 23(no.3, 1996):218-225. Widely shared core social values became strikingly articulated following World War II in such documents as the Universal Declaration of Human Rights. Widely shared core environmental values began to emerge later in such documents as the World Charter for Nature and the Rio Declaration. The social values at first ignored environmental values, but the environmental values were generally couched in social terms. Key ethical issues are how to strike a balance between anthropocentric and non-anthropocentric concerns, a proper apportionment of the biosphere between humankind and other life on Earth. Stumbling blocks include the imbalance between human numbers and available natural resources, the prevalence of totalitarian and corrupt regimes, and the ineffective system of peaceful world governance. Nevertheless a trend toward environmental values is evident. Westing is with the Westing Associates in Environment, Security and Education, Putney, VT. (EE v.12,#1)


the core values include: (1) An environment of quality that permits a life of dignity and well-being. (2) Solemn responsibility to protect and improve the environment for present and future generations. (3) Education on environmental matters to create enlightened opinion and responsible conduct. (4) In formulating long-term plans for economic development, due account shall be taken of the long-term capacity of natural systems. (4) Nature shall be respected and its essential processes shall not be impaired. (v.12,#3)


Weston, Anthony, Back to Earth: Tomorrow's Environmentalism. Philadelphia: Temple University Press, 1994. 200 pages. $ 17.95, paper. $ 39.95 cloth. "Weston goes beyond the `environmental ethics' approach to argue for the reinstatement of our age-old connections to Nature and other animals, ... a sense of the `vividness, vibrancy, and aliveness of the rest of the natural world.' Weston draws upon an encyclopedic knowledge of recent research in animal behavior in his proposal for a new trans-species `etiquette.' He also provides practical suggestions for redesigning our cities and neighborhoods in bioregional ways to help bring about a new ecological relationship with nature." George Sessions. Humans must put aside their presuppositions about their centrality and superiority and recover their participation in the world through a rediscovery of touch and smell, noticing the details of nature, restoring the great annual celebrations at the turns of the seasons, build Earth-friendly houses, and plan neighborhoods that allow for other-than-human beings. Weston teaches philosophy at Elon College, North Carolina. (v5,#4)


Weston, Anthony, "Listening to the Earth," Tikkun, vol. 5, no. 2, March/April 1990, pp. 50-54. A sensitive meditation on how technologically remade environments close off from us relationships with the natural world, how what we do to food and other domestic animals prevents them from being morally considerable, and how teaching environmental ethics is problematic in built
environments. Anthony Weston, Department of Philosophy, State University of New York at Stony Brook, Stony Brook, NY 11794-3750. (v1,#2)

Weston, Anthony, ed., An Invitation to Environmental Philosophy. New York: Oxford University Press, 1999. $14.95. Five original essays by prominent philosophers in environmental ethics--David Abram, Jim Cheney, Val Plumwood, Holmes Rolston III, and Anthony Weston--together with an introduction and an epilogue and resource guide by Weston. The book aims to "animate the basic questions, tell compelling stories, and offer a range of philosophical responses as complementary--not antagonistic--exploratory strategies vital to this growing topic." Intended for use as a text in upper-level environmental philosophy as well as ethics courses, alternative to the heavy academic anthologies now available, and also as a somewhat different model of environmental philosophy itself, meant for those "looking for new and more inclusive ways to approach and practice [it]". Abram's essay is "A More Than Human World"; Weston's "Is It Too Late?"; Plumwood's "Paths Beyond Human-Centeredness: Lessons from Liberation Struggles"; Rolston's "Ethics on the Home Planet"; and Cheney's "The Journey Home". Weston teaches philosophy at Elon College, North Carolina. (v.9,#3)


Weston, Anthony. "Before Environmental Ethics." Environmental Ethics 14(1992):321-38. Contemporary nonanthropocentric environmental ethics is profoundly shaped by the very anthropocentrism that it tries to transcend. New values only slowly struggle free of old contexts. Recognizing this struggle, however, opens a space for--indeed, necessitates--alternative models for contemporary environmental ethics. Rather than trying to unify or fine-tune our theories, we require more pluralistic and exploratory methods. We cannot reach theoretical finality; we can only co-evolve an ethic with transformed practices. Weston is in the philosophy department, State University of New York, Stony Brook, NY. (EE)

Weston, Anthony, "Self-Validating Reduction: Toward a Theory of Environmental Devaluation," Environmental Ethics 18(1996):115-132. Disvaluing nature, a cognitive act, usually leads quickly to devaluing it too: to real-world exploitation and destruction. Worse, in fact, nature in its devalued state can then be held up as an excuse and justification for the initial disvaluation. In this way, dismissal and destruction perpetuate themselves. I call this process 'self-validating reduction.' It is crucial to recognize the cycle of self-validating reduction, both in general and specifically as it applies to nature, if we are to have any chance of reversing it. Weston teaches philosophy at Elon College, North Carolina. (EE)


Weston, Anthony. "Forms of Gaian Ethics." Environmental Ethics 9(1987):217-30. James Lovelock's "Gaia hypothesis"--the suggestion that life on Earth functions in essential ways as one organism, as a single living entity--is extraordinarily suggestive for environmental philosophy. What exactly it suggests, however, is not yet so clear. Although many of Lovelock's own ethical conclusions are rather distressing for environmental ethics, there are other possible approaches to the Gaia Hypothesis. Ethical philosophers might take Gaia to be analogous to a "person" and thus to have the same sorts of values that more familiar sorts of persons have. Deep ecologists might find in the Gaia hypothesis a means by which to transform and reunderstand our concrete experience of the world. This essay canvasses some of the strengths, weaknesses, and possibilities of each approach. Weston is in the philosophy department, State University of New York, Stony Brook, NY.

Weston, Anthony. "Multicentrism: A Manifesto." Environmental Ethics 26(2004):25-40. The familiar "centrisms" in environmental ethics aim to make ethics progressively more inclusive by expanding a single circle of moral consideration I propose a radically different kind of geometry. Multicentrism envisions a world of irreducibly diverse and multiple centers of being and value not one single circle, of whatever size or growth rate, but many circles, partly overlapping, each with its own center. Moral consideration necessarily becomes plural and ongoing, and moral action takes place within an open-ended context of negotiation and covenant. Much critical and constructive work, both in environmental ethics proper and in many related fields, is already multicentric in spirit. It needs to be drawn together into an explicit, alternative environmental-ethical "platform." (EE)


Weston, Anthony, Toward Better Problems. Philadelphia: Temple University Press, 1992. Cloth $49.95. Paper $18.95. Grappling with controversial issues such as abortion, animal rights, and environmental ethics, Weston explores the significance of approach and perspective in any decision-making context. The seemingly endless debates can be simplified or avoided by a "preventive ethics" that acknowledges that all values bearing on a social problem are acknowledged as equal and "correct." Chapter 4 is on animals, Chapter 5 on the environment. Weston is professor of philosophy at SUNY, Stonybrook. This year he is at Elon College, Elon, NC. ISEE members can obtain a 20% discount by identifying themselves. 800/447-1657. (v3,#3)

Weston, Anthony. "Universal Consideration as an Originary Practice." Environmental Ethics 20(1998):279-89. Tom Birch has decisively transformed the so-called "considerability" question by arguing that all things must be "considerable" from the start in "the root-sense" if we are to determine what further kinds of value they may have. Spelling out this kind of "root" or "deep" consideration proves to be difficult, however, especially in light of post-Kantian conceptions of mind. Such consideration may also ask of the world too ready a kind of self-revelation. This paper proposes another, complementary version of universal consideration: as a kind of practical invitation, as a way of creating the space within which a response can emerge or an exchange coevolve. I conclude by locating this vision within a picture of ethics as a whole that brings what I call its "originary" stage, rather than its formal stage, into focus. Weston is in philosophy, Elon College, NC. (EE)

Weston, Anthony. A Practical Companion to Ethics. New York: Oxford University Press, 1997. The closing section of this small book is "The Expanding Circle," ethics extended to animals, to the enormous creativity, complexity, and depth of the rest of the world, the nonhuman, the other-than-human, the more-than-human" (p. 80). Weston is in philosophy at Elon College, North Carolina. (v7, #3)


Weston, Anthony. "Beyond Intrinsic Value: Pragmatism in Environmental Ethics." Environmental Ethics 7(1985):321-39. I propose an environmental ethic in the pragmatic vein. I begin by suggesting that the contemporary debate in environmental ethics is forced into a familiar but highly restrictive set of distinctions and problems by the traditional notion of intrinsic value,
particularly by its demands that intrinsic values be self-sufficient, abstract, and justified in special ways. I criticize this notion and develop an alternative which stresses the interdependent structure of values, a structure which at once roots them deeply in our selves and at the same time opens them to critical challenge and change. Finally, I apply this alternative view back to environmental ethics. It becomes easy to justify respect for other life forms and concern for the natural environment, and indeed many of the standard arguments only become stronger, once the demand to establish intrinsic values is removed. Weston is in the philosophy department, State University of New York, Stony Brook, NY. (EE)


Westra, Laura, Kira L. Bowen, and Bridget K. Behe, "Agricultural Practices, Ecology, and Ethics in the Third World," *Journal of Agricultural and Environmental Ethics*, vol. 4 (no. 1, 1991):60-77. The increasing demand for horticultural products for nutritional and economic purposes by lesser developed countries is well documented. Pesticide use is an integral component of most agricultural production, yet chemicals are often supplied without supplemental information vital for their safe use. A developing country faces a dilemma whether it should improve its situation without giving adequate consideration to environmental consequences. Westra is now at the University of Windsor, but was formerly at Auburn University, Alabama. Bowen and Behe are both professors in the College of Agriculture, Auburn University. (v2,#3)


Westra, L.S., Bowen, K.L., and Behe, B.K., "Agricultural Practices, Ecology, and Ethics in the Third World", *Journal of Agricultural and Environmental Ethics* 4(1991):60-77. The increasing demand for horticultural products for nutritional and economic purposes by lesser developed countries (LDC's) is well-documented. Technological demands of the LDC's producing horticultural products is also increasing. Pesticide use is an integral component of most agricultural production, yet chemicals are often supplied without supplemental information vital for their safe and efficient implementation. Illiteracy rates in developing countries are high, making pesticide education even more challenging. For women, who perform a significant share of agricultural tasks, illiteracy rates are even higher than for men. The dilemma exists of how a developing country can improve its nutritional and economic situation without giving consideration to social and environmental consequences.

Westra, Laura, and Robinson, Tom, eds. The Greeks and the Environment. Lanham, MD: Rowan and Littlefield Publishers, 1997. 184 pp. $21.95 paper, $52.50 cloth. A collection of original essays that reexamines the views of nature and ecology found in the thought of Plato, Aristotle, the Stoics, and Plotinus. Recognizing that these thinkers were not confronted with the environmental degradation that threatens contemporary philosophers, the contributors find that the Greeks nevertheless provide an excellent foundation for a sound theory of environmentalism. Westra is in philosophy at the University of Windsor. Robinson is in philosophy at the University of Toronto. (v8,#1)

Westra, Laura, "'Respect,' 'Dignity,' and 'Integrity,': An Environmental Proposal for Ethics," Epistemologia 12(1989):91-124. Westra proposes an account that has a wider reach than either Albert Schewitzer's reverence for life or Paul Taylor's respect for nature. (v1,#2)

Westra, Laura, An Environmental Proposal for Ethics: The Principle of Integrity. Lanham, MD: Rowman and Littlefield, 1993. 240 pages. $ 21.95 paper. $ 55.00 cloth. What does ecosystem integrity mean as a basis of moral obligation? Part I: The Theory of Integrity, with chapters analyzing integrity, respect, and dignity in philosophy, science, and law, and concluding with a defense of biocentric holism. Part II. The Practice of Integrity, with analysis how to make the concept of ecosystem integrity operational. "Westra's book is the best philosophical defense, to date, of the ecosystems approach to environmental ethics" -- Kristin Shrader-Frechette. "This original discussion breaks new ground by thoroughly analyzing ethical values, centering on the concept of ecological integrity, that apply intrinsically to nature and that govern our rightful use of the environment" -- Mark Sagoff. Westra is in philosophy at the University of Windsor. (v4,#3)

Westra, Laura. "Ecosystem Integrity and the 'Fish Wars.'" Journal of Aquatic Ecosystem Health 5(1996):275-282. The problem of fisheries and aquatic ecosystems in Canada have been analyzed primarily from the standpoint of the conservation of these resources, without much emphasis on the value of aquatic ecosystems for themselves, including their life-support function, vital to all the biota therein. This represents a purely anthropocentric approach, that is flawed from the standpoint of sustainability practically and theoretically. Without entering into the anthropocentrism debate, this study indicates the apparent conflict between theoretical legislative and regulative aims, and most forms of "management principles," even when these are presented in their most enlightened forms. Starting with the examination of a recent Canadaian case, the failure of present management practices is outlined, even when these are democratically chosen and support worthwhile social goals. The Canadian "fish wars" example shows clearly why the ethics of integrity provide better guidelines for public policy, as such ethics alone take as primary biological and ecological objectives. Westra teaches philosophy at the University of Windsor, Ontario. (v8,#2)


Westra, Laura. "Ecosystem Integrity, Sustainability, and the 'Fish Wars.'" *Wild Earth*, Summer 1996, pp. 66-69. The cod population in Newfoundland waters crashed in 1992, a result of overfishing for decades. In 1995, haddock (turbot) populations declined, due to overfishing beyond the 200 mile limit in the Grand Banks off the coast of Newfoundland, resulting in dispute to the point of violence between Canadians and Spanish fishing crews. Westra argues that such problems can be best addressed through an ethics of ecosystem integrity, from which strict regulations and reduced quotas follow. Westra is in philosophy at the University of Windsor, Ontario. (v7, #3)

Westra, Laura, "The Ethics of Environmental Holism and the Democratic State: Are they in Conflict?" *Environmental Values* Vol.2 No.2(1993):125-136. ABSTRACT: Environmental holism, with its demands for universality, appears to undermine the democratic rights of individuals, and of nation states within the international community. But these rights may better be viewed as means towards justice or other goods, rather than as ends in themselves. Where basic survival issues are involved, environmental ‘triage’ may be morally essential, and some checks on ‘populist’ democratic politics inevitable. KEYWORDS: Democracy, environmental ethics, holism, individual rights. University of Windsor, 401 Sunset, Windsor, Ontario, Canada N9B 3P4.

Westra, Laura. "Ecology and Animals: Is There a Joint Ethic of Respect?" *Environmental Ethics* 11(1989):215-30. Recent work in animal ethics has advanced principles that are too individualistic to be compatible with a holistic environmental ethic such as the land ethic proposed by Aldo Leopold. J. Baird Callicott, on the other hand, has attempted to reconcile the two ethics by suggesting that sympathy, natural among humanity, as he claims on Humean grounds, does not necessarily terminate at the species barrier. His argument shows minimally that it is not necessary that we abandon ecological ethics in order to view nonhuman animals as morally considerable. I argue instead that it is not sympathy, but hostility/indifference that manifests the reality of life in wild nature, and as such forms a better basis for an all-encompassing ethic. If one accepts that the factual realm suggests the limits of norms and establishes the background and context of normative judgments in this context (as Holmes Rolston, III, for instance, does), then a different line of argument can be developed. I argue that intraspecies and interspecies ethics ought to be different for us because behavior in the wild is different within and without a species. Further, I argue that hostility/indifference coupled with respect form the basis of an approach which embraces a holistic environmental ethic as well as one concerned with nonhuman animals. Westra is in the philosophy department, Auburn University, Auburn, AL. (EE)

Westra, Laura. "Why Norton's Approach is Insufficient for Environmental Ethics." *Environmental Ethics* 19(1997):279-297. There has been an ongoing debate about the best approach in environmental ethics. Bryan Norton believes that "weak anthropocentrism" will yield the best results for public policy, and that it is the most defensible position. In contrast, I have argued that an ecocentric, holistic position is required to deal with the urgent environmental problems that face us, and that position is complemented by the ecosystem approach and complex systems theory. I have called this approach "the ethics of integrity," and in this paper I show why this perspective suggests better solutions to difficult cases, for which "weak anthropocentrism" fails to provide an answer. Westra is in philosophy at the University of Windsor, Windsor, Canada. (EE)

-Maria Patroescu, "Natural Transborder Parks: the Direction of Biodiversity Preservation in Romania."
Westra, Laura. "Environmental Integrity, Racism, and Health." The Science of the Total Environment 184 (1996): 57-66. Environmental degradation seriously affects human health. Thus, a close relationship exists between the protection of ecosystem integrity and wilderness on one hand, and human health on the other. However, there is an overarching holistic perspective in laws and regulations—as well as morality—to maintain a healthy relationship between the two. Problem areas focused on in this paper are: (a) climate change and global warming; (b) food production; and (c) global equity. Westra is in philosophy at the University of Windsor, Ontario. (v7, #3)

Westra, Laura. Living with Integrity: A Global Ethic to Restore a Fragmented Earth. Lanham, MD: Rowan Littlefield, 1997. This innovative book takes a new look at environmental ethics and the need for ecological and biological integrity. Westra explores the necessity for radical alteration not only of interpersonal ethics but also of social institutions and public policy. In the process, Westra denies the validity of majority rule in environmental ethical concerns. Issues discussed in the book include the link between ecological integrity and human health; an environmental evaluation of business and technology; biotechnology and transgenics in agriculture and aquaculture; and the environmental ethics of the ancient Greeks and Kant. (v8,#3)

Westra, Laura. "Let It Be: Heidegger and Future Generations." Environmental Ethics 7(1985):341-50. The concept of freedom in Heidegger's sense of truth or unconcealedness of beings may be applied to future generations without thereby reducing the status of other elements within the environment to mere means, since Da-sein's approach as one who is a caring and concerned, anxious and aware of its own death in an authentic manner, does not place man in any sense "above" other things. This care (Sorge), concern, favor, can be captured in Heidegger's remark that man is not the lord of beings, but rather is "the Shepherd of Being." Accordingly, we may be able to learn to moderate our ordering and commanding attitude and learn to "listen" and free beings, letting them be what they truly are. If so, we might then require no special justification in order to extend toward earth, sky, and future persons the same understanding and freeing concern we normally give to, and wish for, ourselves. Westra is in the department of history, philosophy, and religion, Clemson University, Clemson, SC. (EE)


Westra, Laura, Environmental Justice: The Rights of Unborn and Future Generations. London: Earthscan, 2006. How the rights of the unborn and future generations are handled in common law and under international legal instruments. Convention on the Rights of the Child, industrial disasters, toxic spills, clean water provision, diet, HIV/AIDS, environmental racism and climate change, the Kyoto Protocol, the Millennium Development Goals, and international trade. Case studies such as Bhopal and Chernobyl. Westra is philosophy (emeritus), University of Windsor, and adjunct professor in social science, York University, Toronto.

Westra, Laura, Ecoviolence and the Law: Supranational Normative Foundations of Ecocrime. Ardsley, NY: Transnational Publishers, 2004. The international law principles of jus cogens ("compelling law," higher laws binding on all nations), and erga omnes (obligations promoting basic values of all nations) justify characterizing ecocrime as a "just crime" requiring action to curb their occurrence and punishment to deter them. Westra proposes the creation of an International Environmental Court that would adjudicate "ecocrime" issues. The book results from a doctoral thesis in law at Osgoode Hall Law School, York University, Toronto.
Westra, Laura and John Lemons, Scientific and Ethical Perspectives on Ecosystem Integrity, Kluwer Academic Publishers, Drodrecht, The Netherlands, 1995. A collection of essays by philosophers and scientists, drawing together many of the issues discussed by the participants in the meetings of L. Westra's SSHRC (Canada) Grant: "The Integrity Project", 1992-95. Authors include Mark Sagoff, Kristin Shrader-Frechette, Robert Ulanowicz, James Kay, Henry Regier, James Karr, Patricia Werhane, Tom Lacher, Jr., Robert Goodland and others. The essays discuss the "Ecosystem approach" and the mandate "to protect and restore integrity" from various critical perspectives. (v5,#4)

Westra, Laura. "From Aldo Leopold to the Wildlands Project: The Ethics of Integrity." Environmental Ethics 23(2001):261-274. Aldo Leopold's influence on environmental ethics cannot be overstated. I return to Leopold's work in order to show the connection between the ethics of integrity and many of the points made by Leopold in his writings. I also show how the spirit of Leopold's land ethic and his love and respect for wilderness is present and current in the Wildlands Project, and that it is a live part of public policy in North America, albeit a debated one. (EE)


Westra, Laura, "Biotechnology and Transgenics in Agriculture and Aquaculture: the Perspective from Ecosystem Integrity," Environmental Values 7(1998):79-96. New agricultural technologies are often justified morally in terms of their expected benefits, e.g., feeding the world's hungry. Such justifications stand or fall, not only on whether such benefits are indeed forthcoming, but on whether or not they are outweighed by attendant dangers. The practical details of each case are, therefore, all-important. In this paper agriculture and aquaculture are examined from the perspective of ecosystem integrity, and with further reference to the uncertain effects of anthropogenic changes in the earth's atmosphere. The principle of integrity provides a strong justification for a cautious approach to new technologies, and particularly so in the case of transgenics. KEYWORDS: Agriculture, aquaculture, biotechnology, ecosystem health, integrity. Laura Westra is at University of Windsor, Ontario. (EV)


Westra, Laura, and Lemons, John, eds. Perspectives on Ecological Integrity. Boston, London, Dordrecth: Kluwer Academic Publishers, 1995. 279pp. Recently, concepts of ecological integrity have been proposed to facilitate enhanced protection of biological and ecological resources against the threat of human activities. The promotion of ecological integrity as a basis for public policy and decision making stems from scientists and others concerned about the threats of human activities to ecosystems and species, and from philosophers attempting to derive a more
suitable ethic to guide the relationships between humans and the nonhuman environment. Although ecological integrity has been proposed as a norm for public policy and decision making, the concept is relatively new and therefore the underlying scientific and philosophical rationales have not been developed fully. This book offers a number of perspectives that are intended to stimulate and inform future discussion concerning the importance and consequences of ecological integrity for science, morality, and public policy. The audience of this work will include environmental professionals, whether academic, governmental, or industrial, or in the private consultancy sector. It is also suitable as an upper level reference text. Contributors include James Karr, Ellen Chu, James Kay, Eric Schneider, Reed Noss, Robert Ulanowicz, Henry Regier, Robert Goodland, Herman Daly, Kristin Shrader-Frechette, S. O. Funtowicz, Jerome Ravetz, Mark Sagoff, D. Martin Fleming, D. L. DeAngelis, W. F. Wolf, Peter Miller, David Pimentel, Joel Reichart, Patricia Werhane, James Nations, Ray Cesca, J. Angus Martin, and Thomas Lacher, Jr., Laura Westra, and John Lemons.


Westra, Laura, and Peter S. Wenz, eds. Faces of Environmental Racism: Confronting Issues of Global Justice, Rowman Littlefield Publishers, Inc., Lanham MD, 1995. 300 pages. $ 21.95 paper. Authors include Robert D. Bullard, Clarice Gaylord, Hussein Adam, Bill Lawson, Robert Goodland, Howard McCurdy, Kristin Shrader-Frechette, Omari Kokole, Peter Wenz, and Laura Westra. Although most minorities are bearing disproportionate burdens such as toxic waste exposure and other environmental hazards. This volume deals exclusively with persons and communities of color who are either African or African American. Holistic approaches to environmental protection are generally accepted as necessary to preserve the ecosystem and avoid mass extinctions that jeopardize human existence. However, such approaches may be viewed as risking some individuals or groups for the good of the whole. Racial minorities in the U.S. are disproportionately exposed to toxic wastes and other environmental hazards. Internationally, wealthy countries of the North increasingly ship hazardous wastes to poorer countries of the South. Ecocentric environmentalists are often viewed by the general public as unconcerned about human hazards: "If it doesn't swim upstream or hoot in the night, environmentalists don't care about it." (Withlynn Battle, Community leader, Birmingham, AL). These essays show that environmentalism and concern for human beings and justice are entirely compatible. Reviewed in Environmental Ethics 21(1999):325-328. Westra is in philosophy at the University of Windsor. Second edition by Westra, Laura and Lawson, Bill, 2001, q.v. Wenz is in philosophy at Sangamon State University. (v.6,#2) (v.5,#4)

Westra, Laura. Ecoviolence and the Law: Supranational Normative Foundations of Ecocrime. 2004. ISBN 1-57105-316-6. 480 pages. Westra proposes a different way of looking at the multiple environmental crises threatening the global community, contending that the current movement in both ethics and the law to separate human rights from environmental rights is profoundly misguided. These, she argues, are not separate fields of study or endeavor, rather, they are closely interrelated principles. Access to clean air and water, land capable of growing uncontaminated food, and a climate that fosters growth are inherent human rights. Part I provides a theoretical framework within which to analyze her main concern, and on which to rest the
defense of the primary argument of this work: simply, environmental harms are assaultive in nature; hence they are not "quasi-crimes" but actual crimes/cecocrimes. Part II deals with practical concerns and examines cases where the deprivation of environmental rights can be construed as on assault on the current and future well-being of a community. Part III analyzes international covenants that recognize and emphasize the gravest crimes against humanity. The final chapter covers obstacles that have emerged in the defense of basic human rights. The author concludes with a proposal for the creation of an International Environmental Court that would adjudicate ecocrimie issues. This forward-thinking work provides careful analysis with imaginative solutions. To order contact Transnational Publishers. Phone: 914-693-5100. Toll free: 800-914-8186. Email: info@transnationalpubs.com.

