

Human Ecology

PROVISIONAL SYLLABUS

Human Ecology is an interdisciplinary field that explores humankind's relationship with the non-human world. Our unit on Human Ecology is designed to take full advantage of the rich and varied cultural and ecological resources available at Finca la Isla del Cielo and its neighboring communities. Topics include: Worldviews and Natural History, Art and Ecology, Protected Areas and People, and Agroecology. Each topic combines theoretical considerations, case studies, methodologies, and fieldwork, and makes extensive use of Finca la Isla del Cielo's resources. The last topic of this unit, Agroecology, with its emphasis on both the social and ecological, will segue into the following unit on Tropical Ecology.

Human Ecology Part 1

Human Ecology of the Neotropics

*The mind is a part of the nature of things;
the world is a divine dream.*
Ralph Waldo Emerson, *Nature*

This topic strives to increase understanding of how people are situated in the landscape, and how indigenous cosmologies function as storehouses of critical knowledge of the natural world. It is designed to engage students in the research process. All traditional societies that have managed resources well over time have done so in part through the use of cultural symbols that re-inforce particular resource management strategies. Moreover, these religious beliefs, while seeming unscientific, if not irrational at first glance, are based on long and careful observation of nature. Worldviews, thus, are significant components of the pedagogy of place. The topic will endeavor to increase our understanding and appreciation of the significance of environmental concerns among diverse peoples. In it, we explore how the physical world is the backdrop for expressive culture that relates to the interface between humans and nature. In its broadest sense, natural history includes people, and those aspects of culture that relate to environmental concerns directly (such as resource exploitation) and indirectly (for example, totemic proscriptions). Thus, traditional ecological knowledge affects subsistence, adaptation, cosmology, and aesthetics, and these things in turn affect the knowledge base. Through human ecology, we gain greater understanding of critical interactions between humans and the natural world.

In this topic we study beliefs about the relationship between humans and the natural environment as expressed through worldviews, and we explore where these cultural systems of knowing intersect and diverge. We seek insight into how aspects of cultural ecology are expressed through belief systems, and investigate the intersection between the external world and cultural constructions of that world. We will, essentially, strive to understand the mechanisms through which the world makes cultural sense.

Block 1: 10 days. Worldview and Natural History. Taught by Faulstich.

Day 1 Morning, 8:00am – Noon, Topics:

Humans in Landscape: An Introduction to Human Ecology
Tour of Finca la Isla del Cielo

Afternoon, 1 pm – 5 pm:

What is Worldview? What is Natural History?
Exploring Traditional Ecological Knowledge

Day 2

Morning, 8:00am – Noon, Lecture Topics:

Cultural and Ecological Histories of the Region:
Successes and Failures

Afternoon, 1pm – 5pm: Intro Field Assignment;

Ecological Patterns and Conservation Practices

Day 3

Morning, 8:00 am – Noon, Lecture Topics:

Human Ecology Research: Concepts, Methods, & Ethics

Afternoon, 1pm – 5pm: Intro Field Research:

Workshop: Choosing Field Sites; Research Strategies; Collaborative
Research

Day 4

Faculty-Led Field Studies:

Participant Observation; Writing Fieldnotes; Theorizing the Field
Experience; Making Sense of Data; Mapping the Field Site
Writing, Representing, and Ethnographic Authority

Day 5

Morning, 8:00am – Noon, Lecture Topics:

The Ecology of Expressive Culture: Art and Ecology;

Totemic Ecology; Myths of Nature; Biophilia

Afternoon, 1 pm – 5 pm: Intro Field Research:

Introduction to Rock-Art: World Survey; Techniques
Meanings; Rock-Art as Bio-Logical

Day 6

Morning, 8:00am – Noon, Lecture Topics:

Rock-Art Recording: Surveying; Documenting
Site Recording

Afternoon, 1 pm – 5 pm: Intro Field Research;

Petroglyph Conservation in the Neotropics

Day 7

Morning, 8:00am – Noon, Lecture Topics:

Changing Patterns of Resource Use

Afternoon, 1pm – 5pm: Intro Field Research:

Restoration at Finca la Isla del Cielo

Day 8 Morning, 8:00 am – Noon, Field Research:
Finca la Isla del Cielo
Afternoon, 1pm – 5pm: Seminar Topic:
Integrating Ecologies: Solution or Dilemma?

Student Mini-break; 2 days

Readings

Miller, Kenton and Laura Tangle. 1991. *Trees of Life: Saving Tropical Forests and their Biological Wealth*. Boston: Beacon Press.

