

Anthropology 133

**Native Peoples and the Environment**

Fall 2007

**PROFESSOR:**

Dr. Clark Erickson  
435 University Museum  
[cerickso@sas.upenn.edu](mailto:cerickso@sas.upenn.edu)  
215-898-2282

**DESCRIPTION: Native Peoples and the Environment.** Freshman Seminar; Cross-listed with Latin American Studies LTAM-133, 1 Unit.

The relationship between the activities of native peoples and the environment is a complex and contentious issue. One perspective argues that native peoples had little impact on the environments because of their low population densities, limited technology, and conservation ethic and worldview. At other extreme, biodiversity, and Nature itself, is considered the product of a long history of human activities. This seminar will examine the Myth of the Ecologically Noble Savage, the Myth of the Pristine Environment, the alliance between native peoples and Green Politics, and the contribution of native peoples to appropriate technology, sustainable development and conservation of biodiversity.

**OFFICE HOURS:**

Thursdays 3:00 - 5:00 pm; Fridays 2:00 – 4:00 pm by setting up an appointment through the Undergraduate Secretary in Anthropology: contact Ms. Charlene Kwon (email [kwonc@sas.upenn.edu](mailto:kwonc@sas.upenn.edu) or [anth-ugrad@sas.upenn.edu](mailto:anth-ugrad@sas.upenn.edu); tel. (215) 898-7461). My office is Museum 435 (Academic Wing).

**ANTHROPOLOGY 133 HOMEPAGE:** A Blackboard Course Homepage for this course can be found on Penn Website at <https://courseweb.library.upenn.edu/>, click on Anth 133 after signing in. This homepage will include on-line versions of the course description, syllabus, and handouts; updates on reading assignments and lectures; recent news items on native peoples and the environment; announcements about on-campus seminars and lectures related to the seminar topics; and links to web sites about native peoples and the environment. I recommend saving the address as a "bookmark" and regularly checking the site for new and updated information.

**CLASS MEETINGS:** Mondays and Wednesdays 3:30-5:00pm, Museum 330 (Academic Wing).

## **REQUIRED TEXTBOOK AND ON-LINE READINGS:**

1) Redman, Charles 1999 *Human Impact on Ancient Environments*. University of Arizona Press, Tucson.

- The Redman book is available for purchase as new and used at Amazon.com or other on-line bookstores.

2) *Anthropology 133 Native Peoples and the Environment Readings*: a collection of required readings will be available as PDF format digital files on the Blackboard Course Website (Courseweb) at <https://courseweb.library.upenn.edu/>. You will need Adobe Reader© software to view the files. I recommend updating to **Adobe Reader© version 8.0 or higher**. See the Penn Computing Page below for the free software.

<http://www.upenn.edu/computing/product/specs/adobereader.html>

## **COURSE CONTENT:**

This seminar focuses on the relationship between native peoples and the environment for freshmen. There are no prerequisites for this course. I will begin each class with a short lecture introducing the topic. This will be followed by student discussion. Because this course is a seminar, student participation in discussions is required. I may assign rotating groups of students to lead the discussions.

I use slides and digital presentations during lectures. Since you will be responsible for material presented during these illustrated lectures, you might want to seat yourself where you can see your notebook when the room lights are dimmed. I generally do not stop the lecture to spell terminology, although you will periodically be provided handouts with lists of important terminology. Questions and comments are encouraged and may be asked before, during, or after lectures.

## **REQUIRED READINGS:**

A digital copy of the course syllabus with schedule of topics and required readings is provided on the course web site. This syllabus may be periodically updated throughout the semester. You must read the required readings before the class meeting. You should be prepared to discuss the required readings for each class. I strongly suggest taking notes while doing the readings. These notes will be useful for in-class discussions and for preparing your papers.

## **GRADING:**

Grading is based on three writing assignments (three 5-10 page papers) and class participation in seminar discussions. I highly recommend that you exchange drafts of your papers with fellow students for editorial comments before submitting draft and final versions. Students will have the opportunity to rewrite their papers for consideration of a higher grade if drafts are received by the due dates (to be announced).

Writing Assignments: I will discuss each writing assignment in detail later in the semester.

