

K20.1298

ECOLOGY AND ENVIRONMENTAL THOUGHT

This course will examine the dual origins of ecological science and environmentalism in the Western world, their connections to broader intellectual, cultural, social, and political trends, their tenuous relationship to one another over the past century, and their continuing interactions in the discourse over the fate of nature and of human society.

Ecology occupies a unique place in our culture. On the one hand, it is a full-fledged science, making use of all the tools and methods available to other sciences. On the other hand, the word "ecology" connotes a social movement, a philosophy for living, a spiritual union with nature, an ideology, and even a critique of science and technology. No other science, or rather name for a science, has that dual role. Whereas ecological science and what has come to be called environmentalism appear to be relatively recent developments, they have long and deep (and somewhat different) roots in our culture. Their intertwined histories and their current manifestations raise some intriguing questions that constitute the subject of this course. Is ecology a typical western science or is it, as some environmentalists have insisted, a holistic antidote to traditional mechanistic/reductionistic science? How did the culture that has probably caused the most environmental destruction in the history of the earth give rise to both ecological science and the environmental movement? How is it that the Judeo-Christian religious tradition has been used both to encourage reverence for nature and to justify its exploitation? What is the relationship between Darwinian evolution theory and ecology? Are there values embedded in ecological theory? What sorts of values? What does it mean to say that nature is in balance? How have myths of the primitive--primitive nature and the ecologically noble savage--found expression in both ecological science and environmental thought? How have environmentalists, and the general public, misunderstood ecological theory? Is the effort to preserve biodiversity throughout the globe a pure scientific, and moral, pursuit or another form of Western imperialism? No doubt many other questions will arise over the course of the semester.

The format of the class will consist of alternating small and large-group discussions, occasional informal lectures, occasional films/videotapes, and possibly an outside speaker.

Course requirements. You are expected to attend all classes, do the required reading on time, and participate in class discussions. Written work will consist of (1) weekly ungraded reaction papers based on the course readings and (2) three graded essays of varying lengths, 4-7 pages. The details will be worked out as we go along, but the tentative due dates are listed on the schedule that follows.

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Reading. (1) The following texts are available at the NYU Bookstore and are on reserve in the Bobst Library:

Paul Colinvaux, *Why Big Fierce Animals Are Rare* (Princeton Univ. Press)
 Rachel Carson, *Silent Spring* (Houghton Mifflin)
 Shepard Krech III, *The Ecological Indian* (W. W. Norton)
 John Vandermeer and Ivette Perfecto, *Breakfast of Biodiversity*, 2nd ed. (Food First Books)
 Michael L. Lewis, *Inventing Global Ecology: Tracking the Biodiversity Ideal in India, 1947-1997* (Ohio Univ. Press)
 Joseph DiMento & Pamela Doughman (eds.), *Climate Change* (MIT)
 E. O. Wilson, *The Future of Life* (Knopf)

(2) There is also a collection of photocopied readings; details to follow.

A note on the reading. We will not read every word of every text. Wherever possible I will suggest chapters or sections to emphasize, and at times we may even divide the reading assignments among different groups of students. The Colinvaux book offers an overview of the science of ecology from the perspective of a practicing ecologist, as well as a strong personal view on the relationship between ecology and environmentalism. Carson's book is an environmental classic, of course, but expect to read it critically and to situate it in its time and place. Lewis's *Inventing Global Ecology* provides a unique view of American ecology and environmentalism from the perspective of post-World War II India. Wilson's *The Future of Life* offers a passionate case for environmental awareness and conservation by the biologist who made "biodiversity" part of our everyday language. The Vandermeer & Perfecto book represents a mixture of science and strong opinion by contemporary ecologists working in a politically and economically volatile part of Central America. DiMento and Doughman's *Climate Change* provides useful background information along with a selection of provocative articles on global warming. The photocopied readings supplement the texts with some original sources and some secondary works that fill in important gaps. I may suggest and/or require additional or alternative readings from time to time.

Participation in discussions. Beginning Nov. 3 there will be two or three students assigned to help lead discussions for most classes. Be thinking about which class to sign up for.

Ground rules. Attendance and etiquette. I take attendance and expect you to attend every class, barring illness or emergency. The class begins at 12:30. Please respect your classmates and arrive on time; late arrivals always disrupt the atmosphere of a classroom. For obvious reasons, turn off cellular phones, beepers, etc. before coming to class. The success of this class depends upon open discussions. Feel free to speak your mind, but also be prepared to listen and respect the opinions of others. **Late papers.** Papers are due on the dates designated. A paper that is not turned in on time is late, regardless of the reason. Every late paper has its story. I'm willing to listen, but I reserve the right to downgrade a paper for lateness. **Documentation and plagiarism.** I will assume that all written work is your own and that you understand the basic rules for acknowledging outside sources. If you don't, please ask; I'll be more than happy to assist you. If I suspect that you have used other people's ideas or words without proper documentation, I will investigate the matter thoroughly. Any clear instance of plagiarism will result in automatic failure of this course and possible further disciplinary action.

SCHEDULE OF TOPICS AND READINGS

Readings listed immediately under each topic should be completed by the date shown. We will try to keep to this schedule whenever possible, but expect changes over the course of the semester. The due dates for the essays are tentative. *Readings preceded by an asterisk are in the photocopied collection.

