See the README file that accompanies this bibliography.

This bibliography contains ISEE Newsletter entries, vols. 1-16, 1990-2006, but not 2007 Newsletter entries. They will be merged into this document spring 2008. They can meanwhile be searched in the separate quarterly newsletters at the ISEE website.


Eade, D. and Williams, S., with contributions from Oxfam Staff. The Oxfam Handbook of Development and Relief. Atlantic Highlands, NJ.: Humanities Press, 1996. This is the product of over fifty years' experience of Oxfam in their work in over seventy countries around the world. It analyzes policy, procedure, and practice in fields as diverse as health, human-rights, emergency relief, capacity-building, and agricultural production. (v7,#1)

Eads, George C. "Envisioning our Automotive Future," Environment 39(no. 1, 1997):28. Policymakers and politicians need to place prospects for revolutionary changes in automobile design and fuel efficiency in context, according to this review of a report from the Office of Technology Assessment. (v8,#1)

Eagan, David J. and David W. Orr, eds., The Campus and Environmental Responsibility. Theme issue of New Directions for Higher Education, No. 77, Spring 1992. 133 pages. San Francisco: Jossey-Bass Publishers, 1992. Single copies $14.95, Jossey-Bass Publishers, 350 Sansome St., San Francisco, CA 94104. Eleven articles on making a campus green. Campus environmental audits at UCLA; environmental literacy and action at Tufts University, campus energy management at the University of Rochester, making Brown University green, the environmental ombudsman at the University of Kansas, campus environmental stewardship at the University of Wisconsin-Madison, procuring locally grown foods at Hendrix College, Arkansas, the campus and the biosphere initiative at Carleton and Saint Olaf colleges, student environmental organizations, and campus recycling. Ways to find a college, if you can, that does the least damage to the environment. About 7,000 copies have gone to subscribers at colleges and universities, largely college administrators. Eagan is at the University of Wisconsin, Madison; Orr is at Oberlin College. (v4,#1)


Earle, Sylvia Alice, *Sea Change: A Message of the Oceans*. New York: G. P. Putnam's Sons, 1995. 361 pages. Illustrated. $25.95. This book is a plea for the preservation of the oceans. A distinguished biologist specializing in marine ecosystems, Earle was chief scientist for the National Oceanic and Atmospheric Administration from 1990-92, where she discovered that U.S. commits only $11 million per year to marine sanctuaries compared to $1.4 billion to national parks. (v6,#2)

Earley, Jay, *Transforming Human Culture: Social Evolution and the Planetary Crisis*. Albany, NY: State University of New York Press, 1997. How social evolution has led to remarkable achievements and also to moral horrors and the current world crisis as well. Certain ground qualities were present at the beginnings of our social evolution, such as natural living, belong, vitality, community, and equality, and over the span of human history certain emergent qualities developed to give us greater power in the world, such as technology, social organization, and rational thinking. In developing these emergent qualities, we have suppressed the ground qualities--but at the expense of our health and wholeness. The next step in our evolution is to take conscious charge of our future by integrating ground qualities with emergent qualities. (v.8,#4)

Earley, Lawrence S., "Disturbing News for Wildlife," *Wildlife in North Carolina* 64 (no. 9, September 2000):12-19. Part I. "A Case for Management," 64 (no. 10, October 2000):14-19. Part II. As North Carolina's mountain forests age, many wildlife species have been left without habitat. A scarcity of early successional habitat is having detrimental effects on many wildlife species--bobwhite quail, indigo buntings, prairie warblers, towhees, yellow-breasted chats, and cottontail rabbits. North Carolina formerly had such habitats, by some accounts as a result of logging, or, earlier, of Indian fires, by others accounts up to a quarter of the forests were naturally early succession as a result of storms and natural fires. One habitat of particular interest is the "balds" (grassy areas without forests) on over forty of the high Appalachians. What caused these areas is unknown, but they are now disappearing. Prescribed fire is only part of the answer. Elk are being reintroduced to the Great Smoky Mountains to restore grazing. Some now argue that more forests need to be cut to re-create this habitat, but environmentalists wonder. Managers face a dilemma: "We seek to conserve a natural world that must change and we often interject human management into ecosystems that we would ideally like to see human free" (Part II, p. 16). (v.11,#3)

Earley, Lawrence S., "Celebrating a Conservation Classic" (Leopold's *Sand County Almanac*)," *Wildlife in North Carolina* 63 (no. 9, September 1999):14-19. Fifty years of
Leopold's land ethic, with interviews with Pete Bromley and Phil Doerr, both in zoology and forestry, North Carolina State University, about whether the land ethic is being practiced in North Carolina. (v.10,#3)

Earp, David J.  "The Regulation of Genetically Engineered Plants: Is Peter Rabbit Safe in Mr. McGregor's Transgenic Vegetable Patch?"  *Environmental Law* 24 (no. 4, 1994): 1663-. Recent changes in federal regulations of genetically engineered plants, with a conclusion that they generally provide adequate environmental protection but, because the science is outpacing the laws, the Department of Agriculture needs additional statutory authority to prevent all risks. (v6,#1)

Earth Ethics, vol. 8, nos. 2-3, Winter/Spring 1997, contains several articles on the proposed UN Earth Charter:
--"The Earth Charter, Benchmark Draft"
--Rockefeller, Steven C., "The Earth Charter Process"
--Jaaffar, Mehdi Ahmed, "The Earth Charter--The Oman Report" (a report from the Sultanate of Oman)
--Burford, Grace, Sallie King, Paul Knittier, and Jay McDaniel, "A Buddhist-Christian Contribution to the Earth Charter" (two authors are Buddhists; two are Christians)
--Dwivedi, O. P., "India's Heritage of Environmental Stewardship" and a forum with contributions by Vaclav Havel, Brendon Mackey, David McCloskey, also excerpts from the report of a working group of the Commission on Sustainable Development.

There is also a section on "Common Critiques of the Earth Charter," and response. The critiques are:
1. The Earth Charter is a northern, environmental document that does not take into account the realities of the global south.
2. The Earth Charter's romantic animism and "new age" thinking are not defensible scientifically, despite repeated historical attempts to assert an organicist or vitalist world view.
3. The Earth Charter is a step backward. The language is feeble because it fails to integrate and assert the best language already in place in existing documents, crafted in the nearly endless series of UN Summits, from Rio through Rome.
4. The Earth Charter is not poetic, spiritual or moving enough. Too much has been written by committee, resulting in a hodge-podge of poetry, philosophical musings, and UN bureaucratic language.

All the articles are short and concentrated. The draft Charter and these discussions can make stimulating class materials. (v8,#3)

*Earth Ethics* is a recently launched periodical in environmental ethics, published by the Public Resource Foundation, 1815 H Street, NW, Suite 600, Washington, DC 20006. There is no fixed subscription price; a contribution of $10 or more is encouraged. The format is short articles and brief notes, around the theme of evolving values for an Earth community. Sara Ebenreck is editor, to whom editorial correspondence should be directed, 3451 Sixes Road, Prince Frederick, MD 20678. (v1,#2)
Earth is a newly launched magazine, by the editors of Astronomy, devoted to the geology and evolution of the Earth. "Our magazine focuses on the magnificence of our world as a planet ... the Earth. We will explore this ever-changing, vital, awesome body of great force and beauty." -- Robert Burnham, Editor. Address: 21027 Crossroads Circle, P. O. Box 1612, Waukesha, WI 53187-1612. (v2,#1)

Earthkeeping News is a newsletter of the North American Conference on Christianity and Ecology, recently launched. Address: North American Conference on Christianity and Ecology, 1522 Grand Ave., #4C, St. Paul, MN 55105. (v2,#4)

Earthwork is a magazine for people pursuing careers in conservation and environmental affairs. Job listings and advice on launching a conservation career. Published by the Student Conservation Association, Inc., dedicated to fostering conservation careers since 1957. Contact Earthwork, P. O. Box 550, Charlestown, NH 03603. Phone 603/543-1700. (v4,#2)


EarthWorks Group, The. 50 Simple Things You Can Do To Save the Earth, Earthworks Press, 1400 Shattuck Avenue, Berkeley, CA 94709, 1989. $ 4.95. Printed on recycled paper, this book topped the sales of all other paperback nonfiction titles in the week of February 25th to March 24th. (v1,#2)

Easley, A. T., Joseph F. Passineau, and B. L. Driver, compilers, The Use of Wilderness for Personal Growth, Therapy, and Education. USDA Forest Service, General Technical Report RM-193. July 1990. 197 pages. Published at Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO 80526. 32 papers, from the Fourth World Wilderness Congress, Estes Park, Colorado, in September 1987. Papers are summary, cover the field, are state of the art and full of references. Easley is at Sir Sandford Flemming College, Lindsay, Ontario; Passineau is at the Central Wisconsin Environmental Station, Amherst Junction, WI; and Driver at the Rocky Mountain Forest and Range Experiment Station, Fort Collins. (v2,#2)


living standards." Easterbrook remains rather much of a free market environmentalist. (v.8,#4)

Easterbrook, Gregg, A Moment on the Earth: The Coming Age of Environmental Optimism. New York: Viking, 1995. 745 pages. $27.95. It's been only 25 years since the first Earth Day. Easterbrook argues that the past quarter-century has been nothing short of revolutionary: diminished air pollution, cleaner drinking water than before the first factory was built, hundreds of laws against toxic waste, thousand of towns recycling garbage, endangered species protected by law, littering and smoking--very recently common in America--are now both despised. Although environmentalists are often pessimists, Easterbrook gives them a pat on the back. In a review in The New York Times Book Review (April 23, 1995, p. 13), Michael Specter predicts that Easterbrook's book will be hated by "the liberal ideologues of the environmental movement" and praised by those peddling the Contract with America. The book is poorly documented, Specter points out. "One of the most pernicious documents to claim itself as green in quite some time." - Tom Athanasiou, review in Environmental Action, Fall 1995, p. 27. Reviewed by Calvin B. DeWitt in Christian Century, November 22-29, 1995: Easterbrook is full of errors and misrepresentations. "Easterbrook tells us it's time to reconcile environmentalism with the facts, but he doesn't practice what he preaches." For a contrasting book, published at the same time, see Dowie, Mark, Losing Ground. Easterbrook has written on environmental issues for Newsweek, The New Republic, and other publications. (v6,#2)


Eaton, David, "Incorporating the other: Val Plumwood's integration of ethical frameworks," Ethics and the Environment 7(no. 2, 2002):153-180. Val Plumwood's recent attempt to formulate a "contextual" theory of vegetarianism that integrates concern for animals, ecology, and unprivileged societies involves heavy criticism of Carol J. Adams. Plumwood's theory, although claiming to be "contextual," involves an unnecessary degree of abstraction both in its engagement with Adams's thought and in its attempt to formulate a universal narrative. Plumwood consistently misrepresents Adams's work and demonstrates an alignment with dominant discourses that favor "meat." By representing the rejection of these discourses as alienated and deviant, Plumwood risks muting the radical critique that western vegetarianism represents and absorbing it within the exploitative dominant viewpoint. (E&E)

Gnanadason; and III. Regional and Transnational Expression of Ecofeminism and Responses to Globalization. Articles by Noel Sturgeon, wan-Li Ho, Mary Judith Ress, Ivone Gebara, Masatsugu Maruyama and Greta Gaard. Lorentzen is in social ethics, University of San Francisco.


Eaton, Heather, "At the Intersection of Ecofeminism and Religion: Directions for Consideration," Ecotheology Vol 6 (Jul 01/Jan 02):75-91. heaton@ustpaul.uottawa.ca

Ecological feminism has developed from many directions and locations, and with differentiated links between feminism and ecology and between women and nature. Religious discourses are taking ecofeminist analyses into their folds. As a whole, however, religious ecofeminist perspectives are uneven. In this article, I suggest seven hermeneutics that might strengthen religious ecofeminist discourses as well as develop connections among the various viewpoints towards larger horizons, and specifically ones that link theory with concrete and material life-conditions.


Ecofeminism in the context of the social, political and ecological consequences of globalization. (v 14, #3)


On Tom Regan: "Regan doesn't know where in `the great chain of being' animal rights begin or end. ... Regan is a confused idealist whose animal rights would separate humanity from the animals and nature. There is nothing moral in his animal rights, no sacredness. Just more bombastic intellectualism, more hubris. I doubt that neither Tom Regan nor moral philosophy in general will lead us home. Moral philosophy is anachronistic, save the here-and-now listening to the heart. Let me tell you a secret from one of my students: 'Everybody is someone else's dinner.' ... Here is a simple truth. To live is to kill and to die. To live well is to kill and die well, to make sacred. Our first ethic for nature is to surrender our own hearts" (pp. 148-149). Well, too bad, Tom, but at least nature is still sacred--for these carnivorous hunters. Eaton is an animal behaviorist, long the editor of the journal Carnivore, and has appeared on
national television in defense of hunting. There is also a set of two related videos: The Sacred Hunt I and II. (v.9,#4)

Ebenreck, Sara, "A Partnership Farmland Ethic," Environmental Ethics 5(1983):33-45. By focusing on the agricultural use of land, Ebenreck discusses the problems with a stewardship ethic of natural resources, and instead urges a "partnership" ethic; this involves respecting nature, not destroying it, and returning something to the land as an exchange for the use by humans. (Katz, Bibl # 1)

Ebenreck, Sara, "Opening Pandora's Box: The Role of Imagination in Environmental Ethics," Environmental Ethics 18(1996):3-18. While the activity of imagination is present in much writing about environmental ethics, little direct attention has been given to clarifying its role. Both its significant presence and provocative theoretical work showing the central role of imagination in ethics suggest a need for discussion of its contributions. Environmental ethicists especially should attend to imagination because of the pervasive influence of metaphorical constructs of nature and because imaginative work is required to even partially envision the perspective of a nonhuman being. Without clear awareness of the limits of contemporary Western metaphoric constructs of nature, environmental ethicists may overlook or even contribute to the cultural extinction of ideas of nature present in the imaginative visions of indigenous cultures. In this article, I briefly review the reasons why the dominant Western philosophical tradition ranks imagination below the power of abstract reasoning, survey contemporary ideas about the role of imagination in ethics, and consider the implications of these ideas for environmental ethics. The work of imaginative empathy in constructing what might be the experience of nonhuman beings, the role of diverse metaphors and symbols in understanding nature, and the process of envisioning the possible future are developed as three central contributions of imagination to environmental ethics. Imaginative work is not peripheral, but complementary to the work of reason in shaping an environmental ethic. Ebenreck teaches philosophy at St. Mary's College of Maryland. (EE)


Ebenreck, Sara. "A Partnership Farmland Ethic." Environmental Ethics 5(1983):33-45. Current facts about soil erosion, groundwater "mining," and impact of toxic substances suggest a resource crisis in our farming system. Yet traditional checks on the exploitation of farmland, capsulized in the "stewardship ethic," proceed from too limited a viewpoint to adequately address the root of the exploitation and proffer an alternative. After briefly examining the stewardship ethic, I consider the development of a "partnership ethic" to guide the use of land for farming which builds its essential elements out of the reflections of feminist thinkers on the relationship between humankind and nature. Instead of using "rights" language to express the ethic, I
develop a theory of appropriate use analogous to the appropriate use of another person's capabilities--i.e., that such moral use should respect and not destroy the other and that it should return something of value to the other in exchange for the use. Finally, those principles are examined for their practical implications for farmland use and national farm policy. Ebenreck is a food and agricultural policy consultant, Washington, D.C. (EE)


Echeverria, John, and Raymond Booth Eby, eds. Let the People Judge: Wise Use and the Private Property Rights Movement. Washington, DC: Island Press, 1995. 369 pages, hard and soft cover. Wise Use and related organizations are difficult to characterize in terms of either membership or goals, but they share certain tactics. In general Wise Use supporters attack environmental protection and conservation efforts as harmful to the economy and job creation, insensitive to the needs and desires of local communities, and inconsistent with certain traditional American values, including constitutionally protected property rights. There is an alliance between small landowners but the movement is often funded and organized by corporations with an interest in preventing further environmental gains. There is also a serious call to work toward solutions to resource conflicts in cooperation with local communities and citizens. This volume collects a wide range of different and sometimes divergent articles on the Wise Use movement. Samples: Thomas Lewis, "Cloaked in a Wise Disguise"; Philip Brick, "Taking Back the Rural West"; John D. Echeverria, "The Takings Issue"; Mary Ann Glendon, "'Absolute' Rights: Property and Privacy"; Holmes Rolston, III, "Winning and Losing in Environmental Ethics"; Teresa Erikson, "Finding the Ties that Bind: Coalitions with Agriculture Groups"; and many others. Thirty-five articles. Echeverria is chief legal counsel for the National Audubon Society; Eby is a graduate student, St. John's College, Annapolis, MD. (v6,#1)

Echeverria, John, "Does a Regulation that Fails to Advance a Legitimate Governmental Interest Result in a Regulatory Takings of Private Property Far Outweigh the "Rule"," Environmental Law 29 (No. 4, 1999): 853-. (v.11,#2)


Echlin, Edward, "An African Church sets the Example. (In Environmental Stewardship)," The Ecologist 30 (No. 1, Jan 01 2000): 43-. (v.11,#2)


Eckberg, Douglas Lee, T. Jean Blocker, "Varieties of Religious Involvement and Environmental Concerns: Testing the Lynn White Thesis," Journal for the Scientific Study of Religion 28(1989):509-517. Based on a telephone survey, the authors ask, "Is there a measurable 'disdain' for nature which grows from acceptance of Biblical authority?" They conclude, "Within the limits of our data, White's thesis received firm support from our results." Eckberg is a professor of sociology at Winthrop College, Rock Hill, South Carolina. Blocker is a professor of sociology at the University of Tulsa, Oklahoma. (v3,#4)


Eckerberg, Katarina, Environmental Protection in Swedish Forestry. Aldershot, UK: Avebury, 1990. In English. Sweden has forests, more than before, but these are increasingly managed for silviculture and with reduced biodiversity in result, due to such practices as draining wetlands and to the use of herbicides and pesticides. The threat to biodiversity is surprisingly high: 20 percent of vascular plants, 20 percent of the land-living mollusks, 30 percent of mammals and birds, and 50 percent of the amphibians and reptiles. There is a political consensus in the Swedish Parliament to conserve this diversity, but can this be made effective? Eckerberg is in political science at the University of Umea, Sweden. (v7,#2)

Eckerberg, Katarina. "Environmental Problems and Policy Options in the Baltic States: Learning from the West?" Environmental Politics 3 (no. 3, 1994): 445-. (v6,#1)

Eckersley, Robyn, Environmentalism and Political Theory: Toward an Ecocentric Approach. Albany: State University of New York Press, 1992. Paper. 274 pages. Claims to be the most detailed and comprehensive examination to date of the impact of environmentalism upon contemporary political thought. An interdisciplinary study that builds bridges between environmental philosophy, ecological thought, and political inquiry. Eckersley is Australian Research Council Fellow, Centre for Environmental Studies, University of Tasmania. (v3,#3)

Eckersley, Robyn, "Free Market Environmentalism: Friend or Foe?", Environmental Politics 2(1993):1-19. "Free market environmentalism" proposes that environmental problems can be solved by creating and enforcing tradeable property rights in respect of common environmental assets. But while the market can allocate resources efficiently, it cannot by itself perform the task of setting an optimal (in the sense of just)
distribution of income nor an optimal (in the sense of sustainable scale) of the economy relative to the ecosystem. There are certain specific environmental problems where "free market environmentalism" may prove to be the most appropriate solution (it can, for example, promote energy efficiency through market mechanisms), but it is inappropriate as a blanket solution to the ecological crisis. This calls for economic policies concerned with three broad goals: economic efficiency, social justice and ecological sustainability. Eckersley is in politics at Monash University, Australia. A useful response by Michael Jacobs (University of Lancaster, UK) is in the Winter 1993 issue, vol. 2, no. 4.


Eckersley, Robyn, "The Discourse Ethic and the Problem of Representing Nature," Environmental Politics 8(no. 2, Summer 1999):24-. (v10,#4)

Eckersley, Robyn, "Beyond Human Racism," Environmental Values (1998): 165-182. In 'Non-Anthropocentrism? A Killing Objection', Tony Lynch and David Wells argue that any attempt to develop a non-anthropocentric morality must invariably slide back to either anthropocentrism (either weak or strong) or a highly repugnant misanthropy in cases of direct conflict between the survival needs of humans and nonhuman species. This reply argues that their attempt to expose the flaws in non-anthropocentrism deflects attention away from the crux of the ecocentric critique, which can best be understood if we replace the confusing terms anthropocentrism/non-anthropocentrism with 'human racism'/ecocentrism (understood as a more inclusive moral perspective which encompasses nonracist humanism). Human racism manifests when a reconciliation of human and nonhuman needs is possible but is nonetheless concealed and/or denied. That is, the best test for discerning prejudice against nonhuman nature is not when individual or social choice are severely circumscribed but rather when such choices are relatively unconstrained. Moreover, their concluding argument that human concern for nonhuman nature should be understood in terms of aesthetic values rather than moral values does not provide reliable grounds for the systematic protection of nonhuman nature. KEYWORDS: anthropocentrism, human racism, ecocentrism, hierarchy of needs, deep ecology. Robyn Eckersley is at Monash University, Melbourne, Australia. (EV)

Eckersley, Robyn, "Divining Evolution: The Ecological Ethics of Murray Bookchin," Environmental Ethics 11(1989):99-116. A clear account of the merits and defects of Bookchin's ecological ethics. Although Bookchin is correct in tying his ethics to a comprehensive synthesis of biological and political realities, he makes two crucial mistakes: (1) he claims that his ethics and philosophy of nature is objectively correct, since it is based on the evolutionary potential of all natural entities; (2) this leads to the idea that humanity in its subjectivity is the highest expression of evolution; humanity should direct nature to reach its highest potential for freedom for all beings. Eckersley shows that this optimism is impossible, since human knowledge is inadequate for the
control of nature. The best course is to act in harmony and respect with natural processes. Bookchin’s criticism of deep ecology is based on an extreme interpretation of biological egalitarianism. (Katz, Bibl # 2)


Eckersley, Robyn. "Divining Evolution: The Ecological Ethics of Murray Bookchin." Environmental Ethics 11(1989):99-116. I provide an exposition and critique of the ecological ethics of Murray Bookchin. First, I show how Bookchin draws on ecology and evolutionary biology to produce a mutually constraining cluster of ethical guidelines to underpin and justify his vision of a nonhierarchical, ecological society. I then critically examine Bookchin's method of justification and the normative consequences that flow from his position. I argue that Bookchin's enticing promise that his ecological ethics offers the widest realm of freedom to all life forms is undermined by the way in which he distinguishes and privileges second nature (the human realm) over first nature (the nonhuman realm). I conclude that Bookchin's promise can only be delivered by a biocentric philosophy (which he rejects) rather than by his own ecological ethics. Eckersley is at the Centre for Environmental Studies, University of Tasmania, Hobart, Tasmania. (EE)


Eckley, N; Selin, H, "the Arctic at risk," Environment 45(no.7, 2003):37-40. (v.14, #4)

Eco-Justice Working Group of the National Council of the Churches of Christ in the U.S.A., Faith-Based Environmental Justice Resources for Youth and Children. An 18-page bibliography with a variety of resources, including audiovisual ones, for children and youth, all currently in print. With ordering information. Compiled and edited by Tina B. Krause. $2.50 from Environmental Justice Resources, National Council of the Churches, P. O. Box 968, Elkhart, IN 46515. 800/762-0968 or 219/264-3102. (v8,#1)

Ecofeminist Newsletter. The has been published since 1990 as a network for ecofeminists, providing news of activities, publications, and related information. Published yearly, except in 1995, future issues will be on the world wide web. Contact Noël Sturgeon, Women Studies, Washington State University, Pullman, WA 99164-4007. Phone 509/335-1794. Fax 509/335-4377. Web site: www.wsu.edu:8080/~ecofem/index.htm (v7, # 3)

Ecofeminist Newsletter. A network newsletter for ecofeminists. Contact: Women Studies, Washington State University, Pullman, WA 99164-4032. 509/335-1794. Fax 335-4171. (v5,#1)

Ecologist, The, a British and European journal since 1969, based in Cornwall, England, will now also be distributed in the United States and Canada by MIT Press. (v1,#1)


Ecologist, The Vol. 18, nos. 4/5 (1988). "Rethinking Man and Nature: Towards an Ecological Worldview." This is a special issue on "deep ecology" with criticisms by Grover Foley, "Deep Ecology and Subjectivity," and Henryk Skolimowski, "Eco-philosophy and Deep Ecology." There is a reply by Arne Naess, "Deep Ecology and Ultimate Premises." Foley argues that deep ecology is a mystical view that avoids the need to control science, technology, and power. Skolimowski argues that deep ecology is not deep enough, for it lacks a unifying cosmology and sense of human
destiny. Naess replies that these critics wish to view deep ecology as a definitive philosophical doctrine, but it is more a platform of generally agreed common principles, without a unitary foundation. Also in the issue: Brian Tokar, "Social Ecology, Deep Ecology, and the Future of Green Political Thought," provides an objective look at the debate between the followers of Bookchin and the deep ecologists. Robyn Eckersley, "The Road to Ecotopia? Socialism Vs. Environmentalism," argues for the incompatability of socialism and the green movement. Richard Sylvan and David Bennett, "Taoism and Deep Ecology," suggest that Taoism's emphasis on natural living---following "the way"---can help to articulate practical principles for deep ecology. The editor of The Ecologist, Edward Goldsmith, provides a list of 67 principles as the basis for a new world-view to preserve the biosphere. (Katz, Bibl # 2)

Ecology of Industrial Regions is an international journal, founded in 1994 by the V. Vinnichenko International Foundation. Articles are invited covering ecological problems of industrial regions in the broadest sense, including zoological, botanical, medical, geographic, economical, ethical, philosophical and other aspects. Contact: Vladimir Dvornik, Editor, 10 ul. Komsomolskaya, Gorlovka 338001, Ukraine. E-mail root@wave.donetsk.ua. Baird Callicott is a contributor the first issue with a paper, "Whaling in Sand County: A Dialectical Hunt for Land-Ethical Answers to Questions about the Morality of Norwegian Mink-whale Catching."

Ecopolitics: Thought & Action aims to construct a two-way bridge between scholarly work on ecopolitical thought and reflective analysis of ecopolitical action. It will provide a forum for analysis and critique of environmental policy formulation and implementation. The journal will be of vital relevance to researchers, students, policy-makers, activists, politicians, academics and the media in Australia, New Zealand and SE Asia. It is published by The Ecopolitics Association of Australiasia and Pluto Press Australia. For subscription rates and further information, please contact Megan Alsop at malsop@socialchange.net.au> (v.12,#4)

Ecosystem Health is a journal, since March 1995, publishing interdisciplinary studies in the environmental sciences, applied ecology, economics, landscape architecture and planning, natural resource management, public health, and environmental policy. The publisher is Blackwell Science, and the editor is David J. Rapport, Faculty of Environmental Sciences, University of Guelph, Guelph, Canada. (v8,#1)

Ecotheology is a refereed academic journal published in the United Kingdom. The editor is Mary Grey, LSU College of Higher Education, The Avenue, Southampton SO17 1BG, UK. There are two issues a year. The publisher is Sheffield Academic Press, Ltd. Sample articles: Bishop Kallistos of Dioklea, "Through the Creation to the Creator"; Edward P. Echlin, "Jesus and the Earth Community"; Denise Ackerman, "Earth-Healing in South Africa: Challenges to the Church"; Elisabeth Gerle, "Justice, Please and the Integrity of Creation"; Rosemary Radford Ruether, "Ecofeminism: First and Third World Women"; Catherine Keller, "Eschatology, Ecology, and a Green Ecumenacy."--all in the January 1997 issue, Issue No. 2. (v8,#4)
Ecumene: A Journal of Environment, Culture, Meaning is published by geographers and others in the U.K., now in its third year. Sample articles in the April 1996 issue (vol. 3, no. 2): Sarah Green and Mark Lemon, "Perceptual Landscapes in Agrarian Systems: Degradation Processes in North-western Epirus and the Argolid Valley, Greece" (whether environmental changes are regarded as degradation at all is dependent on the perspectives with which such changes are regarded); Robin Doughty, "Not a Koala in Sight: Promotion and Spread of Eucalyptus" (on the transforming of native forests in India, Spain, Portugal, Chile, and Brazil into giant eucalyptus plantations. Eucalyptus is now grown in about 100 nations, for timber and pulp, one of the world's most successful plant migrants. But often there are substantial environmental losses in result, both to ecosystems and to local people.) Unfortunately, the journal is not cheap: $73 per year for individuals, $209 institutions. Editors are: Denis Cosgrove, Department of Geography, Royal Holloway, University of London, UK, and James S. Duncan, Department of Geography, Syracuse University, USA. (v7, #3)

Edberg, Rolf and Alexei Yablokov, Tomorrow Will Be Too Late: East Meets West on Global Ecology (Tempe: University of Arizona Press, 1991). 210 pages. $14.95. Conversations between a Swedish statesman, delegate to the United Nations, and a Soviet biologist, Deputy Chairman of the Committee of the Supreme Soviet on Ecology, on population growth, pollution, biological extinction, nuclear hazards, and technical proliferation. "We have no respect anymore for oneness, wholeness, the unimpaired state of things. And respect is precisely what we need in order to live on Earth according to its laws. We've created a robot that orders us around ... and now the robot has subjected us to its will." (v2,#1)


Edelstein, Michael R., Makofske, Willaim J. Radon's Deadly Daughters: Science, Environmental Policy and Politics of Risk. Lanham, MD: Rowman and Littlefield Publishers, Inc., 1997. 320 pp. $21.95 paper, $62.50 paper. The complex mix of social and scientific factors that have led to public and official misunderstanding of the geologic radon issue and how risk factors are surrounded by mythic beliefs that contradict scientific realities. Public perception of risk may fail to be motivated even by serious threats and the political and scientific influences behind environmental policy can seriously undermine an effective response. (v8,#2)


dimensions of the business response to environmental issues by taking a critical interdisciplinary social science perspective. Eden catalogues the pressures put upon businesses to take up environmental responsibilities, and then assesses those activities in terms of company culture, communication, and influence on the environmental agenda. The author examines the diversity of business activities and the statutory environmental legislation to which they are subject and evaluates the impact of these activities according to policy developments and the restoration of public confidence. (v8,#2)

Eden, Sally, "Environmental Issues: Sustainable Progress?," Progress in Human Geography 24 (No. 1, 2000): 111- . (v.11,#2)

Eder, Klaus, The Social Construction of Nature: A Sociology of Ecological Enlightenment. London and Thousand Oaks, CA: Sage, 1996. $ 25.00 paper. $ 82.00 cloth. "The relationship between nature and society can be conceived of in two mutually exclusive ways: as a natural constitution of society or as a social construction of nature" (p. 7). There is either a "natural history of society" or a "social history of nature" (p. 19). Modern, industrial societies have become increasingly destructive of nature, because they see nature as object. Other cultures socially construct nature using symbolism, taboo, and ritual. Nature is always socially constructed; there is an inevitable pluralism of views about nature, though some can be more socially functional than others. Eder is at Humboldt University, Berlin, and European University, Florence. (v.9,#3)

Eder, Klaus, The Social Construction of Nature: A Sociology of Ecological Enlightenment. London: Sage, 1996. 231 pages. £ 14, paper. Eder is embedded in contemporary German social theory, under the influence of Habermas's neo-Marxism and the neo-functionalism of Niklas Luhmann.. He focuses on the symbolic appropriation of nature in various cultural systems. Western thought has concentrated on "labour" seeing nature from a utilitarian perspective and with an instrumental rationality. This instrumentalism is frequently the focus of radical environmentalist critiques. The products of labour are consumed. Our consumptive patterns and preferences are not preordained by human needs, as naturalists might hold, but are culturally constructed and symbolically mediated. We use nature to make social distinctions. "People separate themselves according to culturally determined interactions with nature" (p. 21). Eder wants to make a series of cognitive, normative and symbolic corrections to historical materialism. We now belong to "a society that no longer allows for authoritative statements that found rationality on the idea of objectivity in dealing with nature" (p. 203). Eder holds a two cultures perspective in which he regards radical environmentalism as incommensurable with a dominant cultural codes. (v9,#1)


Edmondson, W. T., *The Uses of Ecology: Lake Washington and Beyond* (Seattle: University of Washington Press, 1991), 312 pages. $19.95. Begins with a case study of Lake Washington, on the eastern edge of the city of Seattle, a success story in conservation, and develops a broad perspective on environmental problems. Shows how basic research is critical for solving and preventing such problems, providing that it is coupled with effective public action. Basic long-term scientific research is the source of knowledge that will allow us to avoid environmental disaster. Edmondson is professor emeritus of zoology at the University of Washington. (v2,#1)

Edmunds, D; Wollenberg, E, "Historical Perspectives on Forest Policy Change in Asia: An Introduction," *Environmental History* 6(no.2, 2001):190-212. (v.12,#4)


Edwards, Amy L. "Restoring Private Property Values in the World of CERCLA's Emerging Alternatives." *Journal of Environmental Law & Practice* 3(May 1996):17. The benefits of voluntary cleanup programs as a response to CERCLA, and an analysis of four such state-sponsored programs. (v7,#2)

Edwards, David, and Henderson, Caspar, "Can we trust the media on the environment?," *The Ecologist* 30 (No. 4, 2000 Jun 01): 22-23. Edwards says yes, Caspar no. (v12,#3)


Edwards, Denis, *Jesus the Wisdom of God: An Ecological Theology*. Maryknoll, NY: Orbis, 1995. $16.95. Edwards is eloquent about Jesus the Sophia of God, a more feminine metaphor that crosschecks Jesus' masculinity and the overly patriarchal tradition, allows more openness to other religious traditions, and, above all, enjoins a more ecological theology—less human dominance and more caring for creation. He waxes eloquent over every Biblical opportunity to interpret Jesus as Sophia, personifying this where he can. Also, this improves the doctrine of the Trinity. God is a sort of community-in-unity, allowing autonomy in the creatures, a more ecological account than the patriarchal monarch. Interesting argument, but not always convincing. Edwards is a Roman Catholic priest from Adelaide, Australia. (v7,#2)
Edwards, Denis, *Made from Stardust: Exploring the Place of Human Beings Within Creation*. North Blackburn, Australia: Collins Dove, 1992. 81 pages. $9.00. Edwards, a Roman Catholic priest of the Archdiocese of Adelaide Australia, begins with a meditation on an Australian aboriginal story that provides insight into the interconnectedness of the universe as a whole, and develops a Biblical account that moves away from an anthropocentrism that sees the world as given for humanity's use alone. This is related to evolutionary science, as well as to astrophysics. He closes with a plea for social justice and the well-being of the planet based on the integrity of creation. Edwards lectures in systematic theology in the Adelaide College of Divinity. (v5,#4)

Edwards, Denis, "An Ecological Theology of the Trinity," *CTNS (Center for Theology and the Natural Sciences, Berkeley) Bulletin* 13, no 3. Summer 1993. Ultimate reality is understood as persons in dynamic communion. This means that all of creation, the whole universe, the biosphere on Earth, individual ecosystems, a living tree, a cell, or a proton can be understood as fundamentally relational and part of a network of interrelationships. Edwards is a Roman Catholic priest and theologian from Australia, the author of *Jesus the Wisdom of God: An Ecological Theology*, Orbis Press, forthcoming. (v5,#1)


Edwards, Denis. *Jesus the Wisdom of God: An Ecological Theology*. Maryknoll, NY: Orbis, 1995. 208 pages. $16.95 paper. The Biblical wisdom literature and contemporary creation thought can be used to formulate an integrated ecological theology. What it means to recover the notion that Sophia-Wisdom became incarnate in Jesus of Nazareth and how the universe is altered by this incarnation. The trinitarian theology of Richard of St. Victor and St. Bonaventure find that every creature, including humans, is the free self-expression of the trinitarian God. Humanity is integrally related to all creation. Edwards is a Roman Catholic priest and lectures in theology in the Adelaide, Australia, College of Divinity. (v6,#3)


Edwards, Michael, *Future Positive: International Co-operation in the 21st Century*. London: Earthscan Publications, 1999. Sub-Saharan Africa is in deep trouble. The cruelties of its warlords and the miseries of the people displaced by war are but the most visible and dramatic results of declining economics and the unraveling social fabric. Much of Africa is drifting to the margins of the world system. "Africa's crisis is really one of governance." Edwards is with the Ford Foundation, and has a long career in non-governmental developmental agencies. (v.11,#1)

Edwards, P. J., R. M. May, and N. R. Webb, eds., *Large Scale Ecology and Conservation Biology*. Cambridge: Blackwell Scientific Publications, 1994. 416 pages. Paper, $ 29.95. Claims to be the first book ever published that examines the feasibility of using a large scale ecological approach to solve some of the world's most pressing environmental problems. Some topics: the effects of spatial scale on ecological questions and answers; animal distributions; metapopulations and conservation; definitions and categories for describing the conservation status of species; turning conservation goals into tangible results, the ecological component of economic policy; translating ecological science into practical policy. Edwards is in biology at the University of Southampton, UK; May is in zoology at Oxford, Webb is a researcher in Dorset, England. (v5,#1)

Edwards, Robert, "Bags of rubbish," *The Ecologist* 30(no.8, NOV 01 2000):52-. Plastic bags, says Robert Edwards, are choking the life out of India. And that's just how the plastics industry likes it. (EE v.12,#1)

Edwards, Steven E. "In Defense of Environmental Economics." *Environmental Ethics* 9(1987):73-85. The appropriateness of economic valuations of the natural environment is defended on the basis of an objective analysis of individuals' preferences. The egoistic model of "economic man" substantiates economic valuations of instrumental values even when markets do not exist and when consumption and use are not involved. However, "altruistic man's" genuine commitment to the well-being of others, particularly wildlife and future generations, challenges economic valuations at a fundamental level. In this case, self-interest and an indifference between states of the world are secondary and undefined respectively, since preferences are not based on tradeoffs between the welfare of others and self. The appropriateness of economic valuations rests solely with the empirical validity of the assumptions that give rise to economic man. Edwards is at Woods Hole Oceanographic Institute, Woods Hole, MA. (EE)


lands and instead strengthen private activities that further conservation. Edwards answers yes to both these questions. Edwards teaches land management at the University of Portsmouth, England.


Egan, Andrew F., Kathy Waldron, and Bender, John. "Ecosystem Management in the Northeast: A Forestry Paradigm Shift?" Journal of Forestry 97(No. 10, Oct. 1999):24-. A survey was conducted to determine if new forestry terms actually represent new ideas to practicing foresters, and whether these concepts shape their day-to-day forestry activity. (v10,#4)

Egan, Andrew F. "Forest Roads: Where Soil and Water Don't Mix." Journal of Forestry 97(No.8, August 1999):18-. A review of the forest science literature on forest road practices reveals some general concepts that foresters need to consider when planning, building, and maintaining forest access systems so as to avoid water quality problems. (v10,#4)


Egan, Michael., "The Social Significance of the Environmental Crisis: Barry Commoner's `The Closing Circle"'. Organization and Environment, 15, (No. 4, 2002): 443-457. The author argues that Barry Commoner's "The Closing Circle" has retained its immediate relevance better than any comparable environmental volume from the 1960s or 1970s due to Commoner's ability to articulate the social ramifications of environmental decline. This close reading of "The Closing Circle" proposes to situate Commoner's most important book in its social and historical context, paying particular attention to Commoner's four laws of ecology and to his role in changing the fight for the environment from a scientific debate to a public one. Egan is a doctoral student in
the Department of History at Washington State University, working on a dissertation about Commoner's career as an environmentalist.

**Egg, The : An Eco-Justice Quarterly** is now in volume 12. The quarterly explores critical issues of ecology and justice. Short articles, book reviews, news, and a steady update on these issues. Contact: Eco-Justice Project and Network, Anabel Taylor Hall, Cornell University, Ithaca, NY 14853-1011. The editor is Dieter T. Hessel. (v4,#1)

Eggleston, J. E., S. S. Rixecker, and G. J. Hickling, "The Role of Ethics in the Management of New Zealand's Wild Mammals," *New Zealand Journal of Zoology* 30(2003):361-376. New Zealand's wild mammals are introduced species. Wildlife researchers and managers in New Zealand find animal welfare guidelines developed for captive and domestic animals unsuitable for this new context. The recommendation that New Zealand adopt an ecocentric ethic is also incomplete for this situation. The authors here propose a more comprehensive framework for considering ethical responsibility to New Zealand's introduced ungulates, and also for pest species. Under this framework some contemporary assumptions must be questioned, such as justifying recreational hunting through the provision of an ecologically therapeutic role. The authors present a comprehensive process of ethical consideration in management decision-making for other introduced wild mammal species. Eggleston is in Philosophy and Religious Studies, University of Canterbury, Christchurch, New Zealand. Rixecker is in Environment, Society and Design Division, Lincoln University, Christchurch, NZ. Hickling is in Fisheries and Wildlife, Michigan State University, East Lansing.


Ehmann, William, "Environmental Virtue Ethics With Martha Stewart," *Philosophy in the Contemporary World* 8 (Number 2, Fall-Winter 2001): 51-57. Renewed philosophical discourse about virtue ethics motivates the search for examples to inform and extend our thinking. In the case of environmental virtue ethics, I have decided to consult “America's Lifestyle Expert,” Martha Stewart. Oft dismissed as a pop icon or model of domesticity, Martha's business success is arguably a result of her claimed authority on what the good life entails and how we get it. Reviewing over 60 signed "Letters From Martha" from her monthly magazine Martha Stewart Living, I explored her presentations of current environmental topics including biodiversity, obligations to animals, gardening, global warming, and reliance on technology. I find that her work ultimately makes managing a household interesting, and encourages her public to take personal pride in everyday tasks done well. These are trademark Martha Stewart "good things." Moreover, by connecting with a large audience few philosophers or scientists ever court, she is poised to help us manage our larger planetary household and frame a quality of life for future generations. Ehmann is
Ehrenfeld, David, Beginning Again: People and Nature in the New Millennium. New York: Oxford University Press, 1993. 216 pages. Hardcover. $22.00. A collection of essays. "Human population, powered by an unforgiving, ill-adapted, and poorly functioning technology, is rapidly growing past the inevitable crash point." Gary Nabhan says, "Not since Sand County Almanac has an ecologist given us so many enduring insights and principles to inspire and guide our lives on this planet."

Ehrenfeld is in natural resources at Rutgers University. (v4,#2)


Ehrenfeld, David, "Earth Stories" Wild Earth 9(no. 3, Fall 1999):15-. (v10,#4)

Ehrenfeld, David, "Environmental Protection: The Expert's Dilemma," Report from the Institute for Philosophy and Public Policy, Vol. 11, no. 2, Spring 1991, pp. 8-12. "We believe implicitly in our models. The more specific the predictions are, the more we believe in them, no matter how scientifically preposterous and absurd that specificity is." "Every project with an environmental component should make provision for public education about that work. Why should the public value what we do if it does not know what it is for?" An address given to the Oregon Chapter of the American Fisheries Society at a conference on science and advocacy. Ehrenfeld is professor of biology in the Department of Environmental Resources at Cook College, Rutgers University, and the editor of Conservation Biology. (v2,#2)

Ehrenfeld, David, "War and Peace and Conservation Biology," Conservation Biology 14 (2000): 105-112. Conservation biology is, like medicine, a mission-oriented field. But most of the papers published in Conservation Biology since its origins thirteen years ago, though scientifically rigorous and often with useful recommendations, do not make much difference in practice. The deeper problem may be that the forces jeopardizing biodiversity have little to do with biology, and no amount of good biology will solve the problem. Tolstoy made this point in War and Peace: expertise and reason do not control the major events of the times. But a more moderate position is possible. Conservation biologists can make important and relevant scientific discoveries, but must give up the belief that science itself is a solution. Conservation science must go into critical feedback loops, as does medicine, and monitor its actual
effectiveness in the whole human community. Ehrenfeld is in the Department of Ecology, Evolution, and Natural Resources, Cook College, Rutgers University.


Ehrlich, Gretel, "Sprites, Jets, and Elves," Audubon 100(no. 5, 1998):28-30. Ehrlich, who was injured by lightning, describes the force of ephemeral beauty, which strikes the Earth 100 times every second. Dazzling displays of lightning occur in the upper atmosphere, and there may be other kinds that scientists don't know about. "Having survived and healed, I now think of the world and its atmosphere as a layer cake, a dacquoise of cream and electricity reaching high and higher, reminding me once again that we humans are not being sought out by anything or anyone--neither lightning nor UFOs. We are geography's ants, stupidly terrestrial. The real show is going on beyond our capacity to see."

Ehrlich, P. R., "Human Natures, Nature Conservation, and Environmental Ethics," Bioscience 52(no.1, 2002): 31-43. (v.13,#2)

Ehrlich, Paul H., "Human Natures, Nature Conservation, and Environmental Ethics," BioScience 52(January 2002):31-43. Human behavior, though requiring a genetic basis, is largely culturally determined. "Our complex and flexible behavior is largely determined by our environments, and especially by the extragenetic information embodied in our cultures" (p. 32). "Cultures already have been evolving in the direction of broader environmental ethics, and that process needs to be accelerated. ... "It behooves us to try to understand how cultural evolution operates on the ethics of environmental preservation." (p. 32) "There is abundant evidence that different behaviors toward the environment are not in any significant way programmed into the human genome" (p. 36). (So much for Wilson's biophilia.)

"More social scientists must join the quest for sustainability and help to construct an interdisciplinary theory of cultural microevolution that will provide background for efforts to consciously and democratically influence its trajectory" (p. 32). "I and others believe not only that, like any other citizens, environmental scientists can be advocates but also that they ethically must be advocates, at least to the extent of informing the general public about their work and conclusions." "The needed changes in ethics are underway, and with focused effort we may learn how to accelerate them while maintaining open democratic debate" (p. 40) Ehrlich is in biology at Stanford University. (v.13,#2)


Ehrlich, Paul R., and Anne H. Ehrlich, One with Nineveh: Politics, Consumption and the Human Future. Washington, DC: Island Press, 2004. The combination of population growth, rampant consumption, and environmental degradation seriously threatens the livelihoods of the have-nots today and will increasingly threaten the haves in the none-too-distant future. Insecurity, hunger, and the recognition that one is entitled to a better world can breed a certain rage that will eventually find a voice. We humans today are one with Nineveh in our predilection for weakening the natural resource base that shores up the whole of human activity. However, we diverge from Nineveh in our technological capacity, our global reach, and the rapidity with which we can inflict change. Our fate will be worse than Nineveh's. Local collapses can no longer be contained. And global rescue will require a new evolutionary step—a "conscious cultural evolution" that allows us to overcome the limitations of individual perception and formulate a more responsive societal whole. Humanity's capacity to shape the planet has become more profound than our ability to recognize the consequences of our collective activity. Paul Ehrlich is in biology, Stanford University. (v. 15, # 3)

Ehrlich, Paul R., Anne H. Ehrlich, and Gretchen C. Daily, The Stork and the Plow: The Equity Answer to the Human Dilemma. New York: Grosset/Putnam, 1995. The population-consumption problem and its connection with the environment. The authors are at Stanford University. (v7,#1)


Ehrlich, Paul R. Human Natures: Genes, Cultures, and the Human Prospect. Covelo, CA: Island Press, 2000. 542 pages. Cloth $29.95. Using personal anecdote, vivid example, and narrative, Ehrlich searches his way through the thicket of controversies over what science can and cannot say about the influence of our evolutionary past on everything from race to religion, from sexual orientation to economic development. Ehrlich attempts a fresh view of human natures and evolution, applying this to questions such as who and where we are as a species, and where we may be headed. (v.11,#4)

Ehrlich, Paul R., and Anne H. Ehrlich, Betrayal of Science and Reason: How Anti-Environmental Rhetoric Threatens Our Future. Washington: Island Press, 1996. 352 pages. $ 24.95 hardcover. The anti-environmental backlash or "brownlash" is evidence of the success of the environmental movement, but it needs particular attention. Environmentalists must find the flaws in the brownlash movement and expose them. With much personal experience of the issues at points at hand. The Ehrlichs are at Stanford University. (v7,#4)
Ehrlich, Paul, and Kremen, Claire, "Human Effects on Ecosystems, Overview," Encyclopedia of Biodiversity 3: 383-394. Two central issues concerning biodiversity today are the roles that plants, animals, fungi, and microorganisms play in the functioning of ecosystems, and the primarily negative impacts of human beings on those ecosystems. Here we focus on the latter, starting with the rise of humanity as a geophysical force and then examining in some detail current anthropogenic alteration of ecosystems and the prospects of further damage by human beings to the delivery of ecosystem goods and services. Finally, we look at ways in which human damage to ecosystems could be limited in the future. (v.11,#4)

Ehrlich, Paul R. and Edward O. Wilson, "Biodiversity Studies: Science and Policy," Science, August 16, 1991, "The loss of biodiversity should be of concern to everyone for three basic reasons. The first is ethical and esthetic. ... The second reason is that humanity has already obtained enormous direct economic benefits from biodiversity. ... The third reason, perhaps the most poorly evaluated to date, is the array of essential services provided by natural ecosystems." (v2,#3)

Ehrlich, Paul, "Human Natures, Nature Conservation, and Environmental Ethics," BioScience 52(no. 1, 2002):31-43. "There is general agreement among scientists that the accelerating loss of biodiversity should be a matter of great concern. They have concluded that nature must be conserved not just for its own sake but also for the sake of Homo sapiens, to which it supplies an indispensable array of ecosystem services. And for most of these scientists, and large numbers of environmentalists, conservation is a major ethical issue. ... But the seriousness of the human predicament is still unknown to the vast majority of the general public and decisionmakers worldwide. ... As a result the cutting edge of the environmental sciences is now moving from the ecological and physical sciences toward the behavioral sciences, which seem to have the potential to develop ways to improve that response." Ehrlich is in biology, Stanford University.

Ehrlich, Paul R., "Bioethics: Are Our Priorities Right?" BioScience 53(no. 12, 2003):1207-1216. Neither biologists nor nonbiologists are paying adequate attention to the escalating ethical issues raised by the human predicament, and the expertise of biologists seems to demand they make additional contributions to environmental ethics, broadly defined. Massive environmental destruction and the development of biological and nuclear weapons have changed the world; cultural evolution of ethics has not kept pace. "Bioethics" must be expanded from its focus on medical issues to consider such things as the ethics of preserving natural capital for future generations and those of dealing with overconsumption. Bioethics should examine issues as diverse as the ethics of invading Iraq to increase the role of the rich in generating climate change and the ethics of the Lomborg affair. Achieving a sustainable global society will require developing an agreed-upon ethical basis for the necessary political discourse, and the time to start is now. Ehrlich is in biology, Stanford University.

Green GOP group forms. The Coalition of Republican Environmental Advocates has formed to promote free-market solutions to environmental problems. The group aims to show that the GOP is not opposed to environmental protection, but prefers approaches to achieving conservation other than traditional, governmental command and control. The group hopes to counter the barrage of negative publicity Republicans have encountered on environmental issues and to prevent surrendering the issue to Al Gore in 2000. House speaker Newt Gingrich hopes the group can redefine what it means to be an environmentalist: "The Al Gore, left-wing environmental model is a centralized, bureaucratized, litigious, adversarial, anti-technology model. . . Let's create a conservationist, common-sense, practical, high tech environmental model." Members of the group included vocal property rights advocate and Colorado Attorney General Gale Norton (a protegé of Reagan Interior Secretary James Watt), Endangered Species Act foe Rep. Richard Pombo of California, and Rep. Helen Chenoweth of Idaho, who once joked she wasn't concerned about salmon being endangered because "you can buy a can in Albertson's," a local supermarket. Two-thirds of the Senators who have joined the group have ratings of zero from the League of Conservation Voters, including Majority Leader Trent Lott of Mississippi. Republicans known to be pro-environment, such as Rep. Sherwood Boehlert of New York, have decided not to join. (v9,#2)


EJAP, The Electronic Journal of Analytic Philosophy, Issue on Justifying Value in Nature, 3 (Spring 1995). ISSN: 1071-5800. Articles: Martin Schönfeld (guest editor), "Introduction to Justifying Value in Nature"; Robin Attfield, "Preferences, Health, Interests and Value"; Kent Baldner, "Transcendental Idealism and the Fact/Value Dichotomy"; J. Baird Callicott, "Intrinsic Value in Nature: A Metaethical Analysis"; Stephen R. L. Clark, "Objective Values, Final Causes: Stoics, Epicureans, and Platonists"; S. F. Sapontzis, "The Nature of the Value of Nature"; Donald VanDeVeer, "Interspecific Justice and Intrinsic Value." With EJAP, there are two issues a year, put on the network, or "published" all at once. The journal is not meant to be printed, it will never be "bound", there are no "volume" numbers. Each issue is referenced in the order of release. There are no page numbers but each paragraph is numbered and referenced instead. To subscribe: It's free! Send a message to: <listserv@iubvm.uic.indiana.edu> with "subscribe ejap [Firstname] [Lastname]" in the body. Subscribers receive instructions for retrieving EJAP files from the listserver. Anonymous FTP: phil.indiana.edu/ ejap/ Gopher: phil.indiana.edu World Wide Web: http://www.phil.indiana.edu/ejap/ EJAP is produced at the Department of Philosophy, Indiana University: ejap@phil.indiana.edu

be reserved for representatives of future generations. I propose a new democratic model for representing posterity. This model has several advantages compared with a model for the democratic representation of future people previously suggested by Andrew Dobson. Nevertheless, the democratic model that I propose confronts at least two difficult problems. First, it faces insoluble problems of representative legitimacy. Second, one might question whether this model provides a reasonably effective way to represent future interest. Despite such problems, political representation of posterity can be defended.

Key words Andrew Dobson - deliberative democracy - future generations - political representation. The author is in philosophy, Norwegian University of Science and Technology, Trondheim, Norway. (JAEE)

Ekins, Paul, "Criticism Beyond Measure: Reply to David Fleming's Review of Wealth Beyond Measure by Paul Ekins, Mayer Hillman & Robert Hutchison in Environmental Values, Vol.1 No.3. Autumn 1992." Environmental Values Vol.2 No.1(1993):73-75. ABSTRACT: Fleming's critique of Wealth Beyond Measure (WBM) is wide-ranging. It alleges, inter alia, that the authors prefer "to come out of the corner with fists flying" rather than "to be accurate or to work out careful, rigorous arguments" and that they regard anyone who disagrees with them as "not just wrong but villainous with it." They are also characterized as the purveyors of "pure dream-world stuff." Fleming's assertions on which he bases these statements are that: There are "failures to set out clear explanations" of important topics. It gives "a parody" rather than "a coherent critique of the treatment of environmental issues by mainstream economics." The book "is full of inconsistencies" and "continually contradicts itself." Radical proposals for economic change are frequently unjustified. Unfortunately, as we shall now show, the examples that Fleming gives of these shortcomings are either inaccurate or wholly unconvincing. Department of Economics, Birkbeck College, Gresse Street, London W1P 1 PA, UK.


ElBalaa (El Balaa), Rodrigue, and Michel Marie," Animal Welfare Considerations in Small Ruminant Breeding Specifications," Journal of Agricultural and Environmental Ethics 19(2006):91-102. After satisfying their quantitative and qualitative needs as regards nutrition, consumers in developed countries are becoming more involved in the ethical aspects of food production, especially when it relates to animal products. Social demands for respecting animal welfare in housing systems are increasing rapidly, as is social awareness of human responsibility towards farm animals. Many studies have been conducted on animal welfare measurement in different production systems, but the available information for small ruminants remains insufficient. In this study, a 75 criteria-evaluation tool has been set up on the basis of the five freedoms concept. Animal welfare considerations have been analyzed in 25 documents, including labeling schemes, regulations, and recommendations from different European countries. The results show many differences between regular and organic small ruminant farming standards. Emergency measures are generally lacking. A weak
representation of psychological aspects of animal welfare, especially by the current European legislation, is highlighted. Keywords: animal welfare - small ruminants - indicators - regulations - specifications. The authors are with Sciences Animales, Vandoeuvre lès Nancy, France. (JAEE)

Elbers, Joan S., Changing Wilderness Values 1930-1990: An Annotated Bibliography. Westport, CT: Greenwood Press, 1991. 160 pages. $45.00!! 324 well-annotated entries on the literature and research that shifted American attitudes toward wilderness so dramatically in the course of this century. Elbers finds that this quest, far from being peripheral, has become "the central problem of modern civilization: How to live with restraint and respect for other life and natural ecosystems in a time when human numbers and technological power have made our species a geological force" (preface). (v.9,#3)


Eldredge, Niles. *Dominion*. New York: Henry Holt, 1995. $ 25.00. A clearer understanding of our long evolutionary history can help us understand better who we humans are. Agriculture was a critical turning point, about 10,000 years ago, leading humans to believe that they could "step out of" local ecosystems and manage or dominate nature in human interests. Humans came to believe that they could escape the ecological laws of the planet established through many millennia of evolution. This view has gone unchallenged for 10,000 years and has now led us to the brink of ecological disaster. "Now we can see the beginnings of serious, lasting threats--to the global system, to ourselves--if the same course is pursued for much longer." "We have, at best, a few decades to a century to change our course." Eldredge is an invertebrate paleontologist at the New York Museum of Natural History. (v7, #3)


Ellingsen, Guro M. Havrevold, *Gull eller gronne skoger (Gold or Green Forests)*. M.A. thesis in the Department of the History of Ideas, University of Oslo. The question of a naturalized environmental ethics versus an economically oriented ethic. She is particularly concerned with the use of evolutionary and ecology theory in contrast to economic theory in formulating an ethic. (Norway)


Elliot, Robert, "Environmental Degradation, Vandalism and the Aesthetic Object Argument," Australian Journal of Philosophy 67(1989):191-204. Environmental degradation is wrong, among other reasons, because "the natural environment possesses aesthetic value and its despoliation, or even modification, destroys or diminishes that value." This involves "the claim that what has aesthetic value has intrinsic moral value." Elliot defends this position against John Passmore's argument that environmental degradation is wrong because it involves vandalism and Thomas Hill, Jr., suggestion that the degradation is wrong because it violates ideals of human excellence. "A plausible account of intrinsic moral value, which does not construe it as objective and marks it off from merely valuing something for its own sake, permits explanations of the wrongness of environmental degradation in addition to ones couched solely in terms of ideals of human excellence. Accounts of the latter kind offer a distorted perspective on such cases." Elliot is professor of philosophy at the University of New England, Armidale, Australia and contact person for ISEE in Australia and New Zealand. (v1,#4)


animals within the scope of the principles of justice developed therein. However, the reasons Rawls and certain commentators, have advanced in support of this view do not adequately support it. Against Rawls' view that "we are not required to give strict justice" to creatures lacking the capacity for a sense of justice, it is initially argued that (1) "De facto" inclusion should be accorded non-human animals since their exclusion strains just institutions, and (2) Rawls' account of the sense of justice has implicit and undefended human chauvinist elements. Two further counter-arguments are then developed in more detail. It is then claimed that there are no good reasons for disallowing the possibility that non-human animals in the real world would be participants in the original position. If this claim is sound, animals are brought directly within the scope of Rawlsian principles of justice.

Elliot, Robert and Arran Gare, eds., Environmental Philosophy: A Collection of Readings. University Park, Pa.: University of Pennsylvania, 1983. Pp. xiv, 303. The best collection of original essays in environmental ethics. The essays are placed in three groups: the environment and human interests, the development of a new environmental ethic, and the historical traditions regarding the environment. Although the essays in the middle group are more foundational, the essays in Part I are more provocative because they cover ground often ignored by "eco-philosophers." In "Ethical Principles for Environmental Protection," (pp. 3-20), Robert Goodin offers a set of principles that can limit the traditional maximization of net-utility in cost-benefit analysis: Actions should be biased against irreversibility; the most vulnerable parties and interests should receive particular attention; sustainable policies should be promoted; actions should avoid harm. In "On Deep Versus Shallow Theories of Environmental Pollution," (pp. 58-84), C. A. Hooker extends the criticism of cost-benefit analysis by arguing that it is an "incremental" approach to holistic problems. Without a "vision of life," a collective ideal of the good for society as a whole, environmental problems will be "systematically misposed." Janna L. Thompson, "Preservation of Wilderness and the Good Life," (pp. 85-105), attempts a compromise between preservation arguments based on human interests and those based on the intrinsic value of natural objects. Utilizing the social critique of Marcuse, she proposes a society in which "human self-realization and happiness" arises out of a harmonious working with natural processes as they exist in themselves. Wilderness is not an instrument for humans, but a self-regulating system analagous to a human subject. Part II contains articles by Holmes Rolston, III, "Are Values in Nature Subjective or Objective," (pp. 135-165), criticizing the fact/value distinction in environmental ethics; Mary Midgely, "Duties Concerning Islands," (pp. 166181), a critique of contractarian "rights" terminology and a broadening of our sense of duty; and Stephen R. L. Clark, "Gaia and the Forms of Life," (pp. 182-197), a call for an extreme "holistic" vision of the self and the obligations to the planetary ecosystem. There are also articles by Gregory S. Kavka and Virginia Warren, Jan Narveson, Mary Anne Warren, Robin Attfield, J. Baird Callicott, and Richard Routley. Extensive bibliography. (Katz, Bibl # 1)

Plumwood, Mary Midgley, Holmes Rolston, Robert Elliot, J. Baird Callicott, Freya Mathews, Andrew Brennan, Colleen D. Clements, Elliot Sober and Mark Sagoff.

Elliot, Robert, "Intrinsic Value, Naturalness and Environmental Obligation", *The Monist*, 75 (1992): 138-60. It is argued that wild nature has intrinsic value, which gives rise to obligations both to preserve it and to restore it. An account of intrinsic value, which permits core environmentalist claims, is outlined and defended. A thing has intrinsic value when its value-adding properties outweigh its value-subtracting properties. Value-adding properties may include complex properties and need not be intrinsic – they may be relational. Connections between intrinsic value and obligation are discussed. It is argued that wild nature has intrinsic value, in part, in virtue of its naturalness. Naturalness, it is claimed, is a significant value-adding property, thus supporting the claim that there are obligations to preserve and restore wild nature.

Elliot, Robert, "Ecology and the Ethics of Environmental Restoration", *Philosophy*, Supplement 36 (1994): 31-43. Some people think that nature has intrinsic value, some people think that nature's intrinsic value grounds an obligation to preserve it and to minimise human interference with it. This is the view the author defends. A distinction is made between non-anthropocentric meta-ethics, which the author suggests is not possible, and non-anthropocentric normative ethics, which is. Williams questions how the normative shift away from the narrowly anthropocentric might be achieved in those who are initially disinclined to perceive intrinsic value in nature. The author suggests that the otherness of projective nature is in concert with its positive aesthetic worth is the significant basis of its intrinsic value. This view is defended against some apparently contrary claims of some restoration ecologists.

Elliot, Robert, "The Rights of Future People." *Journal of Applied Philosophy* 6 (1989): 159-169. Attempt to unravel some of the puzzles involving the attribution of rights to future non-existent people. Elliot separates the existence of the rights from the existence of the people. We do "not have to claim that the future person is the present bearer of the right...[T]here is no present bearer of the right but...the right exists now" (p. 161). The existence of the right in the present constrains our actions regarding future people, regardless of who these people are. Any cogent view of moral obligation to future generations must address Derek Parfit's problems with future identity; Elliot here fails to mention Parfit, but he raises many of the same issues.


Elliot, Robert, "Libertarian Justice, Locke's Proviso and Future Generations", *Journal of Applied Philosophy*, 3, (1986): 217-27. Libertarian justice might plausibly be thought to generate only minimal obligations on the part of present people toward future generations. This is not so, at least on Nozick's version of libertarian justice.
Nozickian justice generates extensive obligations to future people. This provides an indirect argument for environmentalist policies such as resource conservation and wilderness preservation. The basis for these obligations is Nozick's use of Locke’s proviso, which is spelled out using the notion of the baseline. This paper explains how the extensive obligations are implied by the core ideas of Nozickian justice. There is also a discussion of some of the difficulties involved in understanding the notion of the baseline. However, these difficulties do not destroy the theoretical basis for obligations to future generations contained within Nozickian justice. Provided that libertarian justice involves some such device as Locke’s proviso the enforcement of substantial environmentalist policies comes within the ambit of the libertarian minimal state.

Elliot, Robert, "Regan on the Sorts of Beings that Can Have Rights", Southern Journal of Philosophy, 16 (1978): 701-5. According to Joel Feinberg neither plants nor "mere things" can have rights. This seems plausible but Tom Regan has criticised the arguments Feinberg offers in support of his view. Feinberg appeals to two principles to distinguish between those beings that can, and cannot, have rights - the interest principle (only beings who have interests can have rights) and the goodness principle (a right-holder must have a good of its own). The author draws on a distinction between a thing being good and its having a good of its own to defend Feinberg's view against Regan's criticism. Mere things are not included by the goodness principle among the sorts of beings that can have rights. Something that lacks sentience cannot have a good of its own, therefore it cannot have rights.


Elliot, Robert, "Introduction", R. Elliot and A. Gare, eds., Environmental Philosophy: A Collection of Readings, St. Lucia, University of Queensland Press, 1983, ix-xiv. Concern for present and future human beings should be sufficient motivation for calling into question our relationship with the natural environment and modifying our attitudes to it. There are other reasons as well. Our policies threaten nonhuman animal populations. Certain policies may be condemned not just because they harm human beings or nonhuman animals but because they threaten parts of the natural environment. An environmental ethic may be thought of as a systematic ethic which allows moral concern for future generations, nonhuman animals and nonsentient nature. What is significant is that an environmental ethic represents a decided shift from traditional ethics which place human beings at the centre of the moral universe to an ethic of much wider scope. This collection of papers represents the efforts of philosophers to comprehend and respond to the environmental crisis. The papers are divided into three parts: Environmental policy and human welfare, A new environmental ethic? and Attitudes to the natural environment.

of libertarian justice applied to obligations to future generations. If Locke's proviso regarding just acquisitions (that "enough and as good be left for others") is taken seriously, then environmental obligations to future generations can be maintained. (Katz, Bibl # 1)


Elliot Robert, "Faking Nature", Inquiry, 25 (1982): 81-93. Environmentalists express concern at the destruction/exploitation of areas of the natural environment because they believe that those areas are of intrinsic value. An emerging response is to argue that natural areas may have their value restored by means of the techniques of environmental engineering. It is then claimed that the concern of environmentalists is irrational, merely emotional or even straightforwardly selfish. This essay argues that there is a dimension of value attaching to the natural environment which cannot be restored no matter how technologically proficient environmental engineers become. The argument involves highlighting and discussing analogies between faking art and faking nature. The pivot of the argument is that claim that genesis is a significant determinant of an area's value.