Assignment 1: See Handout: date to be announced (30% of final grade)

Assignment 2: See Handout: date to be announced (30% of final grade)

Assignment 3: See Handout: date to be announced (30% of final grade)

Participation in the seminar discussions (10% of final grade)

## **ATTENDANCE:**

Students are expected to show up for all class meetings (except religious holidays). Missing a class or two could negatively affect your grade. Please get the notes from other students if you have to miss a class meeting. The professor will not provide copies of lecture notes to students.

## **ACADEMIC INTEGRITY:**

Students should be familiar with and respect the Academic Code of Integrity of the University of Pennsylvania. Any cheating or plagiarism in this course will be dealt with severely. Please see the Penn websites below for definitions of what constitutes plagiarism and cheating and how to avoid them:

*Academic Code of Integrity:*

<http://www.vpul.upenn.edu/osl/acadint.html>

*Plagiarism - What it is and how to avoid it:*

<http://gethelp.library.upenn.edu/guides/engineering/ee/plagiarize.html>

Anthropology 133

**Native Peoples and the Environment**

Fall 2007

Professor Clark L. Erickson

**SUMMARY SYLLABUS**

- September 5: Introduction
- September 10: Contemporary Political Perspectives on the Environment: Environmentalism and Anti-Environmentalism
- September 12: Defining Biodiversity
- September 17: Linguistic, Cultural, and Biological Diversity
- September 19: Historical Ecology, Archaeology of Landscapes, and New Ecology
- September 24: The Myth of the Pristine Landscape; Degradation vs. Enhancement of the Environment: How is it Measured? At what Scale? Against what benchmark? Disturbance, Change, and Biodiversity
- September 26: What Do Native People Think and Know about the Environment, What can we Learn?
- October 1: The Extinction of Pleistocene Big Game Animals of the Ice Age; The Impact of humans on Pacific Islands.
- October 3: Cooking the Earth: Fire Histories and People
- October 8: No class: Professor Erickson out of town for Precolumbian Studies Seminar of Dumbarton Oaks.
- October 10: The Myth of the Noble Savage: Native Americans and Conservation
- October 15: Fall Break (no class)
- October 17: The Impact of Indigenous Hunting I

- October 22: The Impact of Indigenous Hunting II
- October 24: The Domestication of Plants and Animals
- October 29: Native Agroforestry in the Tropics
- October 31: Pre-Columbian Transformation of the Amazon
- November 5: The Domestication of Landscape: Amazonian Black Earths
- November 7: The Signature of Settled Life and Farming on the Landscape
- November 12: Herders, Range Management, and Desertification
- November 14: The Andes: A Built Environment; Applied Archaeology
- November 19: Cities in the Tropical Forest: The Maya
- November 21: Oasis: The Garden City
- November 26: The Jungle as Pharmaceutical Cornucopia: Shamanism, Ethnobotany, Bioprospecting, and Intellectual Property Rights.
- November 28: Native Peoples and Green Politics: An Uneasy Alliance; Ecotourism, Cultural Tourism, National Parks, and Native Americans.
- December 3: Human Activities: Good or Bad for the Environment? Indigenous Models for Management of the Environment
- December 5: The Role of Humans in shaping the Past and the Future

Anthropology 133

**Native Peoples and the Environment**

Fall 2007

Professor Clark L. Erickson

**READING SYLLABUS**

**September 5: Introduction**

**September 10: Contemporary Political Perspectives on the Environment:  
Environmentalism and Anti-Environmentalism**

Hardin, Garrett 1998 [1968] The Tragedy of the Commons. IN Debating the Earth: The Environmental Politics Reader. Edited by John S. Dryzek and David Scholosberg, Oxford University Press, Oxford, pp. 23-34.

Simon, Julian and Herman Kahn 1998 [1984] Introduction to the Resourceful Earth. IN Debating the Earth: The Environmental Politics Reader. Edited by John S. Dryzek and David Scholosberg, Oxford University Press, Oxford, pp. 43-65.

Easterbrook, Gregg 1998 [1995] The Ecorealism Manifesto. IN Debating the Earth: The Environmental Politics Reader. Edited by John S. Dryzek and David Scholosberg, Oxford University Press, Oxford, pp. 66-69.