- W Sept. 3 Introductions
Lamarck & Terborgh, et al. (handouts)
- Note: You should begin reading Colinvaux, *Why Big Fierce Animals Are Rare* as soon as possible. The book is written from a strong point of view, but it will give you an excellent nontechnical overview of the science of ecology and a bit of its history. We will not have enough class time to discuss all of it, but I highly recommend reading it in its entirety during the first half of the semester.
- M Sept. 8 Three views of the economy of nature
*Linnaeus, "On the Police of Nature"
*Lyell, *Principles of Geology*, vol. 2, Chap. IX
*Darwin, "Struggle for Existence"
- W Sept. 10 Nature, American style: an appeal for wildness
*Thoreau, "Walking"
Wilson, *The Future of Life*, Prologue: "A Letter to Thoreau"
- M Sept. 15 Are humans part of nature?
*David Lowenthal, Introduction, & *Marsh, *Man and Nature*, Preface & Chap. 1
- W Sept. 17 Is Christianity bad for nature?
*White, "The Historical Roots of Our Ecologic Crisis"
Excerpts from "Is God Green?" (videotape)
- M Sept. 22 Marsh's legacy? Predicting environmental disaster
"The Bomb Under the World" (videotape)
Colinvaux, *Why Big Fierce Animals Are Rare*, Preface, Prelude, chaps. 1 & 2
- W Sept. 24 Energy and ecosystems
Colinvaux, chaps. 3-4
*Lindeman, "The Trophic-Dynamic Aspect of Ecology"
- M Sept. 29 Agriculture north and south, infertile oceans, global warming, and how to kill a lake
Colinvaux, chaps. 7, 8, 10, & 11
FIRST ESSAY DUE

- W Oct. 1 Basic Darwinian ecology: succession, coexistence, and predation
Colinvaux, chaps 12-14
- M Oct. 6 Stability in nature, the people's place, and lifeboat ethics
Colinvaux, chaps. 17, 18 & Postlude; *Hardin, "The Tragedy of the Commons"
Excerpts from "Paul Ehrlich and the Population Bomb" (videotape)
- W Oct. 8 Sounding the alarm
Carson, *Silent Spring*, chaps. 1-3, 6 & 8
- M Oct. 13 Columbus Day--no classes
- W Oct. 15 An ecological manifesto
Carson, chaps. 10 & 15-17
"Rachel Carson's Silent Spring" (videotape)
- Note: For the second half of the term, it will be useful to read E. O. Wilson's *The Future of Life* as background. We will not discuss every chapter in class, but it provides both a passionate statement by a leading biologist/environmentalist and a kind of consensus view among scientists concerned with ecological issues.
- M Oct. 20 Whose knowledge? Whose science?
Lewis, *Inventing Global Ecology*, Intro. and chaps. 1 & 2
- W Oct. 22 Exporting American ecology
Lewis, chap. 3
- M Oct. 27 Ecologists out to save the world
Lewis, chap. 6
- W Oct. 29 Indian ecology for Indians?
Lewis, chap. 8 & Epilogue
- M Nov 3 The ecologically noble savage
Krech, *The Ecological Indian*, Introduction and chap. 1 and select one of chaps 2-7
- W Nov. 5 Myth and reality: Chief Seattle, Iron Eyes Cody, Pocahontas
Krech, Epilogue
*Wilson, "What Chief Seattle Said"
SECOND ESSAY DUE BY FRIDAY NOV. 7
- M. Nov. 10 Deep ecology and its discontents
Search for articles on "deep ecology" on the internet
Bookchin, "Social Ecology versus Deep Ecology"
*Guha, "Radical American Environmentalism and Wilderness Preservation"

- W. Nov. 12 Fear of invasive species: good sense or eco-chauvinism?
 *Elton, "The Invaders"
 *Lodge & Shradler-Frechette, "Nonindigenous Species"
 Optional: Wilson, *The Future of Life*, chap. 3, "Nature's Last Stand"
- M Nov. 17 Understanding climate change
 DiMento & Doughman, *Climate Change*, chaps. 1 & 2
- W Nov. 19 "The Scientific Consensus" and "Climate Change as News"
 DiMento & Doughman, chaps. 4 & 6
 *Nordhaus and Shellenberger, "Second Life: A Manifesto for a New Environmentalism"
- M. Nov. 24 The conservative challenge: Bjørn Lomborg and his critics
 *Lomborg, *The Skeptical Environmentalist* (excerpts)
 *Pimm and Harvey, "No Need to Worry About the Future"
 *Simberloff, "Skewed Skepticism"
- W Nov. 26 (no class)
- M Dec. 1 Conservation biology: the mainstream view
 Wilson, *The Future of Life*, chaps. 4 & 5
 **"Ecologists on a Mission to Save the World"
- W Dec. 3 The politics and economics of rain forest destruction: a nonmainstream view
 Vandermeer & Perfecto, *Breakfast of Biodiversity*, chaps. 1-4
- M Dec. 8 Globalization, conservation, and models of biodiversity
 Vandermeer & Perfecto, chaps. 5, 7, & 9
- W Dec. 10 Constructing/deconstructing the rain forest, promoting social justice
 (last class) Vandermeer & Perfecto, chaps. 10-11
 Wilson, chap. 7, "The Solution"
- M Dec. 15 FINAL ESSAY DUE, 12 noon, no exceptions! (earlier essays welcomed)