Elliot, Robert, "Environmental Ethics", in P. Singer, ed., A Companion to Ethics, Oxford, Blackwell, 1991, 284-93. This article describes a variety of environmental ethics from the anthropocentric to the holistic. It highlights relationships between them and reviews the arguments which might be used to justify them.

Elliot, Robert, "Extinction, Restoration, Naturalness", Environmental Ethics, 16, (1994): 135-144. Alastair S. Gunn has argued that it is in principle possible to restore degraded natural environments and to restore their full value, provided that species distinctive to them are extant. It is argued, first, that the proviso is unnecessary. More importantly, it is claimed that full value cannot be restored because restored environments lack the relational property of being naturally evolved. Elliot delineates and explains the structure and detail of the theoretical bases for this claim and shows that Gunn's reflections do not rule out the view that full value cannot be restored.

Elliot, Robert, "In Defence of the Vegetarian Argument", Applied Animal Ethology, (1981): 190-96. Lehman and Hurnik have attempted to undermine the moral basis for vegetarianism. The author claims that their arguments to this end are defective. When the vegetarian argument used by Regan and Rachels is correctly understood, Lehman and Hurnik's objections have no weight.

Elliot, Robert, "Moral Autonomy, Self-Determination and Animal Rights", The Monist, 70 (1987): 83-97. It has been argued that nonhuman animals do not, because they cannot, possess moral rights because they lack rational autonomy and a capacity for moral self-determination. Elliot refutes these arguments in two of their recent forms and suggests that nonhuman animals possess that degree of autonomy which is necessary for the coherent ascription of moral rights to them.


Elliot, Robert, "Extinction, Restoration, Naturalness." Environmental Ethics 16(1994):135-144. Alastair S. Gunn has argued that it is in principle possible to restore degraded natural environments and to restore their full value, provided that species distinctive to them are extant. I argue, first, that the proviso is unnecessary. More importantly, I claim that full value cannot be restored because restored environments lack the relational property of being naturally evolved. I delineate and explain the structure and detail of the theoretical bases for this claim and show that Gunn's reflections do not rule out the view that full value cannot be restored. Elliot is in philosophy at the University of New England, Armidale, Australia. (EE)

Elliot, Robert, "Introduction", in R. Elliot, ed., Environmental Ethics, Oxford, Oxford University Press, 1995, 1-20. Prudence and a concern for other humans, including future humans is sufficient to motivate unease about human modifications to the natural environment. Self-interest and morality, evidenced in beliefs about the rights of, and duties and obligations towards, other humans, combine to persuade many people that modifications of the natural environment should at the very least be scaled down. The author goes on to describe different human-centred ethics. But not all who advocate environmentalist policies are moved by human-centred reasons alone and some might regard these reasons as comparatively insignificant. This view, they claim, it to exhibit an unjustified human chauvinism. The extent to which moral concern is extended to include beings other than humans is discussed. Next, the nature of competing environmental ethics is examined (by drawing on the distinction between the terms "moral considerability" and "moral significance"), and the meta-ethical and metaphysical aspects of environmental ethics are identified.

Elliot, Robert Faking Nature: the Ethics of Environmental Restoration, Routledge, London and New York, xii, 177. This book is a development of the view first outlined in Elliot's 1982 Inquiry article, "Faking Nature". Although the present account revises certain aspects of the earlier account it maintains the earlier claims that natural value cannot be restored and that naturalness is a basis for intrinsic moral value. These claims are developed in the context of a theory of value which is both subjectivist and nonanthropocentric. The book takes into account criticisms of the earlier article, particularly those of Richard Sylvan and various restoration ecologists. The chapter titles, indicative of the content are, "The nature of natural value", "Environmental obligation, aesthetic value, and the basis of natural value", "Faking nature", and "Naturalness, intrinsic value and restoration ecology." Elliot is at Sunshine Coast University College, Maroochydore South, Queensland, Australia. (v9,#1)
Elliot, Robert, "The Rights of Future People", *Journal of Applied Philosophy*, 6 (1989): 159-69. It has been argued by some that the present non-existence of future persons entails that whatever obligations we have towards them are not based on rights which they have or might come to have. This view is refuted. It is argued that the present non-existence of future persons is no impediment to the attribution of rights to them. It is also argued that, even if the present non-existence of future persons were an impediment to the attribution of rights to them, the rights they will have when they come into existence constitute a constraint on present actions. Next three arguments are considered which, while they do not highlight the non-existence issue, are related to it. The view that the causal dependence, of (some) future people on present policies, erodes or weakens the claim that rights considerations should constrain our present actions concerning them; the view that future people can only have rights to what is available at the time at which these people come into existence; and the view that the attribution of rights to future people involves, in virtue of resource scarcity, an unacceptable arbitrariness. All three are rejected.


Elliot, Robert, "The Value of Wild Nature", *Inquiry*, 26 (1983):359-61. Don Mannison levels three criticisms at the claims Elliot makes in "Faking Nature". First, he claims that Elliot argues from (1) "x is valued" to (2) "x has value". Elliot denies this. Second, Mannison criticises an argument of Nelson Goodman's to which Elliot alludes. While the criticism has point, Elliot claims that Mannison misrepresents the role he (Elliot) assigns to Goodman's argument. Third, Mannison suggests that there is no need for Elliot to count environmental evaluations as evaluations of the moral kind. However, he offers no account of why he should not and ignores an important consideration that requires that he should.

Elliot, Robert, "Facts About Natural Values," *Environmental Values* 5(1996)221-234. Some environmental philosophers believe that the rejection of anthropocentric ethics requires the development and defence of an objectivist meta-ethical theory according to which values are, in the most literal sense, discovered not conferred. It is argued that nothing of normative or motivational import, however, turns on the meta-ethical issue. It is also argued that a rejection of normative anthropocentrism is completely consistent with meta-ethical subjectivism. Moreover the dynamics and outcomes of rational debate about normative environmental ethics are not determined by any particular choice between meta-ethical subjectivism and objectivism. These different meta-ethical views sustain analogous moves in normative debate, although they offer rather different accounts of what underlies these moves. They also provide for analogous links between moral belief and motivation, although again they offer rather different accounts of what underlies these links. In the course of defending these conclusions a subjectivist account of intrinsic value is developed and defended.

KEYWORDS: Anthropocentrism, environmental ethics, meta-ethics, value-theory
It has been argued by some that an environmental ethic is possible only if meta-ethical objectivism is true. However, there are good reasons for thinking that it is not true. It turns out that an environmental ethic is compatible with a non-objectivist meta-ethic. A subjectivist meta-ethic is outlined and is shown to provide conceptual space for the claims of an environmental ethic.

It is agreed that the moral community can be justifiably extended to include sentient non-humans, however, it is claimed that it is possible to give up human chauvinism without adopting the ethic Godfrey-Smith advocates. Feinberg's interest principle is taken by Godfrey-Smith to be the most promising for demarcating the class of individuals to whom rights can be properly attributed. It is claimed that this principle does not force an extension of the class of rights-holders beyond the class of sentient individuals, as claimed by Godfrey-Smith, to include individual trees, rainforests, soils and whole species. The crucial difference, it is claimed, is that sentient individuals but not plants are the subjects of experience. It is claimed that Godfrey-Smith has not provided sufficient argument to force an extension of the class of right-bearers in the way he advocates. Godfrey-Smith opposes the view that all values are grounded in human interest and concern, however, it is not necessary to accept his conclusion in order to argue against this position. Finally, it is not clear that he has produced an argument that shows there is no dependence between value and valuers analogous to the dependence between, say, lies and liars.

It is argued that the natural environment has intrinsic moral value because it has aesthetic value. It is argued that its having intrinsic moral value generates a prima facie obligation to preserve and protect it. Two aesthetic object arguments are examined: The first argument against environmental degradation makes a direct connection between aesthetic value and intrinsic moral value - what has aesthetic value has intrinsic moral value. The second is not so conjoined, and requires supplementing in order to demonstrate that there is a moral reason for not degrading the natural environment. It is argued that the second argument does not provide an independently strong argument against environmental despoliation. The problem lies in identifying a basis for a condemnation of despoliation which does not appeal either to instrumental reasons nor the intrinsic value of nature. The first aesthetic object argument, on the other hand, is plausible, coherent and compelling. Elliot claims it can be defended against the normative, metaphysical and meta-ethical arguments brought against it.

Environmentalists frequently urge restraints on human activity because that activity threatens the existence of some
species or other. The author aims to find out how much strength there is in the argument that it is wrong, or at least prima facie wrong, to destroy species. The question is whether there is any value in species preservation over and above the consequences species preservation has for individual members of species. That species preservation is instrumentally valuable, the aesthetic object argument, and the intrinsic value of species preservation, as well as the claimed need for a new environmental ethic are considered.


Elliot, Robert. "Instrumental Value in Nature as a Basis for the Intrinsic Value of Nature as a Whole." *Environmental Ethics* 27 (2005):43-56. Some environmental ethicists believe that nature as whole has intrinsic value. One reason they do is because they are struck by the extent to which nature and natural processes give rise to so much that has intrinsic value. The underlying thought is that the value-producing work that nature performs, its instrumentality, imbues nature with a value that is more than merely instrumental. This inference, from instrumental value to a noninstrumental value (such as intrinsic value or systemic value), has been criticized. After all, it seems to rely on the bizarre idea that a thing's instrumental value could be a basis for it's intrinsic value. This idea, however, is not as easy to dismiss as many might think. Review of the obvious arguments that might be deployed to defeat it shows that they have to be rejected, suggesting that a thing's instrumental value could be, and arguably is, a basis for it's intrinsic value. Defending this apparently bizarre idea provides a way of justifying the claim that nature as a whole has intrinsic value. (EE)


Elliot, Wayne. "Wilderness in the New South Africa." *International Journal of Wilderness* 2, no. 2 (August 1996): 9-13. South Africa is redefining itself in the post-apartheid era. Currently eleven wilderness areas are protected by law. The principal challenges lie in developing uniform wilderness management standards, legislating a wilderness act, and enabling local communities such as those that exist in KwaZulu/Natal to manage and receive direct benefit from their adjacent wildlands. Elliot heads conservation in the Department of Nature Conservation, KwaZulu/Natal, South Africa, and has been influential in incorporating blacks into wildlife conservation there. (v7, #3)

Elliott, Craig, "New Frontiers: Thermal Pools May Hold Many Secrets," *Wilderness Profile* (Newsletter of the Yellowstone Association), 13 (no. 1, Spring 1998):1-4. Bioprospecting in Yellowstone National Park. Park authorities have now set a policy that scientific research without expectation of commercial results is free, but that research in expectation of commercial results must enter into a "shared benefits contract," by which the park will receive a set amount of cash and a percentage of royalties from any future successful applications resulting from the research. There is
great interest the thermophiles, especially since *Thermus aquaticus*, or "tac" was used to develop the polymerase chain reaction, a process worth many millions of dollars. (v9,#1)

Elliott, Herschel, *Ethics for a Finite World: An Essay Concerning a Sustainable Future*. Fulcrum Publishing, Golden, CO, 2005. Humans need a finite ethics, "a steady-state ethics" (p. xxvi). Since we humans evolved on the planet, we have been pushing back limits. For millennia humans have lived with a deep-seated belief that life will get better, that one should hope for abundance, and work toward obtaining it. We have in the West built that into our concept of human rights: a right to self-development, to self-realization. The egalitarian ethic is wrong, because it scales everybody up and drives an unsustainable world. The ethic of "human rights," of a right to food, to development, to education, to employment, a right to reproduction is, in this sense, pushing in the wrong direction. Asserting such rights is contributing to life-system breakdown (Chapter 2; cf. pp. 74-75). Elliott is a retired professional philosopher, now a vegetarian farmer in remote Vermont, living without utilities and indoor plumbing, eating mostly what he grows and stores.


400,000 protesting for fox hunting!? The biggest peaceful street protest in British history took place September 22 in London, with an estimated 400,000 protestors on behalf of numerous rural concerns, with fox hunting an icon of these concerns. The Liberty and Livelihood March was organized by the Countryside Alliance, hunting horns blaring, but many conceded they were more concerned about making a living from the land regardless of the fate of the foxes.

Ellis, Gerry and Karen Kane, Wilderness Remembered. Minocqua, WI: NorthWord Press, 1995. Excerpts from earlier explorers of the wilderness, their diaries, journals, and other works, often offsetting the belief that such explorers found a howling wilderness that they feared or disliked. Accompanied by contemporary photographs. (v7,#1)

Ellis, Joy. "Drafting from an Overdrawn Account: Continuing Water Diversions from the Mainstem Columbia and Snake Rivers." Environmental Law 26, no.1 (1996): 299. Ellis analyzes restrictions on diversions of mainstream Columbia River flows in Washington, Oregon, and Idaho. She concludes that, while the moratoria recently imposed by the three states will contribute to the recovery of threatened and endangered salmon species, state agencies must do more to protect instream flow from further water appropriation activity. (v7, #3)


Ellison, Peter, On Fertile Ground: A Natural History of Human Reproduction. Cambridge, MA: Harvard University Press, 2001. Mounting evidence that the physiological regulation of ovulation, fertilization, implantation, and the maintenance of a pregnancy among humans is particularly specialized to protect high-quality, large-brained offspring. Implantation and nurturance of the human fetus with a haemochorial placenta, which endures a large and consistent supply of nutrients, differ from those in most mammals. Fetal growth is more rapid in humans than in gorillas and chimpanzees. Birth in humans is a treacherous affair, because the pelvis is barely large enough to allow the baby's enormous head to pass through. Natural selection has compromised conflicting demands of female locomotion, brain growth, and birth complications to produce a delicate fitness-maximizing balance.

Human mothers store exceptional amounts of fat, during and after pregnancy, to support an equally exceptional rate of brain growth in the fetus and nursing newborn. These offspring then require a long period of nurture and education into culture. Raising humans requires a massive investment, typically about eighteen years. Ellison is an anthropologist at Harvard University. (v.12,#3)
Elmendorf, Christopher S., "Ideas, Incentives, Gifts, and Governance: Toward Conservation Stewardship of Private Land, in Cultural and Psychological Perspective," University of Illinois Law Review 2003, no. 2, 423-505. Conserving ecological resources on private lands requires both supportive landowners and regulatory coercion, notwithstanding that rural landowners comprise the most consistently anti-environmental demographic group in America. Neither policymakers nor legal scholars have come up with satisfying responses to this predicament. One needs incentives, gifts, governance, and, above all, more ideas. Long law article with many citations. Elmendorf is Law Clerk, U.S. Court of Appeals for the Second Circuit, and University of California, Davis, School of Law.


Elmwood Quarterly, The. 8, no. 4 (Winter 1992-93) contains papers by George Sessions, Arne Naess, Max Oelschlaeger, Gary Snyder, and many others. (v4,#4)

Els, H., and J. Du P. Bothma, "Developing partnerships in a paradigm shift to achieve conservation reality in South Africa," Koedoe (Research Journal, South African Parks) 41 (no. 1, 2000):19-26. Community development as an integral part of, not an add-on to, conservation. Programmes which really achieve conservation-based community development, enhancing survival for both the communities and their inherent natural resources. Both authors are at the Centre for Wildlife Management, University of Pretoria, South Africa. (v.11,#4)


Elvey, Anne, "Beyond Culture? Nature/Culture Dualism and the Christian Otherworldly," Ethics and the Environment 11(2006):63-84. As Val Plumwood argues, the Christian otherworldly is ecologically problematic. In relation to time, space, being and agency, this article considers the tendency to dualism in Christian appeals to the otherworldly. In the context of Plumwood's critique of nature-skepticism, I ask whether we should also critique an otherworldly skepticism. I then set out five possibilities for understanding the Christian otherworldly in relation to nature and culture. I argue that the otherworldly can be understood not only as a problematic cultural notion that participates in the devaluation of nature, but as a way of understanding the otherness of nature, as having purposes and agencies beyond the cultural construction of earth as world. An understanding of nature as other-worldly presents challenges for both
Christian theologies and environmental ethics. Elvey is director of research administration, Melbourne College of Divinity, Australia. (Eth&Env)


Emblidge, David, *The Appalachian Trail Reader*. New York: Oxford University Press, 1996. 382 pages. $27.50. An anthology of writings by those who have hiked the famous trail. Emblidge has also written a series of Companions to various sections of the AT, published by Stackpole Books. (v7,#4)


Emery, N. J., and N. S. Clayton, "Effects of Experience and Social Context on Prospective Caching by Scrub Jays," *Nature* 414 (22 November 2001): 443-446. Scrub-jays only take steps to prevent future thefts from food caches that they have made after having been thieves themselves, the birds seemingly projecting their own experience of thievery onto competitors. Various studies have shown that jays are remarkably adept at remembering where they have hidden food caches.


Encyclopedia of Bioethics. The following articles are in the second edition of the Encyclopedia of Bioethics. Holmes Rolston, III, Colorado State University, is the area editor for environmental ethics and animal welfare issues. Coverage of these issues is expanded ten times over the first edition. Warren T. Reich, Georgetown University, is the editor-in-chief. Also of interest is an extensive appendix (the last half of volume 5), "Codes, Oaths, and Directives Related to Bioethics," including Section V, Ethical Directives Pertaining to the Welfare and Use of Animals, with codes and policies on veterinary medicine and on research involving animals; and Section VI, Ethical Directives Pertaining to the Environment. The latter section contains: World Charter for Nature, General Assembly of the United Nations (1982); Rio Declaration on Environment and Development (1992); Conservation Policies of the Wildlife Society (1988); Code of Ethics for Members of the Society of American Foresters, Society of American Foresters (1976, amended 1986, 1992), the last amendment with the land ethic canon; Code of Ethics and Standards of Practice for Environmental Professionals (1979, revised 1994); and Code of Ethics, National Environmental Health Association (revised 1992).

   Callicott, J. Baird, "Environmental Ethics: Overview"
   Naess, Arne, "Deep Ecology" (Environmental Ethics)
   Callicott, J. Baird, "Land Ethic" (Environmental Ethics)
   Warren, Karen J., "Ecofeminism" (Environmental Ethics)
Wenz, Peter, "Environmental Health"
Sagoff, Mark, "Environmental Policy and Law"
Engel, J. Ronald, "Environment and Religion"
Engel, J. Ronald, "Sustainable Development"
Shrader-Frechette, Kristin, "Hazardous Wastes and Toxic Substances"
Regan, Tom, "Ethical Perspectives on the Treatment and Status of Animals"

(Animal Welfare and Rights)
Linzey, Andrew, "Vegetarianism" (Animal Welfare and Rights)
Rolston, Holmes, III, "Wildlife Conservation and Management" (Animal Welfare and Rights)
Rolston, Holmes, III, "Endangered Species and Biodiversity"
Linzey, Andrew, "Pet and Companion Animals" (Animal Welfare and Rights)
Dunlap, Julie and Kellert, Stephen R., "Zoos and Zoological Parks" (Animal Welfare and Rights)
Loftin, Robert and Klein, Ellen, "Hunting" (Animal Welfare and Rights)
Rollin, Bernard E., "Animals in Agriculture and Factory Farming" (Animal Welfare and Rights)
Jamieson, Dale, "Climatic Change"
Engel, J. Ronald, "Sustainable Development"
Kesel, M. Lynne, "Veterinary Ethics"

Encyclopedia of Animal Rights and Animal Welfare, The, will be available from Greenwood Press within a few months. Edited by Marc Bekoff, a biologist at the University of Colorado, this one-volume reference work provides essays by recognized authorities in the field, addressing the many issues of animal rights and animal welfare. The Foreword is by Jane Goodall. For more information, contact Marc at EPO Biology, University of Colorado, Boulder, Colorado 80309-0334 USA; marc.bekoff@colorado.edu (v.8,#4)


Endangered Wildlife is the official publication of the Endangered Wildlife Trust. (v6,#3)

Endangered Wildlife is the journal of the Endangered Wildlife Trust, South Africa, c/o The Johannesburg Zoological Gardens, Jan Smuts Avenue, Parkview, 2193. (v1,#4)

Ends and Means is a journal of philosophy and technology published twice yearly by the Centre for Philosophy, Technology and Society at the University of Aberdeen. The journal is devoted to rigorous philosophical exploration of social, moral and conceptual questions arising in relation to technology. Although not committed to any one school or style of philosophy, its editorial policy is to publish only material of high philosophical quality written in a style accessible to a wide readership. Contributions


Engel, Cindy, Wild Health: How Animals Keep Themselves Well and What We Can Learn from Them. Boston: Houghton Mifflin, 2002. What bears, wolves, tigers, snow geese, and especially chimps do to medicate themselves. Examples: eating pharmaceutical plants, or eating rough grass to get rid of intestinal worms, or clay to stop diarrhea. But Engel insists that such behaviors do not reflect innate animal wisdom, but are the result of millions of years of natural selection. Engel is a lecturer in environmental sciences at the Open University in the United Kingdom. (v.13,#2)


Engel, J. Ronald and Joan Gibb Engel, eds., Ethics of Environment and Development: Global Challenges and International Response. Tucson: University of Arizona Press, 1990. Pp. xv, 264. Collection of articles on environmental ethics and international development, inspired by a citation in the Brundtland report on sustainable development calling for a new "global ethic." The strength of the collection is its international and interdisciplinary character, with authors from every continent represented, as well as major figures in the field of environmental ethics: Arne Naess, Holmes Rolston, Henryk Skolimowski, Denis Goulet, and Ariel Salleh. (Katz, Bibl # 2)


Engel, Kirsten H. "The Dormant Commerce Clause Threat To Market-Based Environmental Regulation: The Case of Electricity Deregulation." Ecology Law Quarterly 26(no. 2, 1999):243-. (v10,#4)


Engelbrecht, W. G., and P. T. van der Walt, "Notes on the Economic Use of the Kruger National Park," Koedoe: Research Journal for National Parks in the Republic of South Africa 36, no. 2, 1993: 113-120. In an economic analysis, the present use of Kruger National Park creates substantially more net social benefits than would its conversion to agricultural use, but the question remains whether these benefits are equitably distributed at various levels of the South African society. Engelbrecht is with the Development Bank of Southern Africa; van der Welt is with the National Parks Board, Republic of South Africa. (v5,#1)

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

English, Donald B.K., Marcouiller, David W. and Cordell, H. Ken, "Tourism Dependence in Rural America: Estimates and Effects," Society & Natural Resources 13 (No. 3, Apr 01 2000): 185-. (v.11,#2)

English, Mary R., Siting Low-Level Radioactive Waste Disposal Facilities. New York: Quorum Books, 1992. 279 pages. With chapters on Trust, Risk, and Justice, and an examination of how various ethical theories fit what has happened in policy decisions. Lots of case studies. Documents how the poor catch most of the radioactive pollution. English is an Associate Director of the University of Tennessee's Energy,
Environment, and Resources Center and a Senior Fellow of the University's Waste Management Research and Education Institute. (v4,#1)


Enserink, Martin, "Tiptoeing Around Pandora's Box," Science 305(30 July, 2004):594-595. Avian flu in Asia is one of the worst animal-health outbreaks in history. [See Altman, Lawrence K., "Avian Flu Kills 1,500 Ostriches on 2 South Africa Farms," New York Times, August 10, 2004, p. D4]. Two hundred million birds have been culled in Asia this year. The virus is very similar to human influenza and researchers fear a crossover that would create a highly lethal human epidemic. They could do this in the labs and test the likelihood of an epidemic, promoted by the World Health Organization. But how likely is it that the hybrid might escape the labs--recalling that the SARS virus escaped from three Asian labs in the past year? Researchers think that present drugs would kill the new virus, but they do not know how likely an epidemic would be, probably in areas with few drugs to control it. (v. 15, # 3)

Enserink, Martin and Vogel, Gretchen, "The Carnivore Comeback," Science 314(3 November 2006):746-749. Bears, wolves, lynx, and wolverines, once nearly exterminated from Western Europe, have been making a comeback--both by reintroducing themselves from Eastern Europe, now that the fences are down, and by restoration biology. And there are plenty of protests, especially from farmers whose sheep are killed. Wolves and bears are in almost every country in Europe.


Entrikin, J. Nicholas, The Betweenness of Place: Towards a Geography of Modernity. Baltimore, MD: Johns Hopkins University Press, 1991. "To understand place requires that we have access to both an objective and a subjective reality. From the decentered vantage point of the theoretical scientist, place becomes either location or a set of generic relations and thereby loses much of its significance for human action. From the centered viewpoint of the subject, place has meaning only in relation to an individual's or a group's goals and concerns. Place is best viewed from points in between" (p. 5). Entrikin is a geographer at UCLA. (v7,#1)
Entwhistle, Abigail, and Dunstone, Nigel, eds., Priorities for the Conservation of Mammalian Diversity: Has the Panda Had its Day? Cambridge: Cambridge University Press, 2000. Is charismatic megafauna the best conservation policy, versus, for example, biodiversity hotspots or attention to hunting, or tourism, or political and social needs? Entwhistle is with Fauna and Flora International, UK; Dunstone at the University of Durham, UK. (v.13, #3)

Environment 91/92, 10th edition (Sluice Dock, Guilford, CT 06437: Duskin Publishing Group, Inc.) 256 pages, softcover. $ 10.95. 35 articles, 27 of them new, drawn from magazines and popular academic sources. Sections on the global environment, world population, energy, pollution, land, water, and air resources, endangered species. Articles are facsimile reproduced from their original sources. An instructor's resource guide is available. (v2,#1)

Environment and History, specializing in environmental history, is based in the U.K. Contact Richard H. Grove, Global Environmental History Unit, Department of History and Philosophy of Science, University of Cambridge, Free School Lane, Cambridge CB2 3RH, UK. Fax 44 1223-332333. (v6,#1)

Environment Views is published quarterly by Alberta Environmental Protection, and is available free on request. A sample issue, Winter 1993, was on the theme, "Sacred Ground." Articles include: J. Stan Rowe, "In Search of the Holy Grass: How to Bond with the Wilderness in Nature and Ourselves"; John Marsh, "Back to the Garden: Can Christianity Take Root in the Earth?"; Connie Bryson, "Earth Mothers: Do Women Have a Special Connection to the Earth?" Clayton Blood, "Blood Ties: On the Blood Reserve, an Irrigation Project Puts People Back in Touch with the Spirit of the Land" (Blackfoot Indians), and others. Contact: Environment Views, Alberta Environmental Protection, 9915 - 108 Street, Edmonton, Alberta T5K 2C9, CANADA. (Thanks to Phil Pister, Desert Fishes Council.)

Environmental and Architectural Phenomenology Newsletter, The, has recently been launched as a forum and clearing house for research and design that incorporates a qualitative approach to environmental and architectural experience. A key concern is design, education, and policy supporting and enhancing natural and built environments that are beautiful, alive, and humane. The newsletter is interested in the sense of place, of home, of environmental encounter and its relation to environmental ethics, responsibility, and action. There will be three issues each year. Contact David Seamon, Department of Architecture, College of Architecture and Design, Kansas State University, Manhattan, KS 66506. (v1,#2)

Environmental and Architectural Phenomenology. The winter 1992 issue marks the start of this multidisciplinary newsletter's third year. This issue focuses on "place and place experience" and includes book reviews and poetry as well as essays by composer R. Murray Schafer, philosopher Antony Weston, and geographers Edward Relph and J. Douglas Porteous. The theme of the spring 1992 issue is "phenomenology and environmental ethics." Contributors include naturalist Paul
Krapfel and philosophers Ralph R. Acampora, Joseph Grange, and Jeffrey Wattles. Annual subscription $6 ($8 foreign). Contact: Dr. David Seamon: Architecture Department, Seaton 211, Kansas State University, Manhattan, KS 66506. (v2,#4)

Environmental and Architectural Phenomenology Newsletter, Winter 97, focuses on Goethean science, which can be described as an implicit phenomenology of nature and the natural world. Though best known as one of the world's great poets and playwrights, Johann Wolfgang von Goethe (1749-1832) also developed a qualitative style of science that drew on firsthand experience of particular phenomena. Goethe's own scientific work focused on plants and the nature of light and color. Recent work by others has examined such topics as the nature of water, animal form, and the built environment. This issue of the EAP Newsletter includes an essay by ecologist Mark Riegner on the relationship between Goethe and deep ecology, and reviews of two recent books on Goethean science. The EAP Newsletter is published three times annually and a subscription is $10. For a free sample copy or to subscribe, contact the Editor: David Seamon, Architecture Department, 211 Seaton Hall, Kansas State University, Manhattan, KS 66506-2901; Tel: 785-532-1211. (v.8,#4)

Environmental Careers Organization. The Complete Guide to Environmental Careers in the 21st Century. Covelo, CA: Island Press, 1999. 280 pp. $39.95 cloth. $17.95 paper. The entire spectrum of environmental career fields. Individual chapters provide an "at a glance" summary of a field; discuss its history and background along with current issues and trends. Specific career opportunities and their educational requirements; salary ranges by type of employer, level of experience, and responsibility. (v.10,#1)

Environmental Challenges to Modern Society. Theme issues of Socijalna Ekologija: Casopis za ekologsku misao i sociologijska istrazivanja okoline (Social Ecology: Journal for Environmental Thought and Sociological Research) vol. 5, no. 3 (1996). Published in Zagreb, Croatia, in Croatian. Articles on sustainability, environmental education, waste, ontological and ethical perspectives on environmental protection and ecology, the Croatian strategy of environmental education in the church and at school. (v8,#3)

Environmental Conservation is an international journal devoted to maintaining global viability through exposing and countering environmental deterioration resulting from human population pressure and unwise technology. Now in its eighteenth year, it is published quarterly for the Foundation for Environmental Conservation, in Lausanne, Switzerland, with the collaboration of the United Nations Environment Programme (UNEP), the International Union for the Conservation of Nature and Natural Resources (IUCN), the International Association for Ecology (INTECOL), the International Society of Naturalists (INSONA), the International Conferences on Environmental Future (IECFs), the World Council for the Biosphere-International Society for Environmental Education (WCB-ISEE) and the World Wide Fund for Nature (WWF). (v2,#1)

Environmental Crimes at the Rocky Flats Nuclear Weapons Facility. Hearings Vol. I. U. S. Subcommittee on Investigation and Oversight, Committee on Science, Space, and Technology. 1,700 pages (!) of testimony before this House Committee
concerning Rockwell Corporations management of Rocky Flats, a nuclear weapons facility in Colorado. Government documents, call no: Y4.SCI 2:no. 102/163DOC. (v4,#2)

Environmental Education Research is a new academic journal, issued three times a year, devoted to advancing environmental education through a focus on papers reporting research activities. The journal expects to publish papers on policy issues, comparative environmental education, and critical reviews of environmental education. Sample papers from vol. 1, no. 1, 1995: John Fein, "Teaching for a Sustainable World: The Environmental and Development Education Project for Teacher Education"; Barcia Marentic Pozarnik, "Probing into Pupil's Moral Judgement in Environmental Dilemmas: A Basis for 'Teaching' Values"; Elena Camino and Carla Calcagno, "An Interactive Methodology for 'Empowering' Students to Deal with Controversial Environmental Problems." Address inquiries to Chris Oulton, Environmental Education Research, School of Education, University of Bath, Bath BA2 7AY, U.K. (v6,#3)

Environmental Enhancement Through Agriculture. Agriculture can serve the environment rather than conflict with it. 36 papers offering numerous examples of agricultural systems that benefit the environment: increasing wildlife habitat and biodiversity; protecting water quality in streams and estuaries; producing substitutes for nonrenewable energy sources; turning urban waste into a resource; offering aesthetically appealing landscapes; and bringing urban residents into closer contact with food production and the land. Special attention to areawide collaborations in which farmers, citizens, and technical experts establish common goals and develop innovative arrangements. From a conference held in Boston, sponsored by the Tufts University School of Nutrition Science and Policy and others. $20, postpaid, to "Trustees of Tufts College." Center for Agriculture, Food and Environment, School of Nutrition Science and Policy, Tufts University, Medford, MA 02155.


Environmental Grantmaking Foundations, 5th edition. Rochester, NY: Resources for Global Sustainability, 1997. 1,000 pages. $ 89.00. 750 foundations, U.S. and Canadian sources of world-wide funding. The most comprehensive source. The first four editions were published by Environmental Data Research Institute, a related group. There is a CD-Rom version at $ 104.00 800/724-1857. Fax 716/473-0968. E-mail rgs@eznet.net. Web site: http://home.eznet.net/~rgs (v.8,#4)
Environmental Grantmaking Foundations 1993. Rochester, NY: Environmental Data Research Institute (1655 Elmwood Ave., Suite 225, Rochester, NY 14620-3426), 1993. $ 55.00. 400 foundations, the most significant independent, community, and company-sponsored foundations. These foundations together gave over $ 350 million for environmental purposes last year. Why foundations make the awards they do. Sample grants. Key personnel. (v4,#3)

Environmental Grantmaking Foundations 1996. Rochester, N.Y.: Environmental Data Research Institute, 1996. 900pp. $84 softcover. A comprehensive guide to 700 of the most significant independent, community, and company-sponsored foundations that give environmental grants. Each profile gives data to target the most likely sources of support; multiple indexes help to narrow the search. (v8,#1)


Environmental History Review (formerly, Environmental Review). Center for Technology Studies, New Jersey Institute of Technology, Newark, New Jersey 07102. This is the journal of the American Society for Environmental History. As such, it specializes in environmental history and policy studies. Many articles concern the intellectual history of environmentalism. One forthcoming issue (summer 1991) with a focus on "The Moral Sense of Nature," will be devoted to environmental philosophy. (Katz, Bibl # 2)


Environmental Justice: A Negotiation Training Program. Developed by graduate students at MIT, here are negotiation exercises designed to help groups teach and learn as they negotiate. Case studies: (1) Siting an asphalt plant in the city of Madrona. Six keyholder states must meet to consider how to address equity and fairness claims. (2) The Beaumont Incinerator. What are valid grounds for claims of environmental justice? Impacts and risks concentrated in poor communities, environmental racism. $ 10 each. Order from: Program on Negotiation Clearinghouse, Harvard Law School, 518 Pound Hall, Cambridge, MA 02138. Phone 617/495-1684. Fax 617/495-7818. (v7,#1)

Environmental Media Association, The. has been founded in Hollywood by producer-director Norman Lear and a cast of major television and movie industry players. Andy Spahn is director and the association tries to use the industry's communication skills to
make people more aware of environmental issues. For information contact:
Environmental Media Association, 10536 Culver Boulevard, Culver City, CA 90232.
Phone 213/559-9334. (v1,#1)

Environmental Philosophy: A Bibliography. The Centre for Philosophy and Public Affairs, University of St. Andrews, Scotland, has published a series of booklets on environmental philosophy commissioned by the U.K. Nature Conservancy Council. One of general interest is this bibliography, 75 pages in length. It contains a small section of key books and articles, a comprehensive and thematic listing of recent work in environmental ethics, philosophy, and policy, and a description of research centers, societies, and education programs concerned with environmental philosophy. Copies are available at £3.00 within the U.K and the equivalent of £4.00 elsewhere. Orders to Dr. John Haldane, Centre for Philosophy and Public Affairs, University of St. Andrews, St. Andrews, Fife KY16 9AL, Scotland, UK. (v3,#4)


Environmental Politics, which began publication in the spring of 1992, is proving a lively forum for exchange of ideas, more often than not with implications for environmental ethics. The price (£ 35.00, or $ 50.00 individuals) may discourage individual subscriptions, but encourage your library to get it (£ 80.00, or $ 120.00). Also you can get automatic E-mail notice of each issue's contents through the UnCover Reveal service (see above). Editors are Michael Waller and Stephen C. Young, Department of Government, University of Manchester, UK. Published by Frank Cass and Company, Ltd., Gainsborough House, 11 Gainsborough Road, London E11 1RS, UK. The winter 1993 (vol. 2, no. 4) issue is: "Rio: Unravelling the Consequences." (v5,#4)

Environmental Professional, The. The official journal of the National Association of Environmental Professionals, published in cooperation with the Civil Engineering Department at UCLA. Volumes 9:4 (1987) and 10:1 (1988) were dedicated to "Focus on Environmental Ethics." These two issues brought together papers by environmental philosophers, environmental historians, engineers, and policymakers. Eighteen articles are included in the special issues, including essays by Eugene Hargrove, J. Baird Callicott, Holmes Rolston, Paul B. Thompson, Alastair Gunn, John
Opie, and Gene Spitler. These special issues are important because they introduce the work of environmental philosophers to environmental engineers and scientists; for environmental philosophers, standard issues of *The Environmental Professional* are of central importance for the understanding of policy problems. (Katz, Bibl # 2)

*Environmental Values*, issue no. 2, is in print. Articles: Bryan Norton, "Sustainability, Human Welfare and Ecosystem Health"; Mary Midgley, "Beasts Versus the Biosphere?"; David Rothenberg, "Individual or Community? Two Approaches to Ecophilosophy in Practice"; Richard B. Howarth, "Intergenerational Justice and the Chain of Obligation"; Brian Furze, "Ecologically Sustainable Rural Development and the Difficulty of Social Change"; Anthony M. Friend, "Economics, Ecology and Sustainable Development: Are They Compatible?" This is the most recently launched journal in environmental ethics and policy. Contact Alan Holland, Lancaster University, Lancaster LA1 4YT, United Kingdom. (v3,#2)

Epstein, Gerald, Julie Graham, and Jessica Nembhardt, eds., *Creating a New World Economy*. Philadelphia: Temple University Press, 1993. 496 pages. $ 22.95 paper. $ 49.94 cloth. Twenty-five economists set out the challenges posed by a global economy. With much reference to environmental conservation. Epstein is an economist at the University of Massachusetts-Amherst, Graham is a geographer there, and Nembhardt specializes in international finances there. (v4,#3)


Ericsson, G; Heberlein, TA, "Attitudes of hunters, locals, and the general public in Sweden now that the wolves are back", Biological Conservation 111(no.2, 2003):149-159.


Ervin, J, "Rapid Assessment of Protected Area Management Effectiveness in Four Countries," Bioscience 53(no.9, 2003):833-842. (v.14, #4)


Erwin, Douglas H., Extinction: How Life on Earth Nearly Ended 250 Million Years Ago. Princeton, NJ: Princeton University Press, 2005. At the end of the Permian Period, 251 million years ago, about 90% of marine species perished in the deadliest mass extinction of all time. Terrestrial ecosystems suffered as well. The extinctions took place over a couple hundred thousand years. What was the cause? Nobody knows. "None of the extinction models fits all the evidence and some hypotheses require data that despite every effort have not been found." This sharply contrasts with the less severe end of Cretaceous extinction, where an extraterrestrial impact is widely accepted as the cause.


Erwin, T. L., "An Evolutionary Basis for Conservation Strategies," Science, August 16, 1991, Conservation strategies have been too anthropocentric--saving those species that are useful or interesting to humans. A more objective, nonanthropocentric conservation strategy would be to locate and save the evolutionary dynamic lineages, those ecosystem regions and species groups in which evolution and speciation is still actively taking place. Many of the species saved under current strategies are living fossils, dead-ends in the evolutionary process. (v2,#3)


Escobar, Arturo, "Constructing Nature: Elements for a Poststructural Political Ecology." Pages 46-68 in Peet, Richard, and Watts, Michael, eds. Liberation Ecologies: Environment, Development, Social Movements. London: Routledge, 1996. The discourse of "biodiversity" is a modern, recently invented discourse, and is used by Westerners to bring aboriginal peoples into the arena of modernism. Nature becomes "biodiversity reserves," local communities may lay claim to be the "owners" of their biodiversity; they learn to treat it as "natural capital" and their local knowledge as "intellectual property"—things of worth in global markets. All this bypasses the ways in which plants and animals once figured in the aboriginal cultures (p. 57). Escobar is in anthropology, University of California, Berkeley. (v.13,#1)

Eser, SG; Luloff, AE, "Community Controversy Over a Proposed Limestone Quarry," Society and Natural Resources 16(no.9, 2003):793-806. (v.14, #4)

Eser, Uta. "Ecological and Normative Fundamentals of Value Judgments in Nature Conservation: The Case of Nonindigenous Plants," Advances in Human Ecology 7 (JAI Press, 1998):293-312. There is a tendency among environmentalists to mistake the role of ecology. To question value judgments based on ecology, I present an analysis of values involved in the assessment of introduced plants. Special concern is given to the relation of ecology and values. I show that the common use of the terms "neophyte" or "invader" reveals a conservation bias. I describe how organismic concepts of the community, the concept of disturbance, or the hypothesis of natural stability, refer to an idealized nature as an harmonic cosmos. Conservationists also tend to idealize pristine nature as intrinsically good, harmonic and stable. They neglect the opposite image of a "wild" nature, that must be controlled and subjected by humans. Eser is at the University of Tübingen, Center for Ethics in Science. (v.11,#3)

Eser, Uta. "Assessment of Plant Invasions: Theoretical and Philosophical Fundamentals." Pages 95-107 in U. Starfinger, K. Edwards, I. Kowarik and M. Williamson, eds., Ecological Mechanisms and Human Responses (Leiden, The Netherlands, Backhuys Publishers, 1998). There is a tendency among ecologists to regard biological invasions as obviously negative. To question value-judgments based on "ecological evidence," I present an analysis of the impact of non-scientific values and norms on the scientific writing about introduced plants. Special concern is given to the suspicion of a xenophobic bias. Scientific terms like "alien" or "invasion" bear negative connotations that might influence perception and evaluation. Furthermore, the terminology often reflects a conservation bias. Like the term "weed" the terms "invasive" or "neophyte" denote interference with conservation or management goals. The concept of the plant community also influences assessments. In an organism-like community, intruders necessarily are seen as afflicting the health or integrity of the whole. The concept of disturbance or the hypothesis of natural stability refer to an ideal of nature as a harmonic cosmos. From this perspective, human interventions
necessarily are conceived as destructive. Conservationists tend to idealize pristine nature as intrinsically good, harmonic and stable. The opposite image of nature "red in teeth and claws" suggests that nature must be controlled and subjected by humans. As spreading introduced plants are neither nor controllable, they are conceived as negative from the perspective of conservation. I claim that the replacement of original vegetation by a new species may not per se be assessed negatively, but needs further reasons. The conservation of biodiversity or endangered species is a reasonable argument, the preference for natives is not. Eser is at the University of Tübingen, Center for Ethics in Science. She recently completed a Ph.D. dissertation on exotic species. (v.11,#3)


Estabrook, Barry, "Some Sport," Audubon 107(no. 6, Sept./Oct. 2005):11-12. Internet hunting. Dale Hagberg, a quadriplegic in bed in Indiana, aimed a remote-controlled high-powered rifle at a fallow deer in Texas, and missed. Next day he shot and killed a mouflon sheep. The owner of Live Shot thought it a great success, but the Texas Parks and Wildlife Department hurriedly enacted regulations to prohibit hunting wild game this way. Later the state legislature also prohibited such hunting on game farms.

Estes, Carol, "Trading Park Futures," National Parks, September/October 1996. Reprinted in PERC Reports 14, no. 4, December 1996, with replies by PERC spokesman. A thoughtful critique of free market environmentalism, as advocated by PERC, the Political Economy Research Center, a conservation think tank that works out the economic theory behind the property rights movement and free market environmentalism. Essentially, free market environmentalism holds that markets are, in almost all cases, the best avenue through which to protect natural resources. Estes has many doubts, essentially that the profit motive is not sufficient to protect many environmental goods, which are commons. The whole exchange, as found in PERC Reports, is suitable for use in a single class discussion on this topic. But people who read PERC ought also read Freyfogle, Eric T., "Ethics, Community, and Private Land," Ecology Law Quarterly 23(1996):631-661; see that entry. Copies of the Estes article from PERC, 502 S. 19th Avenue, Suite 211, Bozeman, MT 59715. Phone 406/587-9591. Fax 406/586-7555. Estes is a free lance journalist who lives in Minnesota.

Estés, Clarissa Pinkola, Women Who Run With the Wolves: Myths and Stories of the Wild Woman Archetype. New York: Ballentine Books, 1992. 521 pages. $ 20.00 "Within every woman there is a wild and natural creature, a powerful force, filled with good instincts, passionate creativity, and ageless knowing. Her name is Wild Woman, but she is an endangered species. Though the gifts of wildish nature come to us at birth, society's attempt to "civilize" us into rigid roles has plundered this treasure, and muffled the deep, life-giving messages of our own souls. Without Wild Woman, we become over-domesticated, fearful, uncreative, trapped." Estés is a Jungian analyst
who lives in Colorado and Wyoming. Her book has been number one on the New York Times non-fiction best-seller list. (v4,#1)


Esty, Daniel C., "Toward Optimal Environmental Governance," New York University Law Review 74(December 1999):1495-1574. Better environmental results depend less on fine tuning theories of environmental federalism than on improving regulatory performance. Simply put, how we regulate is more important than where we regulate. Current environmental policy efforts fall short for a number of reasons: technical information shortcomings, "structural" or jurisdictional mismatches, and public choice distortions. A theory of optimal environmental governance must seek to address each of these sources of regulatory failure. A long article. Esty is Associate Dean, Yale School of Forestry and Environmental Studies, also in Law, Yale Law School. He was earlier Deputy Chief of Staff for Policy, U.S. Environmental Protection Agency.


Ethical and Philosophical Issues in Environmental Epidemiology. The report of a World Health Organization / International Society for Environmental Epidemiology Workshop held last fall, at Research Triangle Park, North Carolina, USA, is now available in English, French, German, and Russian. Contact: Roberto Bertollini, World Health Organization, Regional Office for Europe, European Centre for Environment and Health, Via Vincenzo Bona, 67, I-00156 Rome, Italy. Phone 39-6-4116640. Fax 39-6-4116649. (v6,#2)

Ethical Institute of Chiva University, Study of Bioethics and Environmental Ethics (in Japanese). Chiva, Japan: Ethical Institute of Chiva University, 1990. The chapters are: Masua, Introduction to Callicott's Ideas; Nagakura, Introduction to Callicott's Ideas; Osawa, Introduction to Chiras' Ideas; Nitta, Introduction to Rolston's Ideas; Unoki, Introduction to Shrader-Frechette's and Feinberg's Ideas; Tanimoto, Introduction to Shrader-Frechette's Ideas; Ishikawa, Introduction to Glover's Ideas; Matsukawa, Introduction to McIntyre's Ideas; and Maruyama, Introduction to Shrader-Frechette and Others. (v4,#2)


Ethics Education: A Greater Teacher. Reflections: Newsletter of the Program for Ethics, Science, and the Environment, Department of Philosophy, Oregon State University, vol. 8, no. 2, November, 2001, is a theme issue on alternative contexts and methods of education in ethics and philosophy, many of which involve the experience of nature, and some undertaken at OSU, approaches "that look to the environment as a greater teacher." Copies from Department of Philosophy, Oregon State University, Corvallis, OR 97331-3902. (v.13,#1)

Ethics, Place and Environment: A Journal of Geographical Ethics is a peer-reviewed forum for scholarly research on all aspects of geographical and environmental ethics. Each issue includes mainline papers (research articles), short contributions (e.g., commentaries, reports, etc.), and reviews. A U. S. contact is William S. Lynn, Review Editor, Department of Geography, University of Minnesota, 414 Social Science, Minneapolis, MN 55455. 612/625-6080 (office); 624-1044 (fax); Email: lynn0003@tc.umn.edu; http://www.geog.umn.edu/geo-ethics. The editor is Tim Unwin, Geography, Royal Holloway, University of London, Egham, Surrey, England TW20 0EX, +44(0)1784 44364, +44(0)1784 477260 (fax), t.unwin@vms.rhbnc.ac.uk. Another contact is Jim Proctor, Geography, University of California, Santa Barbara, California, 93106, USA, 805/893-8741, 805/893-3146 (fax), Email: jproctor@geog.ucsb.edu. (v8,#2)

Ethics, Place, and Environment, is a new journal to be launched in 1998 by Carfax Publishing, Ltd. Edited by Tim Unwin (Royal Holloway, University of London), James Proctor (University of California, Santa Barbara) and Iain Hay (The Flinders University of South Australia), the journal will provide a forum for the publication of research and scholarship on all aspects of geographical and environmental ethics. Included will be research on ethical issues, animal rights, questions of justice in urban society, development ethics, cartography, and the construction of cultural values. Volume 1, 1998, 2 issues, ISSN 1366-879X. For an inspection copy of the first issue, contact Carfax Publishing, Ltd., 875-81 Massachusetts Ave., Cambridge, MA 02139 USA. Tel: 800-354-1420. Fax: 617-354-6875. Email: sales@carfax.co.uk. Website: http://www.carfax.co.uk/epe-ad.htm

Etica & Animali. 1996. Special issue devoted to The Great Ape Project.

Evanoff, Richard J., "Reconciling Realism and Constructivism in Environmental Ethics," *Environmental Values* 14(2005):61-81. This paper outlines a constructivist approach to environmental ethics which attempts to reconcile realism in the ontological sense, i.e., the view that there is an objective material world existing outside of human consciousness, with the view that how nature is understood and acted in are epistemologically and morally constructed. It is argued that while knowledge and ethics are indeed culturally variable, social constructions of nature are nonetheless constrained by how things actually stand in the world. The 'realist' version of constructivism proposed here can be linked to dialectical forms of reasoning which see knowledge and ethics as arising out of human interactions with an objectively real environment, and contrasted with strong constructivist views which see nature as 'nothing more than' a social construct. While both the physical environment and human attitudes towards it are in part socially constructed, nature also retains a measure of autonomy, or 'wildness', apart from human constructions. Evanoff is in the School of International Politics and Economics, Aoyama Gakuin University, Tokyo, Japan. (EV)

Evanoff, Richard, "A Constructivist Approach to Intercultural Dialogue on Environmental Ethics" Ph.D. thesis, Institute for Environment, Philosophy, and Public Policy at Lancaster University, U.K. Current trends towards globalization are creating entirely new social and environmental problems which require the development of a new global ethic. How cross-cultural dialogue on a global ethic can be effectively conducted among cultures with differing epistemological, value, and ethical orientations. An adequate framework for intercultural dialogue is provided by neither foundationalist nor relativist theories of ethics and an alternative constructivist theory which acknowledges the historically contingent and socially situated nature of cultural discourses but contends that the current global situation creates an entirely new situs in which intercultural dialogue on environmental ethics becomes not only possible but also necessary. A global ethic which adopts human flourishing, social justice, and environmental integrity as its guiding objectives. Since current forms of development are unable to meet these objectives, an alternative bioregional paradigm is developed which calls for the creation of economically self-sufficient and politically decentralized communities delinked from the global market but confederated at appropriate levels to address problems that transcend cultural borders. Alan Holland and John O'Neill were advisors; Vernon Pratt was the internal examiner; Philip Sarre of the Open University was the external examiner. Evanoff is a professor in the School of International Politics and Economics at Aoyama Gakuin University in Tokyo, Japan and can be contacted at <evanoff@sipeb.aoyama.ac.jp>. (v.13,#2)


Evans, Peter, "The Eclipse of the State? Reflections on Stateness in an Era of Globalization," *World Politics* 50 (no. 1, October 1997):62-. (v.8,#4)

have dramatically increased production in some areas, but unevenly across crops and regions. Consumers have generally benefited, but farmers benefit only if their costs saved are greater than the lower prices they now receive for the additional food. Prospects for a continued green revolution are quite mixed. The authors are in economics, Yale University. (v 14, #3)

Everett, Jennifer, "Environmental Ethics, Animal Welfarism, and the Problem of Predation: A Bambi Lover's Respect for Nature," Ethics and the Environment 6(no. 1, 2001):42-67. Many environmentalists criticize as unecological the emphasis that animal liberationists and animal rights theorists place on preventing animal suffering. The strong form of their objection holds that both theories absurdly entail a duty to intervene in wild predation. The weak form holds that animal welfarists must at least regard predation as bad, and that this stance reflects an arrogance toward nature that true environmentalists should reject. This paper disputes both versions of the predation critique. Animal welfarists are not committed to protecting the rabbit from the fox, nor do their principles implicitly deprecate nature. Everett is in philosophy, University of Anchorage, Alaska. (E&E)


Everett, Michael D. and Robert Peplies, "The Political Economy of Environmental Movements: U.S. Experience and Global Movements," Environmental Values Vol.1 No.4(1992):297-310. ABSTRACT: In 1972 a public choice model predicted that the incipient environmental movement in the United States would grow but encounter overwhelming industrial opposition. Twenty years later we find the model overstated this opposition. Environmental pressure groups were able to pass substantial legislation, resist counter forces, and reduce most targeted pollutants. A revised public choice model predicts that the success of the present global environmental movement depends on (1) information flows between scientists and the public on the potential costs of deterioration, and (2) means for reducing the costs of regulation such as relying more on market incentives. KEYWORDS: Environment (political aspects), environmental movements, environmental policy, environmental protection, politics (environmental aspects), public choice models. Everett: Department of Economics and Finance, Peplies: Department of Geography, East Tennessee State University, Johnson City, Tennessee 37614-0002, USA.


Evernden, Neil, The Natural Alien: Humankind and Environment. Toronto: University of Toronto, 1985. A unique blending of several disciplines--art, literature, philosophy, ecology, biology, photography--designed to show that the environmental crisis is a
crisis of "world-view" or experience. An attempt must be made to understand the subjective experience of nature, for the environmental crisis is a crisis of meaning, caused by the false objectification of the nonhuman world. A phenomenological position that is intelligible even to a layman. (Katz, Bibl # 1) Reviewed in Environmental Ethics 12(1990):283-87.


Evernden, Neil, The Natural Alien: Humankind and Environment. Toronto: University of Toronto Press, 1985. Second edition, 1993. Homo sapiens is the one species on Earth that is "naturally alien," by which Evernden means that human nature is genetically disposed to break away from our evolutionary history and to form cultures built by technology. So we repeatedly and naturally "alienate" ourselves from wild nature. We are natural aliens because we are essentially technological beings, living by "the encountering of the world as a field for the use of tools" (p. 67). Ecologically, humans are "exotics" (p. 109). We have no niche; we rebuild nature. Born with this "congenital deformity" (p. 137) which emerged with our species, we are unable to encounter the world as anything other than our resource, unable to relate to anything in nature as having intrinsic value. So "there is no possibility of an environmental ethic ... in a society dominated by the technological vision of the world" (p. 69). Evernden hopes this is not "an entirely pessimistic conclusion" (p. 123) because humans, despite this congenital deformity also have an unfinished "essential openness" (p. 122), and maybe we can break away from this innate tendency to be natural aliens and find more harmony with nature.


Ewbank, Roger, "Farm Animal Welfare: A Historical Overview", Journal of Agricultural and Environmental Ethics 6(1993). One result of Ruth Harrison's 1964 book Animal Machines was the UK Brambell Committee report on the welfare of animals kept under intensive livestock husbandry systems. The Council of Europe took on, from the Brambell Committee evidence, the idea that animals have ethological needs. The concept of rights is somewhat foreign to the UK, but the government's Farm Animal Welfare Council has suggested that farm stock should be kept so that they enjoy the so-called New Five Freedoms - including freedom from suppression of "normal" behaviour. Currently two conflicting forces act in the animal welfare area: the seemingly high need of consumers for cheap high-quality animal protein foods and the demand, by the animal rightists, that humans should not use animals at all. Ewbank is with the Universities Federation for Animal Welfare, 8 Hamilton Close, South Mimms, Potters Bar, Herts EN6 3QD, United Kingdom.

Ewel, John J., Dennis J. O'Dowd, and Daehler, Curtis C. "Deliberate Introductions of Species: Research Needs." Bioscience 49(No.8, August 1999):619- . Benefits can be reaped, but risks are high. (v10,#4)
Ewers, R; Didham, R; Wratten, SD; Tylianakis, J, "Remotely sensed landscape heterogeneity as a rapid tool for assessing local biodiversity value in a highly modified New Zealand landscape," *Biodiversity and Conservation* 14 (no. 6, June 2005): 1469-1485.


Ewing, Rodney C., and Macfarlane, Allison, "Yucca Mountain," *Science* 296 (26 April 2002):659-660. U.S. President Bush has recommended Yucca Mountain in Nevada as the U.S. site for the disposal of 400 metric tons of high-level nuclear waste, mainly the used fuel from commercial nuclear power plants. The Secretary of Energy claims "sound science," but these scientists have many doubts. "In our view, the disposal of high-level nuclear waste at Yucca Mountain is based on an unsound engineering strategy and poor use of present understanding of the properties of spent nuclear fuel." A main problem is that there isn't any serious alternative, and politics is driving the need for a storage facility, which is resulting in twisting the estimates of probabilities. A bigger problem is that estimates have to be made across many disciplines from atomic physics to geology, to materials science (reliability of containers, barriers), to likelihood of systems failure, across tens of thousands of years, with serious and involuntary risks. Nothing like this has ever been done before. Ewing is in nuclear engineering at the University of Michigan, Ann Arbor. Macfarlane is in security studies at MIT, Cambridge, MA. (v.13,#2)


Fa, JE; Peres, CA; Meeuwig, J, "Bushmeat Exploitation in Tropical Forests: an Intercontinental Comparison," *Conservation Biology* 16 (no.1, 2002):232-237. (v.13, #3)

Fabel, Arthur J., "Environmental Ethics and the Question of Cosmic Purpose." *Environmental Ethics* 16(1994):303-314. In the context of the earlier views of John Haught, I discuss the paradox that while environmental philosophers seek a viable ethics, advocates of the majority view, scientific materialism, deny an intrinsic value to nature. I argue that a new science, just now arising, may set aside this pessimistic view, replacing it with a conception of the cosmos as a self-organizing genesis. Its method is holistic and integrative rather than analytical and divisive. After a survey of its overall outlines, I introduce some salient features of the central trend, a key
property, and a universal complementarity and explore their relevance for a scientifically based natural ethics that takes into account an ecological self, animal awareness, and cooperative communities. Fabel is at 620 Bay Road, Amherst, MA. (EE)

Faber, Daniel. Environment Under Fire: Imperialism and the Ecological Crisis in Central America. Monthly Review Press, 1993. 301 pages. $16. How the subjugation of indigenous peoples has been incorporated into Central American export economies, to supply North Americans with coffee, sugar, bananas, and other pleasures of life at a severe and ever-rising cost to the environment and to the Central American poor. Faber is former research director of the Environmental Project on Central America. (v4,#4)


Faber, Malte, Reiner Manstetten and John L. R. Proops, "Humankind and the Environment: An Anatomy of Surprise and Ignorance." Environmental Values Vol.1 No.3(1992):217-242. ABSTRACT: This paper addresses the problem of 'ignorance' in philosophy and science, particularly with respect to the conceptualization, study and solution of environmental problems. We begin by distinguishing between 'risk', 'uncertainty' and 'ignorance.' We then offer a categorization of ignorance, and use these categories to assess the role of science as a means of reducing ignorance. We note that to proceed with science, several 'acts of faith' are necessary. We conclude with a discussion of the importance of an attitude of openness in science and philosophy, especially regarding environmental problems. Throughout, we illustrate our discussion of ignorance, and the problems involved in its reduction, by reference to environmental issues. KEYWORDS: Environment, ignorance, openness, surprise. Faber and Manstetten: Alfred Weber-Institut, Department of Economics, Universitat Heidelberg, Grabengasse, 6900 Heidelberg, Germany. Proops: Department of Economics, University of Keele, Staffordshire ST5 5BG, UK.


Fagin, Adam and Jehlicka, Petr. "Sustainable Development in the Czech Republic: A Doomed Process?" Environmental Politics 7(no.1, Spring 1998):113- . (v10,#4)


"Preoccupation with parks, wilderness, and the preservation of wild spaces for recreation is destructive.... because it miseducates us and our children about the relationship between humans and the natural world, and because it focuses attention on the wrong lands and the wrong activities .... Environmentalists, in my experience, have expended far too much effort lobbying the federal government for the preservation of untrammeled wilderness ... in the pursuit of the utterly nutso (sic) belief that if we can simply bar humans from those areas, they will be preserved, preferably forever.... The preservation of the world, I would argue, is not in 'wildness', but in the working landscape. And defining that is more appropriately a regional, local and community undertaking than a role for the federal government....

The garden rather than the wilderness is the appropriate metaphor for the touchstone of land management. [But for environmentalists] The ideal landscape is not an agrarian setting as in Jefferson, where decent hardworking folk toil to make a living from the earth, but one which is totally removed from human use, except for the privileged to retreat for leisure and refreshment. No room is left in this vision for people to live and work in the natural world....The preoccupation with wilderness leaves no opportunity to learn about gentle use of the land.... " Fairfax is professor of forestry at UC-Berkeley, and the author of the second edition of Samuel Trask Dana's Forest and Range Policy: Its Development in the United States, 1956, 2nd ed., 1980, McGraw-Hill, a well-known text. (Thanks to Bill Willers, Biology, University of Wisconsin-Oshkosh.) (v.12,#3)


Fairhead, James, and Leach, Melissa. **Misreading the African Landscape: Society and Ecology in the Forest-Savanna Mosaic.** New York: Cambridge University Press, 1996. 285 pages. $55 cloth, $19.95 paper. How the view that West African landscapes are degraded can be wrong. The inhabitants of landscapes may have enriched the land when scientists mistakenly believe that they have degraded it. A new framework of ecological anthropology and a challenge to old assumptions about the African landscape. (v7, #3)

Fairlie, Simon, Hagler, Mike, O'Riordan, Brian. "The Politics of Overfishing," The Ecologist 25(no.2/3, Mar. 1995):46-. Industrialized overfishing has brought world fisheries to the point of collapse; historical processes; The success of community-managed fisheries; The enclosure of commons regimes; the dynamics of overfishing; the "ratchet effect" of increased fishing effort; a critique of the mainstream response to overfishing; property right or people's rights? The case for limiting technology; the resurgent commons; tools of negotiation. (v6,#4)

Fairlie, Simon. "Britain's Fishing Industry and the EU Common Fisheries Policy," The Ecologist 25(no.2/3, Mar. 1995):105-. Increasing numbers of British fishermen are calling for a withdrawal from the European Union's Common Fisheries Policy (CFP); the inadequacies of the CFP; the consequences of quotas; decommissioning; a divided industry. (v6,#4)

Fairweather, P. G., "Links between Ecology and Ecophilosophy, Ethics and the Requirements of Environmental Management," Australian Journal of Ecology 18 (1993): 3-19. A two-way interaction between ecology and ethics will continue to bear fruit for both disciplines. We need to address fundamental issues of definition and meaning before useful debate can occur in environmental decision-making. Legal requirements of environmental legislation should be met, but we should act more in line with the spirit of the legislation. Science is not paramount in decision-making psycho-social factors are. Philosophy and ethics offer a wide range of perspectives that can benefit ecology, though, in general, philosophers have listened to ecologists better than ecologists have listened to philosophers. Ecology needs to guide ecophilosophers as to how nature works, why we expect variability in ecosystems, what is natural, and other issues where a scientific understanding of nature has progressed further than many are aware. Fairweather is in the Graduate School of the Environment, Macquarie University, NSW, Australia. (v5,#4)


Falk, Donald, Millar, Constance, Olwell, Margaret, eds. Restoring Diversity. Covelo, CA: Island Press, 1996. 400 pp. $39.95 cloth, $27.50 paper. Seeks both to unify concepts in the field of restoration biology, and also to fill significant technical and policy gaps, with the goal of providing operational tools for successful restorations. (v.7,#4)


Falkowski, P. et al (16 others), "The Global Carbon Cycle: A Test of Our Knowledge of the Earth as a System," Science 290(2000):291-296. "Our knowledge of the carbon cycle within the oceans, terrestrial ecosystems, and the atmosphere is sufficiently extensive to permit us to conclude that although natural processes can potentially slow the rate of increase in atmospheric CO2, there is no natural 'savior' waiting to assimilate all of the anthropogenically produced CO2 in the coming century." Authors are from the International Geosphere-Biosphere Program (IGBP) Working Group on climate change. (v.12,#2)

Fall, Juliet J., "Transboundary Biosphere Reserves: A New Framework For Cooperation," Environmental Conservation 26 (No. 4, Dec 01 1999): 252-. (v.11,#2)


Farber, Daniel A., "From Here to Eternity: Environmental Law and Future Generations," University of Illinois Law Review 2003, no. 2, pages 289-335. An analysis of exponential discounting, placing a present day value on future harms, which may often have the effect of minimizing catastrophic events far in the future. Some form of discounting is appropriate, given that society cannot allocate finite resources equally over an infinite number of time periods. Farber is in law, University of California at Berkeley, also in law, University of Minnesota.
Farber, Daniel A. Eco-pragmatism: Making Sensible Environmental Decisions in an Uncertain World. Chicago: University of Chicago Press, 1999. 210pp. $23. Environmental policy, steering a middle course between those who advocate strict cost-benefit analysis and those who would protect the environment at any cost. Defends an emerging social consensus favoring environmental values, but at the same time, demonstrates how those values are consistent with a balanced weighing of costs and benefits, and shows how environmental policies can respond dynamically to changing needs and new information. (v10,#4)

Farber, Paul L., The Temptations of Evolutionary Ethics. Berkeley: University of California Press, 1994. A negative assessment of the last one hundred years of attempts to develop an evolutionary ethics. Always, some version of the naturalistic fallacy is one of the central sources of the failures of evolutionary ethics. Though it has attractions, evolutionary ethics is a temptation to be resisted. Reviewed by William A. Rottschaefer in Biology and Philosophy 12(1997):369-384. (v8,#3)


Farber, S, et al., "Linking Ecology and Economics for Ecosystem Management," BioScience 56 (no. 2, February 2006): 121-133. Outlines an approach, based on ecosystem services, for assessing trade offs inherent in managing humans embedded in ecological systems. Evaluating these trade offs requires an understanding of the biophysical magnitudes of the changes in ecosystem services resulting from human actions, and of the impact of these changes on human welfare. We summarize the state of the art of ecosystem services based management and the information needs for applying it. Three case studies of Long Term Ecological Research (LTER) sites coastal, urban, and agricultural illustrate the usefulness, information needs, quantification possibilities, and methods for this approach.