Ehlich, Paul R. and Anne H. Ehrlich 1998 [1996] "Wise Use" and the Environmental Anti-Science. IN Debating the Earth: The Environmental Politics Reader. Edited by John S. Dryzek and David Scholosberg, Oxford University Press, Oxford, pp. 70-80.

King, Ynestra 1998 [1983] Towards an Ecological Feminism and a Feminist Ecology. IN Debating the Earth: The Environmental Politics Reader. Edited by John S. Dryzek and David Scholosberg, Oxford University Press, Oxford, pp. 429-437.

Lewis, Martin 1998 [1994] Introduction to Green Delusions. IN Debating the Earth: The Environmental Politics Reader. Edited by John S. Dryzek and David Scholosberg, Oxford University Press, Oxford, pp. 398-410.

## **September 12: Defining Biodiversity**

Raven, Peter 1994 Defining Biodiversity. Nature Conservancy 44(1):11-15.

Lovejoy, Thomas 1997 Biodiversity: What is It? IN Biodiversity II: Understanding and Protecting our Biological Resources. Edited by Marjorie Reaka-Kudla, Don Wilson, and Edward O. Wilson, Joseph Henry Press, Washington D.C. pp. 7-14.

Janzen, Daniel H 1997 Wildland Biodiversity Management in the Tropics. IN Biodiversity II: Understanding and Protecting our Biological Resources. Edited by Marjorie Reaka-Kudla, Don Wilson, and Edward O. Wilson, Joseph Henry Press, Washington D.C. pp. 411-431.

### **Optional:**

Rodolfo Dirzo and Peter H. Raven 2003 Global State of Biodiversity and Loss. Annual Review of Environment and Resources 28:137-167.

Patrick, Ruth 1997 Biodiversity: Why is it Important? IN Biodiversity II: Understanding and Protecting our Biological Resources. Edited by Marjorie Reaka-Kudla, Don Wilson, and Edward O. Wilson, Joseph Henry Press, Washington D.C. pp. 15-24.

## **September 17: Linguistic, Cultural, and Biological Diversity**

TEXTBOOK:  
Redman Chapter 3

Mann, Charles C. 1991 Extinction: Are Ecologists Crying Wolf? Science 253:736-738.

Guterman, Lila 2000 Have Ecologists Oversold Biodiversity? Chronicle of Higher Education. October 13.

Maffi, Luisa 2005 Linguistic, Cultural, and Biological Diversity. Annual Review of Anthropology 29:599-617.

Hecht, Susanna and Alexander Cockburn 1989 Seven Beliefs, True and False, about the Amazon. IN The Fate of the Forest: Developers, Destroyers, and Defenders of the Amazon. Verso, London, pp. 231-232.

## **September 19: Historical Ecology, the Archaeology of Landscapes, and the New Ecology**

TEXTBOOK:  
Redman: pp. 89-90 (succession, climax community)

Botkin, Daniel 1990 Chapter 1. IN Discordant Harmonies: A New Ecology for the Twenty-First Century. Oxford University Press, Oxford, pp. 3-13.

Zimmerer, Karl and Kenneth Young 1998 Introduction: The Geographical Nature of Landscape Change. IN Nature's Geography: New Lessons for Conservation in Developing Countries. Edited by K. Zimmerer and K. Young, University of Wisconsin Press, Madison, pp. 3-34.

Blumler, Mark A. 1998 Biogeography of Land-Use Impacts in the Near East. IN Nature's Geography: New Lessons for Conservation in Developing Countries. Edited by K. Zimmerer and K. Young, University of Wisconsin Press, Madison, **pp. 220-223 only** [Clements, Succession Theory]

Balée, William and Clark Erickson 2006 Introduction: Time and Complexity in Historical Ecology. IN Time and Complexity in Historical Ecology: Studies from the Neotropics. edited by William Balée and Clark Erickson, Columbia University Press, New York, pp. 1-18

**Optional:**

Balée, William 2007 The Research Program of Historical Ecology. Annual Review of Anthropology 35:75-98.