Westra, Laura. "The Disvalue of 'Contingent Valuation' and the Problem of the 'Expectation Gap'." Environmental Values 9(2000):153-171. Abstract: 'Contingent Valuation' is a method often used to make decisions about environmental issues. It is used to elicit citizens' preferences at the location of a specific facility, new road and the like. I argue that even if we could elicit a truly informed and 'free' choice, the method would remain flawed, as 1) all 'local' activity also has far-reaching environmental consequences; 2) major decisions may support choices that adversely affect minorities; 3) even with full information, consenting to harms like significant alterations of our normal functioning or health, or genetic mutations, may not be morally acceptable. Keywords: Risk assessment methods, citizens' choices, global impacts, minority rights. Laura Westra is at Sarah Lawrence College, 1 Mead Way, Bronxville, New York 10708-5999, USA. (EV)


Wetlesen, Jon, "Animal Rights or Human Duties?" Archiv für Rechts- und Sozialphilosophie, Beiheft, 1994. In English. Wetlesen develops the notion of inherent value within a deontological framework. The argument is related to that of Tom Regan and Paul Taylor, extending the notion of inherent value analogically, first from moral agents to moral persons who are not agents; and then to moral subjects who are not moral persons. The argument proceeds casuistically, based on morally relevant similarities and differences, these being fundamentally the capability of conation or autopoesis, a capacity of self-organization, self-reproduction, and self-determination. This will include all individual living organisms within the class of moral subjects, and, with some uncertainty, perhaps supra-individual wholes as well. Unlike Regan and Taylor, Wetlesen ascribes inherent value in a gradual manner, depending on the degree of similarity with a moral agent who has the capacity for rational self-determination. The stringency of moral duties binding other agents is proportional to the degree of inherent value. Wetlesen is on the philosophy faculty at Oslo and teaches environmental ethics there. A copy is available on request. Address: Department of Philosophy, University of Oslo. E-mail: jon.wetlesen@filosofi.uio.no

Wetlesen, Jon, "Hvorfor naturvern? Noen kommentarer til Arne Naess' dypokologiske svar (Why protect nature? Some comments on Arne Naess' deep ecological answer)," Norsk filosofisk tidsskrift 27(no. 3, 1992):87-110. The deep ecology platform treats as synonyms value in itself, intrinsic value and inherent value. But these are not synonyms and the deep ecological claim about value in nature is ambiguous. Intrinsic value can be interpreted teleologically. Inherent value can be interpreted deontologically. If clarified and both meanings are used, this can be used to advantage in what deep ecology hopes to achieve. But Naess is biased toward the teleological emphasis. (Norway)

Wetlesen, Jon. "The Moral Status of Beings Who are not Persons: A Casuistic Argument." Environmental Values 8(1999):287-323. ABSTRACT: This paper addresses the question: Who or what can have a moral status in the sense that we have direct moral duties to them? It argues
for a biocentric answer which ascribes inherent moral status value to all individual living organisms. This position must be defended against an anthropocentric position. The argument from marginal cases propounded by Tom Regan and Peter Singer for this purpose is criticised as defective, and a different argument is proposed. The biocentric position developed here is related to that of Albert Schweitzer and Paul F. Taylor, but rejects their assumption of equal inherent value for all living organisms. It argues instead for equal moral status value for moral persons and agents, and gradual moral status value for nonpersons, depending on their degree of similarity with moral persons. Mary Ann Warren's recent book on Moral Status is also discussed. The argument is constructed as a casuistic argument, proceeding by analogical extension from persons to non-persons. The meta-ethical question of its pragmatic validity is discussed. KEYWORDS: moral status, inherent value, casuistic argument, strong versus weak cognitivism, pragmatic validity. Jon Wetlesen, Department of Philosophy University of Oslo 0315 Oslo, Norway email: jon.wetlesen@filosofi.uio.no (EV)


Wheale, Peter, ed. The Social Management of Biotechnology: Workshop Proceedings. Tilburg, The Netherlands: International Centre for Human and Public Affairs, 1996. Dfl 29,- (Dutch guilders). This volume of collected papers is designed to inform, stimulate and engage all those interested in the emerging biotechnological age. Topics covered in the text include the ethical questions raised by the creation of transgenic farm animals, the morality of genetic experimentation on animals, the controversy surrounding the patenting of genetic material and of the transgenic animals themselves, and the ethical implications of engineering transgenic animals for the sole purpose of transplanting their organs into humans (xenografting). Also considered are the environmental hazards, public policy issues, and the political implications of modern biotechnology and genetic engineering.

Ordering Information: Send check or money order payable to ICHPA (Internationa Centre for Human and Public Affairs, or transfer to Postbank account 4307323; address: Pastoor Smitstraat 25 5014 RH Tilburg, The Netherlands; Phone/Fax +31-13-5360751; Email: R.vonSchomberg@kub.nl. (v7, #3)


Wheeler, Quentin D., "Insect Diversity and Cladistic Constraints," Annals of the Entomological Society of America 83 (no. 6, 1990):1031-1047. "This paper examines a systemic paradox: powerful analytical approaches to studies of phylogenetic patterns among species continue to be perfected as species are being driven to extinction before they can be collected, preserved, or studied" (p. 1031). "Pieces of the puzzle are being destroyed faster than they can be collected and placed in a box for future contemplation, let alone the rate at which the puzzle can be solved" (p. 1034). Wheeler is in entomology, Cornell University.

Wheelwright, Jeff. Degrees of Disaster: Prince William Sound--How Nature Reels and Rebounds. New Haven: Yale University Press, 1996. 352 pages. $16 paper. The ecological effects of the 1989 Exxon Valdez oil spill on Prince William Sound. The complex story of a region where natural disturbance is normal. While the spill had toxic short-term effects, the author concludes that cleanup efforts probably perpetrated more damage than the oil did. Left alone, the Sound would have repaired itself quickly. Throughout the book the author illuminates the gap between the scientists's measurements of change and the public's understanding of disaster. (v7, # 3)

Wheelwright, Nathaniel T., "Enduring Reasons to Preserve Threatened Species," The Chronicle of Higher Education, June 1, 1994, B2,B3. Many endangered species may not be good for anything, either in the markets of economics or for their roles in ecosystems. "It is poor conservation strategy to bank on the arguments or economics or ecologists alone. Why? Because the most convincing case for rain forests is simply that the loss of species, like the destruction of a Beethoven symphony or a Renoir painting of the Taj Mahal, would be a loss of resplendence. ... Religious leaders and philosophers have the training to raise the moral and philosophical values of preserving species. Traditionally they have had the courage to explore life's most difficult issues. Yet thus far their voices have hardly been heard in the debate over biodiversity. They can and must speak up, defining and explaining the sanctity not just of human life but of life in all of its forms." Wheelwright is a biologist at Bowdoin College who has studied resplendent quetzals in Costa Rica. (v7,#1)


Whelan, Tensie, Nature Tourism: Managing for the Environment. Covelo, CA: Island Press, 1991. $ 34.95 cloth, $ 19.05 paper. 220 pages. Trekking, bird watching, nature photography, wildlife safaris, mountain climbing, river rafting. Nature tourism amounts to $ 19.5 billion annually and is increasing at the rate of 30% each year. Right and wrong ways to do it, with particular attention to how countries can develop their economies while also protecting their natural resources. (v2,#3)


Whidden, Shawna Marie. "The Hanford Reach: Protecting the Columbia's Last Safe Haven for Salmon." Environmental Law 26, no.1 (1996): 265. The Hanford Reach of the Columbia River is home to the largest naturally spawning population of fall chinook salmon in the Columbia River Basin. Whidden discusses the factors that have contributed to the success of this species and compares the legal strategies and political opportunities for providing permanent protection to the Hanford Reach. (v3)


Whitcomb, Claire, "Dr. Jane Goodall: Messenger of Hope," Victoria 14 (no. 9, September 2000):40, 109. Jane Goodall, profiled in a popular woman’s magazine, and promoting her "Roots and Shoots," a conservation education program for youth, alarmed that there are now only a quarter as many chimpanzees as when she started studying them forty years ago. (v.11,#3)

White, Rodney R., North, South, and the Environmental Crisis. Toronto: University of Toronto Press, 1993. 256 pages. Cloth, Canadian $ 50. Paper $ 17.95. What used to be viewed as local environmental problems are really linked to the whole process of global industrialization, urbanization, and rapid population growth. In the extension of European power over most of the globe, the environment was considered as external to economic rationality. In developing countries population is producing megacities that are creating an alarming imbalance between population and resources at the same time that they are becoming major industrial producers and major polluters. A serious problem is the lack of shared technologies. Unless the richer nations share their technologies, and unless they support trade policies that will allow poor nations to export their goods and to generate wealth for environmental conservation, the implications are ominous for all of us. White is in geography at the University of Toronto. (v4,#1)


White, Lynn, Jr. "The Historical Roots of Our Ecologic Crisis," Science 155(1967):1203-07. This well-known and often-quoted essay places the blame for the ecological crisis on the supposed biblical notion that human beings were given the task of dominating (even exploiting) the earth.


White, SM; Paster, EL, "Creating Effective Land Use Regulations through Concurrency", Natural Resources Journal 43 (no.3, 2003): 753-780.

White, Thomas I., ed. Business Ethics: A Philosophical Reader. Riverside, NJ: Macmillan College Publishing, 1993. 867 pages, paper. In addition to the typical topics in business ethics texts, this one includes a section on "Business and the Environment" with essays by W. Michael Hoffman, David P. Hanson, Peter Singer, and Eric Katz. (v5,#2)


White, Daniel R., Postmodern Ecology: Communication, Evolution, and Play. Albany, NY: State University of New York Press, 1997. The trends in European thought that have contributed to the rise of industrial civilization and to the ecological crisis. Alternative visions of nature and culture, from Romanticism to ecological theory, in an effort to rewrite the story of natural and cultural history. Ecological poetics, technological artistry, evolutionary learning, the play of communication, and the struggle for a viable ecological ethic, and a larger theory of human and transhuman interests. White is in critical theory and cultural studies at the University of Central Florida. (v.8,#4)

White, Damien Finbar. "Hierarchy, Domination, Nature: Considering Bookchin's Critical Social Theory", Organization and Environment, 16, (No. 1, 2003): 34-65. The work of Murray Bookchin stands as one of the most ambitious attempts in recent times to produce a post-Marxist critical social theory that places ecological concerns at its core, and this article argues that this richly elaborated theory has highlighted the distinct limitations of "high modernist" formulations of historical materialism and liberalism. However, it is also maintained that Bookchin's "organic society" thesis and his theorising about social hierarchy, social domination, and the domination of nature ultimately suffer from significant theoretical and empirical inconsistencies. Bringing Bookchin's more valuable insights into dialogue with the recent interface between "historical-geographical materialism" and poststructuralism, a dynamic, discontinuous view of eco-social relations is recommended that recognises that human societies are always involved in the production, reproduction and enframing of disruptive, active and generative natures. How forms of social domination relate to these processes is viewed as complex, contingent, and spatially and historically varied. White is a lecturer in sociology at Goldsmiths College, University of London.

White, D., "The Unhappy Legacy of Thomas Malthus," Environmental Politics 10(no.4, 2001): 121-27. (v.13,#2)


White, Amy. "Environmental Harms, Causation, and Act Utilitarianism." Environmental Ethics 26(2004):189-203. Ity in group environmental harms. Such attempts are seriously flawed. Causation need not, and many times should not, be important in assessments of accountability for act utilitarians. A model that maximizes utility in such assessments called the "best fit model" provides a good alternative. Because use of this model leads to more utility than models of after-the-fact accountability which rely on causal links, act utilitarians should adhere to the "best fit model" regardless of actual causal links. Although the "best fit model" is a better method to assign accountability using an act utilitarian approach than methods involving causation, it does have a serious flaw in regard to application and future utility. Given this flaw, the model (indeed, any after-the-fact model of accountability) is not enough to ensure future utility maximization. To maximize utility to the fullest, the model should be used along with incentives to prevent environmental harm before it occurs. Perhaps if such incentives are strong enough, the model may not need to be imposed at all. However, in cases where harm does occur, the "best fit model" yields the most utility. Thus, if the "best fit model" is not an acceptable method by which to assess responsibility, neither is act utilitarianism. (EE)
White, Allen L. "Sustainability and the Accountable Corporation: Society's Rising Expectations of Business." Environment 41(No. 8, Oct. 1999):30- . Thorough and consistent reporting is the key to increasing corporations' accountability in the environmental, social, and economic realms. (v10,#4)

White, Vera K. and others, Healing and Defending God's Creation: Hands On! Practical Ideas for Congregations. Presbyterian Church (U. S. A.) informational, loose-leaf booklet, about 60 pages, with sections on "Discipleship and Worship," "Learning and Teaching," "Lifestyle," "Reusing, Reducing and Recycling," and "Legislation, Public Policy, and Community-Involvement." Supplements will be issued periodically. $ 4.95. Contact: Office of Environmental Justice, Social Justice and Peacemaking Ministry Unit, Presbyterian Church (U.S.A.), 100 Witherspoon Street, Louisville, KY 40202. Phones 502/569-5809 and (for orders only) 800/524-2612. (v2,#4)


White, R. J., "Why Wild Fish Matter: Balancing Ecological and Aquacultural Fishery Management," Trout 33 (no. 4, 1992):16-48. We have built 89 fish hatcheries on the Columbia River alone, costing billions of dollars, and these stock more smolts that ever before. But returns to natal streams continue to decline, spawning runs have dropped from an average of 16 million salmon to one million. Hatchery fish may have disrupted the system through genetic pollution, as wild stocks are swamped with genes from hatchery fish that are not adaptive fits. (v5,#4)

Whitehouse, Peter J., "The Ecomedical Disconnection Syndrome," Hastings Center Report 29(no. 1, 1999):41-44. "Bridging medical and ecological ethics must be a critical aspect of future health and environmental planning, and in fact, of our species and others." "Our focus should shift not only from our individual selves to our human community, but to the community of other living creatures on earth. A new focus on 'values' or interests shared with other life on the planet is likely to lead to renewed spiritual exploration of our relationship to nature." Whitehouse is professor of biomedical ethics at Case Western Reserve University. (v.10,#1)


Whiten, A., Goodall, J., et al., "Cultures in Chimpanzees," *Nature* 399(1999):682-685. Thirty-nine different behavior patterns, including tool usage, grooming and courtship behaviors, are customary or habitual in chimpanzee communities and transmitted from generation to generation by observation and imitation. If culture is defined to include transmitted behavior (not involving language or intentional teaching), then chimpanzees have culture as well as humans (but so also, minimally, do songbirds with their learned dialects). (v.11,#1)

Whiteside, Kerry H., *Divided Natures: French Contributions to Political Ecology.* Cambridge, MA: MIT Press, 2002 (coming in May) Much of environmental theory in English is shaped by the anthropocentrism/non-anthropocentrism debate. This debate is almost nonexistent among French theorists, who focus on the processes linking nature and human identity. The insights of French theorists could help English language theorists extricate themselves from endless debates over the center of nature's value. Among the French theorists discussed are Denis de Rougemont, Denis Ducios, René Dumont, Luc Ferry, André Gorz, Félix Guattari, Bruno Latour, Alain Lipietz, Edgar Morin, Serge Moscovici, and Michael Serres. The English-language theorists discussed include John Barry, Robyn Eckersley, Robert Goodin, Tim Hayward, Holmes Rolston III, and Paul Taylor. (v.13, #3)


Whiteside, Kerry H., "Worldliness and Respect for Nature: an Ecological Application of Hannah Arendt's Conception of Culture," *Environmental Values* 7(1998):25-40. Arendt's conception of culture could supersede claims that nature's intrinsic value or human interests best ground environmental ethics. Fusing ancient Greek notions of non-instrumental value and Roman concerns for cultivating and preserving worldly surroundings, culture supplies an ethic for the treatment of nonhuman things. Unlike a system of philosophical propositions, an Arendtian ecology could only arise in public deliberation, since culture's qualitative judgements are intrinsically linked to processes of political persuasion. KEYWORDS: Arendt, ecology, culture, politics, judgement (judgment). Whiteside is at Franklin and Marshall College, PA. (EV)

Whiteside, Kerry H. "Hannah Arendt and Ecological Politics." * Environmental Ethics* 16(1994):339-358. I argue that Arendt's understanding of "society" deepens Green critiques of productivism. By avoiding subjectivist or objectivist modes of thought, Arendt uncovers hidden links between life-sustaining labor and a world-destroying drive to consume. Checking environmentally destructive desires to produce and consume requires structuring communities around an optimal configuration of public deliberation, work and labor. I conclude that an Arendt-inspired ecological politics stresses the interdependence of human values and an all-encompassing natural order. Whiteside is with the Dept. of Government, Franklin and Marshall College, Lancaster, Pa. (EE)

Whiteside, Kerry. *Precautionary Politics: Principle and Practice in Confronting Environmental Risk.* Cambridge, MA: The MIT Press, 2006. The precautionary principle - which holds that action to address threats of serious or irreversible environmental harm should be taken even in the absence of scientific certainty - has been accepted as a key feature of environmental law
throughout the European Union. In the U.S., however, it is still widely unknown, and much of what has been written on the topic takes a negative view. Whiteside provides an analysis of the precautionary principle - its origins and development, its meaning and rationale, its theoretical context, and its policy implications. He looks at the application of the principle (and the controversies it has stirred) and compares European and American attitudes toward it and toward environmental regulation in general.


Whitney, Elspeth. "Lynn White, Ecotheology, and History." Environmental Ethics 15(1993):151-69. Controversy about Lynn White’s thesis that medieval Christianity is to blame for our current environmental crisis has done little to challenge the basic structure of White’s argument and has taken little account of recent work done by medieval scholars. White’s ecotheological critics, in particular, have often failed to come to grips with White’s position. I question White’s reading of history on both interpretative and factual grounds and argue that religious values cannot be treated independently of the political, economic, and social conditions that sustain them. I conclude that medieval religious values were more complex than White suggests: rather than causing technological innovation, they more likely provided a justification for other activity taking place for other reasons. Whitney is in the department of history, University of Nevada, Las Vegas, NV. (EE)

Whittbecker, Alan E. "Metaphysical Implications from Physics and Ecology." Environmental Ethics 12(1990):275-82. I contrast metaphysical implications from physics and ecology and compare them through two concepts, the field, primary in physics and borrowed by ecology, and wholeness, postulated in ecology and borrowed by physics. I argue that several implications from physics are unacceptably reductive or erroneous and identify an old and a new ecology. Metaphysical implications from the old ecology are quite different from the new ecology, as well as from quantum or Newtonian physics. Wittbecker is at the Marsh Institute, Viola, ID. (EE)

Whittemore, Colin T. "Response to the Environmental and Welfare Imperatives by U.K. Livestock and Production Industries and Research Services." Journal of Agricultural and Environmental Ethics 8(1995):65-84. Production methods for food from U.K. livestock industries (milk, dairy products, meat, eggs, fibre) are undergoing substantial change as a result of the need to respond to environmental and animal welfare awareness of purchasing customers, and to espouse the principles of environmental protection. There appears to be a strong will on the part of livestock farmers to satisfy the environmental imperative, led by the need to maintain market share and by existing and impending legislation. There has been support forthcoming in the form of Government-sponsored scientific research and technological development to provide the necessary framework for new environmentally sensitive practices. The agricultural community has itself made substantial responses to market demand through the inception of Farm Assured Quality Assurance Schemes. These appear to have a more sustainable future than the extremes of organic farming and free-range practices. Pollution of agricultural land with nitrate and phosphate by intensive livestock industries is a greater problem in some parts of continental Europe than it is in the U.K. The distribution of livestock out of intensive units and into mixed farming systems, would require substantial restructuring of the industry. Many of the animal...
welfare requirements which have been forwarded as a part of the environmental agenda for agriculture have been voluntarily accepted by livestock producers. However, some major aspects, such as alternative housing systems for pigs and poultry, remain unresolved. Analysis of the science and technology support for the environmental imperative, especially from Government sources, would suggest that, although dramatically increased in recent years, environmentally orientated research remains a relatively small proportion of the whole. Whilst a movement away from governmental funding of volume production appears to be justifiable, there has not been an equivalent balancing of effort toward funding for product quality, sustainability, environmental protection and animal welfare. Nevertheless, the university education system is producing a generation of more environmentally aware agricultural science graduates who are opting to pursue Government-sponsored environmentally orientated postgraduate research programs. (JAEE)


Academic conservation biology and biologists were quite ineffective in the dramatic deforestation of Sumatra, an all too typical case. "Perhaps conservation biology is merely a displacement activity for concerned biologists within the academic system. Deep inside they would really love to attack the alpha male of conglomerate-led forest destruction, but a lack of access and funds, and the political and social complexities of conservation management, means they huddle together, metaphorically scratching their backsides and snorting" (p. 3). (v.12,#3)

Whitten, Andrew, "The Second Inheritance System of Chimpanzees and Humans," Nature 437(1 Sept. 2005):52-55. "When we focus our comparative lens on culture, the evidence is all around us that a gulf separates humans from all other animals. Nevertheless, recent studies of great apes suggest that they resemble us culturally to an extent unmatched by other species" (p. 52) Some prefer to use "traditions" for behavior that animals acquire by imitation, present in many vertebrate species, such as birds, maybe even in invertebrates. But chimp groups can have an array of multiple and specific traditions that can be called "culture."

"Ape culture may be particularly complex among non-human animals, yet it clearly falls short of human culture. An influential contemporary view is that the key difference lies in the human capacity for cumulative culture, whereby the achievements of successive generations have built on previous developments to create complex structure such as languages and technologies. Chimpanzees have accumulated many traditions, but each remains sufficiently simple that there is little scope for it to have developed significant complexity compared to its original form. Hints of cumulation exist, such as the refinement of using prop stones to stabilize stone anvils during nut cracking, but these remain primitive and fleeting by human standards" (p. 53). Whitten is in psychology, University of St. Andrews, Scotland.

Whitworth, A, "Ethics and Reality in Environmental Discourses," Environmental Politics 10(no. 2, 2001):22-42. (v.13,#1)


Whyte, I. J. et al., "A New Policy for the Management of the Kruger National Park's Elephant Population," Koedoe: Research Journal, South African Parks 42/1, 1999, pages 111-132. In the midst of controversies about culling elephants, free-ranging elephants, elephant effects on vegetation, and other issues, the new policy proposes that the Kruger National Park be divided into six zones--two botanical reserves, two high-elephant-impact zones (no population
reduction), and two low-elephant-impact zones (where numbers will be actively reduced). Whyte is a biologist at Kruger. (v.10,#3)

Wickins-Drazilova, Dita, "Zoo Animal Welfare," Journal of Agricultural and Environmental Ethics 19(2006):27-36. The continuing existence of zoos and their good purposes, such as conservation, science, education, and recreation, can be ethically justified only if zoos guarantee the welfare of their animals. The usual criteria for measuring animal welfare in zoos are physical health, long life, and reproduction. This paper looks at these criteria and finds them insufficient. Additional criteria are submitted to expand the range of welfare considerations: natural and abnormal behavior; freedom and choice; and dignity. All these criteria should play a role in analyzing zoo animal welfare and interests but dignity has the overriding part because it impacts on both animal and human interests. Keywords: animal - dignity - ethics - reintroduction - welfare - zoos. Wickins-Drazilova is at the Department of Environmental Studies, School of Social Studies, Masaryk University Brno, Czech Republic.


Wiedmann, Sally Nelson, Rawlsian Justice and Environmental Ethics. 1996, University of Miami, Ph.D. degree in philosophy. 207 pages. Rawls can be the source of a public environmental ethic supporting the preservation of nature on the ground of nature's intimate association with certain primary goods and an obligation to future generations. Previous attempts to adapt Rawls' initial theory to an environmental ethic are all utilitarian, and unsuccessful. The appropriate Rawlsian ethic, while anthropocentric, is not narrowly so. Potential criticisms of the Rawlsian environmental ethic are rebutted. The advisor was Ramon Lemos. (v.10,#1)


Wiens, John A., "Toward a Unified Landscape Ecology." Pages 148-151 (the conclusion) in Wiens, John A., and Moss, Michael R., eds., Issues in Landscape Ecology. Guelph, Ont.: The International Association for Landscape Ecology, 1999. A sourcebook for the International Association for Landscape Ecology Fifth World Congress, Snowmass Village, CO, 1999. Landscapes and culture are inseparable in two ways. The first is that culture affects the way humans can perceive landscapes; there is a "challenge of overcoming our culturally conditioned perceptions of landscapes to deal with landscapes at other scales."

"The second way that the culture-landscape linkage affects landscape ecology has to do with ethics. There is in most human cultures a deep-seated ethic about landscapes, reflecting the sense of a stewardship over the land. ... Ethics are one of the pillars of human culture, and land ethics affect both the ways in which we perceive landscapes and how we use landscapes. ... Landscapes have properties that go beyond science. ... Our science at some level reflects these ethical underpinnings." Wiens is in ecology at Colorado State University and currently president of the International Association for Landscape Ecology. (v.10,#3)


science and environmental advocacy, science may suffer. Scientists, like the general public, expect the worst, and tend to interpret data accordingly, rather than to assume a null hypothesis, since "common sense" tells us that a big spill must have bad results. This was further complicated, in the Valdez spill, by much natural variation in the seabird populations. Subsequent studies indicate that seabirds recovered much faster than some scientists predicted. With critical exchange BioScience 46(1996):794, and 47(no. 2, 1997):66-67, and 47(no. 4, 1997):202-206. Wiens teaches ecology at Colorado State University. (v7, #3)


Individual vertebrates differ in their coping styles. Moreover, they show changes in P/C or certainty by means of emotional expressions. Finally, individuals that form a stable social group may significantly protect each other against stress. Animal friendships are a likely phenomenon. Wiepkema, Schouten, and Koene are in the Department of Animal Husbandry Ethology, Agricultural University, Wageningen, The Netherlands.


Wiggins, David, "Nature, Respect for Nature, and the Human Scale of Values," Proceedings of the Aristotelian Society 100 (no. 1, 2000):1-31. Leibniz supposed that the world grows ever more aesthetic with the human development of it, but environmentalists lament the vanishing of natural or wild elements of the landscape, which they treasure. Philosophers might fear that such values are too speculative, mystical, or romantic. Perhaps these lamented values are valued only because they are constitutive of larger human interests. But the human scale of values is not uniformly human centered. We cherish natural things for reasons that transcend utility, profit, human welfare. The swallow, the skylark, the wetland, the water meadow--these things matter to us, but we should "pay attention to the way in which they matter to us": they matter "by virtue of a pre-existing engagement with such things that is independent of our pursuit of our own content or happiness" (p. 11).

Economists are unable to account for such values in their terms. The value here is not only a matter of sustainability, though "every departure from sustainable policies has to be justified in terms of dire vital need" (p. 18). The central value is one already noted by Mill: "Nor is there much satisfaction in contemplating the world with nothing left to the spontaneous action of Nature" (p. 22) (and contrary to Leibniz).

We require analysis of the idea of nature. The contrast between nature and culture is important (even if humans are in other senses natural). Nature is multi-faceted and produces various responses (gratitude, awe, disconcertment, disgust, fear); a philosophical puzzle now is what to make of "respect for nature," especially if one is not religious but secular. One form of respect is nature as a redoubtable opponent or a force to be reckoned with, a limitation upon our will, by which we might gain a better understanding of the scale of our humanity. This would make us duly precautionary, but more: Perhaps we do well to respect nature as "the aggregate of the powers and properties of all things" (Mill). Wiggins is at New College, Oxford, and this was the presidential address to the Aristotelian Society, London, October 1999. (v.13, #3)


Wigley, Daniel C., and Shrader-Frechette, Kristin. "Environmental Justice: A Louisiana Case Study," *Journal of Agricultural and Environmental Ethics* 9(1996):61-82. The paper begins with a brief analysis of the concepts of environmental justice and environmental racism and classism. The authors argue that pollution--and environment-related decision-making--is prima facie wrong whenever it results in inequitable treatment of individuals on the basis of race or socio-economic status. The essay next surveys the history of the doctrine of free informed consent and argues that the consent of those affected is necessary for ensuring the fairness of decision-making for siting hazardous facilities. The paper also points out that equal opportunity to environmental protection and free informed consent are important rights. Finally, it presents a case study on proposed uranium enrichment facility near Homer, Louisiana and argues that siting the plant would violate norms of distributive equity and free informed consent. It concludes that siting the facility is a case of environmental injustice and likely an example of environmental racism or classism. Keywords: informed consent, equity, fairness, Louisiana, pollution, racism, radiation, rights, uranium. Wigley and Shrader-Frechette teach philosophy at the University of South Florida, Tampa. (JAEE)

Wikramanayake, E; McKnight, M; Dinerstein, E; Joshi, A; Gurung, B; Smith, D. "Designing a Conservation Landscape for Tigers in Human-Dominated Environments," *Conservation Biology* 18(no.3, 2004):839-844. (v. 15, # 3)


Wild vs. Tame, the pros and cons of game ranching, *Bugle: Journal of Elk and the Hunt*, vol. 10, no. 3 (Summer 1993):35-43. Jim Posewitz, "The Risks Are Too Great," says no, game ranching commercializes and trivializes hunting, and compromises the integrity both of the wild animal and of the human hunter. Robert D. Brown, "Perception vs. Reality," defends game ranching, selling hunts, as well as game farming, raising game to be slaughtered for the commercial market. Game ranching in many situations preserves the only kind of hunting possible in contemporary, overcrowded America. Posewitz, formerly with the Montana Division of Wildlife, now heads the Cinnabar Foundation, a conservation group. Brown is head of the Department of Wildlife and Fisheries at Texas A & M University. (v5,#1)

Wild Earth is the periodical of The Wildlands Project, now in volume 6, and is increasingly proving a forum for the discussion of conservation, policy, strategy, ethics, especially involving relatively large areas of wildlands and interconnecting buffers and corridors. Winter 1995/96, vol. 5, no. 4, is a good sample issue. Examples of articles:

Freyfogle, Eric T., "Land Ownership: Private and Wild," pages 71-77. The word property shares etymological roots with such words as proper, appropriate, and propriety. Thus, embedded in the world, if not in today's version of the institution, are certain seemingly inescapable ideas--of rightful scale and proportion, of balance and order, of personal responsibility. To make something one's own--to transform it into one's property--is to make it part of one's life, an extension of one's person and character; it is to bring the thing within the fold of one's individual care and duty. Do these ethical ideas, we might wonder, lurk somewhere beneath the surface of American property law? Freyfogle teaches law at the University of Illinois.