Farina, Almo; Belgrano, Andrea, "The Eco-field Hypothesis: Toward a Cognitive Landscape," Landscape Ecology 21 (no.1, January 2006): 5-17 (13).

Farney, Dennis, "Chaos Theory Seeps Into Ecology Debate, Stirring Up a Tempest," Wall Street Journal, 11 July 1994, pp. A1, A8. Since the Renaissance, nature has been viewed as rational and orderly; but it is inherently disorderly, says environmental historian Donald Worster (University of Kansas). All is flux and flow, change without end. Ours is a post-modernist, post-structuralist age. (v5,#3)


Farnsworth, Elizabeth J. and Judy Rosovsky, "The Ethics of Ecological Field Experimentation," Conservation Biology 7(1993):463-472. Ecological research, though it generates information supporting conservation efforts, raises ethical issues when we propose to modify or endanger the individual organism, population, species, or ecosystem. Yet the scientific literature contains little explicit consideration of such study. This is due to (1) trepidation about controversy that could endanger research efforts, (2) assumptions that the benefits outweigh the cost, (3) difficulties in perceiving the negative impacts of such study, and (4) tacit assumptions about certain experiments that are simply "wrong" to do. Such ethical issues are increasingly arising. The literature on environmental ethics and experimentation affords diverse and occasionally conflicting value systems on which to build an ethical of ecological experimentation. Ethical considerations are compatible with sound scientific protocols. The authors encourage a dialogue between scientists and philosophers. Both authors are in biology at the University of Vermont. (v4,#4)


Farthing, Stuart M., ed. Evaluating Local Environment Policy. Brookfield, Vt.: Ashgate, 1997. 208 pp. $ 46.95. Lessons from environmental auditing for and appraisal of the development of local environmental policy, environmental planning, bus-based park and ride towards sustainability, coordinating facility provision and new housing development, and case studies, among others. (v8,#2)


Fausch, KD; Torgersen, CE; Baxter, CV; Li, HW, "Landscapes to Riverscapes: Bridging the Gap between Research and Conservation of Stream Fishes," Bioscience 52(no.6, 2002):483-498. (v.13, #3)


Fawcett, Eric., "Working Group on Ethical Considerations in Science and Scholarship," *Accountability in Research* (Gordon and Breach Science Publishers) 3(1993):69-72. A Toronto group analyze and propose particular ethical codes by professional societies to suggest that they all address common elements, with the result that scientists and scholars agree to a common moral framework in the conduct of their investigations. "Living in a world in which all forms of life are interdependent, we recognize that human activity since the scientific revolution now threatens the future of life on the planet. This threat stems in part from reckless exploitation of the earth's resources and massive pollution of the biosphere by humankind, exacerbated by rampant militarism. To help solve these problems, scientists and scholars, and all those concerned with the welfare of life on earth, need to unite in a world-wide moral community." Fawcett is in physics at the University of Toronto. (v5,#1)


Feagan, Robert and Ripmeester, Michael, "Reading private green space: competing geographic identities at the level of the lawn," *Philosophy and Geography* 4 (No. 1, 2001): 79-95. This paper focuses on private residential green space as a site of contested meanings. Recent research points to the emergence of an activism centered on ecological restoration and a shift away from the lawn as the only accepted landscape practice for private green space. However, it is clear that the lawn, a particularly powerful cultural landscape form in residential neighborhoods, still largely dominates this space across North America. This investigation examines the voices of two groups: traditional lawn owners and ecological activists. We observe two sets of discourses centered on private green space. Both groups construct residential green space as a site of identity politics -- a site wherein the self is defined as pure and the other excluded as different and necessarily inferior. And both perceive their discourse as 'natural'. The critical finding is that they are almost entirely oppositional discourses. The contest over what constitutes appropriate landscaping practices for this space provides a locus for bringing to a discursive level, the kinds of socio-cultural perspectives and practices that create and dominate our places in late capitalist society. We suggest that at present the lawn remains a barrier to alternative green
space practices. Feagan is Assistant Professor of Geography at the University of Guelph. Ripmeester is Associate Professor of Geography at Brock University. (P&G)

Fearnside, Philip M. "Conservation Priorities in Latin America," Conservation Biology 11(no.4, 1997):1040. (v8,#3)

Fearnside, Philip M., "Biodiversity As An Environmental Service In Brazil's Amazonian Forest: Risks, Value And Conservation," Environmental Conservation 26 (No. 4, Dec 01 1999): 305- . (v.11,#2)


Federoff, Nina and Nancy Marie Brown, Mendel in the Kitchen: a Scientist's View of Genetically Modified Foods. Washington, DC: Joseph Henry Press, 2004. Changing genes to feed the world. Crop yields doubled and quadrupled during the Green Revolution. Of increased crop yields, traditional breeding accounts for about 40% of the increase, the remaining 60% stems from greater inputs in fossil-fuels energy, fertilizers, pesticides. Genetic engineering now provides rich possibilities, especially for pesticide resistance and freezing tolerance, perhaps for perennial grains. Reviewed by David Pimentel in Science 306 (29 October 2004):815, who thinks the authors deal inadequately with the possibilities for organic agriculture rather than GMO agriculture. Federoff is in plant molecular biology at Penn State; Nancy Brown is a science writer. (v.14, #4)


Feinberg, Joel, "Environmental Pollution and the Threshold of Harm." Hastings Center Report vol. 14, no. 3 (June 1984): 27-31. Feinberg discusses the moral and political problems for legislators dealing with a problem like pollution, where no individual act--below a certain threshold--is actually harmful. Individual acts of pollution are thus only "wrong" when they violate a predetermined set of principles for allocating the incremental harms below the threshold. (Katz, Bibl # 1)

Feldman, Linda. "Cruelty to Pets--and People--as One Battle." Christian Science Monitor 89 (10 September 1997): 1, 5. Cruelty to animals often indicates or predicts abuse to people as well. The "boys-will-be-boys" attitude is opposed by the Humane Society. (v8,#3)

Feller, Joseph M. "'Til the Cows Come Home': The Fatal Flaw in the Clinton Administration's Public Lands Grazing Policy," Environmental Law 25(no.3, 1995):703. Feller evaluates the Clinton Administration's efforts to reform environmentally destructive livestock grazing on public lands in the western United States. He concludes that although the Administration has issued a number of regulatory proposals exhibiting varying degrees to commitment to genuine change, the proposals still perpetuate fundamental flaws in the grazing system causing environmental destruction. (v6,#4)


Fenchel, T. and Finlay, B. J., "The Ubiquity of Small Species: Patterns of Local and Global Diversity," BioScience 54(no. 8, 2004): 777-784(8). Small organisms (less than 1 millimeter in length) tend to have a cosmopolitan distribution. This is a consequence of huge absolute population sizes rather than any inherent properties of particular taxonomic groups. At the local scale, the diversity of small species exceeds that of larger organisms, but at the global scale this relation is reversed, because endemism is largely responsible for the species richness of large organisms. For small organisms, the relationship between species and area is flat, and a latitudinal diversity gradient is absent or weak. These patterns are explained by some of the assumptions underlying the unified neutral community model. (v.14, #4)

Fenchel, Tom; Finlay, Bland J, "The Ubiquity of Small Species: Patterns of Local and Global Diversity", BioScience 54 (no. 8, 1 August 2004):777-784(8). Small organisms (less than 1 millimeter in length) tend to have a cosmopolitan distribution. This is a consequence of huge absolute population sizes rather than any inherent properties of particular taxonomic groups. At the local scale, the diversity of small species exceeds that of larger organisms, but at the global scale this relation is reversed, because endemism is largely responsible for the species richness of large organisms. For small organisms, the relationship between species and area is flat, and a latitudinal diversity gradient is absent or weak. These patterns are explained by some of the assumptions underlying the unified neutral community model.


Fenner, David E.W., "Aesthetic Appreciation in the Artworld and in the Natural World," Environmental Values 12(2003): 3-28. I explore some parallels and dissimilarities between aesthetic appreciation that takes as its focus art objects and that which focuses on natural objects. I cover three areas. The first deals with general approach, whether a paradigm of engagement is more appropriate to environmental aesthetics than one of detachment and disinterest. The second theme is about preservation and whether the appropriate model is static or dynamic. The final theme is about environmental criticism and the application of aesthetic theory to arguments for preservation. (EV)

Fenner, David E. W., "Environmental Aesthetics and the Dynamic Object," Ethics and the Environment 11(2006):1-19. I lay out a case for why those objects of aesthetic attention which are principally characterized as natural objects should be understood not statically, as existing in merely a three-dimensional fixed state, but as dynamic, as existing in a space-time context, complete with change, movement, and flux. After this, I explain why this is important, how the dynamic nature of natural objects raises a concern for aesthetically evaluating natural objects, and how that concern may be addressed. Fenner is in philosophy, University of North Florida. (Eth&Env)

Fenton, Elizabeth, Wild Animal Welfare and Common Sense Ethics, M. A. thesis, Colorado State University, Spring 2002. Environmental ethics includes an ethics of respect for wild animals. There are two dimensions here, one is respect for the integrity of animal life, which includes caring for animals welfare; the other is respect for wildness. In much environmental ethics, for example in that of Holmes Rolston, valuing the wildness takes precedence over concern for animal suffering. This is similarly true when exotic (feral) animals are removed by killing in order to protect endangered species of plants, or ecosystems, also argued by William Throop. But a common sense ethic moves us to care about animal suffering; and such an ethic is, on reflection, well founded. The desire to extend humane treatment to wild animals expresses human moral compassion, and recognizes the fact that the capacity to suffer is a morally relevant characteristic shared by all sentient beings, regardless of whether they are wild. On occasions when we do encounter wild animals in distress, the moral and compassionate action is to reduce their suffering, not to let wild nature take its course. Fenton is from New Zealand. (v.13,#2)

Ferber, Dan, "WHO Advises Kicking the Livestock Antibiotic Habit," Science 301(22 August 2003):1027. Livestock have routinely been given small doses of antibiotics to make farm animals grow slightly faster on less feed (the biology of which is not too clear, but it works). But there are worries about increasingly resistant bacterial disease microbes, about the transfer of the antibiotic residues to human consumers, and about the use of such antibiotics when needed to treat human diseases against now more resistant microbes. Denmark has phased out the practice and a World Health Organization study of the results have led to the recommendation that farmers worldwide kick the antibiotic habit. The European Union plans a phase out by 2006, but the U.S. is mostly continuing to use the antibiotic. (v 14, #3)

Ferber, Dan, "Sperm Whales Bear Testimony to Worldwide Pollution," Science 309(19 August, 2005):1166. Results from the first global survey of toxic contaminants in marine mammals find DDT, PCB's, and other toxics even in midocean areas thought to be pristine.


Fern, Richard L., Nature, God and Humanity: Envisioning an Ethics of Nature. Cambridge: Cambridge University Press, 2002. Why non-human animals and nature in general are proper objects of moral concern, and how human well-being depends on harmony with nature-as-created. Fern frames a philosophical ethics of nature, in dialogue with the principal figures in the field, assesses this ethics scientifically, finds support for it in traditional theism, and then situates it culturally. There is tension between a widespread respect for what science tells us about nature, simultaneously with a genuine conviction that there is more to nature than science reveals.
The analyses of philosophers in environmental ethics are important and insightful here. Discovering value in nature, which ought to be morally considered, is plausible and consistent with classical monotheism. In fact, the roots of the contemporary redirecting of ethics toward nature have deeper roots in the Biblical sources of Western values than is usually recognized. The insights of monotheism are important and needed to formulate positive visions of the future, visions of a just and good world, of humans in harmony with nature. Fern defends both human uniqueness and the radical otherness of God; these make possible (rather than preventing) an appropriate relation to the wild creatures with whom we share the planet and to the supporting biosphere. Fern call this a "humane holism" (p. 7, p. 65ff). "My hope is to have cleared the way for a more fully developed theistic ethic of nature" (p. 215). This book grows out of a course in environmental ethics taught for over a decade at Yale University Divinity School, from which Fern is now retired. It rivals Michael Northcott's The Environment and Christian Ethics (Cambridge, 1996) as the most philosophically sophisticated work on a theistically-oriented environmental ethics. (v.13,#2) Later: Cambridge lists this in their top five best sellers in religion. (v.13,#4)


Ferré, Frederick, "Cosmic Context, Earthling Ethics," *Journal of the American Academy of Religion* 67(1999):435-446. Review essay of Rasmussen, Larry J., *Earth Ethics* (Orbis, 1996); Grange, Joseph, *Nature: An Environmental Cosmology* (SUNY, 1997); and Murphy, Nancey and Ellis, George F. R., *On the Moral Nature of the Universe: Theology, Cosmology, and Ethics* (Fortress, 1996). "If the above three books are any portent, there may yet be grounds for hope. All are written out of the unsustainable precariousness of modernity, as a way of life and a way of thought. All are integrative. All are informed by science but wary of scientism. All recognize the power of faulty cosmological vision to distort human relations, both with other humans and with the earth on which we dwell." Ferré is philosophy emeritus, University of Georgia. (v.10,#2)

Ferré, Frederick and Peter Hartel, eds., *Ethics and Environmental Policy: Theory Meets Practice*. Athens: University of Georgia Press, 1944. Paper, 283 pages. $20.00, paper. Contributors: Victoria Davion (Philosophy, University of Georgia), "Introduction: Where Are We Headed"; Frank B. Golley (Ecology, University of Georgia), "Grounding Environmental Ethics in Environmental Science"; Elizabeth Dodson Gray (Bolton Institute and Harvard Divinity School), "Come Inside the Circle of Creation: The Ethics of Attunement"; Yu-shi Mao (Chinese Academy of Social Sciences, Beijing), "Evolution of Environmental Ethics: A Chinese Perspective"; J. Baird Callicott (Philosophy, University of Wisconsin, Stevens Point), "The Role of Technology in the Evolving Concept of Nature"; Ignazio Musu (Economics, University of Venice), "Efficiency and Equity in International Environmental Cooperation"; Udo E. Simonis (Environmental Policy, Wissenschaftszentrum, Berlin), "Toward a `Houston Protocol': How to Allocate CO$_2$ Emission Reductions Between North and South"; Corrado Poli (Fondazione Lanza, Padua, Italy), "The Political Consequences of an Environmental Question"; Gary E. Varner (Philosophy, Texas A&M), "Environmental Law and the Eclipse of Land as Private Property"; Erazim Kohák (Philosophy, Charles University, Prague), "Red War, Green Peace"; Kristin Shrader-Frechette (Philosophy, University of South Florida, Tampa), "An Apologia for Activism: Global Responsibility, Ethical Advocacy, and Environmental Problems"; Alastair S. Gunn (Philosophy, University of Waikato, New Zealand), "Can Environmental Ethics Save the World?"; Holmes Rolston, III (Philosophy, Colorado State University), "Winning and Losing in Environmental Ethics"; Bryan Norton (Philosophy, Georgia Institute of Technology) and Eugene Hargrove (Philosophy, University of North Texas), "Where Do We Go from Here?"; Frederick Ferré, "Epilogue." Ferré is in philosophy, Hartel in crop and soil sciences at the University of Georgia. This anthology results from a conference there in April 1992. (v5,#3)

Ferré, Frederick, "Obstacles on the Path to Organismic Ethics: Some Second Thoughts," *Environmental Ethics* 11(1989):231-241. Organic and holistic theories of environmental ethics face the problem of individual value; here Ferre attempts to sketch a "personalistic organicism"---but as he admits, this re-introduces the problem of species chauvinism or anthropocentrism. (Katz, Bibl # 2)
Ferré, Frederick, *Hellfire and Lightning Rods: Liberating Science, Technology and Religion*. Maryknoll, NY: Orbis Books, 1993. Cloth, $24.95. Prevailing models of nature are inadequate because they are too narrow in their portrayal of a single but polyvalent organic world. The world must be envisioned organically or be destroyed by stunted and sterile approaches. Ferré is Research Professor of Philosophy at the University of Georgia, and instrumental in the environmental studies faculty there. (v4,#2)


Ferré, Frederick, "Persons in Nature: Toward an Applicable and Unified Environmental Ethics," *Ethics and the Environment* 1(no.1, 1996):15-25. There is a dilemma facing mainstream environmental ethicists. One of our leading spokesmen, Holmes Rolston, III, offers a rich ethical position, but one that lacks internal connections between principles relevant to the environment and principles relevant to human society. These principles are just different; thus no higher-order guidance is available to cope with cases of conflict between them. A second major spokesman, Baird Callicott, recommends a "land ethics" that is internally coherent but sadly inadequate for addressing many distinctly human ethical concerns. To escape this dilemma I advocate an alternative worldview, "Personalistic Organicism." On this view, inspired by Alfred North Whitehead, a continuum of values, pervading the universe, can undergird a unified ethics in which human persons are recognized as especially valuable without rupturing the continuities that bind humanity to the rest of the living (and nonliving) environment. Ferré teaches philosophy at the University of Georgia. (E&E)

Ferré, Frederick, *Being and Value: Toward a Constructive Postmodern Metaphysics*. Albany, NY: State University of New York Press, 1996. 424 pages. $24.95 paper. Metaphysics with courage and conviction, persuasive and comprehensive, at a time when many are cultured despisers of it. Premodern philosophy intimately bound being and value. Modern philosophy divorced being and value. Postmodern philosophy is in transition from the modern mechanical worldview to an alternative inspired by ecology. The beauty of nature, along with other values, is a more potent ingredient in the structure of things than modern reductionism allows. One chapter is entitled: Toward an Ecological World Model. Another is: Toward a Kalogenic (Beauty-generating) Universe. Two more volumes: Knowing and Value, and Living and Value, are projected. Ferré is professor of philosophy at the University of Georgia. (v7,#1)

Ferré, Frederick, "Persons in Nature: Toward an Applicable and Unified Environmental Ethics," *Zygon* 28(1993):441-453. Two major contenders for the role of robust environmental ethics claim our allegiance. One is Baird Callicott's, based on the land ethical formulated by Aldo Leopold; the other is that of Holmes Rolston, III, sharply distinguishing environmental from social (human) ethics. Despite their many strengths, neither gives us the vision we need. Callicott's ethic leaves too much out of his picture; Rolston's leaves too much disconnected between nature and humankind.
A really usable environmental ethic needs to be both comprehensive and integrated. For that, we need a world view that includes the human in nature but also affirms the unique values of personhood. Ferré is Research Professor of Philosophy at the University of Georgia. (v4,#4)

Ferré, Frederick, "Theodicy and the Status of Animals." American Philosophical Quarterly 23 (1986): 23-34. The starting point of this argument is the "Free-Will Defense" of God's goodness, given the existence of suffering in the world. Ferré finds this defense inadequate, because it permits the suffering of animals: since they lack freedom and moral responsibility, their suffering cannot be accounted for in God's plan. Ferré thus argues for an expanded sense of community between God, humanity, and the animal kingdom. (Katz, Bibl # 1)

Ferré, Frederick. "Obstacles on the Path to Organismic Ethics: Some Second Thoughts." Environmental Ethics 11(1989):231-241. An organismic viewpoint is a welcome alternative to modern mechanistic consciousness, with the latter's excessive epistemic reliance on analysis, its ontological presumption of atomism, and its value commitments to competition, quantification, reduction, and predictability. These ideas have had negative social and environmental consequences and require replacement. Organismic ethics, grounded in the "wisdom of life"—especially the dialectical triad of creativity, homeostasis, and holism—is far healthier. But organismism alone has serious defects sometimes overlooked by environmental enthusiasts (earlier including this author): life's creativity wastes individual organisms, and life's holism neglects the unique value of parts in favor of larger unities. Is it possible to work out a genuinely personalistic organismism? Traditional personalistic idealism will not do, but insights into essential personal qualities may enrich the concepts of creativity, homeostasis, and holism enough to offer a start toward a more adequate ethic. Ferré is in the department of philosophy, University of Georgia, Athens, GA. (EE)


Ferré, Frederick. "Value, Time, and Nature." Environmental Ethics 17(1995):417-431. Notoriously, beauty is subject to time's "tooth"; but--somehow--we sense also the imperviousness of achieved value to mere duration. This paradox is illustrated using a recent art event, and three principles analyzed from the case in point: (1) the exclusive intrinsic importance of subjective immediacy, (2) the necessity of intersubjective connections, and (3) the crucial place of instrumental value. Moving from art to metaphysics to nature, I conclude with discussions of habitat and of evolution. Only if a habitat's instrumental value (for many centers of subjective immediacy besides human ones) is adequately respected can anthropocentric values be prevented from always "trumping" all others. I reconsider evolution in terms of many interconnected value-realizing subjects, presenting the proffered "Kalogenic" perspective as a
manifestation of the most fundamental process of the universe—one in which the pursuit, actualization, and defense of concrete beauty actually generates what we abstractly call "time." Ferré is in the philosophy department, University of Georgia. (EE)

Ferré, Frederick. Being and Value: Toward a Constructive Postmodern Metaphysics. Albany, NY: State University of New York Press, 1996. Works Cited; Name Index; Subject Index. 406 pp. $24.95 paper. Ferré is Research Professor of Philosophy at the University of Georgia and a pioneering scholar in environmental philosophy. He has published several books and numerous articles. Ferré was for many years the editor of the journal Research in Philosophy and Technology, and he was co-founder of the Faculty in Environmental Ethics at the University of Georgia.

Being and Value is Volume One of a trilogy with the overall title Philosophy and Value. Volume Two is currently in press and is entitled Knowing and Value: Toward Constructive Postmodern Epistemology. It should be available in early 1998. Volume Three is currently being written and is entitled Living and Value: Toward Postmodern Ethics, Religion, and Social Ecology. All three volumes will be published SUNY Press in the series "Constructive Postmodern Thought," edited by David Ray Griffin, a process theologian and philosopher at Clarement Graduate School (California).

Ferré's trilogy is arguably the first sustained attempt to create a truly comprehensive environmental philosophy—epistemology, metaphysics, ethics, aesthetics, philosophy of religion, and all. Ferré's main philosophical mentor in the project is Alfred North Whitehead. Although many philosophers and environmentalists have agreed that Whitehead's process philosophy is conducive to a strong, constructive environmental ethic (and environmental philosophy generally), Ferré in these volumes is the first philosopher to develop the process position in its ecological fullness. The project is no easy task, and philosophers and environmentalists alike owe a debt of gratitude to Ferré. Guided by the concept of ecological relatedness, Ferré develops what he calls an "ecological worldview." His metaphysic and epistemology have been shaped almost as much by the environmental scientists Eugene Odum and Frank Golley as by Whitehead. The trilogy draws out the implications of an environmental (ecological) philosophical worldview. Starting with the ancient Greek sense of kosmos (a value-laden concept) and working through the modern metaphysical problematic (the loss of mind, purpose, and value in nature), Volume One offers an ecological answer to the problematic. Then, Volume Two works through the modern epistemological problematic (the epistemological gap caused by the alienation of mind from nature), and, again, offers an ecological answer. Finally, Volume Three will be a direct examination of value—of ethics, religion, environment, and what Ferré calls "social ecology." Volume Three will include analyses of the kinds of technology and other institutions needed for an ecologically benign (postmodern) world.

Parts One and Two of Being and Value (Volume One of the trilogy) are re-examinations of classical Greek philosophy ("Premodern Metaphysics") and modern philosophy ("Modern Metaphysics") in light of contemporary postmodern ecological consciousness. (What is missing in the volume is the Medievel era, which Ferré may
be saving for Volume Three since the Medieval era was dominated by philosophy of religion. Although the Medieval era has been widely rejected by Enlightened Modern and contemporary analytic and continental philosophers, the postmodern viewpoint may allow the era to be seen anew without these biases.) Part Three ("Postmodern Metaphysics") will be of special interest to environmentalists and philosophers alike. It is here that Ferré is at his best in constructing a postmodern, Whiteheadian ecological view of reality. Reality is deeply, pervasively ecological: namely, it is interconnected, organic, personalistic, and kalogenic (Ferré's term for the universe's tendency to generate value). The deepest and highest intrinsic value, Ferré argues, is experiential—the relatedness of actual entities to one another. Reality is "panexperiential," that is, personalistic and intersubjective all the way down, and all the way up. Value is not fabricated inside subjective minds that are evolutes from inert matter; rather, all of reality—the very fabric of being itself—is by its very nature laden with values. The volume is courageously comprehensive and epistemically persuasive, at a time when few philosophers or environmentalists have the knowledge or critical ability to construct such a position. (v8,#1)


Ferrier, S., Pressey, R.L., and Barrett, T.W., "A new predictor of the irreplaceability of areas for achieving a conservation goal, its application to real-world planning, and a research agenda for further refinement," Biological conservation 93 (No. 3, 2000): 303--. (v.11,#4)


Ferry, M., "The Polish Green Movement Ten Years after the Fall of Communism," Environmental Politics 11(no.1, 2002): 172-77. (v.13,#2)

Feshbach, Murray and Alfred Friendly Jr., Ecocide in the USSR: Health and Nature under Siege. New York: Basic Books, 1992. 376 pages. $24. A sad tour of the human and environmental wreckage of 74 years of Communist misrule. But lest any think such fate can befall only Communists, see the next entry. (v3,#2)


Fideler, David, "Ecologic: How Modern Cosmology Forces Us to Revision Our Relationship to the Living Universe," Kosmos: The Newsletter of Cosmology, Philosophy, Myth, and Culture, Issue 1, Autumn 1996. (v.7,#4)


Fiedler, Peggy L. and Subodh K. Jain, eds., Conservation Biology: The Theory and Practice of Nature Conservation, Preservation, and Management. London and New York: Chapman and Hall, 1992. 18 essays. A sample: G. Ledyard Stebbins, "Why Should We Conserve Species and Wildlands?" Fiedler is in biology at San Francisco State University. Jain is at the University of California, Davis. (v4,#2)

Fiedler, Peggy L., Kareiva, Peter M., eds. Conservation Biology for the Coming Decade. Washington, D.C.: Smithsonian Institution Press, 1997. 528 pp. $44.95. This revised edition incorporates a number of new authors and additional chapters. Ten new chapters highlighting such topics as ecosystem management and the economics of conservation. (v8,#3)

--Pickett, Steward T. A., Parker, V. Thomas, and Fiedler, Peggy L., "The New Paradigm in Ecology: Implications for Conservation Above the Species Level," pages 65-88. Conservation biology traditionally focused on individuals and species, but there are practical and theoretical needs to widen the focus to more comprehensive levels. But these levels have been rethought, generally shifting from equilibrium to non-equilibrium paradigms. The new paradigm licenses new approaches, includes humans in basic ecology, and focuses on maintaining integrity of processes rather than species.
--Stebbins, G. Ledyard, "Why Should We Conserve Species and Wildlands?", pages 453-470.
Fiege, Mark, *Irrigated Eden: The Making of an Agricultural Landscape in the American West*. Seattle: University of Washington Press, 1999. Irrigation in the Pacific Northwest and the real and imagined landscapes that resulted. Agriculture on a radically transformed landscape, such as potato farms, yet with much nature also often surviving, indeed often winning. Dichotomized images and a nature/feminine and male/conquest dualism. Fiege is in environmental history, Colorado State University. (v.13,#4)

Field, Terri. "Caring Relationships with Natural and Artificial Environments." *Environmental Ethics* 17(1995):307-320. A relational-self theory claims that one's self is constituted by one's relationships. The type of ethics that is said to arise from this concept of self is often called an ethics of care, whereby the focus of ethical deliberation is on preserving and nurturing those relationships. Some environmental philosophers advocating a relational-self theory tend to assume that the particular relationships that constitute the self will prioritize the natural world. I question this assumption by introducing the problem of artifact relationships. It is unclear whether a relational self theory recognizes relationships with the artificial world as being meaningful in any moral sense, and whether such relationships, if they can exist, should be accorded equal value to relationships with the natural world. The problem of artifact relationships becomes particularly apparent when the relational-self theory is linked to place-based ethics. If our ethics are to develop from our relations to place, and our place is largely an artificial world, is there not a danger that our ethical deliberations will tend to neglect the natural world? I adapt Holmes Rolston's concept of "storied residence" to show how the inclusion of the artificial world will lead to different questions regarding one's resident environment, and perhaps a different emphasis on what is valued. My aim in raising these questions is to challenge the optimism that writers such as Karen Warren and Jim Cheney have shown in supporting relational-self theories and place-based ethics. I conclude that the challenge to develop a relational-self/place-based ethic does not appear to have been met within Western environmental philosophy, which has perpetuated a silence on the matter of our embedment in the artificial world. Field is in the department of philosophy, University of Queensland, Australia. (EE)


an act-consequentialist theory because we cannot derive traditional moral duties from a primary principle of eco-centrism. As a rule-consequentialist theory, eco-centrism fails because it is inconsistent with traditional moral rules, such as prohibitions against stealing. Although consequentialist eco-centrism does provide us with normative guidelines for preserving environmental well-being, it does not advocate traditional human morals, and therefore we must reject it as a normative theory. Fieser is in philosophy, University of Tennessee, Martin, TN. (v.11,#3)


Fieser, James. "Callicott and the Metaphysical Basis of Ecocentric Morality." Environmental Ethics 15(1993):171-80. According to the theory of ecocentric morality, the environment and its many ecosystems are entitled to a direct moral standing, and not simply a standing derivative from human interests. J. Baird Callicott has offered two possible metaphysical foundations for ecocentrism that attempt to show that inherent goodness can apply to environmental collections and not just to individual agents. I argue that Callicott's first theory fails because it relies on a problematic theory of moral sentiments and that his second theory fails because it rests on an unsupported parallel between the breakdown of the subject-object dichotomy suggested by quantum theory and an alleged actualization of morality upon the interaction of environmental collections with consciousness. Finally, I argue that Callicott overrates the need for a metaphysical grounding of inherent value, and that the metaphysical question has little bearing on the normative issue of ecocentrism. Fieser is in the department of philosophy, Christopher Newport University, Newport News, Virginia. (EE)

Figge, Frank, "Capital Substitutability and Weak Sustainability Revisited: The Conditions for Capital Substitution in the Presence of Risk," Environmental Values 14(2005): 185-201. The capital approach is frequently used to model sustainability. A development is deemed to be sustainable when capital is not reduced. There are
different definitions of sustainability, based on whether or not they allow that different forms of capital may be substituted for each other. A development that allows for the substitution of different forms of capital is called weakly sustainable. This article shows that in a risky world and a risk-averse society even under the assumptions of weak sustainability the circumstances under which different forms of capital may be substituted are limited. This is due to the risk-reducing effect of diversification. Using Modern Portfolio Theory this article shows under which conditions substitution of different forms of capital increases risk for future generations. Figge is in the School of Earth and Environment, University of Leeds, UK. (EV)

Figueiredo, Gisela M., Leitao-Filho, Hermogenes F., Begossi, Alpina. "Ethnobotany of Atlantic Forest Coastal Communities: II. Diversity of Plant Uses at Sepetiba Bay (SE Brazil)," Human Ecology 25(no.2 1997):353. (v8,#3)

Figueroa, Robert Melchior, Debating the Paradigms of Justice: The Bivalence of Environmental Justice. Ph.D. dissertation in philosophy, University of Colorado, Boulder, 2000. Environmental justice addresses social justice related to human activities that affect both human and natural environments, including human health and values, living and working conditions, natural resources upon which humans depend, and cultural values intimately tied with the natural environment. The social problem may be the cause of the environmental problem or vice versa.

The thesis analyzes how environmental justice affects the debate between distributive justice and justice in the politics of recognition. Distributive justice theories focus on the fair distribution and redistribution of material goods in a society. Justice in the politics of recognition emerges from principles of self-determination, cultural identity, and political recognition. Cultural institutions and habits determine the conditions for social status which then guide the distribution of material goods. Contemporary justice theory seems gridlocked into this dichotomy. Using the work of Nancy Fraser, this thesis uses a bivalent conception of participatory parity as the bridging criterion. The main advisor was Claudia Mills. Figueroa is from Puerto Rico. Figueroa is currently at Colgate University. (v.11,#2)


Filippi, David E. "Unleashing the Rule of Lenity: Environmental Enforcers Beware!", Environmental Law 26(no. 3):951. Filippi discusses the tension between the rule of
lenity and the public welfare status of environmental laws in the Second Circuit's decision in United States v. Plaza Health Laboratories. In the light of recent Supreme Court decisions, he argues, the interest in protecting public health and the environment should take precedence over the rule of lenity where a reasonable person should know that certain conduct is subject to regulation and may threaten the community's health or safety.


Filson, Glen C., "Comparative Differences in Ontario Farmers' Environmental Attitudes", Journal of Agricultural and Environmental Ethics 6(1993):165-184. This paper provides an analysis of a 1991 survey of the views of a stratified random sample of 1,105 Ontario farmers. Factor analysis, Kruskal--Wallis one way ANOVA, chi-square and correlations were used to identify differences in farmers' attitudes toward rural environmental issues as a function of their demographic and farm characteristics. Younger, well educated, and especially female, farmers were most concerned about the rural environmental degradation, in contrast to the largest operators' being the least environmentally oriented. Filson is in rural extension studies at the University of Guelph, Ontario.

Filson, Glen C. "Demographic and Farm Characteristic Differences in Ontario Farmers' Views about Sustainability Policies," Journal of Agricultural and Environmental Ethics 9(1996):165-180. This study was undertaken to assess farmers' attitudes toward sustainable agriculture and the environment. The majority of Ontario farmers in this 1991 survey supported the need for government policies which promote sustainable agriculture but there were major differences in the government policies which farmers thought would be sustainable or desirable. Most farmers felt the Government should promote diversified rural economic development, sponsor appropriate research and provide conservation grants to farmers willing to change to more sensitive environmental methods. Those least interested in forms of government intervention designed to enhance agricultural sustainability operated the largest farms. Conversely, those most likely to be receptive to government regulations and interventions designed to enhance rural equity, stability, productivity and sustainability were the smaller operation farmers who most often had off-farm employment. Keywords: sustainability, government agricultural policies, environmental regulations, family farm support. Filson is with the Rural Extension Studies, University of Guelph, Ontario. (JAEE)

Finch, Robert and John Elder, The Norton Book of Nature Writing. New York: W. W. Norton, $ 29.95. A 921-page tome with the best of such English and American writing over the last two centuries, 125 substantial selections by 94 writers. "Nature writing asserts both the humane value of literature and the importance to a mature individual's relationship with the world of understanding fundamental physical and biological processes" (Introduction). (v1,#4)


Finkel, Adam M. and Dominic Golding, eds. Worst Things First? The Debate over Risk-Based National Environmental Priorities. Washington, DC: Resources for the Future, 1994. 348 pages. $ 45.00 cloth. The controversy over EPA's risk-based approach for setting the U. S. environmental priorities. Agreeing that alternative ways exist to plan for the protection of the nation's environmental resources, the contributors differ sharply as to whether these varied approaches complement each other or would disrupt environmental policymaking. (v6,#3)

Finkel, Elizabeth, "Engineered Mouse Virus Spurs Bioweapon Fears," Science 291(26 January 2001):585. Super-deadly virus, genetically engineered. Australian scientists inserted a virus into a pest mouse to sterilize the mouse. Then, in further attempts to increase its effectiveness sterilizing the mice, scientists found they had made a virus with deadly virulence, wiping out all the animals. They reported these results, with a warning that the results might or might not be transferrable to humans, cautioning that it might be dangerously easy to engineer such a human virus. The media release triggered sensational warnings in the Australian press, and elsewhere. (EE v.12,#1)

Finland. A bibliography of environmental ethics and conservation in Finland is in the ISEE newsletter, vol. 5, no. 2, Summer 1994.


complementary theories of value, if we interpret holism on the model of "community" and not "organism." For a comment on this paper see Eric Katz, "Methodology in Applied Environmental Ethics," same issue, pp. 20-23. (Katz, Bibl # 2)


Fiorino, Daniel J. "Toward a New System of Environmental Regulation: The Case for an Industry Sector Approach." Ecology Law Quarterly 23(1996):457. Fiorino is the Director of the Industry Strategies Division of the U.S. Environmental Protection Agency Office of Policy Development. He examines the current federal regulatory scheme for controlling industrial pollution and identifies structural flaws that are impeding further progress. Fiorino advances alternative approaches based on performance across industry sectors or facilities. Recent EPA initiatives and other models illustrate how a more flexible and integrated system of environmental regulation may be developed. (v7,#2)


Fischedick, Manfred, and Supersberger, Niko, "Erneuerbaren Energien gehört die Zukunft (The future belongs to renewable energies)" In German. Natur und Kultur 2(no. 1, 2001):76-96. Abstract: Rising temperatures, severe storms, eroded coast lines? will this be our future? All the evidence seems to indicate that this will happen if
we don't change our behaviour. Indeed we have an alternative to burning fossil fuels like coal, oil and natural gas, we don't have to accept the greenhouse effect as a natural event (which it really isn't). One possible way out of the imminent dilemma is increasing the use of renewable energies and an efficient use of energy. A practical solution how this can be achieved is presented. (v.12,#2)


Fischer, Kenneth S., Barton, John, Khush, Gurdev S., Leung, Hei, and Cantrell, Ronald, "Collaborations in Rice," Science 290(2000):279-280. Rice is the largest food source for the poor, the staple of Asia, and also provides employment and income for vast numbers of rural people. Genetic and genomic research in rice has formerly been mostly public, government sponsored research, but the trend is toward private, industry sponsored research. There is growing concern that the poor will not benefit from such research, since the results are often proprietary. These authors, from the International Rice Research Institute, Philippines, propose a model by which patents are available on research discoveries, but rights to these must be made available at reasonably royalty in commercial markets in the developing world, and at zero royalty for subsistence farming. (EE v.12,#1)

Fischer, Megan, "Should We Save Nature While People Go Hungry?: An Analysis of Nature Preservation and Poverty." M.A. thesis, Philosophy, Colorado State University. 2000. Sometimes, the most ethical decision is to preserve nature even if some people have basic needs unmet. This issue is important and often faced in nature preservation internationally. Some case studies. Priority should be given to win-win situations, where needy people can remain on lands without degrading them or harming wildlife. Attention needs to be given to the deeper social problems that underlie and cause such poverty. Also one must consider whether policies are likely to succeed or be counter-productive. Sustainable development, though desirable, is not always an answer. Analysis must take all values into account, including the holistic values, and optimizing such value will require saving nature even though human needs go unmet. This ought to prove an interim ethic, and on longer time scales future generations of humans are likely to be better off in result. (v.11,#4)


Fish, Stanley, *The Trouble with Principle*. Cambridge, MA: Harvard University Press, 2000. Nobody's neutral. It is dangerous to believe you have principles and still more dangerous to speak and act as if you do. "Principles" are abstract, neutral, and general standards for judging and resolving particular substantive differences. Things like fairness, impartiality, and justice are supposed to be so neutral that they work for all parties to the debate. A radical ecofeminist and a conservative Southern Baptist ought to be able to agree on what is a fair way to divide the pie. Fish thinks this is liberal mythology. There are no neutral principles, no standards not already infected with substantive commitments about the way the world is. To pretend there is has been the error of liberalism for recent decades, and this foists a particular world view on others. (Liberals especially dupe religious people with their worldview.)

Politics (and ethical claims within it) is a struggle whose goal is victory, which means getting the kind of policies you want in place. This is the only kind of politics or law that there is. We should abandon the search for rationally demonstrable foundations that would show a particular action to be right. Our concern should be to find ways to put the policy, whatever it is, into place (and this can include some theoretical claims, if these succeed). In the end, there is nothing but rhetoric; rhetoric, like politics, goes all the way down. Environmentalists, pragmatists, postmodernists, take note. (v.11,#3)


Fisher, Andy, *Nature and Experience: A Radical Approach to Ecopsychology*, 1999, York University (Canada), Ph.D. thesis in Environmental Studies. 343 pages. I propose an approach to ecopsychology which is (1) naturalistic, in that it aims to link human nature to the larger natural world; (2) experiential, in that it uses bodily felt meaning as its touchstone; (3) and radical, in that it locates itself within critical currents within both psychology and ecology. Its method is interpretive and rhetorical, understanding the human-nature relationship in a way that normal science cannot and arguing for concerns counter to those of the dominant social order.

My own version of ecopsychology, "naturalistic psychology," asserts that to be claimed by the natural order means to belong to it, to be limited by it, and to feel its demands within our bodily experience. Naturalistic psychology advocates fidelity to nature, being in service of nature, and cultivating our inherent relations with a more-than-human world. This calls for a countering of the dominant pattern of our technologized and economized society. The general advance of technology leads not to the fulfillment of our nature but to a natural rebellion that the ruling powers of our society must constantly turn to advantage, administer, or out-maneuver. The radical task is to recognize the suffering intrinsic to the modern enterprise and to create loving contexts for the bearing of this suffering. Thus may we both discover what our suffering means and work toward a society more congruent with and respectful of our
nature and our experience. The advisor was Mora Campbell. This thesis has been published as Radical Ecopsychology: Psychology in the Service of Life (Albany, State University of New York Press, 2002); see that entry. (v.13,#4)

Fisher, Andy. "Toward a More Radical Ecopsychology: Therapy for a Dysfunctional Society." Alternatives 22(Jul. 1996):20. If ecopsychology is to help reconcile humanity with nature, it must become more critically-oriented. (v7,#2)

Fisher, Andy. Radical Ecopsychology: Psychology in the Service of Life. Albany, State University of New York Press, 2002. An introduction to ecopsychology—an emerging field that ties the human mind to the natural world. Ecopsychology must become a more comprehensive and critical undertaking if psychology is to be relevant to a world desperately seeking sustainability--and sanity. With emphasis throughout on the experiential--our bodily felt, lived-through experience--bringing to light what Fisher argues is a neglected dimension in the ecology/environmental discourses and debates. Forward by David Abram. (v.13,#4)


Fisher, Christopher L., "Animals, Humans and X-Men: Human Uniqueness and the Meaning of Personhood," Theology and Science 3 (no., 3, 2005): 291-314. Several critical boundary areas between humans and animals are examined for scientific evidence about human distinctiveness. These include communication and language capacity, cultural creativity, spirituality, and ethical capacity. Aspects of human uniqueness are apparent, can be fruitfully encompassed in the idea of personhood, and are coherent with Trinitarian theology's anthropological focus. Fisher is at Asbury Theological Seminary, Wilmore, KY.

Fisher, Duncan and Clare Davis, Alexander Juras and Vukasin Pavlovic, eds. Civil Society and the Environment in Central and Eastern Europe. 300 pages. About US$ 20.00. Available from Institut für Europäische Umweltpolitik e.V., Aloys Schulte Str. 6, 5300 Bonn 1, Germany. Or: Ecological Studies Institute, 49 Wellington Street, London WC2E 7BN, U.K. These same sources also have available an NGO Directory for Central and Eastern Europe. (v4,#1)


Fisher, John A. "Taking Sympathy Seriously." Environmental Ethics 9(1987):197-215. Sympathy for animals is regarded by many thinkers as theoretically disreputable. Against this I argue that sympathy appropriately underlies moral concern for animals. I offer an account of sympathy that distinguishes sympathy with from sympathy for fellow creatures, and I argue that both can be placed on an objective basis, if we differentiate enlightened from folk sympathy. Moreover, I suggest that sympathy for animals is not, as some have claimed, incompatible with environmentalism; on the contrary, it can ground environmental concern. Finally, I show that the traditional concept of anthropomorphism has no coherent basis, and I argue that the attempt to prove that animals lack thoughts is both unsuccessful and irrelevant to sympathy for languageless creatures. Fisher is in the department of philosophy, University of Colorado, Boulder, CO. (EE)

Fisher, Jonathan, "To Ban or Not to Ban?" (Ivory) International Wildlife 27(no. 3, May/June 1997):36-37. Nations are meeting in June to consider whether to continue the international ban on the sale of ivory, enacted in 1989. The ban has been quite effective. In the 1980's poachers slaughtered more than 70,000 elephants annually, a mortality 20 times what the continent-wide elephant population could sustain. The ban cut poaching by 90%. African elephants live in 35 countries. Some nations want to trade legal ivory, especially Zimbabwe, Botswana, Namibia, and Malawi. Ivory trade, they say, will generate income for conservation and it is cultural imperialism for developing nations to impose their standards on developing nations. Ban advocates reply that it is impossible to tell legal from illegal ivory, that legal sale will return the illegal sale, that conservation funds in often corrupt governments will fail to be so used, and that the impetus for banning ivory originally came from the African nations, is supported by the majority of them, and that the pro-trade nations themselves are just as guilty of forcing their views on others. (v8,#2)


Fisher, Mark, "New Zealand farmer narratives of the benefits of reduced human intervention during lambing in extensive farming systems," Journal of Agricultural and Environmental Ethics 16(2003):77-90. Easy-care or natural lambing pertains to those sheep able to successfully lamb and rear at least one lamb without human assistance in a difficult environment. Such sheep may have a higher survival rate, lower lamb mortality, and require less shepherding at lambing than other sheep breeds or strains. The farmer or shepherd account of easy-care lambing reveals several themes. Firstly, stock were bred to survive or suit local environments or conditions, particularly steep
hill country in New Zealand. This involved extensive culling of undesirable dams, regardless of how well they might perform in traits other than the ability to survive and to produce live lambs at weaning. Sheep that did have problems were often assisted, recorded or marked and then culled at an appropriate time; thus both artificial (culling) and natural selection were used. Secondly, natural selection enabled the important traits to be identified and they were subsequently incorporated into artificial selection programs. Thirdly, the practice was necessitated by the impracticality of supervising lambing in difficult terrain and the cost of skilled farm labor. Finally, it was acknowledged that disturbance at lambing created problems and most importantly, the easy-care approach reduced some of the problems traditionally associated with lambing. Easy-care lambing systems thus aim to minimize some of the detrimental effects associated with carefully supervised lambing in some environments, by selecting sheep to suit both that environment and modern farm management. They overcame pervasive influences our cultural legacy was exerting on the way we interact with animals, and may have produced a system more in keeping with the biology of the animal in an extensive environment.

KEY WORDS: easy-care, farmer, farm magazines, lambing, shepherd. (JAEE)

Fisher is with Kotare Bioethics, Hastings, New Zealand. (JAEE)

Fisher, Michael, "Environmental Racism Claims Brought Under Title VI of the Civil Rights Act," *Environmental Law* 25 no. 2 (1995): 285- . Fisher evaluates the usefulness of Title VI's prohibition on discrimination in U.S. federal funding to the environmental justice movement, focusing on the evidentiary demands that a title VI case presents and concluding that a Title VI approach to litigation would overcome the doctrinal barriers that have frustrated past attempts to apply civil rights laws to the problem of discrimination. (v6,#2)

Fisher, N., "PETA's Anti-Fishing Campaign Misses the Point. Anglers Do More Than Anyone Else to Look after Fish and the Rivers They Swim In," *Ecologist* 31(no.8, 2001): 45. (v.13,#2)


Fisher, William F., ed. *Toward Sustainable Development: Struggling over India's Narmada River*. Armonk, NY: M. E. Sharpe, 1995. 500 pages. $24.95 paper. $70.00 hardcover. Diverse opinions of proponents and opponents of the project and the complex issues involved, including economics, sociology, law, and governance. Studies on human rights issues that arise when large numbers of people, particularly
marginal, disadvantaged groups, and women, are displaced from their homes and villages. See note in the Issues section, below on the wildlife and endangered species issues here. Fisher is at Harvard University. (v6,#1)

Fisheries (American Fisheries Society), vol. 17, no. 3, May-June 1992, is a special issue devoted to biodiversity and conservation of endangered fishes. A sample article: Robert M Hughes and Reed F. Noss, "Biological Diversity and Biological Integrity: Current Concerns for Lakes and Streams." (v3,#2)


Fitzgerald, Randy, "The Right Balance: Students Blaze a Trail in Two Environments," (University of) Richmond Alumni Magazine, Summer 2003, pp. 22-23. "Not content with being pioneers in the classroom, the first six students to graduate from Richmond with an environmental degree also made history in the halls of the Virginia General Assembly. Mixing academic prowess with political acumen, the Class of 2003 environmental science majors drafted, proposed and successfully lobbied for a bill that could save the state billions of dollars." The students proposed invasive species legislation, pushed it through twenty-one steps in the legislative process, and had it approved by a 100-0 vote in the House, and a 40-0 vote in the Senate. (v 14, #3)

FitzHugh, T. W. and Richter, B. D., "Quenching Urban Thirst: Growing Cities and Their Impacts on Freshwater Ecosystems," BioScience 54(no. 8, 2004): 741-754(14). The development of water resources to satisfy urban water needs has had serious impacts on freshwater ecosystem integrity and on valuable ecosystem services, but positive trends are emerging that point the way toward a solution. We demonstrate this through case studies of water resource development in and around five large urban areas: Los Angeles, Phoenix, New York, San Antonio, and Atlanta. Providing freshwater ecosystems with the water flows necessary to sustain their health, while meeting the other challenges of urban water management, will require greatly increased water productivity in conjunction with improvements in the degree to which planning and management take ecosystem needs into account. There is great potential for improvement in both these areas, but ultimately water planners will also need to set limits on human alterations to river flows in many basins in order to spur greater water
productivity and protect ecosystem water allocations before water supplies become overtaxed. (v.14, #4)

Fitzhugh, Thomas W; Richter, Brian D, "Quenching Urban Thirst: Growing Cities and Their Impacts on Freshwater", BioScience 54 (no. 8, 1 August 2004):741-7154(14). The development of water resources to satisfy urban water needs has had serious impacts on freshwater ecosystem integrity and on valuable ecosystem services, but positive trends are emerging that point the way toward a solution. We demonstrate this through case studies of water resource development in and around five large urban areas: Los Angeles, Phoenix, New York, San Antonio, and Atlanta. Providing freshwater ecosystems with the water flows necessary to sustain their health, while meeting the other challenges of urban water management, will require greatly increased water productivity in conjunction with improvements in the degree to which planning and management take ecosystem needs into account. There is great potential for improvement in both these areas, but ultimately water planners will also need to set limits on human alterations to river flows in many basins in order to spur greater water productivity and protect ecosystem water allocations before water supplies become overtaxed.

Fitzpatrick, John W. et al (two dozen others), "Ivory-billed Woodpecker (Campephilus principalis) Persists in Continental North America," Science 308(3 June 2005):1460-1462, and other commentary articles. Suspected to be extinct for forty years, now there are reliable sightings, video tapes, and recordings documenting the ivory-billed woodpecker in the Big Woods region of eastern Arkansas, including the Cache River National Wildlife Refuge. But the bird is hard to find; there seem to be thinly distributed individuals in a vast region (over 220,000 hectares).

Fitzpatrick, Kevin, and LaGory, Mark, Unhealthy Places: The Ecology of Risk in the Urban Landscape. New York: Routledge, 2000. City life may be thrilling, exotic, anonymous, and more, but it is bad for your health. (v.13,#4)

Fitzpatrick, William J., "Valuing Nature Non-Instrumentally," Journal of Value Inquiry 38(2004):315-332. In addition to valuing nature instrumentally, humans can also value nature because such valuing is constitutive of flourishing human life. "We ought to value at least some natural things and places non-instrumentally because they in fact have non-instrumental value, due to their irreplaceable, constitutive role in fully flourishing human life." A "closely analogous" relationship is human friendship. We do not value friends instrumentally but because "friends are fundamental non-instrumental goods in human lives, due to their irreplaceable role in fully flourishing human life" (p. 329). This relationship is not pragmatic, nor does it need to posit intrinsic value in nature. Fitzpatrick is in philosophy, Virginia Polytechnic Institute, Blacksburg, VA.

that ecosystems are not real. "Ecosystems are only mental constructs, not real, discrete, or living things on the landscape. They do not breathe, emerge from wombs, or spring from seeds. They are not real, organized entities consciously seeking to perpetuate themselves against internal or external threats to their existence" (p. 4).

The second problem is that, even if they were real, we have no idea of what their "health" or "integrity" might mean. There are some further problems, such as the "woolliness" of the ideas of "ecologist Bryan Norton" about ecosystem health and creativity. Fitzsimmons is a geographer and environmental analyst, president of Balanced Resource Solutions, a consulting firm in Woodbridge, Virginia (and no doubt also unreal, since consulting firms are mental constructs and do not breathe, emerge from wombs, or spring from seeds).


Fiut, Ignacy S., Filozofia ewolucyjna Konrada Zachariasza Lorenza. Studium problemowe i historyczne (Evolutionary Philosophy of Konrad Z. Lorenz. Systematic and Historical Analysis), Krakow, 1994. (v9,#2)


Fjellstrom, Roger, "Is Singer's Ethics Speciesist?" Environmental Values 12(2003): 71-90. To show favouritism toward humans has been considered a prejudice, otherwise known as `human chauvinism', `anthropocentrism' or `speciesism'. Peter Singer is one philosopher in particular who holds this view. In this paper I argue that there is a lack of coherence between his ethical ideology and his actual ethical theory. Singer's ethics in crucial respects exhibits favouritism toward humans, which is something he fails to justify non-partially and plausibly. It would thus be an instance of speciesism, in a sense of this term that he probably would accept. This, however, does not mean that his ethics should be rejected or is impossible to defend.

Zwart, Hub, "Aquaphobia, Tulipmania, Biophilia: A Moral Geography of the Dutch Landscape," Environmental Values 12(2003): 107-128. In Genesis (1:9-10) we are told that God gathered the waters into one place, in order to let the dry land appear, which He called earth, while the waters were called seas. In the Netherlands, this process took more than a single day, and it was the work of man. Gradually,
cultivated landscape emerged out of diffuse nature. In the course of centuries, the Dutch determined the conditions that allowed different aspects of nature to present themselves. This process is described as a moral geography in the sense that different types of landscape are read as manifestations (or materialisations) of different moral attitudes towards nature, whereas concrete landscape interventions are interpreted as instances of moral criticism directed towards the activities and values of previous generations. At present, this process (the genesis of the Dutch landscape) is being reversed, as diffuse, wetland nature is experiencing a come-back. (EV)

Fjellstrom, Roger, "Specifying Speciesism," Environmental Values 11(2002):63-74. Many philosophers consider favouritism toward humans in the context of moral choice to be a prejudice. Several terms are used for it - "speciesism", "human chauvinism", "human racism", and "anthropocentrism" - with somewhat varying and often blurred meanings, which brings confusion to the issue. This essay suggests that only one term, "speciesism", be used, and it attempts a conceptual clarification. To this end it proposes a set of conditions of adequacy for a concept that would be acceptable to the parties of the controversy. Through an examination of various forms of alleged speciesism it eventually proposes a rather precise concept. On this definition some positions believed not to be speciesist perhaps should be so called, and some positions believed to be speciesist perhaps should not be so called. The latter would better be referred to as "humanistic ethics" or "non-speciesist humanism". (EV)

Fjellstrom, Roger. "Equality Does Not Entail Equality across Species." I critique Peter Singer's view that equality across species is a natural extension of equality. Singer presents one minor and two major arguments. The first major argument is that equality across species is implied by the traditional principle of equality. The second is that it follows from a conception that is behind the principle of equality, namely the moral "point of view of the universe." The minor argument is a theory of the altruistic character and expanding circles of ethics. Environmental Ethics 24(2002):339-352. (EE)


Flader, Susan L. "Leopold's Some Fundamentals of Conservation: A Commentary." Environmental Ethics 1(1979):143-48. A commentary on the context of the previously unpublished essay by Leopold, published for the first time in this same issue of Environmental Ethics. This is "perhaps the most significant of Leopold's unpublished manuscripts," though there is evidence that he did not publish it because he was unsatisfied with it. (EE)

Flader is in the department of History, University of Missouri, Columbia, MO. (EE)
Flagstad, O; Hedmark, E; Landa, A; Broseth, H; Persson, J; Andersen, R; Segerstrom, P; Ellegren, H, "Colonization History and Noninvasive Monitoring of a Reestablished Wolverine Population," Conservation Biology 18(no.3, 2004):676-688. (v. 15, # 3)


Flannery, Tim, The Weather Makers: How Man is Changing the Climate and What It Means for Life on Earth. New York: Atlantic Monthly Press, 2006. A passionate explanation of human influence on climate change and a call to action. Flannery recalls first being a skeptic about climate change but subsequently realizing that the delicate web of life is being torn apart by human interference in the climate. Examples from all over the globe. Flannery, director of the South Australian Museum, also advocates the "blitzkrieg" theory of mass extinction, arguing that the mass extinction of Australia's large terrestrial vertebrates 50,000 years ago was caused by humans.


Flattau, Edward, Tracking the Charlatans: An Environmental Columnist's Refutational Handbook for the Propaganda Wars. Washington, DC: Global Horizons Press, 1998. Flattau, a U. S. national syndicated columnist since 1972 (the first journalist to specialize in environmental coverage), unmasks the purveyors of false "good news" about the environment. Renewable energy, wetlands, radon, secondhand smoke, recycling, ozone depletion, and land use planning. The environmental movement became mainstream twenty years ago, and most Americans support environmental protection, but now there is a backlash of anti-conservation voices and they are getting away with murder. (v9,#2)

Fleecing of Sheep, The Animals' Agenda 16(Mar.1996):30. To think that wool is a painlessly derived product is to pull the wool over your eyes. The truth is that the production of wool involves suffering and death for sheep, and is intimately linked with the meat industry and lethal "predator control" programs. (v7,#2)

Fleischner, T. L., "Ecological Costs of Livestock Grazing in Western North America," Conservation Biology 8(1994):629-644. About 70% of the eleven U.S. Western states are currently grazed, all types of ecosystems, the most widespread land use practice. There are a host of negative repercussions: reduced densities and biomass of many plant and animal species, reduced biodiversity, spread of exotic species, spread of
introduced wildlife diseases, interrupted ecological succession, impeded cycling of the
most important nutrient, nitrogen, changed habitat structure, disturbed community
organization, especially of riparian areas. Fleischner is in environmental studies at
Prescott College, Arizona. This research paper grounds the Society for Conservation
Biology, Position Statement on Livestock Grazing," Society for Conservation Biology
Newsletter 1 (no. 4, November, 1994):2-3. "The ecological evidence is clear that
livestock grazing must be drastically reduced in the American West." (v5,#4)

952-953.

Fleischner, Thomas. "Revitalizing Natural History." Wild Earth 9(No. 2, Summer
1999):81-. (v10,#4)

Fleishman, E, "The Error of Judgment: Struggling for Neutrality in Science and

Fleming, David, Review of Ekins, Paul and Mayer Hillman and Robert Hutchinson,

Fleming, Deborah., "John Chapman, 1774-1845", Organization and Environment, 15,
(No. 4, 2002): 475-481. Prompted by the ongoing creation of an outdoor theme park
by the Johnny Appleseed Heritage Center Inc. of Ashland County, Ohio, the author
tries to counterbalance the theme park tendency to reduce complex characters to
cartoon simplicity by presenting a sketch of the life of Johnny Appleseed, whose real
name was John Chapman, stressing his love of nature, his links with the Shawnee and
the naturalistic elements in Chapman's broadly Swedenborgian spirituality. Fleming is
associate professor of English at Ashland University, Ashland, Ohio.

Fleming, W; Rivera, J; Ageton, C; Jandacek, A; Marmon, J; Messenger, R; Moeller, S;
MyersTaylor, D; Santelli, M; Vitela, L, "Transfer of Development Rights as an Option
for Land Preservation in a Historic New Mexico Community: La Cienega Valley, Santa
(v.13,#1)

Flesher, Gail A., Bryk, Dale S. "How to Incur Liability Without Really Trying: The Perils
of Parenthood Under CERCLA." Journal of Environmental Law & Practice
3(Mar.1996):4. Developing case law describes the responsibility of parent companies
for environmental liabilities of subsidiaries. (v7,#2)

Flick, Warren A.; Tufts, Robert A.; and Zhang, Daowei. "Sweet Home as Forest
Home Court Decision and its impact on forest policy. (v7, #3)

Flink, Charles A. and Robert M. Searns, with editing by Loring LaB. Schwarz.
Press, 1993. 320 pages. $45.00, hardbound. Greenways are proving to be the most innovative way of preserving a wide variety of economic, ecological, wildlife, and social values. (v4,#2)


Flood, Ann Margaret. Eco-morality: The Extension of Moral Development Theory to an Environmental/Ecological Context and the Development of the Flood Relative Presence Scoring Method to Assess Gender-biased Differences in Moral Orientation. Ph.D. dissertation in psychology at the Fielding Institute, 1992. Eugene Kerfoot was the chief advisor. Investigates the theoretical extension of Kohlberg's moral development theory from the anthropocentric context to an environmental context in terms of care and justice orientations of moral development theory. A new scoring method, the "Flood Relative Presence Scoring Method" is developed to assess more accurately the relative presence of moral orientations. Gender differences found in responses to human moral dilemmas were also found in environmental dilemmas. There is strong evidence that present moral development theory is incomplete, as well as unnecessarily limited to the human domain. With substantial reviews of the field of environmental ethics. (v6,#3)

Flores, Dan, "Bison Ecology and Bison Diplomacy: The Southern Plains from 1800-1850," Journal of American History 78(1991):465-485. Flores claims that the southern plains native Americans, after they got horses from the Spanish, and even before they got guns, within a century were exploiting the bison so effectively that the herds were seriously declining. Soon many Indians were starving; and, even without the Europeans, the bison would well have been driven to extinction before 1900. So much for the myth of the Indian as a good ecologist. In fact, the native American religion contributed to the crisis, since plains Indians believed that buffalo were produced supernaturally every spring in countless numbers in a country under the ground and swarmed like bees out of a hive from cave openings in unknown locations. Flores teaches environmental history at Texas Tech University. (v9,#2)

Flores, Dan, Horizontal Yellow: Nature and History in the Near Southwest. Albuquerque: University of New Mexico Press, 1999. The complex relationships of humans with the natural environment in the U.S. Southwest. (v10,#4)


Flournoy, Alyson C., "In Search of an Environmental Ethic," Columbia Journal of Environmental Law 28(no. 1, 2003):63-118. There is a massive corpus of environmental law, but "it is not clear that environmental laws do reflect any clearly articulated ethic that should be called environmental. As a nation we lack an adequate understanding of the values that undergird these laws. ... It is time we ask ourselves
those obvious, but frequently overlooked questions. Are our environmental laws simply extensions of the ethical structure of our tort, property and criminal law, designed to protect person and property from certain insults not adequately addressed under the pre-existing common law? Or are they "environmental laws" in another sense, in that they embody a special valuing of the environment?"

Long article, includes summaries of environmental ethics as a philosophical discipline and whether and how far there is a connection with environmental law. Benefits to be realized from a more adequate study of the ethics embedded in environmental law. Flournoy is in law, University of Florida. (v 14, #3)

Flournoy, Alyson C., "Section 404 at Thirty-Something: A Program in Search of a Policy," Alabama Law Review 55(No. 3, Spring 2004):607-649. In 2002, as the Clean Water Act turned thirty, the program that regulates the discharge of dredged and fill material into water and wetlands was beset by a familiar turbulence, involving fights over the significance of the ordinary high water mark, the meaning and proof required to demonstrate a "hydrologic connection," mitigation requirements, and others. Over the years, both governmental and non-governmental reports have highlighted the persistent gaps in knowledge, enforcement, monitoring, funding, and interagency coordination under section 404, and the attendant disappointing results. Flournoy is in law, University of Florida.

Flournoy, Alyson C., "Building an Environmental Ethic from the Ground Up," U.C. Davis Law Review 37(No. 1, Nov. 2003):53-80. Unearthing the ethics embodied in environmental law. To what extent have theories in environmental philosophy had a practical impact on environmental law and policy. Environmental law cannot and will not succeed unless there is strong public commitment to conserving nonhuman nature. Environmental law will not endure or have lasting effect unless environmental philosophy does come down to earth. Such work is vitally important for the future of environmental law a well as for the success of environmental philosophy itself. The American public lacks a coherent account of the values we now pursue under our current environmental laws. Philosophers and legal scholars can help to bring philosophy down to earth by developing "stepping stones" to invoke concepts that represent marginal or gradual change from the dominant human-centered utilitarian ethical framework, as opposed to radically divergent theories of environmental ethics, such as biocentric intrinsic value theory. Sustainability is such a stepping stone. Excellent and thoughtful article linking environmental philosophy and environmental law. Flournoy is in law, University of Florida.

Flournoy, Alyson C., "Beyond the 'Spotted Owl Problem': Learning from the Old-Growth Controversy," Harvard Environmental Law Review 17(no. 2, 1993):261-332. The author considers at extensive length the claim that there is a "spotted owl problem," (that environmental laws, including those protecting endangered species, are too strong and need to be revised to accommodate human welfare and economic interests), and rejects efforts to weaken or bypass existing laws. Current statutes may, however, be inefficient and risky where legislation intended for the protection of a single species is used to try to protect ecosystems as a whole, such as old-growth
forests. The Endangered Species Act is not the problem its detractors claim it to be. On the contrary, the promotion of economic activities inconsistent with widespread ecological values in the absence of effective laws addressing conservation of land and natural resources is the real problem. The challenge is to adapt the law and economic policy to the reality of important ecological constraints. More and better laws alone cannot resolve the problem, however, since gaps in the laws "partly reflect a struggle to find an agreeable environmental ethic on which to build policy. Only with a clearer ethical vision of appropriate preservation goals can better laws be shaped." Thorough and insightful article. Philosophers who think that lawyers do not do their philosophical homework should read this article. Flournoy teaches law at the University of Florida.