**September 24: The Myth of the Pristine Landscape; Degradation vs. Enhancement of the Environment: How is it Measured? At what Scale? Against what benchmark? Disturbance, Change, and Biodiversity**

Mann, Charles 2002 1491: Before it Became the New World, the Western Hemisphere was vastly more populous and sophisticated than has been thought. Atlantic Monthly March, pp. 41-53.

Stahl, Peter W. 1996 Holocene Biodiversity: An Archaeological Perspective from the Americas. Annual Review of Anthropology 25:105-126.

Denevan, William M. 1992 The pristine myth: The landscape of the Americas in 1492. Annals of the Association of American Geographers 82:369-385;

**September 26: What Do Native People Think and Know about the Environment, What can we Learn?**

TEXTBOOK:

Redman Chapter 2

Reichel-Dolmatoff, Gerardo 1976 Cosmology as Ecological Analysis: A View from the Rain Forest Man II:307-318

Ellen, Roy F. 1998 Indigenous Knowledge of the Rainforest: Perceptions, Extraction, and

Conservation. IN Human Activities and the Tropical Rainforest: Past, Present and Possible Future. Edited by Bernard K. Maloney, Kluwer Academic Publishers, the Netherlands, p. 87-99.

Posey, Darrell A. 1992 Interpreting and Applying the “Reality” of Indigenous Concepts: What is Necessary to Learn from Natives? IN Conservation of Neotropical Forests: Working from Traditional Resource Use. Edited by Kent Redford and Christine Padoch, Columbia University Press, New York, pp. 20-34.

**October 1: The Extinction of Pleistocene Big Game Animals of the Ice Age; The Impact of Humans on Pacific Islands.**

TEXTBOOK:

Redman: Chapter 1 (Easter Island; **pages 7-8 only**); Chapter 4

Diamond, Jared 2005 Chapter 2: Twilight at Easter. IN Collapse: How Societies choose to Fail or Succeed. Viking, New York, pp. 79-119

Stahl, Peter W. 1996 Holocene Biodiversity: An Archaeological Perspective from the Americas. Annual Review of Anthropology 25:105-126. [pages 112-113 only]

**October 3: Cooking the Earth: Fire Histories and People**

Pyne, Stephen J. 1998 Forged in Fire: History, Land, and Anthropogenic Fire. IN Advances in Historical Ecology. Edited by William Balée, Columbia University Press, New York, pp. 62-103.

Rudsiman, William 2005 How did Humans first alter Global Climate? Scientific American March Issue, pp. 46-53.

**October 8: No class (catch up on past and future readings)**

**October 10: The Myth of the Noble Savage: Native Americans and Conservation**

Redford, Kent H. 1991 The Ecologically Noble Savage. Cultural Survival Quarterly 15(1):46-48.

Stearman, Allyn MacLean 1994 "Only Slaves Climb Trees": Revisiting the Myth of the Ecologically Noble Savage in Amazonia. Human Nature 5(4):339-357.

**October 15: Fall Break**

**October 17: The Impact of Indigenous Hunting I**

Stearman, Allyn MacLean 2000 A Pound of Flesh: Social Change and Modernization as Factors in Hunting Sustainability among Neotropical Indigenous Societies. IN Hunting for Sustainability in Tropical Forests. Edited by John Robinson and Elizabeth Bennett, Columbia University Press, New York, pp. 233-250.

Please start reading Alvard for the next lecture

**October 22: The Impact of Indigenous Hunting II**

Alvard, Michael S. 1994 Conservation by Native Peoples: Prey Choice in a Depleted Habitat. Human Nature 5(2):127-154.

Redford, Kent, Bert Klein, and Carolina Murcia 1990 Incorporation of Game Animals into Small-Scale Agroforestry Systems in the Neotropics. IN Conservation of Neotropical Forests: Working from Traditional Resource Use. Edited by Kent Redford and Christine Padoch, Columbia University Press, New York, pp. 333-348.

Bennett, Elizabeth and John Robinson 2000 Hunting for Snark. IN Hunting for Sustainability in Tropical Forests. Edited by John Robinson and Elizabeth Bennett, Columbia University Press, New York, pp. 1-9.

**October 24: The Domestication of Plants and Animals**

TEXTBOOK:  
Redman: Chapter 5

Hastorf, Christine 1998 The Cultural Life of Early Domestic Plant Use. Antiquity 72:773-782.