Windsor, Donald A., "Endangered Interrelationships: The Ecological Cost of Parasites Lost," pages 78-83. "Collectively, parasites form a pervasive matrix of interrelationships within an ecosystem which tends to hold it together, acting almost as a glue." Parasites are important regulators of ecosystems, acting almost like complicated servomotors in complex machines. When parasitism is viewed in its larger category, symbiosis, the unifying force is seen as even more comprehensive. "If a single message jumps out from all the myriad details of parasitology, it is that the complex interrelationships among parasites and their hosts are essential to the natural functioning of ecosystems." Required reading for those who dislike parasites. Windsor is an invertebrate zoologist, Norwich, New York. (v7,#1)

Wild Earth, 13, nos. 2/3, Summer/Fall 2003 is a theme issue, Facing the Serpent, with five articles about human attitudes toward snakes, by E. O. Wilson, Eileen Crist, Harry W. Greene, Reed F. Noss, and Charles Bowden. And another article on mosquitoes. (v14, #4)


Wildes, Fred T., "Recent Themes in Conservation Philosophy and Policy in the United States," Environmental Conservation 22 (no. 2, 1995):143-150. A compact history of environmental philosophy in the last thirty years, with numerous references. A dichotomy between utilitarian conservationist and preservationist non-anthropocentric views has been present the whole century, shifting with new emphases (such as ecofeminism or environmental spirituality), but still underrunning the main divisions across the last thirty years. Sustainable development is the dominant paradigm at present. Wildes is in geography, San Diego State University, University of California, Santa Barbara. (v.10,#1)

Wildfire is a publication of the International Association of Wildland Fire, featuring technical and
policy articles on wildfire. Dr. Jason Greenlee, IAWF, P. O. Box 328, Fairfield, WA 99012. Phone 509/283-2397. Fax 509/283-2264. (v6,#1)

Wildlife Travelling Companions:

Wildlife Viewing Guides are now available for about half of the U.S. States, and some Canadian provinces, through the Watchable Wildlife Program, with about a dozen partners from the major federal and state (and provincial) agencies, also Defenders of Wildlife. Contact Falcon Press, P. O. Box 1718, Helena, MT 59624. 800/582-2665. Falcon Press is also excellent for various scenic guides, trail guides, biker's guides, and so forth to the countryside.

Wildlife News is published by the African Wildlife Foundation, Washington, DC, and Nairobi, reporting wildlife issues throughout Africa, and continuing more than thirty years of conservation efforts by this foundation. African Wildlife Foundation, 1717 Massachusetts Ave., N.W., Washington, DC 20036. (v6,#3)

Wiles, R. David, *Neo-Aristotelian Environmental Virtue Ethics*. M.A. thesis, Colorado State University, spring 2003. Neo-Aristotelian virtue ethics has recently emerged as an important ethical alternative, challenging Kantianism and utilitarianism for theoretical dominance. This thesis argues that virtue ethics is indeed the best ethical theory available, both generally, and as a grounding framework for environmental ethics. An environmental virtue ethics uniquely recognizes the intricate connections between a healthy environment and human flourishing. It also recognizes the diverse values that nature affords in our quest for *eudaimonia*, and provides good reason for protecting and preserving these values. Specifically, environmental virtue ethics recognizes the importance of living materially simple lives in our quest for the good life, and stresses the fact that material simplicity is needed to ameliorate the environmental crisis caused by over-consumption. Living close to nature, endorsed by an environmental virtue ethic, facilitates a materially simple lifestyle, which facilitates *eudaimonia*. Solitary time spent in nature gives us the "mind-time" needed for wisdom. With wisdom, we come to see how truly important nature is for living well. The advisor was Philip Cafaro. Wiles is now a Ph.D. student in the program in religion and nature, University of Florida.


Wilford, John Noble, "Ages-Old Icecap at North Pole Is Now Liquid, Scientists Find," *New York Times*, August 19, 2000, p. A1, A12. North Pole melted. The ice cap at the North Pole has melted, at least for the present, into a mile wide stretch of open water. Despite their monitoring of warming trends in the Arctic, this took scientists quite by surprise. In recent years, submarines and icebreakers have had to plough through six to nine feet of ice. A tourist cruise there in August found the open water. James J. McCarthy, an oceanographer, a Harvard zoologist, leader of an Intergovernmental Panel on Climate Change, and lecturer on the icebreaker cruise trip, says they are the first humans in history to see open water at the Pole. The last time scientists are certain there was open water at the Pole was 50 million years ago. (v.11,#3)

In a new permanent exhibition, the American Museum of Natural History features the interdependence of living things, the wealth of biodiversity, and expresses concern about the future of life on Earth. This is the Museum's first issues-oriented hall, and puts the Museum forward as an advocate of saving biodiversity through saving ecosystems.

Wilford, John Noble, "In Mongolia, an ‘Extinction Crisis' Looms," New York Times, Dec. 6, 2005. Przewalski wild horses have made some comeback, and possibly wolves, but on the whole wildlife is under relentless siege by overhunting and excessive trade in skins and other animal products. There are feeble efforts at control by the government. The sheer size of the country makes it unrealistic to police hunting strictly, and some of the rangers are also involved in the poaching.

Wilford, John Noble, "Tests Suggest Neanderthals Were Hunters, Not Scavengers," New York Times (6/13/00). Neanderthals were hunters not scavengers. New chemical tests on 28,000-year-old Neanderthal bones reveal a diet consisting almost entirely of animal protein. According to several scientists, this strongly suggests that they were accomplished hunters rather than scavengers and foragers. Neanderthals are extinct members of the genus Homo who lived in Europe and were eventually replaced by modern Homo sapiens who arrived there about 40,000 years ago. (v.11,#2)


Wilhite, Christopher, "A Wilder Vision for the Texas Hill Country," Wild Earth 10(no.3, Fall 2000):74-77. Texas is mostly private land, but there are landowners willing to piece together packages of wildlands into a cooperative system of wild landscape continuity. Wilhite is a naturalist and writer in the Texas Hill Country and executive coordinator of Hill Country Wild, Austin, TX. (EE v.12,#1)

Wilken, Gene C., Sustainable Agriculture is the Solution, but What is the Problem, Occasional Paper No. 14, Board for International Food and Agricultural Development and Economic Cooperation, Agency for International Development (AID), Washington, D. C. 20523, April 1991. "The concept of sustainability recognizes that agriculture is governed as much by economics as by ecology, by laws of supply and demand as by principles of system maintenance." "Few agroecosystems are ecologically or economically self-contained; most rely on inputs that make them vulnerable to external influences." "The demand to which the world's agroecosystems must respond is made up of two components. Population is not likely to stop growing soon and income may never stop." "The message is clear: The lands and technologies now in use are not adequate to meet present requirements, much less those of the future." "Providing for twice as many people at higher rates of consumption, yet avoiding disastrous impacts on the environment are bold objectives. It is not clear how they will be achieved." Wilken is a geographer at Colorado State University, Fort Collins. (v2,#2)


Wilkes, Garrison, "Germplasm Collections: Their Use, Potential, Social Responsibility, and Genetic Vulnerability," International Crop Science I (Madison: WI: Crop Science Society of America, 1993), pages 445-450. This volume contains 109 chapters on sustainability, global climate change, breeding crops for increased production, research imperatives, and other issues in crop production over the next decades. There is also a section on "Plant Intellectual Property Rights."

Wilkes, Garrison, "Germplasm Conservation and Agriculture," in Ke Chung Kim and Robert D. Weaver, Biodiversity and Landscapes (New York: Cambridge University Press, 1994), pages. 151-170. With escalating populations, we will need to produce as much food in a single year as we once did in a century, as much in the two decades 2000-2020 as has been produced since the beginning of
agriculture 10-12 thousand years ago. Present food production uses a quite limited number of crop plants. To produce increasing amounts of food, germplasm conservation is critical. We are at or near the limits. Wilkes also has articles on "Germplasm Conservation" and "Gene Banks" in the Encyclopedia of Environmental Biology. He is in biology, Harbor Campus, University of Massachusetts at Boston. (v6,#4)


Wilkie, DS; Carpenter, JF; Zhang, Q. "The under-financing of protected areas in the Congo Basin: so many parks and so little willingness-to-pay," Biodiversity and Conservation 10(no.5, 2001):691-709. (v.12,#4)


Wilkinson, Charles F., Crossing the Next Meridian: Sustaining the Lands, Waters, and Human Spirit in the West, Environment 32 (no. 10, December 1990):14-20, 32. Federal subsidies and laissez-faire policies have left a legacy of widespread environmental degradation in the western United States. Heretofore, most discussions of the changes needed to reverse the trend have been purely technical and neglected the humanistic issues involved. But to achieve any kind of sustainability, the West must find an approach that is humanistically, as well as scientifically and economically, correct. Wilkinson is professor of law at the University of Colorado, Boulder. (v2,#1)


Wilkinson, Charles F., "Values and Western Water: A History of the Dominant Ideas," Western Water Policy Project, Discussion Series Paper No. 1, Natural Resources Law Center, University of Colorado, School of Law, Boulder, CO, 1990. The ten principal values associated with water and an inquiry how far water law supports these values. There are a half dozen other related papers in this series. (v1,#3)
Wilkinson, Charles F. "Aldo Leopold and Western Water Law: Thinking Perpendicular to the Prior Appropriation Doctrine," Land and Water Review (University of Wyoming, College of Law) 24(1989):1-38. The classic prior appropriation doctrine, "first in time, first in right," mainstay of water law in the West, is bad economics, does not respect the rights of other governments, ignores widely accepted policy objectives, such as maintenance of instream flows and long-term water planning. The classic doctrine is bad science. Leopold's land ethic, though not initially addressing water management policy, is a comprehensive ecological approach to natural resource management and land-use practices, and is directly applicable to water management reform. An ecosystem approach would result in comprehensive watershed resource planning, maximizing societal benefits derived from resource use on a sustainable basis, stability for private water rights, maintenance of water quality, prevention of soil loss, all based on preserving "the integrity, stability, and beauty" of the watershed community. Wilkinson illustrates his claim with efforts on several fronts to move in this direction. (v1,#2)


Wilkinson, Rick, "Living with Tigers," _The Lamp_ 78 (no. 3, fall 1996):4-5. The Lamp is the Exxon publication sent to shareholders. Can we learn from myth and mystery to live once more in harmony with them before they are gone. Exxon, whose symbol is the tiger, has established a Save the Tiger Fund, with the National Fish and Wildlife Foundation. (v8,#1)

Wilks, Alex and Nicholas Hildyard. "Evicted! The World Bank and Forced Resettlement." _The Ecologist_ 24 (no. 4, July, 1994): 225-. At least two million people currently face forcible eviction as a result of infrastructure development projects--from dams to roads--financed by the World Bank. Yet an internal review of the Bank's resettlement record from 1986 to 1993 reveals that mandatory policies intended to minimize the impact of resettlement are being systematically flouted. (v6,#1)

Willard, L. Duane. "On Preserving Nature's Aesthetic Features." _Environmental Ethics_ 2(1980):293-310. I consider and reject four possible arguments directed against the preservation of natural aesthetic conditions. (1) Beauty is not out there in nature, but is "in the eye of the beholder." I argue that since ingredients of nature cause aesthetic experiences, we cannot justifiably disregard and exploit nature. Preservation of aesthetic conditions is compatible with both objective and nonobjective theories of aesthetic value. (2) Frequent aesthetic disagreements bring about irresolvable disputes concerning which segments of nature to preserve. I claim that these disputes are not irresolvable. Not all disputes about nature's aesthetic values are purely aesthetic disputes: ecological balance, community identity, historic continuity, and economics are relevant; aesthetic experts can help; and such disputes can be put to a vote. (3) Natural beauty is not important compared to nonaesthetic values of nature. I show that this is questionable. Current awareness of environmental problems includes a rapidly growing concern for natural aesthetics. Moreover, even if majority preference is for nonaesthetic uses of nature, this does not settle the question of whether we ought to preserve nature's attractive features. (4) From neither a utilitarian nor a deontological viewpoint do we have an obligation to preserve natural aesthetic conditions for future generations. I argue that even if we do not have a strict obligation, it does not follow that it makes no moral difference whether we preserve. Not yet existing people may have no rights against us, but this does not mean that we do no wrong in polluting and destroying aesthetic conditions of the natural world in which future people will live. Willard is in the department of philosophy and religion, University of Nebraska at Omaha, NE.


Willers, Bill, "The Postmodern Attack on Wilderness," _Natural Areas Journal_ 21(2001):259-265. This essay counters postmodern social scientists J. Baird Callicott, Alston Chase, and William Cronon, who impugn the wilderness concept as nothing essential but merely a social construct. These and similar postmodernists lack sufficient knowledge of elementary biology, so that they fail
to understand the difference between artificial selection and natural selection, the latter of which is
the distinguishing feature of wilderness. For this reason, they fail to grasp the evolutionary
significance of wilderness. Willers is in biology, emeritus, University of Wisconsin, Oshkosh. (v.13,
#3)

Press, 1999. Unmanaged landscapes are the focus of the struggle to protect and restore wildness, the
autonomy of nature, and to allow for its preservation and return on a grand scale. About 40
contributors. Willers is in biology, University of Wisconsin, Oshkosh


William Cronon, "The Trouble with Wilderness, or Getting Back to the Wrong Nature," in Cronon,
v.12,#1)

Willey, Basil, The Religion of Nature. London: Lindsey Press, 1957. 28 pages, a single lecture,
separately printed. Religious experience generated by encounter with nature, especially in William
Wordsworth. How far the spectacle of the natural universe has value that is religious or spiritual, and
how far the classical injunction to follow nature is valid as a moral maxim. Wordsworth's faith is
now regarded as outmoded, but "exploded faiths have a way of coming to life again. ... The religion
of Nature, in one form or another, is probably the oldest of all religions." Wordsworth dominated a
century in English literature; his attraction to nature is partly in reaction to industrialization, partly a
reaction to orthodox Christianity; but there is more. John Stuart Mill's criticism of following nature
is effective; in nature "there are no lessons in love, mercy, justice etc.--in fact no morality in the
human sense at all." Still, "deep in the human psyche ... there has always lurked an instinct to
worship Nature, an instinct perhaps from the remote past of our species." We cannot follow nature
morally, but natural things "can give massive satisfaction to certain deep cravings which ... normally
remain unfulfilled and unrecognized. ... They remind us that Man is not all, that there is something
Other and greater than ourselves, on which we are dependent, and can thus produce an
acknowledgment of Being-over-against-us, which is part, though only a part, of religious
experience." Sensitive article, worth reading by any who have been stung by Mill's critique in "On
Nature." Willey was professor of English literature, University of Cambridge.

Williams, Meredith. "Rights, Interests, and Moral Equality." Environmental Ethics
2(1980):149-61. I discuss Peter Singer's claim that the interests of animals merit equal consideration
with those of human beings. I show that there are morally relevant differences between humans and
animals that Singer's rather narrow utilitarian conception of morality fails to capture. Further, I
argue that Singer's formal conception of moral equality is so thin as to be virtually vacuous and that
his attempts to give it more substance point to just the kind of differences between humans and
animals that undermine his equalitarian thesis. Williams is in the philosophy department, Wesleyan
University, Middletown, CT. (EE)

Williams, Cindy Deacon, "Sustainable Fisheries: Economics, Ecology, and Ethics," Fisheries 22(no. 2,
1997):6-11. "We have an ethical responsibility as professionals who should know and understand to
truly be in communion with nature, not verbally caught up in our description of its parts. We need to
be a part of it, be aware, feel that we belong. We must be able to bring our love and passion to efforts
to reach a sustainable relationship with the waters of the world and the species that inhabit them" (p.
11). Williams is an aquatic ecologist, Pacific Rivers Council. This was her plenary address to the
American Fisheries Society, 1996. (EE v.12,#1)

Williams, Cindy Deacon. "Sustainable Fisheries: Economics, Ecology and Ethics," Fisheries. 22(no.2,
1997):6-11. (v8,#3)
Williams, Daniel R., "Sense of Place: An Elusive Concept That Is Finding a Home in Ecosystem Management," Journal of Forestry 96 (no. 5, May, 1998): 18-23. "Sense of place" offers resource managers a way to identify and respond to the emotional and spiritual bonds people form with certain spaces. Reason for the increasing interest in sense of place. Four recommendations for managers: (1) Know and use the variety of local place-names. (2) Communicate management plans in locally recognized place-specific names. (3) Understand the politics of places. (4) Pay close attention to places that have special but different meanings to different groups. Devil's Tower, Wyoming, is an example: rock climbers versus a sacred site. Williams is in Leisure Studies, University of Illinois. Stewart is a research social scientist, USDA Forest Service, North Central Forest Experiment Station, Evanston, IL. (v.12,#3)

Williams, Daniel R., Patterson, Michael E. "Environmental Meaning and Ecosystem Management: Perspectives from Environmental Psychology and Human Geography," Society & Natural Resources 9 (no. 5, 1996): 507. (v.7,#4)


Williams, George H., Wilderness and Paradise in Christian Thought. New York: Harper and Bros., 1962. "We shall find in the positive sense that the wilderness or desert will be interpreted variously as a place of protection, a place of contemplative retreat, again as one's inner nature or ground of being, and at length as the ground itself of the divine being. ... In its negative sense the wilderness will be interpreted as the world of the unredeemed, as the wasteland, and as the realm or phase of punitive or purgative preparation for salvation" (pp. 4-5).

Williams, Hugh, "What is Good Forestry? An Ethical Examination of Forest Policy and Practice in New Brunswick" Environmental Ethics 18(1996): 391-410. Public concern for ecological and environmental values is making the job of forest management increasingly complex and uncertain and is gradually undermining the domination of timber value as the primary organizing goal of forest policy. The key question is how to balance the pursuit of short-term economic self-interests with the long-term public good. I articulate a moral theory that affirms the existence of a public good that is understood teleologically as an objective purpose to be pursued. I argue that there is a connection between the philosophical and moral concept of creativity and the scientific concept of biological diversity. I suggest that these concepts are both linked to the political question of the public good. The maximization of the ethical good of creativity according to this theory is linked to the maximization of the public good. In forestry, the management of forest ecosystems in order to maximize their creative good is linked to the maximization of the public good and vice versa. This ethical theory is essentially a religious one in the neoclassical theistic tradition, in which authentic human existence is defined in terms of our relationship to reality and a metaphysically and cosmologically informed world view. (EE)

Williams, Ivor D., and Nicholas V.C. Polunin, "Differences between Protected and Unprotected Reefs of the Western Caribbean in Attributes Preferred by Dive Tourists," Environmental Conservation 27 (no.4, Dec. 2000): 382-. (v.12,#3)

Williams, Joy, "The Inhumanity of the Animal People," Harper's Magazine 295 (August 1997): 60-68. "The animal people are calling for a moral attitude toward a great and mysterious and mute nation, which can't, by our stern reckoning, act morally back. Their quest is quixotic; their reasoning, assailable; their intentions, almost inarticulate. The implementation of their vision would seem madness. But the future world is not this one. Our treatment of animals and our attitude
toward them is crucial not only to any pretensions we have to ethical behavior but to humankind's intellectual and moral evolution."

Williams, Joy, "The Killing Game," *Esquire*, October 1990, pp. 112-128. An *Esquire* style diatribe against hunting. "Why the American hunter is blood-thirsty, pigish, and grossly incompetent." "Hunters kill for play, for the thrill of it." "Sport hunting is immoral. It should be made illegal. Hunters are persecutors who ought to be prosecuted." Williams cites and dislikes Rolston's position on hunting. (v1,#3)


Williams, Christopher, "Environmental Victims: Arguing the Costs Global Security Programme," *Environmental Values* 6(1997):3-30. ABSTRACT: The costs of anthropogenic environmental change are usually discussed in broad terms, for example embracing damage to the ecosystem or buildings. There has been little consideration of the direct human dimension of the cost to environmental victims except in clinical terms. In order to prevent and minimise environmental victimisation it seems necessary to present cost arguments to governments and commerce. This paper outlines the personal, social and cash costs of environmental victimisation, using the psychosocial literature, and brief case studies of intellectual disability, road transport and cross-border pollution. It is proposed that governments and commerce might not respond in obvious ways to these cost arguments, but trust is identified as a cost that both may recognise. It is concluded that the concept of loss-costs should be central to any analysis, and the paper provides a framework for comprehensive argument of the costs of environmental victimisation, in the form of a simple matrix. University of Cambridge, Botolph House, 17 Botolph Lane, Cambridge, CB2 3RE, UK. (EV)


Williams, Michael, *Deforesting the Earth*. Chicago: University of Chicago Press, 2003. Humans deforesting the Earth have wrought in the last hundred years what is surely the most dramatic change in Earth's surface since the end of the Pleistocene 10,000 years ago and what may shortly become the greatest change since the beginning of the Pleistocene over two million years ago. The great majority of this clearing has taken place since 1900 and it has been especially accelerating since 1950.

Humans have long influenced forests, although scholars dispute how significant these influences were. But, despite local influences, generally people really had not put much of a dent in the world's forests as a whole until the last 500 years. Until 1900 the largest impact was in temperate forests, but today the largest impact is on tropical forests. Wood for fuel is part of the picture, but clearing for agriculture is the overwhelming cause. Industrial uses is another factor. There are few visible solutions in prospect for this tangled mess. (v.14, #4)


Williams, Nigel. "Slow Start for Europe's New Habitat Protection Plan." *Science* 269(1995):320-322. The European Union's Habitats Directive has considerable promise, but nations have been slow to comply with filing their proposed habitat sites, some 169 habitats by a preliminary estimate. The emphasis is on large conservation areas, which can produce conflicts with development. Good summary of opportunities and problems in Europe. (v6,#3)

surgery and contemplative essays on the natural world. (v.10,#1)


Williams, Ted. "Courage Under Fire," Audubon 100 (no. 5, Sept./Oct. 1998):36-45. Government workers who are willing to blow the whistle on their employers are rare. They are also essential. Five case studies of government employees in natural resource agencies. Quite revealing of the social forces that push political decisions about environmental conservation. A successful advocate of such employees is the Forest Service Employees for Environmental Ethics, with director Andy Stahl. Jeff DeBonnis who founded FSEEE now directs a similar organization for all state and federal resource agencies, Public Employees for Environmental Responsibility (PEER). FSEEE phone: 541-484-2692. PEER phone: 202-265-7337. (v.9,#3)

Williams, Terry Tempest, "A Place of Humility," Wild Earth 9(no. 3, Fall 1999):18- . (v.11,#1)

Williams, Terry Tempest, Smart, William B., and Smith, Gibbs M., New Genesis: A Mormon Reader on Land and Community. Salt Lake City: Gibbs Smith Publishing Co., 1998. 280 pages. The Mormon tradition and experience on the Utah landscape has more resources for a better environmental ethic than the church has usually recognized. (v.10,#3)

Williams, Terry Tempest, An Unspoken Hunger: Stories from the Field. New York: Pantheon Books, 1994. $ 20.00. A collection of nature essays. "We call out--and the land calls back. It is our interaction with the ecosystem; the Echo system."

Williams, Michael. Deforesting the Earth: From Prehistory to Global Crisis, An Abridgement. Chicago: The University of Chicago Press, 2006. This book was first published in 2002 as a landmark study of the history and geography of deforestation. This abridgement retains the original breadth of a survey of ten thousand years to trace anthropogenic deforestation's effects on economies, societies, and landscapes, while making the arguments of the 2002 edition more accessible to the general layperson.

Williams, Erin E., and Margo DeMello. Why Animals Matter: The Case for Animal Protection. Amherst, NY: Prometheus, 2007. Williams and DeMello provide an up-to-date and extensive explication and critique of the meat industry, hunting, the fur and skins industries, the animal experimentation industry, the pet industry, and the animal entertainment industry.

Williams, Bruce A., and Albert R. Matheny, Democracy, Dialogue, and Environmental Disputes. New Haven: Yale University Press, 1995. 272 pages. $ 32.50. The difficulties faced by environmental regulation are attributed to competing ideas about regulatory legitimacy, resulting from the growth of the American state. The authors propose a more complex and nuanced dialogue between all participants in regulatory policymaking, and apply this to case studies in New Jersey, Ohio, and Florida. (v7,#1)

Williams, Raymond, "Ideas of Nature," in Problems in Materialism and Culture. London: Verso Editions, 1982. "The idea of nature contains, though often unnoticed, an extraordinary amount of human history. Like some other fundamental ideas which express mankind's vision of itself and its place in the world, 'nature' has a nominal continuity, over many centuries, but can be seen, in analysis, to be both complicated and changing, as other ideas and experiences change" (p. 67). One principal problem is that the term "nature" becomes "singular, abstracted, and personified," as human strive to make sense of their world.
Willis, K. J., and Birks, H. J. B., "What Is Natural? The Need for a Long-Term Perspective in Biodiversity Conservation," *Science* 314(24 November 2006):1261-1265. Ecosystems change over time and most data available are too short-term to judge natural variability, separating it from human introduced disturbances. Palaeoecological records can be used to provide a longer temporal perspective. The use of such records can reduce much of the uncertainty regarding the question of "what is natural." In result, we can start to provide better guidance for long-term management and conservation. One finding is that, when climates change, what these authors call "rear-edge" populations (source populations from which "leading-edge" populations migrate) are extremely important in the conservation of diversity. Willis is at the Long-Term Ecology Laboratory, Oxford University. Birks is in Biology, University of Bergen, Norway.

Willis, K. J., Gillson, L., and Brncic, T. M., "How 'Virgin' is Virgin Rainforest?" *Science* 304(16 April 2004):402-403. "Evidence has started to emerge from archaeological and palaeoecological investigations that many of these so called 'virgin' rainforest blocks might not be as pristine as originally thought and have in fact undergone substantial prehistoric modification." Examples from the Amazon basin, the Congo basin, and the Indo-Malay region of Southeast Asia. But these forest are also resilient and not as fragile as sometimes portrayed; the extent of their regeneration has obscured their earlier modification. "Left for long enough, forest will almost certainly regenerate." The authors also think little biodiversity was lost. With critical response, *Science* 305(13 August 2004):943-944, the respondents claiming it is unknown whether biodiversity was lost and that no implications follow from this earlier regeneration about whether presently degraded forests, from contemporary logging and agriculture, can similarly regenerate.