Folke Carl, and Colding, Johan, "Traditional Conservation Practices," Encyclopedia of Biodiversity 5: 681-694. People have inhabited terrestrial ecosystems for thousands of years. Both resource management systems and cosmological belief systems have evolved and continue to develop. In fact, most, if not all, ecosystems and biodiversity have been altered by humans to various degrees. The human imprint has in many cases wiped out species and caused substantial land use change. However, some traditional and contemporary practices do contribute to biodiversity conservation. (v.11,#4)

revolution for environmental issues does not lie in its alleged intrusion of the subjective consciousness into the physicists' description of nature. Arguing from the viewpoint of Niels Bohr's framework of complementarity, I conclude that Bohr's epistemological lesson teaches that the object of description in physical science must be interaction and that it is now mistaken to imagine that physical science aims to represent nature in terms of properties it possesses apart from interaction. Folse is in the department of philosophy, University of Loyola, New Orleans, LA. (EE)

Foltz, Bruce V. "On Heidegger and the Interpretation of Environmental Crisis." Environmental Ethics 6(1984):323-38. Through an examination of the thought of Martin Heidegger, I argue that the relation between human beings and the natural environment can be more radically comprehended by critically examining the character of the relation itself with regard to how it has been shaped and articulate by the tradition of Western metaphysics, particularly in light of the manner in which this tradition contains the central presuppositions of both modern natural science as well as contemporary technology. I conclude with an examination of a "deconstructive analysis" of the concept of nature that has dominated Western philosophy; with a delineation of an alternative understanding of the environment, that is nevertheless deeply rooted in the Western tradition, and with a proposal that the present "environmental crisis" ultimately derives not from certain Judeo-Christian "values," as it is commonly claimed, but from the initial metaphysical orientation of early Greek philosophy. Foltz is in the department of philosophy, University of Dallas, Irving, TX. (EE)

Foltz, Bruce V., "On Heidegger and the Interpretation of Environmental Crisis," Environmental Ethics 6(1984):323-338. An examination of Heidegger that shows that the environmental crisis has its roots in Western metaphysics. The central conceptions of natural science and technology objectified nature, thus preventing its own "self-emergence."

Foltz, Bruce V. Inhabiting the Earth: Heidegger, Environmental Ethics, and the Metaphysics of Nature. Atlantic Highlands, NJ: Humanities Press, 1995. Through a comprehensive study of the status of "nature" and related concepts such as "earth" in the thought of Heidegger, Foltz attempts to show how Heidegger's understanding of the natural environment and our relationship to it offers a more promising basis for environmental philosophy than others that have been put forward. Foltz is at Eckerd College, St. Petersburg, Florida. (v7,#1)


versus Border Patrol”; Robert Kirkman, "Beyond Doubt: Environmental Philosophy and the Human Predicament”; Stephen David Ross, "Biodiversity, Exuberance, and Abundance: Cherishing the Body of the Earth”; Diane Michelfelder, "Contemporary Continental Philosophy and Environmental Ethics: A Difficult Relationship?”.


Foltz, Richard C., "Iran's Water Crisis: Cultural, Political, and Ethical Dimensions," *Journal of Agricultural and Environmental Ethics* 15(no. 4, 2002):357-380. By the summer of 2001, most of Iran had been suffering a three-year drought, the worst in recent history. Water rationing was in place in Tehran and other cities, and large proportions of the country's crops and livestock were perishing. Yet many academics and other experts in Iran insist that the water crisis is only partly drought-related, and claim that mismanagement of water resources is the more significant cause. Underlying this discussion is a complex of overlapping yet often conflicting ethical systems--Iranian, Islamic, and modernist/industrialist--which are available to inform water policy in Iran. A review of the various arguments about the nature of the crisis and the range of solutions that have been proposed. including precedents from traditional Iranian water management and the ethics of water use in Islamic law, suggests that Iran's own cultural heritage provides alternatives to wholesale adoption of Western models. KEY WORDS: Iran. Islamic law. qanat, sustainable development, water management, Zoroastrianism. Foltz is in the Department of Religion, University of Florida, Gainesville, FL. (JAEE)

Foltz, Richard C., "Environmental Initiatives in Contemporary Iran," Central Asian Survey 20(no. 2, 2001):155-165. "The land of Iran possesses the greatest degree of biodiversity on south-western Asia. The country claims many of the world's ecosystem types, from high mountains and deserts to semi-tropical forests and marine environments. Yet ... with rapid overpopulation, desertification and the endangerment of virtually all species in the country ... Iran's environmental problem is among the most critical in the world. ... Tehran has been classified as one of the ten most polluted cities in the world. ... [Yet] in Iran today the government stand on the environment, formally enshrined in the nation's constitution, as well as the energy and motivation of environmental NGOs and the rate at which public awareness of environmental issues is increasing, are all impressive." Iran is probably the only country that claims Islam as the basis of its national environmental ethic. Foltz is in religion at the University of Florida. (v.12,#4)

Foltz, Richard C., "Mormon Values and the Utah Environment," Worldviews 4(2000):1-19. Although there has been little if any discussion of Mormon environmentalism outside the tradition, it is increasingly apparent that such an ethic does exist--though whether this ethic is with or against the current of formal LDS teaching is less clear. This article probes an overview of contemporary Mormon ecological thought and its roots within the LDS tradition, and highlights some of the tensions connected with environmental issues within the Mormon community today in Utah and elsewhere. Foltz teaches religious studies at the University of Florida, Gainsville. (v.11,#3)

Foltz, Richard. "Is There An Islamic Environmentalism?" Environmental Ethics 22(2000):63-72. Contemporary Muslim writers have demonstrated that an environmental ethic can be derived from the scriptural sources of Islam. However, at present, the impact of this type of interpretation within the Muslim world appears to be minimal. The most promising prospects for disseminating an environmental awareness based on Islamic principles have come from governments, such as those of Iran, Pakistan, and Saudi Arabia, which claim Islam as a basis for legislation. (EE)


Foot, Philippa, Natural Goodness. Oxford: Clarendon Press, 2001. "'Natural' goodness, as I define it, which is attributable only to living things themselves and to their parts, characteristics, and operations, is intrinsic or 'autonomous' goodness in that it depends directly on the relation of an individual to the 'life form' of its species. On barren Mars there is no natural goodness" (p. 27). "The central feature of my own account is that it will set the evaluation of human action in the wider contexts not only of the evaluation of other features of human life but also of evaluative judgements of the characteristics and operations of other living things" (p. 25).

"I am therefore, quite seriously, likening the basis of moral evaluation to that of the evaluation of behavior in animals. I should stress, however, that it is important not to underestimate the degree to which human communication and reasoning change the scene. The goods that hang on human cooperation, and hang too on such things
as respect for truth, art, and scholarship, are much more diverse and much harder to
delineate than are animal goods. Animals are different also from us in that to do what
they should do--what is needed and is within their capacity--they do not have to
understand what is going on; whereas a human being can and should understand that,
and why, there is a reason for, say, keeping a promise or behaving fairly” (p. 16).
Foot is in philosophy, Oxford University.

Foote, A. Lee; Pandey, Sanjeeva; and Krogman, Naomi T. "Processes of Wetland
Loss in India." Environmental Conservation 23, no.1 (1996): 45. (v7, #3)

Forbes, Graham J., and Theberge, John B. "Cross-Boundary Management of
Algonquin Park Wolves." Conservation Biology 10, no.4 (1996): 1091. (v7, #3)

30(no.4, 2002): 555-558.

Forbes, Linda C. & Jermier, John M. "The Institutionalization of Bird Protection: Mabel
Osgood Wright and the Early Audubon Movement", Organization and Environment,
15, (No. 4, 2002): 458-474. The authors focus on a relatively unknown segment of the
early American conservation movement, examining the period around 1900, a time in
which birds were being slaughtered at an alarming rate, in part to supply milliners who
used plumes and other bird parts to decorate women's hats. These practices led to a
groundswell of opposition that eventually turned the tide in favor of bird protection and
appreciation, forming a foundation for today's activism on behalf of beleaguered birds.
One of the key leaders of this movement was Mabel Osgood Wright, who like many
significant conservationist women of that era is only now beginning to receive the
recognition that she deserves. The authors highlight three major projects to which
Wright devoted her energy, namely the early Audubon Society, children's nature
writing and education, and the Birdcraft Sanctuary, and discuss them as institutional
manifestations of the early conservationists' bird-loving philosophy. Extracts from three
of Wright's most important publications are also reprinted, in order to provide relevant
insights for contemporary environmental protection and organizing. Forbes is an
assistant professor in Franklin & Marshall College, Lancaster, Pennsylvania, with
interests in cultural studies, environmental philosophy and history, and a feature editor
of Organization and Environment. Jermier is professor of organizational behavior in
the College of Business at the University of South Florida, and editor of Organization
and Environment.

Forbes, Malcolm, S., Jr., "People Are an Asset, not a Liability," Forbes, September 12,
1994. An editorial. At the Cairo conference, "the real issue is that curbing population
growth is critical for economic development. That premise is preposterous. A growing
population is not a drag on economic development. When combined with freedom, it
is a stimulant." The richest countries in the world are the most densely populated, and
people are poor only where governments dominate and suffocate economic activity. "A
growing population helps improve the quality of life."  "Free people don't `exhaust' resources; they create them."

Forbes, Nancy, Imitation of Life: How Biology is Inspiring Computing. Cambridge, MA: MIT Press, 2004. Generations of engineers have recognized that often biology does it better. Similarly computer scientists are impressed with the computing powers in DNA and other biological processes. Neural nets, genetic algorithms, cellular automata, hierarchy, modularity, layers of control, system architecture, organizing for large-scale complexity, and more. (v.14, #4)

Forbes, Wiliam and Lindquist, Christopher, "Philosophical, Professional, and Environmental Ethics: An Overview for Foresters," Journal of Forestry 98 (No. 7, 2000 July 01): 4- . Discussions of contemporary environmental ethics should emphasize the importance of case-specific flexibility, workplace settings, and experiential learning in ethical decision making. (v.11,#4)


Ford, Andrew. Modeling the Environment: An Introduction to System Dynamics Modeling of Environmental Systems. Covelo, CA: Island Press, 1999. 480 pp. $70 cloth, $40 paper. Basic concepts of modeling using system dynamics; the design and application patterns of dynamic behavior; exercises for students. (v.10,#1)

Ford, Gary D., "Love of the Lowcountry," Southern Living October 2005, pp. 128-133. The Ashepoo, Combahee, and Edisto basin (ACE) in lowcountry South Carolina between Beaufort and Charleston, and the work of the ACE Task Force, preserving and managing a blend of deep forests, spartina grasses, tidal rivers, and fields, old rice dikes, old homes and homesites, and rural countryside, resulting in a treasured mix of nature and culture. A much loved and lightly used landscape. The ACE lovers/managers delight in pointing out that their landscape is not pristine but abundantly natural.

Ford, H. A., Barrett, G. W., and Recher, H. F., "Why have birds in the woodlands of Southern Australia declined?" Biological Conservation 97(no. 1, 2001):71-. (v.12,#2)

Ford, Peter, "Howl over Wolves' Return," Christian Science Monitor, November 1, 1999, pp. 12-13. While there are thousands of wolves in Italy and Spain, wolves have been extinct in France for over half a century--until 1992 when a pair was sighted in the French Alps, presumably having come from the Italian population. Many people have welcomed the idea of wolves in the French Alps, but to shepherds it is a catastrophe. Today there are about 50 wolves in the Alps and they have killed about 1,000 sheep. The best hope seems to lie in a guard dog, the pastou, the Great Pyrenean Mountain Dog. (v.11,#1)
Ford, Peter, "Howl over Wolves' Return," *Christian Science Monitor*, November 1, 1999, pp. 12-13. While there are thousands of wolves in Italy and Spain, wolves have been extinct in France for over half a century--until 1992 when a pair was sighted in the French Alps, presumably having come from the Italian population. Many people have welcomed the idea of wolves in the French Alps, but to shepherds it is a catastrophe. Today there are about 50 wolves in the Alps and they have killed about 1,000 sheep. The best hope seems to lie in a guard dog, the *pastou*, the Great Pyrenean Mountain Dog. (v10,#4)


Foreman, Dave, *The Lobo Outback Funeral Home*. Boulder, CO: University Press of Colorado, 2000. A novel about a burned-out Sierra Club lobbyist who leaves Washington, convinced that nothing can stop the human war on nature, and retreats to a cabin in southwestern New Mexico's Diablo National Forest. But he falls in love with a biologist, as pretty as she is tough, who tries to draw him into the defense of the Diablo Wilderness and a pack of lobos, Mexican wolves. He first refuses, then is soon caught up the bloody consequences of his cynicism, not taking a stand for what he loves. Foreman was a founder of Earth First! in 1980 and is the author of *Confessions of an Eco-warrior*. (EE v.12,#1)

Foreman, Dave, "Am I a Free Market Environmentalist?" *PERC Reports* 14 (no. 1, March 1966):1, 4-5. PERC is published by the Political Economy Research Center, 502 S. 19th Ave., Suite 211, Bozeman, MT 59719. The Wildlands Project has a goal of protecting and restoring the ecological richness of North America. Private property and voluntary agreements play a big role in that. Landowners who host endangered species should be honored as good members of the community and as good stewards of their land. Am I a free-market environmentalist? Naw, I'm an agnostic. But I'm a friendly agnostic. Dave Foreman, co-founder of Earth First!, now heads the Wildlands Project. (v7,#1)

Foreman, Dave, *Rewilding North America: A Vision for Conservation in the 21st Century*. Island Press, 2004. This work lays out an audacious vision for landscape conservation and restoration in North America. The first part reviews the "bad news" of anthropogenic changes to land and its associated effects, such as pollution, habitat loss and extinctions. The second part reviews the "good news" represented by the science of conservation biology and visions for continent-wide "metalinkages" among remaining sections of habitat. The third part provides a plan of action for rewilding the continent.

Foreman, Dave, *Books of the Big Outside* lists over 400 books, with annotated descriptions, also maps, cassette's and CD's, is issued quarterly, and is a valuable
Foreman, Dave, interviewed by Jeremy Lloyd, "Redneck for Wilderness," The Sun, December 2005, pp. 4-12. "I hate the word environment. You can love a forest. You can love a mountain. You can love a plant. But how can you love an abstract concept like the environment?" Foreman does not disavow his monkeywrenching, but now prefers to tap what he sees as a social consensus favoring conservation.


Foreman, Dave. "Wilderness: From Scenery to Nature," Wild Earth 5, no. 4 (Winter 1995):8-16. Wilderness and National Parks have been set aside largely as scenic areas, useful for recreation, and not useful for agricultural or other development. This results in poor protection of overall biodiversity on a continental scale. (v6,#4)


Foreman, Dave; Daly, Kathy, "An Ecological Approach to Wilderness Area Design," Wild Earth 10(no.4, Wint 2000):66-. (v12,#4)


Forest, Marguerite S. E., Ought and Can in Environmental Ethics: Ethical Extensionism and Moral Development, Summer 1992. Extending the range of moral concern from humans to animals to plants to ecosystems, compared with stages in moral development. The position of J. Baird Callicott fails because the full sequence of stages has not been developed. Lawrence Kohlberg's concept of justice is inadequate because it is anthropocentric and not holistic and ecosystemic. Carol Gilligan's caring orientation integrates the needed holistic environmental ethics and the more advanced moral stages. (v3,#4)


Forman, RTT, "Road Ecology's Promise: What's Around the Bend?," *Environment* 46(no.4, 2004):8-21.  (v. 15, # 3)


Fortey, Richard, *Life: A Natural History of the First Four Billion Years*. New York: Alfred A. Knopf, 1998. 346 pages. A celebration of biodiversity over the millennia by the senior paleontologist at the Natural History Museum in London and a Fellow of the Royal Society. On Stephen Jay Gould and his sheerly continent wonderful life, with disparate dead ends in the Burgess Shale: "If palaeontology has a priesthood, then Steve Gould is the pontiff. The Burgess Shale, however, was one case where he has, I think, been fallible. The excitement of the ideas being promulgated was so seductive that he simply passed over the real evidence presented by the Burgess fossils. ... One may still marvel at the fecundity of nature without making wild assertions about every fossil belonging to a different world. ... Any history of life is torn between portraying the narrative of successive species as orderly, almost a logical progression, and as something trawled from mighty disorder and upheaval from which chance alone picks survivors. ... Many Cambrian animals actually do make more sense in the light both of what came after them and of what is still alive today. ... Despite the claims of the `new phylum' enthusiasts ... there are relatively Cambrian designs which are wholly unfamiliar to us. ... [They are] rather like improvisations upon an underlying musical theme that we can only recognize if we listen very carefully" (pp. 97-99). (v.10,#1)


Fortmann, Louise. "Voices from Communities Managing Wildlife in Southern Africa," *Society & Natural Resources* 10(no.4, 1997):403. (v8,#3)

Foster, Catherine, "War in the Pacific: Legacy of a Copper Mine," The Christian Science Monitor 86 (20 July 1994):10-11. Residents of the small island of Bougainville have fought for six years to save their environment and gain independence from Papua New Guinea. (v5,#3)

Foster, Charles H.W., "Nonprofits in Forestry: Lessons from Three New England States," Journal of Forestry 99(no.1, 2001 Jan 01): 27-. Leaders of New England conservation organizations are enthusiastic about their individual roles and convinced that working together--with each other, with industry, and with government--has genuine potential for promoting good forestry. (v.12,#3)

Foster, Cheryl, Aesthetics and the Natural Environment. Ph.D. dissertation at the University of Edinburgh, Department of Philosophy. 1993. Advisor: Ronald Hepburn. Foster claims that most contemporary aesthetics of nature relies on either of two models, one based on art history and criticism, the other based on scientific categories and interpretation. Most accounts cling magnetically to one pole or the other. Either the aesthetic power of nature emerges by analogy or in association with art and its concomitant history and criticism; or, nature’s beauty is seen to be properly understood only in deference to scientific knowledge or hypothesis. Neither approach can fully articulate the relationship between natural beauty and ourselves, the beings who encounter it.

Foster holds that Kant and Schopenhauer have been particularly misrepresented with regard to natural beauty and finds them productive for a theory of environmental aesthetics. She continues to develop a theory that is bound by neither art nor science. She examines the role of non-perceptual factors and of ethical and other constraints on aesthetic appreciation (with attention to Allen Carlson). The difference between aesthetic qualities (Sibley) and aesthetic properties (Mothersill) is analyzed in order to defend the idea that aesthetic judgements are singular and not governed by rules or principles. Nature’s multi-sensuousness is involved in discerning relevant aesthetic properties. Andrew Brennan’s ecological humanism is a useful model. Both the art-based and the science-based models of natural beauty are interesting and relevant, but neither is comprehensive enough to represent the range of concerns in environmental aesthetics. Foster is in the department of philosophy at the University of Rhode Island. (v4, #3)

Foster, Cheryl. "Aesthetic Disillusionment: Environment, Ethics, Art." Environmental Values Vol.1 No.3(1992):205-216. ABSTRACT: What happens when an object you take to be beautiful or aesthetically pleasing, no longer appears beautiful or pleasing when you learn something new about it? I am assuming a situation in which there is no direct change in the perceptual features of the object, and that what you learn is not the location of some new surface property but rather a bit of non-perceptual information. I classify episodes of dampened appreciation under the heading
'aesthetic disillusionment,' and in this paper I explore the relationship between such episodes and the broader issue of ethical constraints on aesthetic activity and appreciation. Does it make sense to say that one should not, or ought not, take pleasure in certain objects or events? I think it does—but in a very particular, almost ecological way. The subsequent discussion focuses on ethical constraints as they operate on the aesthetic appreciation of objects and events within the natural environment. KEYWORDS: Environmental aesthetics, life-denying processes, life values, nature and art. Philosophy Department, University of Rhode Island, Adams Hall, Kingston, RI 02881-0813, USA.


Foster, D; Swanson, F; Aber, J; Burke, I; Brokaw, N; Tilman, D; Knapp, A, "The Importance of Land-Use Legacies to Ecology and Conservation", Bioscience 53(no.1, 2003):77-88.

Foster, David R., and John D. Alber., eds., Forests in Time: The Environmental Consequences of 1,000 Years of Change in New England. New Haven: Yale University Press, 2004. Mostly the story of the Harvard Forest, though with wider implications. Climatic and vegetation changes, natural disturbances (such as hurricanes, pests, and pathogens), the impacts of Native Americans and fire, the history of land use and landscape transformation, present-day changes, and introduced pests and species. The return of forests in the last century, from about 40 percent to 60 to 90 percent of the landscape. One conclusion is that the present forest results from much human impact, but another conclusion, in some tension with this, is that the forest returns quite quickly and vigorously. (v.14, #4)

Foster, David R., Aber, John D., Bazazz, Fakhri A. "Forest Response to Disturbance and Anthropogenic Stress," Bioscience 47(no.7 1997):437. Rethinking the 1938 Hurricane and the impact of physical disturbance vs. chemical and climate stress on forest ecosystems. (v8,#3)

Foster, David R., Thoreau's Country: Journey through a Transformed Landscape. Cambridge: Harvard University Press, 1999. Thoreau had to hunt for some wildness on a largely transformed, agrarian landscape. But already New England farmers were being outcompeted by Mid-West farmers and many fields were being abandoned, and Thoreau's journals are full of observations of returning wildness. One observation is that farmers let cattle continue to graze on disused fields, and this may have accelerated the growth of pines over hardwoods, although pines do naturally return
first to open fields. The returned forest in New England may be a peculiarly New England product. Foster is director of the Harvard Forest. (v.10,#1)


Foster, John Bellamy, "Capitalism and the Ancient Forest," Monthly Review 43(no. 5, October 1991):1-17. Summary of events in the Pacific Northwest over recent years, with a focus on capital's destruction of the forest, "a story of how capital has sought to weather a growing political crisis associated with the destruction of the ancient forest by turning its two main enemies--the workers and the environmentalists--against each other." Foster teaches sociology at the University of Oregon. (v2,#4)

Foster, John Bellamy, "Ecology against Capitalism," Monthly Review 53 (no. 5, October 2001): 1-15. "A large part of the answer as to why contemporary society refuses to recognize the full human dependence on nature undoubtedly has to do with the expansionist logic of a capitalist system that makes the accumulation of wealth in the form of capital the supreme end of society" (p. 1). "We are faced with a stark choice: either reject "the gods of profit" as holding out the solution to our ecological problems, and look instead to a more harmonious coevolution of nature and human society, as an essential element in building a more just and egalitarian social order--or face the natural consequences, an ecological and social crisis that will rapidly spin out of control, with irreversible and devastating consequences for human beings and for those numerous other species with which we are linked" (p. 15). Forthcoming in book form. (v.13,#1)


Foster, John Bellamy, Marx's Ecology: Materialism and Nature. New York: Monthly Review Press, 2000. Contests conventional accounts of Marx and nature. Marx, it is often assumed, cared only about industrial growth and the development of economic forces. But this neglects Marx's writings on capitalist agriculture and soil ecology, philosophical naturalism, and evolutionary theory. Marx, a powerful critic of capitalist society, was also deeply concerned with the changing human relationship to nature. Foster is in sociology at the University of Oregon. (v.11,#2)


Foster, Leeann, The Self in Environmental Philosophy: Identification, Intrinsic Value and an Ecology of Self and Nature, M. A. thesis at Colorado State University, spring 1994. Foster examines the deep ecological concept of self in comparison and contrast with the environmental ethical concept of self. Deep ecologists, such as Warwick Fox and Freya Mathews, expand the self into an identification with the whole, while environmental ethicists, such as Holmes Rolston, maintain a sense of others, centers of intrinsic value in the nonhuman natural world, who are morally considerable as others, differentiated from one's own self, and to whom one has duties of respect. Nevertheless the deep ecologists can find a place for pluralism and Rolston's ethic is based as much on love as it is on duty. Both ways of thinking are contrasted with the traditional concept of the autonomous self, represented by Kant. (v5,#1)

Foster, Leeann, "Wildlands and System Values: Our Legal Accountability to Wilderness," Vermont Law Review 22 (no. 4, summer 1998):917-951. "The paradox that is the modern American has given rise to the conflicting values that are embodied in wilderness law. Having outgrown, to a certain extent, notions that wild nature exists solely as something to be conquered, we encouraged our leaders to preserve what we once freely enjoyed, because after having enjoyed so much of it, we were loath to watch it disappear. The Wilderness Act manifests this reluctance. ... What the Wilderness Act did not do, however, was to consider the systems-character of the wild lands it set aside. ... An ecosystems or transboundary approach to wilderness preservation through which systems accountability to wild lands is achieved will likely not pass quietly into law" (pp. 950-951). Foster is now practicing environmental law in New Jersey. She finished Vermont Law School in 1998 and in 1994 a M.A. in environmental philosophy at Colorado State University. (v.9,#4)

Foster, Susanne E. "Aristotle and the Environment." There are three potential problems with using virtue theory to develop an environmental ethic. First, Aristotelian virtue theory is ratiocentric. Later philosophers have objected that Aristotle's preference for reason creates a distorted picture of the human good. Overvaluing reason might well bias virtue theory against the value of non-rational beings. Second, virtue theory is egocentric. Hence, it is suited to developing a conception of the good life, but it is not suited to considering obligations to others. Third, virtue theory is notoriously bad at providing rules and procedures for resolving ethical questions about particular circumstances. But environmentalists need procedures for determining which of several conflicting values is most important. Virtue theory is not action guiding. I respond to each of these problems. I show that virtue theory is uniquely suited to answering ethical questions about nonhuman animals and the environment. Environmental Ethics 24(2002):409-428. (EE)


Fountain, Henry, "Defending the Park," New York Times (1/9/01): D5. National parks in developing world successful in protecting biodiversity. A study of 93 parks in tropical countries found that despite being under intense land-use pressure from local people, the parks were effective in protecting the ecosystems and species within them. Almost of the parks were in better shape than the land immediately surrounding them; they had less logging, burning, and grazing and more wild animals. 85% were successful against encroaching agriculture. The presence of guards and penalties were effective deterrents (though less so against hunting). The study is represented as a response to critics who claim that such parks will fail if they are aimed solely at protecting nature without accommodating the needs of local people. (EE v.12,#1)

Fountain, Henry, "Return to the Wild," New York Times (4/4/00). Captured Condor Set Free. One of the original 27 California condors captured in the 1980s for a captive breeding program to prevent extinction of the species was released into the wild. "Adult Condor No. 8," a female from 28 to 40 years old, had produced 12 offspring in captivity and is now beyond breeding age. The hope is that she will be a mentor for two captive bred 10-month-old condors released with her, showing them places to forage and roost. There are now 155 condors, including 56 that have been released into the wild. (v.11,#1)

Fouts, Roger, with Mills, Stephen Tukel, Next of Kin: What Chimpanzees Have Taught Me About Who We Are. New York: William Morrow and Co., 1997. 420 pages. Fouts is a well-known psychologist with over thirty years of experience studying and caring for captive chimpanzees, including Washoe. He generally argues that chimpanzees have been treated badly by researchers. Introduction by Jane Goodall. (v.8,#4)

Fowler, Alan. Striking A Balance. Covelo, CA: Island Press, 1997. 320 pp. $24.50. This is a guide to how non-govenmental organizations involved in international development can simultaneously increase the scale of their impact, diversify their activities, respond to long-term humanitairian crises, and improve their performance. (v8,#2)

Fowler, Robert. "International Environmental Standards for Transnational Corporations." *Environmental Law* 25 (no. 1, 1995): 1-. The challenges inherent in applying environmental standards to transnational corporations, the various methods that could be used to regulate transnationals, and a concluding argument for extraterritorial application of disclosure statutes as a means of imposing stricter self-regulation. (v6,#1)

Fox, Camilla H, "Raining Bullets: The Aerial War on Coyotes," *The Animals' Agenda* 21(no.1, JAN 01 2001):18-. Killing coyotes costs many taxpayer dollars as well as the lives of some government agents. (v.12,#4)


Fox, Matthew, *Sheer Joy: Conversations with Thomas Aquinas on Creation Spirituality*. San Francisco: Harper and Row, 1992. 532 pages. $ 18.00. Fox is a Dominican priest and Director of the Institute in Culture and Creation Spirituality, Oakland, CA. (v3,#4)

Fox, Michael Allen. "Nuclear Weapons and the Ultimate Environmental Crisis." *Environmental Ethics* 9(1987):159-179. Current philosophical debate on the arms race and on the use of nuclear weapons tends to focus on the rationality and morality of deterrence. I argue, however, that in view of recent scientific findings concerning the possibility of nuclear winter following upon nuclear war, or of some lesser but still massive consequences for nature, the perspective of environmental ethics is one from which nuclear war and preparations for it ought to be examined and condemned. Adopting a "weak anthropocentric" position of the sort advocated by Bryan Norton and others, I argue that it is the extinction or decimation of the human species that should be our central concern, but that even without ascribing intrinsic value to nature, natural objects and nonhuman organisms, the destruction or decimation of the environment provides additional grounds for judging nuclear war to be immoral and unthinkable. Fox is in the department of philosophy, Queen's University, Kingston, Ontario, Canada. (EE)

Fox, Michael Allen. "Vegetarianism and Planetary Health." *Ethics and the Environment* 5(2000):163-174. I begin by asserting that a vegetarian, even a vegan diet, from a nutritional standpoint, is at least as healthy as, and in all probability healthier than, one which centers on or includes meat. Scientific evidence supporting this claim is beginning to accumulate, and abundant material is available for those who wish to pursue the issue (Anonymous 1988a; Anonymous 1988b; Barnard 1993; Chen 1990; Melina, Davis, and Harrison 1994; White and Frank 1994). In addition, every good bookshop today has several vegetarian and/or vegan cookbooks, and many titles
Currently on the market contain excellent chapters on the fundamentals of vegetarian nutrition as well as references to contemporary nutritional research. For these reasons I shall not attempt to summarize here the evidence in favor of a vegetarian diet. My second preliminary claim is that meat-eating in general is, and in particular certain kinds of meat-eating are, unhealthy. The statistical correlation between high meat consumption and increased probability of colon, breast, and other cancers, heart disease, and atherosclerosis—far and away the leading causes of death in North America—has been well established by many independent researchers (Barnard 1990; Fiddles 1991; Mitra 1991; National Research Council 1989; Robbins 1987). This realization prompted Health and Welfare Canada (a federal government department) to issue a new version of Canada's Food Guide to Healthy Eating, which appeared in 1992. Alternatives to meats (such as tofu and legumes) are accentuated, as are 5-10 servings per day of vegetables and fruits and 5-12 servings per day of grain products. Critics maintain that an even greater shift toward a vegetarian diet might have been endorsed in the Guide had it not been for the extraordinary (and entirely predictable) behind-the-scenes lobbying efforts of the livestock industry ("Industry Forced Changes" 1993). (E&E)

Fox, Michael W. "Toward Kinship," The Animals' Agenda 17(no.4, 1997):44. In "Why We Care About Animals," Michael W. Fox, V.M.D., explores the evolution of compassion. (v8,#3)

Fox, Michael W., Animals Have Rights, Too. Crossroad/Continuum, 1991. 176 pages, $12.95 paper. An internationally recognized veterinarian and defender of animal rights urges children and parents to consider all the relevant issues and take positive steps at home, in school, and in the community. (v2,#3)


Fox, Michael W., The Boundless Circle: Caring for Creatures and Creation. Wheaton, IL: Quest Books (Theosophical Publishing House), 1996. $20.00. ISBN 0-8356-0725-9. Fox argues for a panentheism; God is both transcendent to and imminent in the world. "Fundamentally, there is but one crisis—and it is a spiritual one" (p. 87). Even though respect for animals and the natural environment is evident throughout history and in all the world's major religions, it has been lost over time. The world has been desacralized, the ugly effect of "the materialism of both state and private capitalism, along with its industrialism, scientific imperialism, and shallow priesthood of instrumented rationalists" (p. 150). Fox is the vice-president of the Humane Society of the United States. (v7,#4)

Fox, Michael Allen, Deep Vegetarianism. Philadelphia: Temple University Press, 1999. A vegetarian diet is related to our larger worldview and to our comprehensive code of ethics. Good health, suffering, environmental impacts of meat production, the meaning of food, world hunger, religion and spirituality, ideologies, including feminism,
human nature, humans as carnivores—the vegetarian issue is linked with many other issues that figure in our view of life. Fox is in philosophy, Queen's University, Kingston, Ontario, and was once an outspoken advocate for animal experimentation. (v.10,#1)

Fox, Michael W., Bringing Life to Ethics. Albany, NY: SUNY Press, 2000. We ought to use the compass of global bioethics—humility, responsibility, interdisciplinary and intercultural competence—to counter technological, ecological, and value threats, moving toward a human and sustainable society. Fox, a veterinarian, writes the nationally syndicated column, "Ask the Animal Doctor." (v.11,#4)


Fox, Michael W., Animals Have Rights Too: A Primer for Parents, Teachers, and Young People. New York: Crossroad/Continuum, 1990. 144 pages. $ 9.95 paper. Fox is the vice president of the Humane Society of the United States. (v1,#4)


the psychologist's understanding of the self beyond personal ego with the ecologist's belief in the inherent value of all living things. An in-depth analysis of the deep ecology movement. Fox is a National Research Fellow at the Center for Environmental Studies at the University of Tasmania. (v1,#3)

A major discussion of the philosophy of deep ecology by one of its leading advocates. For the last ten years, Fox has been a prolific commentator and defender of the philosophy of Arne Naess, and this book (an expansion of his doctoral dissertation) is the first complete expression of his views. Fox sees a connection between the deep ecology emphasis on "identification" and recent work in "transpersonal psychology"—thus he changes the name of "deep ecology" to "transpersonal ecology." For Fox, "Naess's philosophical sense of deep ecology...refers to a psychologically based approach to the question of our relationship with the rest of nature" (p. 197). Fox's view of Naess is in contrast to the standard interpretation of deep ecology as an ethical or axiological theory. Fox provides an in-depth analysis of Naess's three senses of deep ecology: (1) formal derivation of principles; (2) philosophical sense of self-realization; and (3) popular sense of ecocentrism. More importantly, he discusses the place of deep ecological thought in environmental philosophy generally, and evaluates the criticisms of opponents. Although Fox is correct in moving beyond the axiological side of deep ecology, he places too much emphasis on psychological "identification" with the natural world; the most justifiable sense of deep ecology is as an ontological and phenomenological description of the world. See Naess, below. The book contains an excellent bibliography and exhaustive footnotes. (Katz, Bibl # 2) Reviewed in Environmental Ethics 15(1993):181-83.


Fox, Warwick, "Why Care About the World Around Us?" Resurgence, November-December 1993, pp. 10-12.


Fox, Warwick, "The Deep Ecology-Ecofeminism Debate and Its Parallels," *Environmental Ethics* 11(1989):5-25. A defense of deep ecology against the attack by ecofeminism—here defined as the charge that deep ecology is too concerned with anthropocentrism and not the real villain, androcentrism. Fox argues that the ecofeminist criticism is too simplistic, for a whole range of human social classes have been the agents of domination. A concern for androcentrism is another variation of the same old theme that humans have to put their own house in order first. The main point is that deep ecology is not anti-human, but anti-human centeredness. But it is questionable whether an ethic can be against anthropocentrism and not be anti-human. Readers should remember Callicott's assertion in "Animal Liberation: A Triangular Affair" that misanthropy is a mark of biocentrism (*Environmental Ethics* 2 (1980): 326). (Katz, Bibl # 2)

Fox, Warwick, "On the Interpretation of Naess's Central Term, `Self-Realization,'" *The Trumpeter* 7:2, Spring 1990. Fox argues that Naess's "self-realization" can be interpreted either in the axiological direction of objective intrinsic value in natural entities or in the identification direction of a psychological experience of cosmological unity. According to Fox, Naess really prefers the identification direction. On the axiological view, "One ought to protect all living beings ... on account of the fact that they are morally considerable (i.e. intrinsically valuable). In contrast, in Naess's formulation ..., one arrives at the view that one wants to protect all living beings on account of the fact that one feels deeply identified with them." "What is basic for deep ecologists is the psychological capacity for, and the experience of, wide and deep identification." "At a philosophical or argumentative level, the main writers on deep ecology have adopted an identification based approach in preference to an intrinsic value based approach." Fox is in the Department of Geography and Environmental Studies, University of Tasmania. (v1,#2)


Fox, Warwick, "Deep Ecology: A New Philosophy of Our Time?" The Ecologist vol. 14, nos. 5-6 (1984):194-200. With a Reply by Arne Naess, "Intuition, Intrinsic Value and Deep Ecology," pp. 201-203, and a further comment by Fox, pp. 203-204. A good summary expression of the Deep Ecology position. Fox cites three distinguishing marks of the philosophy, as opposed to "shallow" environmentalism: Human-environment unity; a critique of the dominant metaphysic--mechanistic materialism--with the realization that ecological ethics must be ontologically grounded; economic sustainability. But the strength of this essay is that Fox squarely faces some of the problems of Deep Ecology: its ultimate ground in intuition about the unity of the self and the natural environment, and its claim of "biospherical egalitarianism." Fox effectively jettisons the latter principle. In his rejoinder to Naess (p. 204) he draws important distinctions between the advocates of Deep Ecology, who are interested in developing an ecological consciousness, and environmental ethicists, who seek to justify an ethical system by means of argument. Deep Ecology is not based on rational argument. (Katz, Bibl # 1)


Fox, Warwick, "Approaching Deep Ecology: A Response to Richard Sylvan's Critique of Deep Ecology." Environmental Studies Occasional Paper 20 (University of Tasmania, 1986). The best explanation and defense of the Deep Ecology position, supplanting an earlier and shorter article by Fox, "Deep Ecology: A New Philosophy of Our Time?" Fox first attacks Sylvan's criticisms of Deep Ecology as being based on misrepresentations of the Deep Ecology position (see Sylvan). He then explains this position by focusing on the idea of "identification" with the natural environment. This is the new meaning now given by Fox to the Deep Ecologist primary value of "self-realization." Fox wants to delineate this "identification process" quite clearly; it does not imply a naive biocentric egalitarianism, a view in which every natural entity has equal intrinsic worth, for Deep Ecology denies the ontological independence of natural entities; nor does it imply an extreme holism, in which all entities lose their autonomy and individuality. Deep Ecology wants to take a middle path: deny human superiority,
show the interrelatedness of all natural beings, and develop "self-realization," a consciousness which somehow identifies with nature (p. 69). Fox does not explicitly state what this identification process is; he concentrates on what it is not. It is not a search for "intrinsic value" in natural individual entities. That method is the "environmental axiological" approach, and it is insufficient for the development of environmental preservation. We have to change the "mode of discourse" in the analysis of environmental problems. "[T]aking the route of developing and applying formal, theoretical environmental axiological positions ... to our relationship with the nonhuman world is at best not helpful or misguided and at worst dangerous in that it can end up doing more harm than good. ... [S]upporters of deep ecology ... have deliberately chosen not to take the environmental axiological route" (p. 41). But is this mode of discourse rational? Does it degenerate into the "armchair mysticism" which Fox wishes to avoid (p. 66)? I cite as an example Fox's current rejection of his earlier criticism of bio-egalitarianism. One can only criticize bioegalitarianism if it is conceived as a specific environmental axiology. But it should not be so conceived. What then, is it? Apparently, a mere attitude, a rejection of anthropocentrism (pp. 39-40). But then the terminology used by Deep Ecologists is intellectual doubletalk. Fox is the clearest of all Deep Ecologists, but the vagueness and the anti-rationality of the central concepts of this position is frightening. (Katz, Bibl # 1)


Fox, Warwick, ed., *Ethics and the Built Environment*, London: Routledge, 2000. 15 original papers, divided into three sections entitled: (1) The Green Imperative - and its Vicissitudes; (2) Building with Greater Sensitivity to People(s) and Places; (3) Steps Towards a Theory of the Ethics of the Built Environment. Just as traditional, anthropocentrically focused forms of ethics have exhibited a major blind spot in their theorising with respect to the nonhuman world, so the development of environmental ethics has thus far exhibited a major blind spot of its own. The world around us--what we call "the environment"--consists of both spontaneously occurring and humanly constructed environments. This natural/built environment distinction is perhaps the most obvious division that we can make in the day-to-day world in which we live. Yet, despite the fact that the world around us consists of both natural and built environments (and their various admixtures), environmental ethics, as a formal field of inquiry, has been overwhelmingly focused upon the spontaneously self-organising natural environment as opposed to the humanly created, or intentionally organised, built environment. Environmental ethics has not yet truly earned the name that it presently goes under. On the one hand, this bias towards concerns with the natural environment is completely understandable: environmental ethicists have wanted to escape the almost exclusively anthropocentric focus that has pervaded traditional ethical approaches. On the other hand, this bias is decidedly odd. Whereas humans evolved in natural, or spontaneously self-organising, environments, we now increasingly live in built, or intentionally organised, environments. (v.11,#4)


Fox, Warwick. "A Critical Overview of Environmental Ethics." *World Futures* (Amsterdam) 46 (1996): 1-21. A general introduction to, and a critical overview of, environmental ethics. There are three main human-centered or anthropocentric or instrumental value approaches: the unrestrained exploitation and expansionism approach, the resource conservation and development approach, and the resource preservation approach. There are three main nonanthropocentric or intrinsic value approaches: the sentience or animal liberation approach, the life approach, and the holistic integrity approach. Each is examined in terms of both rational foundations and
practical consequences. Two of the latter approaches, the life approach and the holistic integrity approach, are based on flawed rational foundations. All three approaches suffer from a range of highly objectionable practical consequences and none of these approaches is comprehensive enough in scope to deal directly with the full range of environmental problems with which people are concerned on a day-to-day level. Despite the negative conclusions, understanding these arguments should serve as a positive stimulus to the development of better approaches. Fox is associated with the Centre for Environmental Studies, University of Tasmania, Hobart. (v7, #3)


Fox, Warwick. "The Deep Ecology-Ecofeminism Debate and Its Parallels." Environmental Ethics 11(1989):5-25. There has recently been considerable discussion of the relative merits of deep ecology and ecofeminism, primarily from an ecofeminist perspective. I argue that the essential ecofeminist charge against deep ecology is that deep ecology focuses on the issue of anthropocentrism (i.e., human-centeredness) rather than androcentrism (i.e., malecenteredness). I point out that this charge is not directed at deep ecology's positive or constructive task of encouraging an attitude of ecocentric egalitarianism, but rather at deep ecology's negative or critical task of dismantling anthropocentrism. I outline a number of problems that can attend not only the ecofeminist critique of deep ecology,--but also comparable critiques that proceed from a broad range of social and political perspectives. I then proceed to argue that deep ecology's concern with anthropocentrism is entirely defensible--and defensible in a way that should be seen as complementing and expanding the focus of radical social and political critiques rather than in terms of these approaches versus deep ecology. Fox is at the Centre for Environmental Studies, University of Tasmania, Hobart, Tasmania. (EE)

Fox, Warwick. "Education, the Interpretive Agenda of Science, and the Obligation of Scientists to Promote this Agenda." Environmental Values 4(1995):109-114. This paper presents an argument that emphasises the following points: (1) the importance of public education; (2) the essential difficulty facing all involved in public education that is aimed at sustaining a biologically and culturally rich world; (3) the recognition of science as having both a technical agenda and an interpretive agenda; (4) the scientific interpretation of the universe: an evolutionary and ecological world-view; and (5) the importance of the interpretive agenda of science for public education and the obligation of scientists to promote this agenda. KEYWORDS: Education, science, sustainability, world-view. Fox is at the Centre for Environmental Studies, University of Tasmania. (EV)


Fragomeni, Richard N. and John T. Pawlikowski, eds. The Ecological Challenge: Ethical, Liturgical, and Spiritual Responses. Collegeville, MI: Liturgical Press, 1994. 140 pages, softbound. Thirteen contributors provide insights, coupled with practical suggestions, for an authentically religious response to the ecological crisis. Drawing upon the biblical, ethical, liturgical, and spiritual wisdom of the convenantal traditions of Judaism and Christianity, they emphasize what they think are frequently underemphasized aspects of their religious heritage. They also suggest areas that require new creative reflection that will push beyond traditional understandings. In several chapters they suggest ways in which ecological concerns might be concretely included which retain the integrity of the Church's liturgical and spiritual traditions. A sample: Thomas A. Nairn, "The Roman Catholic Social Tradition and the Question of Ecology." Nairn claims, "A contemporary ethic, using the signs of the times, would challenge Christians to move from a point of view in which nature has little or no value apart from human choices to one which sees humanity itself as part of the larger ecosystem" (p. 37). Fragomeni and Pawlikowski are both professors Catholic Theological Union, Albany, New York. (v6,#1)


Francione, Gary L., Animals, Property, and the Law. Philadelphia: Temple University Press, 1995. 349 pages. Paper, $22.95; cloth $59.95. Current legal standards of animal welfare do not and cannot establish rights for animals. As long as they are viewed as property, animals will be subject to suffering for the social and economic benefit of human beings. The history of the treatment of animals, anticruelty statutes, vivisection, the Federal Animal Welfare Act, and specific cases such as the controversial injury of unanaesthetized baboons at the University of Pennsylvania (Francione represented some 100 sit-in protestors at the National Institutes of Health, Bethesda, Maryland, over this issue). Francione argues that there is a paradoxical gap between our professed concern with the humane treatment of animals and the overriding practice of abuse permitted by U.S. law. Francione is professor of law at Rutgers University.


Francione, Gary L., Introduction to Animal Rights: Your Child or the Dog? Philadelphia: Temple University Press, 1999. 264 pages. There is a great inconsistency between what people say they believe about animals and how they act toward animals. Laws designed to protect animals regularly fail to do so. Everyone--human and non-human--has the right not to be treated as a means to an end. Francione is in law and philosophy at Rutgers University Law School. (v.10,#1)
Francione, Gary L. "Animals, Property and Legal Welfarism: 'Unnecessary' Suffering and the 'Humane' Treatment of Animals." Rutgers Law Review 46, no. 2 (Winter 1994): 721-70. Concludes that the legal protection of animals is unlikely to exceed their exploitation. The only prohibition upon animal use is conduct that results in gratuitous suffering. As property, animals can have certain rights, just as human slaves had some rights and were, in a limited sense, regarded as persons. Regarding legal welfarism, animals and their "interests" will virtually always lose in any purported "balancing" of human and animal interests. (v5,#3)

Francione, Gary L. Rain Without Thunder: The Ideology of the Animal Rights Movement. Philadelphia: Temple University Press, 1996. 366pp. $59.95 cloth $22.95 paper. The modern animal rights movement has become indistinguishable from a century-old concern with the welfare of animals that in no way prevents them from being exploited. Francione is in law at Rutgers University. (v7,#4)


Francis, David R., "Global Crowd Control Starts to Take Effect," Christian Science Monitor 89 (22 October 1997): 1, 9. World population growth rates have peaked, and population itself may soon peak. So says the United Nations. By 2040, world population will peak at 7.7 billion, which is about 1/3 more people than now. When population finally peaks, several benefits will result, according to economists. Poor nations will be able to shift resources from basic goods like food and shelter to raising the standard of living. Famine will be reduced, especially in Africa and Asia. Immigration into the developed nations will ease. And export markets in the developing nations will burgeon. Environmental pressures will ease. By 2050, the ratio of population between the third world and the developed nations will be 7:1; it's 4:1 now. Pessimists, like Stan Becker of Johns Hopkins, doubt the UN's optimism. Becker expects disasters in poorly managed nations, especially famines, and others doubt whether the "green revolution"--high yields in grains and other foods--can match the population growth. (v8,#3)

Francis, David R. "Global Crowd Control Starts to Take Effect." Christian Science Monitor 89 (22 October 1997): 1, 9. World population growth rates have peaked, and population itself may soon peak. So says the United Nations. By 2040, world population will peak at 7.7 billion, which is about 1/3 more people than now. When population finally peaks, several benefits will result, according to economists. Poor nations will be able to shift resources from basic goods like food and shelter to raising the standard of living. Famine will be reduced, especially in Africa and Asia. Immigration into the developed nations will ease. And export markets in the developing nations will burgeon. Environmental pressures will ease. By 2050, the ratio of population between the third world and the developed nations will be 7:1; it's 4:1 now. Pessimists, like Stan Becker of Johns Hopkins, doubt the UN's optimism. Becker expects disasters in poorly managed nations, especially famines, and others
doubt whether the "green revolution"--high yields in grains and other foods--can match the population growth.  (v8,#3)


Francis, John M., "Nature Conservation and the Precautionary Principle," Environmental Values 5(1996):257-264. The application of the precautionary principle to an area of environmental protection, such as nature conservation, requires commitment to the idea that full scientific proof of a causal link between a potentially damaging operation and a long term environmental impact is not required. Adoption of the principle in Government statements related to sustainable development should therefore be seen in this context. The paper addresses the particular case of marine fish farming in Scotland where the principle was advocated but not upheld in practice. In the light of this experience there is a need for educators and philosophers, ethicists and concerned scientists to ensure that the principle is more widely interpreted and understood. KEYWORDS: Nature conservation, sustainable development, international law, technology assessment. (EV)


Francis, John M., "Nature Conservation and the Voluntary Principle." Environmental Values 3(1994):267-271. Primary legislation in Britain has enshrined the `voluntary principle' at the centre of the working relationship between nature conservationists and other land-users. This paper examines the dilemma that arises from the application of the legislation to long-term land management strategies in support of nature conservation. In its historical context this approach does not sit easily with wider goals such as the land-use ethic of Aldo Leopold or the search for an ethic of sustainability. KEYWORDS: Nature conservation, legislation, land-use ethics, conservation management. Francis is at 49 Gilmour Road, Edinburgh, U.K. (EV)

Francis, Leslie Pickering. "Global Systemic Problems and Interconnected Duties." Environmental Ethics 25(2003):115-128. Many problems in environmental ethics are what have been called "global systemic problems," problems in which what happens in one part of the world affects preservationist efforts elsewhere. Restoration of the Everglades is one such example. If global warming continues, the Everglades may well be flooded within the next quarter to half century and all restoration efforts will be for naught. Yet, the United States government is both pursuing restorationist efforts and withdrawing from the Kyoto Protocol on emissions of greenhouse gases. One aspect of global systemic problems concerns whether there are interconnections between the preservationist obligations of the locals and the duties of others. There are three main lines of arguments for concluding that there are, indeed, interconnected obligations in such cases. First, the consequentialist case for imposing duties on locals assumes that others do not have inconsistent consequentialist obligations. In addition, a related consequentialist case can be made that when problems are systemic, others
have positive supportive duties. Second, a weak principle of reciprocity supports the interconnectedness of obligations. Insistence that someone has an obligation that benefits you implies the duty not to act to undermine the efforts of that person to fulfill that obligation. Third, a weak principle of fairness—that it is only fair to expect one person to bear the burdens of producing a collective good if others have obligations to do their cooperative part—supports interconnected obligations with regard to global systemic problems. Because all three arguments point to the same conclusion, there is a very strong case for interconnected obligations as part of the solution to global systemic problems—problems that are all too prevalent in our world today. (EE)


Frank, Joshua, "A Constrained-Utility Alternative to Animal Rights," Environmental Values 11(2002):49-62. Numerous approaches have been taken in an effort to find a non-anthropocentric ethic that will lead to greater consideration of animals. Most of the recent approaches in this area have been rights-based. It is argued here that a rights-based approach alone fails both theoretically and in practical applications. It is shown that in theory these approaches can lead to unsound conclusions and cannot handle uncertainty. In addition, in practice the rules of the rights-based approaches will often be violated. A utility approach with unequal weighting for different species subject to certain rights or obligations is proposed as an alternative. This approach is intended to be operational rather than purely theoretical and therefore would be based on a negotiated consensus rather than a priori theory. (EV)

Frank, Lone, "Charges Don’t Stick to The Skeptical Environmentalist," Science 303(2 January 2004):28. Denmark's science ministry repudiated an earlier finding by one of its committees that Bjorn Lomberg's The Skeptical Environmentalist is "scientifically dishonest." They also note that the ruling does not vindicate The Skeptical Environmentalist either.


Franke, Mary Ann, To Save the Wild Bison: Life on the Edge in Yellowstone. Norman, OK: Oklahoma University Press, 2005. Bison were saved from near-extinction in the nineteenth century but today nearly all herds are fenced and managed like livestock. Yellowstone is a place bison might yet be wild, except for the threat of brucellosis. Federal and state officials walk on an edge and this leaves bison on the edge.


Frankel, Mark S., and Chapman, Audrey R., "Facing Inheritable Genetic Modifications," *Science* 292(2001):1303. Inheritable genetic modifications are coming sooner than most realize (at least for the wealthy and in developed countries). "We should begin establishing an oversight process now so that we can make informed and reasoned choices about the future." Both authors are in science and policy programs of the American Association for the Advancement of Science. (v.12,#2)

Frankel, Otto Herzfeld, "Variation--The Essence of Life," *Proceedings of the Linnean Society of New South Wales*, vol. 95, part 2, pp. 158-169. "If a sense of responsibility towards the present and the future state of the world is to become a potent force in human affairs as it must if life on earth is to survive, social ethics and what might be called evolutionary ethics must become effective and influential partners in decision making" (p. 159) "We have acquired evolutionary responsibility" (p. 168). Frankel was with the Division of Plant Industry, CSIRO, Canberra, Australia.

Frankel, Otto Herzfeld, "Genetic Conservation: Our Evolutionary Responsibility," *Genetics* 78(September, 1974):53-65. Urgent action is needed to collect and preserve irreplaceable genetic resources. Wild species, increasingly endangered by loss of habitats, will depend on organized protection for their survival. On a long term basis this is feasible only within natural communities in a state of continuing evolution. Even more, the possibility of a virtual end to the evolution of species of no direct use to humans raises questions of responsibility and ethics. "I am raising the question of whether continuing evolution itself has an intrinsic value." Frankel was Australian plant geneticist and breeding scientist, here using the term "evolutionary responsibility," his precursor to the later term "environmental ethics."

Frankel, Otto; Brown, Anthony H. D.; and Burdon, Jeremy J. *The Conservation of Plant Biodiversity*. New York: Cambridge University Press, 1995. 113 pp. $27.95 paper. Conservation biology is faced with several controversial issues, such as the dichotomy between the preservation of individual species versus a broader focus on the environment, the relative importance to give to endangered species, the design and management of reserves and the drive for increasing agricultural productivity through plant improvement versus the drive to maintain traditional peasant varieties in cultivation. (v7, #3)
Frankenfeld, Philip J. Bibliography for Technological Citizenship: Public Participation in Environmental Policy and Risk Policy. Organized by subject and includes such headings as: Environmental Justice; Ethics of Uncertainty; Environmental Policy; Consumer Environmentalism; Environmental Law; Whistleblowing, and others. Hardcopy (offprinted) by request, although the author also has it on disks, Microsoft Word. Address: 1671 North Prospect #304, Milwaukee, WI 53202. 414/272-6765. (v6,#1)

Frankham, Richard, Ballou, Jonathan D., and Briscoe, David A., Introduction to Conservation Genetics. New York: Columbia University Press, 2002. Genetic diversity and its conservation, as this complements or constrasts with the conservation of organisms, species, ecosystems. Frankham is at Macquarie University, Sydney, Australia. (v.13,#4)


Franklin, Julian H. "Regan on the Lifeboat Problem: A Defense." Environmental Ethics 23(2001):189-201. Tom Regan has powerfully argued that all sentient beings having some awareness of self are equal in inherent value, and that their interests where relevant must be given equal treatment. Yet Regan also contends that there are some situations in which the value of different lives should be compared and choice made between them. He supposes an overloaded lifeboat with five occupants in which all will die unless one is thrown overboard. Four of the occupants are human, one is a dog; and Regan holds that it is the dog that ought to go since its life is of less value than that of a human. Regan has thus been sharply attacked for inconsistency. Some say that the comparison of lives, even in this sort of case, contradicts the principle of equal inherent value and introduces a utilitarian calculation of benefit. Others object that no ground of choice exists in situations of this sort. But all these criticisms turn out to be unjustified. (EE)


Franklin, Sarah, "Dolly: a New Form of Transgenic Breedwealth," Environmental Values 6(1997):427-437. ABSTRACT: Public debate in Britain surrounding the cloning of Dolly the sheep has primarily focused on the legitimacy of cloning humans, not sheep. This bracketing of the human question relies on a distinction between humans and animals belied by the very constitution of transgenic animals who are made with human DNA, such as Dolly. Moreover, the ways in which human beings think about, manipulate and classify animals have distinct cultural consequences, for example in relation to cultural understandings of life, property, kinship and other forms of social interconnection. This article introduces the term "breedwealth" to examine Dolly as a unique form of property in order to make some of these connections more visible. Department of Sociology, Lancaster University, Lancaster LA1 4YL, UK. (EV)
Franks, Nigel R. and Tom Richardson, "Teaching in Tandem-running Ants," *Nature* 439(12 January 2006):153. An ant can signal another ant leading from the nest to food, with signals between the two controlling both the speed and course of the run, called a tandem run. The tandem leaders know the location of food but the tandem followers are naive. The tandem leaders only continue the run when frequently tapped on their legs and abdomen by the following ant's antennae. The tandem leader, therefore, modifies its behavior in the presence of the follower.

"An individual is a teacher if it modifies its behavior in the presence of a naive observer, at some initial cost to itself, in order to set an example so that the other individual can learn more quickly." Despite the "in order to" in this definition, these authors posit only behavior selected for its survival behavior, and no intent to teach, much less any theory of mind, or ideas passing from teacher to disciple. Compare also the recent claims for teaching in meerkats, who differentially maim prey when the young are learning to hunt. Thornton, Alex and Katherine McAuliffe, "Teaching in Wild Meerkats," *Science* 313(14 July 2006):227-229.

As with some extended definitions of "culture" (imitated behavior), we now find extended definitions of "teaching" (selection for alternative behaviors in the presence of the naive that facilitate their learning). The authors speculate that teaching does not require big brains, only that it be useful for survival. The authors are in biology, University of Bristol, UK.


Fraser, David, Phillips, P.A., and Thompson, B.K., "Environmental Preference Testing to Assess the Well-Being of Animals - An Evolving Paradigm", *Journal of Agricultural and Environmental Ethics* 6(1993). Supplement. Environmental preference testing (i.e. research in which animals are allowed to choose among two or more alternative environments or environmental features) is a useful but sometimes problematic approach to improving animal well-being. Preference testing paradigms are evolving rapidly, as evidenced by the number of different procedures being proposed and the volume of debate over their usefulness and validity. One significant shift has been the trend toward asking more precise questions about animal preferences, with more attention to the relevant variables. This has required more comprehensive response measures and more elaborate experimental designs. Results which deviate from the average need to be interpreted with care; these may involve genuine individual differences among animals, options that are preferred for specific minority activities, or they may indicate that important variables have been overlooked. Strategies have also emerged for using preference tests to indicate principles underlying the animals' preferences. Preference testing often needs to be followed by complementary experiments to test whether the animals react differently to preferred and unpreferred options when these are presented alone, or to test the animals' motivation for a preferred option. Tests of motivation are potentially of great value, but much more effort is needed to validate suitable methods. In some cases, animals prefer an environment which is not the most beneficial for health, survival and reproductive
success in farm environments. In such cases, agriculturalists may well provide an
unpreferred environment, but the animals' preferences still need to be understood so
that any resulting distress can be minimized. Fraser, Phillips, and Thompson are at
the Centre for Food and Animal Research, Agriculture Canada, Ottawa Canada K1A
0C6.

Fraser, I; Hone, P, "Agricultural land retirement: lessons from an Australian case

Fraser, Vikki. "What's the Moral of the GM Food Story?" Journal of Agricultural and
Environmental Ethics 14(2001):147-159. This paper is an attempt to examine issues
and problems raised by agricultural biotechnology by drawing on the richness of
contemporary ideas in ethical theory and thereby contribute to the project of
establishing new approaches to these problems. The fundamental argument is that
many of the negative aspects of agricultural biotechnology are generated at the level
of the underlying conceptual frameworks that shape the technology's internal modes of
organization, rather than the unintended effects of the application of an inherently
benevolent set of techniques. If "food ethics" is to address the adverse impacts of
agricultural biotechnology, it must ultimately challenge these concep-
tual frames,
which, I argue, emerge from Enlightenment, liberal, political, and economic theory.

The translation of traditional bioethics (focusing on principles such as autonomy
and rights, justice, and well being) into food ethics does not produce the critical tools
that are able adequately to challenge the harmful legacy of Enlightenment thinking. What is needed are reorientations of ethics that are capable of formulating concepts
and approaches that to some extent break with the presuppositions that underpin
biotechnology at its foundation. This paper suggests that narrative and feminist
critiques of medical bioethics are a good place to start in this project. Keywords:
bioethics, biotechnology, food ethics, narrative ethics, principlism. Vikki Fraser is at the
Centre for the Study of Ethics, Queensland University of Technology Carseldine
Campus, Beams Road, Carseldine, Brisbane, Queensland Australia. (JAEE)

Frasz, Geoffrey, "Review of: Peter List, ed., Environmental Ethics and Forestry: A

Frasz, Geoffrey B., The Problem of Community. Ph.D. dissertation at the University of
Georgia, completed 1994, under the direction of Frederick Ferré. The philosophical
problem of community, reflected in the field of environmental ethics. Chapter 1: How
to balance the needs, rights, and interests of the community as a whole with the
needs, rights, and interests of the individuals who make up that community; how to
develop a mixed community that allows for human flourishing, as well as a diverse
nonhuman biotic component. This is applied to the holism/pluralism debate. Chapter
2: The human community, attempts to define community, and two major attempts to
describe this. Chapter 3: The biotic community: a historical account of the change in
ecology from populations to ecosystems, ending with a new version of a biotic
community based on insights from the emerging science of complexity; a critique of
the positions of Aristotle and Whitehead on community, and the metaphysical
Chapter 4: Aristotle's concept of friendship can be extended through Whitehead to include nonhuman entities. Chapter 5: Whitehead's metaphysics can serve as a foundation for a postmodern concept of community; the general features of a constructive postmodern version of community; Frederick Ferré's "personalistic organicism" provides a solution to the community problem in environmental ethics. Frasz is currently teaching a course in environmental ethics at the Community College of Southern Nevada that attracts environmental science students from the University of Nevada at Las Vegas. Address: Geoffrey Frasz, Philosophical and Regional Studies, Community College of Southern Nevada, North Las Vegas, NV 89030, USA. 702-651-4126. <frasz@nevada.edu>


Frasz, Geoffrey, "What is Environmental Virtue Ethics that We Should Be Mindful of It?" Philosophy in the Contemporary World 8 (Number 2, Fall-Winter 2001): 5-14. There has been increased interest in developing environmental virtue ethics (EVE). This paper presents some of the central features of this project. The first part is a general description of EVE, showing why there is a need for it. The second part spells out the central features of EVE including an account of the good life as flourishing in an expanded or mixed biotic community, and provides a tentative list of important environmental virtues. The third part examines one virtue: friendship, showing how an understanding of it provides insight into current issues in environmental ethics. The final section addresses a challenge to the project of EVE. Frasz is in the Philosophical and Regional Studies Department, Community College of Southern Nevada, Las Vegas. (v.13,#2)

Frasz, Geoffrey B. "Environmental Virtue Ethics: A New Direction for Environmental Ethics." Environmental Ethics 15(1993):259-74. In this essay, I first extend the insights of virtue ethics into environmental ethics and examine the possible dangers of this approach. Second, I analyze some qualities of character that an environmentally virtuous person must possess. Third, I evaluate "humility" as an environmental virtue, specifically, the position of Thomas E. Hill, Jr. I conclude that Hill's conception of "proper" humility can be more adequately explicated by associating it with another virtue, environmental "openness." Frasz is in the Department of Philosophic and Regional Studies, Community College of Southern Nevada, North Las Vegas, NV. (EE)


Frederick, Kenneth D. and Roger A. Sedjo, eds., *America's Renewable Resources: Historical Trends and Current Challenges*. Washington, DC: Resources for the Future, 1991. 296 pages. Chapters on water, forests, rangeland, cropland, wildlife, outdoor recreation. With particular attention to sustainable development. A frequent theme is that private ownership of resources provides the best resource protection and management. Most of the authors are researchers on the staff of Resources for the Future (RFF), a non-profit organization working since 1952 to promote development, conservation, and use of natural resources. (v3,#4)

Frederick, Robert E., and W. Michael Hoffman, "Environmental Risk Problems and the Language of Ethics," *Business Ethics Quarterly* 5(1995):699-711. Six criteria for assessing proposed solutions to environmental risk problems. But before these criteria can be used business persons must be willing to discuss the problem in ethical terms, and they are often reluctant to do so.

Frederick, William C., "Anchoring Values in Nature: Toward a Theory of Business Value," *Business Ethics Quarterly* 2(1992):283-303. The dominant values of the business system—economizing and power-aggrandizing—are manifestations of natural evolutionary forces to which sociocultural meaning has been assigned. Economizing tends to slow life-negating entropic processes, while power-aggrandizement enhances them. Both economizing and power-aggrandizing work against a third (non-business) value cluster—ecologizing—which sustains community integrity. The contradictory tensions and conflicts generated among these three value clusters define the central normative issues posed by business operations. While both economizing and ecologizing are anti-entropic and therefore life-supporting, power augmentation, which negates the other two value clusters, is pro-entropic and therefore life-defeating. Business ethicists have tended to overlook the normative significance of nature-based value systems. Reconciling these is the most important theoretical task of business ethicists. A presidential address to the Society for Business Ethics, August 1991.

Frederick, William C., "Anchoring Values in Nature: Toward a Theory of Business Values," *Business Ethics Quarterly* 2(1992):283-303. The dominant values of the business system—economizing and power-aggrandizing—are manifestations of natural evolutionary forces. Economizing tends to slow the life-negating entropic processes, while power-aggrandizing enhances them. Both economizing and power-aggrandizing work against a third (non-business) value cluster—ecologizing—which sustains community integrity. The contradictory tensions generated among these three value clusters define the central normative issues for business operations. Both economizing and ecologizing are anti-entropic and therefore life-supporting, but power augmentation, which negates the other two value clusters, is entropic and therefore life-defeating. Business ethicists have tended to overlook the normative significance of nature-based value systems. Reconciling economizing and ecologizing values is the most important theoretical task for business ethicists. Frederick is in the graduate school of business at the University of Pittsburgh. (v5,#2)

*Free Inquiry*, Spring 1993, is a special issue, "Does Humanism Encourage Human Chauvinism?" with fourteen short articles, for example, Eugenie C. Scott, "Us and Them, Nature and Humanism"; James Lawler, "Ecocentric Ethics"; Frank Cullen and Ingrid Newkirk, "Humanism in a Biocentric Universe" Bernard Rollin, "Intrinsic Value for Nature--An Incoherent Basis for Environmental Concern." An example of anthropocentrism at its best, or worse, depending on your point of view, is Jan Narveson, "Humanism Is for Humans." "What the current ecological movement is about is the capacity to enjoy a North American/European lifestyle, and to do so into the indefinite future. What is unique about it is its claim that we can't do this for technological reasons. It isn't so." "There is, to repeat, no resource problem, no resource problem of consequence for the globe." "What's wrong with things being in pretty good shape for our fellow humans, with every prospect of their getting better still if we can keep our wits about us?" Narveson teaches philosophy at the University of Waterloo. The whole issue makes good short pieces for classroom discussion. (v5,#1)


Freeden, Michael, *Green Ideology: Concepts and Structures*. OCEES Research Paper No. 4. Oxford: Oxford Centre for the Environment, Ethics and Society, Mansfield College, 1995. 31 pp. Ideologies are "decontesting" devices that "attempt to confer cultural and conventional legitimacy on particular, narrow understandings of each of the political concepts they employ." The core concepts of green discourse involve the human-nature relation, nature preservation and variants of holism, together with an emphasis on appropriate human lifestyles. The "indeterminacy" of green core concepts allows them to weave in and out of an unusually wide range of political traditions. There are conservative and liberal-individualist components in contemporary green political thought. The equation of protective interventionism with ecofascism should be rejected as trite. "What the scholar of ideologies can do is to delineate, however roughly, the semantic field within which debate takes place."