Pollan, Michael 2001 I, Pollinator. New York Times Magazine (April 22, 2001), pp. 21-22.

**October 29: Native Agroforestry in the Tropics**

Balée, William 1989 The Culture of Amazonian forests. In Natural Resource Management by Indigenous and Folk Societies in Amazonia. Edited by Darrell Posey and William Balée. Advances in Economic Botany 7. The New York Botanical Garden, New York, pp. 1-21.

Peters, Charles 2000 Precolumbian Silviculture and Indigenous Management of Neotropical Forests. IN Imperfect Balance: Landscape Transformations in the Precolumbian Americas. Edited by David Lentz, Columbia University Press, New York, pp. 203-223.

OPTIONAL:

Politis, Gustavo 1996 Moving to Produce: Nukak Mobility and Settlement Patterns in

Amazonia. World Archaeology 27(3): 492-511.

Carneiro, Robert L. 1988 Indians of the Amazon Forests. IN People of the Tropical Rain Forest. Edited by Julie Sloan Denslow and Christine Padoch, University of California Press, Berkeley, pp. 73-86.

**October 31: Pre-Columbian Transformation of the Amazon.**

Parsons, James and William Denevan 1974 Pre-Columbian Ridged Fields. IN New World Archaeology. Edited by Erza Zubrow, Margaret Fritz, and John Fritz, Freeman, San Francisco, pp. 241-248.

Mann, Charles 2000 Earthmovers of the Amazon. Science. 287(5454):786 - 789.

Erickson, Clark 2000 An Artificial Landscape-Scale Fishery in the Bolivian Amazon. Nature. 408:190-193.

**November 5: The Domestication of Landscapes: Amazonian Black Earths**

Mann, Charles 2000 The Good Earth: Did People Improve the Amazon Basin? Science 287(5454):788.

Mann, Charles 2002 The Real Dirt on Rainforest Fertility. Science 297:920-923.

OPTIONAL:

Erickson, Clark 2003 Historical Ecology and Future Explorations. IN Amazonian Dark Earths: Origin, Properties, Management. Edited by Johannes Lehmann, Dirse C. Kern, Bruno Glaser, and William I. Woods editors Kluwer, Dordrecht, pp. 455-500.

**November 7: The Signature of Settled Life and Farming on the Landscape**

TEXTBOOK:

Redman: Chapter 5 (skim; you already read this for an earlier lecture/discussion)

Stocking, Michael 1996 Soil Erosion: Breaking New Ground. IN The Lie of the Land: Challenging Received Wisdom on the African Environment. Edited by Melissa Leach and Robin Mearns, International African Institute, London, pp. 140-154.

Fairhead, James and Melissa Leach 1996 Thinking the Forest-Savanna Mosaic: Colonial Science and its Relics in West Africa. IN The Lie of the Land: Challenging Received Wisdom on the African Environment. Edited by Melissa Leach and Robin Mearns, International African Institute, London, pp. 105-121

**November 12: Herders, Range Management, and Desertification**

Blumler, Mark A. 1998 Biogeography of Land-Use Impacts in the Near East. IN Nature's Geography: New Lessons for Conservation in Developing Countries. Edited by K. Zimmerer and K. Young, University of Wisconsin Press, Madison, pp. 215-236.

Brockington, Daniel and Katherine Homewood 1996 Wildlife, Pastoralists, and Science: Debates concerning Mkomazi Game Reserve, Tanzania. IN The Lie of the Land: Challenging Received Wisdom on the African Environment. Edited by Melissa Leach and Robin Mearns, International African Institute, London, pp. 91-104.

**November 14: The Andes: A Built Environment; Applied Archaeology**

Erickson, Clark L. 2003 Agricultural Landscapes as World Heritage: Raised Field Agriculture in Bolivia and Peru. IN Managing Change: Sustainable Approaches to the Conservation of the Built Environment. Edited by Jeanne-Marie Teutonico and Frank Matero, Getty Conservation Institute in collaboration with US/ICOMOS, Oxford University Press, Oxford, pp. 181-204.

**November 19: Cities in the Tropical Forest: the Maya**

Readings to be announced.