Willis, K. G., and J. T. Corkindale, eds., *Environmental Valuation: New Perspectives*. Wallingford, Oxfordshire, U.K: C.A.B. International, 1995. Distributed in U.S. by University of Arizona Press. 249 pages. $ 82.50!!! Cost-benefit analysis, the contrasting approaches of economists and ecologists, the pros and cons of alternative valuation methods, contingent valuation, the transferability of environmental benefit estimates, and the establishment of research priorities. Willis is in town and country planning, University of Newcastle upon Tyne, UK, and Corkindale is with the Environmental Protection Economics Division, Department of the Environment, UK. (v7,#2)

Willis, David J., "Ecophiilosophy and Natural Law," *Journal of Energy, Natural Resources and Environmental Law* (University of Utah College of Law) 12(no. 2, 1996):419-451. "More effort is needed to construct and articulate a coherent ecophilosophy. ... It is particularly vital that attention be focused on the philosophical underpinnings of environmental policy. ... In a philosophical vacuum, we may do little to protect and preserve our conception of the good life" (p. 419, p. 422).

"What we think about and wish for in environmental matters--what we value, both for ourselves and posterity--is the proper business of ecophilosophy and a timely subject for public debate. Natural law is a key element of this approach. ... Ecophiilosophy offers such a theory based upon the Gaia hypothesis, a concept of the earth as a unified biological/geological entity greater than the sum of its parts" (p. 423, p. 424). Willis offers ten principles of natural law: Among them: "1. The commonwealth of nature constitutes the greater society of which all living beings are members and have a rightful place" (p. 429).

"3. All forms of life have intrinsic as well as utilitarian value, adding to the diversity, health, and richness of the natural commonwealth" (p. 433).

"10. Enlightened self-awareness and action on the part of individuals acts cumulatively to encourage
the maturing of human society and bring it into better harmony with the natural order" (p. 449).

Willis a lawyer in Houston, Texas. (v.9,#4)

Willott, Elizabeth, "Restoring Nature, Without Mosquitoes?" Restoration Ecology 12(no. 2, 2004):147-153. Wetlands have many benefits, but have often been drained to help control malaria and other diseases. Mosquitoes pose practical and theoretical problems in restoring wetlands. Abundant mosquitoes is a primary and foreseeable effect of creating habitat suitable for them. But restoration biology often fails properly to address this downside. Willott is in Entomology, University of Arizona, Tucson.

Wills, Christopher et al. (two dozen others), "Nonrandom Processes Maintain Diversity in Tropical Forests," Science 311 (20 January 2006): 527-531. Tropical forests are often thought to lose diversity over time, due to accidental extinction of rare species, competitive exclusion and other causes. But these authors find that in small patches of tropical forests, rare species often do better than common ones. One reason may be that the common trees, being close together, are more susceptible to deadly infections; such diseases do not spread if trees are rare. Also the rare trees may use resources differently than the common ones, who are starved from over-competition. This suggests that diversity is a self-augmenting process, also that damaged forests may restore their own diversity. Wills is in evolutionary biology, University of California, San Diego.


Wilmut, Ian, Campbell, Keith, and Tudge, Colin, The Second Creation: The Age of Biological Control by the Scientists who Cloned Dolly. London: Headline, 2000. 306 p. The two scientists most closely involved with Dolly's creation combine with British science writer Colin Tudge for an account of this celebrated cloning and its significance. They claim that too many mistake metaphor for reality in promoting anti-cloning laws. (v.11,#1)


Wilson, James, “GM Crops: Patently Wrong?” Journal of Agricultural and Environmental Ethics 20(2007):261-283. This paper focuses on the ethical justifiability of patents on Genetically Modified (GM) crops. I argue that there are three distinguishing features of GM crops that make it unethical to grant patents on GM crops, even if we assume that the patent system is in general justified. The first half of the paper critiques David Resnik’s recent arguments in favor of patents on GM crops. Resnik argues that we should take a consequentialist approach to the issue, and that the best way to do so is to apply the Precautionary Principle, and that the Precautionary Principle, in this case, supports patents on GM crops. I argue that his argument in favor of a consequentialist treatment is invalid; his Precautionary Principle in any case appears to be incompatible with consequentialism; and his conception of reasonable precautions is too ill-defined to have any argumentative purchase. In the second half of the paper, I argue against GM crop patents, on three grounds. First, there is insufficient evidence to say whether allowing patents on GM crops will make research go faster than not having patents, whilst there is a good reason to think that, other things being equal, a society that allows patents on GM crops will be less just than one that does not. Second, even assuming that patents on GM crops will increase the pace of GM crop research, there is
no social need to do so. Third, patents on GM crops will frequently have ethically unacceptable side effects. Keywords: Consequentialism - GM crops - intellectual property - precautionary principle - tragedy of the anticommons. Wilson is at Centre for Professional Ethics (PEAK), Keele University, Keele, Staffordshire, UK.

Wilson, Harry B., "Finding an Ethical Basis for Section 7 of the Endangered Species Act," Journal of Undergraduate Sciences 3(Summer 1996):85-87. Wilson argues that the most likely comprehensive account is that of Holmes Rolston, III. Wilson is a philosophy student, Harvard University.

Wilson, Edward O. The Creation. New York: W. W. Norton, 2006. With an imagined correspondence between Wilson and a Southern Baptist pastor (Wilson was raised a Southern Baptist). "The defense of living nature is a universal value. It doesn’t rise from, nor does it promote, any religious or ideological dogma. Rather, it serves without discrimination the interests of all humanity. .....If there is any moral precept shared by people of all beliefs, it is that we owe ourselves and future generations a beautiful, rich, and healthful environment. .....Darwin’s reverence for life remained the same as he crossed the seismic divide that divided his spiritual life. And so it can be for the divide that today separates scientific humanism from mainstream religion.”

Wilson, Don E., Cole, F. Russell, Nichols, James D., Rudran, Rasanyagam, Foster, Mercedes S., eds. Measuring and Monitoring Biological Diversity. Washington, D.C.: Smithsonian Institution Press, 1996. 480pp.. $49 cloth. $22.50 paper. Over fifty scientists provide standardized methods for biodiversity sampling procedures for measuring and monitoring populations of any mammal group, from rodents to open-country grazers. Beginning with brief natural histories of the twenty-six orders of living mammals, the book describes in successive chapters field techniques--such as observation, capture, and sign interpretation--appropriate to different taxa. Guidelines for study design, survey planning, statistical techniques, and methods of translating field data into electronic formats.


Wilson, Alexander, The Culture of Nature: North American Landscape from Disney to the Exxon Valdez. Cambridge, MA: Blackwell Publishers, 1992. 335 pages. Another book featuring the social construction of nature: "We should by no means exempt science from social discussions of nature. ... In fact, the whole idea of nature as something separate from human existence is a lie. Humans and nature construct one another” (p. 13). A cultural history of North American and native responses to the land, especially the multiplicity of environments built on the North American continent in the last 50 years. Chapters on nature education and promotion; landscape design, nature movies and TV, theme parks that image nature (Disney), nature parks, zoos, nuclear plants, environmental architecture. "We must build landscapes that heal, connect, and empower, that make intelligible our relations with each other and with the natural world. ... Nature parks cannot do this work. We urgently need people living on the land, caring for it, working out an idea of nature that includes human culture and human livelihood. All that calls for a new culture of nature, and it cannot come soon enough" (p. 17). Wilson is a horticulturalist, journalist, and landscape designer in Toronto.


Wilson, Darryl, "Grandfather's Story," The Ecologist 30 (No. 1, Jan 01 2000): 12- . Darryl Wilson, a member of the indigenous Ajuma and Astuge peoples of California reveals the deep ecological
message of the stories in terms of which the worldview of tribal people is formulated. (v.11,#2)


Wilson, Edward O., Biophilia. Cambridge: Harvard University Press, 1984. Wilson claims, or hopes, that humans have an innate genetic disposition for the love of life, one that can develop into a respect for life, and on which a conservation ethic can be built. A long commentary on this volume is: Kellert, Stephen R. and Edward O. Wilson, eds., The Biophilia Hypothesis (Washington, DC: Island Press, 1993).


Wilson, Edward O., "Back from Chaos," Atlantic Monthly 281(no. 3, March, 1998): 41-62. Enlightenment thinkers knew a lot about everything, today's specialists know a lot about a little, and postmodernists doubt that we can know anything at all. The Enlightenment mostly got it right. The fragmentation of knowledge and the chaos in philosophy are not reflections of the real world but artifacts of scholarship. Wilson argues that we can know what we need to know, and that we will discover underlying all forms of knowledge a fundamental unity. Wilson divides what we know, at least about nature and environmental affairs, into four quadrants: environmental policy, environmental ethics, social science, biology. One good test of truth is when many lines of independent evidence converge in support of a claim, a consilience of inductions. Wilson's latest book is Consilience: The Unity of Knowledge (New York: Knopf, Random House, 1998). Wilson is emeritus from comparative zoology at Harvard University.

Another discussion is in the current issue of The Wilson Quarterly, "Is Everything Relative?" where the editors, worried about crippling relativism, put Wilson into debate with Richard Rorty and biologist Paul R. Gross. Contains:

--Wilson, Edward O., "Resuming the Enlightenment Quest," The Wilson Quarterly, Spring 1998, pp. 16-27. Science is the royal road to truth, the cure to the contemporary fragmentation of knowledge, to which philosophers have too much contributed. Wilson's consilience of the sciences--philosophers will want to notice--has now reached the settled conclusion that our human nature, including its morality, is "biased by" the genes. The consilience within biology is expanding to overtake the social sciences and the humanities. The brain is a survival instrument, with Paleolithic survival instincts (p. 20). Fortunately, the biological sciences have figured this out and can correct for it (with what brain, Wilson does not say).

Language is a survival tool, as Wilson should know. This means that things are described for various purposes, never for what they are in themselves. "As we pragmatists see it, there can and should be thousands of ways of describing things and people--as many as there are things we want to do with things and people--but this plurality is unproblematic" (p. 30). (But why we should accept Rorty's thousands-plus-yet-one-more view as being better than the rest does become problematic). "My scorn," Rorty continues, "for the claim that a natural scientist gets closer to the way things are in themselves than the carpenter, the moralist, or the literary critic" does mean that "I do indeed think of science as just another way of looking at the world" (p. 38). Rorty is University Professor of Humanities at the University of Virginia.

Gross, Paul R., "The Icarian Impulse," pages 39-49. Gross defends Wilson; we need to press for consilience as much in ethics as in the sciences, but he is much less sure we are reaching it. Gross is University Professor of Life Sciences at the University of Virginia, co-author of Higher Superstition (1994), and an editor of The Flight from Reason and Science (1996). (v9,#1)


Wilson, Edward O., The Future of Life. New York: Alfred A. Knopf, 2002. The twentieth century was a century of unprecedented growth and advance, and also of dark and savage wars. "If Earth's ability to support our growth is finite--and it is--we were mostly to busy to notice. As a new century begins we have begun to awaken from this delirium: "the wreckage of the planet by an exuberantly plentiful and ingenious humanity." Now, increasingly postideological in temper, we may be ready to settle down before we wreck the planet. It is time to sort our Earth and calculate what it will take to provide a satisfying and sustainable life for everyone into the indefinite future. .. The bottom line is different from that generally assumed by our leading economists and public philosophers. They have most ignored the numbers count." Ed Wilson projecting the population and consumption problems onto the biodiversity problems. "The pattern of human population growth in the 20th century was more bacterial than primate." Another problem: "The human brain evidently evolved to commit itself emotionally only to a small piece of geography." So cosmopolitan and biospheric perspectives run counter to our genetic tendencies; but we humans are highly innovative and intelligent. So there is hope. "The issue, like all great decisions, is moral." Reviewed by Norman Myers, Science 295(18 January 2002):447. (v.13,#1)


Wilson, James D. and J. W. Anderson, "What the Science Says: How We Use It and Abuse It to Make Health and Environmental Policy." Resources (Resources for the Future, 1616 P. Street, NW, Washington, DC 20036-1400), Summer 1997, Issue 126, pp. 5-8. Science is used and abused by either side in environmental controversies, partly because policy makers and scientists are unwilling to face up to the uncertainties in scientific knowledge, which is often incomplete when decisions must be made. Scientific consensus on environmental issues has often changed back and forth several times. The best assurance of good public policy seems to lie not only in scientific knowledge per se but in open debate, caution, and a regulatory system capable of self correction. Good short article to get these issues under discussion in a classroom. Wilson is a fellow with RFF, and Anderson, formerly with the Washington Post, is a journalist in residence at RFF. (v8,#3)
Wilson, James, "The Savage State," The Ecologist 30(no. 9, Dec. 1, 2000):50. The press regularly uses words like "primitive" and "Stone Age" to describe tribal societies. The media's representation of tribal groups is doing them a disservice. (v.12,#2)


Wilson, Michael, Microbial Inhabitants of Humans: Their Ecology and Role in Health and Disease. Cambridge: Cambridge University Press, 2005. You are a community, an ecosystem from the skin in!! More bacteria inhabit your body than you have cells in your body (1014 versus 1013 respectively), far more than there are people on Earth. And you can't live without them; their symbioses are vital to your health (and your health to theirs). Despite occasional pathogens, the process is most often peaceful and mutually beneficial. Wilson is a microbiologist at the Eastman Dental Institute, University College London. Reviewed by Elaine Tuomanen, "Appreciating Our Unusual Guests," Science 308(29 April 2005):635.


Wilson, Seth M., "Conservation on the Edge: Lessons for Recovering Grizzly Bears in Contested Landscapes," NRCC (Northern Rockies Conservation Cooperative) News, no. 16, Autumn 2003, pp. 3-5. [Northern Rockies Conservation Cooperative, P. O. Box 2705, Jackson, WY 83001] "The politics of grizzly bear recovery is largely dominated by acrimony, uncertain information, and turf battles that often thwart productive dialogue and progress on the ground. There is mutual distrust among federal and state wildlife agencies, research scientists, conservation groups, and rural private landowners and ranchers. Distrust often leads to polarization, inflamed rhetoric, and antagonism, and it inhibits grizzly bear recovery." (v.14, #4)


Wimberly, Michael, "Species Dynamics in Disturbed Landscapes: When does a Shifting Habitat Mosaic Enhance Connectivity?," Landscape Ecology 21 (no.1, January 2006): 35-46 (12). Winckler, Suzanne, "Stopgap Measures," Atlantic Monthly, January 1992. The extinction of any species is a tragedy, but the time has come to introduce the idea of triage into conservation efforts. Instead of spending millions of dollars to save a few "terminally ill" species, we should promote biodiversity more broadly by protecting the health of whole ecosystems. To pretend that we are acting to save everything is intellectually dishonest. It turns the hard choices over to the forces of litigation and bureaucratic inertia. (v3,#1)

Windsor, Donald A., "Endangered Interrelationships: The Ecological Cost of Parasites Lost," Wild Earth, Winter 1995/96, vol. 5, no. 4, pages 78-83. "Collectively, parasites form a pervasive matrix of interrelationships within an ecosystem which tends to hold it together, acting almost as a glue." Parasites are important regulators of ecosystems, acting almost like complicated servomotors in complex machines. When parasitism is viewed in its larger category, symbiosis, the unifying force is seen as even more comprehensive. "If a single message jumps out from all the myriad details of
parasitology, it is that the complex interrelationships among parasites and their hosts are essential to
the natural functioning of ecosystems." Required reading for those who dislike parasites. Windsor is
an invertebrate zoologist, Norwich, New York. (v7,#1)

Winker K., "Natural History Museums in a Postbiodiversity Era," BioScience 54(no.5, 1 May
2004):455-459(5). (v. 15, # 3)

Winker, Kevin. "The Crumbling Infrastructure of Biodiversity: The Avian Example." Conservation
Biology 10, no.3 (1996): 703. (v7, #3)

Winkler, Earl and Jerrold R. Coombs, eds., Applied Ethics: A Reader. Cambridge, MA: Blackwells,
1993. 450 pages. $ 19.95 paper, $ 49.95 hardcover. To be released in July. The papers in the
second half of the book are on environmental ethics, business ethics, and biomedical ethics. The
papers on environmental ethics focus on the question of intrinsic values in nature. More details
when available. Both authors are at the University of British Columbia. (v4,#1)

1993. Contains a section on environmental ethics: Holmes Rolston, III, "Values in and Duties to
the Natural World"; Lori Gruen, "Re-valuing Nature"; Dale Jamieson, "Ethics, Public Policy, and
Global Warming" and Peter Danielson, "Morality, Rationality, and Politics: The Greenhouse
Dilemma." This adds to a list of a dozen or more anthologies in applied ethics with sections on
environmental ethics. Winkler and Coombs are in philosophy and education at the University of
British Columbia. (v4,#2)


(Overseas Development Institute), 1991. Winpenny is a development economist in London.

21(1999):221-222. I apply an agent-based virtue ethics to issues in environmental philosophy
regarding our treatment of complex inorganic systems. I consider the ethics of terraforming:
hypothetical planetary engineering on a vast scale which is aimed at producing habitable
environments on otherwise "hostile" planets. I argue that the undertaking of such a project
printfaces at least two serious defects of moral character: an aesthetic insensitivity and the sin of
hubris. Trying to change whole planets to suit our ends is arrogant vandalism. I maintain that these
descriptions of character are coherent and important ethical concepts. Finally, I demonstrate how
the arguments developed in opposition to terraforming, a somewhat farfetched example, can be used
in cases closer to home to provide arguments against our use of recombinant DNA technologies and
against the construction of tourist developments in wilderness areas. (EE)

Ashgate, 1996. 464 pp. $39.95 paper, $89.95 cloth. Addressing law students and professionals,
sixteen outstanding lawyers have joined in a project to investigate the core concepts of
environmental law in Europe. (v8,#2)

Winter, Brian D., and Hughes, Robert M., "Biodiversity: American Fisheries Society Position
Statement," Fisheries 22 (no. 3, March):16-23. A position statement resulting from several years
of preparation and review within the American Fisheries Society. Among other reasons: "Biodiversity
must be sustained simply because humans have a moral obligation to ensure the natural evolutionary
existence of species and ecosystems whose values do not depend on their human usefulness" (pp. 16-
17). Winter is with the National Park Service, Olympic National Park. Hughes is an aquatic
biologist with Dynamic, Corvallis, OR. (EE v.12,#1)


Winter, Greg; Vogt, Christine A; McCaffrey, Sarah, "Examining Social Trust in Fuels Management Strategies", *Journal of Forestry* 102(no.6, September 2004):8-15(8).


Wirth, David A. *The Role of Science in the Uruguay Round and NAFTA Trade Disciplines*. Geneva: United Nations Environmental Program - Environment and Trade # 8, 1994. 68 pp. The presence and integrity of scientific support is a principal touchstone for determining the legitimacy of many national regulatory efforts aimed at assuring environmental integrity or safeguarding public health. The paper highlights the quiescent issues at the interface between science and governmental regulatory policies that are raised by the emphasis on scientific validity in the Uruguay Round and the NAFTA. (v8,#2)

Wirzba, Norman, ed., *The Essential Agrarian Reader*. Lexington, KY: University Press of Kentucky, 2003. Many contributors are in tribute to Wendell Berry. Contributors include Herman Daly, Vandana Shiva, Wes Jackson, Eric Freyfogle. The small successes in conserving local farming have been overwhelmed by crushing losses. America now has half the number of farms it had in 1977. Agribusiness corporations that were once national are now global. More machinery, less labor. We now have more Americans in prison than work on farms and feed the nation. Reviewed by Bill McKibben, "Local farming vs. agribusiness," *Christian Century* 120 (no. 26, December 26, 2003):20-22.

Wirzba, Norman, "Lethal Lawn Care," *Christian Century* 121 (No. 10, May 18, 2004):8-9. "Lawn care" seems more like "lawn warfare." Weed killers are toxics. Children and pets have to be kept out of the way. "Do we really want to apply millions of gallons of them to the land that we `live on'?"

The American attitude towards lawns is too much of an icon for the Western attitude toward nature: total management and control. Wirzba teaches philosophy and theology at Georgetown College, Georgetown, KY. (v. 15, # 3)

Wirzba, Norman, "Caring and Working: An Agrarian Perspective," *Christian Century* 116(no. 25, Sept. 22-29, 1999):898-901. We need concrete practices that teach us how to accept the limits of being creatures. Agrarianism has not been adequately considered by philosophers, theologians, or scientists. The land grant universities quickly left farmers behind, in pursuit of technology. "Whereas techne is about making and controlling a world in our own image, agrarianism is about tending to or taking care of a world already given" (p. 899). Wirzba teaches philosophy at Georgetown College, Georgetown, Kentucky. (v.10,#3)

spiritual meaning of the world, actually holds the key to a true understanding of our place in the environment and our responsibility toward it. Our present culture results from a denial of creation that has caused modern problems such as rootlessness, individualism, careerism, boredom, and consumerism. The renewal of the meaning of creation can lead to a renewed sense of human identity and vocation, and happier, more peaceful lives. Wirzba teaches philosophy at Georgetown College, Georgetown, KY.


Wisdom, HW; Brooks, DJ, "International Forest Resources Agreements: A Primer," Journal of Forestry 99(no. 10, 2001):29-34. (v.13,#1)

Wise, Steven M., Rattling the Cage: Toward Legal Rights for Animals. Cambridge, MA: Perseus Books, 2000. Foreword by Jane Goodall, who says: "This book can be seen as the animals' Magna Carta, Declaration of Independence, and Universal Declaration of Rights all in one" (p. ix-x). At least some nonhuman animals, the great apes in particular, should be given legal rights, since there is now a tremendous weight of evidence attesting to their higher cognitive capacities. The great apes ought to be considered as "persons." Rights under the law stem not from belonging to a particular species, but from having a certain type of mind, and any definition of mind that encompasses all humans would also include chimpanzees, bonobos and perhaps other species. Wise rejects the utilitarian argument that animal experiments are justified if the human benefits outweigh the cost to animals, because we do not so operate with other humans, persons with minds. With a program for putting such rights into effect in law. Wise is a Boston-based attorney who specializes in animal rights law, and has been visiting lecturer at Harvard Law School.

The editors of Nature Neuroscience remark in an editorial that "the traditional view is that there is an absolute distinction between humans and all other animals, but Wise argues that modern biology has made this obsolete, and that there is no reason why it should remain embodied in law." "Neuroscientists in particular are likely to find themselves on the front lines at some point, given that the animals of greatest interest as models for the human brain are, by definition, the ones for which the case for protection is strongest. It would be unproductive to deny that the arguments raised in Wise's book have some force. Instead, the research community will need to confront them head-on, and to be prepared with good counterarguments. ... They will need to refute its arguments if they are to withstand the legal challenges that appear to be on the horizon." "Legal Challenges to Animal Experimentation," Nature Neuroscience 3(no. 6, June 2000):523. (v.12,#4)


Wissenburg, M, "Liberalism is Always Greener on the Other Side of Mill: A Reply to Piers

Wissenburg, Marcel, "Global and Ecological Justice: Prioritising Conflicting Demands," Environmental Values 15(2006): 425-439. 'Global and ecological justice' (or some variant) is a very popular catchphrase in policy documents, treaties, publications by think-tanks, NGOs and other bodies. I argue that it represents an informal combination of four distinct and sometimes conflicting ideas: global justice, protection of the ecology, sustainability and sustainable growth. To solve the practical, conceptual and logical complications thus caused, a more precise interpretation of global justice and ecological justice is suggested, on the basis of which it is also possible to rank the two and re-interpret the further goals of sustainability and growth. (EV)

Withgott, Jay, "Are Invasive Species Born Bad?" Science 305(20 August, 2004):1100. Ecologists are debating whether invasive species are invasive "naturally" in the wild, or whether they acquire new aggressive capacities by genetic modifications after they are introduced to new environments--whether invasive species are "born" or "made." A record number of ecologists, over 4,000, gathered for the recent 89th annual meeting of the Ecological Society of America in Portland, Oregon. (v.15, #3)

Withgott, Jay, "Pollination Migrates to Top of Conservation Agenda," Bioscience 49(no. 11, Nov 01 1999):857-.


Witness, Winter 1989, is a special issue on new nature writings. (v1,#4)
Anyone who has gazed on an English moor, tramped it, or perhaps felt its primordial mystery through reading *Wuthering Heights* or *Jane Eyre* cannot help but wonder about these tree-barren lands of bracken and peat and rock. The moorlands go back to Neolithic and Bronze Age England, when early farmers cleared forest and dwelt there, leaving their dolmens and stone circles and precisely bordered fields. The damp moors, with their ruined abbeys, myths--and, of course, sheep--are revealed as another tough soil from which the English sprang.


Wohl, Ellen, *Virtual Rivers: Lesson from the Mountain Rivers of the Colorado Front Range*. New Haven: Yale University Press, 2001. The Colorado mountain rivers may seem wild, but they have been so tampered with for over a century, for mining and agriculture, that they are as much "virtual rivers." A river ultimately absorbs everything that happens in its drainage basin, and the basin is the fundamental organizational unit for the flow of materials and energy. Rivers thus reflect the
cumulative historical effects of human activities on landscapes. Though Wohl says this is not a polemic or environmentalist book, her commitments are clear. "We as a society will have to determine how highly we value functioning rivers." Featured in The Chronicle Review (Chronicle of Higher Education), Sept. 14, 2001. Wohl is in geology (earth resources) at Colorado State University. (v.12,#4)


Wold, Chris. "Multilateral Environmental Agreements and the GATT: Conflict and Resolution", Environmental Law 26(no. 3):841. Wold analyzes the underlying conflicts between international trade rules as declared in the General Agreement on Tariffs and Trade (GATT) and the trade provisions of various multilateral environmental agreements. Wold teaches law at Northwestern School of Law, Lewis & Clark College. (v7,#4)

Wolf, Clark, "Markets, Justice, and the Interests of Future Generations," Ethics and the Environment 1(no.2, 1996):153-175. This paper considers the extent to which market institutions respond to the needs and morally significant interests of future generations. Such an analysis of the intertemporal effects of markets provides important ground for evaluation of normative social theories, and represents a crucial step toward the development of an adequate account of intergenerational justice. After presenting a prima facie case that markets cannot provide appropriate protections for future needs and interests, I evaluate and reject two of the most promising arguments that purport to rebut this case. None of these arguments is adequate to show that markets will protect the interests of future generations. Given important grounds for pessimism about non-market solutions, this leaves little room for hope that we can successfully preserve productive resources that future generations will need to satisfy their basic needs. However, I tentatively suggest where this hope may reside. Wolf teaches philosophy at the University of Georgia. (E&E)


Wolf, Martin, "The Morality of the Market," Foreign Policy, September/October 2003, pages 47-50. "The market economy has triumphed virtually everywhere--and has come to be reviled virtually everywhere. Critics, including more than a few economists, charge that capitalism creates gross inequality, inflicts environmental destruction, and undermines democracy. Nothing could be further from the truth. The market economy is the most just and humane economic system yet conceived." Taken from a forthcoming book to be published by Yale University Press. Wolf is an editor and chief economics commentator for the Financial Times. (v.14, #4)

Mexico, will result in weaker crucial links between their ecology and the economies of the human communities that surround them. He proposes downsizing the federal management and maintains that the large private ranches in the region are the sites of exciting experiments in creating and maintaining wildlife habitat that tie cultural to biological diversity. Wolf teaches at Colorado College. (v6,#2)

Wolf, Tom, "The Los Utes Case: Forestry Seeks Its Soul," American Forests November, December 1990. "A badly botched timber sale on the Santa Fe National Forest in New Mexico raises questions about where the ethical soul resides in today's practice of forestry. The agency blundered on the 900-acre Los Utes timber sale and blew it in a fashion that has everyone disturbed... Can there--and should there--be an environmental ethic for foresters." "It is simple to say that what happened at Los Utes is wrong, both technically and ethically, but it is difficult to fix responsibility in a way that will result in better performance next time." The area is three miles upstream from Bandelier National Monument. Tom Wolf is an author and forester who has worked for The Nature Conservancy and The Trust for Public Land. (v1,#4)

Wolfe, Joan, Making Things Happen: How To Be an Effective Volunteer. Covelo, CA: Island Press, 1991. $22.95 cloth, $14.95 paper. 240 pages. Volunteers are the backbone of grassroots environmentalism, but volunteers are often not as effective as they could be, because they must perform jobs for which they have little or no training. (v2,#3)

Wolfe, BE; Klironomos, JN, "Breaking New Ground: Soil Communities and Exotic Plant Invasion," BioScience 55 (no. 6, June 2005): 477-488. As exotic plant species invade ecosystems, ecologists have been attempting to assess the effects of these invasions on native communities and to determine what factors influence invasion processes. Although much of this work has focused on aboveground flora and fauna, structurally and functionally diverse soil communities also can respond to and mediate exotic plant invasions. In numerous ecosystems, the invasion of exotic plant species has caused major shifts in the composition and function of soil communities. Soil organisms, such as pathogenic or mutualistic fungi, have direct effects on the establishment, growth, and biotic interactions of exotic plants. An integrated understanding of how aboveground and belowground biota interact with exotic plants is necessary to manage and restore communities invaded by exotic plant species.