Freeman, Aaren S., and James E. Byers, "Divergent Induced Responses to an Invasive Predator in Main Mussel Populations," *Science* 313(11 August 2006):831-833. A native mussel quickly evolves the capacity to defend itself against a recently introduced invasive crab, by growing a thicker shell when the new crab is present. This makes it harder for the crab to open the mussel and eat it, and crabs eat something else. So native species are not as defenseless as previously thought to invasives. Mussels are more flexibly adaptive.


Freeman, David, *Self Realisation: Variations on a Deep Ecological Theme*, Master's Thesis, Department of Philosophy, Lancaster University, September 1993. (v7,#1)

Freeman, David M., *Choice Against Choice: Cross-Cultural Policy Assessment in Social Development*. University Press of Colorado, 1991. $ 39.95 cloth. 344 pages. Largely devoted to natural resource issues where values are in conflict. The University Press of Colorado advertising blurb says, "Should a river be damned (sic!) for hydroelectic power production or be protected for its wild and scenic values? Which is better? Better for whom? Better for how long? Better in terms of what?" Freeman is a sociologist at Colorado State University and claims that sociology can assess and rank alternative public policy proposals. It seems also that sociologists are still liable to Freudian slips. (v2,#3)


Freemuth, John C., *Islands Under Siege: National Parks and the Politics of External Threats* (Lawrence, KS: University Press of Kansas, 1991). Attacks on the national parks from outside their boundaries (pollution, acid rain, noise, fragmented habitats) and beyond the control of the Park Service. $25.00. 186 pages. Freemuth is a political scientist at Boise State University. (v2,#1)

Freemuth, John. "The Emergence of Ecosystem Management: Reinterpreting the Gospel?" *Society and Natural Resources* 9, no.4 (1996): 411. (v7, #3)
Freese, Curtis H.  *Harvesting Wild Species: Implications for Biodiversity*. Baltimore, Maryland: The Johns Hopkins University Press, 1996. 704pp. $65 cloth, $29.95 paper. Freese draws together a diverse group of authorities to discuss the conditions under which commercial use may act as a conservation tool. Presenting fifteen case studies from around the world--in areas ranging from fisheries and forestry to non-timber forest products and trophy hunting--the discussion explores the link between sustainable development and biodiversity conservation. Freese's aim is to raise awareness among environmentalists, policy makers, funding agencies, students, and researchers of the use of economic incentives in conservation efforts. (v8,#1)


Freilich, J., Emlen, J, Duda J., Freeman, D., and Cafaro, P. "Ecological Effects of Ranching: a Six-Point Critique." *BioScience* 53: 759-765. Asks land managers and conservation ranchers to consider all the negative effects of ranching, not just grazing pressure. Focusing on the Great Plains of the United States, the authors raise six points of concern that must be addressed before we can hope to restore or maintain native ecosystems on the range. (v 14, #3)


Freilich, JE; Emlen, JM; Duda, JJ; Freeman, DC; Cafaro, PJ, "Ecological Effects of Ranching: A Six-Point Critique," *Bioscience* 53(no.8, 2003):759-765. (v.14, #4)


French, Howard W., "A Melting Glacier in Tibet Serves as an Example and a Warning," *New York Times*, November 9, 2004, p. D1. In eastern Tibet, runoff from the Zepu glacier, 27-square miles, melting with rising temperatures, has formed the powerful headwaters of a new river. (v.14, #4)


French, William C. "Against Biospherical Egalitarianism." Environmental Ethics 17(1995):39-57. Arne Naess and Paul Taylor are two of the most forceful proponents of the principle of species equality. Problematically, both, when adjudicating conflict of interest cases, resort to employing explicit or implicit species-ranking arguments. I examine how Lawrence Johnson’s critical, species-ranking approach helpfully avoids the normative inconsistencies of "biospherical egalitarianism." Many assume species-ranking schemes are rooted in arrogant, ontological claims about human, primate, or mammalian superiority. Species-ranking, I believe, is best viewed as a justified articulation of moral priorities in response to individuals' or entities' relative ranges of vulnerability and need, rooted in their relative ranges of capacities and interests. French is in the theology department, Loyola University. (EE)


Freud, Sigmund, The Future of an Illusion. New York: W. W. Norton, 1961. p. Freud on nature and culture. "Nature ... destroys us–coldly, cruelly, relentlessly. ... It was precisely because of these dangers with which nature threatens us that we came together and created civilization. ... For the principal task of civilization, its actual raison d'être, is to defend us against nature.

We all know that in many ways civilization does this fairly well already, and clearly as time goes on it will do it much better. But no one is under the illusion that nature has already been vanquished; and few dare hope that she will ever be entirely subjected to man. There are the elements, which seem to mock at all human control: the earth, which quakes and is torn apart and buries all human life and its works; water, which deluges and draws everything in a turmoil; storms, which blow everything before them; there are diseases, which we have only recently recognised as attacks by other organisms; and finally there is the painful riddle of death, against which no medicine has yet been found, nor probably will be. With these forces nature rises up against us, majestic, cruel and inexorable, she brings to our mind once more our weakness and helplessness, which we though to escape through the work of civilization" (p. 19). (v.10,#1)

Freudenbergger, C. Dean, "Bridging the Gap: Sustainable Development More Fully Considered," CTNS (Center for Theology and the Natural Sciences) Bulletin 16 (no. 4,
In sustainable development, at global scales, we are addressing questions only recently entertained in the human imagination. We have no historical precedents to help us fathom the implications of our present crisis. We have to learn that we are interdependently related to the land and share with it a marvelous, mutually enhancing relationship. Injustice in any form ultimately erodes human communities and the ecosystems in which they are founded. Freudenberger teaches at Luther Seminary, St. Paul, MN. (v8,#1)

Freudenberger, C. Dean, Global Dust Bowl: Can We Stop the Destruction of the Land Before It's Too Late? (Minneapolis: Augsburg, 1990). Freudenberger claims that "agriculture is the responsibility of the entire society." He advocates more education regarding Earth ethics and regenerative "agroecology that preserves and enhances natural resources." Forests and grasslands, much more than being natural resources, are awesome relational environments that teach us creaturehood. Freudenberger is professor of international development, missions, and rural church at the Claremont School of Theology. He has written about agriculture in national and religious life for two decades. (v2,#1)


Freund, Judith Ann, Landscapes of Promise: An Examination of Students' Journals Written During a Cross-cultural Wilderness Experience (High School Students), 1997, University of St. Thomas, Saint Paul, Ed.D. thesis. 188 pages. An examination of nature journals written by ten American and ten Russian high school students during a cross-cultural exchange that provided experiences in selected national wilderness areas designated by the respective countries. The students participated in a backpacking excursion in the Lee Metcalf Wilderness Area of Montana in the summer of 1994, and a camping experience in the wilderness areas in the provincial region of Penza, Russia in the summer of 1995. Aesthetic 'peak' experiences; spiritual inspiration derived from experiences in nature; attitudes toward the preservation of wildlife; and environmental ethics. (v.10,#1)

Frewer, L. J., A. Kole, S. M. A. Van de Kroon and C. de Lauwere, "Consumer Attitudes Towards the Development of Animal-Friendly Husbandry Systems," Journal of Agricultural and Environmental Ethics 18(2005):345-367. Recent policy developments in livestock husbandry have suggested that, from the perspective of optimizing animal welfare, new animal husbandry systems should be developed that provide opportunities for animals to be raised in environments where they are permitted to engage in natural behavior. This research focuses on understanding consumer attitudes and preferences regarding such systems, to ensure that they are acceptable to consumers as well as producers, regulators, and scientists. Consumer perceptions of animal welfare and animal husbandry practices were evaluated using a quantitative consumer survey, which focused on two animal husbandry issues: farmed pigs and
farmed fish. A transparent, enforceable, and traceable monitoring system for animal welfare friendly products is likely to be important for consumers. Keywords Animal welfare - fish farming - pig farming - consumer attitudes. The authors are in the Marketing and Consumer Behaviour Group, Social Sciences Department, University of Wageningen, Wageningen, The Netherlands. (JAEE)


Frey, R. Mark, "To Everything There is a Season: Reinvest in Minnesota (RIM) and Soil Conservation", Journal of Agricultural Ethics 1(1988):291-304. The paper explores the severity of the problem of soil erosion and a variety of approaches to the problem. The typology of approaches includes doing nothing, individual party litigation, the state's invocation of public trust doctrine, and the state's exercise of its policy power. Frey is in St. Paul, Minnesota.


Freyfogle, Eric T., "The Particulars of Owning," Ecology Law Quarterly 25 (no. 4, 1999):574-590. The U. S. Constitution expressly protects private property. But property rights themselves largely arise elsewhere, from independent sources, and only then gain protection from the Constitution's text. I. Property and the popular will. II. Levels of community. III. Private property and public policy. IV. Coda: Valuing the particulars. A new trend is to tailor property rights to the land, often misinterpreted as an attack on property rights, but in fact protecting the core values of property, which depend in part on land itself. Freyfogle teaches law at the University of Illinois. (v.10,#3)

presented in the context of contemporary events and legal cases. "On the eve of the new century, Americans are much in need of a more poetic sense of the land, a sense of its organic wholeness and beauty; its inner motion and energy, its subtle music and spirituality. To tend the land wisely is not just to use it efficiently; it is to recognize the land's sacredness and show it due respect.

When the land is rigidly divided, physically and in the hearts of people, it becomes harder for people to experience the sense of boundlessness Aldo Leopold felt ... before human-created boundaries reasserted their potent influence. ... A sense of boundlessness needs to undergird a new land ethic. ... The time must come when landowners concern themselves not just with a single parcel of land but with the landscape that includes it" (pp. 173-174). Freyfogle teaches law at the University of Illinois, Urbana-Champaign. (v.10,#1)

Freyfogle, Eric T., "The Dilemma of Wendell Berry," University of Illinois Law Review 1994, no. 2:363-385. Because all unsustainable actions must, by definition, cease one day, it is far better that we change those actions now, by conscious choice, while we are still able to carve out productive and satisfying lives. The first step is for each of us to turn inward and make those changes in our own lives that will enable us to live lightly on the land. Only so can we promote the lasting health of the natural and social communities of which we are inextricably a part. In this vision, Wendell Berry is a twentieth century prophet, who, as perceptively and energetically as anyone, has borne witness to the profound moral challenges of the environmental age. Freyfogle is professor of law, University of Illinois, and the author of Justice and the Earth. (v5,#4)

Freyfogle, Eric T., "Consumption and the Practice of Land Health," pages 181-201, in Westra, Laura, and Werhane, Patricia H., eds., The Business of Consumption: Environmental Ethics and the Global Economy (Lanham, MD: Rowman and Littlefield, 1998). A sound ethic of consumption needs to build upon a ethical consideration toward the land and its health. Land health encompasses, howbeit vaguely, the kind of durable, flourishing, self-recreating communal life that is the mark of a lasting link between people and place. Land health is not an easy matter to come to grips with, particularly when land is understood as the entire ecological community in a place, including the human members. Nevertheless, land health is a foundational limit on consumption. Freyfogle is in law at the University of Illinois.

Freyfogle, Eric T., Justice and the Earth: Images for our Planetary Survival. New York: Free Press, 1993. We all carry mental images of the natural world that help guide us in our daily interactions with the planet. Freyfogle shows how influential these guiding images are, and why we need to rethink them if we are to reverse the Earth's decline. We must reconsider familiar assumptions about owing property, about human superiority over other species, about the values of the free market, and the extent of our environmental knowledge. With examples from environmental controversies in Cape May, New Jersey, Ely, Minnesota, and on Utah's Burr Trail. How to replace outmoded, simplistic images with new images. Freyfogle is a professor of law at the University of Illinois and a naturalist. (v4,#3)
Freyfogle, Eric T., "Land Ownership: Private and Wild," *Wild Earth*, Winter 1995/96, vol. 5, no. 4, 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.

Freyfogle, Eric T., "Local Value," *Terra Nova* 1(no. 2, 1996):29-39. Parcel of land are small pieces in a potent, market-based economy that has come to define the modern age, a system that operates on cash and values all things in terms of their cash equivalencies. Land is considered a commodity, and must look appealing to people who have cash to spend. In this competition local lands have not fared well. Only nature continues to embrace these lots and to sense their worth, with lush weeds and sprouting trees covering more or less every unpaved spot. Living responsibly in a place means gaining an awareness of the local natural setting and trying to use that setting as a guide for the types of activities that are suitable for the land. It means mimicking nature, whenever possible, in deference to the more lasting wisdom that lies embedded within the land. Land is being mined by rich people who live elsewhere; while in fact the local people and these lands possess much intrinsic value. Freyfogle teaches law at the University of Illinois. (v7,#2)

Freyfogle, Eric T., "Community and the Market in Modern American Law," Pages 382-414 in Richards, John F., ed., *Land, Property, and the Environment*. Oakland, CA: ICS (Institute for Contemporary Studies) Press, 2002. Over the past century, U.S. laws and regulations have increasingly embedded property rights in a communal order, aimed in important part at protecting the natural environment. Aggregate calculations are hard to undertake, yet plentiful evidence suggests that these constraints have served not to contain economic growth but to help fuel it, by correcting the market's flaws in pricing and allocation and by fostering the kind of trust, social cohesiveness, and civic stability that any market needs to work well. In the ongoing drama of private property in America, the market is only one of the lead characters. Freygogle is in law, University of Illinois at Urbana-Champaign. (v.13,#1)

Freyfogle, Eric T., "Regulatory Takings, Methodically," *ELR (Environmental Law Reporter) News and Analysis* 31, pp. 10313-10321. "One of the most important ongoing changes in property law is the redefinition of ownership norms to protect the healthy functioning of the natural systems on which all life depends. Rights to use land are coming to depend on the land's natural features, and definitions of harm are coming to include disruptions of natural components such as topsoil, hydrologic systems, and biological diversity. The proper role for takings law is not to throw a wrench in the works of these much needed changes but rather to help guide them so
that they occur in ways that maintain the health of private property as an institution" (p. 10321). (v.13,#1)

Freyfogle, Eric T., and Newton, Julianne Lutz, "Putting Science in its Place," Conservation Biology 16(no. 4, August 2002):863-873. A process-based approach, distinguishing between issues of substance and issues of process, will help clarify and isolate the various proper roles of science in the overall land management equation. This also clarifies when nature can be said to possess intrinsic value, why it is proper for conservation biologists to base their work on normative goals, and why arguments about ecosystem management are sometimes less fruitful than they ought to be. On balance a goal not overtly tied to science, such as land health, offers the best option for land management. Freyfogle is at the University of Illinois College of Law, Newton is in natural resources and environmental sciences, University of Illinois, Urbana. (v.13, #3)

Freyfogle, Eric T., "Owning the Land: Four Contemporary Narratives," Journal of Land Use and Environmental Law 13(no. 2, Spring 1998):279-307. 1. The Libertarian ideal of autonomy. 2. The traditional understanding focused on economic opportunity. 3. A community-centered narrative that understands property as an evolving tool to meet community needs. 4. A biocentric narrative that looks to the land itself to prescribe the rules on how it can be used. A memorable expression of the last is Just v. Marinette County, a wetlands decision. The Court said: "An owner of land has no absolute and unlimited right to change the essential natural character of his land so as to use it for a purpose for which it was unsuited in its natural state and which injures the rights of others" (cited, p. 320). (v.10,#3)

Freyfogle, Eric T., "The Ethical Strands of Environmental Law," University of Illinois Law Review, 4, 1994. The morality that underlies the environmental movement, and the extent to which environmental statutes reflect this new moral order in environmental law. The U. S. Congress's acts and pronouncements do not form a coherent moral order, nor do they convey a vision of ecological well-being. In result, environmental lawmaking is approaching a crisis of vision and imagination, stumbling on knotty issues such as nonpoint-source water pollution and declining wildlife habitat. Principles that could guide environmental lawmaking oriented by more encompassing, more deep-rooted issues of ecosystem health. Freyfogle teaches law at the University of Illinois. (v6,#2)


Freyfogle, Eric T., "Ethics, Community, and Private Land." Ecology Law Quarterly 23(1996):631-661. Aldo Leopold advocated a land ethic. "Leopold was no lawyer and he gave little thought to how his land ethic, or any ecological informed land ethic, might fit together with the legal elements of private property rights. But as versions of his ethic have gained support, the issues has inevitably arised. Is it possible, consistent with existing landed property rights, to push landowners to use their land more
ethically? Is it possible to take the institution of private property, which has to do with private rights and economic freedoms, and somehow combine it with an ecologically sound land ethic? Implicit in all of this speculation is the assumption that private property and land ethics are different animals, and not all that closely related. One has to do with private rights, the other with public responsibilities. One deals with legal entitlements, the other with moral suasion. ... Is it right to assume, as a point of beginning, such a wide divergence between property and land ethics? Perhaps they are more alike than we realize. Perhaps a certain kinship between them is hidden somewhere in the continuing reality of the community and in the still-lively value that we attach to community well-being—a kinship that, once understood might help us to find our way toward a private property regime that is ecologically, as well as economically sound." Freyfogle is professor of law at the University of Illinois, and one of the most philosophically literate of those writing in environmental law. (v7,#4)

Freyfogle, Eric T., "Boundless People, Boundless Land," pages 15-37, in Knight, Richard L., and Peter B. Landres, Stewardship Across Boundaries (Washington, DC: Island Press, 1998). "We see some of the character traits and tendencies that justify our continued use of certain boundaries: our ability to know and love only a human-size piece of land; our need to feel attached to the land and hence connected to our labor; our ingrained love of territory and our firm attachment to private property; our need to feel a part of a community; our desire for engagement with others in dignified ways. . . . Beyond these limits, though are other limits that now constrain us, and may of these limits we would do well to unbind and discard. Our love of individualism and love of liberty have simply become too strong, so much that they constrain our ability even to talk seriously about the common good. We are similarly hampered by our infatuation with the free market, with market-set valuations of things, and with the market's tendency to view nature as merely a collection of discrete resources. Intellectual limits like these have prompted us to bound the land needlessly and to make our boundaries more important than they ought to be. We somehow have to get away from them" (pp. 34-45). Freyfogle is in law at the University of Illinois. He has a book under this title forthcoming. (v.9,#3)

Freyfogle, Eric T., "The Construction of Ownership," University of Illinois Law Review, vol. 1996, no. 1, pages 173-187. Modern culture increasingly relies on patchwork remedies for societal problems. Freyfogle calls instead for a fundamental change in land-ownership jurisprudence. Current property law does little to discourage a landowner from acting in self-serving ways to accommodate immediate needs—a shortcoming that necessarily sacrifices the land's long-term health. We need to readjust our vision of our country's land-ownership norms to help nourish the land's health and reinvigorate our faded senses of local community. Freyfogle teaches law at the University of Illinois. (v7,#2)

Freyfogle, Eric T., "Owning the Wolf: Green Politics: Property Rights, Ecology Rights," *Dissent*, Fall 1994, pp. 481-487. The ranchers who object to the wolf's return own the land the wolf wants to roam. If private property means anything, one argument goesit means the right to halt trespass by animals with two legs or four. Private property claims have become a rallying cry for anti-environmentalism, and these claims deserve a fair examination. What does it mean for a person to own land that is an integral part of an ecosystem of which humans are a part? Has there been a "takings" when the landowner is required to maintain these ecosystemic processes? Human institutions need reshaping in recognition of the functioning biotic communities where people live. Among the institutions that will require change, the institution of private property stands high on the list. Thoughtful, brief article, eminently suited for raising these issues with students. Freyfogle is professor of law, University of Illinois.

Freyfogle, Eric T., "The Owning and Taking of Sensitive Lands," *UCLA Law Review* (University of California at Los Angeles) 43(1995):77-138. The institution of private land ownership is primarily a regime of private power—direct power over the land itself and indirect power over the people and other life forms whose health and fates are linked to the land. In landed property schemes, boundary lines are drawn on the Earth and some owner acquires rights to control the encompassed space. When the law respects private rights in land, it supports and defends this private power, standing ready to sustain it when appropriate by the use of public force.

Private ownership sinks deep roots into the culture of the United States, in part because the nation has long defined itself in contrast with places where private ownership did not thrive. In the late twentieth century, no force has shaken private ownership more profoundly than the environmental movement and its parent science, ecology. What ecology tells us is that all forms of life are linked with, and dependent upon, all other forms of life, and ultimately with the land itself. Nature's order is more than just a jumbled collection of discrete objects, each understandable in isolation. It is a maze of interconnection and interdependence, an organic whole laced together by nutrients and energy flowing through primary producers up to the top carnivores, and then back to the soil to nourish new life.

Inevitably and appropriately the new wisdom of ecology is altering old ways of imagining the land and relating to it. Change, however, has not arrived easily, particularly in the case of private property law, which is one of the more important ways that a culture expresses its ties to the nonhuman natural world. The bumpiest transition has come in the case of ecologically sensitive lands, lands that have special value in sustaining the healthy functioning of larger biotic communities—wetlands, barrier islands, riparian corridors, endangered wildlife habitats, and the like. Before the age of ecology, owners of sensitive lands enjoyed the same rights as other owners, including the right to transform a land parcel extensively, radically altering its ecosystem role. Today, these owners are under siege. Left along, sensitive lands fulfill their ecosystem functions; altered for intensive human use, the disruptive ripples spread widely, if at times slowly and invisibly. Now that we understand the roles of these lands, what should it mean for a private person to own them? Excellent article,
a must read for those following the debate in this area. Freyfogle teaches law at the University of Illinois. (v6,#4)

Freyfogle, Eric T. "Water Rights and the Common Wealth." Environmental Law 26, no.1 (1996): 27. Freyfogle takes issue with the view that water marketing should be the primary tool to meet new needs for water in the West and to bring an end to the most environmentally damaging water uses. Recognizing that market reasoning only perpetuates the view that nature is merely a collection of resources, existing chiefly to serve human needs and easily shifted from place to place, Freyfogle encourages lawmakers to react by making the beneficial-use requirement a more meaningful construct. (v7, #3)


Freyfogle, Eric T., "The Price of a Sustainable Environment," Dissent, Spring 1998, 37-43. "In the end, market-based tools [for environmental conservation] must fit into a larger scheme of environmental policy that has as its principal aim not the promotion of markets, but the achievement and maintenance of a healthy land. Out of our deliberations on environmental goals should come new understandings of what it means to be a good citizen. Owning land must come to entail belonging to a natural community with obligations to respect the integrity and fertility of that community. Rights to use water must be understood as a form of stewardship, constrained by duties to use water in beneficial ways. The possession of a pollution permit does not mean that pollution is a good activity; such permits, however useful and legally protected, must never give rise to anything like a right to pollute" (p. 43). Freyfogle is in law at the University of Illinois. (v.9,#3)

Freyfogle, Eric T., "A Sand County Almanac at Fifty: Leopold in the New Century," Environmental Law Reporter 30(2000)10058-10068. "Our libraries of data are more vast, but Leopold's peculiar talent lay less in his detailed knowledge than in his unmatched ability to integrate, to bring together, to nourish and heal, to imagine that long-term path toward fusion. As a people skilled in the opposite, in tearing down, fragmenting, discarding, degrading, and criticizing, we need Leopold as much as ever" (p. 10067). (v.11,#3)

Freyfogle, Eric T., "Five Paths of Environmental Scholarship," University of Illinois Law Review, Volume 2000, no. 1, pp. 115-134. 1. Libertarians. 2. Simple Fixers. 3. Dispute Resolvers. 4. Progressive Reformers. 5. Advocates for the Land Community. Differences among them deal chiefly with underlying issues that are rarely joined and perhaps never well considered. Failure to address these issues more openly weakens the scholarly field as a whole, making it less useful in particular for nonlaw readers. Includes some speculations on student law journal article selection processes and their impacts on environmental law as an academic field. Freyfogle is professor of law, University of Illinois College of Law. (v.11,#3)

Freyfogle, Eric T., "Illinois Life: An Environmental Testament," *University of Illinois Law Review*, volume 1997, number 4, pages 1081-1108. "The environmental movement in Illinois, now decades old, brings together diverse citizens from all around the state and varied walks of life. Some live amid urban skyscrapers; others in sparsely populated rural townships. What motivates them to act, individually and through groups, is a felt concern for the health of the Illinois landscape and all that dwells on it, including humans. The thinking of these citizens ranges widely, both in terms of how they comprehend environmental problems and what they believe ought to be done about them. Despite this variety, particular values and hopes emerge over and over, in the daily talk of individual environmentalists, in the position papers of environmental groups, and in the growing literature of environmentalism" (pp. 1081-1082). Freyfogle is in law at the University of Illinois. (v.9,#3)

Freyfogle, Eric T., "Ownership and Ecology," *Case Western Reserve (University) Law Review* 43(1993):1269-1297. Private land ownership, the laws and institutions, and what this tells us about the relationship between people and the Earth. How much ecological wisdom and how much foolishness lies embedded within these basic ownership ideas. The law's basic messages about ownership and the human-land tie are misguided. The flaws emerge more plainly as we learn more about ecology and gain greater ability to sense how we are damaging the Earth. A major cause of the environmental crisis and a major impediment to change lies in our legal culture, our inherited sense of owning the land. The Supreme Court said, a century ago, "All property in this country is held under the implied obligation that the owner's use of it shall not be injurious to the community." "By now," adds Freyfogle, "We should know that the community of which we are a part includes the soils, the waters, plants, and animals that live with us on Earth" (p. 1296-7). Freyfogle teaches in the University of Illinois College of Law. (v5,#1)


Fribank, Les G. and Frank Corcella, "Genetically Modified Crops and Farmland Biodiversity," *Science* 289(1 September 2000):1481-1482. British birds that eat weed seeds and what happens to them when more pesticide can be applied to kill such weeds because the genetically modified crops are now pesticide resistant. The authors of an accompanying report conclude that effects on the local use of birds might be severe, but these authors think it is too soon to tell. (v.14, #4)


Friederici, Peter, "Return of the Jaguar," National Wildlife 36, no. 4, June/July 1998, pp. 48-51. Jaguars are back in the United States. Jaguars were once present in southern Arizona and New Mexico, occasionally found throughout the U.S. Southwest, but were shot out and have been gone about half a century. But now they are returning, on their own, moving north from Mexico. Environmentalists, including some ranchers, welcome them, but not everyone is rolling out the welcome mat. The jaguar is not on the U.S. Endangered Species list, because it was judged extinct in the U.S. (v9,#2)

Friedland, David M., Hagerty, Timothy J. "NMA, CMA, and 'Federal Enforceability' Under the Clean Air Act." Journal of Environmental Law and Practice 3(no.4, Jan. 1996):59. Controls need not be "federally enforceable" to be considered in calculating "potential to emit" for status as a major source under the Clean Air Act. (v7,#1)

Friedland, Jonathan, "Green Chile: Across Latin America, New Environmentalists Extend Their Reach," The Wall Street Journal (3/26/97): A1. Environmentalism gains ground in Chile. As evidenced by a hit television series that takes as its theme the conflict between Chile's economic growth (the highest in Latin America) and protection of its "once-bountiful natural resources," Chile has South America's strongest and most broad-based environmental movement. "The ideology that growth will solve all our problems just isn't credible anymore; there has been too much damage to the environment and human welfare." For example, during the winter, the smog in Santiago (the capital) is so bad that hundreds of school children are hospitalized with respiratory ailments. There are 150 grass-roots environmental groups in Chile. "Billions of dollars in new investments, involving major foreign companies, are now hung up by administrative, legal and even physical challenges mounted by local citizens groups, environmental groups or a combination of the two." Conama, the country's environmental protection agency, was established in 1989 but hasn't had real regulatory authority until recently. Chile's president Eduardo Frei says that Conama won't approve projects that fail to meet the country's new environmental standards (ones he claims are the most rigorous in Latin America), but once a project is approved by Conama, he says "he won't permit people to halt development for environmental reasons." Conama's executive director says the agency tries to strike a balance, but "the absolute first priority of this country is achieving a growth rate which allows us to bring low-income groups out of poverty" (thus embracing the assumption that economic growth will solve the poverty problem). There are currently about 40 lawsuits against the agency, many relying on a clause in the Chilean constitution guaranteeing every citizen a right to a clean environment. The reporter of this article defines deep ecology as a view "which calls for preservation at all costs." (v8,#1)


Friedman, Thomas L., *The Lexus and the Olive Tree: Understanding Globalization*. New York: Farrar, Straus, and Giroux, 1999. 394 pages. Popular book by a leading free market apologist. "Because globalization as a culturally homogenizing and environment-devouring force is coming on so fast, there is a real danger that in just a few decades it could wipe out the ecological and cultural diversity that took millions of years of human and biological evolution to produce." But then globalization would itself be unsustainable, lacking an ecological base. Friedman hopes that market principles can save environmental diversity, that the global network will be used to organize environmental defense, and that technology will reduce the volume of materials needed for the economy and engineer new genetic forms. Also, unless population growth slows, it will be impossible to protect the environment. Friedman is foreign affairs columnist for the *NY Times*. (v.11,#1)

Friedmann, John and Haripriya Rangan, eds. *In Defense of Livelihood: Comparative Studies on Environmental Action*. Kumarian Press, 1993. 220 pages, $21.95. The product of a research program at the United Nations Research Institute for Social Development, this book presents case studies of struggles and innovative practices of local groups in seven regions of the developing world. The researchers asked the question: What happens when people unite to defend the land and natural resources that are the immediate sources of their livelihood?

Friend, Anthony M., "Economics, Ecology and Sustainable Development: Are They Compatible?" *Environmental Values* Vol.2 No.2(1992):157-170. "Quand un economiste vous repond on ne comprend plus ce qu'on lui avait demande." Andre Gide, *Journal*. ABSTRACT: The prevailing economic paradigm, in which a closed circular flow of production and consumption can be described in terms of ‘natural laws’ of the equilibrium of market forces, is being challenged by our growing knowledge of complex systems, particularly ecosystems. It is increasingly apparent that neoclassical economics does not reflect social, economic and environmental realities in a world of limited resources. The best way to understand the problems implicit in the
concept of `sustainable development' is provided by Ecological Economics--a new synthesis in which the traditional virtue of thrift is justified using modern ideas from systems theory and thermodynamics. KEYWORDS: Ecological economics, entropy, natural resources, sustainable development, thrift. Institute for Research on Environment and Economy, University of Ottawa, Institut de Recherche sur l'Environnement et l'Economie, Universite d'Ottawa, 5 Calixa Lavalee, Ottawa, Ontario, Canada K1N 6N5.

Friend, Tim, "A Wartime First: Dolphins Called to Clear Mines," USA Today, March 27, 2003. Dolphins in Iraqi war. For the first time, the U.S. Navy has deployed an undisclosed number of bottlenose dolphins to recognize mines using their echolocating solar and to mark the locations of the mines with special buoys. Dolphins have been previously used for "swimmer defense," to search for scuba divers who might have been trying to attach explosives on U.S. Navy vessels. The U.S. Navy also works with sea lions who have been taught to attach leg restraints to human interlopers they detect.


Friskics, Scott, "Dialogue, responsibility, and oil and gas leasing on Montana's Rocky Mountain Front," Ethics and the Environment 8(no. 2, 2003):8-30. The aesthetic and emotive power of the Rocky Mountain Front in Montana, challenged by the oil and gas industry. "With a knowledge and certainty born of sustained contact with the beings and things of the Rocky Mountain Front, I know that these mountains ought not--no, must not--be opened up to oil and gas (or mineral) development." Friskics is at Fort Belknap College, a tribally controlled community college located on the Fort Belknap Indian Reservation in Montana. (E&E)

Friskics, Scott, "Context Matters: Remarks on Environmental Education," International Society of Environmental Ethics Newsletter, vol. 13, no. 1 (Spring 2002), pp. 4-7. "For me, context is everything. It grounds my thinking and writing. I can't imagine talking about environmental ethics without making some reference to Montana's Rocky Mountain Front, Bob Marshall Wilderness Complex, Zortman-Landusky mine site, or other defining features of the place I inhabit. In order to speak, I have to be speaking from somewhere. The same goes for ethical action. For me, ethics is a matter of response-ability - being responsive to the call, the touch, the face of the other, regardless of whether it's the call of a meadowlark, the touch of a lover, or the face of
a mountain. Ethical action seems rooted in these kinds of encounters - these dialogues with the others whom we meet and to whom we must respond.

Context is everything in teaching, too. I teach environmental ethics at Fort Belknap College, a tribally controlled community college located on the Fort Belknap Indian Reservation, home of the Gros Ventre (White Clay/Ah-Ah-Ne-Nin) and Assiniboine (Nakoda) Tribes. Ninety-five percent of the students in my class are American Indians - mostly Plains Indians. ... So, how does one go about teaching environmental ethics in this context?

Friskics teaches environmental ethics and works as a grant-writer at Fort Belknap College (P.O. Box 159; Harlem, MT, 59526). (v.13,#1)

Friskics, Scott, "How Does Nature Speak to Our Concern? The Case of Montana's Rocky Mountain Front" Pages 193-207 in Kaplan, Laura Duhan, Philosophy and Everyday Life (New York: Seven Bridges Press, 2001). People who love "the Front" (a rise of mountains at the edge of the plains) "speak of contact and encounter--either for the first time, over the course of a lifetime, or even across generations. They speak of a certain way of knowing this particular place, a knowledge that, despite an uncanny, ineffable quality, conveys an indwelling sense of beauty, specialness, sacredness, and wildness" (p. 199).

Alas, however, the oil and gas industry desires the Front, including some now protected areas. In a continuing controversy, the supervisor of the U.S. Forest Service Lewis and Clark Forest (Gloria Flora) made, commendably and surprisingly, a final decision to protect the Front from oil and gas leasing for at least 10-15 years. Her summary cites the strong sense of place felt by so many who testified at the hearings. Friskics concludes: "With a knowledge and certainty born of sustained contact with the being and things of the Rocky Mountain Front, I know that these mountains ought not--no, must not, be opened up to oil and gas (or mineral) development. Out of respect and love for the Front, we--I--must remain vigilant and active" (p. 206). Friskics teaches environmental ethics and works as a grant-writer at Fort Belknap College (P.O. Box 159; Harlem, MT, 59526). (v.13,#1)

Friskics, Scott. "Dialogical Relations with Nature." Environmental Ethics 23(2001):391-410. I suggest that our dialogical encounters with our fellow creatures furnish the experiential ground of ethical action with respect to them. Unfortunately, this ground is seldom realized or recognized in our society; our capacity for ethical action remains unmoored from its animating sources. Yet despite our habitual inattentiveness, nature's creatures may still grace us with their presence in dialogue. The works of Martin Buber and Henry Bugbee provide the theoretical framework within which I attempt to work through these ideas and interpret their ethical significance in the context of personal experience. (EE)


Frodeman, Robert. "The Policy Turn in Environmental Philosophy." *Environmental Ethics* 28(2006):3-20. A policy turn in environmental philosophy means a shift from philosophers writing philosophy essays for other philosophers to doing interdisciplinary research and working on projects with public agencies, policy makers, and the private sector. Despite some steps in this direction, a policy turn remains largely unrealized within the community of environmental philosophers. Completing this shift can contribute to better decision making, help discover new areas for philosophic investigation at the intersection of philosophy and policy, and identify new employment prospects for philosophy graduates. (EE)

Frodeman, Robert. "Radical Environmentalism and the Political Roots of Postmodernism." *Environmental Ethics* 14(1992):307-19. I examine the close relationship between radical environmentalism and postmodernism. I argue that there is an incoherence within most postmodernist thought, born of an unwillingness or incapacity to distinguish between claims true from an ontological or epistemological
perspective and those appropriate to the exigencies of political life. The failure to distinguish which differences make a difference not only vitiates postmodernist thought, but also runs up against some of the fundamental assumptions of radical environmentalism. Frodeman is in the department of philosophy, Fort Lewis College, Durango, CO. (EE)


Frome, Michael, *Regreening the National Parks* (Tuscon, University of Arizona Press, 1991). $ 29.95. Claims that the Park Service has been transformed from a professional to a political agency and betrayed its own values by emphasizing recreation and "short-order wilderness served like fast food" rather than the preservation of the nation's natural heritage. Claims that personnel are being forbidden to criticize public policy in which they have found conflict with conservation principles, and contends that, as the Park Service has become more bureaucratic, those for whom the environment deeply matters scarcely rise within its ranks. Frome is currently writer-in-residence at the Huxley College of Environmental Studies, Western Washington University. His earlier National Park Guide sold over half a million copies. (v2,#2)


Frost, Mervyn. *Ethics in International Relations: A Constitutive Theory*. New York: Cambridge University Press, 1996. 264 pp. $18.95. Frost argues that ethics is accorded a marginal position within the academic study of international relations. He examines reasons given for this and evaluates those ethical theories that do exist within the discipline. He elaborates his own ethical theory which he derives from Hegel and applies it to ethical problems in international politics today. (v8,#3)


Fu Hua, *A Studies of Ecological Ethics*, Huaxia Press, 2002. chapters: ecological ethics studies in western countries; a summary of Chinese scholars' studies of western ecological ethics; relations of man and nature; ecological ethics is essentially applied ethics; there is no ethical relationship between man and nature; the value of nature
and its essence; questioning the rights of nature; deconstructing traditional anthropocentrism; reconstructing modern anthropocentrism; two approaches to ecological ethics. Professor Fu is at Beijing Administrative Management College.


Fudge, Robert S., "Imagination and the Science-Based Aesthetic Appreciation of Unscenic Nature," Journal of Aesthetics and Art Criticism 59(no. 3, Summer 2001):275-285. "A number of twentieth-century philosophers have suggested ways to develop an aesthetic appreciation of unscenic nature (including Holmes Rolston and Allen Carlson). ... Our appreciation should be science-based; science can reveal to us heretofore overlooked properties of natural objects, providing new opportunities for aesthetic experience. Recently, however, Emily Brady has argued against this approach, claiming instead that our appreciation should arise out of imaginative activity. In what follows, I argue that these two approaches are not only not mutually exclusive, but that the imagination is most effective in helping us develop an aesthetic appreciation of unscenic nature, precisely when it employs, and is guided by, scientific knowledge. Fudge is in philosophy, James Madison University, Harrisonburg, VA. (v.13,#1)


Fuentes, Agustin, and Wolfe, Linda., eds., Primates Face to Face: The Conservation Implications of Human-Nonhuman Primate Interconnections. Cambridge: Cambridge University Press, 2002. The diverse range of relationships between humans and other primates and how this plays a critical role in conservation practice and programs. Fuentes is at Central Washington University, Ellensburg, WA. Wolfe is at East Carolina University, Greenville, NC. (v.13, #3)


Fuhlendorf, SD; Engle, DM, "Restoring Heterogeneity on Rangelands: Ecosystem Management Based on Evolutionary Grazing Patterns," *Bioscience* 51(no. 8, 2001):625-632. (v.13,#1)


Fuller, RA; McGowan, PJ; Carroll, JP; Dekker, RW; Garson, PJ, "What does IUCN species action planning contribute to the conservation process?", *Biological Conservation* 112(no.3, 2003):343-349.


Fuller, Robert C. "American Pragmatism Reconsidered: William James' Ecological Ethic." *Environmental Ethics* 14(1992):159-76. In this paper, I argue that pragmatism, at least in its formulation by William James, squarely addresses the metaethical and normative issues at the heart of our present crisis in moral justification. James gives ethics an empirical foundation that permits the natural and social sciences a clear role in defining our obligation to the wider environment. Importantly, James' pragmatism also addresses the psychological and cultural factors that help elicit our willingness to adopt an ethical posture toward life. Fuller is in the department of Philosophy and Religious Studies, Bradley University, Peoria, IL. (EE)

Fuller, Tony, "Changing Agricultural, Economic and Social Patterns in the Ontario Countryside," *Environments* 24(no.3, 1997):5. (v.8,#3)


Fumento, Michael, *Science Under Siege: Balancing Technology and the Environment*. Morrow. 448 pages. $ 27. Fumento debunks such popular cancer threats as Alar, dioxin, pesticides, electromagnetic fields, and food irradiation. Extracting human risks from lab tests on chemical-stuffed rats is absurd, especially absurd when used to project "zero-risk" environments. The American public is constantly warned of the dangers from tobacco, alcohol, and poor diet, and these dwarf any risks from chemical residues. Fumento is a lawyer-journalist who writes on environmental topics for Investor's Business Daily. (v4,#2)


Furze, Brian, "The World Agricultural System and Ethical Considerations Relating to the Rural Environment: Some Perspectives on Cause and Effect in Underdeveloped Countries", *Journal of Agricultural Ethics* 2(1989):59-67. Using the concept of capitalist world economy as a framework, this paper provides a structural analysis of the food production and distribution system within monopoly capitalism and its implications for countries of the underdeveloped world. Focusing on the impact of a dominant world food supply system on indigenous systems, considerations relating to environmental use and food production and distribution are raised. A call is made for a new agricultural ethic. Furze is in social science education at the University of New England, Australia.


Furze, Brian. "Ecologically Sustainable Rural Development and the Difficulty of Social Change." *Environmental Values* Vol.2 No.2(1992):141-156. ABSTRACT: This article explores the importance of environmental perception in the context of alternative agrarian social relations. Because environmental perception is socially constructed, the article is concerned with how those with an alternative agenda for agrarian practice attempt change, and the likely difficulties faced due to the structural requirements and effects of the dominant paradigm of development. It explores the need for a clear model of change, both in its outcomes and its change strategies, and the difficulties
that may be faced. The article draws on a case study of a rural landsharing collective in Australia to contextualize these broader issues, and considers some of the implications of the findings for instigating the broader concern of an ecologically sustainable agrarian practice based on permacultural design. KEYWORDS: Permaculture, rural land sharers, sustainable agriculture, sustainable rural development. Dept. of Social Science, University of New England, Armidale, NSW 2351 Australia.

Furze, Brian; DeLacy, Terry; and Birckhead, Jim. Culture, Conservation, and Biodiversity: The Social Dimension of Linking Local Level Development and Conservation Through Protected Areas. New York: John Wiley and Sons, 1996. 290 pages. $69.95 cloth. How social science understanding provides a framework for linking the complexities of local level development to the global economic, ecological, cultural and political frameworks. (v7, #3)


Gaard, Greta, Ecological Politics: Ecofeminists and the Greens. Philadelphia: Temple University Press, 1998. An account of these two interconnected social movements from their grassroots origins in the 1970's to the 1996 presidential campaign. There is often a transition from a leftist and sometimes anarchist focus to an emphasis on electoral political action. Ecofeminists have shaped the green movement, but many have withdrawn, and from this disaffection, she worries about the compatibility of liberal feminism and cultural ecofeminism and patriarchal politics. Within the greens, there are conflicts over philosophy, conflicts over representation, and conflicts over strategy. Gaard teaches humanities in Fairhaven College at Western Washington University, and has been a member of both movements. (v8,#3)


from the people and the land. Ecofeminism illuminates the way in which gendered, cultural assumptions about water, power and human relations have led to creating a water-power infrastructure that perpetuates environmental sexism, environmental racism, and environmental classism. As an alternative, an ecofeminist approach to water justice advocates strategies for bringing about an ecological democracy, an ecological economics, and a partnership culture in which water and energy flow freely. Gaard is associate professor of philosophy at Fairhaven College, Western Washington University. (v.13,#2)


Gaard, Greta. "Ecofeminism and Wilderness." Environmental Ethics 19(1997):5-24. I argue that ecofeminism must be concerned with the preservation and expansion of wilderness on the grounds that wilderness is an Other to the Self of Western culture and the master identity and that ecofeminism is concerned with the liberation of all subordinated Others. I suggest replacing the master identity with an ecofeminist ecological self, an identity defined through interdependence with Others, and I argue for the necessity of restoring and valuing human relationships with the Other of wilderness as integral to the construction and maintenance of an ecofeminist ecological self. I conclude that ecofeminists must be concerned with the redefinition, preservation, and expansion of wilderness. Gaard is in women's studies, University of Minnesota, Duluth. (EE)

Gablik, Suzi. The Reenchantment of Art. New York: Thames and Hudson, 1991. Modern art exposes the uneconomic and unsustainable isolationism of a hypermasculinized culture. The challenge of the future is to transcend the disconnectedness and separation of the aesthetic from the natural and social. (v5,#3)


Gadgil, Madhav and Ramachandra Guha, This Fissured Land: An Ecological History of India. Berkeley: University of California Press, 1992. Part I. A Theory of Ecological History. Part II. Towards a Cultural Ecology of Pre-modern India. Part III. Ecological Change and Social Conflict in Modern India. With much attention to forests, some also to agriculture and wildlife. (v5,#4)


Gager, Dan, Hendee, John C., Kinziger, Mike, and Krumpe, Ed., "What Managers are Saying--and Doing--about Wilderness Experience Programs," Journal of Forestry 96(no. 8, 1998):33-37. A growing number of organizations take clients/members into the wilderness for personal growth, therapy, or education. Wilderness managers support these programs in principle, but they are concerned about the social and ecological impacts. One conclusion is that often the experience need not be on designated wilderness, as opposed to other forested or wild lands. Given the increasing crowds in wilderness areas, moving elsewhere may be more productive and less disruptive. (EE v.12,#1)

Gagneux, Pascal, James J. Moore and Ajit Varki, "The Ethics of Research on Great Apes," Nature 437(1 Sept. 2005):27-29. Deals with captive great apes, and is often provisional and exploratory. But the authors do hold that there should be no effort to make germline genetic modifications in great apes (no transgenic apes), that research
should benefit the apes as well as humans, that apes should be maintained in groups that respect existing social bonds, that there should be no euthanasia as a means of population control, and that humans should intervene for the control of aggressive behavior within or between ape groups. They do not think great apes now in captivity can, or should, be returned to the wild.

Galef, BG; Laland, KN, "Social Learning in Animals: Empirical Studies and Theoretical Models," BioScience 55 (no. 6, June 2005): 489-500. The last two decades have seen a virtual explosion in empirical research on the role of social interactions in the development of animals' behavioral repertoires, and a similar increase in attention to formal models of social learning. Here we first review recent empirical evidence of social influences on food choice, tool use, patterns of movement, predator avoidance, mate choice, and courtship, and then consider formal models of when animals choose to copy behavior, and which other animals' behavior they copy, together with empirical tests of predictions from those models.

Gallagher, Padraig, Flanagan's Naturalized Ethics: Epistemology, Ecology, and the Limits of Pragmatism, M.A. thesis, Colorado State University, 2005. Critique of Owen Flanagan's work, especially his "Ethics Naturalized as Human Ecology" (1995) and his "pragmatic naturalism." Flanagan claims a parallel between biological ecology and human ecology through the concept of "flourishing," which has to be localized, flourishing in particular environments. Flanagan does recognize some transcultural human universals, but these nevertheless take their specifics in local cultural contexts. Gallagher argues that Flanagan is "methodologically infirm," because of the lack of criteria with which to judge better and worse in these locally flourishing groups, an evaluation needed for humans with their options in life choices, but not needed in biological ecology, where ethical choices do not apply.


Gallon, Gary, "Green and Growing," Alternatives 27(no. 1, Winter 2001):22-. Environmental job numbers now rival those for the traditional sectors such as oil, chemicals and steel. (v.12,#2)


Gallusser, Werner A., Umweltgefährdung und Umweltsanierung in den USA. Fragenkreise 23571. Paderborn; MÜNchen, 1984. Glausser is at the Universität Basel, Geographisches Institut. (v2,#2)

Galton, David, In Our Own Image: Eugenics and the Genetic Modification of People. London: Little, Brown, 2001. Genetic improvement of our offspring has already begun by choosing the "best" of several embryos produced during IVF. Not far ahead lies alteration of the embryo's genes. An analysis of the dangers and benefits of the genetic modification of people. (v.12,#4)

Gambell, Ray, "Whaling: A Christian Perspective," *Science and Christian Belief* 2(no. 1, April 1990):15-24. Dr. Ray Gambell is the Secretary of the International Whaling Commission and has been involved with the biology and management of whales since 1963. Whaling has a long history of depleting successive stocks and the whale has become the symbol of our mishandling of environmental matters in general. The biblical foundation for the human dominion of nature should be the source of a sound conservation ethic. It implies responsible stewardship, including the taking of no more than sustainable harvests. In the case of whales this has not happened, through ignorance and greed. The problem of humane killing of animals is highlighted, and whalers ought to cause death within a few minutes. The question of whether or not whales are intelligent is left open, but they are not made in the image of God, and are not, therefore, the equals of humans. Certain Arctic communities are dependent on whales with no reasonable alternatives available. Gambell is sensitive to the issue of whether humans ought to kill whales at all, but disagrees with Tom Regan's claim that whales have a right to life. (v1,#3)


Gamborg, C. & Larsen, J.B. 2003. "'Back to nature:' A Sustainable Future For Forestry?" *Forest Ecology and Management* 179: 559-571. We examine a trend in forestry which may be dubbed 'back to nature' and ask if it offers a sustainable future for forestry. We analyze what is actually meant by 'back to nature', which type of nature we want to 'get back' to, and how ensuing silvicultural philosophies can be defined. It might be difficult to pinpoint what a sustainable future for forestry entails, but it is clear that a sustainable future for forestry to a greater extent than previously will require balancing commodity and environmental and nature values both against one another and against any concerns felt to be relevant by the various stakeholders.

Gamborg, C. and Rune, F., "Economic and Ecological Approaches to Assessing Forest Value in Managed Forests: Ethical Perspectives," *Society and Natural Resources* 17(no. 9, 2004): 799-815(17). (v.14, #4)

Gamborg, C. & Larsen, J.B. 2005. "Towards more sustainable forestry? The ethics of close to nature forestry." *Silva Carelica* 49:55-64. Across Europe, even aged, production oriented, intensively managed tree plantations are beginning to be regarded in the same way as old industrial complexes; they belong to a different era and should be abolished or converted to something else. What exactly should these "conventional" forests be converted into? For many, a promising approach to meet these new demands and to achieve more sustainability seems to be the management philosophy dubbed "close to nature." Even though this view has a lot to say for itself, there are problems that need attention from both scientific and ethical perspectives.

Gamborg, Christian and Sandoe, P. 2004. "Beavers And Biodiversity: The Ethics Of Ecological Restoration." In: Philosophy and Biodiversity. Oksanen, M. (ed.). New York: Cambridge University Press, pp. 217 236. We use the case of beaver reintroduction in southern Scandinavia to illuminate philosophical issues underlying the value of biodiversity. Beaver reintroduction has been justified primarily on an ecological basis, defended on the grounds that it restores species richness and maintains evolutionary and ecological processes. However, as this case study illustrates, basic ethical questions regarding the origin and character of nature's value bear upon these factual issues. Appeals to the powerful concept of biodiversity are made both by the advocates and opponents of restoration, but with significantly different results. Gamborg is at the Danish Centre for Bioethics and Risk Assessment, The Royal Veterinary and Agricultural University, Copenhagen, Denmark.

Gamborg, Christian, "The Acceptability of Forest Management Practices: An Analysis of Ethical Accounting and the Ethical Matrix," Forest Policy and Economics 4(2002):175-186. Stakeholder approaches to forest management. The public is increasingly sensitive to, and aware of, the broader impact of forest management, not only on human welfare, but also on environmental values, such as nature conservation and biodiversity. Gamborg is at the Danish Forest and Landscape Research Institute, Department of Forestry, Horsholm, Denmark.


Gamborg, Christian; Rune, Flemming, "Economic and Ecological Approaches to Assessing Forest Value in Managed Forests: Ethical Perspectives", Society and Natural Resources 17(no.9, October 2004): 799-815(17).


Gamman, John K. Overcoming Obstacles in Environmental Policymaking: Creating Partnerships Through Mediation. Albany, NY: State University of New York Press, 1994. 250 pages. $18.95 paper. $57.50 cloth. Why policies and laws intended to protect the environment often do not work. The fundamental reasons why efforts to
protect natural resources in the developing world generally fail. Why environmental initiatives originating in national governments, international foreign assistance agencies, and environmental groups suffer from a dysfunctional decision-making process. How to improve environmental policymaking by creating partnerships for sustainable development. Gammon is with the Collaborative for Environmental Analysis and Conflict Resolution, Santa Cruz and Berkeley, CA. (v6,#1)


Gan Shaoping, "What kind ecological ethic do we need", Philosophical Research, 2002(8)


Gans, Jason, Murray Wolinsky, and John Dunbar, "Computational Improvements Reveal Great Bacterial Diversity and High Metal Toxicity in Soil," Science 309(26 August 2005):1387-1390. The complexity of soil bacterial communities has so far eluded effective measurement. There are more than $10^{16}$ prokaryotes in a ton of soil compared to a mere $10^{11}$ stars in our galaxy. These authors use a computer projection to infer that the complexity is staggering. They also find, alas, that toxic metal pollution reduces this diversity by 99.9%, especially eliminating the rare taxa. The authors are in the bioscience division, Los Alamos National Laboratory.


Gardiner, Robert W. "Between Two Worlds: Humans in Nature and Culture." Environmental Ethics 12(1990):339-52. In this essay, I set forth a view of humans as creatures living at once in two worlds: the world of nature and the world of culture. I explore some of the tensions and paradoxes entailed by this position, as well as the implications for ethics, both interhuman and environmental. I also critique the distortions entailed by ethical stances which draw too heavily on one polarity or the other without taking sufficient account of the discontinuities between them. Gardiner is at the First Congregational Church, Southampton, MA. (EE)


Gardner, Bruce L., American Agriculture in the Twentieth Century: How it Flourished and What it Cost. Cambridge, MA: Harvard University Press, 2002. A bittersweet story. Enormous gains in productivity (bushels per acre), but declining value added to the U.S. economy. A hollow victory for farmers. Less than 10% of all farms accounted for more than 85% of farm income. The vast majority of farm households have turned to non-farm income; 80% of all farms earn more than 90% of their household income from non-farm sources. For them farming is almost a hobby. These families are not poor; they just make nothing farming. Big-agribusiness gives us cheap food but unbalanced bounty. Government programs have been messy, often wasteful, but more or less functional. Gardner has served as "the aggie" in the Senior Staff of the Council of Economic Advisors and as the "economist" Assistant Secretary at the U.S. Department of Agriculture.

Gardner, Gerald T., Stern, Paul C. Environmental Problems and Human Behavior. Needham Heights, MA: Allyn and Bacon, 1997. The behavioral dimensions of global and regional environmental problems such as the greenhouse effect, ozone depletion, deforestation, air pollution, and water pollution. What does our knowledge of human
behavior tell us about the causes of environmental problems and about strategies for solving them? (v8,#1)

Gardner, Howard, *Intelligence Reframed*. New York: Basic Books, 1999. Gardner here adds a "naturalist intelligence" (pp. 48-52) to his earlier seven intelligences: linguistic, logico-mathematical, musical, bodily-kinesthetic, spatial, interpersonal, and intrapersonal. Those gifted with naturalist intelligence are unusually sensitive to natural phenomena. Gardner thinks such naturalist intelligence has not been previously recognized or studied by psychologists. He also considers two further intelligences: spiritual and existential, but is less sure about the distinctiveness of these. Gardner is a psychologist at Harvard University.

Gardner, Stephen M., "A Perfect Moral Storm: Climate Change, Intergenerational Ethics and the Problem of Moral Corruption," *Environmental Values* 15(2006): 397-413. The peculiar features of the climate change problem pose substantial obstacles to our ability to make the hard choices necessary to address it. Climate change involves the convergence of a set of global, intergenerational and theoretical problems. This convergence justifies calling it a 'perfect moral storm'. One consequence of this storm is that, even if the other difficult ethical questions surrounding climate change could be answered, we might still find it difficult to act. For the storm makes us extremely vulnerable to moral corruption. (EV)

Gare, Arran, *Nihilism Incorporated: European Civilization and Environmental Destruction*. Bungendore, NSW, Australia: Eco-Logical Press, 1993. Australian $ 19. The cultural roots of society's environmentally destructive tendencies. A nihilistic world-orientation has pervaded ideas, social practices, institutions, and economic processes in the formation and development of European civilization, and come to dominate not only in Europe but been imposed on the rest of humanity. A deep moral and political decadence tends systematically to obliterate and possible action. For the companion volume, see *Beyond European Civilization*. Reviewed in *Environmental Values* 4(1985):278-280 by Susan Armstrong. Gare is in the Department of Philosophy and Cultural Inquiry at Swinburne University in Australia. (v4,#4)


Gare, Arran, *Postmodernism and the Environmental Crisis*. New York: Routledge, 1995. 192 pages. $ 16.95, softcover. The first book to combine advanced cultural theory and environmental philosophy in a radically new vision--a postmodern "grand narrative." Marxist and postmodern approaches alike have failed to theorize the links between the ecological crisis, the globalization of capitalism, and the fragmentation and the disintegration of modernist culture. A successful ecological politics needs to forge a new worldview out of the postmodernist critique of Western civilization and a global ecological perspective. Gare is in philosophy at Swinburne University, Australia. (v6,#4)
Gare, Arran. Beyond European Civilization: Marxism, Process Philosophy and the Environment. Bungendore, NSW, Australia: Eco-Logical Press, 1993. Australian $21. Offers an alternative future. Part I. Marxism was appropriated primarily by Russians to assimilate the domineering world orientation of Western Europeans to Russian culture, and yet to defend Russia from Western domination. So it is not surprising that the Soviet Union proved as environmentally destructive as the West. But there is a radical dimension to Marx's critique of capitalism that has been taken up and developed in Russia by Aleksandr Bogdanov, seeking to create a radically new culture. This movement needs to be resurrected. Part II. Process philosophy reconceives people as creative participants in the becoming of nature. On this foundation, and new ethics and political philosophy can be elaborated, and joined with the movement resurrected in Part I, to create an ecologically sustainable, post-European civilization. Reviewed in *Environmental Values* 4(1995):278-280 by Susan Armstrong. (v4,#4)

Gare, Arran. Nihilism Inc.: Environmental Destruction and the Metaphysics of Sustainability. Sydney: Eco-Logical Press, 1996. This work attempts to explain the failure of humanity effectively to confront the global environmental crisis, and thereby to reveal what is required to overcome it. The destruction of the environment on a global scale is the legacy of the expansion and domination of the world by European civilization, a civilization that is inherently destructive and implicitly nihilistic. Ecocide is characterized as applied nihilism. Environmentalists have failed because they have not fully appreciated the nature of this civilization, an appreciation that requires an understanding of the history and dynamics of European culture and its offshoots from Ancient Greece to the present. The first part of the book analyzes the origins and dynamics of Western civilization to reveal the origins of nihilism and to show how in the modern world nihilism has come to be embodied by institutions and individuals, while the second part is devoted to analyzing Marxism, Russian culture and the Soviet Union as a failed alternative to Western culture. These analyses reveal the need for a radical cultural transformation, a transformation which can only be effected on the foundation of a new metaphysics. The final part offers the required metaphysics—a revised version of process philosophy reformulating and integrating the insights of Hegel and those inspired by him—to clear the way for the creation of an environmentally sustainable civilization. Gare teaches philosophy at Swinburne University, Melbourne. (v8,#1)


Garforth, C; Angell, B; Archer, J; Green, K, "Fragmentation or creative diversity? Options in the provision of land management advisory services," *Land Use Policy* 20(no.4, 2003):323-333. (v.14, #4)
Environmental degradation in China. The transformation of the Chinese economy is proceeding more rapidly than almost any nation in history. But its future remains shadowed by a fragile financial system, the absence of meaningful rule of law, growing corruption, and staggering levels of pollution, says a World Bank Report. A consequence of China’s meteoric economic growth that now threatens sustained development is the country’s alarming level of air and water pollution. Five of China’s largest cities, including Beijing, Chongqing, and Guangzhou, are among the most polluted cities in the world. Not only does China suffer as many as 289,000 deaths a year because of high pollution levels, the country is also losing an estimated three to eight percent of its annual gross domestic product because of environmental degradation. See also Smil, Vaclav, "China Shoulders the Cost of Environmental Change" Environment 39 (no. 6, 1997):6-9, 33-37. (v8,#3)


Garner, Robert. "Labor Party Victory May Help Animals in Britain," The Animals' Agenda 17(no.4, 1997):33. Garner reports on how the "changing of the guard" during Britain's recent elections will impact animals. (v8,#3)


Garnett, Tara. "Farming the City: The Potential of Urban Agriculture," The Ecologist 26(no.6, 1996):299. By the turn of the century, the majority of the world's people will live in cities and urban areas. In the South, growing one's own food in cities is already a thriving response by the poor to the problems of obtaining food in an era of structural adjustment. In the North, the imperative to grow one's own food seems less immediate. But the arguments in favor of urban agriculture on the grounds of community and health regeneration are compelling, particularly for those living on low incomes. (v8,#2)

Garre, Arran, "MacIntyre, Narratives, and Environmental Ethics". Environmental Ethics 20(1998):3-21. While environmental philosophers have been striving to extend ethics to deal with future generations and nonhuman life forms, very little work has been undertaken to address what is perhaps a more profound deficiency in received ethical doctrines, that they have very little impact on how people live. I explore Alasdair MacIntyre's work on narratives and traditions and defend a radicalization of his arguments as a direction for making environmental ethics efficacious. Gare is in philosophy, Swinburne University, Hawthorn, Australia. (EE)

Garrett, Aaron V., ed., Animal Rights and Souls in the Eighteenth Century. Bristol, England: Thoemmes Press, 2000. Six volumes. Explores early discussions of moral theories concerning animals, placing them in historical and social context. Issues such as vivisection, animal souls and vegetarianism were live philosophical subjects 200 years ago. Six volumes reprinted here include complete works and edited extracts from such key eighteenth-century thinkers as Oswald, Primatt, Smellie, Monboddo and Jenyns. Many of the materials are rare and never previously reprinted. Garrett teaches philosophy at Boston University. Full online introduction: http://www.thoemmes.com/18cphil/animal_intro.htm. (v.11,#2)


conceptions of knowing, education, action, and community can be used to construct an attractive middle road. Although a certain kind of ecological knowledge disposes us to wish well toward the ecosystems with which our lives are entwined, this falls short of an adequate politics, which must make human beings the primary focus and appeal to the human good. Though ecosystems are communities that warrant appropriate respect, they cannot inspire as intense a commitment as can social communities. Anthropocentric arguments for preserving such ecosystems will have greater ethical force, because our duties to other humans are stronger and the sense of solidarity within human communities is greater. Garrett is in philosophy at Western Kentucky University. (v5,#1)

Garrett, Laurie, "Nature and Homo sapiens," *Wild Earth* 10(no.3, Fall 2000):36-. (EE v.12,#1)

Garrison, Glenn Gregory, *Moral Obligations to Non-human Creation: A Theocentric Ethic*, Ph.D. thesis at the Southern Baptist Theological Seminary, Louisville, Kentucky, May 1994. Garrison finds that the theocentric ethics of James Gustafson can be combined with the nonanthropocentric environmental ethics of Holmes Rolston to produce a more adequate environmental ethics from a religious perspective than others have so far been able to do. Among others he considers are James Nash, Arthur Peacocke, Albert Schweitzer, Paul Taylor, and Aldo Leopold. The theocentric valuation offsets an anthropocentric bias in historical and contemporary theology and makes for a more adequate appraisal of common planetary heritage and interdependence on Earth. Paul D. Simmons is the chair of the dissertation committee. (v5,#1)

Garrison, Philip. *Waiting for the Earth to Turn Over: Identity and the Late-Twentieth-Century American West*. Salt Lake City: University of Utah Press, 1996. 176pp. $39.95 cloth, $12.95 paper. Garrison's account of his slow accumulation of identity reveals how history and memory are interwoven as he shows us the remarkable landscape of the American West in a light both new to us and very, very old. (v8,#1)


Gaston, KJ; Rodrigues, ASL, "Reserve Selection in Regions with Poor Biological Data", Conservation Biology 17(no.1,203):188-195.