**November 21: Oasis: The Garden City**

TEXTBOOK:

Redman: Chapter 6-7

Laureano, Pietro 2005 The Oasis Model. IN *Structure and Meaning in Human Settlements*. Edited by Tony Atkin and Joseph Rykwert, University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, pp. 219-240.

OPTIONAL READINGS:

Laureano, Pietro 1985 Wadi Villages and Sebka Villages in the Saharan Ecosystem. Environmental Design: Journal of the Islamic Environmental Design Research Centre 2:16-25.

Laureano, Pietro 1986 The Oasis: The Origin of the Garden. Environmental Design: Journal of the Islamic Environmental Design Research Centre 1:65-71.

**November 26: The Jungle as Pharmaceutical Cornucopia; Shamanism, Ethnobotany, Biospecting, Intellectual Property Rights.**

Balick, Michael and Robert Mendelsohn 1992 Assessing the Economic Value of Traditional

Medicines in the Tropical Rain Forests. Conservation Biology 6(1):128-130.

Balick, Michael, Rosita Arvigo, Leopoldo Romero 1994 The Development of an Ethnobotanical Forest in Belize: Its Role in the Preservation of Biological and Cultural Diversity. Conservation Biology 8(1): 316-317.

Greaves, Tom 1994 IPA: A Current Survey. IN Intellectual Property Rights for Indigenous Peoples, A Sourcebook. Edited by Tom Greaves, Society for Applied Anthropology, Oklahoma, pp. 3-16.

King, S. R. 1994 Establishing Reciprocity: Biodiversity, Conservation, and New Models for Cooperation between Forest-Dwelling People and the Pharmaceutical Industry. IN Intellectual Property Rights for Indigenous Peoples, A Sourcebook. Edited by Tom Greaves, Society for Applied Anthropology, Oklahoma, pp. 69-82.

**November 28: Native Peoples and Green Politics: An Uneasy Alliance; Ecotourism, Cultural Tourism, National Parks, and Native Americans.**

Conklin, Beth A. and Laura Graham 1995 The Shifting Middle Ground: Amazonian Indians and Eco-Politics. American Anthropologist 97(4):695-710.

Schwartzman, Stephen, Adriana Moreira, and Daniel Nepstad 2000 Rethinking Tropical Forest Conservation: Perils in Parks. Conservation Biology 14(5): 1351-1357.

Redford, Kent H. and Steven Sanderson 2000 Extracting Humans from Nature. Conservation Biology 14(5):1362-1364.

Schwartzman, Stephen, Daniel Nepstad, and Adriana Moreira 2000 Arguing Tropical Forest Conservation: People versus Parks. Conservation Biology 14(5): 1358-1361.

Coordinating Body of Indigenous Peoples Organizations 1990 We are Concerned. Orion (Summer) pp. 36-37.

**OPTIONAL READING:**

Clay, Jason 1992 Buying into the Forests: A New Program to Market Sustainably Collected Tropical Forest Products Protects Forests and Forest Residents. IN Conservation of Neotropical Forests: Working from Traditional Resource Use. Edited by Kent Redford and Christine Padoch, Columbia University Press, New York, pp. 400-415.

**December 3: Human Activities: Good or Bad for the Environment? Indigenous Models for Management of the Environment**

Chapin, Mac 2004 A Challenge to Conservationists. World Watch November-December 2004 pp. 17-31.

World Watch 2005 From Readers (responses to “A Challenge to Conservationists” by Mac Chapin). World Watch January-February 2005 pp. 5-20.

Bailey, Robert C. 1996 Promoting Biodiversity and Empowering Local People in Central African Forests. IN Tropical Deforestation: The Human Dimension. Edited by Leslie Sponsol, Thomas Headland, and Robert Bailey, Columbia University Press, New York, pp. 316-341. [skim]

**December 5: The Role of Humans in Shaping the Past and the Future**

Pimm, Stuart L. et al. 2001 Can We Defy Nature’s End? Science 293:2207-2208.

Hunter, Malcolm 1996 Benchmarks for Managing Ecosystems: Are Human Activities Natural? Conservation Biology 10(3):695-697.

Janzen, Daniel 1998 Gardenification of Wildland Nature and the Human Footprint. Science 279 (5355): 1312.