Wolff, Edward N., Top Heavy: A Study of the Increasing Inequality of Wealth in America. New York: Twentieth Century Fund Press (41 East 70th Street, NY, NY 10021; 800/275-1447, 1995. Disquietingly, evidence supports that general conviction that there are diminished prospects for average American citizens. Over the last several years, many studies have established that the working population of the United States--especially men with less than a college education--not only are doing more poorly than their parents, but that their real wages are declining. Between 1947 and 1973, American families in every income category enjoyed income growth--and the poorest families had the highest rate of all. Then, between 1973 and 1990, average income not only remained almost stagnant, but that average was a reflection of higher income growth for the top 20 percent of families, and a significant fall in real income for the poorest 20 percent. As a result, nearly half the families in American today have lower real income than they did in 1973. In terms of total wealth (distinguished from income), in the 1980's the top 1 percent of wealth holders enjoyed two thirds of all increases in financial wealth. The bottom 80 percent of households ended up with less real financial wealth in 1989 than in 1983. Startlingly, the United States has gone from a position of less wealth inequality among its citizens than in Europe to greater wealth inequality than is found in class-ridden societies. The insecurity that a large segment of the population increasingly faces is shaking the democratic system. Wolff is professor of economics at New York University. (v7,#1)


Wolkomir, Michelle, Futreal, Michael, Woodrum, Eric, and Hoban, Thomas, "Denominational Subcultures of Environmentalism," *Review of Religious Research* 38 (no. 4, June 1997):325-343. The authors test the hypothesis that Christian denominations that take the Genesis "dominion" teaching more seriously will have less environmental concern, and find this to be false. They do not find any significant impact of belief in the dominion of humans on environmental attitudes. Different religious groups have varied ways of interpreting such scriptures. This raises the further question of what other aspects of religious belief and activity do connect with environmentalism. Michelle Wolkomir is in sociology at North Carolina State University. (v8,#3)


Wondrak Biel, Alice, Do (Not) Feed the Bears: The Fitful History of Wildlife and Tourists in Yellowstone. Lawrence, KS: University Press of Kansas, 2006. Management history, shifts in scientific perspectives, cultural attitudes about animals, and the changing relationships between animals and people, using the bears as a focal point. The shift from "human-oriented conservation" to "nature-oriented preservation"


Wood, Daniel B. "Suburbia Consumes California's Fruit Basket to the World." *Christian Science Monitor* 89 (11 September 1997): 1, 18. Farmland is being developed for homes at a rate of 100,000 acres per year. (v8,#3)


Wood, Harold W., Jr. "Modern Pantheism as an Approach to Environmental Ethics." *Environmental Ethics* 7(1985):151-63. While philosophers debate the precise articulation of philosophical theory to achieve a desirable change in environmental attitudes, they may be neglecting the fountainhead of social change. Insofar as ordinary people are concerned, it is religion which is the greatest factor in determining morality. In order to achieve an enlightened environmental ethics, we need what can only be termed a "religious experience." While not denying the efficacy of other religious persuasions, I explore the contribution of an informed modern Pantheism to environmental ethics. The conceptual division of the holy and the world is rectified by pantheism. As a form of "nature mysticism," pantheism promotes a theological basis for achieving oneness with God through knowledge, devotion, and works, all of which establish an enlightened theory for environmental ethics. A modern pantheism bears investigation by those advocating new ethical approaches toward the environment. Wood is founder of the Universal Pantheist Society, Big Pine, CA. (EE)

Wood, Jr., Forrest, "Against Cartmill on Hunting: Kinship with Animals and the Midcentric Fallacy," *Philosophy in the Contemporary World* 4 (nos. 1 & 2. Spring, Summer, 1997): 56-60. Three recent books offer alternative views of hunting: Matt Cartmill's *A View to a Death in the Morning*, James Swan's *In Defense of Hunting*, and Forrest Wood's *The Delights and Dilemmas of Hunting*. Wood argues, first, that Cartmill's claim of continuity of kind between animals and persons is both overstated and logically disconnected from the hunting/antihunting debate, and, second, that Cartmill's claims that the suffering of sentient animals is somehow intrinsically undesirable exhibits an unjustified prejudice toward middle-sized organisms. (v9,#1)

Wood, Mary Christina. "Environmental Scholarship for a New Millennium", *Environmental Law* 26(no. 3):761. Urging students and scholars of environmental law to break the intellectual apathy in this important field, Wood suggests that scholars interested in preventing ecological disaster should take to "millennium scholarship," marked by revealing the environmental crisis, assessing the effectiveness of our legal system, and refocusing on the ethical question of human responsibility toward the earth. Wood is an Associate Professor of Law at University of Oregon School of Law. (v7,#4)

Wood Mary Christina. "Fulfilling the Executive's Trust Responsibility Toward the Native Nations on Environmental Issues: A Partial Critique of the Clinton Administration's Promises and Performance," *Environmental Law* 25(no.3, 1995):733-. Wood analyzes the Clinton Administration's emerging policies to accommodate native interests when implementing environmental and natural resources statutes. She focuses in particular on the trust responsibility in implementing the Endangered Species Act, drawing upon recent regulatory actions affecting treaty fishing in the Columbia River Basin to demonstrate the need for prioritizing tribal interests when regulatory action affects treaty rights. (v6,#4)

Wood, Paul M., "Biodiversity as the Source of Biological Resources: A New Look at Biodiversity Values," Environmental Values 6(1997):251-268. ABSTRACT: The value of biodiversity is usually confused with the value of biological resources, both actual and potential. A sharp distinction between biological resources and biodiversity offers a clearer insight into the value of biodiversity itself and therefore the need to preserve it. Biodiversity can be defined abstractly as the differences among biological entities. Using this definition, biodiversity can be seen more appropriately as: (a) a necessary precondition for the long term maintenance of biological resources, and therefore, (b) an essential environmental condition. Three values of biodiversity are identified and arranged in a hierarchy: (1) the self-augmenting phenomenon of biodiversity maintains (2) the conditions necessary for the adaptive evolution of species and higher taxa, which in turn is necessary for providing humans with (3) a range of biological resources in the long term. Two broad policy implications emerge: increments of biodiversity should not be traded off against biological resources as if they were the same, and the conservation of biodiversity should be a constraint on the public interest, not a goal in service of the public interest. KEYWORDS: Biodiversity, biological diversity, biological resources, conservation policy, future generations, public interest, sustainability, tyranny of the majority. Faculty of Forestry University of British Columbia, 2357 Main Mall, Vancouver, British Columbia, Canada, V6T 1Z4. (EV)

Wood, Paul M., Biodiversity and Democracy: Rethinking Society and Nature. Vancouver, BC: University of British Columbia Press, 1999. The negative, potentially catastrophic, consequences of biodiversity loss are largely irreversible and the greatest loss will be suffered by future generations. The issue is one of intergenerational justice. Democracies are designed to implement the wishes of the current population. Wood examines a number of contemporary theories of justice and concludes that biodiversity conservation is a legitimate constraint on current collective preference. Biodiversity should be preserved, even if it is not in the current public's best interested to do so. This carries strong implications for constitutional and statutory reform in liberal democracies. Wood is in Forest Resources Management at the University of British Columbia. (v10,#4)

Wood, Paul M. "Intergenerational Justice and Curtailments on the Discretionary Powers of Governments." Environmental Ethics 26(2004):411-428. "Governments of all nations presume they possess full discretionary policy-making powers over the lands and waters within their geopolitical boundaries. At least one global environmental issue the rapid loss of the world's biodiversity, the sixth major mass extinction event in geological time challenges the legitimacy of this presumption. Increment by increment, the present generation is depleting the world's biodiversity by way of altering species' habitats for the sake of short term economic gain. When biodiversity is understood as an essential environmental condition essential in the long term because it is the source of the biological resources upon which humans depend then the strongly differential distribution of benefits and burdens between generations raises an issue of intergenerational justice. We receive the short-term benefits of economic development; future generations will receive the resulting burden of a biosphere in which one of the life-support systems necessary for humanity will have been compromised. Using Ronald Dworkin's conceptions of distributive justice, it can be demonstrated that constitutional constraints on the discretionary powers of governments, for the sake of intergenerational justice, are entirely consistent with central tenets of liberal democracy. As a result, we should abandon to some extent the presumption that governments have full jurisdiction over the lands and waters within their boundaries.(EE)

Wood-Gush, D. G. M. & Vestergaard, K., "Exploratory Behavior and the Welfare of Intensively Kept animals", Journal of Agricultural Ethics 2(1989):161-169. Exploratory behavior is considered under the following categories: (1) extrinsic exploration in which the animal seeks information about conventional reinforcers such as food, (2) intrinsic exploration which is directed toward stimuli which may have no biological significance, further divided into inspective and inquisitive exploration. Wood-Gush is in agriculture at the University of Edinburgh, Scotland. Vestergaard is in animal production and health at the Royal Veterinary and Agricultural University, Denmark.
Woodard, Colin. "Troubles Bubble Under the Sea." Christian Science Monitor 89 (10 September 1997): 1, 10-11. Pollution and overfishing have altered numerous marine ecosystems worldwide and have endangered several species. Tougher controls and marine preserves are being proposed. Sources of marine pollution are: Ocean dumping, 10%; Shipping and accidental spills, 12%; Airborne emissions from land, 33%; Runoff and discharges from land, 44%; Offshore mining and oil and gas drilling, 1%. (v8,#3)


Woodgate, Graham, and Redclift, Michael, "From a 'Sociology of Nature' to Environmental Sociology: Beyond Social Construction," Environmental Values 7(1998):3-24. This paper aims to provide some theoretical starting points for constructing a social science approach to environmental issues which goes beyond narrower forms of constructivism without dismissing the importance of interpretative sociology. An ecological understanding of society is compared with the notion of structuration and integrated into the concept of coevolution in order to shed light on the dynamic nature of socio-environmental relations and move beyond the constructivist/realist dualism.

KEYWORDS: Coevolution, social construction, socio-environmental relations, structuration.

Woodgate is at Wye College, University of London and Redclift is at Keele University. (EV)


Woodley, Stephen, George Francis, and James Kay, Ecological Integrity and the Management of Ecosystems. Delray Beach, FL: St. Lucie Press, 1993. 256 pages. $ 55, cloth. Does ecological science have the capacity to provide useful measures of ecological integrity? Is there a useful process for incorporating value judgments within measurable ecological variables? The authors maintain that the definition of ecological integrity cannot be dissociated from societal values. Useful examination of related concepts such as ecosystem health, environmental quality. Sponsored by the Heritage Resources Center, University of Waterloo and Canadian Park Service. (v5,#3)


Woodroffe, R., S. Thirgood, and A. Rabinowitz, eds., People and Wildlife: Conflict or Coexistence? Cambridge: Cambridge University Press, 2005. Human-wildlife conflicts are inevitable if we are to share the planet with other species. Such conflicts will only increase as humans encroach on wildlife areas and, potentially, as wildlife repopulate human-dominated landscapes. Worldwide, this is what is happening now and will continue for some time. Conservation of large carnivores and herbivores is needed to maintain the well-being of the concerned ecosystems and landscapes; they serve a keystone function. But often local people do not think so and reject them because they disturb agriculture. Interestingly, there is more progress in reconciling these conflicts in Europe than in developing nations.


Woods, Mark J. Rethinking Wilderness. PhD thesis, University of Colorado, Boulder, CO, Fall 1996. An examination some of the more important criticisms of wilderness coming from environmental philosophy, ecology, and environmental history. The legal-political practice of wilderness preservation reveals paradoxes about how wilderness is preserved. Recent work in ecology leads us to question whether wilderness can be preserved. Philosophical and historical critiques cast doubt on whether there is any such thing as wilderness to be preserved. We are forced to re-examine the metaphysical and scientific underpinnings and moral values of wilderness, but the arguments advanced against it are all found to be wanting. Three questions steer the discussion: 1. What is wilderness? 2. Why does wilderness have value? 3. How should wilderness be protected? Dale Jamieson was the principal advisor; James Nickel, John Fisher, and Holmes Rolston (Colorado State University) also served on the committee, also Charles F. Wilkinson (University of Colorado Law School). (v7, #3)

Woods, Mark, "Can Wilderness Survive?" From the Center: A Newsletter (The Center for Values and Social Policy, University of Colorado, Boulder), vol. 14, no. 2, Fall 1995. There are mounting criticisms of wilderness. We can circumvent such criticism with a non-anthropocentric wilderness ethic. "Wilderness is meaningful because it is an important repository of value—the value of the free play of natural forces. We cannot avoid impacting nature, but we can choose whether we want to control, dominate, and fully trammel all of nature by living side by side with it and protecting it as wilderness. Academics who claim that there is no such thing as wilderness because the concept is meaningless intentionally or inadvertently support the assault on the physical space of wilderness. Wilderness cannot survive the combined forces of academics who banish it as a meaningless concept and bulldozers that destroy it as a meaningful place. The defense against both is worthwhile." Woods is a PhD candidate at the University of Colorado, Boulder. (v6,#4)


Woods, Abigail, "Why Slaughter? The cultural Dimensions of Britain's Foot and Mouth Disease Control Policy, 1892-2001," Journal of Agricultural and Environmental Ethics 17(2004):341-362. In 1892, the British agricultural authorities introduced a policy of slaughtering animals infected with foot and mouth disease (FMD). This measure endured throughout the 20th century and formed a base line upon which officials superimposed the controversial "contiguous cull" policy during the devastating 2001 epidemic. Proponents of the slaughter frequently emphasized its capacity to eliminate FMD from Britain, and claimed that it was both cheaper and more effective than the alternative policies of isolation and vaccination. However, their discussions reveal that a less obvious but nonetheless important reason for maintaining the slaughter policy was the conviction that in its manner of operation and its outcomes, it benefited the state and status of the British nation. To its supporters, slaughter was far more than a method of disease control; it acted also as a moralizing and civilizing force, an indicator of veterinary ability and a "virility symbol" of British international leadership. This "cultural" rationale for FMD control by slaughter declined during the late 20th century and was wholly undermined by the 2001 epidemic, when extensive culling failed to convey the intended image of an organized, enlightened Britain. Keywords: agriculture, contiguous cull, foot and mouth disease, history, nationalism, policy, slaughter, vaccination. The author is with the Wellcome Unit for the History of Medicine, Centre for the History of Science, Technology and Medicine, University of Manchester, UK. (JAEE)
Woods, Mark. “The Nature of War and Peace: Just War Thinking, Environmental Ethics, and Environmental Justice.” *Rethinking the Just War Tradition*, Michael W. Brough, John W. Lango, and Harry van der Linden, eds. Albany: State University of New York Press, 2007. Increasing attention today is being paid to the environmental impacts of armed conflicts and military activities - the ecology of war and peace. Most environmental critiques of military activities offer only limited protection, however, because they stem from outsiders looking into matters of war and peace. Woods argues that these critiques can be augmented by building environmental considerations into how western militaries view war and peace from the inside out - via the just war tradition.

Woods, Mark and Paul Veatch Moriarty. "Strangers in a Strange Land: The Problem of Exotic Species," *Environmental Values* 10(2001):163-191. Environmentalists consider invasions by exotic species of plants and animals to be one of the most serious environmental problems we face today, as well as one of the leading causes of biodiversity loss. We argue that in order to develop and enact sensible policies, it is crucial to consider two philosophical questions: (1) What exactly makes a species native or exotic, and (2) What values are at stake? We focus on the first of these two questions, and offer some preliminary suggestions with regard to the second. Through a series of case studies, we show that it is not always clear whether a species is native or exotic. We identify five possible criteria that could be used for distinguishing natives from exotics. Rather than identifying one of these criteria as the "correct" one, we suggest that the concepts of "native" and "exotic" function more like what some philosophers have called cluster concepts. That is, there are several characteristics that are typical of native species, and a corresponding set of characteristics that are typical of exotic species. None of these characteristics is either necessary or sufficient for identifying a species as either native or exotic. We then identify several of the values that are at stake in dealing with exotic species, and we suggest that policies need to avoid being overly simplistic. Keywords: Cluster concept, exotic species, invasion biology, native species. Mark Woods is in the Department of Philosophy, University of San Diego, San Diego, CA and Paul Veatch Moriarty is in the EPML Department, Longwood College, Farmville, VA. (EV)


Wootton, R. J., Kukalová-Peck, J., Newman, D. J. S., and Muzón, J., "Smart Engineering in the Mid-Carboniferous: How Well Could Paleozoic Dragonflies Fly?" *Science* 282(23 October 1998):749-751. "Insect wings ... are proving to be spectacular examples of microengineering. ... The dragonflies ... are supremely versatile, maneuverable fliers, and this is reflected in their wing morphology." A related story is Vogel, Gretchen, "Insect Wings Point to Early Sophistication," *Science* 282(23 October 1998):599-601. "The insects come equipped with highly engineered wings that automatically change their shape in response to airflow, putting the designers of the latest jet fighters to shame." Well, so much for blind, dumb, stupid evolution. (v.9,#4)

bibliography provides information on the content and availability of hundreds of studies of environmental and natural resource conditions around the world. Covering OECD Countries, Eastern Europe, the former Soviet Union, and developing countries, the Directory provides an abstract and cites the title, author, publication date, and sponsoring and collaborating organizations and indicates how the document may be found. (v8,#1)

**World Environmental Directory**, 5th edition, North America. More than 1,000 looseleaf pages, 12,000 listings, 24,000 contact names. $131.50 postpaid. Available from Business Publishers, Inc., 951 Pershing Drive, Silver Spring, MD 20910-4464. Phone 301/587-6300. (v1,#2)

**World Environmental Directory**, 6th edition. Business Publishers, Inc. 951 Pershing Drive, Silver Spring, MD 20910-4464. $225, plus $8 postage. Over 1,000 pages, 60,000 listings. (v2,#3)

World Conservation Monitoring Centre (WCMC), *The World List of Threatened Trees*. Cambridge, UK: World Conservation Press, 1998. ISBN 1 899628 10 X. This report finds that 10% of the world's 100,000 tree species are under threat, naming 976 species that are critically endangered and facing extinction, with many thousands of other species at threat. One such tree is frankincense. The report's grim bottom line is that habitat destruction threatens these trees and for three-quarters of them nothing is being done about it. Only 12% of tree species are in protected areas. Bird Life International published a similar report in 1994 and found that 11% were incidental. This report argues that the similar proportions are not incidental. A summary is Williams, Nigel, "Study Finds 10% of Tree Species Under Threat," *Science* 281(4 September 1998):1426. (v.9,#4)

**World Development Report 1997** -- *The State in a Changing World*. Philadelphia: The World Bank, 1997. $25.95. 354 pages. (The World Bank, P. O. Box 7247-8610, Philadelphia, PA 19170-8619). Also available is the World Development Reports 1978-1997 on CD-ROM. Can an economy flourish without an effective state? No, and here's why. Many states try to do too much with too few resources and little capability. Governments should focus on core public activities that are vital to development. State-led development strategies have often failed. Re-invigorated public institutions need to give public officials the incentive to do their jobs better and to be more flexible, but also to provide restraints to check arbitrary and corrupt behavior. (v8,#3)

World Resources Institute, The United Nations Environment Programme, The United Nations Development Programme, and the World Bank. *World Resources 1996-97*. Seventh biennial issue of what is widely regarded as the most authoritative report on the global environment. Includes the latest ideas on a broad spectrum of urban environmental issues and suggests strategies for addressing them. (v7,#4)


World Plant Conservation Bibliography. Published by Royal Botanic Gardens, Kew, and the World Conservation Monitoring Centre. This 645 page volume includes more than 10,000 citations to literature published during the last ten years about plant conservation at local, national, and international levels. Its scope ranges from highly specific papers on individual threatened plant species to more general papers tackling conservation strategy, policy, and law. Available from Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AB, United Kingdom.

World Directory of Environmental Organizations, 4th ed., edited by Thaddeus C. Trzyna, President of the California Institute of Public Affairs and chairman of the IUCN Commission on Environmental Strategy and Planning, also by Roberta Childers. 232 pages. $ 45.00. Jointly produced by the California Institute of Public Affairs, the Sierra Club, and the International Union for the Conservation of Nature and Natural Resources (IUCN). Covers 2,600 organizations in every nation in the world.

Worldviews: Environment, Culture, Religion, a new journal, is now available. Contents of Vol.1, No.1:
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Further details from the Editor, Clare Palmer, University of Greenwich, or from the publishers: White Horse Press, 10 High Street, Knapwell, Cambridge CB3 8NR, UK. tel/fax 01954 267527, or 1 Strond, Isle of Harris HS5 3UD, UK. tel/fax 01859 520204. Or visit the White Horse Press website: www.erica.demon.co.uk

Worm, Boris et al (a dozen others), "Impacts of Biodiversity Loss on Ocean Ecosystem Services," *Science* (3 November 2006):787-790. Human-dominated marine ecosystems are rapidly losing biodiversity, with unknown consequences, but projections here indicate that the ocean's capacity to provide food, maintain water quality, and recover from perturbations will be lost by 2048. By then all commercial fish and seafood species will be gone, at least in harvestable quantities. Of particular note is the finding that general oceanic biodiversity is required to sustain commercial fisheries. Available data does suggest that these trends are still reversible. The lead author is at Dalhousie University, Halifax, Canada. With commentary: Stokstad, Erik, "Global Loss of Biodiversity Harming Ocean Bounty," *Science* 314(3 November 2006):745.


Worster, Donald, "The Ecology of Order and Chaos," *Environmental History Review* 14(1990):1-18. Classical ecology had much order, equilibrium, harmony, and it was possible to admire such nature, respect it, and form a policy of integrating society with such nature. But recent ecology has seen much disorder, disturbance, perturbation, chaos in natural systems, leaving the puzzling question whether such nature is worthy of respect and preservation. The tendency to see more chaos in ecosystems is part of a larger trend in other sciences--physics, astronomy, chemistry, climatology, mathematics--an interdisciplinary science of chaos. Nature at the system level is often unpredictable, either in principle or too complex to be modeled. But this new tendency to see disorder
may not just be discovering objective facts about nature; it may be a projection onto nature of a "post-modernist" ideology about society, believing that societies too are fundamentally erratic.


Worster, Donald, "Are We Losing Ground? Environmentalism at the End of the Century," Ethics and the Environment 2(1997):71-79. A presentation at the University of Georgia's forum "Valuing the American Environment," Worster presents a radical viewpoint about the land stating that we need a "new way" to view the world. Worster is in history at the University of Kansas.


Worster, Donald, "Transformations of the Earth: Toward an Agroecological Perspective in History," The Journal of American History 76(1990):1087-1106. The focus of a roundtable discussion by environmental historians, with commentary following, by Alfred W. Crosby, Richard White, Carolyn Merchant, William Cronon, and Stephen J. Pyne, and a final rejoinder, "Seeing Beyond Culture" (pages 1142-1147) by Worster. Various aspects of the debate about whether nature can and ought to be seen with or without cultural filters. "The patterns of nature both do and ought to set a course for our lives--not the only course, or the only possible course, but a reasonably clear pattern that wise societies have followed in the past, foolish ones have scorned" (p. 1145). "One of humankind's oldest intuitions is that the realm of nature has an objective, independent order and coherence; that we are to some extent part of that order, to some extent out of it and opposed to it; that, in any case we ought to respect it" (p. 1146). Worster teaches environmental history at the University of Kansas.


Worster, Donald, "Nature and the Disorder of History," Environmental History Review 18(1994)1-15. "Over the past two decades the field of ecology has pretty well demolished Eugene Odum's portrayal of a world of ecosystems tending toward equilibrium, leaving us with no model of development for human society to emulate. ... Nature, we are now told, should be regarded as a landscape of patches of all sizes, textures, and colors, changing continually through time and space, responding to an unceasing barrage of perturbations. Now this is a nature that looks remarkably similar to the human community that Departments of History write about. ... Disturbance is history. And a disturbed nature is a nature that has a history very like the history that humans make. Worster teaches environmental history at the University of Kansas. (v5,#2)

Worster, Donald, The Wealth of Nature: Environmental History and the Ecological Imagination. New York: Oxford University Press, 1993. 255 pp. $ 25.00. A collection of essays. Past ideas about the relations of humans to nature persist unavailingly into the present. No amount of tinkering will correct what, at root, is a fundamentally obsolete and dangerous world view dependent on the appropriation of nature. Worster wants "to discover a less-reductive, less-ecologically and spiritually nihilistic, less-grasping kind of materialism." With a tinge of fatalism. Worster is a historian at the University of Kansas, Lawrence. (v4,#2)

Worthy, Trevor H., and Holdaway, Richard N., The Lost World of the Moa: Prehistoric Life of New
Zealand. Bloomington, IN: Indiana University Press, 2002. In New Zealand, much of the biodiversity crisis is over. People won; native plants and animals lost. Before Polynesians arrived, New Zealand had at least 38 species of birds that could not fly. Of these 29 are now extinct and most of the other 9 are endangered. Including the satellite islands, humans have wiped out about half (70 of 145) of the native species of landbirds, flying or flightless, with most of the losses occurring before the Europeans arrived.

Another finding of interest is that, apart from the human disruption, the vertebrate faunas were rather stable rather than dynamic for the last 100,000 years. On every Pacific island group with a relatively long fossil record, the evidence points to pre-human faunal turnover several orders of magnitude slower than that usually proposed by ecologists, lately enamored of change.