Gates, David M., Climate Change and its Biological Consequences. Sunderland, MA: Sinauer Associates, 1993. 280 pages. $ 18.95. Gates believes that reliable theory data show that within a century the planet will be warmer than at any time in the past 120,000 years. He projects dramatic impacts. Gates is professor emeritus of biology at the University of Michigan. (v4,#2)

Gatesy, John and Arctander, Peter, "Hidden Morphological Support for the Phylogenetic Placement of Pseudoryx nghetinhensis with Bovine Bovids," Systematic Biology 49(2000):515-538. It's a new species of wild cow. No, maybe it’s a goat. Well, at least its a saola, the common name of a newly discovered large bodied mammal in the montane evergreen forests of Vietnam (Vu Quang region), a rare event today—and apparently not the only novel mammalian species there. All are endangered species. The interpretation of morphological and molecular evidence has differed. First it seemed that it should be placed with cows and buffalos (and so it was called the Vu Quang cow). Later analysis placed it closer to the sheep, goats, musk oxen. But these authors place it back closer to the cows. Or it may be a phylogenetic relict with no close extant relatives. Gatesy is at the University of Arizona, Tucson. Arctander is at the University of Copenhagen, Denmark. The original description is: Dung, V., et al, "A New Species of Living Bovid from Vietnam," Nature 363(1993):443-445. (v.13,#2)


Gault, Richard. "In and Out of Time." *Environmental Values* 4(1995):149-166. This paper explores the nature of time and its relation to our concerns for the future. It is shown how a new sense of time, chronological time, emerged with the rise of science and modernity. This now familiar time is rarely questioned. Yet, it is argued, this time is intimately bound up with our contemporary problems and our failure to effect solutions. In analysing chronological time it is revealed that the future is devoid of reality in it. This absence of a real sense of the future explains our careless despoiling of the environment. To save our environment we need to resurrect a real sense for the future: only then can the future be truly valued. This means re-discovering another sense of time. This other time is named kairolological time. In kairolological time there is a more vivid awareness of the future. In this time, too, new ways of acting for the future are opened up. Possibilities for a wiser way to the future in part stem from a revaluation of the past. So the sense of being out of time to save ourselves and our planet can be overcome by a living in this other time, kairolological time. KEYWORDS: Time, future, philosophy of technology, history of time, history of science. Gault is in department of philosophy, King's College, Aberdeen. (EV)


Gaus, Gerald F., *Value and Justification: The Foundations of Liberal Theory* (Cambridge: Cambridge University Press, 1990). Part I is a theory of value. Part II is a theory of moral justification. Part I concludes with a brief section on "Anthropocentrism and the Environment" (pp. 247-250). Gaus's "Affective-Cognitive Theory in no way precludes environmental objects or ecosystems from being rationally valued for themselves; a rational valuer may even see them as having a greater intrinsic value than humans. ... So, far from opposing ascriptions of intrinsic value to the environment, the Affective-Cognitive Theory has no difficulties embracing the qualities of environmental objects and systems to which environmental philosophers typically point as grounds of their intrinsic value. Richness, complexity, diversity, and organic unity are precisely those properties that evoke interest and so ground intrinsic valuing." Nevertheless such valuing is an activity of humans or other affective-
cognitive valuers, and the question "Would the environment have value if there were no humans or valuers?" is "unimportant" or "moot," not false but "pointless." (v1,#4)

Gaus, Gerald F., "Respect for Persons and Environmental Values." Pages 239-264 in Kneller, Jane, and Axinn, Sidney, eds., Autonomy and Community: Readings in Contemporary Kantian Social Philosophy. Albany: State University of New York Press, 1998. When it comes to the treatment of animals and, especially the nonsentient environment, Kantian liberalism--like Kant's theory itself--strikes many as inadequate. Kant's theory is "person chauvinism." Is Kant hostile to including environmental values in the moral realm? Answering this question is surprisingly complex. It is true that a basic and widely embraced Kantian liberal argument puts supreme value on agency and project pursuit and this makes it well-nigh impossible to protect environmental values. But much contemporary Kantian liberalism goes astray because it misconstrues the nature of personhood and autonomy. Gaus defends an alternative understanding that is truer to Kant's own conception and provides a reformulated Kantian liberalism that can take environmental value seriously. Nevertheless, this revision will not satisfy the demands of many environmental philosophers. The fundamental commitments of Kantian liberalism preclude its being considered an environmental ethic. Gaus teaches philosophy and political science at the University of Minnesota, Duluth. (v9,#2)


Gavora, J.S., "Practical and Ethical Considerations of Agricultural Research Assistance for the Third World", Journal of Agricultural Ethics 2(1989):307-322. This article focuses on aspects of food production and related agricultural research with specific examples from animal production. It discusses ethics of agricultural research in light of the utilitarian theory and compares livestock production in developing and developed countries. The article reviews the current status of biotechnology in developing countries and discusses several advanced animal technologies. It emphasizes the need for detailed assessment of potential impacts of technology on recipients. Gavora and Lister are in animal research at the Agriculture Centre, Ottawa.


has the principal strengths and weaknesses one might expect from such serious commitment; genuine engagement on the one hand, lack of detachment on the other. As a self-identified post-Modern philosopher, Oelschlaeger is unlikely to see the latter as a major weakness." Gay is at Simon Fraser University. (v.10,#1)


Gebara, Ivone, Longing for Running Water: Ecofeminism and Liberation. Minneapolis: Fortress Press, 1999. Features the daily experiences of poor women in urban areas in Brazil. Indigenous peoples are subject to progressive elimination, racism is on the rise, poverty is the norm, natural "resources" (such as entire jungles, lakes, and rivers) are being swallowed by corporate greed. Her women face garbage in the streets, the smell of raw sewage in the alleys, a lack of drinking water or nutritious food, and inadequate health care. Gebara articulates the links between these daily realities and a patriarchal system of androcentrism and anthropocentrism. She argues for and appeals to a revised worldview that breaks with dualistic systems of domination, her hope based on a comprehensive theological stance. (v.13,#4)


GEC-O: The Newsletter of the ESRC Global Environmental Change Programme has produced its first two issues, with a circulation of over three thousand. This newsletter reports on the Global Environmental Change program launched in the United Kingdom by the Economic and Social Research Council and is said to be the largest ever UK social science research program ever undertaken on any topic in the UK. The goal is "to take global environmental issues to the heart of the social sciences in the international debate on global environmental change." The Newsletter will appear three times a year. Wye College also offers correspondence courses in environmental policy and management available to students anywhere in the world. For information contact Michael Redclift, Research Coordinator, ESRC Global Environmental Change Programme, Wye College (University of London), Near Ashford, Kent TN25 5AH, UK. (v3,#4)

Geddes, Robert, ed. Cities in Our Future. Washington, D.C.: Island Press, 1996. 200 pages. $22.50 cloth. Urban and regional planners, architects, urban designers, and other experts from across North America examine the impact of a city's growth and form on the ability of its citizens to achieve and maintain social equity and environmental health. Case studies of five North American metropolitan areas are
presented with analyses of their physical terrain, design, planning, and development. (v7, #3)


Geering, Lloyd, "An Ecological Faith for the Global Era," Ecotheology Vol 6 (Jul 01/Jan 02):12-22. lloyd.g@clear.net.nz  This article first sketches the secular, global and ecological era that humankind is now entering and shows why conventional Christianity is losing its relevance. It then discusses Christianity as a fluid cultural stream (rather than something with an unchangeable essence) that has the capacity to meet the needs of the emerging global culture. It explores, albeit tentatively and sketchily, the way in which such basic Christian concepts as God and Jesus Christ may continue to be drawn upon to refer to and nurture the religious experience of awe, wonder, gratitude and obligation in today's cultural and ecological context. It suggests ways in which the traditional religious rituals and festivals may be redirected to the celebration of the planetary conditions of life. It ends with an outline of spirituality in the global era.


Geist, H. J. and Lambin, E. F., "Dynamic Causal Patterns of Desertification," BioScience 54(no. 9, 2004): 817-829(13). Using a meta analytical research design, we
analyzed subnational case studies (n = 132) on the causes of dryland degradation, also referred to as desertification, to determine whether the proximate causes and underlying driving forces fall into any pattern and to identify mediating factors, feedback mechanisms, cross scalar dynamics, and typical pathways of dryland ecosystem change. Our results show that desertification is driven by a limited suite of recurrent core variables, of which the most prominent at the underlying level are climatic factors, economic factors, institutions, national policies, population growth, and remote influences. At the proximate level, these factors drive cropland expansion, overgrazing, and infrastructure extension. Identifiable regional patterns of synergies among causal factors, in combination with feedback mechanisms and regional land use and environmental histories, make up specific pathways of land change for each region and time period. Understanding these pathways is crucial for appropriate policy interventions, which have to be fine-tuned to the region specific dynamic patterns associated with desertification.


Geist, Helmut J; Lambin, Eric F, "Dynamic Causal Patterns of Desertification", BioScience 54(no.9, 1 September 2004):817-829(13). Using a meta-analytical research design, we analyzed subnational case studies (n 3D 132) on the causes of dryland degradation, also referred to as desertification, to determine whether the proximate causes and underlying driving forces fall into any pattern and to identify mediating factors, feedback mechanisms, cross-scaler dynamics, and typical pathways of dryland ecosystem change. Our results show that desertification is driven by a limited suite of recurrent core variables, of which the most prominent at the underlying level are climatic factors, economic factors, institutions, national policies, population growth, and remote influences. At the proximate level, these factors drive cropland expansion, overgrazing, and infrastructure extension. Identifiable regional patterns of synergies among causal factors, in combination with feedback mechanisms and regional land-use and environmental histories, make up specific pathways of land change for each region and time period. Understanding these pathways is crucial for appropriate policy interventions, which have to be fine-tuned to the region specific dynamic patterns associated with desertification.

Gelbard, Alene, "Population Stabilization, Human," Encyclopedia of Biodiversity 4: 799-810. Human population change has three components: births, deaths, and migration. On a global level, only births and deaths determine changes in population size. In the 1990s, more than 70 million people were added to the world's total population each year and it took only 12 years for the world's population to increase from 5 to 6 billion people. This growth will continue into the twenty-first century. How much growth will occur, and how quickly, and when or whether this growth will stabilize, depends on a host of factors. In 1994, the world community agreed on the need to stabilize global population growth. This article describes the history of global population growth, factors associated with this growth, and how countries view this
growth. It concludes with a discussion of prospects for the stabilization of population in the future. (v.11,#4)


Gelderloos, Orin, G., Eco-Theology. Glasgow: Wild Goose Publications, 1992. (Wild Goose Publications, Pearce Institute, 840 Govan Road, Glasgow G51 3UU, U.K.) 75 pages. Paper. ISBN 0 947988 55 6. Gelderloos examines post-Enlightenment translations of the Bible to find them biased by a cultural negation of nature. Bringing out fresh interpretations of language and context, he finds that the Hebrew and early Christian cultures were more congenial to modern ecological knowledge. This bridges the divine between scientific and theological perspectives, and uncovers much that is of ecological value in the biblical teachings. He hopes to reconcile the false humans/nature dichotomies of the Judeo-Christian tradition in the West and to rediscover an ecological harmony within the roots of that tradition. Wild Goose Publications is the publishing division of the Iona Community in Scotland. Gelderloos is professor of biology and environmental studies at the University of Michigan-Dearborn and has recently been visiting professor at the Centre for Human Ecology, University of Edinburgh. (v5,#1)

Gelernter, David, "In Rats We Trust: Making a Moral Case Against the Tryanny of Environmentalism." The Washington Post, November 17, 1996, p. C1, C5. "There is an anti-environmentalist position, with arguments and moral claims that are at least as compelling as the other side's." Gelernter cites the costs people have undergone to save the kangaroo rat; they were asked to create firebreaks by mowing rather than plowing up habitat, and, in a subsequent fire, some homes burned (although the General Accounting Office concluded no firebreaks would have worked). "Do we have a moral duty to ensure that every gene pool last forever? I can't see why we should." "We anti environmentalists hold to the Judeo-Christian view that man is emphatically not part of nature. We hold that human life has a different kind of value from animal life; that protecting and preserving human life is a moral duty that sweeps away all `duties' to nature, and the very idea of duty to nature. ... Environmentalism started as a noble cause, but a Jew or Christian today has a moral obligation not just to disapprove of it but to fight it." Gelernter is a Yale University computer science professor. Good article to provoke class discussion. With reply: Schwartz, Daniel, "A Rabbi's Reply: In God's Green Earth We Trust." The Washington Post, December 1, 1996, p. C2. (v7,#4)


Genxu, W; Xiaoyin, G; Yongping, S; Guodong, C, "Evolving landscapes in the headwaters area of the Yellow River (China) and their ecological implications," Landscape Ecology 18(no.4, 2003):363-375. (v.14, #4)

Geoghegan, J, "The Value of Open Spaces in Residential Land Use," Land Use Policy 19(no.ER1, 2002): 91-98. (v.13,#2)


George, Kathryn Paxton, " The Use and Abuse of Scientific Studies", Journal of Agricultural and Environmental Ethics 5(1992)217-234. Professor Pluhar's attempts in "Who Can be Morally Obligated to be a Vegetarian?" to defeat my scientific claims are specious. Her methods violate the canons of fair reasoning. In contradistinction from good scientific reasoning, she downplays or ignores contravening causal explanations, relies on only a few studies or even single instance "data", takes hypotheses as fact, freely reinterprets conclusions and comments to suit her argument and nowhere cites the results of nutritional reviews from respected journals which would seriously undermine her position. George is in philosophy at the University of Idaho, Moscow.

George, Kathryn Paxton, "So Animal a Human..., or the Moral Relevance of Being an Omnivore", Journal of Agricultural Ethics 3(1990):172ff. It is argued that the question of whether or not one is required to be or become a strict vegetarian depends, not upon a rule or ideal that endorses vegetarianism on moral grounds, but rather upon whether one's own physical, biological nature is adapted to maintaining health and well-being on a vegetarian diet. Even if we accept the view that animals have rights, we still have no duty to make ourselves substantially worse off for the sake of other rights-holders. It is argued that generalizing the vegetarian ideal as a social goal for all would be wrongful because it fails to consider the individual nutritional needs of humans at various stages of life, according to biological differences between sexes, and because it would have the eugenic effect of limiting the adaptability of the human species. George is in philosophy at the University of Idaho, Moscow.
George, Kathryn Paxton, "Biodiversity and Biotechnology", Journal of Agricultural Ethics 1(1988):175-192. Five arguments which attempt to ground our moral concern for biodiversity are reviewed and critiqued, not only for their consistency, but also for their power to move us to action. The final section of the paper shows how conflicts in the values of personal and environmental health can impair ethical action and especially policy formation. George is in philosophy, veterinary microbiology and pathology at Washington State University, Pullman.

George, Kathryn George, "Use and Abuse Revisited: Response to Pluhar and Varner", Journal of Agricultural and Environmental Ethics 7(1994):41-76. In her recent "Counter-Reply" to my views, Evelyn Pluhar defends her use of literature on nutrition and restates her argument or moral vegetarianism. In his "Vegan Ideal" article, Gary Varner claims that the nutrition literature does not show sufficient differences among women, men, and children to warrant concern about discrimination. In this response I show how Professor Pluhar continues to draw fallacious inferences and avoids the main issue in my ethical arguments. I also argue that Professor Varner fails to make his case because he offers virtually no evidence from scientific studies on nutrition. Neither Varner nor Pluhar have responded sufficiently to the real issue in my arguments, that of discrimination and bias in the vegan diet. George is in philosophy at the University of Idaho, Moscow.

George, Kathryn Paxton, Animal, Vegetable, or Woman: A Feminist Critique of Ethical Vegetarianism. Albany: State University of New York Press, 2000. Challenges the views of Tom Regan, Peter Singer, Carol Adams, and Dean Curtin, who assume the Principle of Equality to argue that no one should eat meat. These renowned individuals also violate the Principle of Equality, because they place women, children, adolescents, the elderly and many others in a subordinate position. An analysis of the nutritional literature on vegetarianism. Inconsistency arises in every major argument for ethical vegetarianism. Her own is view is "feminist aesthetic semi-vegetarianism." George teaches philosophy at the University of Idaho. (v.11,#3)

George, Kathryn Paxton, "Discrimination and Bias in the Vegan Ideal", Journal of Agricultural and Environmental Ethics 7(1994):19-28. Traditional moral theorists (such as Evelyn Pluhar and Gary Varner whose essays appear in this issue) argue that those who are at risk would be excused from a duty to attain the virtue associated with ethical vegan lifestyles. The routine excuse of nearly everyone in the world besides adult, middle-class males in industrialized countries suggests bias in the perspective from which traditional arguments for animal rights and (utilitarian) animal welfare are formulated. George is in philosophy at the University of Idaho, Moscow.

George, Kirstin, "Local and Grassroots: A Success Story from a Maine Land Trust," Wild Earth 10(no. 2, Summer 2000):89- . (v.12,#2)


Gerber, Leah R., et al., "Do the Largest Protected Areas Conserve Whales or Whalers?" Science 307(28 January 2005):525-526. There are huge ocean areas in southern oceans that are protected areas but a main problem is that whales migrate out of these areas. New proposals from an International Whaling Commission study group. Gerber is in ecology, Arizona State University.

Gerber, Lisa, "Standing humbly before nature," Ethics and the Environment 7(no. 1, 2002):39-53. Humility is a virtue that is helpful in a persons relationship with nature. A humble person sees value in nature and acts accordingly with the proper respect. In this paper, humility is discussed in three aspects. First, humility entails an overcoming of self-absorption. Second, humility involves coming into contact with a larger, more complex reality. Third, humility allows a person to develop a sense of perspective on herself and the world. (E&E)

Gerber, Lisa, "The Art of Intimacy," Philosophy in the Contemporary World 8 (Number 2, Fall-Winter 2001):79-83. This paper is an exploration of intimacy with non-human nature. I show that intimacy is like friendship in that it is a close and familiar relationships that develops over time and is marked by care and concern. Just as we have good reasons to value and promote friendships, we also have good reasons to value and promote intimacy with non-human nature. Gerber teaches in the University Honors Program, University of New Mexico, Albuquerque. (v.13,#2)

Gerber, Lisa, Environmental Virtues and Vices (Narcissism, Misanthropy, Humility, Attentiveness, Intimacy), Ph.D. thesis, 1999, Department of Philosophy, University of New Mexico. Virtue ethics is a better approach to environmental ethics than the extensionalist position which allocates rights to animals, or the utilitarian position which takes into moral consideration all sentient creatures, or the land ethic position which seeks to promote the integrity and beauty of the biotic community. (1) Virtue ethics coherently explains why diverse examples, such as the killing of a sled dog and the destruction of a natural formation, are wrong. (2) More importantly, virtue ethics offers concrete ways in which to cultivate our characters in order to improve our relationship
with nature. I explicate the vices of narcissism and misanthropy, and the virtues of humility, attentiveness, and intimacy. The adviser was Fred Schueler. (v.13,#4)

Gerber, Lisa, "The nature of water: Basia Irland reveals the `is' and the `ought'," Ethics and the Environment 8(no. 1, 2003):37-50. Basia Irland is an artist whose work revolves around water. Her vision is wide and she addresses ecological, social, and policy issues. Many of her works consist of portable sculptures which house maps, videos, natural objects, water samples, hydrologic reports, and research. In this paper I focus on two of her pieces, Desert Fountain and the Gathering of Waters project. I find these two pieces especially illuminating, because Irland reveals the nature of water, and also illustrates what our relationship to water should be. The ethical dimension of these pieces illustrates such values as harmony and reciprocity. Her work is a powerful statement about how we, individually and collectively, should interact with the natural world. I explore each of these pieces in turn, allowing her work to make the connections between what is and what ought to be. (E&E)

Gerber, Lisa . "What is So Bad about Misanthropy?" This paper is an exploration of the vice of misanthropy particularly as it manifests itself in people who love nature. Misanthropy is a hatred and disgust of humans, particularly of a group of humans. I look to wilderness to illustrate the vice of misanthropy. With regard to wilderness, misanthropy functions in three distinct spheres. First, there is misanthropy in the use of wilderness to flee other people. Second, there is misanthropy in the assumption that humans taint the wilderness. Finally, there is misanthropy in the assumption that humans can only relate to nature in a way that is harmful. In the end, we need to avoid misanthropy and its attendant despair. It is important that we see ourselves, not as a determined mass of people, but rather as individual people who are able to create positive change. Environmental Ethics 24(2002):41-55. (EE)


2001. The urban park and the frontier park, two kinds of public monuments that played a part in the formation of U.S. national identity. Geography, ecocriticism and narrative studies of the national(ist) importance of parks in the nineteenth century. Complicates conventional distinctions between the urban and the rural, city and frontier, east and west. The ideological implications of three efforts to legislate nature and space. (v.12,#2)

Gerrard, Michael B. "Territoriality, Risk Perception, and Counterproductive Legal Structures: The Case of Waste Facility Siting," *Human Ecology* 26(no.1, Mar. 1998):1017-. The placement of hazardous and nuclear waste facilities is an exercise fraught with difficulties. Local communities and states often object vehemently to any proposal that would place a new facility within their borders. One of the primary reasons for this difficulty is the failure of hazardous waste law to take into account the fundamental instinct of territoriality. (v9,#2)

Gerrard, Michael B. *Whose Backyard, Whose Risk: Fear and Fairness in Toxic and Nuclear Waste Siting*. Cambridge, MA: MIT Press, 1994. 335 pages. $39.95 cloth. Gerrard criticizes the government for waffling on the problem, the media for trivializing the subject by using terms such as NIMBY ("not in my backyard"), and the fairness of forcing the facilities on economically less advantaged families. We ought not to try to find the best new locations for such sites, but reuse already contaminated Superfund sites. Gerrard is an environmental lawyer in New York. (v6,#1)


Gerrie, James B., "Environmental ethics: should we preserve the red herring and flounder?" *Journal of Agricultural and Environmental Ethics* 16(2003):63-76. Based on a survey of some popular introductory anthologies and texts, I argue from my experience as a philosopher of technology that environmental philosophy might be conceived by some researchers in the field in terms of an overly narrow theoretical foundation. Many of the key figures in the field take as a basic assumption that the environmental crisis is fundamentally best explained in terms of some failing in the metaphysical outlooks of most people. However, philosophers of technology typically present at least two additional types of general explanation of the crisis. Environmental ethicists might benefit from consideration of these alternative ways of explaining the root causes of the ecological crisis. KEY WORDS: environmental ethics, philosophy of technology, technological dependency. (JAEE)

nutrients, promises substantially to cut the environmental--and economic--costs of manufacturing. Ehrenfeld directs MIT's Program on Technology, Business, and Environment. (v.11, #1)


Getches, David H. "Changing the River's Course: Western Water Policy Reform." Environmental Law 26, no.1 (1996): 157. With the Columbia River unable to support healthy salmon populations, Getches suggests that traditional instruments of water policy in the West--the beneficial use requirement of the prior appropriation doctrine and the idea of watershed management--can be reformed, with a community-based approach, to cure many of the Columbia's ills. (v7, #3)


Contents include the following:
--Utting, Peter, "Social and Political Dimensions of Environmental Protection in Central America," pp. 321-260. (v.9,#4)


Ghimire, Krishna B., Pimbert, Michel P., eds. Social Change and Conservation. 342 pp. $33.50 paper. Drawing on case studies from around the world contributors critically review current trends in protected area management and the prevailing concept of conservation, and show how the customary rights, livelihoods, well-being, and social cohesion of local people have been affected. The authors argue for a thorough overhaul of current conservation thinking and practice. (v8,#2)

Giampietro, Mario, "Sustainable Development: Scientific and Ethical Assessments", Journal of Agricultural and Environmental Ethics 5(1992):27-58. The problem of assessing the sustainability of human development is discussed in theoretical and practical terms. In Part I two theoretical tools for describing the challenge of assessing sustainable development are introduced and briefly discussed. In Part II data illustrating the current terms of the dilemma of human development are presented and discussed within the theoretical frame provided in Part I. Giampietro is at the Istituto Nazionale della Nutrizone, Rome, Italy.


Gibbons, J. Whitfield, Keeping all the Pieces: Perspectives on Natural History and the Environment. Washington: Smithsonian Institution Press, 1993. 208 pages. $ 16.96, paper. The greatest insult we humans are inflicting on the environment in the ongoing and massive loss of global biological diversity. Why and how we must all become involved in keeping all the pieces. Gibbons is University of Georgia professor of ecology at the Savannah River Ecology Laboratory. (v4,#2, v5,#1)


Gibbs, Walter, "Sweden's Welcome Pal Is Oslo's Big Bad Wolf," The New York Times, International, January 21, 2001, p. 6.Big bad wolves in Norway, but not Sweden. Norwegian officials plan to shoot most of Norway's two dozen wolves, although the wolves, which also range in Sweden, are welcome there. Wolves kill about 800 sheep each year, although other carnivores, such as lynx and wolverine, kill many more (30,000). There are now about 70-80 wolves in Scandinavia, although nearby Russia has 30,000. (EE v.12,#1)


Gibert, J; Deharveng, L, "Subterranean Ecosystems: A Truncated Functional Biodiversity," Bioscience 52(no.6, 2002):473-482. (v.13, #3)


Gibson, Robert, "Diversity Over Solidarity," Alternatives 26(no.4, Fall 2000):14- . What we have learned and where we have come in 30 years of eco-activism. (EE v.12,#1)


Gifford, Richard E.II, A Philosophical and Historical Analysis of Dr. Rupert Sheldrake's *Hypothesis of Formative Causation*, Master's Thesis, Department of Philosophy, Lancaster University, September 1993.

Gifford, Richard E.II, A Philosophical and Historical Analysis of Dr. Rupert Sheldrake's *Hypothesis of Formative Causation*, Master's Thesis, Department of Philosophy, Lancaster University, September 1993. (v7,#1)


Gildart, Bert. "The Battle for Fish and Survival Along the Yukon." *The Christian Science Monitor*, 24 May 1994, pp. 10-11. The failure of chum salmon to run has pitted Athabascan Indians against the Alaska Department of Fish and Game, which closed the Yukon River to subsistence fishing. (v5,#2)

Giljum, Stefan, and Hinterberger, Friedrich, "Wie misst man oekologische Nachhaltigkeit? Ein Vergleich ausgewählter Methoden des 'Physical Accounting' (article in German). How do we measure ecological sustainability? A comparison of selected physical accounting methodologies. *Natur und Kultur*, Vol. 1/2, 2000, pp. 26-43. Abstract: Energy and materials form the base for all natural and social processes on our planet. Thus, the implementation of ecological sustainability requires methodologies, which represent the metabolism of social systems in physical terms. This article presents four of the most influential approaches in physical accounting and defines criteria for a comparison of these methodologies. Understanding ecological sustainability as a global challenge demands for the application of comprehensive calculation methodologies, which indicate the demand for natural resources independent from the region of their occurrence. (v.11,#4)

Gilkey, Langdon, *Nature, Reality, and the Sacred*. Minneapolis: Fortress Press, 1993. 266 pages. Paper. Two partial apprehensions of nature have been vying for dominance in this century: religious, void of much influence from science, and scientific, unable to admit any reality beyond the empirical. Both views have led to the exploitation of nature, and the scientific may prove even more devastating from here onward. The fault lies not in the scientific knowledge of nature but in the assumed philosophy of science that accompanies most scientific and technological practice. Scientific knowing needs to be brought into relationship with other complementary ways of knowing, before there can be any adequate understanding of, relationship to, or conservation of the natural world. Gilkey is visiting professor at the University of Virginia, emeritus at the University of Chicago. (v5,#1)

Gilkey, Langdon, "Nature as the Image of God: Reflections on the Signs of the Sacred," *Zygon* 29(1994):489-505. Aspects of the scientific view of nature examined for signs or traces of the sacred, as early religious apprehension surely supposed. Nature's power and order, and the strange dialectic of life and death are evident in modern biology, as also in all early religion. Gilkey is in religion at Georgetown University, formerly the University of Chicago. (v5,#4)


Gill, Sam D. *Mother Earth: An American Story*. University of Chicago Press, 1987. 196 pages. $11.95 paper. Gill challenges the view that Mother Earth is an ancient and central Native American deity. (v5,#2)


Anthropocentric justification are many though problematic, limited and not always coherent (roughly speaking, shallow ecology). These are dominant in international law, but they have increasingly been supplemented by non-anthropocentric considerations of the intrinsic value in nature (roughly speaking, deep ecology). These too are besieged by a number of faults and limitations that prevent them from becoming any panacea for environmental ethics. We need all the good arguments we can get, though we also must remember that summing up limited and contradictory arguments does not necessarily produce a good argument in total. Gillespie, in the Nottingham University Law School, is quite well-versed in philosophical environmental ethics and cites as many ethicists as he does legal documents. (v.13,#2)


Gillespie, Alexander. "Legitimating a Whale Ethic." *Environmental Ethics* 25(2003): 395-410. Ethical discussions have entered into the discourse of the International Whaling Commission. In accordance with the existing approach in international environmental law, countries can legitimately choose not to exploit a resource in the traditional sense. Recognition of this possibility is important because it is commonly suggested that countries must adopt a lethal approach to so-called "sustainable whaling" as there are no other legitimate alternatives. However, the precedent of Antarctica suggests otherwise in international environmental law. Moreover, when the possibilities of the nonlethal utilization of whales via operations such as whale watching are examined, the legitimacy of the nonlethal choices is even stronger. (EE)


comprehensive overview of U. S. Western water use and the issues that surround it. (v9,#2)


Gillis, Anna Maria, "Weathering Warming in Colorado", Bioscience, 46(No.3, 1996):178- . Heating of a Rocky Mountain meadow shows that alterations in ecosystems provide important climate feedbacks.

Gillroy, John Martin, Justice and Nature: Kantian Philosophy, Environmental Policy, and the Law. Baltimore, MD: George Washington University Press, 2001. Criticizing the cost-benefit paradigm, Gillroy proposes an alternative way to conceptualize and create environmental policy, one that allows for the protection of moral and ecological values in the face of economic demands. Drawing on Kantian definitions of who we are as citizens, how we act collectively, and what the proper role of the state is, Gillroy develops a philosophical justification for incorporating non-market values into public decision making. His new paradigm for justice toward nature integrates the intrinsic value of humanity and nature into the law. Gillroy is in environmental law and policy at Bucknell University. (v.12,#2)

Gillroy, John Martin. "Public Policy and Environmental Risk." Environmental Ethics 14(1992):217-37. In this essay, I argue that environmental risk is a strategic situation that places the individual citizen in the position of an imprisoned rider who is being exploited without his or her knowledge by the preferences of others. I contend that what is at stake in policy decisions regarding environmental risk is not numerical probabilities or consistent, complete, transitive preferences for individual welfare, but rather respect for the human agency of the individual. Human agency is a prerequisite to one’s utility function and is threatened and exploited in the strategic situation that produces the imprisoned rider. This problem is created by the policy maker’s assumption that his or her task is to assume rational preferences and aggregate them. The guidelines for evaluation and justification of policy should move beyond welfare preferences and involve an active state protecting human agency and empowering the imprisoned rider. Only in this way can we free all citizens (a priori) from fear of exploitation by those who would impose collective and irreversible risk on each of them in violation of their unconditional right to their own agency. Gilroy is at the Political Science Department, Trinity College, Hartford, CT. (EE)

Gillroy, John Martin, "Kantian Ethics and Environmental Policy Argument: Autonomy, Ecosystem Integrity, and Our Duties to Nature," Ethics and the Environment 3(1998):131-155. In this essay I will argue that, preconceptions notwithstanding, Immanuel Kant does have an environmental ethics which uniquely contributes to two current debates in the field. First, he transcends the controversy between individualistic and holistic approaches to nature with a theory that considers humanity in terms of the autonomy of moral individuals and nature in terms of the integrity of
functional wholes. Second, he diminishes the gulf between Conservationism and Preservationism. He does this by constructing an ideal-regarding conception of the former that values nature not as "merely" a thing to be used by human preferences and translated by markets, but as an essential component and prerequisite to the intrinsic autonomy of human beings. Simultaneously, he argues for a definition of preservation which places responsibility on humanity to harmonize moral agency with the functional integrity of natural systems. Here humanity and nature become the two unique and equally important components of what we might call the greater "Kantian ecosystem." In addition to the theoretical contributions of Kant's approach to our appreciation of the duties we owe to our natural environment, I will also suggest that "Kantian Conservationism" and "Kantian Preservationism" provide a sound moral basis for public policy arguments that wish to take the intrinsic value of humanity and nature into account. By requiring decision makers to consider citizens as ethical ends and nature as a functional end-in-itself, public choice becomes a process of restricting the use of the "kingdom of nature" to the essential requirements of "kingdom of ends." 

Gillroy is in environmental studies, Bucknell University, Lewisburg, PA. (E&E)


Gilmour, Brad, Huffman, Ted, Terauds, Andy, Jefferson, Charles. "Incentive Problems in Canada's Land Markets: Emphasis on Ontario," Journal of Agricultural and Environmental Ethics 9(1996):16-41. The specific issue addressed in this paper is urban encroachment on agricultural lands, and the problems it poses for both analysis and the conservation of the land resource. The purpose of our discussion is two-fold: (1) to identify where and why traditional analytical and regulatory approaches fail to resolve land use conflicts, and (2) to explore ways and means of resolving some of the
dilemmas which society faces in making land use decisions. This paper’s contribution is in the spirit of "Getting Incentives Right" for the inter-temporal transfer of wealth, as represented in trade-offs between environmental and resource endowments and human and physical capital. (JEEE) Efforts are placed on identifying what the appropriate price, levy, taxes, and grant ratios "ought" to be in order to encourage individuals in the marketplace to act in society's interest. (JEEE) We have also explored ways of efficiently transmitting those incentives through the market mechanism, without unduly relying on bureaucratic methods or suasion. Emphasis is placed on mechanisms that have little scope for preferential access and are subject to public scrutiny; emphasis on such self-disciplining approaches should result in less effort expended on (unproductive) lobbying activities and bureaucratic administration. Keywords: land use planning, zoning, transferable use rights, traditional benefit-cost analysis. (JAEE)

Gilpin, Robert, and Gilpin, Jean M., Global Political Economy: Understanding the International Economic Order. Princeton, NJ: Princeton University Press, 2001. Multinational corporations have much potential to influence political as well as economic life. The largest multinational corporations, such as General Motors, Ford and Mitsubishi enjoy total sales that exceed the gross national product of all but the most productive nations in the world. But the state can and ought retain its power. The authors advocate a "state-centric realism." The widening gap between the rich and the poor is almost invisible in this analysis.

Gimeno, Paul, "Éthique environnementale, valeur, anthropocentrisme et démocratie," Critique: Revue generale des publications francaises et etrangeres (Paris) 54(no. 612, 1998):225-245. In French. A critical review of some basic positions in "Anglo-Saxon" environmental ethics, Rolston, Callicott, Leopold, Regan, Singer, Taylor, Naess, and others. There are three deadly assumptions held concerning environmental ethics in Europe: (1) It is necessarily founded on a naturalistic theory of value. (2) Its theory of value necessarily reduces the value of human beings to that of the other animals. (3) The two preceding assumptions together determine a politics that contradicts modern democratic theory. These assumptions are false, as can be shown by attention to the writers above. (v.13,#2)


Gingras, Jacqui, "Evoking trust in the nutrition counselor: why should we be trusted?" Journal of Agricultural and Environmental Ethics 18(2005):57-74. The virtue of trust is central to the work of dietitians working in nutrition counseling, especially in the context of disordered eating/eating disorders nutrition therapy. Indeed, dietitians are purported to be the most trusted source of information on nutrition and food by professional associations such as Dietitians of Canada. Here trust is explored through educational, relational, and virtue theory in order to elucidate trusts meaning and relevance to dietitians work and interactions with each other,
including the general public. If dietitians are to continue to be trusted during times of skepticism in expert knowledge, reflexivity, active contestation, and moral testing in the context of our socio-political milieu need be employed so that we as a profession may respond to clients in respectful, authentic, meaningful ways; practices worthy of our trust.

Keywords  dietetic practice - dietitian - disordered eating - education - ethics - nutrition counseling - third space.  Gingras is in education, University of British Columbia, Vancouver, BC. (JAEE)


Giradot, N. J., Miller, James, and Xiaogan, Liu, Daoism and Ecology: Ways within a Cosmic Landscape. Cambridge, MA: Center for the Study of World Religions and Harvard University Press, 2001. Two dozen articles, from a conference on Daoism and Ecology, largely the views of scholars of religion and Daoism, including some practitioners, with discussions of the articles. Bibliography on Daoism and ecology. Giradot is in comparative religion, Lehigh University; Miller is a research fellow at Queen's University, Kingston, Ontario; Xiaogan is a Chinese scholar trained at Beijing University. (v.13,#1)

Gittins, John W., Local Distinctiveness and Sense of Place as Concepts and Tools for Promoting, Developing and Sustaining Community Based Environmental Action, Master's Thesis, Department of Philosophy, Lancaster University, September 1995. (v7,#1)

conservation, science, compromise, and tough choices. Gittleman is at the University of Virginia, Charlottesville. (v.13,#4)

Given, David R. "Forging a Biodiversity Ethic in a Multicultural Context," Biodiversity and Conservation 4(no. 8, Nov. 1995):877-. (v6,#4)


Gladwin, Thomas N., Kennelly, James J., and Krause, Tara-Shelomith, "Shifting Paradigms for Sustainable Development: Implications for Management Theory and Research," Academy of Management Review 20(1995):874-907. Modern management theory is constructed by a fractured epistemology, which separates humanity from nature and truth from morality. Reintegration is necessary if organizational science is to support ecologically and socially sustainable development. Requisites of such development, rejecting the paradigms of conventional technocentrism and antithetical ecocentrism on grounds of incongruences. A more fruitful integrative paradigm of "sustaincentrism" is articulated, and implications for organization science are generated as if sustainability, extended community, and our Academy of Management mattered. The authors are with the Global Environment Program, School of Business, New York University. (v.10,#1)


Glaeser, Bernhard. Environment, Development, Agriculture. Armonk, NY: M.E. Sharpe, 1995. The concept of human ecology might be the ideal means for creating a unified theoretical construct that will enable "greenery" and development to complement, rather than cancel out, each other. (v8,#1)
Glantz, Michael, ed., Drought Follows the Plow. New York: Cambridge University Press, 1994. $19.95. Reversing an 19th century adage of the sodbusters, "rain follows the plow," the contributors here argue just the opposite, that droughts are often human-caused. Most of Earth's fruitful, rain-fed land is already in use. To try to farm marginal land, often arid or semiarid, can hasten agricultural drought. Such regions are ill-suited for farming in the first place and, with misguided human disruptions, a spiraling downward trend initiates, compounded when drought comes. Rich nations, like the U. S. and Australia can buy their way out of droughts, but in a country like Ethiopia, where an elite majority owns the good land and the majority must attempt to survive on marginal land, and where population growth is out of control, mass starvation is the likeliest scenario. Nature is likely to be blamed, because no one in government wants to admit responsibility for inept planning. Glantz is director of the Environmental and Societal Impacts Group at the National Center for Atmospheric Research, Boulder, Colorado. (v5,#4)

Glanz, James, "Sharp Drop Seen in Soil Erosion Rates," Science 285(1999):1187-1188; and Trimble, Stanley W., "Decreased Rates of Alluvial Sediment Storage in the Coon Creek Basin, Wisconsin, 1975-1993," Science 285(1999):1244-1246. Sharp drop in soil erosion rates? A detailed study, including data across 140 years, shows much erosion earlier, but a sharp decline in recent years. From the 1970's to the 1990's sedimentation rates dropped to just 6% of their earlier peak, owing to better farming practices. But others say the study area is not typical of the United States as a whole, especially not of the western U. S. (v. 10, # 3)


Glasser, Harold, "Naess's Deep Ecology Approach and Environmental Policy," Inquiry 39(no. 2, June, 1996):157-187. "A clarification of Naess's `depth metaphor' is offered. The relationship between Naess's empirical semantics and communication theory and his deep ecology approach to ecophilosophy (DEA) is developed. Naess's efforts to highlight significant conflicts by eliminating misunderstandings and promoting deep problematizing are focused upon. These insights are used to develop the implications of the DEA for environmental policy. Naess's efforts to promote the integration of science, ethics, and politics are related to the National Environmental Policy Act (NEPA). The action-oriented aspect of deep ecology, its focus upon redirecting environmental policy, is also highlighted. The discussion is framed by Bryan Norton's contention, in Toward Unity Among Environmentalists, that Naess's deep/shallow distinction is not consequential. In the final section some of the uniqueness of Naess's contribution is intimated, the `sturdiness' of deep ecology's foundation is considered, and directions for future theoretical and practical contributions are suggested. As will
be observed, Naess has many important insights to offer, but some vexing issues persist. Glasser is at the New Jersey Institute of Technology, Newark. (v8,#3)


Glasser, Harold. "On Warwick Fox's Assessment of Deep Ecology." *Environmental Ethics* 19(1997):69-85. I examine Fox's tripartite characterization of deep ecology. His assessment abandons Naess's emphasis upon the pluralism of ultimate norms by distilling what I refer to as the deep ecology approach to "Self-realization!" Contrary to Fox, I argue that his popular sense is distinctive and his formal sense is tenable. Fox's philosophical sense, while distinctive, is neither necessary nor sufficient to adequately characterize the deep ecology approach. I contend that the deep ecology approach, as a formal approach to environmental philosophy, is not dependent upon and embodies much more than any single ultimate norm. I discuss how Naess's deep ecology approach supports a wide diversity of ultimate norms. The only stipulation placed upon ultimate norms, to make them deep ecological ultimate norms, is that the so called deep ecology platform be derivable from them. The deep ecology approach is distinguished, in part, through its focus on diminishing environmentally degrading practices and policies by addressing root causes and by highlighting pseudo-conflicts. I present an interpretation of the deep ecology approach that highlights Naess's emphasis upon assisting individuals to arrive at thoroughly reasoned, consistent, and ecologically sound concrete decisions by supporting them in the articulation of their own personal ecological total views (ecosophies). Glasser is with the El Bosque Pumalin Foundation, San Francisco, and general editor of the selected works of Arne Naess, a nine-volume work to be published by Kluwer in 1998. (EE)


Glazebrook, Trish, "Art or nature? Aristotle, restoration ecology, and flowforms," *Ethics and the Environment* 8(no. 1, 2003):23-36. Aristotle believed strongly in a distinction between artifact (*techne*) and nature (*physis*). He intended by "techne" more than is generally understood by the contemporary term "art," for he meant anything produced by human intention. The key point in distinguishing art from nature for him was that things in nature grow and develop on the basis of an internal principle of change, whereas artistic production requires an outside agent. Reason is requisite for artistic production. Yet some art may not meet this definition: artists may not always have a full conception of the work to be produced prior to its execution. Creativity can be emergent rather than intentional during the productive process, and may arise, for example, from the artist's interaction with the chosen material. Glazebrook is in philosophy, Dalhousie University. (E&E)

Glazebrook, Trish, "Gynocentric Eco-logics," *Ethics and the Environment* 10(no. 2, 2005):75-99. I wish to provide a diagnosis and etiology, and suggest a curative
possibility for a disease of modernity I will call phallic logic. Symptomatic of this sickness are wide-spread social alienation, global domination and oppression on the basis of gender, race, class and color, and epidemic eco-destruction. A body of critique exists in ecofeminist analyses that experiences these symptoms as a single disease: the phallic logic of modernity. "Logic" in the sense used here is an epistemological term. Phallic logic is the structure of understanding that permeates patriarchy. This logic takes its paradigm from scientific objectivity, but even voices from within the sciences themselves are arguing that contemporary human being must establish new ways of thinking about nature. Glazebrook is in philosophy, Dalhousie University, Nova Scotia. (Eth&Env)


Gleick, Peter H., "Global Freshwater Resources: Soft-Path Solutions for the 21st Century," Science 302(2003):1524-1528. "Twentieth-century water policies relied on the construction of massive infrastructure in the form of dams, aqueducts, pipelines, and complex centralized treatment plants to meet human demands. These facilities brought tremendous benefits to billions of people, but they also had serious and often unanticipated social, economical, and ecological costs. Many unsolved water problems remain, and past approaches no longer seem sufficient. A transition is under way to a 'soft path' that complements centralized physical infrastructure with lower cost community-scale systems, decentralized and open decision-making, water markets and equitable pricing, application of efficient technology and environmental protection." While a soft path seems promising, political will is doubtful. More people lack clean water now than ever before. More lack healthy sanitation now than were alive on the planet in 1940. Gleick is at the Pacific Institute for Studies in Development, Environment, and Security, Oakland, CA.

Gleick, Peter H., "Global Water: Threats and Challenges Facing the United States: Issues for the New U.S. Administration," Environment 43(no.2, 2001): 18-. The lack of clean water in developing nations undermines regional economic and political security. Poor management of U.S. water may also have destabilizing repercussions by threatening world food supplies. What can be done to address these issues. (v.12,#3)


Glick, Daniel. "Having Owls and Jobs Too," National Wildlife 33 (no. 3, August-September):8-13. In Oregon where protection of the northern spotted owl was supposed to destroy jobs, a booming economy debunks the "owl-vs.-jobs" tradeoff. Oregon has lost 14,300 jobs in the timber industry since 1988, with adverse effects on some rural mill towns, but the Oregon economy more than made up for that with new jobs elsewhere, often in wood technology. And former loggers are re-training.


Glidden, David, "Commonplaces," Philosophy and Geography 3 (1998): 169-190. Glidden is professor of philosophy at the University of California at Riverside. (P&G)


Global Biodiversity is published four times a year by the Canadian Museum of Nature, with distribution in 90 countries. The editor is Don McAllister. A website is http://www.nature.ca/english/gbzine.htm
--Gardikas, K., "How our species has tackled overcrowding in the past: Controversial issues and recent trends in world history"
--Falek, A., "The impact of epidemics on world population prospects for the 21st century: Genetic, epidemiologic and bioethical issues"
--Milani-Comparetti, M., "Birth control and ethical questions"
and more. (v.12,#4)

* C. L Soskolne, "International transport of hazardous waste: legal and illegal trade in the context of professional ethics"
* R. F. Noss, "Sustaining Ecological Integrity"
* J. R. Sterba, "Environmental justice without environmental racism"
* P. A. Vodopianov, "The Determining Factors of Ecosystem Stability Preservation"
* Franco Pedrotti, "Biological Ethics in the Thought of Oscar De Beaux"
* Philip Cafaro, "Less is More"
* Mauro Tognon and Paolo Carinci, "Bioethics and Contaminated Vaccines"
* Sven Arntzen, "Integrity and Uses of Nature"
* Willy Weyns, "Policy impact assessment: the European Press union and the environment"
* Rosangela Barcaro, "The Right to Die Debate: A Survey"
* Stig Wandén, "Ethics, Prices and Biodiversity"
* Gene C. Sager, "Environmental Education Ponderings From Down Under"
* Global Bioethics: Domains and Mission Statement (v.12,#3)

Global Dialogue (Centre for World Dialogue, Nicosia, Cyprus) vol. 4, no. 1, 2002, is a theme issue on "The Fragile Biosphere." Contains:
--Pointing, Clive, "The Burden of the Past," pages 1-10. Two main events in human history have been the coming of agriculture and the arrival of technology exploiting fossil fuels. Humans are not dealing well with the undesirable results of the latter revolution.
--Wapner, Paul, "Ecological Displacement and Transnational Environmental Justice," pages 21-33. Generally scholars have failed to raise, in a sustained manner, issues of morality as it relates to transnational environmental issues.
--Bullard, Robert D., "Confronting Environmental Racism in the Twenty-First Century," pages 34-48. The causes and consequences of environmental racism, resulting from unequal interests and unequal power arrangements, benefitting the rich and impoverishing the poor.
--Guha, Ramachandra, "How Much Should a Person Consume?" pages 49-62. With particular attention to India and whether it should follow the West.

--Monbiot, George, interview, "If We Are Not Getting into Trouble, We are Not Being Effective," pages 63-66. Monbiot is a British environmental activist.


--Godrej, Dinyar, "Climate Change: The Need for Action," pages 80-89. The evidence and the need for action is stronger than ever. But there is political impasse resulting from a lack of internationalism and naked, ultimately short-sighted national self-interest.

--Stone, Roger D., and D'Andrea, "Preserving the Forests: The Promise of Community Control," pages 90-102. Empowering local communities hardly guarantees an easy ride toward stable forests. But the general failure of other forest management systems leaves the world with no better bet than community empowerment.

--Rolston, III, Holmes, "Justifying Sustainable Development: A Continuing Ethical Search," pages 103-113. Five contentious objections to sustainable development; how these can be met with sustainable development retaining moral force, and whether we can justify enforcing sustainability.

--Davion, Victoria, "Ecofeminism, Lifeboat Ethics and Illegal Immigration," pages 114-124. The debates over immigration (and lifeboat ethics) revisited through the lens of ecological feminism, with some attention to the resurgence of anti-immigration arguments since September 11.

--Waldau, Paul and Whitman, Sarah, "The Animal Invitation: Extending Human Rights to Other Apes," pages 125-137. Could individual animals other than humans plausibly be the direct, primary beneficiaries of legally enforced protections such as the right to remain alive and to be free from the domination of humans?(v.13, #3)


Global Environmental Change: Human and Policy Dimensions is a new international journal that addresses the human ecological and public policy dimensions of the environmental processes that are threatening the sustainability of life on Earth. The editor is Professor Martin Perry, Environmental Change Unit, 1a Mansfield Road, Oxford OX1 3TB, United Kingdom. The journal is published in cooperation with the United Nations University. (v4,#3)


Glosser, James W. and Waggoner, David K., "Animal Welfare Policy in the United States", Journal of Agricultural and Environmental Ethics 6(1993). In the United States there is a wide spectrum of feelings and views about animal welfare. At one extreme there is a view that animals are property, while at the other extreme are those who believe animals have rights equal to human rights. The issue is complex, open-ended, and in large part still unresolved. If the industry does not effectively address the need
for behavioural research on livestock animals, increased pressure will be exerted on Congress to legislate production practices. The U.S. livestock sector has a unique opportunity to bring about positive changes, in a reasonable fashion, in five important areas: (1) To correct misinformation and misconceptions about animal agriculture through educational efforts, especially focussed toward the young consumer; (2) To conduct the necessary research and be able to address concerns in the behavioural area. We presently have an extensive base of knowledge in the areas of production research, husbandry practices and disease prevention, but minimal information about the behaviour of livestock and poultry; (3) To develop self-regulatory practices within specific livestock groups which will satisfy the reasonable concerns of the general public and thus prevent a groundswell of support for government intervention and regulation; (4) To prevent the undue interference of government into livestock practices, as is occurring in other areas; and (5) To ensure that adequate efforts are being undertaken to meet the behavioural needs of livestock given the economic framework in which the industry must operate. Livestock producers should pursue simultaneous actions through self-regulation, public education and research to acquire additional information to fill the data gaps. Glosser is with the Animal and Plant Health Inspection Service, Department of Epidemiology, School of Veterinary Medicine, University of California, Davis, CA 95616. Waggoner is with Marketing and Inspection Services, United States Department of Agriculture, Washington, DC 20250.

Glover, James M., "Soul of the Wilderness Can We Stop Trying to Control Nature? International Journal of Wilderness 6 (no. 1, April 2000):4-8. "The Western dream of controlling nature is deeply ingrained. Even in wilderness areas, it seems, we can't stop trying to control. I believe we need to take a lesson from Lao Tsu and other Eastern sages and recognize that the world cannot be ruled by interfering." Glover is in outdoor recreation at Southern Illinois University, Carbondale. (v.11,#2)


Gluckman, Peter, and Mark Hanson, Mismatch: Why Our Bodies No Longer Fit Our World. New York: Oxford University Press, 2006. Our bodies evolved as hunter-gatherers, but modern life is city-bound and abundantly nourished. The result is an explosion of lifestyle diseases, such as diabetes and obesity, and will lead to increasingly frequent epidemics. Gluckman is at University of Auckland, Hanson at the University of Southampton.

Glushenkova, Helena I., "Environmental Administrative Change in Russia in the 1990s" Environmental Politics 8(no. 2, Summer 1999):157-. (v10,#4)

Glynn, Simon, "Ethical Issues in Environmental Decision Making and the Limitations of Cost/Benefit Analysis (CBA)," Ethics and the Environment 1(no.1, 1996):27-39. Even the most extensively refined comparative cost/benefit analysis must be supplemented by other factors, irreducible to it, if we are to develop an adequate framework to guide policy decisions affecting technological design and innovation. Glynn teaches philosophy at Florida Atlantic University. (E&E)


Gobster, Paul H., Haight, Robert G., and Shriner, Dave, "Landscape Change in the Midwest: An Integrated Research and Development Program," Journal Of Forestry 98 (No. 3, Mar 01 2000): 9-. Changes in landownership and development can increase the fragmentation of forest resources; a program in the North Central region examines these changes and explores strategies to stem negative consequences. (v.11,#2)

Gobster, Paul H., "An Ecological Aesthetic for Forest Management," Landscape Journal 18 (no. 1, spring 1999):54-64. "Although aesthetics and ecological sustainability are two highly regarded values of forest landscapes, practices developed to manage forests for these values can sometimes conflict with one another. I argue that such conflicts are rooted in our conception of forest aesthetics as scenery, and propose that a normative "ecological aesthetic" based on the writings of Aldo Leopold and others could help resolve conflicts between aesthetic and sustainability values. I then offer suggestions on how we might advance an ecological aesthetic in policy and planning programs, on-the-ground management, and research and theory development in landscape aesthetics." Gobster is a research social scientists with the USDA Forest Service, North Central Research Station. (v.10,#3)

Gobster, Paul H., Hull, R. Bruce, eds. Restoring Nature: Perspectives from the Social Sciences and Humanities. 269 pages. Cloth $50. Paper $25. Using a recent controversy over ecological restoration efforts in Chicago as a touchstone for discussion, this book explores the difficult questions that arise during the planning implementation of restoration projects in urban and wildland settings. Ways in which restoration conflicts might be resolved, and examples of stewardship that show how volunteers and local residents can help make and maintain restored environments. (v.11,#4)


Godfrey-Smith, William. "The Value of Wilderness." Environmental Ethics 1(1979):309-19. In this paper I explore various grounds on which wilderness can be regarded as something which we should value, and I draw attention to the problems of
resolving conflict which are generated by these diverse grounds. I conclude that our attitudes toward nature are partially determined by a background of metaphysical assumptions which derive in particular from the philosophy of Descartes. These metaphysical preconceptions lead to the misconception that various alternative views about the natural environment are mystical or occult. Thus, an alternative non-Cartesian mode of conception involving holistic or systemic modes of thought is required in order to develop a satisfactory basis for our attitude toward the natural world. William Godfrey-Smith is now William Grey. He is in the department of philosophy, Australian National University, Canberra, Australia. (EE)


Godfrey-Smith, William. See also Grey, William.

Godlovitch, Stan, "Offending Against Nature," Environmental Values 7(1998): 131-150. Some environmental views characterise the human abuse of nature as an offence against nature itself. What conception of nature would best fit that characterisation? To focus upon such a conception, aesthetic offences against nature are examined and distinguished at the outset from moral offences. Aesthetic offences are divided into those internal to our cultural outlook and external to it. The external outlook, conceiving nature as a thing wholly apart from us, is shown to be necessary to any view of nature being offended against. Central to the external outlook is a conception of nature as the victim of offence without ever being itself an offending agent. Best fitting this is the notion of nature as primordially innocent. Given this metaphorical extension, the awkward consequence arises that any human use of nature constitutes thereby an abuse of it from the external standpoint. KEYWORDS: natural aesthetics, environmental ethics, nature, culture. Stan Godlovitch is at Lincoln University, New Zealand. (EV)


Godlovitch, Stan, "Valuing Nature and the Autonomy of Natural Aesthetics," British Journal of Aesthetics 38(no. 2, 1998):180-197. Aesthetic value in nature compared with aesthetic value in art works. Aesthetic responses to nature are numerous and multifarious and there seems to be no privileged aesthetic stance on which the aesthetic value of nature is to be judged. This also means that the science-based approach to aesthetics is not privileged (contra Carlson). Positive aesthetics of nature
analyzed. There are numerous difficulties to making clear or affirming the positive aesthetics of nature (contra Carlson and Hargrove). These include the scope of the claim (landscapes, ecosystems, individual organisms?) and whether there can still be grading (more, less beautiful) even within positive aesthetics.

A more satisfactory account might be to take nature as it is in itself out of the realm of aesthetic value (as it has been removed from the realm of moral value). Nature is beyond beauty and ugliness. Still, an appropriate respect for nature, perhaps also a sense of mystery before the creativity and biodiversity there, ought to remain. "Nature as such must somehow be taken as it is, that it constitutes an autonomous and inexhaustible domain, that human-centered, nature-related distinctions are fundamentally limited, that nature is bound to outstrip our comprehension of and regard for it at any time in our history. Reflected in these views is nature as ... a 'magic well'." This will result in conservation and caring for nature. Godlovitch is at Lincoln University, Canterbury, NZ.


Godlovitch, Stan, "Icebreakers: Environmentalism and Natural Aesthetics," Journal of Applied Philosophy 11(1994):15-30. "The only fitting regard for [nature] is a sense of mystery" and "the relevant special sense of mystery is ... a state of appreciative incomprehension, at best an acknowledgment of limits." But this need not involve a sense of awe or the sublime and natural science is irrelevant to nature appreciation. Godlovitch is in Parks, Recreation, and Tourism at Lincoln University, Canterbury, New Zealand. (v7,#2)

Godlovitch, Stan. "Things Change: So Whither Sustainability?" Environmental Ethics 20(1998):291-304. Two broad metaphysical perspectives deriving from Parmenides and Heraclitus have implications for our notion of sustainability. The Parmenidian defends a deep-seated orderliness and permanence in things, while the Heraclitian finds only chance and change. Two further outlooks, the nomic (or the big-picture scientific) and the prudential, present differing accounts of our place in the world. While the nomic outlook accepts nothing privileged about the human perspective or even life itself, the prudential outlook is obviously welfare-centered. It is argued that nomic views, whether Parmenidian or Heraclitian, fail to provide any rationale for sustainability measures or concerns. The only such rationale comes from Parmenian prudentialism, which, I argue, can operate only if it disowns at its peril the nomic point of view and couches sustainability entirely under the rubric of maximizing certain preferred opportunities drawn from collective self-love. But doing so merely evades rather than answers the tension imposed by the nomic Heraclitian for whom nothing lasts and nothing human counts specially in the measure. The liabilities of Parmenian prudentialism are examined and found to be too great for any consistent notion of sustainability to bear. Godlovitch is in philosophy, Lincoln University, Canterbury, New Zealand. (EE)


Godzinski, Ronald Peter, Jr., Hume's Emotivism and Callicott's Environmental Ethic. Colorado State University, Philosophy M.A. thesis, fall 1997. J. Baird Callicott's environmental ethics is founded on David Hume's moral epistemology. Hume has problems with the is/ought fallacy, which Callicott believes he can overcome with the model of environmental health. But making a rational appeal to persons to act ethically because they are motivated by environmental health is more complex than Callicott realizes. Further, Hume is either a subjectivist or an emotivist in ethics, and both views have been subjected to severe criticisms. Callicott's environmental ethics needs to face these criticisms. In fact, Callicott's whole line of reasoned argument in defense of ecosystems and duties to conservation is not really permissible, if Callicott really follows Hume, who does not concede the power of reason to motivate behavior. (v.8,#4)


Goerch, Jaqueline M. "Patterns of Rarity in the Birds of the Atlantic Forest of Brazil," Conservation Biology 11(no.1, 1997):112. (v8,#2)


Goerner, Sally. "Chaos, Evolution and Deep Ecology." Pages 17-38 in Robin Robertson and Allan Coombs, eds., Chaos Theory in Psychology and the Life Sciences. Mahwah, NJ: Lawrence Erlbaum. The main concept in chaos theory is nonlinearity, in which opposing tendencies may be built into a single system, resulting in a world that is extremely versatile and subtle. Chaos theory more accurately describes the world in its ability to account for the phenomena normally labeled as accidental, anomalous, or mysterious. The evolving ecological universe is lawful and physical but not completely predictable, controllable, or knowable. Order is hidden in
chaos, a result of interdependent variables coaffecting each other, which creates wholes out of parts. Such themes can be integrated into deep ecology.

Goerz, Catherine S., The Rhetoric of Earth First!: An Organic Systems Analysis. M.A. thesis, Speech Communication Department, Colorado State University, Fall 1996. An analysis of the independent and adaptive nature of the radical environmental organization Earth First!. Earth First! was founded on the principles of biocentrism and ecodefense for the purpose of protecting the wilderness. The organization responded to the perceived environmental crisis by aggressively confronting and resisting the political institutions and corporations responsible for the damage. Strengthened by diverse internal structures and human resources, the movement attempted to persuade the establishment to reevaluate current environmental policy and to make changes in favor of ecological preservation and regulation.

Earth First!'s rhetoric is examined with an organic systems analysis. This approach to social movements conceives the organization to be a collectivity that must interact and adapt with the external environment in order to evolve. By analyzing the internal relationships and resources, the communication channels, and rhetorical environment surrounding the movement, the revolutionary nature of Earth First! is revealed. The thesis advisor was James R. Irvine. (v9,#2)

Goetzl, Alberto, "Consumption and Concerns: A Delicate Balance," Journal of Forestry 98(no.10, OCT 01 2000):19-. Americans need to make the connection between their demands as consumers and their concerns about natural resources. (EE v.12,#1)

Goff-Yates, Amy Lee, Beasts of Burden: Women, Animals, and Oppression, Ph.D., 1999, Department of Philosophy, Women's Studies, University of Kentucky, Ecofeminists maintain that the oppression of nature, and specifically animals, is connected to the oppression of women. I clarify this claim and argue that it is reasonable. Ecofeminists often describe the connection as conceptual. I distinguish material and formal conceptual connections. I defend the views of two influential ecofeminists who find a conceptual connection. I then offer an analysis of the concept of oppression which elucidates both the conceptual and cultural features. Oppression is a wrongful institutionalized hierarchy wherein the members of a subordinate group suffer ultimately for the benefit of persons in a dominant group. A dominant cultural ideology maintains and attempts to justify this unjust social arrangement. The oppression of women and the oppression of animals are conceptually connected because the ideologies that inform their oppressions share important and necessary features.

I argue that it makes sense to ascribe oppression to the condition of animals today because both the conceptual and cultural features of oppression apply. It is reasonable to describe animals as oppressed and given that the oppressions of women and animals are connected by a common structure of oppressive ideology, the treatment of animals is a feminist issue. The advisor was Joan C. Callahan. (v.13,#4)

"domination" at work in the oppressive conceptual frameworks informing both sexism and naturism. Although her account of the principle of domination as a connection between oppressions has been an influential one in ecofeminist theory, it has been challenged by recent criticism. Both Karen Green and John Andrews maintain that the principle of domination, as Warren articulates it, is ambiguous. The principle, according to Green, admits of two possible readings, each of which she finds flawed. Similarly, Andrews claims that the principle is fundamentally inadequate because it cannot distinguish cases of oppressive domination from cases of nonoppressive domination. In this paper, I elucidate Warren's views and defend her against these and other criticisms put forward by Green and Andrews. I show that Warren's account of "the logic of domination" successfully illuminates important conceptual features of oppression. (EE)


Goldemberg, José, "What is the Role of Science in Developing Countries?" Science 279(1998):1140-1141. Developing countries should not expect to follow the research model that led to the scientific enterprise of the United States and elsewhere. Many scientists from developing countries, trained in the United States and Europe, returned to their own nations and tried to imitate what was being done in developing countries. India, for example, had a nuclear research program, which failed, and was largely irrelevant to the needs of India. Developing countries need a science that is relevant to their local circumstances and needs, which includes appropriate technology for
sustainable development. Goldemberg is at the University of Sao Paulo, Brazil. (v9,#1)


Goldfarb, Theodore D., ed., Taking Sides: Clashing Views on Controversial Environmental Issues. 5th edition. Guilford, CT: Dushkin Publishing Group, 1993. Paper. 372 pages. As before, in debate format: somebody argues yes; somebody argues no. New issues are: Did the United Nations Summit produce useful results? Will the "greening" of multinational corporations lead to environmental improvements? Should energy policy focus on reducing the use of fossil fuels? Will environmental degradation be a feature of international conflicts in the future? The format gets interest going, but, if not carefully used, can generate as much heat as light. Goldfarb is an environmental chemist at the State University of New York at Stony Brook. (v4,#4)

Goldfarb, Theodore D., eds., Taking Sides: Clashing Views on Controversial Environmental Issues, 4th edition (Guilford, CT: The Dushkin Publishing Group, 1991). $10.95 softcover. A new edition of an introductory reader that is being regularly updated. About half of the thirty-six selections are new. The book is cast in a yes/no debate format around 18 issues, e.g. "Does Wilderness Have Intrinsic Value?" "Is Brazil Serious about Preserving its Environment? "Does Global Warming Require Immediate Action?", and authors, who often originally wrote in somewhat different contexts, are chosen to say yes or no. All the readings are at popular level. This can be a good book to wake up sleepy freshmen; there is an instructor's manual with test questions. But it tends to be noisy and the debate formate is not always the best for serious analysis of these questions in more advanced courses. Goldfarb is an environmental chemist at the State University of New York at Stony Brook. (v2,#1)

Goldin, Owen, "Porphyry, Nature, and Community," History of Philosophy Quarterly 18 (2001): 353-371. Porphyry (232-304 A.D.) was a student of Plotinus. An analysis of the main argument of De Abstinentia 3 to the effect that animals are ethical subjects, since they are rational and obligations of justice hold in regard to all rational beings. The argument does not follow from Porphyry's own theory of justice, but is meant to show that ethical obligations to animals follow from the principles of the Stoics, who ground their theory of justice on an ethic of community. The author compares Porphyry's argument with Callicott's environmental ethic of community. Goldin is in philosophy at Marquette University. (v.13,#1)

Goldin, Owen, and Kilroe, Patricia, eds., Human Life and the Natural World: Readings in the History of Western Philosophy. Peterborough, Ont.: Broadview Press, 1997. (Broadview Press, P. O. Box 1243, Peterborough, Ont. K9J 7H5, Canada; 3576 California Road, Orchard Park, NY 14127 USA) With distributors in the U.S., U.K., and Australia. Twenty-seven readings from classical philosophers or theologians (sometimes literary figures or scientists), from Xenophon, Plato, Aristotle, through
Thomas Aquinas, Francis of Assisi, René Descartes, to John Stuart Mill, Friedrich Engels, and Ralph Waldo Emerson. "Although the environmental problems that have rekindled interest in these issues have only recently taken center stage in Western intellectual and political discourse, the general issues to which philosophical reflection on these issues leads are not new. Indeed, they are among the oldest of philosophical questions, questions to which philosophers must continually return" (p. ix) Looking into figures of the past reveals how our own thought has been shaped, and sometimes those who see an idea first see what it most clearly amounts to. "Current debates in the field of environmental philosophy contain echoes, developments, and distortions of [these classical] positions. In order to better understand the roots of these critical debates, we must turn to the study of their historical sources" (p. xix).

Goldman, Michael, *Imperial Nature: The World Bank and Struggles for Social Justice in the Age of Globalization*. New Haven: Yale University Press. The World Bank is part of a conspiracy to impose on the world a "green neoliberalism" that enriches the global North at the expense of poor in the Third World. This process has its roots in colonialism and its goal is the establishment of power relationships similar to those of the colonial past. The changes brought about by the World Bank do benefit some people more than others. Some poor people have received schooling, gained access to potable water and electricity, experienced improved productivity, and gained better access to markets along newly constructed roads. But in many other cases people are forced to move, their primary livelihood destroyed or new goods and services threaten existing social and cultural norms. Goldman is in sociology, University of Minnesota.

Goldman, Michael, "'Customs in common': The Epistemic World of the Commons Scholars," *Theory and Society* 26(1997):1-37. Despite the fact that the famous model of natural resource use espoused by biologist Garrett Hardin, the "tragedy of the commons," has been thoroughly debunked by social scientists of most stripes, the model's assumptions--e.g. that selfish individuals using a common pool resource will overconsume to the detriment of all--have not only survived but fruitfully multiplied, as if driven by higher laws of natural selection. Its seeds have sprouted, for example, in works of natural scientists who apply biology's behavioral laws to complex social realities. It thrives deep in the soul of most commons theorists, even those fervently opposed to Hardin's model, who ply their trade by identifying, protecting, managing, saving, developing, and making efficient commons throughout the world. This commons-tragedy discourse has also shaped the thinking on the new "global commons," led by academicians and policymakers striving to direct supranational decision-making on the gray areas of global real estate: the earth's ozone, deep seas, "biodiverse" reserves (e.g. the Amazon), the North and South poles, the air waves, and so on. In other words, an old, dubious framework once applied to questions of local commons (i.e how to stop self-interested shepherds from destroying community pastures), is now being applied to saving our global commons.
In fact, the commons metaphor is an important icon of the "development world." It is being used as a hidden and not-so-hidden institution of domination and imperialism in North-South relations, in an effort to restructure the commons, to "privatize," "develop," "make more efficient," "valorize," "get the price right," in the service of crisis-ridden capitalisms. This does not stop destructive practices; it rather normalizes and further institutionalizes them, putting commoners throughout the world at even greater risk. Goldman is at the University of California, Berkeley. (v.10,#1)


Goldsmith, Edward, "Hell on Earth," The Ecologist 30(no.7, OCT 01 2000):40-. We have changed the face of the planet almost unrecognisably over the last 200 years - and now we talk of re-engineering ourselves to adjust to it. Edward Goldsmith says we have missed the point again. (EE v.12,#1)

Goldsmith, Edward, "Scientific Superstitions: The Cult of Randomness and the Taboo on Teleology," The Ecologist 27 (Sept. 1997):196-. To make sense of modern science requires the postulation of a number of totally unrealistic dogmas, among them the randomness of life processes and hence their purposelessness. (v.8,#4)

Goldsmith, Edward, "Religion at the Millennium.," The Ecologist 30 (No. 1, Jan 01 2000): 4-. Mainstream religion in our atomised societies is but an interpersonal relationship between an individual and his God. We must revive the theological underpinnings of our original Religions in which the individual related to society, the natural world and the cosmos. (v.11,#2)

Goldsmith, Edward, "Archaic Societies and Cosmic Order - A Summary," The Ecologist 30 (No. 1, Jan 01 2000): 15-. Archaic Societies had a word for the path that must be taken to maintain the order of the all-encompassing Cosmos on which human welfare depends. (v.11,#2)

systems are homeostatic. Natural systems are homeorhetic. Life processes are
dynamic. Life processes are creative. Gaia is the source of all benefits. Man is
psychically maladjusted to the world as depicted by the paradigm of science. The
great reinterpretation requires a conversion to the world-view of ecology. 66 short
chapters. The first edition was published in 1992 in the UK. Goldsmith was long the
editor of The Ecologist. (v9,#2)

(second) edition. Foxhole: Dartington (Devon, UK): Themis Books, an imprint of
chapters. Samples: Ecology is holistic. Ecology is emotional. The ecosphere is one.
Gaia is alive. Life processes are dynamic. Living systems are intelligent. Cooperation
is the primary Gaian relationship. Goldsmith was with the journal, The Ecologist, for
(v9,#1)

12.99. 442 pages. Life has a purpose, which ecology can help discover. Penetrating
criticisms of mainstream biological philosophy, sometimes idiosyncratic, advocates a
kind of Lamarckianism. Goldsmith founded The Ecologist and is a thinker
unconstrained by the conventions of academia. (v4,#4)

Wieman's Finite Theism. American Journal of Theology and Philosophy 18 (no. 1,
1997):97-100. (v8,#1)

Goldsmith, Zac. "Why Globalisation is Bad for Your Health." The Ecologist 29(no. 3,
May 1999):189-. (v.11,#1)

Goldstein, Daniel J., "A Biotechnological Agenda for the Third World", Journal of
Agricultural Ethics 2(1989):37-51. Third World countries should exploit the genetic
information stored in their flora and fauna to develop independent and highly
competitive biotechnological and pharmaceutical industries. The necessary condition
for this policy to succeed is the reshaping of their universities and hospitals--to turn
them into high-caliber research institutions dedicated to the creation of original
knowledge and biomedical invention. Goldstein is in chemical biology at the University
of Buenos Aires, Argentina.

Goldstein, Daniel J., "Ethical and Political Problems in Third World Biotechnology",
Journal of Agricultural Ethics 2(1989):5-36. If the present trend continues,
derdeveloped countries will continue to be testing grounds for biological materials
and agents, sources of valuable germplasm, and markets for high-value-added
products and processes invented and manufactured in the First World. This article
recommends that the international organizations collaborate in the urgent task of
educating the Third World political leaders and administrators in the real problems
connected with the generation of high technology. Goldstein is in chemical biology at the University of Buenos Aires, Argentina.


Golf and the Environment: Environmental Principles for Golf Courses in the United States. 15 pages. Developed through collaborative research and dialogue with some seventeen groups, for example, Audubon International, National Wildlife Federation, Friends of the Earth, Sierra Club, United States Golf Association, National Golf Foundation, American Farmland Trust, and others. Copies from The Center for Resources Management, 1104 East Ashton Avenue, Suite 210, Salt Lake City, UT 84106. (v9,#1)


Golley, Frank B., "Valuing the American Environment," Ethics and the Environment 2(1997):67-69. Frank Golley introduces the presentations at the 1996 forum titled "Valuing the American Environment" sponsored by the Humanities Center of the University of Georgia. Golley is in ecology at the University of Georgia. (E&E)

Golley, Frank B., A History of the Ecosystem Concept in Ecology: More Than the Sum of the Parts. New Haven: Yale University Press, 1993. 353 pages. $ 30.00. The development of the ecosystem concept in the late nineteenth and early twentieth centuries. How ecosystem studies dominated ecology in the 1960's and became a key element of the International Biological Program biome studies in the United States. How current research uses the ecosystem concept. Golley is research professor of ecology, University of Georgia, and former president of the Ecological Society of America. He is also on the faculty of environmental ethics at the University of Georgia. (v4,#2)

Golley, Frank B. "Deep Ecology from the Perspective of Environmental Science." Environmental Ethics 9(1987):45-55. Deep ecology is examined from the perspective of scientific ecology. Two norms, self-realization and biocentric equality, are considered central to deep ecology, and are explored in brief. Concepts of scientific ecology that seem to form a bridge to these norms are ecological hierarchical organization, the exchange of energy, material and information, and the development of species within ecosystems and the biosphere. While semantic problems exist, conceptually it appears that deep ecology norms can be interpreted through scientific ecology. Golley is at the Institute of Ecology, University of Georgia, Athens, GA. (EE)

Golley, Frank, A Primer for Environmental Literacy. New Haven: Yale University Press, 1998. 254 pages. $ 18.00 softback; 37.50 hardback. Presents the key
concepts of the environmental sciences in an accessible style that can be understood by those who are not natural scientists. Unique in breadth and simplicity. Uses a top-down approach, beginning with the Earth and going to the individual. Comments on the ethical, social and political implications of the concepts, presented in an implication section in each chapter, offering insight into the philosophy of the author. Tested in five classes on environmental concepts for the Environmental Ethics Certificate Program at the University of Georgia. Golley is Research Professor at the Institute of Ecology of the University of Georgia and is currently Chair of the Environmental Ethics Certificate Program. (v.9,#4)


Golodetz, Alisa D., Foster, David R. "History and Importance of Land Use and Protection in the North Quabbin Region of Massachusetts (USA)," Conservation Biology 11(no.1, 1997):127. (v8,#2)


Gomez-Pompa, A, "The Role of Biodiversity Scientists in a Troubled World", BioScience 54 (no.3, 2004): 217-225(9). Biotic resources are under all kinds of old and new threats. Ecosystem transformation in many areas of high biodiversity has not diminished, in spite of national and international meetings, agreements, and discussions. The main reasons to protect these resources are that little information is available on those we know exist and that the great majority of resources are yet to be discovered. One argument used to convince the general public and governments of the need to preserve biological resources is that there are many potential uses of unknown plants, animals, or microorganisms: New medicines, foods, chemicals, and genes are there to be discovered. Unfortunately, this argument has been overused and, as a result, has created unrealistic expectations of great riches and spurred
stringent legal measures to restrict biodiversity research. The limits placed on biodiversity research and on access to biological resources are becoming a major obstacle to scientific discovery. Major projects have been suspended following unjustified criticisms. In this article, I discuss possible explanations for this problem and present some possible solutions.

GomezPompa (Gómez-Pompa), Arturo and Andrea Kaus, "Taming the Wilderness Myth," BioScience 42 (no. 4, April 1992):271-279. "Environmental policy and education are currently based on Western beliefs about nature rather than on reality." "The perspectives of the rural populations are missing in our concept of conservation. Many environmental education programs are strongly biased by elitist urban perceptions of the urban world. This approach is incomplete and insufficient to deal with the complex context of conservation efforts and home and abroad. It neglects the perceptions and experience of the rural populations, the people most closely linked to the land, who have a firsthand understanding of their surrounding natural environment as teacher and provider." "Until we understand that the tropical forests are `both artifact and habitat,' we will be advocating policies for a mythical pristine environment that exists only in our imagination." The authors argue that, especially in Mexico and the Amazon, the pre-European landscape was already managed intensively by the indigenous peoples and that there was no undisturbed wilderness. Gómez-Pompa is professor of botany at the University of California Consortium on Mexico and Kaus is a graduate student in anthropology at the University of California, Riverside. (v3,#3)


Goncalves, Eduardo, "Lies, dam lies," The Ecologist 31(no.5, 2001):48-49. Eduardo Goncalves explains how the EU is funding an illegal mega-dam project in Portugal which is threatening both people and wildlife (v.12,#4)


Gonyou, H.W., "Animal Welfare: Definitions and Assessment", *Journal of Agricultural and Environmental Ethics* 6(1993), Supplement. Several types of definitions and means of assessing welfare are discussed in an attempt to reconcile differences which may be counter-productive in addressing welfare issues. Various groups should use similar terminology and it is suggested that well-being be used in the context of the current state of the animal, while welfare refer to a more general concept including past, present and future implications for the animal's well-being. Legal, public and technical definitions of welfare serve different purposes and will necessarily differ. All of these definitions are interdependent and are affected by, and affect, each other. It is suggested that all definitions should attempt to reflect the animals' perspective on their own welfare. Although the ideal means of assessing welfare may lie in determining animals' mental experiences, our ability to do this is limited at this time. A more practical approach is to assess several behavioural, physiological and pathological variables. Reliance on a specific variable or a "cut-off" point may be appropriate in a legal definition of welfare, but should be avoided in scientific studies. The study of animal welfare should not focus only on assessing well-being or the effects of poor welfare, but should also determine behavioural, physiological and pathological factors which predispose animals to environmental stressors. Only then can we focus on developing improved management systems rather than eliminating poor ones. Gonyou is in the Department of Animal Sciences, University of Illinois, 1207 W. Gregory Dr., Urbana, U.S.A. 61801.


Good Housekeeping, April 1991, contains a considerable section on saving the Earth, including a message from President Bush, articles by Michael Oppenheimer, Gregg Easterbrook, Norman Myers, Stephen H. Schneider, Amory Lovins, Bill McKibben, and others on global warming, acid rain, landfills, pollution, diapers, wildlife, wetlands, energy, and other topics. (v2,#1)

Goodall, Jane and Bekoff, Marc, *The Ten Trusts: What We Must Do to Care for the Animals We Love*. San Francisco: HarperSanFrancisco, 2002. In alternating narratives, distinguished by typeface, Goodall and Bekoff outline a 10-point course. The trusts include the simple, but vital, call to "rejoice that we are part of the animal kingdom" and to "respect all life"; they urge us to be willing to learn what animals have to teach, to be good stewards of the whole earth, to teach children to respect and to love nature and to have "the courage of our convictions".

Goodall: "I have seen that appeal for help in the eyes of so many suffering creatures. An orphan chimp tied up for sale in an African market; an adult male [chimp] looking out from his five-by-five-foot sterile cell in a medical research laboratory; a dog, emaciated and starving, abandoned by her owner in the beach in Dar es Salaam; an elephant chained to a cement floor by one front and one hind foot. I have seen it in the eyes of street children, and those who have seen their families killed in the `ethnic cleansing' in Burundi."

Bekoff: "As big-brained, omnipresent, powerful and supposedly omniscient animals, we are the most powerful beings on Earth. We really are that powerful, and with that might are inextricably tied innumerable staggering responsibilities to be ethical human beings. We can be no less." Goodall is famed for her researches on chimpanzees; Bekoff is an animal behaviorist at the University of Colorado. (v.13,#4)

Goodall, Jane, "The Power of One," *Time*, August 26, 2002, p. A62. One-page essay in a *Time* theme section on the coming Green Century. "I feel deep shame when I look into the eyes of my grandchildren and think how much damage has been done to Planet Earth since I was their age. Each of us must work as hard as we can now to heal the hurts and save what is left."

Goodall, Jane, and Berman, Philip, *Reason for Hope: A Spiritual Journey*. Warner Books, 1999. Jane Goodall's return to religious faith, facing the realities of environmental destruction, animal abuse, and genocide, especially as she has known them in Africa. Her studies with the chimpanzees have enhanced, not ended her belief in God. She shares a spiritual epiphany during a visit to Auschwitz, and an experience before the rose window in the Cathedral of Notre Dame, hoping for spiritual power to overcome the evils in the world. She recalls bravery in the face of chimpanzee imprisonment in medical laboratories. There is a chapter on individuals, corporations, and countries that are doing the right thing. "Together we must reestablish our connections with the natural world and with the Spiritual Power that is around us. And then we can move, triumphantly, joyously, into the final stage of human evolution--spiritual evolution" (p. 267). Wendy Wasserstein, a Pulitzer prize-winning playwright, calls Goodall, "one of the ten most influential women ever." (v10,#4)


Goodenough, Ursula, The Sacred Depths of Nature. New York: Oxford University Press, 1998. 160 pages. A modern understanding of biology can be reconciled with our timeless spiritual yearnings for reverence and continuity. Evolution, sexuality, emotions, death--these can be seen in ways that scientists and non-scientists alike come to appreciate that the origins of life and the universe are no less meaningful because of our increasingly scientific understanding of them. Goodenough is in biology at Washington University, St. Louis. (v.9,#4)

Goodenough, Ursula W., "The Religious Dimensions of the Biological Narrative," Zygon 29(1994):603-618. Three concepts--meaning, valuation, and purpose--are central to the entire biological enterprise, and the continuation of this enterprise is a sacred religious trust. Goodenough is a cell/molecular biologist at Washington University, St. Louis. (v5,#4)

Goodenough Ursula, "At Home with Ecology," Science and Spirit 11(no. 4, November/December 2000):18-19. The sacred depths of nature emerge from the common ground of subjective, cultural and natural dwellings. Might this be religion? Life is a coral reef. We each leave behind the best, the strongest deposit we can. But what's important is the reef. The metaphor goes to the heart of ecology. Goodenough is in biology at Washington University. (v.11,#4)

Goodin, Robert E., Green Political Theory. Cambridge: Polity Press, 1992. 240 pages. Paper. Goodin argues that two pairs of ideas are wrongly thought by green thinkers to belong together. First is the combination of recommendations on public policy and the adoption of green personal lifestyles. These are only connected one way, Goodin says. Green lifestyle recommendations imply, but are not implied by, green policy recommendations. Second, there is the connection between green values--the recognition of value in a natural context independent of human life--and green political agency, typically committed to democratic, devolved and participatory processes. Again, Goodin argues, these are not as tightly connected as many green thinkers suppose. Green value theory has priority over the ideals of agency put about by many greens. Moreover the green theory of agency cannot be derived from the green theory of value: "to advocate democracy is to advocate procedures, to advocate environmentalism is to advocate substantive outcomes: what guarantee can we have that the former procedures will yield the latter sort of outcomes? More generally, how can we guarantee that localized, or nonviolent, action will always best protect the global environment?" Absent a satisfactory answer to these questions, Goodin urges that it is the theory of value, not of political agency, that truly defines the core of the green political agenda. Goodin is Professor of Philosophy at the Research School of the Social Sciences, Australian National University and edits the new Journal of Political Philosophy. (Thanks to Andrew Brennan.) Achterberg, Wouter, Review of Goodin, Robert, Green Political Theory. Environmental Values 3(1994):79-80. (v4,#4)

Goodin, Robert E.; Pateman, Carole; and Patemen, Roy. "Simian Sovereignty." Draft paper. Sovereignty never amounted to much, morally speaking. Now it is not even what little it used to be. By the standards now prevailing, the great apes are as deserving of something like "sovereign prerogatives"--the right to organize and control their own collective lives within a patch of land protected by international law from foreign incursion--as are other serious claimants to sovereign status in the world today. The great apes are, in all the ways that matter, just as deserving of the protection of the international community as any other of the territorially-based communities that we dub "nation-states." Goodin is in philosophy and political theory at the Research School of Social Sciences, Australian National University, Canberra. Carole Pateman and Roy Pateman are in political science at UCLA. Contact Robert E. Goodin, Philosophy, RSSS, Australian National University, Canberra ACT 0200. Fax 61 6 249 3294. E-mail: goodinb@coombs.anu.edu.au


Goodin, Robert E., "Property Rights and Preservationist Duties." Pages 192-221 in Oddie, Graham and Perrett, Roy W., eds., Justice, Ethics and New Zealand Society. Auckland, New Zealand: Oxford University Press, 1992. Revised from Inquiry 33 (1990):401-432. Property rights are often thought to conflict with preservationist duties. But that is so only if property rights entail the right to destroy. Property rights, properly analyzed, are fully compatible with (and might even entail) preservationist duties. Goodin is in philosophy in the Research School of Social Sciences, Australian National University, Canberra.

Goodland, Robert, "South Africa: Environmental Sustainability and the Empowerment of Women," *Impact Assessment*, a special publication of this journal, June 1995, from a conference of the International Association of Impact Assessment, Durban, South Africa. *Impact Assessment* is based in the Department of Resource Development, Michigan State University. Copies from RJA Goodland, Environment Department, The World Bank, Washington, DC 20433. Fax 202/477-0565. In common with most nations, South African Society also is hurtling away from environmental sustainability at present, largely because of widespread inequity, poverty, inadequate consumption per capita, and rapid population growth which undermines future consumption per capita. This situation is reminiscent of some U. S. data on black/white ratios too. South Africa's black 76 percent majority earns only 36 percent of the national income, whereas the white 13 percent minority earn 54% of the national income (with the colored population in between). This strains environmental sources of raw materials, as well as environmental sinks for assimilating wastes. Environmentally sustainability is quintessentially a social concern. Environmental sustainability needs social sustainability—the social scaffolding of people's organizations that empower self-control and self-policing in people's management of natural resources. The main element of social responsibility germane here is empowerment of women. Includes a good bibliography. (v7,#1)

Goodland, Robert, "Ethical Priorities in Environmentally Sustainable Energy Systems: The Case of Tropical Hydropower," a paper given at a conference in Montreal, Quebec, in May, "Energy Needs in the Year 2000 and Beyond: Ethical and Environmental Perspectives." Includes six ethical-environmental criteria. Two of them: "Environmental impact is roughly proportional to area inundated. Therefore, the proposed dam must have the highest feasible ratio of power production per area inundated. If not, then the project has a higher than necessary environmental impact, which could be unethical." "The proposed site and surroundings have no centers of species endemism, rich biodiversity or other special features. If not, the ethics of extinction of species have been disregarded." (v4,#2)

Goodland, Robert and Herman Daly, "Poverty Alleviation Is Essential for Environmental Sustainability," The World Bank Environmental Department, Divisional Working Paper 1993-42. More than one-fifth of humanity lives in poverty; nearly two-thirds of humanity subsist on less than $2 per day. The numbers of poor are increasing. The world is hurtling away from environmental sustainability. Five views are contrasted on how to alleviate poverty: the trickle-down theory, that the North must consume more to expand markets for Southern raw materials. The elitist choice, that the rich foster poverty because it creates low wage labor. Capital seeks cheap labor. Anthropocentric, people-centered environmentalism, places humans at the center of the cosmos, the rest is derivative. The biocentric view claims that the living ecosystem is central; humans are part of it. We have a duty to conserve the whole. Redistributive justice asserts that poverty can be alleviated directly by improving access of the poor to shelter, clothing, food, education, and security. The authors are with the World Bank. Copies from World Bank, Environment Department, Washington, DC 20433. Fax 202/477-0565. (v4,#2)
Goodland, Robert, "The Concept of Environmental Sustainability," *Annual Review of Ecology and Systematics* 26(1995)1-24. A review of the current debate about environmental sustainability, and related growth, limits, scale, and substitutability. The paths leading to environmental sustainability in each country or sector will differ, but the goals remain constant. Conceptualizing this is far from an academic exercise. Ensuring, within two human generations, that as many as 10 billion people are decently fed and housed without damaging the environment on which we all depend represents a monumental challenge. Goodland is with the World Bank. (v7,#1)


Goodman, Jordan and Walsh, Vivien, *The Story of Taxol: Nature and Politics*. New York: Cambridge University Press, 2001. 296 pp. $ 28.00. Taxol is an extract from yew trees, from which is derived paclitaxel, the single most prescribed anti-tumor agent. Development of the drug took from 1966 until approval in 1992, amidst controversy. The Pacific yew (Taxus brevifolia) is found, infrequently, in Pacific Northwest old growth forests, home to the spotted owl. Environmental groups opposed destruction of the forests for the yew bark (partially at a time when benefits of taxol were uncertain); bark collectors legal and illegal became involved; media loved the controversy. Bristol-Myers Squibb developed a semi-synthesis that uses the needles, not the bark, and therefore does not require destroying the tree.

Reviewed by McGuire, William P., "Developments from a Beneficial Bark," *Science* 292(2001):1073-1074. McGuire adds that when Bristol-Myers Squibb's exclusive rights to paclitaxel expired, it came to light that the company had used patents to block the entry of several generic and less expensive alternatives, thereby reducing the availability of the drug to cancer patients who needed it. (v.12,#2)


Goodman, Russell. "Taoism and Ecology." *Environmental Ethics* 2(1980):73-80. Although they were in part otherworldly mystics, the Taoists of ancient China were also keen observers of nature; in fact, they were important early Chinese scientists. I apply Taoist principles to some current ecological questions. The principles surveyed include reversion, the constancy of cyclical change, *wu wei* ("actionless activity"), and the procurement of power by abandoning the attempt to "take" it. On the basis of these principles, I argue that Taoists would have favored such contemporary options as passive solar energy and organic farming. Goodman is in the department of philosophy, University of New Mexico, Albuquerque, NM. (China)
Goodman, Steven M., Patterson, Bruce D., eds. Natural Change and Human Impact in Madagascar. Washington, D.C.: Smithsonian Institution Press, 1997. 434 pp. $75 cloth, $35 paper. Describing the past dynamism of island environments and analyzing the causes of the disappearance of many of the island's endemic species, the contributors also assess future prospects for preserving Madagascar's remaining natural areas while sustaining a healthy human economy. (v8,#3)


Goodpaster, Kenneth E. "On Stopping at Everything: A Reply to W. M. Hunt." Environmental Ethics 2(1980):281-84. Contrary to W. Murray Hunt's suggestion, living things deserve moral consideration and inanimate objects do not precisely because living things can intelligibly be said to have interests (and inanimate objects cannot intelligibly be said to have interests). Interests are crucial because the concept of morality is noncontingently related to beneficence or nonmaleficence, notions which misfire completely in the absence of entities capable of being benefited or harmed. Goodpaster is at the Harvard Business School, Harvard University, Boston, MA. (EE)


Goodrich, Lawrence J. "Superfund and a Tale of a $76,000 Trash Bill." The Christian Science Monitor 89.73 (12 March.


Goodrum, John. "Situation Ethics," Bugle: Journal of Elk and the Hunt, vol. 10, no. 3 (Summer 1993):79-81. Goodrum, while hunting, discovered coyotes taking turns chasing a fawn, progressively tiring it until they were able to kill it, while the doe and mother watched helplessly. Torn between the deer and the coyotes, and reflecting on his own role as a hunter-predator, he let the coyotes kill the fawn, later to regret it, and subsequently concludes that out of respect for his own humanity he ought to have had compassion on the suffering deer, although he also admires the coyotes. Goodrum was once an intense hunter, then gave up hunting for nearly a decade to think through his relationship with animals, then resumed bowhunting last year. Bugle is the journal of the Rocky Mountain Elk Foundation. (v5,#1)

Liberation Front's direct action campaign, while Dale Bartlett and Camilla Fox discuss how the fur trade is targeted on other fronts. (v8,#2)


Goodwin, Susan Lieberman, "Conservation Connections in a Fragmented Desert Environment; The U.S.-Mexico Border," Natural Resources Journal 40(no.4, Fall 2000):989-. (v.12,#4)


Gootee, R; Stresser, SR; Everett, RL; Baumgartner, DM, "Improved Regulatory and Land Management Agency Relations Through a Shared View of Biological Capacity," Society and Natural Resources 16(no.9, 2003):827-834. (v.14, #4)

Gorbachev, Mikhail, "The Ecological Imperative," text is printed in Earth Ethics, Fall 1990. "An international code of ecological ethics ... should be binding on all countries." Gorbachev's address to the 1990 Global Forum on Human Survival in Moscow, January 1990. (v1,#4)

Gordon, Anita and David Suzuki, It's a Matter of Survival (Cambridge, MA: Harvard University Press, 1991). 288 pages. $ 19.95 cloth. The environmental crisis is forcing us to reexamine the entire value system that has governed our lives for the past two thousand years. Gordon and Suzuki rebut technological optimism and the belief that continued economic growth is a prerequisite for environmental reform. Sustainable development is an intellectual fog; the only answer is a conserver society. (v2,#2)


pages. How the transportation system contributes to environmental problems and how
to fix it. Alternative fuels, advances in mass transit, ultra-fuel efficient vehicles, high-
occupancy vehicle facilities, telecommuting and alterative work schedules. (v2,#3)

Gordon, Robert E., Jr. and George S. Dunlop, "Creature Comfort: The Revitalization of
management has succeeded in bringing back large populations of deer, bighorns,
black bear, alligators, bald eagles, moose, mountain lions, Gila trout, javelina, turkeys.
This shows nature's resiliency but does not support any "let nature take its course"
nonmanagement policy. Both authors are with the National Wilderness Institute in
Washington, D.C. (v1,#4)

Mifflin, 1992. $ 22.95. 407 pages. Senator Gore has been in the U. S. Congress for
fifteen years and made an intensive study of environmental issues. Now that the cold
war is over, he argues, the central strategic threat is that presented by humans to the
global environment. He proposes a "Global Marshall Plan" for the environment. He
wishes to redefine gross national product to account for the ecological costs of growth.
The root of our current problem is spiritual, as well as political. If civilization is to
persist, it must make the rescue of the environment its organizing principle. (v3,#1)

Gore, Al, "Earth in the Balance: An Interview with Senator Al Gore," Christian Century,
April 8, 1992. An interview growing out of Gore's Earth in the Balance. (v3,#1)

Gore, Al, Ziemia na krawedzi (Earth in the Balance), ETHOS Press, 1996. Polish
edition of U. S. Vice-President Gore's book. (v9,#2)

S. Vice President Al Gore celebrates the life and accomplishments of Edmund Sixtus
Muskie, father of the Clean Water Act. Gore encourages bipartisan efforts by elected
officials to continue Ed Muskie's work.


Gorelick, Steve, "Big Mac Attacks: Lessons from the Burger Wars," The Ecologist 27
(Sept. 1997):173-. (v.8,#4)

Gorke, Martin, "Was spricht für eine holistische Umweltethik? (article in German).
Abstract: Ethical holism ascribes intrinsic value to all natural things and whole
systems. I argue in favor of this ethic in three steps: Firstly I expose that there is an
elemental intuition which supports holism. Secondly I show that holism can be
rationally justified: The universal character of the moral point of view doesn't permit to
exclude any natural entities from the moral community. Thirdly I advance arguments
that preservationists should remain pragmatic holists. (v.11,#4)

Gorlin, Rena, ed., Codes of Professional Responsibility, 3rd ed. Washington, DC: BNA Books, 1994. $75, hardcover. Contains 51 official codes of ethics issued by 45 associations in business, health, and law--most in full text. Each code is fully indexed, facilitating comparative analysis of codes and professions. Data on each association (address, phone, etc.) and a brief discussion of its code's development and implementation are also provided. The resources section lists hundreds of U.S. and worldwide organizations, educational programs, periodicals, and bibliographies, on all areas of ethics, as well as on professionalism in general and public policy. Ordering address: BNA Books, The Bureau of National Affairs, Inc., 300 Raritan Center Pkwy., P.O. Box 7814, Edison, NJ 08818-7814. (v6,#4)

Gorlin, Rena, ed., Codes of Professional Responsibility, 3rd ed., Washington, DC: BNA (Bureau of National Affairs) Books, 1994. $75. This hardcover volume contains 51 official codes of ethics issued by 45 associations in business, health, and law--most in full text. Each code is fully indexed, facilitating comparative analysis of codes and professions. Data on each association (address, phone, etc.) and a brief discussion of its code's development and implementation are also provided. The Resources section lists hundreds of U.S. and worldwide organizations, educational programs, periodicals, and bibliographies on ethics, professionalism, and public policy. (v6,#2)


Gorman, James, "Yosemite and the Invention of Wilderness," New York Times, Sept. 2, 2003, Section F (Science), page 1. Rebecca Solnit is a writer (a dozen books) and a hiker (one book is Wanderlust: A History of Walking) who has lately been following the trail of the idea of wilderness. She has believes that the American idea of pristine wilderness is "a powerful, profoundly mistaken fantasy." Much of this fantasy arise in Yosemite where most of the early photographers did not include people, but Yosemite had people in it when the Europeans arrived, native Americans were there. Soldiers "un-peopled" it. These people had, for instance, been setting forest fires. Well, now that residents are gone, and especially in the parts of the High Sierra that even the native Americans mostly just visited, it would be interesting to hike with her through her mythological wilderness. (v 14, #3)


Gorman, Michael E., Mehalik, Matthew M., Werhane, Patricia H. Ethical And Environmental Challenges to Engineering: A Casebook in Engineering and
Environmental Ethics. Upper Saddle River, New Jersey: Prentice Hall, 2000. 256 pp. The first casebook designed specifically for engineering and environmental ethics, this text features multi-faceted, real-life cases of design and managerial dilemmas in a variety of settings. Background readings that illustrate how one can integrate ethical and environmental challenges into engineering decisions are incorporated throughout. It includes various cases that can be adapted to a variety of classroom settings, including cases on engineering design, environmental ethics, cultural diversity, management, engineering dilemmas. It presents real-life events showing engineering students certain situations they will encounter on the job. (v10,#4)


Gorringe, T. J., A Theology of the Built Environment: Justice, Empowerment, Redemption. Cambridge: Cambridge University Press, 2002. The divine grounding of our built environment. Ownership of land, urban and rural housing, the built environment in terms of community and art. Two concluding chapters set this built environment within the environmental crisis. Gorringe is at the University of Exeter. (v 14, #3)


Gorte, Ross W., "Multiple Use in the National Forests: Rise and Fall or Evolution?" Journal of Forestry 97 (no. 10, November, 1999):19-23. Nobody much likes "multiple use" any more; "ecosystem management" has replaced it. But is this multiple use rejected or resurrected under a more fashionable name? Different commentators see it different ways. "Multiple use" seemed unable to resolve conflicts when they grew intense. "Ecosystem management" seems fuzzy, an uncertain replacement, although "ecosystem management" in some form is likely to be official management policy for the foreseeable future. Gorte is a natural resource economics and policy specialist with the U.S. Library of Congress. (v.12,#3)

Gorton, Matthew and White, John and Chaston, Ian, "Contested Space: The Rural Idyll and Competing Notions of the Good Society in the U.K.,” Philosophy and Geography 2 (1998): 157-177. Gorton is research officer in the Department of Agricultural Economics at Wye College. White is a lecturer in the Faculty of Business at the University of Plymouth. Chaston is director of studies in the Faculty of Business at the University of Plymouth. (P&G)

Gorton, Slade, Kays, Juli. "Legislative History of the Timber and Salvage Amendments Enacted in the 104th Congress: A Small Victory for Timber Communities
in the Pacific Northwest." Environmental Law 26(1996):641. U.S. Senator Slade Gorton and his natural resources legislative assistant Juli Kays, discuss the purpose and scope of the salvage logging rider. Responding to Professor Axline's criticisms of the salvage logging rider, they explain that its purposes are to restore forest health and jobs in timber communities. (v7,#2)

Gorz, André, Capitalism, Socialism, Ecology. New York: Routledge, 1994. 240 pages. Paper, $19.95. Translated by Chris Turner. Technological developments have transformed the nature of work and the structure of the workforce, and we face grave risks posed by a dual society with a hyperactive minority of full-time workers confronting a majority who are, at best, precariously employed. There is a key social conflict in Western societies in terms of the distribution of work and the form and content of nonworking time, all affecting the relationship of humans to the natural world. (v5,#1)


Gosling, David, Review of Engel, J. Ronald and Joan Engel, eds., Ethics of Environment and Development. Environmental Values Vol.1 No.3(1992):276. Gosling, David, A New Earth: Covenanting for Justice, Peace and the Integrity of Creation. London: CCBI, Inter-Church House, 1992. 108 pages. £5.95. ISBN 0-85169-222-2. The history of the ecumenical movement's concern with the environment, tracing the connection between debt, sustainability, biotechnology, and eco-justice. Well documented and a sophisticated study. The churches have a concern for the planet as an essential part of their ecumenical responsibility. "There can be no satisfactory solutions to the world's problems which do not take into account the structural links between the state of the environment and the systematic violations of justice and peace which occur." Gosling was director of Church and Society for the World Council of Churches and is currently a fellow in the University of Cambridge at Clare Hall. (v5,#4)


The chief sources of groundwater contamination on farms come from point sources and diffuse sources. Possible point sources are feedlots, poorly-sited manure piles, septic sewage-treatment systems - all of which can release nitrate, phosphates and bacteria - and sites of chemical spills. Diffuse sources are typified by excess fertilizer leaching from a number of arable fields. The basis of quality standards for drinking-water is discussed in relation to common contaminants present on farms. Samples of drinking-water were collected in 1991-1992 from wells on about 1,200 farms in order to study the quality of rural groundwater in Ontario. Analysis showed that approximately one third of wells were contaminated with bacteria, 14% were contaminated with nitrate, two wells were contaminated with pesticide, but 40% were considered unsafe because of the presence of at least one contaminant. These values were similar to those reported for similar regions in the U.S. There was no significant effect of agricultural practice on the proportion of contaminated samples. One response of Ontario's farmers to information on water quality has been to initiate their own program, the "Environmental Farm Plan," which has 23 modules by which the risk of environmental contamination can be assessed. Government policies for agriculture can be expected to influence farming practices. However, the literature suggests that the consequences of policies aimed at reducing environmental contamination are poorly understood, not least because the instruments used for implementation can have widely differing impacts. The need for discussions on the ethics surrounding the relationship between food producers and consumers with regard to environmental contamination is identified. (JAEE)


Gossseries, Axel, "L'éthique environnementale aujourd'hui (Environmental Ethics Today)," Revue Philosophique de Louvain 96(no. 3, 1998):395-426. In French. An overview of contemporary debates in environmental ethics. In the first section: a distinction between environmental protection, nature conservation, and biodiversity conservation. These three policies are autonomous and the last two are difficult to justify from an ethical point of view. Second section: interspecific justice, with a dilemma of the anti-speciesist. Third section: intergenerational justice. Final section: international justice, various criteria of allocation for greenhouse gasses emissions reduction.

"The article does a very good job, a very solid analysis. The author approaches environmental ethics in terms of: (A) its basic tenets and (B) the dilemmas/controversies stemming from these tenets. There are three basic tenets: (1) the protection of the environment, (2) the need to include creatures other than humans within our ethic, (3) the need to consider intergenerational and international factors. Each of these is divided into sub-tenets. The problems stemming from each are briefly explored. In no way does the author attempt to resolve the multiplicity of problems described. Indeed, there is doubt that any general conceptual scheme can contain and/or coordinate them." (Thanks to Pete A. Y. Gunter.)


Gossling, Stefan, "Tourism -- Sustainable Development Option?," Environmental Conservation 27(no.3, 2000 Sep 01): 223-. (v.12,#3)

Gotlieb, Yosef. Development, Environment and Global Dysfunction: Toward Sustainable Recovery. Delray Beach, FL: St. Lucie Press, 1996. Gotlieb offers an alternative conceptual framework to development. Rather than striving for unlimited economic growth, the processes described are aimed at building a future in which quality of life, community and ecological welfare replaces unevenly distributed economic growth and technological quick-fixes. (v7,#1)

Gottfried, Robert R. Economics, Ecology, and Roots of Western Faith: Perspectives from the Garden. Lanham, Md: Rowman and Littlefield, 1995. 160 pages. $18.95 paper. $47.50 cloth. The ancient Hebrew worldview, found in the Torah and the New Testament, is remarkably "green." Its holistic approach and emphasis on the importance of relationships bear a striking resemblance to ecology and can serve to reorient Western thinking without the necessity of leaving Western tradition. (v6,#1)

Gottgens, JF; Perry, JF; Fortney, RH; Meyer, JE; Benedict, M; Rood, BE, "The Paraguay-Parana Hidrovia: Protecting the Pantanal with Lessons from the Past," BioScience 51(no.4, 2001):301-308. (v.12,#4)


Gotlieb, Robert, Forcing the Spring: The Transformation of the American Environmental Movement. Washington: Island Press, 1993. 413 pages. Hardbound, $ 27.50. Gotlieb thinks that environmentalism began as the conservation of wild nature but has been increasingly broadened and transformed to include industries, cities, agriculture, pollution issues, public health issues. He wants to shift the debate from one focused exclusively on the protection and management of the natural world to a wider discussion of American social development in harmony with nature. Is the
environmental movement capable of transcending its origins and changing the very fabric of American social life? Gottlieb teaches environmental policy in the Urban Planning Program at UCLA. (v4,#2)

Gottlieb, Robert, "Beyond NEPA and Earth Day: Reconstructing the Past and Envisioning a Future for Environmentalism," Environmental History Review 19 (no. 4, 1995):1-14. Environmentalism, developing out of the past, needs to be reconstructed to see how it is embedded in the social, or the urban and industrial sphere, connecting natural environments, human environments, and daily life. U. S. environmentalism, in its more than 100 year history, needs to be seen as a response to and indeed an extension of the changes to landscape and society wrought by urban and industrial forces. Environmentalism has been powerfully influenced and ultimately framed by these urban and industrial forces. There are today essential two broad categories of environmental activity, a mainstream and an alternative environmentalism. Mainstream environmentalism remains focused on policy and power, on accomplishing change by helping construct, influence, and watchdog the environmental policy system. Alternative environmentalists focus on people and on place. They accomplish change by being ornery, argumentative, mistrustful, and by mobilizing their base, often against one or another dimension of that same environmental policy system. Gottlieb is at the University of California, Los Angeles. (v7,#2)

Gottlieb, Robert and Margaret FitzSimmons, Thirst for Growth: Water Agencies as Hidden Government in California (Tempe: University of Arizona Press, 1991). 285 pages. $ 35.00 California water agencies have been a hidden government, driven by a mission of growth, and water development in California faces a quite problematic future. Both authors are in Urban Planning at UCLA. (v2,#1)

Gottlieb, Robert, Environmentalism Unbound: Exploring New Pathways for Change. Cambridge, MA: The MIT Press, 2001. A new strategy for social and environmental change that involves reframing and linking the movements for environmental justice and pollution prevention. The environmental movement's narrow conception of "environment" has isolated it from vital issues of everyday life, such as workplace safety, healthy communities, and food security, that are often viewed separately as industrial, community, or agricultural concerns. This fragmented approach prevents an awareness of how these issues are also environmental ones. Gottlieb is in urban and environmental policy at Occidental College. (v.12,#2)

Gottlieb, Roger, "Spiritual Deep Ecology and the Left," *Capitalism, Nature, and Society* 6 (no. 3, 1995):1-20, 41-45. This essay attempts a reconciliation between spiritual deep ecology and neo-marxist political theory by exhibiting some of the social origins and political implications of each perspective for the other. The essay forms the basis for a symposium with responses by Robyn Eckersley, Andrew McLaughlin, John Barry, and David Pepper, and a rejoinder by Gottlieb. (v7,#2)

Gottlieb, Roger S., *A Spirituality of Resistance: Finding a Peaceful Heart and Protecting the Earth*. New York: Crossroad Publishing Co., 1999. 195 pages. $25.00. Chapter 4: "A Sleepless Ethicist and Some of His Acquaintances, Including the Monoculturalist, the Poetic Naturalist, and the Very Famous Biologist." Chapter 5. "Finding a Peaceful Heart and Protecting the Earth. "What can we hope for? In his own lifetime the Ethicist has seen a worldwide movement improve the condition of women throughout the world. He knows that his individual actions are a minuscule part of a similarly vast effort to reorient society toward environmental sanity. He hopes that as this effort unfolds it will lead us to be more unassuming both in our self-assessment as a species and our desires for a 'better life'--even though achieving this self-assessment might require a difficult and contentious social transformation. We may learn that a truly `higher standard of living' cannot be achieved until we curtail our current environmental aggression, and that no amount of toys will cure our loneliness for both natural and human community. We might learn that false expertise should not be trusted, and that a monocultured earth is very lonely; and that to love either people or the earth we need to love both" (pp. 134-135). Gottlieb is in philosophy at Worcester Polytechnic Institute, Worcester, MA. (v10,#4)


Gottlieb, Roger, "The Transcendence of Justice and the Justice of Transcendence: Mysticism, Deep Ecology, and Political Life," *Journal of the American Academy of Religion* 67(1999):149-166. The search for some wisdom that transcends the perils and pains of ordinary existence is "mysticism," at the heart of the world's religions. A danger is that this search can become merely aesthetic or serve as a spiritual by-pass of the moral and the political. In our own social setting our collective violence towards the environment has led to a return--on something approaching a mass scale--of a mysticism that takes the earth and all its life as an ultimate truth.

From the heart of the spiritual impulse and the memories of countless generations in which forest and grassland, bird and wolf and salmon were our home and family and intimate enemy, comes Deep Ecology. The Deep Ecology of which I
speak here is not the version presented in the technical language of philosophical ethics, where debates about varieties of intrinsic as opposed to instrumental value take place. Rather I speak of a passionate, spiritually oriented, mystical communion with the earth and its many beings, a recognition of kinship with those beings that requires no more philosophical justification than does the connection we feel with our parents, pets, or lovers. As such, Deep Ecology is a spiritual philosophy; and the deepest experiences that animate its adherents are profoundly mystical.

Deep Ecology has been criticized by emphasizing wilderness while forgetting toxic dumps, for love of trees and lack of concern for children. These criticisms have helped move Deep Ecology towards an understanding that environmentalism needs to embrace the concerns of environmental justice: an awareness of any resistance to the unfair distribution of responsibility for and suffering from humanity's attacks on the environment. Can we really love nature if these things escape our vision?

Gottlieb teaches philosophy at Worcester Polytechnic Institute, Worcester, MA. (v.10,#1)

Gottlieb, Roger S., A Spirituality of Resistance: Finding a Peaceful Heart and Protecting the Earth. Lanham. MD: Rowman and Littlefield, 2003. A study of how people get caught up in social forces that lead to genocide, as happened in the Holocaust, and how they also are caught up in social forces that are leading to ecocide, impending in the environmental crisis. Our celebration of nature can be authentic only if it exists alongside resistance; what we do matters as much as what we feel. Large, impersonal bureaucracies can grow irrational, and this cries out for resistance. Such anger is born of love, and Gottlieb's intensity of resolution, coupled with forceful argument speaking the truth to power, is all too rare today, and urgently needed. Gottlieb is at Worcester Polytechnic University. An earlier version of this appeared in 1999, published by Crossroad Publishing Co. (v 14, #3)

and Animal Liberation”; Carl Mitcham, "The Sustainability Question.” Gottlieb teaches philosophy and humanities at Worcester Polytechnic Institute. (v7,#4)


Gottlieb, Roger S., A Greener Faith: Religious Environmentalism and Our Planet's Future, Oxford University Press, 2006. In a time of darkening environmental prospects, frightening religious fundamentalism, and moribund liberalism, the remarkable and historically unprecedented rise of religious environmentalism is a profound source of hope. Theologians are recovering nature-honoring elements of traditional religions and forging bold new theologies connecting devotion to God and spiritual truth with love for God's creation and care for the Earth. And religious people throughout the world are transforming the meaning of their faiths in the face of the environmental crisis. The successes and significance of religious environmentalism are manifest in statements by leaders of virtually all the world's religions, in new and "green" prayers and rituals, and in sophisticated criticisms of modern society's economy, politics, and culture. Most important: from the Evangelical Environmental Network to the Buddhist prime minister of Mongolia, the National Council of Churches to tree-planting campaigns in Zimbabwe, religious environmentalism has become a powerful component of the world environmental movement. Stories of faith based environmentalism provide a bright picture of the faith community's capacity for caring for God's creation. The remarkable and historically unprecedented rise of religious environmentalism is a profound source of hope. Theologians are recovering nature honoring elements of traditional religions and forging bold new theologies connecting devotion to God and spiritual truth with love for God's creation and care for the Earth. Gottlieb is in Philosophy at Worcester Polytechnic Institute. Reviewed by David G. Hallam, “Green Religion Needs to Get Greener,” Harvard Divinity Bulletin 34(no. 1, Autumn 2006):96-98, as a great book which doesn’t go far enough.
- O'Neill, John, "An Overview"
- Turner, R. Kerry, "Intergenerational Equity"
Also:
- Oelschlaeger, Max, "Wilderness," vol. 2, pp. 531-534.
Other articles on Sustainable Development, Belief Systems (includes Ecocentrism, Deep Ecology), Conservation, Environmental Law, Environmental Movements, Gaia Hypothesis, Valuation (including Climate Change Valuation Studies), Religion. (v.12,#4)

Goudzwaard, Bob and Harry DeLange (De Lange), Beyond Poverty and Affluence. Grand Rapids, MI: Wm. B. Eerdmans, 1994. 176 pages. $ 15. Co-published with the World Council of Churches. Today's widespread problems of poverty, unemployment, and environmental degradation are rooted in--and thus can never be resolved by--the dominant contemporary economic models of growth. The authors argue for an economy of care, or an economics of enough, with twelve concrete, feasible proposals for moving present-day society in such a direction. (v5,#3)

Goudzwaard, Bob, and Harry de Lange, Beyond Poverty and Affluence: Toward an Economy of Care. Grand Rapids, MI: William B. Eerdmans, 1994. Translated from Dutch. 160 pages. $ 14.99. "In 1960, the richest 20% of the world's population had incomes 30 times greater than the poorest 20%. By 1990, the richest 20% were getting 60 times more." In the U.S., "at the start of the 1980's, a Chief Executive Officer made about 29 times as much as the average worker. Today that multiple is close to 100 times." More people are now homeless in the U.S. than at any time since the Great Depression. Between 1979 and 1989, when the GNP increased 25 percent, the rate of child poverty increased 21 percent. The economic view that "restoration of industrial production growth will remedy poverty, environmental degradation, and unemployment" is "thoroughly simplistic," because "like a virus that has developed a resistance or immunity to the cure, or like a pest that has developed a defense against the pesticide, these economic malaises have now become immune to the remedy of increased production growth." We should embrace an economics of enough by adopting "income and employment levels ...[with] the objectives of providing sufficient care for human subsistence needs, the quality of labor, the sustainability of agricultural and urban ecosystems, and improved development opportunities, especially for the poorest countries of the Third World." "Human well-being, both of ourselves and of others, requires first and foremost a lifestyle of restraint, not luxury." A sobering book. The authors are well known Dutch economists, Goudzwaard, a former member of the Dutch parliament, is at Free University of Amsterdam. de Lange is at University of Utrecht. (v6,#4)

Gould, Kenneth A.; Schnailberg, Allan; amd Weinberg, Adam S. Local Environmental Struggles: Citizen Activism in the Treadmill of Production. New York: Cambridge University Press, 1996. 304 pages. $59.95 cloth, $17.95 paper. The authors critique the modern environmental mantra, "think globally, act locally," by analyzing the opportunities and constraints on local environmental action posed by economic and political structures at all levels. Three cases studies: a wetlands protection project, water pollution of the Great Lakes, and consumer waste recycling, demonstrate the challenges facing citizen-worker movements. (v7, #3)

Gould, Stephen J., "The Golden Rule--A Proper Scale for Our Environmental Crisis," Natural History, September 1990. Gould's proposal for "an appropriate environmental ethic." The usual environmental ethics rests on two mistaken premises: "(1) That we live on a fragile planet now subject to permanent derailment and disruption by human intervention; (2) that humans must learn to act as stewards for this threatened world." Both premises reflect false pride. Concerning the latter premise: "We are one among millions of species, stewards of nothing. By what argument could we, arising just a geological microsecond ago, become responsible for the affairs of a world 4.5 billion years old, teeming with life that has been evolving and diversifying for at least three-quarters of that immense span? Nature does not exist for us, had no idea we were coming, and doesn't give a damn about us." Concerning the former premise: "We are virtually powerless over the earth at our planet's own geological time scale." "We can surely destroy ourselves, and take many other species with us, but we can barely dent microbial diversity and will surely not remove many millions of species of insects and mites. On geological scales, our planet will take good care of itself let time clear the impact of any human malfeasance." (v2,#1)

Gould, Stephen Jay, "A Special Fondness for Beetles," Natural History, January 1993. J. B. S. Haldane's quip that God has an inordinate fondness for beetles leads Gould to examine the estimates for the numbers of beetles in the world. A conclusion: "Our world is incredibly strange and therefore supremely fascinating." Gould is a paleontologist at Harvard University. (v4,#2)

Gould, Stephen Jay, "What Is a Species?" Discover, December 1992. "Species are almost always objective entities in nature. ... Species are not arbitrary units, constructed for human convenience, in dividing continua. Species are the real and objective items of nature's morphology. They are `out there' in the world as historically distinct and functionally separate populations `with their own historical role and tendency.' ... Species are unique in the Linnean hierarchy as the only category with such objectivity. ... By grasping the objective status of species as real units in nature ... we may better comprehend the moral rationale for their preservation. You can expunge an arbitrary idea by rearranging your conceptual world. But when a species
dies, an item of natural uniqueness is gone forever. Each species is a remarkably complex product of evolution—a branch on a tree that is billions of years old. Species are living, breathing items of nature. We lose a bit of our collective soul when we drive species (and their entire lineages with them), prematurely and in large numbers, to oblivion." Gould earlier wrote, "I also appreciate that we cannot win this battle to save species and environments without forging an emotional bond between ourselves and nature as well—for we will not fight to save what we do not love." ("Unenchanted Evening," Natural History, September 1991. (v3,#4)


We cannot say, however, that such natives are in an "appropriate place," because their being there is fortuitous, accidental. "The deepest principle of evolutionary biology [is] the construction of all current biological phenomena as outcomes of contingent history" Native plants being in their places is "laced with chaos, contingency, and genuine randomness" (p. 16). "Native" does not mean much more than "got there accidentally earlier," certainly not "intrinsically suited" as an adapted fit to the place, on account of being there a long time. That the natives were better suited (including indigenous peoples such as native Americans) to their landscapes is "romantic drivel" (p. 17)—despite Gould's having already said that they "grow appropriately." Other paleontologists are not so enamored with Gould's heavy emphasis on contingency. John Maynard Smith, leading theoretical biologist, complains that "Gould is giving non-biologists a largely false picture of the state of evolutionary theory" (quoted in Robert Wright, "The Accidental Creationist," New Yorker, Dec. 15, 1999, p. 56).

Still, Gould likes the natives, though he thinks this has to be on ethical or aesthetic grounds, not scientific grounds. "I do not understand the appeal of the ethical argument that we should leave nature alone and preserve as much as we can of what existed and developed before our very recent geological appearance. Like all evolutionary biologists, I treasure nature's bounteous diversity of species. ... Cherishing native plants does allow us to defend and preserve a maximal amount of local variety" (p. 18). He thinks we ought to "set aside large areas for rigidly minimal disturbance, so that we never forget, and may continue to enjoy, what nature accomplished during nearly all of her history without us." But Gould struggles for a rationale, since these accomplishments of these appropriately growing plants are so contingent. Perhaps the best one is "democratic," "a sensitive cultivation of all plants,
whatever their geographic origin" (p. 19). As usual Gould is provocative, and, as usual, not without some confusions himself. (v.12,#4)

Goulet, Denis, "Ethics and Development," National Geographic Research and Exploration 8(no. 2, 1992):138-147. The global quest for development raises difficult ethical questions about the relation between having goods and being good, the foundations of justice in society, and the proper human stance toward nature. The failure of reductionist economic approaches to development opens the door to ethics to find its place in development debates and practice. Goulet is at the University of Notre Dame. (v4,#1)

Goulet, Denis, Development Ethics, Chinese translation, translator: Gao Shi et al.. Publisher: Social Sciences Documentation Publishing House, 2003

Gourlay, Laurie. "Temagami Diary," Alternatives 23(no.2, 1997):10. Ontario's government plans to open up for mining and logging 58 percent of one of the last stands of old growth pine. (v8,#2)

Gover, Kevin, Cooney, James B. "Cooperation between Tribes and States in Protecting the Environment." Natural Resources and Environment 10(no. 3, Winter 1996):35. (v7,#1)

Gowans, Matthew  and Philip Cafaro. "A Latter-day Saint Environmental Ethic." Environmental Ethics 25(2003):375-394. The doctrines and teachings of the Church of Jesus Christ of Latter-day Saints support and even demand a strong environmental ethic. Such an ethic is grounded in the inherent value of all souls and in God's commandment of stewardship. Latter-day Saint doctrine declares that all living organisms have souls and explicitly states that the ability of creatures to know some degree of satisfaction and happiness should be honored. God's own concern for the well-being and progress of all life, and His sacrifice through Jesus Christ, illustrate the generous way that He expects His children to exercise their brief stewardship of this world. In addition, the important role nature has played in the religious lives of Latter-day Saint members, from the Prophet Joseph Smith to the present day, argues strongly for wilderness preservation as a spiritual resource for future generations. (EE)

Gowans, Matthew, A Latter-day Saint Environmental Ethic, M. A. thesis, Colorado State University, summer 2001. The Church of Jesus Christ of Latter-day Saints supports a strong environmental ethic. This is developed (1) in teaching regarding the intrinsic value of the "soul," a concept applied not only to humans but to animals, plants, and all living beings (recalling both Biblical and Mormon texts and Aristotle's concept of soul). All creation can express a kind of joy in life. (2) Teachings regarding stewardship show that God expects humans to be stewards of the Earth, a concept defended against criticisms. The principle of sacrifice emphasizes human interdependency and selfless sacrifice. (3) Latter-day saints work for a promised "Zion," a vision of harmony and flourishing on Earth. (v.12,#3)
Gowdy, John M., and Peg R. Olsen, "Further Problems with Neoclassical Environmental Economics." *Environmental Ethics* 16(1994):161-171. We examine the merits of neoclassical environmental economics and discuss alternative approaches to it. We argue that the basic assumptions of the neoclassical approach, embodied in the indifference curve, make that model inappropriate for environmental analysis. We begin by assuming that the basic postulates of the neoclassical model hold and then argue that even this ideal state is incompatible with environmental sustainability. We discuss the role of the discount rate, the exclusive emphasis on marginal choices, and the assumption of perfect information. Gowdy is in economics at Rensseler Polytechnic Institute. Olsen is director of the Eastern New York Chapter of the Nature Conservancy. (EE)


Gowdy, John, ed., *Limited Wants, Unlimited Means: A Reader on Hunter-Gatherer Economics and the Environment*. Washington, DC: Island Press, 1998. Humans, it is said, have unlimited wants and limited means to satisfy these wants, so the end result is scarcity. The central irony of this book is the claim that the hunter-gatherers had structured their lives so that they needed little, wanted little, and for the most part had all the means to satisfy their needs at their immediate disposal, living much more rewarding lives than ours. Sample contents: Marshall Sahlins, "The Original Affluent Society"; James Woodburn, "Egalitarian Societies"; Paul Shepard, "A Post-Historic Primitivism"; Eleanor Leacock, "Women's Status in Egalitarian Society: Implications for Social Evolution." Gowdy is in economics at Rensselaer Polytechnic Institute, Troy, NY. (v9,#1)


Gowdy, John M. "Progress and Environmental Sustainability." *Environmental Ethics* 16(1994):41-55. One of the most pervasive ideas in Western culture is the notion of progress. Among economists, it is synonymous with economic growth. According to advocates of unlimited growth, more growth will result in a cleaner environment, a stable population level, and social and economic equality. Although most environmentalists do not subscribe to the growth ethic, they generally cling to a notion of progress by arguing that there has been continual enlightenment in public attitudes
toward the environment and that this enlightenment can lead to environmental salvation. I argue that there is no convincing argument for past human progress and no reason to believe that it will occur in the future. Once we abandon notions of progress, we free ourselves to concentrate on making do with what we have rather than placing our hopes on some future material or ethical utopia. Gowdy is in the department of Economics, Rensselaer Polytechnic Institute, Troy, NY. (EE)


Grace, Patrick, Is There Any Hope or Are We Completely Screwed? A Study of Some Implications for our Environment Due to the Changing Values of Experience, Master's Thesis, Department of Philosophy, Lancaster University, September 1993. (v7,#1)

Grace, Patrick, Is There Any Hope or Are We Completely Screwed? A Study of Some Implications for our Environment Due to the Changing Values of Experience, Master's Thesis, Department of Philosophy, Lancaster University, September 1993.


Gramling, Carolyn, "Proposed Fisheries Bill Falls Short, Critics Say," Science 309(30 September 2005):2146-2147. Proposed legislation seeks to reauthorize the 1976 Magnusen-Stevens Fishery Conservation and Management Act, but critics say it falls far short of the overhaul of the U.S. oceans policy called for by two U.S. commissions. Critics say the bill looks good on the surface but actually masks its own inadequacies, so that what is in fact a setback "will be spun and sold as if this is an improvement." For example the existing mandate requires overfished species to be off limits for ten years, but the new bill has only a two year relaxation period.


Grande, John K., Balance: Art and Nature. Montreal/New York: Black Rose Books, 1994. Art and the environment, art as a new way of looking at humanity and nature. Artistic expression can and does play an important role in changing the way we perceive our relation to the world we live in. One chapter title: "Nature is the art of which we are a part."

Grande, Sandy Marie Anglás. "Beyond the Ecologically Noble Savage: Deconstructing the White Man's Indian," Environmental Ethics 21(1999):307-320. I examine the implications of stereotyping and its intersections with the political realities facing American Indian communities. Specifically, I examine the typification of Indian as ecologically noble savage, as both employed and refuted by environmentalists, through the lenses of cognitive and social psychological perspectives and then bring it within the context of a broader cultural critique. I argue that the noble savage stereotype, often used to promote the environmentalist agenda is nonetheless
immersed in the political and ideological parameters of the modern project. Finally, I reassert the right and, more importantly, the authority of Native American peoples to ultimately define for themselves their respective identities and destinies. (EE)

Grange, Joseph, "Being, Feeling, and Environment," Environmental Ethics 7(1985):351-364. The philosophies of Spinoza and Heidegger as the source of a "unitive vision" of reality is developed as a basis for environmental studies. (Katz, Bibl # 1)


Grange, Joseph. Nature: An Environmental Cosmology. Albany: State University of New York Press, 1997. 352 pages. $ 19.95. Drawing on Whitehead, in contrast to both analytic philosophy and the continental tradition, Grange constructs a metaphysics to reflect what is true and right and fitting about how humans should act as participants in a finite and intrinsically interconnected world. Celebrates the very real glories of nature without sentimentalism and without any depreciation of human beings. Reviews and critiques the major positions in ecological ethics. Grange is in philosophy at the University of Southern Maine, Portland. (v7,#4)

Grange, Joseph. "Being, Feeling, and Environment." Environmental Ethics 7(1985):351-64. Despite the 300 years of philosophy separating them, Spinoza and Heidegger are committed to a unifying vision of the human and the natural. Such a perspective encourages a renewed understanding of the place of feelings in environmental studies. Neither untrustworthy reactions nor neutral reading of environmental stimuli, human feelings are the basic way in which we encounter the world. The primordial character of emotions in both Spinoza and Heidegger follows from their commitment to the unity of reality. An understanding of both thinkers opens up being, feeling, and environment as the proper subject matter of ecology. Environmental studies will begin to advance again when it dedicates itself to the potential riches of such a unitive vision. Grange is at the Philosophy Dept., University of Southern Maine, Portland, ME. (EE)

Grant, BR; Grant, PR, "What Darwin's Finches Can Teach Us about the Evolutionary Origin and Regulation of Biodiversity," Bioscience 53(no.10, 2003):965-975. (v.14, #4)

Grant, C. Val, Winker, Kevin. "The Role of Taxonomy and Systematics," Conservation Biology 11 (no.3, 1997): 594. The organisms we seek to save need to be identifiable in the field, not just when dead in the laboratory. (v8,#2)

Grant, Don Sherman, Ill. "Religion and the Left: The Prospects of a Green Coalition." Environmental Ethics 19(1997):115-134. Religionists and leftists have aligned themselves with several green causes, but have yet to engage each other in a real discussion of environmental issues. I try to establish the basis for a dialogue between
those segments of the religionist and leftist traditions that appear to have the most promise for forging a united green front. I label these two subgroups constructive postmodern religionists and constructive postmodern leftists. I summarize the key ideas shared by each group, discuss how each can rectify some of the weaknesses of the other, and consider some potential philosophical barriers to their union. I conclude by issuing a call for dialogue on the issues presented here. Grant is in sociology, University of Arizona, Tucson. (EE)

Grant, James P., ed., The State of the World's Children 1991, published for UNICEF by Oxford University Press, 1991. Of particular interest is the section on "The Population Question," where Grant argues that reducing infant mortality through better nutrition and health care today will not lead to greater population increases tomorrow, nor to increased environmental degradation, but, to the contrary, will reduce the future birthrate and contribute to environmental conservation. A careful, nuanced claim, based on statistical data showing that, whereas early declines in morality rates typically do not reduce birthrates, later declines in morality do reduce them sharply, and that most developing nations are now at this point. This is important reading for anyone concerned with population growth, children, and the environment. James P. Grant is executive director of UNICEF. (v2,#2)

Grant, Lindsey, ed., Elephants in the Volkswagen: Facing the Tough Questions about our Overcrowded Country. W. H. Freeman, 1992 272 pages, $ 22.95. Essays on population and development. The U. S. population today is 252 million, but based on "carrying capacity," how much human activity the country's land, air, and water resources can sustain on a long-term basis, the optimum population may be no more than 135 million. "Population growth may wipe out the progress we are trying to make in other areas of public policy." (v3,#2)

Grant, Lindsey, Juggernaut: Growth on a Finite Planet. Santa Ana, CA: Seven Locks Press, 1996. 310 pages. $ 18.95. Population growth is leading us to a world we do not want, more crowded, with less personal freedom, more polluted and paved over, with less room for biodiversity. The first half of the book deals with world trends. The second half of the book focuses on the U.S. The U.S. population is growing by approximately 10% per decade. Alone among the rich industrialized nations, America's population is still growing because of a higher rate of fertility and generous immigration policies. Both in terms of curbing effluents and preserving wildlands, ending population growth will be the key. Grant is a former U.S. foreign service officer and Deputy Assistant Secretary of State for Environment and Population Affairs. (v.8,#4)

Grant, Lindsey, The Collapsing Bubble: Growth and Fossil Energy. Seven Locks Press, Santa Ana, CA, 2005. The worlds dwindling energy resources. The energy debate has been cast in the wrong terms. But with a bit of luck we may be able to create a more harmonious balance with the rest of the biosphere, at much lower population levels and less consumptive habits. Lindsey Grant is a retired Foreign
Grant, Lindsey.  *Too Many People: The Case for Reversing Growth*. Santa Ana, CA: Seven Locks Press, 2000. "The recent growth of human populations has imperiled the pursuit of economic prosperity and social justice and has placed undue strain on the natural support systems that all creatures depend upon." In this short handbook (102 pages), Grant examines some of the major issues of our times and argues that uncontrolled population growth lies at their heart. "Food, water, land, air, climate, and energy resources are all threatened by ever increasing numbers of people inhabiting the Earth." A clear, straightforward text, ideal as a supplement for classes in environmental ethics that seek to treat population issues. (EE v.12,#1) Grant was formerly a Foreign Service Officer, National Security Council, Department of State Policy Planning, and also Deputy Assistant Secretary of State for Environment and Population Affairs. (v.12,#2)


Grassie, William, *Reinventing Nature: Science Narratives as Myths for an Endangered Planet*, Ph. D. thesis, spring 1994, in the Department of Religion, Temple University, Philadelphia. The dissertation is a hermeneutical inquiry into the possibilities of a mythological treatment of the modern scientific cosmology in the light of global environmental and economic crises. Paul Ricoeur is used to develop a hermeneutical approach to science. This is used to reconstruct science as mythos, illustrated in Thomas Berry and Brian Swimme's *The Universe Story*, where scientific cosmology is read as value-laden natural history. In turn this is reassessed using Donna Haraway, and a radical postmodern hermeneutics that is suspicious of one-true stories. The conclusion is a hermeneutical conversation between human and nonhuman nature as a model for environmental ethics. The dissertation advisor was John Raines. William Grassie, P. O. Box 586, 650 Brandywine Creek Road, Unionville, PA 19375. (v5,#1)


Gray, Patricia M., Krause, Bernie, Atema, Jelle, Payne, Roger, Krumhansl, Carol, and Baptista, Luis, "The Music of Nature and the Nature of Music," *Science* 291(5 January 2000):52-54. "Rather than being the inventors of music, we are latecomers to the musical scene." The authors find music not only in humans but in whales, birds, even insects. Whale and bird songs, if genetically disposed, are also acquired. "Whales from different oceans sing completely different songs." Whales and birds seem to prefer patterned tones and rhythms rather similar to those humans prefer. "The similarities among human music, bird song, and whale song tempt one to speculate ... that there is a universal music awaiting discovery." This would be rather like Platonic mathematics. "Do musical sounds in nature reveal a profound bond between all living things?"