Wrangham, Richard W., W. C. McGrew, Frans B. M. De Waal, and Paul G. Heltne, eds. Chimpanzee Cultures. Cambridge, MA: Harvard University Press, 1994. 424 pages. $40. Despite the title, the editors begin by admitting that "cultural transmission among chimpanzees is, at best, inefficient, and possibly absent" (p. 2). This is because there is scant (and in some cases negative evidence) for active imitation or teaching of tool-using techniques. Many cognitive scientists believe that imitation and teaching require the ability to attribute mental states to others. Do chimpanzees conscious model their behavior on that of others, or are they "restricted to private conceptual worlds" (p. 2)? If chimpanzees do differ from humans in being unable to attribute intentions, beliefs, and ignorance to others, they will inevitably lack the full capacity to imitate, to inform, and to teach. They will also lack all but the most rudimentary forms of culture. The various authors tackle this question as they are able to, especially with captive animals. (v6,#1)

Wrangham, Richard, and Dale Peterson, Demonic Males: Apes and the Origin of Human Violence. (New York: Houghton Mifflin, 1996). Chimpanzees are much more violent than their smaller cousins, pygmy chimpanzees or bonobo apes, otherwise quite similar. Chimps live in patriarchal groups in which males regularly rape, beat, and kill, and sometimes drink the blood of their own kind. But bonobos create peaceful societies in which males and females share power. In bonobo groups, female action works to suppress the excesses of male aggression. Females and males are equally important players in bonobo society. Following this model, human civilization would be more civilized if women seized more political power through elections and used it to counterbalance the male instinct to constantly define "enemies" and attach them. To make this advance, however, women must first abandon a tendency they share with female chimpanzees to reward and select aggressive males as their mates. Bonobo female bonds are often lesbian; Wrangham is reluctant, however to recommend this for human society! Wrangham also claims to have discovered that warfare is not uniquely human, contrary to frequent claims by scientists that war does not occur in other animals. There is a summary story in the Harvard Magazine, January-February 1997, pp. 21-22. Wrangham is a Harvard anthropologist, Peterson is a science writer. (v7,#4)

Wright, Will, Wild Knowledge: Science, Language, and Social Life in a Fragile Environment. Minneapolis: University of Minnesota Press, 1992. 240 pages. Paper, $14.95. "Scientific knowledge ... is primarily an effort at social legitimization and ... its conceptual incoherence as knowledge is now becoming ecological incoherence as social practice." Wright wants to invent a new idea of science by replacing its traditional concept of laws, especially mathematical laws, with a social concept of language. Wright is professor of sociology at the University of Southern Colorado. (v4,#2)

the past 18,000 years is summarized, and then the summarized data are compared to paleoclimatic simulations based on models of atmospheric circulation at 300-year intervals. (v5,#2)

Wright, Justin P.; Jones, Clive G., "The Concept of Organisms as Ecosystem Engineers Ten Years On: Progress, Limitations, and Challenges," BioScience 56 (no.3, March 2006): 203-209 (7). The modification of the physical environment by organisms is a critical interaction in most ecosystems. The concept of ecosystem engineering acknowledges this fact and allows ecologists to develop the conceptual tools for uncovering general patterns and building broadly applicable models. Although the concept has occasioned some controversy during its development, it is quickly gaining acceptance among ecologists. We outline the nature of some of these controversies and describe some of the major insights gained by viewing ecological systems through the lens of ecosystem engineering.


Wright, Charles Whitmer, Toward an Environmentally Responsive Ethics of Communication (Frankfurt School of Social Theory, Jurgen Habermas, Germany), 1996, State University of New York at Stony Brook a Ph.D. thesis philosophy. 495 pages. First generation members of the Frankfurt School of social theory--Max Horkheimer, Theodor Adorno and Herbert Marcuse--anticipated the need for theoretical reflection concerning the causes of environmental degradation, but their philosophical approach was burdened with serious conceptual difficulties. Jurgen Habermas's reconstruction promises to resolve many of these difficulties. Yet his linguistic and pragmatic approach seems to entail an anthropocentrism that prevents an adequate environmental ethic. This thesis outlines the obstacles facing environmental thinkers in Habermas's conception of practical reason and in his conception of modernity. But his theoretical approach can be reconciled with the aims of environmental ethics and philosophy. A place for a moral dimension to human interaction with the natural world can be secured. The advisor was Kenneth Baynes. (v.10,#1)


Wright, Will, Wild Knowledge: Science, Language, and Social Life in a Fragile Environment. Minneapolis, MN: University of Minnesota Press, 1992. 240 pages. $ 14.95 paper. "The ecological problem always seems ... more a profound issue of social order than a strategic issue of legal controls. In many ways it seems to be a problem with our legitimating idea of rationality. Industrial society is based on a political and organizational commitment to the idea of rationality, but as the planet becomes more committed to rationality, in the Enlightenment sense of science and individualism, it also seem to become more irrational, in the ecological sense of sustainability. Rational society seems to be disrupting itself systematically, and if so, then there is a fundamental problem with our legitimating idea of rationality, because this idea is legitimating ecological disaster in the name of reason. If our 'rational' social order is inherently irrational, then we must either give up on it ... or articulate a more coherent idea of rationality, an idea that will legitimate a more ecological and sustainable social order" (p. ix). Wright argues for a "critical commitment to a 'wild' rationality, a rationality that is always external to any established institutional order and thus that is always legitimately available to criticize and disrupt that order. ... It is only through a commitment to a truly 'wild' knowledge that sustainable social institutions can be legitimated" (pp. 218-219). Wright is in sociology at the University of Southern Colorado. (v7,#1)

Wright, Judith, "Wilderness and Wasteland," Island (Sandy Bay, Tasmania) 42(1990):3-7. Australians have regarded original Australia as wilderness and wasteland, dating from Captain Cook's claiming the eastern part as terra nullius, uninhabited land. Cook knew better, he had in fact been chased off Australia as a trespasser, and he disobeyed imperial instructions to seek the consent of the
natives. Nevertheless, the idea that Australia was uninhabited has continued in law until recently, resulting in unfair treatment of the indigenous peoples there.

Making matters more difficult is the American idea of wilderness, a place without people, now popular in Australia. Wilderness advocates too seek to set aside as wilderness uninhabited land, which are often lands from which indigenous peoples have long since been displaced. So neither those who want to possess uninhabited lands, or those who wish to preserve lands uninhabited have a suitable framework for dealing with the indigenous peoples remaining in Australia. Wright is a poet, a conservationist, and a campaigner for aboriginal rights.

Wright, Nancy C. and Donald Kill, Ecological Healing: A Christian Vision. Maryknoll, NY: Orbis Books, 1993. 161 pages. Paper. Features the Coordination in Development Network (CODEL) of small-scale, environmentally sensitive development projects in developing nations, and how Christians have been and can be catalysts in these projects. Wright is a poet, a conservationist, and a campaigner for aboriginal rights.

Wright, R. Gerald, ed., National Parks and Protected Areas: Their Role in Environmental Protection. Cambridge, MA: Blackwell Science, 1996. 480 pages. $ 54.95. National parks are becoming an integral part of preservation efforts on the national and local levels, not as islands of conservation but as integrated into their surrounding ecological and cultural landscapes. Wright is a research biologist for the National Biological Service. (v8,#1)

Wright, R. Gerald, ed. National Parks and Protected Areas. Malden, MA: Blackwell Science, Inc., 1996. 496pp. $54.95. Focusing on the role and value parks can play in studying and preserving diversity and natural resources, the chapters look into techniques such as evaluating the ecological suitability of lands for parks, restoration of park resources, management of visitor use and protection of biodiversity. (v8,#1)

Wright, RG; Scott, JM; Murray, M, "Identifying unprotected and potentially at risk plant communities in the western USA," Biological Conservation 98(no.1, 2001):97-. (v.12,#4)
Wrigley, N; Coe, NM; Currah, A, "Globalizing retail: conceptualizing the distribution-based transnational corporation (TNC)," *Progress in Human Geography* 29 (no. 4, August 2005): 437-457.

Wu, Ken. "Eco-Forestry or Protected Status?" *Wild Earth* 6(1996):62. (v8,#1)


Wu, Jianguo, et al, "Three-Gorges Dam--Experiment in Habitat Fragmentation?" *Science* 300(23 May 2003):1239-1240. "The world's largest dam, the Three-Gorges Dam (TGD) has been inserted in the middle of a biodiversity hot spot in south-central China. Labeled as the worst of the world's 20 most dangerous large dam projects ... we view TGD as an extraordinary opportunity for a grand-scale fragmentation experiment from which invaluable lessons can be learned." Most of the authors are at the Institute of Botany, Chinese Academy of Sciences, Beijing.


Wu Jixia, "Some issues of environmental ethics studies", *Ethic and Civilization*, 2001(6)


Wuerthner, George, "Selfish Genes, Local Control, and Conservation," Wild Earth 9 (No. 4, Wint 1999): 87-. (v.11,#2)


Wuketits, Franz M., "Moral Systems as Evolutionary Systems: Taking Evolutionary Ethics Seriously," Journal of Social and Evolutionary Systems 16(1993):251-271. Evolutionary ethics goes beyond mere description. The fact that human behavior is biologically constrained can give rise to some ideas about how to establish moral norms, so that the fact/value distinction in its strict sense is no longer tenable. Taking evolutionary ethics seriously means, after all, looking for possibilities of human beings as a biological species. Biological evolution does not entail any values and moral norms, but in organizing our social life we are well-advised to consider those factors that have channeled our evolution--i.e. not just ask what humans ought to do, but what they are able to do. Moral systems are evolutionary systems. Wuketits is in philosophy of science, University of Vienna, University of Graz, Austria. (v.10,#1)


Wunderlich, Gene, "Evolution of the Stewardship Idea in American Country Life," Journal of Agricultural and Environmental Ethics 17(2004):77-93. Theological and secular concepts of stewardship evolved markedly in the 20th century. During this period of evolution, the American Country Life Association through its church, academic, farm organization, and governmental affiliations, served as a bridging and bonding agent in developing the stewardship idea. As in any
The stewardship concept was subjected to a broad array of influences and characterized by notable highlights such as the Lynn Smith critique of the Judaeo-Christian ethic, the man-in-nature statement of Douglas John Hall, and the environmental concerns of ecologists and philosophers of the post-Rachel Carson era. Some gains have been made in understanding the place of humans in nature, but the stewardship idea continues as work in process. Keywords: American Country Life Association, environmental care, Genesis, man-in-nature, nature, stewardship, steward.


Wunderlich, Gene, "Agricultural Technology, Wealth, and Responsibility", Journal of Agricultural Ethics 3(1990):21-35. Responsibility as a complement to human rights is presented as a moral alternative to extended, complex systems of animal and ecological rights. This simple idea of responsibility is then applied to four levels of agricultural technology: animal (nature) rights, conservation, organization of agriculture, and people versus planet relationships. The stewardship argument is freed from at least some of the complications of animal rights and ecology, but leaves responsibility with humans to do the right thing. Wunderlich is with the U.S. Department of Agriculture, Washington, D.C.


Wuthnow, Robert, ed., Rethinking Materialism: Perspectives on the Spiritual Dimension of Economic Behavior. Grand Rapids, MI: William B. Eerdmans, 1995. Ten essays in commentary on our culture's obsession with material goods and the uneasy relation of materialism to religion. "Materialism has gotten out of hand" (p. 3). "Materialism draws us into its logic not so much by convincing us that material goods are preferable to helping the poor, but by persuading us that we can help them best by buying luxury goods for ourselves (thereby creating jobs)" ... Materialism becomes so much a way of life that we no longer recognize it as an option, as one value among others that we can decide to choose or to reject" (p. 15). Albert Bergesen, in "Deep Ecology and Moral Community," claims that deep ecology provides the only real paradigm shift; the social ecology schools are all anthropocentric. "The emerging ecological theory will also have to have promises for 'all,' except that now the 'all' is more than just humans--it is all living things. Marxism versus liberalism, capitalism versus socialism, patriarchy versus feminism, or the developed versus the underdeveloped countries--these are simply debates within the human community. This discourse has its place and is important. But it can no longer have the hegemony--in scientific theory or moral discourse--that it has had over the past six hundred years. The era of human-only discourse is at an end. The era of eco-human discourse is just beginning" (p. 208). Bergesen teaches sociology at the University of Arizona. Wuthnow directs the Center for the Study of American Religion, Princeton University. (v6,#4)

Wuthnow, Robert, Poor Richard's Principle. Princeton, NJ: Princeton University Press, 1996. 448 pages. $ 24.95. Avarice and greed are destroying the American dream. "The quality of human relationships changes significantly when money becomes the underlying principle. Spouses become 'wage earners' or 'investments'; ... parents become 'deep pockets'; friends become 'business contacts.' More significant than these labels, however, are the norms that rise to prominence in fiduciary
relations. Money's lack of memory replaces trust with transience. Bargaining becomes more important than sharing. People calculate what to do chiefly in terms of costs and payoffs. The consequences have been documented clearly in experimental psychological research involving children. Observing that young children generally perform acts of kindness and helping naturally, spontaneously, researchers have tried to discover what happens when efforts are made to reinforce this behavior with monetary rewards. Children consistently respond to such rewards by performing good deeds at higher (but only slightly higher) levels than they did before. But when the incentives are removed, the behavior also ceases. Money teaches them that good deeds should not be done spontaneously after all" (p. 197). Wuthnow directs the Center for the Study of American Religion, Princeton University. (v7,#4)


Wynn, Mark, God and Goodness: A Natural Theological Perspective. London: Routledge, 1999. The world is impressive, and suggests a divine origin, because of its beauty and its openness to the emergence of life, sentience, and mind. The Earth is an integral whole, and its disvalues can best be interpreted in an ecological context. When natural phenomena are considered in their ecosystemic context, nature appears to be neither wasteful, nor cruel, nor blind. It is unsurprising that we often fail to grasp the value of the natural world, because we lack the necessary necessary familiarity with relevant ecological theory. Wynn is in philosophy of religion, Australian Catholic University. (v.12,#3)

Wynn, Mark, "Beauty, Providence and the Biophilia Hypothesis," Heythrop Journal 38(1997):283-299. Wynn is skeptical about the possibility that any naturalistic theory can account for the full range of human aesthetic responses to nature and uses this point to defend a kind of teleological argument for the existence of God. Wynn is in theology, Australian Catholic University.

Wynn, Mark, "Natural Theology in an Ecological Mode," Faith and Philosophy 16(1999):27-42. The possibility of an alliance between natural theologians and environmental ethicists. Both uphold the goodness of the natural world. The work of Holmes Rolston III can contribute towards the natural theologian's treatment of two issues: the nature and extent of the world's goodness, and the reasons why we may fail to register its goodness fully. The holism and the non-anthropocentrism of Rolston's seminal work throw new light on the values in nature, and on the multiple achievements that are presupposed in any informed appreciation of its goodness. Rolston's work offers a way of broadening traditional philosophical discussions of the problem of evil, in a way that takes account of disvalues which are independent of any hurt done to human beings, and draws attention to the multiple achievements--conceptual, experiential, and (broadly speaking) moral--which are presupposed in any informed response to these issues. Wynn is at the Australian Catholic University, Everton Park (Brisbane).

Wynne, Clive D. L., Do Animals Think? Princeton, NJ: Princeton University Press, 2004. It may be romantic to think so, but it is not realistic. While animals are by no means dumb, they don't "think" in any way resembling human thinking. Animals have neither the "theory of mind" that humans have (that is, they are not conscious of what others are thinking) nor the capacity for linguistic reasoning. Wynne is in psychology, University of Florida. (v. 15, # 3)

Wynne, Clive D. L., Do Animals Think? Princeton, NJ: Princeton University Press, 2004, 2006. It may be romantic to think so, but it is not realistic. Animals are not dumb, but they do not "think" in our human sense of that word. Animals have neither the "theory-of-mind" capabilities that humans do, nor the capacity for higher-level reasoning. Nevertheless, we ought to respect animal minds. Wynne is in psychology, University of Florida.


Xie Yangju, *A Study of Daoism: Daoism from the Perspectives of Comparative Philosophy and Environmental Philosophy*, Sanxi People's Press, 2003. Professor Xie is at the Institute of Thoughts and Culture, Northwest University.

Xie, Jian. *Environmental Policy Analysis: A General Equilibrium Approach*. Brookfield, VT: Ashgate, 1996. 176 pp. $51.95. An applied model based on the general equilibrium approach used to analyze the impacts of environmental policies on the economy and the environment. Also applies the model to estimate the impacts of several pollution management alternatives in China. (v8,#2)

Xie, Jian. *Environmental Policy Analysis: The General Equilibrium Approach*. Brookfield, VT: Ashgate, 1996. 164pp. $51.95 cloth. This is an applied model using the general equilibrium approach to analyze the impacts of environmental policies on the economy and the environment, and an application of the model to estimate the impacts of several pollution management alternatives in China. Xie is at Cornell University. (v8,#1)


Xie Yangju, "Western recognition of Daoism as environmental philosophy," *Jiangxi Social Sciences* 2001(6)


-Cheng Changdu, "The Ecological Foundation of Inherent Value of Living Being."
-Yang Tongjin, "Integrating and Transcending: Toward Non-anthropocentric Environmental Ethics."
-Zhang Jiagang, "Anthropocentrism, Intrinsic Value and Reason."
-Duan Qi, "The Greening of Contemporary Western Christianity."
-Wei Dedong, "The Ecological Perspective of Buddhism."
-Zhang Yunfei, "On Confucianism and Taoism from the Perspective of Eco-ethics."


Xue, Dayuan, and Tisdell, Clem, "Global Trade in GM Food and the Cartagena Protocol on Biosafety: Consequences for China," Journal of Agricultural and Environmental Ethics 15(no. 3, 2002):337-356. The UN Cartagena Protocol on Biosafety adopted in Montreal, 29 January, 2000 and opened for signature in Nairobi, 15-26 May, 2000 will exert a profound effect on international trade in genetically modified organisms (GMOs) and their products. In this paper, the potential effects of various articles of the Protocol on international trade in GMOs are analyzed. Based on the present
status of imports of GMOs and domestic research and development of biotechnology in China, likely trends in imports of foreign GM food and related products after China accedes to WTO is explored. Also, China's potential countermeasures to control and regulate imports of GMOs in line with implementation of the Protocol are discussed. China, in recent times, has increased its food and agricultural imports substantially from USA and Canada. China imported soybean 10.42 mill. tons in 2000 and about 15 mill. tons in 2001, of which majority are from USA where GM soybean accounts for 60%. The plantation of US Monsanto's transgenic Bt cotton was increased to more than 1 million ha in China in 2001. Though China has paid great attention to develop biotechnology, it appears to have little scope to export GMOs and GM products. So China may consider a range of administrative measures to implement the Cartagena Protocol and to regulate its import of GMOs and GM agricultural products. Consequently, the Regulation on Safety of Agri-GMOs was issued on June, 2001 and followed three detailed rules issued in Jan. of 2002, with a priority to limit foreign GMOs importing by safety certification and labeling system. These were outlined taking into account policies adopted in Western countries such as green barriers to international trade. KEY WORDS: biosafety, Cartagena Protocol on Biosafety, China, global trade, GMO. Xue is with the Nanjing Institute of Environmental Sciences, State Environment Protection Administration of China, Nanjing, P.R. China. Tisdell is in the Department of Economics, The University of Queensland, Brisbane, Australia. (JAEE)


Yaffee, Steven L. "Lessons about Leadership from the History of the Spotted Owl Controversy," Natural Resources Journal 35(no.4, Sprg. 1995):381-. (v6,#4)


Yaffee, Steven L., "Three Faces of Ecosystem Management." Conservation Biology 13(no. 4, 1999):713-725. People mean different things when they advocate ecosystem management, here analyzed in three categories: (1) Environmentally sensitive multiple use, (2) An ecosystem approach to resource management, and (3) Ecoregional management. Environmentally sensitive multiple use takes an anthropocentric approach. An ecosystem approach incorporates a biocentric view in which ecosystems are understood as a metaphor for holistic thinking. Ecoregional management takes an ecological perspective. The diverse approaches may not be undesirable but sometimes complementary. Yaffee is in the School of Natural Resources, University of Michigan, Ann Arbor.


requiring collective choices. Yaffee looks at that issue and proposes reforms to re-create natural resource agencies and public policy processes for the challenges of the next century. Yaffee is professor in the School of Natural Resources and Environment at the University of Michigan.


Yandell, Molly McDonald, *Conflict and Consensus in Environmental Ethics and Policy*, Colorado State University, M. A. thesis, summer 1999. Bryan Norton's convergence hypothesis states that a consensus among environmentalists is emerging at the most basic level of policy formation, regardless of the diversity of value concerns. This consensus, Norton believes, is capable of healing the fragmented environmental movement and producing environmental policy that will better protect the natural world. The aim of this thesis is to give evidence for the accuracy of Norton's convergence hypothesis. I begin by contrasting John Muir and Gifford Pinchot in order to illustrate the traditional divide that has separated environmentalists into two camps. In the second chapter, I compare the view points of Warwick Fox and E.O. Wilson in order to demonstrate that even with starkly different values, it is possible for environmentalists to agree on basic policy goals. Finally, I argue that Holmes Rolston, III and Bryan Norton also have similar policy goals, regardless of the fact that they do not share the same values. The advisor was Holmes Rolston. (v.10,#2)


Yang Ming, "On the rights of nature and its ecological effects", *Ethic and Civilization*, 2001(3)
Yang Ming, "The orientation of environmental ethics", Theory and Modernization, 2001(3)

Yang Tao, "Green Quality Education at Harbin Institute of Technology," Huanjing yu Shehui, a Quarterly, (Environment and Society), vol.3, no. 2 (June 30, 2000). In Chinese. (EE v.12,#1)

Yang Tongjin, "Three theoretical foci of environmental ethics", Philosophical Trends, 2002(5).


Yang, Tongjin, Xifang Huanjing Lunli Sixiang Hanjiu (The Ethical Foundation of Environmental Movements--A Study of Western Environmental Ethics (in Chinese). Ph.D. thesis at The People's University of China, Beijing, June 1998. The first doctoral dissertation in China studying Western environmental ethics. The advisor was Luo Guoje, Chair of the Chinese Society of Ethics. Developing an environmental ethics in China requires an analysis of Western environmental ethics. Surveys various types of environmental ethics with detailed analysis of anthropocentric ethics, animal welfare ethics, biocentrism, and ecocentrism. These schools differ in regard to who is morally considerable, a moral patient. Anthropocentrism is necessary but not sufficient. An authentic environmental ethics must embrace animal welfare, biocentrism, and ecocentrism. Confucian and Taoist virtue ethics can provide grounds for harmonizing these differing schools. Virtuous persons express concern for nonhumans as well as for humans. The differing schools become complementary, resulting in a comprehensive and inclusive ethic. Yang continues his research at the Institute of Philosophy, Chinese Academy of Social Sciences, Beijing. He is the translator for a Chinese edition of Holmes Rolston's Environmental Ethics, forthcoming June 1999. (v.9,#4)


Yang Tongjin, "Global environmental protection and international aids: an ethical justification", Jianghai Academic Journal, 2002(1)


Yang Tongjin, Toward A Deep Environmentalism: the Basic Ideas of Environmental Ethics, Chengdu, Sichuan People's Publishing House, 2000, 223 pages. I trace briefly the history of western environmental ethics, and analyze respectively the main four schools of western environmental ethical thoughts: anthropocentrism, animal liberation/rights theory, biocentrism and ecocentrism. I suggest that an authentic environmental ethics must be an open, pluralist environmental ethics, which not only incorporates the wisdom of the four schools, but also tries to transcend their limits. A virtue ethics, especially Confucian ethics and Taoist ethics, can provide a ground for such an environmental ethics. Only such an environmental ethics can provide the most solid ethical foundation for environmentalists.

Yang Tongjin, "An Outline of Ecofeminism" Huanjing yu Shehui, a Quarterly, (Environment and Society), vol. 3, no. 4 (December 30, 2000). Abstract: This paper gives an introduction and criticism of ecofeminism, with an emphasis on the basic features of ecofeminism and its classification. It suggests that ecofeminism is likely to give much splendor to future environmental movements. Key Words: Ecofeminism, Cultural ecofeminism, Socialist ecofeminism, Women's liberation. In Chinese. (EE v.12,#1)


Yardley, Jim, "Chinese Groups Seek to Halt a Dam and Save a Treasured Place," New York Times, October 20, 2004, p. A6. A hydropower dam in one of the world's deepest gorges, Tiger Leaping Gorge, would divert water from the Jinsha River (moving east until it becomes the Yangtze) in the mountainous north section of Yunnan Province to the fast-growiing provincial capital, Kunming. The plan would also force the re-location of 100,000 people. The gorge is extremely steep and narrow; at one of the narrowest spots there is a large rock in the center of the river; traditional lore says a tiger leapt from one shore to the rock and to the other shore. The tigers are gone, but the gorge is wild and spectacular, a World Heritage site. Also an editorial, "Saving Shangri-La," New York Times, November 9. (This is the region sometimes called Shangri-La, featured in the 1933 novel, Lost Horizons. (v.14, #4)

Yasukawa, K, "Female Song Sparrows Prefer Males That Learn Well," Bioscience 52(no.12, 2002).


Yates, Scott B. "A Case for the Extension of the Public Trust Doctrine in Oregon," Environmental Law 27(no.2, 1997):663. Yates argues that Oregon should apply the public trust doctrine to state water allocation decisions to prevent harm caused to navigable waters by the diversion of water from nonnavigable tributaries. He examines Oregon's public trust case law and water code within the analytical framework utilized by the California Supreme Court in National Audubon Society v. Superior Court of Alpine County, and concludes that Oregon law supports extending the public trust doctrine into the appropriation context. (v8,#3)

Yaukey, John, "Studies Suggest Animals Capable of Higher Thought: Recent Research Ignites Debate on Ethics, Cruelty," Gannett News Service story appearing in Gannett Newspapers, e.g. Fort Collins Coloradoan, October 4, 1999, A6. New research suggests that animals have much higher levels of cognition and social development than previously thought. But this has to be tested for by ferreting out the kinds of problem-solving tactics animals need to hunt, hide, and survive, by seeing what the animals do naturally and cognitively--rather than with the old-style tests for language or maze-running. One result is that lines blur between those animals that have intelligence and those that do not. Another result is that animal rights/welfare law is tightening up. Harvard and Georgetown law schools have announced they will teach animal rights law. (v10,#4)
Yazzie-Durglo, Victoria, "The Right to Change Tribal Forest Management," *Journal of Forestry* 96(No.11, 1999):33-. Now that Native Americans can manage their land as sovereign nations, tribal councils face the challenge of achieving long-term quality and quantity of timber production while embracing cultural values. (v.10,#2)

Ye Ping, "The Concept of 'Green University' and Its Position in Education" *Huanjing yu Shehui*, a Quarterly, (Environment and Society), vol. 3, no. 4 (December 30, 2000). Abstract: The Green university is the university for a new age that is adapted to the needs for environmental protection and the strategy for sustainable development. It is characterized by an effort to incorporate indices and contents of environmental science knowledge, ecophilosophical wisdom, and ecological ethical education into educational models, design of curricula, and the development of community bases for internships, so as to train high-level scientists and engineers for a new era who can both remake nature and rebuild nature. In Chinese. (EE v.12,#1)


Ye Ping ed., *Following Nature: Ecological Wisdom and Its Ideas*, Chinese Environmental Sciences Press, 2001. chapters: the global environmental problems; a reflections of the mainstream values; understanding nature; our common future; treating animals correctly; preserving wildness; hunting ethic; respect for nature; constructing our home; green education. Professor Ye is the chair of the Center of Environment and Society at Harbin Industry and Technology University.