Such pervasive "music" is discovered partly by discoveries about animal sounds, but also by redefining the term "music," somewhat similarly to the way animal "culture" is often as much a redefinition of "culture" as new discoveries about animal behavior. Acquired bird songs are here part of their "culture" (p. 53) "Music has been defined as patterns of sound varying in pitch and time produced for emotional, social, cultural and cognitive purposes." Songs, seemingly synonymous with music, "can be defined as any rhythmic repeated utterance whether by a bird, a frog, an insect, a whale or a human being." There is no discussion here of the functional nature of such calls (territorial calls, mating, group location) and whether and how this relates to aesthetic capacities and experience. An accompanying article is: --Tramo, Mark Jude, "Music of the Hemispheres," *Science* 291(5 January 2000):54-56. Music is universal in human cultures and this seems to indicate that the human brain is constructed so as to produce and enjoy music. Areas of the brain that may be involved in different aspects of music perception and performance. (EE v.12,#1)

Gray, R.H., "Corporate Reporting for Sustainable Development: Accounting for Sustainability in 2000 A.D." *Environmental Values* 3(1994):17-45. This paper is principally concerned with (a) outlining the range of possibilities that exist for organizations which wish to undertake environmental and sustainability reporting and (b) suggesting particular approaches as the more desirable. There is an important difference between environmental reporting and reporting for sustainability, but are both shown to be essential and practicable. It is argued, however, that there is little or no prospect of widespread, systematic reporting by corporations without a major regulatory initiative. **KEYWORDS:** Accounting, environmental accounting and
Grayson, Donald K., "The Archaeological Record of Human Impacts on Animal Populations," Journal of World Prehistory 15(no. 1, 2000):1-68. Humans in the past had widespread influence on wild animal populations, most dramatically in the Pacific Islands, especially Oceania. There were also evident influences on continental populations. Three main factors were involved: hunting for animal prey, humans setting fires, and human introductions, deliberately and accidentally, of nonnative animals, often carrying diseases. On islands these interruptions regularly led to extinctions, although predation alone did not. Vegetational change and the introductions of exotics were more significant. The Polynesians may have caused the extinction of half the endemic avifauna of Hawaii. Indigenous people typically overhunted the large prey first, and then turned to smaller prey. There is little evidence that indigenous peoples were good conservationists. They depleted resources almost everywhere. "Conservationists may well be clamoring for an answer to the question whether indigenous peoples conserve biodiversity, but archaeologists answered that question long ago" (p. 49).

But Grayson is equally convinced that overhunting did not cause extinctions on continents, especially not in North America and probably not in Australia. The overhunting hypothesis would require hunting a variety of now extinct mammals in substantial numbers, and there should be kill sites. But "such evidence exits only for mammoth and, far less securely, for mastodon. There is no evidence that people hunted, or even scavenged any of the other ungulates--or sloths, dayspodids (armadillos), glyptonts (armadillo-like), or rodents. ... Horses and camels are extremely well represented in the late Pleistocene record of North America, but there are no kill sites for them" (p. 37). Also the timing of the extinctions is problematic. Climate is a more likely factor.

On continents too there was no widespread change in the flora. "It is also true that there is no evidence for significant, colonization-linked anthropogenic impacts on North American vegetation of the sort that are so evident in such places as New Zealand, Hawaii, Mangaia (Cook Islands), Yap, Easter Island" (p. 42). (v.13,#2)
Green Brigades, or (in Polish) Zielone Brygady is a Polish environmental journal/newsletter, now in its fifth year, published under the auspices of the Chemists' Scientific Club at the Jagiellonian University in Cracow, Poland. ISSN 1231-2134. Sixty issues have been published in Polish and twelve in English, with a current circulation of 3,000 in Polish and 1,500 in English, a quite large circulation by Polish standards. The journal seeks to exchange information between various groups active in the fields of ecology, wildlife conservation, environmental protection, animal rights, vegetarianism, and healthy lifestyles. Some issues in the 1994, no. 2 issue: "Campaign to keep the Vistula River Wild," "International Biosphere Reserve in the Eastern Carpathian Mountains (Bieszczady Mountains)," "Hour of Destiny for Bialowieza Primeval Forest" (Europe's last remaining stand of lowland ancient forest, dating back to 8,000 B.C.)," an article on "The Polish Society for Nature Protection, Salamandra. Piotr Rymarowicz and Laurel Sherwood are editors. Address: Slawkowska 12/24 (IV p.), PL-31-014 Krakow, Poland. Phone 48: (country code) 12 (city code) 222147, ext. 15. Fax: 222264. E-mail: zielbryg@gn.apc.org


Green, Dorothy, ed., Descent of Spirit: Writings of E. L. Grant Watson. Grant Watson (1885-1970) wrote on the natural history of Australia, especially the wonder and beauty of biological adaptations. (v1,#3)


Green, JL et al., "Complexity in Ecology and Conservation: Mathematical, Statistical, and Computational Challenges," BioScience 55 (no. 6, June 2005): 501-510. Creative approaches at the interface of ecology, statistics, mathematics, informatics, and computational science are essential for improving our understanding of complex ecological systems. For example, new information technologies, including powerful computers, spatially embedded sensor networks, and Semantic Web tools, are emerging as potentially revolutionary tools for studying ecological phenomena. These
technologies can play an important role in developing and testing detailed models that describe real-world systems at multiple scales. Key challenges include choosing the appropriate level of model complexity necessary for understanding biological patterns across space and time, and applying this understanding to solve problems in conservation biology and resource management.

Green, Judith M. "Retrieving the Human Place in Nature." Environmental Ethics 17(1995):381-396. The present worldwide ecological crisis challenges both some fundamental Western cultural assumptions about human relationships to nature and the efficacy of democratic institutions in transforming these relationships appropriately and in a timely manner. I discuss what kind of ecophilosophy is most feasible and desirable in guiding rapid and effective response to the present crisis in the short term, as well as positive cultural transformation in the West toward sound natural and social ecology in the longer term. I argue that decontextualized liberal ecophilosophies and related deep ecologies are inadequate to these purposes and propose a Green transformative framework that "re-places" humans within nature, "re-positions" our understanding of ourselves in relation to the land, "re-pairs" intrinsic values in nature with human responsibilities, and "re-directs" the effective use of participatory democratic institutions in trans-forming public policy. Green is in the department of philosophy, University of Seattle. (EE)

Green, Karen, "Two Distinctions in Environmental Goodness," Environmental Values 5(1996):31-46. In her paper, "Two Distinctions in Goodness" (The Philosophical Review 92(1983):169-95), Christine Korsgaard points out that while a contrast is often drawn between intrinsic and instrumental value there are really two distinctions to be drawn here. One is the distinction between intrinsic and extrinsic value, the other is that between having value as an end and having value as a means. In this paper I apply this contrast to some issues in environmental philosophy. It has become a commonplace of environmentalism that there are intrinsic values in nature. What is usually meant by this is that some values in nature are not merely instrumental to human ends. By using the notion of intrinsic value to express this philosophers have developed positions which are open to a number of meta-ethical and practical objections. The view that there are objective values in nature, which are independent of human interests, is better served by an environmental philosophy which sees most value in nature as objective, extrinsic value. The resulting environmental ethic is sketched and some apparent difficulties discussed. KEYWORDS: Intrinsic value, instrumental value, meta-ethics, subjectivism, biocentrism. (EV)

Green, Karen, "Freud, Wollstonecraft, and Ecofeminism: A Defense of Liberal Feminism." Environmental Ethics 16(1994):117-134. I examine recent arguments to the effect that there are significant logical, conceptual, historical, or psychosexual connections between the subordination of women and the subordination of nature and argue that they are all problematic. Although there are important connections between women's emancipation and the achievement of important environmental goals, they
are practical connections rather than conceptual ones. Green is in philosophy, Monash University, Australia. (EE)


Green, Rhys E. et al., "Farming and the Fate of Wild Nature," Science (28 January 2005):550-555. Farming is already the greatest extinction threat to birds (the best known group) and the situation will grow worse especially in developing countries. Two solutions have been proposed (1) wildlife-friendly farming, which boosts densities of wild populations on farmland but may decrease agricultural yield and (2) land-sparing farming, which minimizes demand on farmland by increasing yield. The authors propose a way to resolve the tradeoffs between these two approaches, but generally hold that high-yield farming will allow more species to persist. Green is in zoology, University of Cambridge, UK. With critical comment about dimensions these authors overlook, and reply, Science 308(27 May 2005):1257.

Greenbaum, Allan, "Nature Connoisseurship," Environmental Values 14(2005): 389-407. Environmentalists who seek to protect wild nature, biodiversity and so on for its own sake manifest a disposition to value the interesting at least on par with the useful. This disposition toward the interesting, which provides the affective and cognitive context for the discovery of intrinsic values in nature and the elaboration of ecocentric ethics, does not arise simply from learning about nature but is part of a more general socially inculcated cultural system. Nature connoisseurship exhibits formal parallels with art connoisseurship. The abstraction-oriented cultural system which prizes 'disinterested interest' is characteristic of culturally rich fractions (or subdivisions) of the middle class in modern Western societies. Valuing nature for its own sake (like valuing, for its own sake, the domination of nature) is not a 'natural' response to nature but a disciplined cultural accomplishment. Greenbaum is in social science, York University, Toronto, Ont. (EV)

Greenbaum, Allan. "Environmental Thought as Cosmological Intervention." Environmental Values 8(1999):485-497. ABSTRACT: An important tradition in popular and academic environmentalist thought concentrates on cosmological issues, to do with overarching (or underlying) views about the nature of reality and the place of humanity in nature. This tradition connects the environmental crisis with anthropocentric and mechanistic cosmologies, and tries to address this crisis through cosmological critique and reconstruction - a practice I call "cosmological intervention". This practice presupposes a link between "world view" and "ethos". I argue that an environmentalist ethos does not necessarily or automatically follow from the world view elements propounded in cosmological interventions. Rather, world view symbolises ethos. Cosmologies favoured by environmentalists describe the abstract and necessary properties of the world in ways which reflect those concrete and contingent properties of the world that the ecology movement seeks to protect, extend and celebrate. KEYWORDS: Cosmology, worldview, deep ecology, environmental
thought. Allan Greenbaum 873 Palmerston Ave., Toronto, Ontario, Canada M6G 2S3. (EV)

Greenberg, Michael, Schneider, Dona. Environmentally Devastated Neighborhoods: Perception, Policies, and Realities. New Brunswick, NJ: Rutgers University Press, 1996. 300pp. $60 cloth. Beginning with a call for a definition of "environment" that fits the realities of neighborhoods, the authors argue for and propose policy initiatives that address all the desperate needs of these beleaguered places. (v7,#4)


Greenfield, Joanna, "Hyena," The New Yorker 52(no. 34, November 11, 1996):74-81. The author is attacked by a hyena in a reserve in Israel, while servicing the pen in which it is caged. There is an Israeli reserve housing all of the animals mentioned in the Bible. With some graphic prose about the attack, and about hyenas in Kenya: "Spoted hyenas are the sharks of the savanna, superpredators and astounding recyclers of garbage. They hunt in large, giggling groups, running alongside their prey and eating chunks of its flesh until it slows down through loss of blood, or shock, or sheer hopelessness, and then the hyenas grab for the stomach and pull the animal to a halt with its own entrails or let it stumble into the loops and whorls of its own body."


Greenhouse, Linda, "Justices Bar Wide U.S. Role Under the Clean Water Act," New York Times (01/10/01): A13. U.S. Supreme Court decisions weakens wetland’s protection. A 15 year-old protection for isolated wetlands used by migratory birds was struck down by the court as unjustified federal intrusion into states' traditional rights to manage land and water. The U.S. Army Corp of Engineers was given the right to regulate "navigable waters" and those that abut them by the Clean Water Act of 1972. It later adopted the "migratory bird rule" that regulated the dredging and filling of ponds and wetlands separate from navigable rivers or their tributaries, in part because migratory birds that cross state lines used these wetlands. The Court held that the rule extended beyond the intention of Congress when it adopted the Clean Water Act. Because few states protect such isolated wetlands, the ruling could end protection for as much as 20 percent of the country's wetlands. Over 50 percent of the nation's wetlands have already been lost. (v.12,#2)

Greenpeace, E. V., Deutsches Institut für Wirtschaftsforschung. The Price of Energy. Brookfield, VT: Ashgate, 1997. 192 pp. $63.95. The economic effects of an ecological tax reform is examined and shows that such a tax reform is economically acceptable and environmentally positive even if implemented in one "pioneer" country alone.
Greenpeace, E. V., Deutsches Institut für Wirtschaftsforschung. The Price of Energy. Brookfield, VT: Ashgate, 1997. 192 pp. $63.95. The economic effects of an ecological tax reform is examined and shows that such a tax reform is economically acceptable and environmentally positive even if implemented in one "pioneer" country alone.


Greenway, Robert, "Wilderness Experience and Ecopsychology," International Journal of Wilderness 2(no. 1, May 1996):26-30. Wilderness participants often speak of a feeling of "expansion" or "reconnection" in wilderness which can be interpreted psychologically as an expansion of "self." Greenway teaches psychology at Sonoma State University, California. (v7,#2)

Greenway, William, "Animals and the Love of God," Christian Century, June 21, 2000, vol. 117, no. 19, pp. 680-681. "The primary hierarchical division in Genesis is not between humans and the rest of creation; it is between God and creation." "To repress our sympathy for animals leads to an all the more destructive disrespect for them and for all creation." Greenway teaches at Austin Presbyterian Theological Seminary, Austin, TX. (v.11,#2)


Gregg, N. Taylor, "Sustainability and Politics: The Cultural Connection," Journal of Forestry 90(1992)(no. 7, July):17-21. "To major questions have emerged from the current crisis over forest management practices. While much of the argument justifiably seems to have concerned whether we have the scientific knowledge and techniques to manage wisely, a more fundamental question remains: `Manage for what?' ... Foresters can probably manage for whatever values the public wants--but the current problem lies in achieving a consensus for what those values are. ... There is also a lack of value consensus within the profession itself, as evidenced by the ongoing debate within the Society of American Foresters over the appropriate substance of a land ethic canon." The SAF has subsequently adopted a land ethic canon, see below. Includes discussion of a survey of the value systems of professional foresters. Gregg is former editor of the Journal of Forestry. (v3,#4)

Gregory, Robin, Sara Lichtenstein, and Paul Slovic, "Valuing Environmental Resources: A Constructive Approach," *Journal of Risk and Uncertainty* 7(1993):177-197. Contingent valuation methods for environmental values have been increasingly used in recent years, but much doubt exists about their validity. The authors here argue that the usual form of such surveys puts unreasonable cognitive demands on the person surveyed; they are asked to place monetary value on goods that are not represented in their minds in monetary form. Such surveys ought not to be thought of as discovering what values the respondent already has, but rather as a means of helping the respondent construct explicitly values that he or she only holds tacitly. They suggest a new approach, based on the value-structuring capacities of multi-attribute utility theory and decision analysis. The authors are with Decision Research, Eugene, Oregon. (v5,#4)

Gregory, Robin S., "Incorporating Value Trade-offs into Community-Based Environmental Risk Decisions," *Environmental Values* 11(2002):461-488. Although much attention has been given to the role of community stakeholders in developing environmental risk-management policies, most local and national initiatives are better known for their failings than their successes. One reason for this continuing difficulty, we contend, is a reluctance to address the many difficult value trade-offs that necessarily arise in the course of creating and evaluating alternative risk-management options. In this paper we discuss six reasons why such trade-offs are difficult and, for each, present helpful techniques from the decision sciences along with case study examples of successful applications. (EV)


Greider, William. *One World, Ready or Not: The Manic Logic of Global Capitalism.* New York: Simon and Schuster, 1997. Although the rapid spread of free market capitalism has created many pockets of prosperity, the world economy has spun out of control and is heading for a cataclysmic fall. There are three ominous, converging trends. First, the world will soon be awash in surplus goods. Profitability depends on producing goods where wages are too low for workers to purchase these goods, and selling where wages are high, but there will not be enough well-paid workers to buy these goods. Second, there is the rapid, constant flow of money across borders, with those who control this flow having more power than governments, and insisting on high returns where these will not be possible. Third the planet cannot sustain rapid industrialization for the masses in under-developed countries without irreparable environmental damage. The losers in the global economy--those earing rock bottom wages, those who suffer when growth slows, those who live with the worst effects of environmental degradation--far outnumber the winners. Nevertheless, Greider suggests much can be done, and he is generally pro-growth. Reviewed by Jeffrey E. Garten in *Harvard Business Review*, January/February 1997. (v8,#1)

In India, uncontrolled population growth, poverty, urbanization and industrialization without proper infrastructure, the abysmal state of sanitation and filth, and deforestation and unprofessional agricultural practices are pushing the nation toward ecological disaster. Behind these problems are the bureaucratic and political hurdles, the general public's lack of understanding of environmental ethics, and the government's lack of environmentally sound economic-policy making capabilities. Environmental Impact Assessment (EIA) could be used to address these issues. An examination of existing administrative EIA procedures in India in comparison to the National Environmental Policy Act (NEPA) in the United States and different EIA models from other countries. In conclusion, eight recommendations would result in more effective implementation of EIA procedures in India. The advisor was Lynne Rulio. (v.10,#1)


Grey, William, "Anthropocentrism and Deep Ecology", Australasian Journal of Philosophy, 71 (1993):463-75. A predominant theme in environmental philosophy is the claim that we need to correct an anthropocentric bias in our attitudes to the nonhuman world, and in particular to extend moral concern across time and across species. This is the central claim of "deep ecology", which maintains that the uncritical acceptance of anthropocentric values has abetted reprehensible practices with respect to the nonhuman world. In this paper the author argues that this central claim of "deep ecology" is mistaken and provides a defence of qualified anthropocentrism. Deep ecology is a response to human activities which have a detrimental impact on the planet's living systems. These judgments, however, are possible only if we assume a set of values based on human preferences. It is the short-sighted and narrow self-regarding conception of human well-being that needs to be rejected, not anthropocentrism.


Grey, William, "Possible Persons and the Problems of Posterity," Environmental Values 5(1996):161-179. The moral status of future persons is problematic. It is often claimed that we should take the interests of the indefinite unborn very seriously, because they have a right to a decent life. It is also claimed (often by the same people) that we should allow unrestricted access to abortion, because the indefinite unborn have no rights. In this paper I argue that these intuitions are not in fact
inconsistent. The aim is to provide an account of trans-temporal concern which resolves the prima facie inconsistency between commonly held intuitions about our obligations to future persons. I argue that our intuitions can be reconciled provided that we explicate obligations to the future in terms of impersonal principles subject to retroactive person-affecting constraints. KEYWORDS: Future persons, duty to posterity, Parfit (EV)


Grey, William, "Environmental Value and Anthropocentrism," Ethics and the Environment 3(1998):97-103. The critique of traditional Western ethics, and in particular its anthropocentric foundations, is a central theme which has dominated environmental philosophy for the last twenty years. Anthropocentrism is widely identified as a fundamental source of the alienating and destructive attitudes towards the nonhuman world which are a principal target of a number of salient ecophilosophies. This paper addresses a problem about articulating the concern with anthropocentrism raised by the influential formulations of deep ecology by nature liberation proponent Val Plumwood. Grey is in philosophy, University of Queensland, Brisbane, Australia. (E&E)


Grey, William. See also Godfrey-Smith, William.


Grier, Peter. "When Saving the Dolphins Clashes with Free Trade, New World Order in Doubt." The Christian Science Monitor, 6 July 1994, p. 7. (v5,#2)


Griffin, Gary J., "Blight Control and Restoration of the American Chestnut," *Journal Of Forestry* 98 (No. 2, Feb 01 2000): 22- . Enhancing blight resistance, along with site selection and other forest management practices, is critical for restoring the American chestnut. (v.11,#2)

Griffin, N., "Lifeboat U.S.A." *International Journal of Moral and Social Studies* 3:3 (1988): 217-238, and 4:1 (1989): 17-35. This two-part article is a detailed examination of the problem of the commons in environmental ethics. According to Garrett Hardin, the logic of the commons requires a policy of "triage" concerning aid to the non-industrialized world. Griffin attacks this view on both a theoretical and a factual level: Hardin's logic is incapable of proving the superiority of rational egoism; and the facts of third world development and production do not fit the model of medical triage. (Katz, Bibl # 2)

Griffith, Bede, "Return to the Centre. (And Environmental Protection)," *The Ecologist* 30 (No. 1, Jan 01 2000): 9- . There is much to learn from the wisdom inherent in primal religions. (v.11,#2)

Griffith, James Jackson, "Applying Systemic Thinking for Teaching Disturbed Land Reclamation in Brazil." Using systemic thinking to teach environmental rehabilitation to undergraduate students at Federal University of Viçosa, Minas Gerais, in Brazil. Griffith is in forestry engineering there. Request at copy at: <griffith@ufv.br>


Grifo, Francesca, Rosenthal, Joshua, eds. *Biodiversity and Human Health*. Covelo, CA: Island Press, 1997. 399 pp. $50 cloth, $29.95 paper. Exploring the human health consequences of the loss of biological diversity, contributors discuss the uses and significance of biodiversity to the practice of medicine today and develop strategies for conservation of these critical resources. (v8,#2)

upon set of forest management principles, and the various certification programs currently underway. (v7, #3)

Grigg, Gordon, Hale, Peter, and Lunney, Daniel, eds., Conservation through Sustainable Use of Wildlife. Brisbane, Qld: Centre for Conservation Biology, 1996. 360 pages. $A 50. (Centre for Conservation Biology, The University of Queensland, Brisbane, Queensland 4072, Australia. Phone 07 3365 2527 Fax 07 3365 4828 Email P.Hale@mailbox.uq.edu.au) Traditional fishing by Torres Strait Islanders, the commercial use of kangaroos, and much more. From a conference held there in 1994. (v7,#4)


Grim, John A., Indigenous Traditions and Ecology: The Interbeing of Cosmology and Community. Cambridge, MA: Center for the Study of World Religions and Harvard University Press, 2001. Pressures threatening indigenous peoples and ways of life; their modes of resistance and regeneration by which these communities maintain a spiritual balance with larger cosmological forces while creatively accommodating current environmental, social, economic, and political changes. Grim is in religion, Bucknell University. (v.13,#1)


Grimshaw, Michael, "Seeing through God: Towards an Eco A/Theology," Ecotheology Vol 6 (Jul 01/Jan 02):186-199. migrimshaw@phil.canterbury.ac.nz Although often viewed as an aberration in theology, the application of deconstructionist thought
provides a way of approaching the theological task that enables issues of context to be debated in a new way. By applying notions of inter-textuality to the basis provided by the liminal / of Mark C Taylor's a/theology, it is possible to trace a path from land/scape to in/scape to a theo/scape. By in turn deconstructing Taylor's a/theology, an eco a/theology is proposed that raises the possibility of framing god as presence in absence. As such, God is that which holds together and frames the views through which we perceive and create the world. Theology becomes eco a/theology not in a universalist, globalistic narrative, but rather that which takes seriously the contested claims of contextual theologies and hints at a knowledge and experience of `God' that is located in an experience of the local context.

Grinde, Donald A, and Bruce E. Johansen, Ecocide of Native America: Environmental Destruction of Indian Lands and Peoples. Clear Light Press, 1995. $24.95. Argues for the Native American policy of sustainability, and reports on contamination of reservations by industrial and radiation waste. (v6,#2)

Grizzle, Raymond E., "Environmentalism Should Include Human Ecological Needs," *BioScience* 44(1994):263-268. In most environmentalism, "human ecological needs are not explicitly considered. Humans are viewed as protectors of the environment but not direct participants in ecosystem processes. I find this view incomplete because it does not address the full range of ecological relationships between humans as a species and their environment. ... This shortcoming seriously undermines the prospect for further consensus among environmentalists. ... [We need] a more holistic environmentalism ... Humans are part of nature and subject to the same broad principles as are other organisms. ... Clearly, humans are in some ways different from other species, but I see no compelling reason for excluding them from nature. ... We can be thought of as a potential predator, prey, competitor, and/or symbiont." Grizzle teaches biology at Campbell University, Buies Creek, N. C. (Thanks to Naomi Krogman, University of Southwestern Louisiana.)

Grizzle, Raymond E., and Barrett, Christopher B., "The One Body of Christian Environmentalism," *Zygon* 33(1998):233-253. Using a conceptual model consisting of three interacting spheres of concern--environmental protection, human needs provision, and economic welfare--central to most environmental issues, we map six major Christian traditions of thought. Our purpose is to highlight the complementarities among these diverse responses in order to inform a more holistic Christian environmentalism founded on one or more of the major tenets of each of the six core traditions. Our approach also incorporates major premises of at least the most moderate versions of biocentrism, ecocentrism, and anthropocentrism. We label this holistic approach "cosmocentrism" and use it as the basis for a preliminary description of the notion of "pluralistic stewardship." We argue that only such holistic environmental perspectives, where societal needs are more directly coupled with environmental protection, and a pluralism of worldviews are acknowledged as potentially contributing to such efforts are capable of successfully addressing the complex issues we face today. We note that, at the international level in particular, Christian thought and secular environmentalism already have been moving in such a
direction. Grizzle teaches environmental studies at Taylor University, Upland, NY. Barrett is in economics, Utah State University. (v9,#2)


Gropp, R., "Are University Natural Science Collections Going Extinct?," Bioscience 53(no. 6, 2003): 550. (v 14, #3)


Gross, Michael, Life on the Edge: Amazing Creatures Thriving in Extreme Environments. Plenum, 1998. $ 25.95. The extent to which living organisms, predominantly single-celled, are found thriving in situations so extreme as to have been assumed, until recently, to be unable to support life. Bears on the origin of life on Earth, also the possibility of extra-terrestrial life. Also the ingenuity of life on Earth. (v.9,#4)


--Lewis, Martin, W., "Radical Environmental Philosophy and the Assault on Reason," pp. 209-230. The resentment of science embedded in fashionable ecomania must subvert or misdirect serious and necessary environmental initiatives. Lewis is the author of Green Delusions.


--Denfeld, Rene, "Old Messages: Ecofeminism and the Alienation of Young People from Environmental Education," pp. 246-255. Contrasts the romantic eco-radicalism endemic among "difference" or "gender" feminists with the serious and committed environmentalism that it displaces or discourages. Young people, and young women especially, have had deflected their serious interest in environmental questions by the
sectarianism, the wooly self-righteousness, and the disdain for science that have characterized ecofeminism. Fortunately, "the message of ecofeminism, and of the environmental movement that adopts it, is unlikely ever to gain widespread support among upcoming generations" (p. 253). Denfeld is the author of The New Victorians: A Young Woman's Challenge to the Old Feminist Order. (v9,#2)

Gross, Rita M., "Toward a Buddhist Environmental Ethic," Journal of the American Academy of Religion 65(1997):333-353. The key is the concept of trishna, desire (Sanskrit), or tanha (Pali). "More is not better whether it is more people or more consumables. `Growth,' the god we worship is a false idol, needing to be replaced by `no growth,' if not by `negative growth.' `Growth' and `more' represent the unbridled reign of trishna, not appreciation and reverence for the interdependent matrix of the environment in which we live and upon which we depend unconditionally ... With enough meditation and contemplation of interdependence, trishna will give way to equanimity." Gross is in religion at the University of Wisconsin, Eau Claire. (v8,#3)


Group of Green Economists, The, Ecological Economics. London: Zed Books, 1992. The Group of Green Economists, associated with the German Greens, draw on various environmental, women's and human rights movements to argue that there are practical alternatives to the vast inequalities and social and environmental dislocations caused by two centuries of market-led industrialization and European colonial rule. (v4,#1)


Grove, Richard H., "Origins of Western Environmentalism." Scientific American 27 (no. 1, July 1992):42-47. Strategies to preserve nature arise early in the colonial period, in reaction to concerns about exploitation and abuse. Scientists played an important part in this burgeoning concern. Grove, a geographer at Cambridge in charge of the environmental history unit, thinks that the role of scientists in conservation history needs more recognition. (v3,#4)


Grove-White, Robin, and Mike Michael. "Talking about Talking about Nature: Nurturing Ecological Consciousness." Environmental Ethics 15(1993):33-47. The increasing effort, both lay and academic, to encourage a transition from an "I-It" to an "I-Thou" relation to nature is located within a typology of ways of "knowing nature." This typology provides the context for a particular understanding of human conversation which sees the relation as a cyclical process of "immersion" and "realization" from which a model of the dialectic between "I-It" and "I-Thou" relations to nature can be developed. This model can be used to identify practical measures that can be taken as first steps toward a balance between these relations, both in general and in the context of science-oriented nature conservation organizations such as English Nature in Britain (formerly, the Nature Conservancy Council). Grove-White is at the Centre for Study of Environmental Change, Lancaster University, Lancaster, UK. Michael is at the School of Independent Studies, Lancaster University, Lancaster, UK. (EE)

Grove-White, Robin and Bronislaw Szerszynski, "Getting Behind Environmental Ethics." Environmental Values Vol.1 No.4(1992):285-296. ABSTRACT: There are major problems in the way in which the environmental 'ethics' question is now being framed--problems which could lead to growing confusion and disillusionment, unless they are rapidly addressed and understood. It is on such problems that this paper focuses. We point to three dimensions of the environmental 'phenomenon' which prevailing accounts of environmental ethics are tending to overlook. We then identify several ways in which incomplete ethical models tend to be reflected in actual environmental policy discourse. Finally, we suggest three hitherto-absent ingredients which will need to be recognised if future models of the ethics question are to be able to reflect, and hence to engage adequately with, social reality. KEYWORDS: Culture, ethics, environmental policy, hermeneutics, technocracy. Centre for the Study of Environmental Change, Lancaster University, UK.


Groves, Juliam McAllister.  *Hearts and Minds: The Controversy Over Laboratory Animals*.  Philadelphia: Temple University Press, 1997.  $49.95 cloth, $18.95 paper.  Groves tries to look past the placards and sound bites to get to the intellectual and psychological reasons that people use to explain their positions.  She discards worn generalizations and offers a nuanced portrait of people who are seriously engaged in reconciling their ethics and their behavior.  (v8,#1)


Gruen, Lori, "On the Oppression of Women and Animals," *Environmental Ethics* 18(1996):441-444.  Beth Dixon is unable to understand what is problematic about the categorical division between humans and other animals and so is unable to understand the ecofeminist argument against the oppression of animals.  (EE)

Gruen, Lori and Dale Jamieson, eds., *Reflecting on Nature: Readings in Environmental Philosophy*.  New York: Oxford University Press, 1994.  384 pages.  Paper, $ 24.95.  The first anthology to highlight the problems of environmental justice and sustainable development.  A multicultural perspective, featuring feminist and minority scholars and scholars from developing countries.  Biodiversity loss, the meaning and significance of wilderness, population and overconsumption, and the human use of other animals.  Readings span centuries of philosophical, naturalist, and environmental writing--Aristotle, Locke, Darwin, and Thoreau--as well as contemporary figures like Bernard Williams, Thomas Hill, Jr., and Jonathan Glover.  Val Plumwood, Bill Devall, Murray Bookchin, and John Dryzek comprise a radical ecology section.  The sections are: I.  Images of Nature.  II. Ethics and the Environment.  III.  Alternative Perspectives.  IV.  Sustainable Development and International Justice.  V.  Contemporary Issues and Controversies.  Another fine anthology added to a list of a dozen anthologies and single authored volumes that have appeared in the last two years, see listing in *Newsletter*, 4, 3.  Both authors are in philosophy at the University of Colorado.  (v4,#4)

Gruenfeld, Jay, *Purple Hearts and Ancient Trees: A Forester's Life Adventures in Business, Wilderness, and War*.  Seattle, WA: Peanut Butter Publishing, 1998.  352 pages.  Gruenfeld is an industrial forester and wilderness enthusiast.  He runs his own forestry consulting business in the Seattle area, specializing in international log marketing.  He earned two forestry degrees from Colorado State University and was a Fulbright scholar at Oxford University in philosophy and politics  He was an infantryman in combat in World War II in the Pacific, wounded five times and awarded the Purple Heart three times.  Wilderness is vital to Gruenfeld, primarily because wilderness is the setting for his favorite forms of outdoor recreation.  Nevertheless he
would open up existing designated wilderness to commercial timber harvesting of about 25% of the total volume. The war theme returns in the Pacific Northwest, where there is a "war" between contesting parties over the future of the forests. (v.9,#3)


Grumbine, R. Edward. "Reflections on "What is Ecosystem Management?" *Conservation Biology* 11 (no.1, 1997):41. Ten dominant themes of ecosystem management, described in a previous paper, reviewed on the basis of feedback from managers actively implementing ecosystem management. Key points include the importance of managing for ecological integrity, the need for social as well as scientific data, suggestions for implementing cooperation strategies and conservation partnerships, a pragmatic definition of adaptive management, and first steps toward changing the structure of natural resource organizations. Grumbine is at the Sierra Institute, University of Santa Cruz, CA. (v8,#2)

Grumbine, R. Edward, "Cooperation or Conflict? Interagency Relationships and the Future of Biodiversity for U.S. Parks and Forests," *Environmental Management* 15, no.1, 1990. So far the Forest Service and the National Park Service have done little cooperatively to implement the biodiversity mandates of such laws as the Endangered Species Act and the National Forest Management Act. The ideological and political histories of the Forest Service and the Park Service are explored to determine the roots of interagency conflicts. Several recent models of cooperative reform are critiqued. Cooperation must be framed within conservation biology and must place primary emphasis on ecosystem patterns and processes as well as on individual species. Management policies must be reframed within a context of ecocentric values. Grumbine is Director, the Sierra Institute, University of California, Santa Cruz. (v1,#4)


Grumbine, R. Edward, *Ghost Bears: Exploring the Biodiversity Crisis*. Washington, DC: Island Press, 1992. 336 pages. $ 25.00 hardcover. A species centered approach will ultimately fail to protect ecosystems and diversity. Using the fate of the endangered grizzly bear (the "ghost bear") to explore the causes and effects of species loss and habitat destruction, Grumbine surveys the big picture, weaving together conservation biology, natural history, environmental policy, law, ethics, and grassroots activism into a comprehensive conservation strategy. Grumbine urges that humanity enter into a greater partnership with nature, working with it, rather than attempting to control it. Reed Noss says, "I have seen no better rendering of modern conservation science into readable prose." Grumbine is Director of the Sierra Institute, University of California Extension, Santa Cruz. (v3,#4)

Grumbine, R. Edward, *Environmental Policy and Biodiversity*. Washington, DC: Island Press, 1994. 416 pages. 21 articles. $ 22.00 paper. $ 45.00 hardbound. Four parts:
Conservation Biology: Theories and Principles for Policy and Management; Toward a
Common Law of Ecosystem Management; Applying Conservation Biology in the Real
World: Case Studies; Conservation Science, Politics, and Policy-Making. Sample
articles: Michael Soulé and Daniel Simberloff, "What Do Genetics and Ecology Tell Us
about the Design of Nature Reserves?"; Daniel J. Rohlf, "Six Biological Reasons Why
the Endangered Species Act Doesn't Work and What to Do about It"; Susan
MacKenzie, "Great Lakes Intergovernmental Cooperation: A Framework for
Endangered Species Conservation"; Donald Ludwig, Ray Hilborn, and Carl Walters,
"Uncertainty, Resource Exploitation, and Conservation: Lessons from History."
Grumbine is director of the Sierra Institute, University of California Extension, Santa
Cruz. (v5,#4)
Grumbine, R. Edward "Viable Populations, Reserve Size, and Federal Lands
viable population theory and reserve size studies suggest that biological diversity for
North American national parks and forests is inadequately protected, a problem
compounded by lack of landscape-level management, competition between federal
land management agencies, and bureaucratic inertia. An ecosystem management
model for reform is outlined. (v1,#2)
Grumbine, R. Edward, "What is Ecosystem Management?" Conservation Biology 8(no.
1, March 1994):27-38. The evolving model of ecosystem management is analyzed for
a working definition. There are five specific goals: maintaining viable populations,
ecosystem representation, maintaining ecological processes, such as natural
disturbance regimes, protecting evolutionary potential of species and ecosystems, and
accommodating human use in the light of these goals. Short-term and long-term
policy implications are reviewed, including evaluation success. Ecosystem
management is not just about science nor is it simply an extension of traditional,
resource management. It requires a fundamental reframing of how humans may work
with nature. Grumbine directs the Sierra Institute, University of California Extension,
Santa Cruz. (v5,#2)
evolving toward some new configuration. Current wilderness ideology, among other
weaknesses, has been charged with encouraging a radical separation between people
and nature and with being inadequate to serve the protection of biodiversity.
Sustainable development and "wise use" privatization of wildlands have been offered
as alternatives to the Western wilderness concept. I review this wilderness debate and
argue that critical distinctions between wildness and wilderness and self and other
must be settled before alternatives can be considered. I look closely at arguments for
sustainable development and argue that the limits on the human use of nature are
discounted and technological management of wildlands is emphasized. I also argue
that the "wise use" response to wilderness is a radically utilitarian option that does not
contribute to evolving ideas of wilderness or sustainability and that replacing the
sustainable development idea with sustainable landscape protection might better
serve both wildness and human projects. Finally, I offer the ways of life of post-
migratory ecosystem-based cultures as models of appropriate human behavior within a management framework of habitat protection for viable populations of all native species and conclude that our purpose in protecting wilderness is not to preserve nature or to improve it, but rather to learn a sense of limits from it and to model culture after it. Grumbine is with the Sierra Institute, University of California, Santa Cruz. (EE)


Grunert, Suzanne C. *Environmental Economics, Sustainable Development, "Green" Marketing, Eco-management, and the Like*: A highly selective, partly annotated bibliography of research conducted in Europe and North America since the 70's. Aarhus, Denmark, CeSaM Working Paper No. 5 (Science Park Aarhus, Gustav Wieds Vej 10, DK-8000 Aarhus C, Denmark), 1995. 112 pages. This bibliography contains some 800 references on all kinds of aspects under the general heading "ecology and economy." It picks up the European references likely to be missed in American-based bibliographies. Books, anthologies, articles, working papers, and conference papers are listed. Most articles are provided with a summary and many books are annotated descriptively by the author. Also available as a database on Macintosh "Endnote." Grunert is in marketing at Odense University, Odense, Denmark. (Thanks to Martin Ishoy, Theology, University of Aarhus.)

Grunwald, Michael, "Departmental Differences Show Over ANWR Drilling," *Washington Post* (10/19/01): A1. ANWR debate rages on. Drilling for oil in Alaska's Arctic National Wildlife Refuge (ANWR) continues to be hotly contested. Proponents have recently been arguing for the drilling on national security grounds, as a way of lessening the U.S.'s dependence on foreign oil. Opponents of ANWR drilling argue that even if proponents are right that there is a 2-3 year U.S. supply of oil there (rather than the 6 month supply the opponents claim), the oil won't be available for years. Opponents also argue that raising automobile fuel efficiency standards would save us more oil overall and sooner. At recent Congressional hearings, U.S. Interior Secretary Gale Norton was accused by opponents of slanting her testimony about whether or not drilling would affect the Porcupine Caribou Herd which uses ANWR's coastal plain (where the oil is) to calve. Norton had asked Interior's own Fish and Wildlife Service for information on this issue and then selected only that part of their report that suited her pro-drilling purposes. She also cited a peer-review caribou study that concluded oil development would have no impact on the caribou.

Opponents argued that the study was funded by BP Exploration (British Petroleum is one of the companies hoping to drill in ANWR). Given the conflicting studies, it seems reasonable to assume that we do not know how significantly the Porcupine Herd would be affected by oil development. But this uncertainty can itself be seen as a reason to forgo this development. Alaska's Gwich'in Indians continue to
hunts this herd as part of a largely subsistence way of life. Significant disturbance of these caribou would threaten their cultural survival. Even a small chance of causing cultural genocide would seem to be enough to prohibit an optional activity of this sort. For a helpful discussion of the ANWR debate, see Sandra Hinchman, "Endangered Species, Endangered Culture: Native Resistance to Industrializing the Arctic" paper given at Seventh World Wilderness Congress, November 2-8, 2001, Port Elizabeth, South Africa. Paper available from Hinchman at shinchman@stlawu.edu. Hinchman is Professor of Government at St. Lawrence University in Canton, New York. (v.12,#4)

Grutter, Theo, Dancing with Mosquitoes: To Liberate the Mind from Humanism--A Way to Green the Mind. New York: Vantage Press, 2000. Introduced as a "non-scholarly, eclectic piece of writing, which has turned quite unplanned into some rather unconventional research into the roots of ecology," by the author, who adds that "all my income to support our family for the last 35 years has come from a few years logging and then from fishing." "It has been slow for me to bring my activity at sea into harmony with my thoughts. ... Some ideas, though, only make sense when one becomes accustomed to stepping out of the bewitching circle humanism draws around itself" (pp. xvii-xviii). (v.11,#3)

Gruzalski, Bart. "Gandhi's Contributions to Environmental Thought and Action." Vinay Lal raises doubts about Gandhi's status as an environmentalist but argues that Gandhi had "a profoundly ecological view of life." I take issue with LaI's claims and, to set the record straight, describe Gandhi's contributions to environmental though and action. When we look at the aims of contemporary environmental spokespersons and activists, Gandhian themes are dominant. Gandhian biocentrism and Gandhi's recommendation not to harm even nonsentient life unnecessarily are familiar in contemporary environmental thinking. Gandhian non-violence is both a technique of environmental activists and, for some, one of the constituents of the world for which they struggle. Gandhi emphasized simple living, an important theme for many who are concerned about looming ecological crises. Taking a broader perspective, Gandhi criticized what we today call globalization and encouraged, in its place, the decentralization of economic activities. Gandhi's emphasis on decentralization and local economic self-reliance led to the Chipko movement in India. Gandhi's emphasis on small-scale economies, on self-reliant communities, and on appropriate technology paved the way for the "small is beautiful" approach. Gandhi's recommendation that we live in self-reliant rural communities, if implemented, would significantly decrease that consumption which is causing climate change and straining the capacity of the planet. Environmental Ethics 24(2002):227-242. (EE)


Gudynas, Eduardo, "Una Extraña Pareja: Los Ambientalistas y el Estado en America Latina" ("The Odd Couple: Environmentalists and the State in Latin America"), *Ecología Polica* (Barcelona, Spain) 3(1992):51-64. (v3,#2)

Gudynas, Eduardo, "Política ambiental: ¿Global o latinoamericana" ("Environmental Politics: Global or Latin-American?" *Evidencia* (San José, Costa Rica) 1, no. 5, 10-12, 1991. (v3,#2)

Gudynas, Eduardo and Graciela Evia, *La Praxis por la Vida: Introducción a las metodologías de la Ecología Social (Praxis for Life: Introduction to the Methodologies of Social Ecology)*. 276 pages. Paperback. Montevideo, Uruguay: CIPFE (Centro de Investigación y Promoción Franciscano y Ecología) and CLAES (Centro Latino Americano de Ecología Social), 1991. Gudynas is academic dean and professor at the Franciscan University of Latin America in Montevideo and in charge of environment and development programs at CLAES. Evia is a researcher and coordinator of the Latin American Network on Social Ecology. (v3,#2)


Guelke, Jeanne Kay. "Looking for Jesus in Christian Environmental Ethics." *Environmental Ethics* 26(2004):115-134. Jesus’ teachings on neighborliness, frugality, support for the poor, and nonviolence should become more central to Christian environmental ethics. His action-oriented teachings do not explicitly mention nature, yet should have a beneficial collateral effect on environments when practiced by Christian communities. This issue affects Christian economics, simple causality models of environmental beliefs and impacts, and "love of nature" theology. (EE)

--Redclift, Michael R., "Values and Global Environmental Change," pp. 7-18. The way science and social science have developed since the nineteenth century have divorced the study of nature from the study of society and this makes it particularly difficult to address environmental issues.

--Clift, Roland, Burningham, Kate, Löfstedt, Ragnar E., "Environmental Perspectives and Environmental Assessment," pp. 19-32. Using wind power and the use of wind turbines, the authors critique the ways engineers traditionally assess environmental problems.

--Parker, Jenneth, "Enabling Morally Reflective Communities: Towards a Resolution of the Democratic Dilemma of Environmental Values in Policy," pp. 33-50. An "expert" model contrasted with a "process model," where the aim is to develop morally reflective communities that can take stewardship over the local environment.

--Smith, Mick, "A Green Thought in a Green Shade: A Critique of the Rationalisation of Environmental Values," pp. 51-60. Challenges "experts" such as environmental economists and moral philosophers, who claim to have conceptual systems and methodologies to evaluate the natural world. They fail to recognize that their frameworks arise from and support the society they wish to criticise.

--Chase, Jonathan, Panagopoulos, Ioannis S., "Environmental Values and Social Psychology: A European Common Market or Commons' Dilemma?" pp. 67-80. Identity processes are important factors in valuing the environment. Particular identities tend to emphasise different values.


--Burningham, Kate, "Environmental Values as Discursive Resources," pp. 95-104. Discourse analysis, a set of theoretical and methodological approaches based on linguistics and psychology, used to critique the assumption that one can simply uncover people's values.

--Pearson, Peter J.G., "Environmental Priorities in Different Development Situations: Electricity, Environment and Development," pp. 111-124. The domestic problems of individual states as these are or are not shared by groups of states. Developing countries and industrialized do not face the same economic issues in respect of energy use, and do not have the same priorities.


Haigh, Martin J. "World Views and Environmental Action: A Practical Exercise," pp. 195-208. Hands-on experience not primarily with the physical constituents of natural environments but with their cultural, aesthetic, and social meanings.

Guerrier is at South Bank University, UK; Alexander at the University of Ulster, UK; Chase and O'Brien at the University of Surrey, UK. (v9,#1)


Guha, Ramachandra, The Unquiet Woods: Ecological Change and Peasant Resistance in the Himalaya (Berkeley, University of California Press, 1990). $ 29.95. A study of India’s forests, its people, and its state. Guha focuses on a series of peasant movements against commercial forestry, up to and including the Chipko (hug the trees) movement. The author claims that Chipko, mistakenly characterized solely as an environmental movement, is above all a peasant struggle in defense of forest rights. (v1,#3)

Guha, Ramachandra, "The Authoritarian Biologist and The Arrogance of Anti-Humanism: Wildlife Conservation in the Third World," The Ecologist 27(no. 1, January/February 1997):14-20. "Five major groups together fuel the movement for wildlife conservation in the Third World. The first are city-dwellers and foreign tourists who season their lives a week or a month at a time with sojourns in `the wild'. Their motive is straightforward: pleasure and fun. The second group comprises ruling elites who view the protection of species, the tiger in India, for instance, as central to the retention or enhancement of national prestige. Spurring on this process is a third group, international conservation organizations, such as the International Union for Conservation and Nature (IUCN) and the Worldwide Fund for Nature (WWF), which work to `educate' people and politicians to the virtues of biological conservation. A fourth group consists of functionaries of the state Forest of Wildlife Service which is mandated by law to control the parks. While some of these officials are inspired by a love of nature, the majority--at least in India--are often motivated by the power and benefits (overseas trips, for example) that come with the job. The final group are biologists, who believe in wilderness and species preservation for the sake of `science'.

These five groups tend to be united in their hostility to the farmers, herders, swiddeners and hunters who have lived in the `wild' from well before it became a `park' or `sanctuary'. They regard these human communities as having a destructive effect on the environment, their forms of livelihood aiding the destruction of species and
contributing to soil erosion, habitat simplification, and worse. Their feelings are often expressed in strongly pejorative language."

"Wildlife conservation programs in the Third World have all too often been premised on an antipathy to human beings. ... This prejudice against people is leading to new forms of oppression and conflict. Biologists, who seek to preserve wilderness for the sake of `science', have been a major force in fomenting such prejudice." Guha is a historian in Bangalore, India.


Guha, Ramachandra, The Unquiet Woods: Ecological Change and Peasant Resistance in the Himalaya. Berkeley: University of California Press, 1989, 1990. 214 pages. Domination and resistance in the forests of the Himalayas, scientific forestry and the alienation of humans from nature, rebellion and protest against commercial forestry over the decades of this century, the Chipko movement. "Third World capitalism, then (seen in such commercial forestry), is a gross caricature of European capitalism, reproducing and intensifying its worst features without holding out the promise of a better tomorrow" (p. 195). "From an ecological perspective, therefore, peasant movements like Chipko are not merely a defense of the little community and its values, but also an affirmation of a way of life more harmoniously adjusted with natural processes" (p. 196). Guha is with the Nehru Memorial Museum and Library in New Delhi.

Guha, Ramachandra, "The Prehistory of Community Forestry in India," Environmental History 6(no.2, 2001 Apr 01): 213-. (v.12,#3)

Guha, Ramachandra, "Radical American Environmentalism and Wilderness Preservation: A Third World Critique," Environmental Ethics 11(1989):71-83. Criticism of the basic tenets of deep ecology in their application to Third World policies, but the argument rests on equating deep ecology with "wilderness preservation." The Third World is still trapped in the framework of anthropocentric use-values for nature. (Katz, Bibl # 2)

Guha, Ramachandra. "Radical American Environmentalism and Wilderness Preservation: A Third World Critique." Environmental Ethics 11(1989):71-83. (EE) I present a Third World critique of the trend in American environmentalism known as deep ecology, analyzing each of deep ecology's central tenets: the distinction between anthropocentrism and biocentrism, the focus on wilderness preservation, the invocation of Eastern traditions, and the belief that it represents the most radical trend within environmentalism. I argue that the anthropocentrism/biocentrism distinction is of little use in understanding the dynamics of environmental degradation, that the implementation of the wilderness agenda is causing serious deprivation in the Third World, that the deep ecologist's interpretation of Eastern traditions is highly selective, and that in other cultural contexts (e.g., West Germany and India) radical
environmentalism manifests itself quite differently, with a far greater emphasis on equity and the integration of ecological concerns with livelihood and work. I conclude that despite its claims to universality, deep ecology is firmly rooted in American environmental and cultural history and is inappropriate when applied to the Third World. Guha is at the Centre for Ecological Sciences, Indian Institute of Science, Bangalore, India. (EE)

Guichard, Frederic; Levin, Simon A; Hastings, Alan; Siegel, David, "Toward a Dynamic Metacommunity Approach to Marine Reserve Theory", BioScience 54(no.11, November 2004):1003-1011(9). Coastal habitats have recently received much attention from policymakers, but marine reserve theory still needs to integrate across scales, from local dynamics of communities to biogeographic patterns of species distribution, recognizing coastal ecosystems as complex adaptive systems in which local processes and anthropogenic disturbances can result in large-scale biological changes. We present a theoretical framework that provides a new perspective on the science underlying the design of marine reserve networks. Coastal marine systems may be usefully considered as metacommunities in which propagules are exchanged among components, and in which the persistence of one species depends on that of others. Our results suggest that the large-scale distribution of marine species can be dynamic and can result from local ecological processes. We discuss the potential implications of these findings for marine reserve design and the need for long-term monitoring programs to validate predictions from metacommunity models. Only through an integrated and dynamic global perspective can scientists and managers achieve the underlying goals of marine conservation.


Guix, Juan Carlos, "Evidence of Archaeophytes in Amazonian Forests: An Assessment to Seed Dispersal by Indians in pre-Columbian Times," in Rabisch W, Klingenstein F., Essi F, eds. Fourth European Conference on Biological Invasions, Vienna. Neobiota. Bfn-Skripten 184:140. Bundesamt für Naturschutz. Bonn, 2006. The author finds significant numbers of large-fruited or seeded plant species near former Indian settlements and argues that this suggests the participation of humans in seed dispersal, especially along river margins and especially of palms. The humans may have carried (or defecated) the seeds there, or they may have been involved in agriculture. Guix is in biology, Universitat de Barcelona, Barcelona, Spain. jcgui@pangea.org


Gulick, John, "The "Disappearance of Public Space": An Ecological Marxist and Lefebvrian Approach," Philosophy and Geography 2 (1998): 135-155. Gulick is a Ph.D. candidate in the Department of Sociology at the University of California, Santa Cruz. (P&G)


Gunderson, Lance H., Holling, C. S., Light, Stephen S., eds. Barriers and Bridges to the Renewal of Ecosystems and Institutions. New York: Columbia University Press, 1996. 593pp. $52.50 cloth. Continuing a series on adaptive environmental management, the authors review the management histories in the New Brunswick forests, the Everglades, the Chesapeake Bay, the Columbia River, the Great Lakes, and the Baltic Sea, demonstrating how people and ecosystems coevolve. In addition, contributors from the social sciences suggest broad critical strategies for surmounting barriers and renewing damaged ecosystems. (v7,#4)


Gunn, Alastair S. "Environmental Ethics and Tropical Rain Forests: Should Greens Have Standing?" Environmental Ethics 16(1994):21-41. Almost everyone in the developed world wants the logging of tropical rain forests to stop. Like Antarctica, they are said to be much too important and much too valuable to be utilized just for development and are said to be part of a global heritage. However, it is not that simple. People in the developing world consider our criticisms to be ill-informed, patronizing, and self-serving. We are seen as having "dirty hands." They hold that we neither have nor deserve moral standing as critics until we change our trade policies, rhetoric, and extravagant lifestyles. Gunn is in the department of philosophy, University of Waikato, Hamilton, New Zealand. (EE)

Gunn, Alastair S., and P. Aare Vesilind, Environmental Ethics for Engineers. Chelsea, Michigan: Lewis, 1986. Pp. 153. A good introductory textbook on environmental issues and engineering practice. Although designed for the specific use of engineering undergraduates, it would be useful in any course on moral problems. There is a brief introduction to the ethical dimensions of engineering and to the theoretical arguments in environmental ethics. The remainder of the book is a collection of essays and environmental disaster case-studies. The philosophy essays include Aldo Leopold's "The Land Ethic," Garrett Hardin's "Tragedy of the Commons," and excerpts from Christopher Stone's "Should Trees Have Standing?" These
classics in the field of environmental ethics are all accessible to the nonspecialist. (Katz, Bibl # 1)

Gunn, Alastair S. "The Restoration of Species and Natural Environments." Environmental Ethics 13(1991):291-310. My aims in this article are threefold. First, I evaluate attempts to drive a wedge between the human and the natural in order to show that destroyed natural environments and extinct species cannot be restored; next, I examine the analogy between aesthetic value and the value of natural environments; and finally, I suggest briefly a different set of analogies with such human associations as families and cultures. My tentative conclusion is that while the recreation of extinct species may be logically impossible, the restoration of natural environments raises only (formidable, no doubt) technical difficulties. Opponents of destructive developments which do not exterminate species, therefore, had better look elsewhere, rather than relying on the claim that restoration is logically impossible. Gunn is in the department of philosophy, University of Waikato, Hamilton, New Zealand. (EE)

Gunn, Alastair S., and Tudhope, Kelly A., "The Report of the (New Zealand) Royal Commission on Genetically Modified Organisms: Ethical, Cultural and Spiritual Issues of Field Release," Organic NZ, September/October 2002, pp. 12-13. "We think the Commission's recommendations are wrong because it didn't give enough weight to ethical and cultural concerns, and underestimated risks. Furthermore, it derives conclusions that are inconsistent with both the general principles that it praises and with much of the material submitted to it, and advocates a dangerous experiment that carries serious risk of irreversible harm." "We think any field release is undesirable, because of the environmental and cultural risks and potential loss of intrinsic value." "The Report is a bit of a puzzle because someone reading it might almost imagine that the first half was written by staff from the Department of Conservation and the second half by the Business Roundtable." Gunn is in philosophy, University of Waikato. Tudhope is a law/philosophy student at the University of Waikato, New Zealand. (v.13,#4)


Gunn, Alastair S. "Rethinking Communities: Environmental Ethics in an Urbanized World." Environmental Ethics 20(1998):341-60. Humans have largely transformed the natural environment and there is scarcely an area of the world which has not been affected by human activity. Human domination of the environment, in particular by the creation of infrastructure, urbanization, and conversion to agriculture, has mostly proceeded in an unplanned and frequently destructive manner. Almost fifty percent of humans already live in cities and this proportion will continue to grow. However, issues of urbanization are little addressed in the environmental philosophical literature. I explore community and sustainability in an urban context, drawing on the work of the landscape architect Ian McHarg who, I argue, may have more to offer an urbanized
world than iconic figures such as Aldo Leopold. Gunn is in philosophy, University of Waikato, Hamilton, New Zealand. (EE)


Gunn, Alastair S., "Environmental Ethics and Trophy Hunting," Ethics and the Environment 6(no. 1, 2001):68-95. In the environmental literature, there is a spectrum of views on hunting. At one end is the view that hunting is justified only for self protection and for food, where no other reasonable alternative is available. Most writers also agree that hunting is sometimes justified in order to protect endangered species and threatened ecosystems where destructive species have been introduced or natural predators have been exterminated. Others accept hunting as part of cultural tradition or for the psychological well being of the hunter, sometimes extended to include recreational hunting when practiced according to "sporting" rules. Nowhere in the literature, so far as I am aware, is hunting for fun, for the enjoyment of killing, or for the acquisition of trophies defended. However I argue that trophy hunting is essential in parts of Africa for the survival of both people and wildlife. Gunn is in philosophy, University of Waikato, Hamilton, New Zealand. (E&E)

Gunn, Alastair S. "Traditional Ethics and the Moral Status of Animals." Environmental Ethics 5(1983):133-54. Most philosophical discussion of the moral status of animals takes place within a context of traditional ethics. I argue that the conceptual apparatus of utilitarianism and rights theory is historically and logically tied to an individualistic, atomistic concept of society. The liberal-democratic tradition is thus an unsuitable framework for understanding, analyzing, and solving environmental problems, including the moral status of animals. Concepts such as stewardship or trusteeship are more appropriate for the development of an environmental ethic. Gunn is at the Philosophy Dept., University of Waikato, Hamilton, New Zealand. (EE)

Gunn, Alastair S. "Why Should We Care about Rare Species?" Environmental Ethics 2(1980):17-37. Concern for the fate of rare species leads us to ask why the extermination of species is wrong. No satisfactory account can be given in terms of animal rights, and a speciesist perspective can yield at best only a case for preservation of those species which enough people happen to care about. An attempt is made to analyze the concept of rarity, and its relation to value. Finally, it is suggested that the problem can be resolved only in terms of an environmental ethic, according to which the existence of each species, and of ecological wholes, is held to have intrinsic value. Gunn is at the Philosophy Dept., University of Waikato, Hamilton, New Zealand. (EE)

Gunn, Alastair S., McCallig, Carolyn, "Environmental Values and Environmental Law in New Zealand," Ethics and the Environment 2(1997):103-119. We examine the relation between environmental ethics and environmental law, focusing on the New Zealand Resource Management Act 1991. This is a comprehensive and philosophically grounded statute that was the first of its kind in the world. We analyze key concepts in
the law including sustainability, resources, stewardship, natural character, and intrinsic law, which we try to resolve from a "weak anthropocentric" position. Gunn is on the faculty in philosophy, McCallig a graduate student, at the University of Waikato, Hamilton, New Zealand. (E&E)


Gunster, Shane, "'You Belong Outside': Advertising, Nature, and the SUV," Ethics and the Environment 9(no. 2, 2004):4-32. Images of nature are among the most common signifiers of utopia in commercial discourse, tirelessly making the case that a certain commodity or brand will enable an escape from the malaise and drudgery of urban existence. The invocation of natural themes has been especially prominent in the marketing and promotion of sport utility vehicles over the past decade. Speeding through deserts and jungles, fording raging rivers, and even scaling the heights of Mt. Everest, the SUV is routinely depicted in the most spectacular and remote natural locations. These fanciful themes now attract the scorn of many who draw upon them to underscore the rather glaring contradictions between how these vehicles are marketed and how they are actually used: the irony of using pristine images of a hyper-pure nature to motivate the use of a product that consumes excessive amounts of natural resources and emits high levels of pollutants lies at the core of the growing public backlash against the SUV. While generally sympathetic to this critical perspective, I argue that we need to think through the role of nature in constructing the promotional field of these vehicles in a more rigorous fashion that is often the case. Gunster teaches advertising and media studies at Simon Fraser University in Burnaby, British Columbia. (E&E)


Gunter, Pete A. Y., The Big Thicket: An Ecological Reevaluation. Denton, TX: University of North Texas Press, 1993. $ 14.95. 230 pages. A study of the Big Thicket National Preserve, historical and biological background, where to go, what to see, and why it matters. Gunter is professor of philosophy at the University of Texas and has spent much of his life in conservationist activities at the Big Thicket. (v4,#3)

Are Land Ethics Practical?  The Big Thicket.  Gunter and Oelschlaeger are both in
philosophy at the University of North Texas.  (v9,#1)

Gunter, Pete A. Y., The Big Thicket, revised edition.  Denton, TX: University of North
(and pivotal in) designating the Big Thicket National Biological Preserve and the Trinity
River National Wildlife Refuge.  (v9,#1)


Gunter, Pete.  Review of Conservation for the Twenty-first Century. Edited by David

Gunter, Peter A., Review of Catherine Larrére, Les Philosophies de l'environnement.

Gunton, Tl; Day, JC; Williams, PW, "Evaluating Collaborative Planning: The British

Guo, Z; Xiao, X; Gan, Y; Zheng, Y, "Landscape planning for a rural ecosystem: case
study of a resettlement area for residents from land submerged by the Three Gorges

Gupta, Aarti, "Governing Trade in Genetically Modified Organisms: The Cartagena
varying priorities, intense negotiations have finally paid off in the development of a
worldwide agreement concerning the transport and use of genetically modified
organisms.  (v.12,#2)

89, 7 March 1997, p 16.

Gupte, M, "Reexamining Participatory Environmental Policy: Social Stratification and
the Gender Dimension", Society and Natural Resources 16(no.4, 2003):327-334.

Gupte M., "Participation in a Gendered Environment: The Case of Community Forestry
in India," Human Ecology 32(no.3, June 2004):365-382(18).  (v. 15, # 3)

North American Wildlife Reserves: How Small Is Too Small?," Conservation Biology
15(no.5, 2001): 1355-63.  (v.13,#2)

Gurdebeke, S., D. Debakker, N. Vanlanduyt and J. Maelfait, "Plans for a Large
Regional forest in Eastern Flanders (Belgium): Assessment of Spider Diversity and
Community Structure in the Current forest Remnants," Biodiversity and Conservation 12(no. 9, 2003): 1883-1900. (v 14, #3)

Guroian, Vigen, "The Christian Gardener: An Orthodox Meditation," Christian Century 113(no. 7, February 28, 1996):228-231. "When I garden, earth and earthworm pass between my fingers and I realize that I am made of the same stuff. When I pinch the cucumber vine and the water drips from capillaries to soil, I can feel the blood coursing through my body." "We are not only God's fellow workers in the garden; we ourselves are the garden." Guroian teaches theology and ethics at Loyola College in Baltimore. (v7,#1)


Gustafson, James M. A Sense of the Divine: The Natural Environment from a Theocentric Perspective. Cleveland, OH: Pilgrim Press, 1994. Chapter 1: For many people there is at least an implicit "sense of the divine" in nature that often underlies other reasons for concern for the environment. A theocentric perspective provides one way to describe and understand this sense of the divine and in turn to elicit it more deeply and fully. Chapter 2: Human accountability and the conflicts of purpose that lead inevitably to ambiguous moral choices, and perhaps in some cases to tragic ones. Moral ambiguity pervades medical and economic choices as well, but in ecological issues it has particular dimensions, as humans intervene with the natural world. The task of ethics is to reduce, if not eliminate it, but success can only be limited. Chapter 3: An ideal-typology of different stances of responsibility toward nature, with some discussion of the religious or theological correlates of each type. One type, humans as participants in nature, is appropriate to a theocentric
perspective. Chapter 4: Some relevant academic disciplines, those that contribute to discussion and resolutions of environmental policy. Can the disciplinary arcs be closed to form an integrated view of the environment? This is our human responsibility, but premature closure is likely to lead to policies and actions that are directed by limited values and interests. The parts seldom, if ever, come into a whole harmonious equilibrium. Nothing can exist independently; everything exists interdependently. Anything which exists in a proper condition is in equilibrium with everything else. Well balanced treatment. Anyone who thinks that theologians do not do their homework in other disciplines should read this book. Gustafson is in theological ethics at Emory University and the author of Ethics from a Theocentric Perspective, 2 vols, University of Chicago Press, 1981 and 1984, a widely discussed work, which he here elaborates in the direction of ecological ethics. Thomas, J. Mark, ed. Evangelicals and the Environment. Theme issue of Evangelical Review of Theology 17 (no. 2. 1993). (Paternoster Periodicals, P.O. Box 300, Carlisle, Cumbria, CA3 OQS, U.K.) Thirteen articles under the headings: Biblical and Theological Perspectives, The Praxis of Sustainable Development, Case Studies in Christian Environmental Stewardship. Thomas teaches social ethics at Madison Area Technical College, Madison, WI. (v6,#1)


Gutierrez, Jorge L.; Jones, Clive G., "Physical Ecosystem Engineers as Agents of Biogeochemical Heterogeneity," BioScience 56 (no.3, March 2006): 227-236 (10). Physical ecosystem engineers are organisms that physically modify the abiotic environment. They can affect biogeochemical processing by changing the availability of resources for microbes (e.g., carbon, nutrients) or by changing abiotic conditions affecting microbial process rates (e.g., soil moisture or temperature). The consequences of physical ecosystem engineering for biogeochemical processes can be predicted by considering the resources or abiotic conditions that limit or promote a reaction, and the effect of physical ecosystem engineering on these resources or abiotic conditions via the control they exert on material flows and heat transfer.


Guzman, HM; Guevara, C; Castillo, A, "Natural Disturbances and Mining of Panamanian Coral Reefs by Indigenous People," Conservation Biology 17(no.5, 2003):1396-1401. (v.14, #4)