--Yu Mouchang, "Ecological Philosophy and Sustainable Development"
--Yang Tongjin, "Value and Human Nature: Rolston's Methods in Environmental Ethics"
--Ye Ping, "Knowledge-Based Economy and Sustainable Development"
--Chen Minhao, "Ecological Culture and Sustainable Development"
--Liu Er, "The Ecological Conscience and Our Choice of Life-Styles"
--Zhao Xuehai, "Problems in the Sustainability of Forests and the Management of Forestry Enterprises"
--Li Xin & Xu Dejun, "On the Protection of Grasslands after the Flood" (Floods in northern China on the Neng River and the Songhua River in August 1998). (v10,#4)
Ye, Ping, "On the Structure of Ecological Ethics," Seeking Truth, no. 2 (1992): 39-42. Article in Chinese. The foundation, starting point, and ultimate end of ecological ethics is the coordination of the ongoing relations between humans and nature. To develop an ecological ethics, there must be development of the study of ecological moral philosophy as well as of the study of ecological science. This involves both fundamental principles and application, theory and practice; it couples attitudes and behaviors, personal norms and personal actions. Both this and the preceding article criticize an exclusively anthropocentric ethics and begin to explore a nonanthropocentric environmental ethics. Ye Ping is professor of philosophy, Northeast Forestry University, Harbin, China. (China)


Ye Ping, "The ideology of ecological ethics and the traditions of ethics", Journal of Harbin Industry and Technology University. 2002(4)


Ye Ping, "Some Features of Contemporary Western Environmental Ethics Studies," Ziran
In the last decade, many arguments have emerged for encouraging public participation in environmental policy making and management. While some have argued that, in democratic societies, people simply have a right to a participatory role, others base arguments for public participation on the idea that lay people may have access to knowledge which is unknown to officially sanctioned experts. Local people may count as experts about aspects of their neighbourhood or they may have insights into the behaviour of plant operators that is thought to give rise to pollution. This paper reports on a novel empirical approach to analysing and capturing such 'lay' understandings. This technique ('participatory modelling'), developed in ESRC-funded work in the UK, uses community mapping exercises in urban centres to produce spatial representations of local knowledges about air pollution and related problems of noise and odour. In the paper the technique is outlined, presenting data from the three-city case study. The paper concludes by assessing the ways in which participatory modelling can contribute to the local governance of air quality.

Yearley, Steven, "The 'End' or the 'Humanization' of Nature?", Organization and Environment 18 (no.2, June 2005).


Yew-Kwang, Ng, "Intergenerational Impartiality: Replacing Discounting by Probability Weighting," Journal of Agricultural and Environmental Ethics 18(2005):237-257. Intergenerational impartiality requires putting the welfare of future generations at par with that of our own. However, rational choice requires weighting all welfare values by the respective probabilities of realization. As the risk of non-survival of mankind is strictly positive for all time periods and as the probability of non-survival is cumulative, the probability weights operate like discount factors, though justified on a morally justifiable and completely different ground. Impartial intertemporal welfare maximization is acceptable, though the welfare of people in the very far future has lower effects as the probabilities of their existence are also lower. However, the effective discount rate on future welfare values (distinct from monetary values) justified on this ground is likely to be less than 0.1 per annum. Such discounting does not compromise environmental protection and sustainability unduly. The finiteness of our universe implies that the sum of our expected welfare to infinity remains finite, solving the paradox of having to compare different infinite values in optimal growth/conservation theories. Keywords discounting - environmental ethics - impartiality - intergenerational - intertemporal - probability - sustainable development - welfare. Yew-Kwang is in economics, Monash University, Melbourne, Australia. (JAEE)


Yoder, Jonathan; Blatner, Keith, "Incentives and Timing of Prescribed Fire for Wildfire Risk
Biotech corn may not harm Monarchs. The U.S. Environmental Protection Agency has tentatively concluded that Bt corn (corn genetically modified to produce the pesticide Bt) is unlikely to pose a serious threat to the overall Monarch butterfly population. The agency also downplayed the potential for the insecticide to persist in the soil or to lead to the evolution of pests that can withstand it. The Monarch has recently become a symbol of fragile nature threatened by biotechnology. (v.11,#4)

Penguins in Trouble Worldwide," New York Times, June 26, 2001, p. D1, p. D2. Populations are declining and evidence is mounting that global warming is a prime cause. Shortage of fish, or krill, leaves the birds starving. Or toxin blooms like a red tide, due to warming, kill the birds. Ten of the world's seventeen species are listed as threatened or endangered. (v.12,#3)

As Mt. St. Helens Recovers, Old Wisdom Crumbles," New York Times, (5/16/00). Chance survivors, not orderly succession, the key to recovery on Mt. Saint Helens. Biologists studying the return of life to the slopes of Mt. Saint Helens 20 years after it erupted say that rather than a predictable parade of pioneering species coming in from the edges and altering the environment for the arrival of mid and then late successional species, chance events, including the lucky survival of "biological legacies," is what is shaping the new biota. For example, moles, gophers and ants survived the blast because they were hidden beneath the ground, as did some saplings and shrubs buried in the snow. Roots and bulbs of some wild flowers rode the top of the avalanche and established themselves immediately. These species are playing the crucial role in the recovery of life on Mt. Saint Helens. The findings have implications for forestry where leaving a significant number of trees and deadwood after a harvest will speed the rebirth of a new forest. (v.11,#2)

Coping With Supersalmon," New York Times (5/1/00): A1. Frankenfish. A Canadian company has genetically altered Atlantic salmon to produce a growth hormone so they grow twice as fast as normal salmon. The transgenic salmon (with genes from a chinook salmon and an ocean pout) awaits Canadian and U.S. governmental approval before it is grown and marketed commercially. Although concerns about food safety with the fish are low, it is the Food and Drug Administration that will make the decision in the U.S. Critics worry that this agency is ill-equipped to analyze the significant environmental risks associated with widespread growth and marketing of the fish. One worry is that the fast-growing salmon might escape from commercial growing pens and mate with wild fish resulting in "genetic pollution." Furthermore, because females often preferentially mate with larger males, females of wild fish populations might prefer the transgenic males. If such mating produced offspring that did not survive well, the escape of these altered salmon could lead to the extinction of wild fish populations. One possible solution is to sterilize the salmon to be grown in the net pens. Another is to require that the fish only be grown in tanks on land. Anti-biotechnology and consumer groups have affected the public's perception of the health and environmental safety of genetically-altered plants and animals. In Scotland and New Zealand, efforts to develop faster growing salmon were abandoned amid cries of "Frankenfish." The International Salmon Farmers Association, representing the vast majority of salmon farmers worldwide, has taken a strong stand against the new fish. Relatedly, Frito-Lay has decided it would no longer buy biotech corn (a possible threat to monarch butterflies and organic farmers). (v.11,#2)

Simple Method Found to Increase Crop Yields Vastly," New York Times (8/22/00): D1. Chinese farmers reduce disease and double crop yields by abandoning monoculture. In one of the largest agricultural experiments ever, thousands of rice farmers in China have abandoned chemical
fungicides and controlled rice blast (the most serious disease affecting this crop) by planting a mixture of two different rices instead of a single type of rice as they have typically done. By planting a variety of rice that is resistant to the fungus in rows next to the preferred rice variety (which is susceptible), they blocked the spread of this wind-borne fungus. As more and more farmers nearby did the same, these positive effects began to multiply across the region. The experiment shows that ecologically based approaches to agriculture can be effective even on a very large scale. It also reinforces the idea that diversity in wild ecosystems is conducive to health as well. (v.12,#2)


Yost, Nicholas, "Who Regulates Environmental Impacts and Why It Matters," Ecology Law Quarterly 25(No.4, 1999):564-. (v.10,#2)

Young, Richard, Healing the Earth: A Theocentric Perspective on Environmental Problems and Their Solutions. Nashville: Broadman and Holman, 1994. Theocentrism, rather than either anthropocentrism or biocentrism, is the only proper stance for Christians to take in environmental ethics. (v9,#2)


Young, BA; Lee, CE; Daley, KM, "Do Snakes Meter Venom?," Bioscience 52(no.12, 2002): 1121-1126.

Young, R. V., Jr. "A Conservative View of Environmental Affairs." Environmental Ethics 1(1979):241-54. The contemporary debate over the human relation to the natural environment raises many complex issues which have thrown our familiar liberal and conservative political alignments into disarray. Although ecology is now generally regarded as a liberal cause with conservatives supporting commercial and industrial expansion, until very recently liberals almost unanimously championed industrialization and technological advance. Resistance to "progress" was the folly of only the most eccentric conservatives. Today, both liberal proponents of environmental protection and conservative defenders of business and industry argue on merely prudential grounds: each side maintains that only the adoption of its own program can save human civilization from collapse, or even the race from extinction. Extremely radical environmentalists have based their arguments on moral principle: humanity is just one species among many, and humans are, therefore, morally obligated to respect the rights of other organisms and of the ecosystem as a whole. This position, however, is ultimately reducible to a self-contradictory utilitarianism. It is the reverent attitude of traditional conservatism--that humans are superior to other creatures as the stewards of creation, holding it not as absolute possessor but only in trust from their Creator--that promises both the most moral and the most sensible approach to environmental affairs. Young is in the department of English, North Carolina State University, Raleigh, NC. (EE)

Young, David, Our Islands, Our Selves: A History of Conservation in New Zealand. Dunedin, NZ: University of Otago Press, 2004. From pre-human times, to the Maoris, to the European settlers, with over one-third of the book devoted to the period since World War II. How perceptions and actions have changed, how often New Zealand got it wrong, and what might still be done to protect New Zealand's natural environment. The author is a freelance journalist in New Zealand.

Young, H. P., "Sharing the Burden of Global Warming," The Report from the Institute for Philosophy and Public Policy, vol. 10, no.3/4, Summer/Fall 1990. "The fact that the atmosphere is currently treated as a global commons, whose use is largely unregulated, does not imply that nations, firms, or individuals have the right to continued free access to it." (v2,#2)

Young, Iris Marion. Review of Feminism and Ecology. Special issue of Heresies: A Feminist Journal


Young, John, Sustaining the Earth (Cambridge, MA: Harvard University Press, 1990). 200 pages. $19.95 cloth. Only a powerful synthesis of political, economic, and moral ideologies will move world societies into a relationship with the environment that maintains the best democratic values. Even the most radical environmentalists must recognize the reality of questions about equity and poverty, technology and energy, and aid and trade between wealthy and impoverished countries. (v2,#2)


Young, John, Sustaining the Earth. Cambridge: Harvard University Press, 1990. By a professor of history and director of the Center for Environmental Studies at the University of Adelaide, Australia. $19.95. (v1,#4)

Young, John E., Discarding the Throwaway Society. Worldwatch Paper 101, January 1991. "Industrial economies eventually secrete as waste most of the raw materials they devour." "The United States alone consumed more minerals from 1940 to 1976 than did all of humanity up to 1940." Young is a co-author of State of the World 1990. (v2,#1)


Young, Michael D., Towards Sustainable Agricultural Development. Columbia University Press, 1991. 400 pages. $75.00 Also published by Belhaven Press in the United Kingdom. (v2,#3)

Young, Oran R., ed., Global Governance: Drawing Insights from the Environmental Experience. Cambridge, MA: The MI Press, 1998. Problems of international governance in the absence of a world government. The emerging environmental agenda has prompted an awareness of the need for new arrangements to achieve sustainable human/environment relations. Environmentalism offers new opportunities for international governance. Young is in environmental studies and directs the Institute on International Environmental Governance at Dartmouth College. (v9,#1)

Young, Richard Alan, Is God a Vegetarian? Chicago: Open Court, 1999. 187 pages. $20. Sorts through the Bible's many references to animals and diet in order to articulate a Christian account of food. Young's principle is a twist on Socrates: The unexamined meal is not worth eating. The Bible begins and ends with a noncarnivorous creation but in between God explicitly permits meat eating. Jesus eats fish and Paul seems to condemn vegetarianism (1 Timothy 4.13). A good case can be made, however, that vegetarianism is a valid and valuable way of anticipating the kingdom of God by practicing what God most intended for the world. Animal rights and Christian belief. Young teaches
New Testament at Temple Baptist Seminary. (v.9,#4)


Young, C, "Deciphering Disorder in Africa: Is Identity the Key?," World Politics 54(no.4, 2002): 532-557.

Young, Robert. "'Monkeywrenching' and the Processing of Democracy." Environmental Politics 4(Winter 1995):199. (v.7,#2)


Young, Thomas. "The Morality of Ecosabotage," Environmental Values 10(2001):385-393. Environmental ethicists rarely discuss the morality of using illegal tactics to protect the environment. Yet ecosabotage (or monkeywrenching) is the topic of numerous articles and books in the popular press. In this paper I examine what I consider to be the three strongest arguments against destroying property as a means of defending the environment: the social fabric argument, the argument for moral consistency, and the generalisation argument. I conclude that none of them provides an a priori obstacle to a consequentialist justification of particular acts of ecosabotage. Then I sketch a version of constrained utilitarianism, which is capable, at least in principle, of justifying some acts of strategic ecosabotage in a democratic society. Keywords: Ecosabotage, justification, argument, consistency, utilitarianism. Thomas Young is in the Philosophy Department Mansfield University, Mansfield, PA, USA. (EV)


Young, Crawford, The African Colonial State in Comparative Perspective. New Haven: Yale University Press, 1994. $ 45. This is the kind of book that those who hope for environmental conservation, environmental justice, and sustainable development in Africa hate to read. Even a cursory glance at postcolonial Africa suggests disaster. Abject poverty, widespread suffering, health crisis, civil wars, displaced populations, murderous and corrupt dictatorships, the collapse of basic infrastructures, and environmental degradation mark much of the region. Young finds colonialism still the culprit. But postcolonial states in Isia, Oceania, and the Americas have fared, on the whole quite differently. Seven distinctive characteristics of the African colonial state account for its virulent legacy: the speed of colonial occupation, the ruthless drive to extract resources from the subjugated societies in order to finance their conquest, the forcing of rural Africans into labor service, a welfare ideology that crippled independence of spirit, a thoroughgoing domination aided by new technologies, a racist ideology that permeated dealings with Africa and denigrated the value of African culture, and--outside Islamic areas--the lack of a religious system that could counter the West's monopolization of the production of meaning and thus the construction of culture.
Postcolonial politics inherited the practices and norms of the old, and added destructive and exploitative elements of their own. "The new state was but a derelict reproduction of the old one, unable to perform its functions with the same competence." Can a new state be invented that sheds the debilitating traditions of the past? The outlook is bleak for Africans. And equally bleak for the wildlife. (v7,#2)


Young, Oran R. "Hitting the Mark: Why Are Some International Environmental Agreements More Successful Than Others." *Environment* 41 (No. 8, Oct. 1999):20- . Is it possible to increase the probability that a regime created to solve an environmental problem will hit its target? (v10,#4)


Young, Andrew G. and Clarke, Geoffrey M., eds., *Genetics, Demography and Viability of fragmented Populations*. New York: Cambridge University Press, 2000. The authors are with CSIRO, Camberra, Australia. (v.13,#4)

Youngs, Robert L., ""A Right Smart Little Jolt": Loss of the Chestnut and a Way of Life," *Journal of Forestry* 98 (No. 2, 2000, Feb 01): 17-. The decimation of the American chestnut, versatile and diverse in its products and uses, had a profound and lasting impact on Appalachian people and communities. (v.11,#2)


Yu, Douglas. "Free Trade Is Green; Protectionism Is Not." *Conservation Biology* 8 (1994): 989-996. Many hold that free trade will lead to environmental degradation. But industries that benefit from protection by tariffs also frequently benefit from subsidy by lax environmental standards. Environmentalists can ally themselves with free traders and learn how to use free trade as an ally in environmental reform. Yu is in biology at Harvard University. (v6,#1)

Yu, Mouchang, "Sheng Tai Lun Li Xue," ("Ecological Ethics"). Chapter 12, pages 297-308, in Chen Ying, *Xian Dai Lun Li Xue (Modern Ethics)*. Chong Qing (in Sichuan Province): Chong Qing Press, 1990. Introduces Aldo Leopold's land ethic, as interpreted by Holmes Rolston and J. Baird Callicott. (China)

Yu, Mouchang, *Dan Da Shehui Yu Huan Jing Ke Xue (Contemporary Science and Environmental Science)* Shenyang (in Liaoning Province): People's Press of Liaoning Province, 1986. 300 pages. (China)

philosophy and ethics). 4. Is there a general standard for ecological ethics? 5. Moral principles and norms in ecological ethics (respect life and the natural world; not to harm life and the natural world; not to exploit; protect and promote the flourishing of life and ecological uses of nature in economic and social activities). 6. New applications of several moral concepts (the right, fairness, thrift, duty). 7. Ecological Ethics: A new global ethical view. Yu Mouchang is a researcher at the Chinese Academy of Social Sciences, Beijing, and president of the Chinese Society for Environmental Ethics. The Chinese are producing an impressive number of books in environmental ethics, as this and the following entries testify. (China) (v7, #1).


Yu, Mouchang, "The Fundamental Principles of Ecological Ethics," in Seeking Truth, no. 2 (1992): 35-38. Article in Chinese. This is a bimonthly published by the Hei Long Jiang University. There are three fundamental principles of ecological ethics: (1) One ought to cherish and respect life and nature. This is the highest positive principle. (2) One ought not to damage and degrade life and nature. This is the prohibition principle, forbidding extinction and plundering and exploiting nature. (3) One ought to preserve life and nature. This is a selectivity principle, calling for ecologizing economics and social affairs, choosing those forms of social development that do not degrade but rather cherish and respect life and nature. Yu Mouchang is in the Institute of Philosophy, Chinese Academy of Social Sciences, Beijing. (China)

Yu Mouchang, Ecological Philosophy, Sanxi People's Press, 2001, Chapters: the rising of eco-philosophy; eco-philosophy is postmodern philosophy; the turn of philosophy; ecological worldview is the philosophical foundation of sustainable development. Professor Yu is at the Institute of Philosophy, Chinese Academy of Social Sciences.

Yu, Mouchang, "Ecoethics: The Moral Philosophy of Foresters" (in Chinese) in Journal of Beijing Forestry University, No. 4, 1992. Beijing Forestry University Press, Beijing, 1992. The traditional pattern in forestry is characterized by a high output of commodity production from forests. But according to ecoethics, forests are valuable in diverse ways. They should be valued not only in terms of economics but also in terms of ecology, aesthetics, and ethics. Ecoethics offers new viewpoints from which to understand forests and forestry and new ways to orient research. Ecoethics can be used as a working philosophy for forest researchers. Hence it provides valuable ideas for the transition from the traditional economic patterns of forestry to a new forest management that seeks to optimize multiple values. Yu Mouchang is with the Institute of Philosophy, Chinese Academy of Social Sciences, Beijing. (China)

Yu, Mouchang, Sheng Tai Xue De Xin Xi (Ecological Information) Shenyang (in Liaoning Province): Science and Technology Press of Kiaoing Province, 1982). Written for a popular audience to introduce some fundamental ecological ideas, at a time when ecology was a new subject in China. (China)

Yu, Mouchang, Sheng Tai Lun Li Xue (Ecological Ethics). Xi'an (in Shaanxi Province): Science and Technology Press. (China)


Yuce (Yüce), Nilgün and Peter Plöger, eds., Die Vielfalt der Wechselwirkung. Eine transdisziplinäre Exkursion im Umfeld der Evolutionären Kulturökologie. Freiburg and Munich: Karl Aber Verlag, 2003. An evolutionary ecology of culture, a theoretical project of sweeping scale: ecosystems not only as human life support systems but retaining many structural features of the biological systems from which humans emerged and upon which they remain de pendent energetically. Reviewed by Hannes Bergthaller, Environmental Values 13(2004):546-547.


Yung, Laurie, Yetter, Bob, Friemund, Wayne A., and Brown, Perry J., "Wilderness and Civilization: Two Decades of Wilderness Higher Education at the University of Montana," International Journal of Wilderness 4(no. 2, July 1998):21-24. A summary of the Wilderness Institute of the School of Forestry at the University of Montana, now 23 years old. The authors are associated with the center; Brown is a dean of forestry at the University of Montana. (v.9,#3)

Zabieglik, Stefan, "Filozofia ekologiczna (Ecological Philosophy)," Pismo PG (Newsletter of Gdansk Polytechnic (PG) University) No. 2/3 (22-23), February/March 1996, pages 64-68. In Polish. Introductions to Rolston, Environmental Ethics; Birch and Cobb, The Liberation of Life; Taylor, Respect for Life; Sepanmaa, The Beauty of Environment; Naess' deep ecology; Lovelock, Gaia; Skolimowski, and others for a Polish audience. Zabieglik is in the Department of Management and Economics, Polytechnic University of Gdansk, Poland (Narutowicza 11/12, 80-952 Gdansk, Poland). (v7,#2)


Zaelke, Durwood, Robert F. Housman, and Paul Orbuch, eds., *Trade and the Environment: Law, Economics, Policy.* Washington, DC: Island Press, 1993. $24.95, paper. 270 pages. What the General Agreement on Trade and Tariffs (GATT) and the North American Free Trade Agreement (NAFTA) are doing and might do to the environment. What issues are involved when one country tries to influence another's environmental standards? How should international environmental standards be set? When and how are low environmental standards a subsidy to labor and to industry, and is this appropriate? The authors are with the Center for International Environmental Law, Washington, DC. (v4,#2)

Zahniser, Ed, "Walk Softly and Carry a Big Map: Historical Roots of Wildlands Network Planning," *Wild Earth* 10(no. 2, Summer 2000):33-. (v.12,#2)

Zaidi, Iqtidar H. "On the Ethics of Man's Interaction with the Environment: An Islamic Approach," *Environmental Ethics* 3(1981):35-47. I argue that Islam provides very efficient ethical principles for dealing with the present ecological crisis, a crisis rooted in moral deprivation. I reject the maximization of benefits from natural resources without giving due consideration to the adverse environmental impact of such actions, and argue that this practice is based on injustices generated by factors like greed, extravagance, and ignorance, among others. So far, Western solutions of such problems have generally been based purely on materialistic approaches which place emphasis on secular technological models without any linkage with metaphysical doctrines. Islam recognizes that man by virtue of his creation is a superior being, one for the service of whom the Earth was created; but at the same time man has been made responsible for any departure in his behavior from the ways laid down by Almighty Allah. Human activities, according to Islam, must be based on the idea that this world is a transitory abode, and that a human has to gain God's favor in order to be able to find a better place in the other world. Hence, a person's actions, as manifestations of his or her faith, must be properly and effectively administered, requiring justice, *Taqwa* (piety), and appropriate knowledge and understanding of environmental problems. Zaidi is in the department of geography, University of Karachi, Karachi, Pakistan. (EE)

Zaikowski, Lori A; Garrett, Jinnie M, "A Three-Tiered Approach to Enhance Undergraduate Education in Bioethics", *BioScience* 54(no.10, 1 October 2004):942-949(8). The systematic integration of ethics into undergraduate programs is a key component to improving the understanding of ethical issues in science for a broad audience. We propose a three-tiered approach to integrating ethics and social issues that can be readily adapted to particular curricular needs. A concerted incorporation of ethics strategically targeted to each level of undergraduate education will improve the preparation of prospective research scientists, enhance K-12 teacher training, increase the scientific and ethical literacy of the general public, and improve the awareness of health professionals regarding ethics in medicine. After examining textbooks, programs, and faculty perspectives, we suggest areas in which changes can be made to incorporate ethics into undergraduate education.

Zakin, Susan, *Coyotes and Town Dogs: Earth First! and the Environmental Movement.* New York: Viking, 1993. 483 pages. $23.50. A fast-paced, fact-filled, and thorough history of Earth First! in the 1980's, often irreverent, tough, funny, opinionated, even outrageous, and yet also a thoughtful survey of Earth First! in the context of the broader conservation movement. Earth First!ers liked their "redneck hippie" image; they led the way emphasizing the importance of ecosystems and bioregions, concepts that have since entered the mainstream of environmentalism. Zakin is an environmental writer whose articles have appeared in publications ranging from the *New York Times* to *Mother Jones.* (v4,#3)

Zaner, Richard M., "Finessing Nature," *Philosophy and Public Policy Quarterly* 23 (no. 2, 2003):14-19. "We need to consider carefully the ethical implications of substituting technology and genetically innovative means to assist human reproduction--that is, of `finessing' nature." Zaner is emeritus from medical ethics, Vanderbilt University School of Medicine. (v 14, #3)

Zangwill, Nick, "Formal Natural Beauty," *Proceedings of the Aristotelian Society* 101(no. 2, January 2001):209-224. "I defend moderate formalism about the aesthetics of nature. I argue that anti-formalists cannot account for the incongruousness of much natural beauty. This shows that some natural beauty is not kind-dependent. I then tackle several anti-formalist arguments that can be found in the writings of Ronald Hepburn, Allen Carlson, and Malcolm Budd."

"Need one consider the underwater-swimming polar bear as a beautiful living thing or a beautiful natural thing or just a beautiful thing. I think this last will do. It is a formally extraordinary phenomenon. It might even turn out to be an artfully choreographed swimmer dressed in a polar bear suit. No matter. It is still a beautiful spectacle. It has a free, formal beauty" (p. 214). Zangwill is in philosophy, University of Glasgow, Scotland. (v.13,#4)

Zarb, John, "Small holding up," *The Ecologist* 30(no. 9, Dec. 1, 2000):40-. With farming in crisis, we desperately need to find a sustainable alternative form of agriculture. But could it ever work? Yes; in many places around the world, it already is.

Zarsky, Lyuba, and Hunter, Jason, "Environmental Cooperation at APEC: The First Five Years," *The Journal of Environment and Development* 6 (no. 3, 1997):222. APEC is the Asia Pacific Economic Cooperation, founded in 1989 by Japan and Australia, now the foremost institution for multilateral diplomacy in the Asia Pacific region. There are 18 member countries, including the U.S. (v8,#3)

Zaslowsky, Dyan. "The Battle of Boulder." *Wilderness* 58 (no. 209, Summer, 1995):25-33. Good intentions combine with contrary expectations to produce a troubling irony. The Boulder Open Space Department has been a pace setter, strongly supported by the populace in land acquisition and preservation--until they began to limit access and move trails in the name of ecosystem conservation and restoration. One observer says: "This is a conflict between social ecologists and deep ecologists. The deep ecologists are the sort of people who lecture us that human society is a cancer on the planet. We social ecologists see ourselves as a part of the natural environment and believe that the footprints of humans have as much right to be on a trail as the footprints of deer and elk." Zaslowsky covers the Rocky Mountain region for the *New York Times*. (v6,#3)


Zavalkoff, Anne, "Dis-Located in Nature? A Feminist Critique of David Abram," *Ethics and the Environment* 9(no. 1, 2004):121-139. This paper draws on Mary Daly's creative, connective use of the written word to challenge David Abram's central argument in *The Spell of the Sensuous*: that alphabetic writing and literacy are primarily responsible both for dulling human sensory perception and for severing a deep connection between humans and the natural world. It does so by outlining Abram's central claim, investigating the parallels and important differences between Abram's and Daly's work, and examining the strategies for reconnecting with the living world that emerge from Daly's prose. Ultimately, this paper argues that the ways in which people interact with all language have a greater impact on their perception of and connection to the natural world than whether they live in oral or literate communities. Zavalkoff is a doctoral candidate in Educational Studies at the University of British Columbia. (E&E)

Zavestoski, S., "Review of: Behan, Richard W., Plundered Promise: Capitalism, Politics, and the Fate
of Public Lands," Society and Natural Resources 15(no.3, 2002): 282-84. (v.13,#2)


Zedler, Joy B. et al., "Restoration of Biodiversity, Overview," Encyclopedia of Biodiversity 5: 203-212. Habitats that have lost populations of native species have potential for biodiversity restoration, that is, the return of species-rich conditions. Attempts to restore biodiversity involve multispecies efforts and single-species reintroductions. Genetic issues in biodiversity restoration involve the potential to reduce intraspecific diversity, especially in reintroduce populations of clonal plants and captive-reared animals. The deliberate introduction of nonindigenous species or species not known to occur naturally at a site does not constitute biodiversity restoration. (v.11,#4)

Zeide, Boris, "Another Look at Leopold's Land Ethic," Journal of Forestry 96(1998):13-19. Leopold is universally praised, but his concept of an ecosystem is hardly currently viable. Ecosystems are not so stable and integrated but more open and chaotic. Nor does he give any help identifying the extent to which humans must and ought to modify ecosystems. His metaphors can be misleading. Zeide is professor of forestry University of Arkansas at Monticello. With commentary by J. Baird Callicott, "A Critical Examination of `Another Look at Leopold's Land Ethic',' pp. 20-26. Leopold may indeed need some revision in his concept of an ecosystem, but his main ideas remain valid, that ecosystems are self-organizing systems with considerable regularity and they can be predictably degraded. Economic is not the only consideration managing landscapes, but sustainable ecosystemic processes are important on a healthy landscape. (v9,#1)


Ecotourism, bioprospecting, oil extraction, cyanide fishing, timber extraction, property rights. (v.13,#4)


Zhang, L; Wang, N, "An initial study on habitat conservation of Asian elephant (Elephas maximus), with a focus on human elephant conflict in Simao, China", *Biological Conservation* 112(no.3, 2003):453-459.


Zhexue Yicong (Philosophy Digest of Translation), (Journal of the Chinese Academy of Social Sciences, Institute of Philosophy, Beijing), 1999, Issue No. 2, contains several articles on environmental ethics, in Chinese translation:
Zhexue Yicong (Philosophy Digest of Translation), a journal of the Chinese Academy of Social Sciences, Institute of Philosophy, Beijing, Issue No. 5, Sept. 1994 (ISSN 1002-8854) contains a section on "Environmental Ethics" in which the following articles are translated into Chinese: (1) W. K. Frankena, "Ethics and the Environment," (2) Holmes Rolston, "Respect for Life: Can Zen Buddhism Help in Forming an Environmental Ethic?" (3) Take-Aki Maruyama (Japan), "Earthly Earth Ethics," and (4) Peter Singer (Australia), "All Animals are Equal." (Thanks to Yu Mouchang, Chinese Academy of Social Sciences.)


Zhu Tan, ed, Environmental Ethics: Theory and Practice, Chinese Environmental Science Press, 2001. Chapters: introduction, environmental ethical thoughts in Chinese traditional culture; the rising and development of modern environmental ethics; the theme of environmental ethics: harmony of man and nature; the values of nature; the equality of nature; sustainable development and environmental ethics; population and environmental ethics; environmental ethical issues in science and technology; environmental ethical issues of environmental protection; environmental ethics of consumption; awakening the environmental awareness of the public. Professor Zhu is the president of school of environment at Nankai University.

Zich, Arthur, "China's Three Gorges: Before the Flood," National Geographic 192(no. 3, September 1997):2-33. China's most ambitious project since the Great Wall, the Three Gorges Dam will displace nearly two million people as it swallows up cities, farms, and the canyons of the Yangtze River. The world's mightiest dam is rising on the Yangtze River. Gains: electric power and flood control. Losses: wild canyons and hundreds of thousands of homes. The pros and cons of this major project, now well into construction.

Ziegler, Rafael, “Political Perception and Ensemble of Macro Objectives and Measures: The Paradox of the Index for Sustainable Economic Welfare,” *Environmental Values* 16(2007): 43-60. Macroeconomic measures and objectives inform and structure political perception in large systems of governance. Herman Daly and John Cobb attack the objective and measure of economic growth in For the Common Good. However, their attack is paradoxical: 1) they are in favour of strong sustainability, but construct with the ISEW an index of weak sustainability, and 2) they describe humans as persons-in-community, but propose an index based on personal consumption. While the ISEW has attracted much attention, the same cannot be said about the person-in-community ontology developed at length and prominently in their work. This essay therefore aims to reconstruct Daly and Cobb’s criticism of growth from the person-in-community approach. It defends the ISEW as a debunking index that is motivated by the person-in-community approach and the economy-ecology scale problem, and that also engages in the politics of scale. But this does not mean that the ISEW is also a measure of sustainable economic welfare. Critics expecting this kind of sustainability index are likely to see contradictions, but not the critical role the ISEW can play for democratic accountability. Understanding the latter makes it possible to see the ISEW as a step in the evolution of political perception and action. Accordingly the essay is also intended as a contribution to the understanding of this role in a situation where sustainability indices continue to be calculated, and renewed efforts at the measurement of welfare and happiness are made. Ziegler is in the Centre Marc Bloch, Berlin.


Ziman, John, "Why Must Scientists Become More Ethically Sensitive Than They Used To Be?" *Science* 282(4 December, 1998):1813-1814. Such increasing ethical sensitivity is "symptomatic of the transformation of science into a new type of social institution. As their products become more tightly woven into the social fabric, scientists are having to perform new roles in which ethical consideration can no longer be swept aside." In classical science, there could be academic disinterestedness, even ethical neutrality; but science today is increasingly integrated with the pursuit of human interests, often at the level of social forces in industry and finance. "Post-academic science has features that make nonsense of the traditional barriers between science and ethics." Science "cannot brush its ethical problems under the carpet. Science can no longer be `in denial' of matters that many of us have long tried to bring to the fore." Ziman, from New Zealand, is in theoretical physics at the University of Bristol, UK, and was long chair of the UK Council for Science and Society. (v.9,#4)

Zimdahl, Robert L., "Ethics in Weed Science," *Weed Science* 46(1998):636-639. Neither basic nor applied weed science is value free; they are value laden. Most of these values rest on an ethical foundation known as utilitarianism. Weed scientists believe that their work should be useful to humans and promote the greatest good for the greatest number. They ought to enter into public discussion about values at stake in their work. Without embarrassment, weed scientists have to learn to ask about the ethical foundations of their science. Zimdahl is in weed science at Colorado State University. (v. 10, #3).


Zimmer, Carl, "In Give and Take of Evolution: A Surprising Contribution from Islands," *New York Times,* November 22, 2005. Islands have typically been thought to be dead ends in evolution, but studies now suggest they can at other times be sources from which continents are re-stocked. They are also places where rapid speciation occurs, often because of isolation and specialized environments. This makes islands more important to conserve as reservoirs of biodiversity.
Zimmer, Carl, "Life after Chaos," *Science* 284(2 April, 1999):83-86. In a special issue of *Science* on complex systems, with several related articles. "After years of hunting for chaos in the wild, ecologists have come up empty-handed. But the same equations that failed to find chaos are turning up stunning insights into how environmental forces and internal dynamics make populations rise and fall." Although "there is no unequivocable evidence for the existence of chaotic dynamics in any natural population," researchers found that "many were verging on chaos." "To many ecologists, the way nature seems to sit on the edge of chaos, and not plunge deep into it as models predict, is a fascinating puzzle." The studies are reminiscent of those of Stuart Kauffman and his claims that self-organization is stimulated at the edge of chaos. Ecosystems persist in the midst of their perpetual perishing. (v.10,#1)


Zimmerman, Michael J., "In Defense of the Concept of Intrinsic Value," *Canadian Journal of Philosophy* 29(1999):369-410. Intrinsic value, though with a long rich history, including that in G. W. Moore, has come under recent attack. These attacks are unsuccessful, with particular attention to that of Judith Jarvis Thomson. Positive arguments are elusive; nevertheless it seems clear that morally sensitive persons will favor certain things, but not others, for their own sakes. Zimmerman is at the University of North Carolina at Greensboro. (v.12,#3)

Zimmerman, Michael E., J. Baird Callicott, Karen J. Warren, Irene J. Klaver, and John Clark, eds., *Environmental Philosophy: From Animal Rights to Radical Ecology*. 4th edition. Upper Saddle River, NJ: Pearson/Prentice Hall, 2005. Fourth edition of a time-tested and popular anthology. One new section is "Environmental Continental Philosophy," edited by Irene Klaver. Postmodern theory's ... stance of suspicion has turned out to be a mixed blessing for the environmental movement. Just as feminist theory in the 1980s revealed blind spots in positions taken by many feminists, so postmodern theory in the 1990's criticizes the validity of beliefs and concepts held by many environmentalists. According to Klaver, the phenomenological method developed by German philosopher Edmund Husserl offers a helpful ways for exploring and deepening humanity's relation to natural phenomena" (p. 3). Continental philosophy has been included, at the cost of leaving deep ecology out. (v. 15, # 3)

J. Baird Callicott seeks to resolve the problem of the intrinsic value of nature by utilizing a nondualistic paradigm derived from quantum theory. His approach is twofold. According to his less radical approach, quantum theory shows that properties once considered to be "primary" and "objective" are in fact the products of interactions between observer and observed. Values are also the products of such interactions. According to his more radical approach, quantum theory's doctrine of internal relations is the model for the idea that everything is intrinsically valuable because the "I" is intrinsically valuable and related to everything else. I argue that humanity's treatment of nature will become respectful only as humanity's awareness evolves toward nondualism, and that such nondualistic awareness will not be produced by changes in scientific theory alone. Nevertheless, as Callicott suggests, such changes may be harbingers of evolutionary trends in human awareness. I conclude with a sketch of how nondualism, especially in its panentheistic version, provides the basis for environmental ethics. Zimmerman is in the department of philosophy, Tulane University, New Orleans, LA. (EE)

Zimmerman, Michael, "The Blessing of Otherness: Wilderness and the Human Condition." Pages 245-270 Oelschlaeger, Max, ed., The Wilderness Condition: Essays on Environment and Civilization (San Francisco: Sierra Club Books, 1992). The importance of humans periodically "crossing over" the socially-constructed border separating wilderness from civilization. Wilderness encounter becomes the occasion for coming to know what it means to be civilized. The "otherness" of the wild is a "blessing," for temporary immersion in it enables us to realize the distinctive nature of our humanity, without needing to deny or repress wild nature or to gain rational control over it. "We must learn to acknowledge and to appreciate this otherness or difference as such, especially if we hope to understand the characteristics of our own identity" (p. 264).


Zimmerman, Michael E. "Toward a Heideggerean Ethos for Radical Environmentalism." Environmental Ethics 5(1983):99-131. Recently several philosophers have argued that environmental reform movements cannot halt humankind's destruction of the biosphere because they still operate within the anthropocentric humanism that forms the root of the ecological crisis. According to "radical" environmentalists, disaster can be averted only if we adopt a nonanthropocentric understanding of reality that teaches us to live harmoniously on the Earth. Martin Heidegger agrees that humanism leads human beings beyond their proper limits while forcing other beings beyond their limits as well. The doctrine of the "rights of man" justifies human exploitation of nonhuman beings. Paradoxically, however, the doctrine of rights for nonhuman beings does not escape the orbit of humanism. According to Heidegger, a nonanthropocentric conception of humanity and its relation to nature must go beyond the doctrine of rights. We can dwell harmoniously on Earth only by submitting to our primary obligation: to be open for the Being of beings. We need a new way of understanding Being, a new ethos, that lets beings manifest themselves not merely as objects for human ends, but as intrinsically important. Heidegger calls this ethos the "fourfold" of earth and sky, gods and mortals. Humanists argue that Heidegger is wrong to abandon the principle of human rights in favor of the notion that we are obligated to "let beings be," while some radical environmentalists accuse him of being a humanist because he supposedly overestimates the importance of humankind's ability to speak. Heidegger insists, however, that language makes possible culture, without which there is no human experience of nature. An environmentally sound ethos can arise, according to Heidegger, only from a shift within the cultural heritage of the West. Richard Rorty agrees that we must become open for a new "conversation" with the West, even if this requires abandoning traditionally important fields such as epistemology. The need to develop a new understanding of Being is so great that thinkers from the analytic and
continental traditions of philosophy are finally initiating a long-overdue dialogue. For Zimmerman's later position, see: "Rethinking the Heidegger-Deep Ecology Relationship." *Environmental Ethics* 15(1993):195-224. Zimmerman is in the department of philosophy, Tulane University, New Orleans, LA. (EE)


Zimmerman, Michael E. "Rethinking the Heidegger-Deep Ecology Relationship." *Environmental Ethics* 15(1993):195-224. Recent disclosures regarding the relationship between Heidegger's thought and his own version of National Socialism have led me to rethink my earlier efforts [in "Toward a Heideggeran Ethos for Radical Environmentalism." *Environmental Ethics* 5(1983):99-131] to portray Heidegger as a forerunner of deep ecology. His political problems have provided ammunition for critics, such as Murray Bookchin, who regard deep ecology as a reactionary movement. I now argue that, despite some similarities, Heidegger's thought and deep ecology are in many ways incompatible, in part because deep ecologists--in spite of their criticism of the ecologically destructive character of technological modernity--generally support a "progressive" idea of human evolution. Zimmerman is in the department of philosophy, Tulane University, New Orleans, LA. (EE)

Zimmerman, Michael E. "Feminism, Deep Ecology, and Environmental Ethics." *Environmental Ethics* 9(1987):21-44. Deep ecologists have criticized reform environmentalists for not being sufficiently radical in their attempts to curb human exploitation of the nonhuman world. Ecofeminists, however, maintain that deep ecologists, too, are not sufficiently radical, for they have neglected the crucial role played by patriarchalism in shaping the cultural categories responsible for Western humanity's domination of Nature. According to eco-feminists, only by replacing those categories--including atomism, hierarchism, dualism, and androcentrism--can humanity learn to dwell in harmony with nonhuman beings. After reviewing the eco-feminist critique both of reform environmentalism and of deep ecology, I sketch a critical dialogue between eco-feminism and deep ecology. Zimmerman is in the department of philosophy, Tulane University, New Orleans, LA. (EE)


disclosures of the links between Heidegger's thought and Nazism. To what extent does radical ecology (unwittingly) hold views that are consistent with the reactionary attitudes of fascism? In what respects is radical ecology a dimension of "postmodernity," defined as an epoch that questions the progressive optimism of technological modernity? Zimmerman tries to answer these questions in part by assessing the recent debates among deep ecology, social ecology, and ecofeminism.

Appealing to the work of transpersonal theorist Ken Wilber, who maintains that humankind is taking part in a progressive development of consciousness, of which the ecological crisis is a surmountable symptom, Zimmerman tries to mediate the sometimes bitter dispute between deep ecology and social ecology. Though some ecofeminists maintain that "progressive" ideas justify the domination of emotions, the body, woman, and nature, Zimmerman shows the extent to which ecofeminism can and should acknowledge the "emancipatory" dimension of modernity. Finally, recognizing that radical ecology's hope for a low-tech future may well go unfulfilled, Zimmerman explores "critical postmodern" visions of the future high-tech relation between humanity and nature, including the startling vision contained in Donna Haraway's "Cyborg Manifesto." Zimmerman is in philosophy at Tulane University, New Orleans. (v5,#4)


Zimmerman, Michael. Science, Nonscience, and Nonsense. Baltimore, Maryland: The Johns Hopkins University Press, 1995. pp. $25.95. Zimmerman begins by showing just what science is--how the criteria of skepticism and falsifiability distinguish it from pseudo-science and mysticism. He offers intelligent, entertaining, and sometimes scathing analyses of bad science--from lottery "systems" and creationism to graphologists and homeopaths, from food and product safety scams to outright scientific fraud. In each case he shows exactly what to watch for--how the most outrageously false claims often contain a grain of truth, and how valid scientific findings may be distorted or selectively quoted to serve the ends of government, business, or special interest groups. Zimmerman is the dean of the College of Letters and Science and professor of biology at the University of Wisconsin, Oshkosh (and therefore is not the philosopher Michael Zimmerman who writes in environmental ethics). (v8,#1)


Ziner, Karen Lee, "Offshore Harvest of Wind is Proposed for Cape Cod," New York Times (4/16/02): D3. Windmills stir controversy. 170 wind turbines, each the height of a 40 story building, are proposed for Nantucket Sound. They would provide half the electricity for Cape Cod and the islands of Martha's Vineyard and Nantucket (enough power for 500,000 homes and businesses). Advocates argue that harvesting the wind 5 ½ miles off the U.S. coast where there is an "awesome, inexhaustible supply of domestic energy" provides a nonpolluting, renewable, environmentally friendly energy source. Although dozens of wind farms exist in the U.S. and off the coast of Europe, none this large has been built in the U.S. or at sea. Concerns include harm to birds that fly into the turbines, possible effects on fisheries, whether vibrations will affect animals that live on or in the seabed floor, influence these towers might have on ocean currents and radio/T.V. frequencies, and negative consequences for tourism. One opponent argues that "if Nantucket Sound becomes an industrial electrical generation area, then it's no longer a national treasure . . . or wilderness." He also predicts that the turbines will kill so many birds that they will litter the beaches with their bodies. Aesthetics figure in the debate as well. Some claim the 5 by 5 mile grid of carbon-steel turbines each a half mile apart will be ugly; others claim to enjoy looking at wind turbines and see them as "a study in power and grace and a visual testimony to us working with nature."


Zirker, Daniel, and Marvin Henberg, "Amazonia: Democracy, Ecology, and Brazilian Military Prerogatives in the 1990's," *Armed Forces and Society* 20 (no. 2, Winter 1994):259-281. "As a policy prerogative of the military, a particularly intrusive form of developmentalism is envisaged in Amazonia; civilian allies linked to slash-and-burn cattle ranching, large- and small-scale mining, and massive forestry and agricultural enterprises see themselves, along with the military, as the nationalistic heroes of a nation threatened by ecological imperialism. 'National security' is defined in this context as the colonization of the region: populating, but not democratizing, what they regard as a geopolitical buffer zone." "There is great irony, then, in the apparent attempt by the Brazilian military to seek its salvation by rallying against the ecological 'internationalization' of the Amazon. Military support for the environmentally (and ethically) destructive practices of the status quo promises only to ensure the short-term emergence of yet another ecological and political monoculture." Zirker is in political science, University of Idaho, Henberg (formerly at Idaho) is now vice-president, Linfield College, McMinnville, Oregon. (v6,#4)


Zucker, Arthur, "Ferré: Organicistic Connectedness--but Still Speciesistic," *Ethics and the Environment* 1(no.2, 1996):185-190. An environmental ethics open to the charge of speciesism would be a weak environmental ethics at best. Ferré criticizes the environmental ethics of Callicott and Rolston, presenting his version of an environmental ethics; one he refers to as organicistic. His version does indeed avoid the pitfalls of the environmental ethics of Callicott and Rolston. But, as I show, the charge of speciesism can be leveled against Ferré (and many others). I suggest that properly understood speciesism is so deeply rooted in our concepts that the only hope lies in what I term a thoughtful speciesism. Zucker teaches philosophy at Ohio University. (E&E)


Zuindeau, Bertrand, “Territorial Equity and Sustainable Development,” Environmental Values 16(2007): 253-268. The sustainable development (SD) issue is mainly focused on questions of intergenerational equity. The study of intragenerational equity is less common. In this article, I am interested in a particular kind of intragenerational equity, territorial equity. As well as exposing the various territorial inequalities, the literature on SD comprehends territorial equity through possible territorial transfers of sustainability. The reality of these transfers and how to measure them are however, very directly dependent on general conceptions of SD. The text examines analyses that may be inferred from these different ideas. It attempts to reveal the respective limits and to propose a synthesis, which incorporates operational objectives. Zuindeau is in economics and social sciences, University of Lille, France.


Zunino, Franco, "The Wilderness Movement in Italy: A Wilderness Model for Europe," International Journal of Wilderness 1(no. 2, December):41-42. There is an Italian Wilderness Society and seven wilderness areas are established, with various degrees of municipal and regional authority. Franco directs the Associazione Italiana per la Wilderness. (v7,#1)


Zwart, Hub, "Environmental Pollution and Professional Responsibility: Ibsen's A Public Enemy as a Seminar on Science Communication and Ethics," Environmental Values 13(2004):349-372. Dr. Stockmann, the principal character in Henrik Ibsen's A Public Enemy, is a classic example of a whistle-blower who, upon detecting and disclosing a serious case of environmental pollution, quickly finds himself transformed from a public benefactor into a political outcast by those in power. If we submit the play to a 'second reading', however, it becomes clear that the ethical intricacies of whistle-blowing are interwoven with epistemological issues. Basically, the play is about the complex task of communicating scientific (notably microbiological) data to lay audiences. This becomes even more apparent when we realise that Stockmann was a contemporary of real 'microbe hunters' such as Pasteur and Koch. The play's basic message is that epoch-making scientists (such as Pasteur and Koch) not only produced convincing and reliable data from a scientific point of view, but also acquired the skills and insights needed to enter into a dialogue with their cultural and societal environment. Zwart is in philosophy and science studies at the University of Nijmegen, The Netherlands. (EV)


Abstract: What role does the wild duck play in Ibsen's famous drama? I argue that, besides mirroring the fate of the human cast members, the duck is acting as animal subject in a quasi-experiment, conducted in a private setting. Analysed from this perspective, the play allows us to discern the epistemological and ethical dimensions of the new scientific animal practice (systematic observation of animal behaviour under artificial conditions) emerging precisely at that time. Ibsen's play stages the clash between a scientific and a romantic understanding of animals that still constitutes the backdrop of most contemporary debates over animals in research. Whereas the scientific
understanding reduces the animal's behaviour, as well as its environment, to discrete and modifiable elements, the romantic view regards animals as being at one with (or violently disconnected from) their natural surroundings. Keywords: History of animal research, Ibsen (The Wild Duck), animal ethics. H.A.E. Zwart is in the Center for Ethics, University of Nijmegen, PO Box 9103, 6500 HD Nijmegen, The Netherlands. (EV)

Zwart, Hub, "What is an Animal? A Philosophical Reflection on the Possibility of a Moral Relationship with Animals," Environmental Values 6(1997):377-392. ABSTRACT: Contemporary ethical discourse on animals is influenced partly by a scientific and partly by an anthropomorphic understanding of them. Apparently, we have deprived ourselves of the possibility of a more profound acquaintance with them. In this contribution it is claimed that all ethical theories or statements regarding the moral significance of animals are grounded in an ontological assessment of the animals way of being. In the course of history, several answers have been put forward to the question of what animals really and basically are. Three of them (namely the animal as a machine, an organism and a being that dwells in an apparently restricted world) are discussed. It is argued that the latter (Heideggerian) answer contains a valuable starting point for an ethical reflection on recent changes in the moral relationship between humans and animals. Center for Ethics, Catholic University of Nijmegen, 6500 HD Nijmegen, The Netherlands. (EV)

Zwart, Ivan, “Local Deliberation and the Favouring of Nature,” Environmental Values 16(2007): 485-511. The central contention of theories of deliberative democracy is that deliberative arrangements should encourage (but by no means guarantee) the support of interests that are general to all. Democratic theorists have also suggested that the natural environment will be a likely beneficiary following public deliberation, given the inherent rationality in supporting interests that will lead to the long-term survival of the planet. This paper addresses the question of general environmental interests through two case studies in Australian local government and argues there are at least three factors that affect the ability of notionally deliberative arrangements to deliver outcomes that appear favourable to the natural environment. Zwart is in Community Engagement and Education Land and Fire Management, Department of Sustainability and Environment, East Melbourne, Victoria, Australia.


Analysis of six basic attitudes to nature: the despot, the enlightened ruler, the steward, the partner, the participator, mystic union. A note on the concept of nature in Dutch nature conservation. Intrinsic value, ecologism, participating with nature. Ecological metaphysics, epistemology in ecological perspective. Ecological aesthetics. Ecological spirituality, including Christianity and ecology. Towards a new connection: ecologism as postmodernism. Zweers was long at the Philosophy Department, Amsterdam University.


Wim Zweers is one of the foremost environmental philosophers in the Netherlands, and has published and edited numerous articles and books in the field. With Wouter Achterberg, during the last decade Zweers has developed this discipline in the Low Countries until it has reached its actual status of being fully recognized by both the academic community and policy-makers alike. This book is his (temporary?) definitive statement on this subject, recapitulating, systematizing, and expanding all he has written before. His position is mostly 'radical' (but not necessarily 'radical ecocentrist') since he stresses the need for a fundamental cultural transformation. In many parts congenial with deep ecological views, Zweers nevertheless has some serious reservations about some aspects of deep ecology. Although influenced by Anglo-American writers like Rolston and Callicott, he maintains a distinctly European-continental approach. (v6,#4)

Zweers, Wim, Participeren aan de natuur; Ontwerp voor een ecologisering van het wereldbeeld [in Dutch: Participating in nature; a design for an ecologized worldview], Utrecht: Jan van Arkel 1995. Am English translation is forthcoming. A plea for a participatory philosophy of nature. Zweers has been one of the leading forces behind the rise of environmental philosophy in the Netherlands. (v.11,#1)


Zweierta i my (Animals and Us) is published four times a year in Poland. The current issue (number 1[6]) contains an interview with the chair of the Hunting Management Department of Poznan Agricultural Academy, concerned with a new Polish game law, which moves toward privatizing of hunting and the implications of this for animal welfare. Many wish to open Poland up to more tourist hunting with hunters from other nations in Europe. There is also discussion of a new Polish Animal Welfare Act, currently being considered in the Polish Parliament. There is an article by Jan Wawryzyniak, "Cienna strona utylitaryzmu (The Dark Side of Utilitarianism)." Utilitarianism is a destructive philosophy treating the environment instrumentally as an object to be used for human whims.

Zwierzeta i my [Animals and Us], a Polish journal devoted to animal welfare issues, published its first issue, Number 1, in September 1991. The editor and founder is Alina Kasprowicz, and a supporting group is the Polish Society for the Prevention of Cruelty to Animals. The editorial statement says that the purpose of the journal is to change present social consciousness and attitudes toward nonhumans and to promote a new way of thinking about the nonhuman environment, a new approach called an ecological conscience. Opening articles include one by a Catholic author and one on law and animals. Jan Wawryzyniak has a short article, "Podstawowe informacje dla obroncow nieludzkich istot zywnych" [Basic Information for Defenders of Nonhuman Living Beings], directing Polish readers to many sources available in the West. There will be six issues a year, one in English.

Zwierzeta i my (Animals and Us) continues to be published as the Polish journal for animal welfare issues. Recent issues are No. 3, with articles on animal abuse issues within Poland, an article on vegetarianism, on Albert Schweitzer's reverence for life philosophy, on zoos and hunting in Poland, and No. 4, with articles on the abuse of geese and ducks to produce fat livers for export to Western Europe, with some translations from Konrad Lorenz's works on geese into Polish, and an article about wolf-reintroduction in Poland and its protection as an endangered species. (Thanks to Jan Wawrzyniak.) (v3,#4)

Zwierzeata i my (Animals and Us), a Polish journal devoted to animal welfare, has now published issue no. 2. Articles on protests against "bloodless" bullfights, on cross country racing of horses over obstacle courses, the first installment of a concise history of animal martyrdom, on pitbulls in Poland, on the ethic of reverence for life in the light of ecology (with particular reference to Albert Schweitzer), on cruelty in business, on slaughtering practices, and on hunting.

Zwinger, Ann, and Zwinger, Susan, eds., Women in Wilderness. San Antonio, TX: Tehabi Books/Harcourt Brace, 1995. 99 pp. $ 19.95. Vignettes from adventurous women who crave wild places. Susan Zwinger writes: I go into wilderness to bear the burden of too much beauty. ... There is nothing like the exquisiteness and strength of the natural world. ... it demands both attunement and atonement." Ann Zwinger is a Colorado naturalist, artist, and writer. Susan Zwinger is her daughter, an activist, poet, and environmental writer who lives in Washington State, author of Stalking the Ice Dragon, which chronicled her solitary Alaskan odyssey.
Zygon: Journal of Religion and Science. "Humanity's Encounter with Nature," is a special issue from December 1989. The issue contains papers from a section on this theme during the conference, "The World Community in Post-Industrial Society, August 21-September 8, 1988 in conjunction with the Seoul Olympiad. Many of the papers are international in orientation. (v1,#1)