Place, Susan E. 1993. *Tropical Rainforests: Latin American Nature and Society in Transition*. Wilmington, DW: Scholarly Resources, Inc.

Sponsel, Leslie E. (ed.). 1995. *Indigenous Peoples and the Future of Amazonia*. Tucson and London: The University of Arizona Press.

Sponsel, Leslie, Thomas N. Headland, and Robert C. Bailey (eds.). 1996. *Tropical Deforestation: The Human Dimension*. New York: Columbia University Press.

Western, David and R. Michael Wright (eds.). 1994. *Natural Connections: Perspectives in Community-based Conservation*. Washington D.C.: Island Press.

Human Ecology Part 2 **Community Natural Resource Use**

Part 2 of Human Ecology covers three major topics that examine, from very different perspectives, how humans use natural resources. The first topic is focused on how communities neighboring Finca la Isla del Cielo use their natural resources for subsistence farming, fishing, hunting, and wood gathering. The second topic, Protected Areas and People, explores both the possible conflicts and potential synergies between local community use of resources and the conservation and restoration of ecosystems. The final topic, Agroecology, examines the principles of a variety of environmentally conscious and socially sensitive farming systems (e.g., permaculture, organic farming, etc.) and has students developing agroecologically sound farming practices at Finca la Isla del Cielo's permaculture site.

Block 2: 10 days. Community Natural Resource Use. Taught by Professor Melinda Herrold-Menzies.

Day 11 Morning Session

Local Natural Resource Management; Local subsistence, fishing & farming; Property rights arrangements

- Afternoon Session
 - Faculty-led Village visits for fieldwork, study of local resource use
- Day 12 Morning Session
 - Protected Areas and People; Conflicts over Natural Resources
- Afternoon Session
 - CBNRM-Community-based natural resource management
 - Participation and Community
- Day 13 Morning Session
 - Rural development
 - Conservation and Community Development
- Afternoon Session
 - Ecotourism
- Day 14 Faculty-led Field Trip
- Day 15 Field Trip
 - Investigation of local resource uses: gold mining, subsistence farming, timber extraction
- Day 16 Field Trip
 - Investigation of People-Park relations, resource conflicts, and conservation and development projects (including ecotourism)
- Day 17 Morning Session
 - Return to Finca la Isla del Cielo
- Afternoon Session
 - Introduction to Agroecology; Agroecosystems: Processes and Sustainability; Methodologies of Agroecology
- Day 18 Morning Session
 - Introduction to Permaculture; Polyculture cropping systems
 - Cover-cropping and Mulching; Crop Rotation
- Afternoon Session
 - Faculty-led field work at permaculture site at Finca la Isla del Cielo
- Day 19
 - Morning Session
 - Integrated Pest Management
 - Weed ecology
 - Afternoon Session
 - Field work at permaculture site at Finca la Isla del Cielo
- Days 20 and 21
 - Student Mini-break of 2 days

Preliminary Reading List:

Agrawal, Arun, and Clark C. Gibson. 1999. "Enchantment and disenchantment: the role of community in natural resource conservation." *World Development* 27(4): 629-649.

- Alpert, Peter. 1996. "Integrated conservation and development projects: examples from Africa." *BioScience* 46(11): 845-856.
- Altieri, Miguel. A. 1995. *Agroecology: The Science of Sustainable Agriculture*. Second edition. Westview Press.
- Barrett, Christopher. B., and Peter Arcese. 1995. "Are integrated conservation-development projects (ICDPs) sustainable? On the conservation of large mammals in sub-Saharan Africa." *World Development* 23(7): 1073-1084
- Brandon, Katrina, Kent H. Redford, and Steven E. Sanderson. 1998. *Parks in Peril: People, Politics, and Protected Areas*, eds. Washington, D.C.: The Nature Conservancy and Island Press.
- Brandon, Katrina E., and Michael Wells. 1992. "Planning for people and parks: design dilemmas." *World Development* 20(4): 557-570.
- Brosius, J. Peter, Anna. L. Tsing, and Charles Zerner. 1998. "Representing Communities: Histories And Politics Of Community-Based Natural Resource Management." *Society and Natural Resources* 11(2): 157-168.
- Chambers, Robert.. 1997. *Whose Reality Counts? Putting the First Last*. London: Intermediate technology.
- Li, Tania Murray. 1996. "Images of Community: Discourse and Strategy in Property Relations." *Development and Change* 27: 501-527.
- Newmark, William D., and John L. Hough. 2000. "Conserving wildlife in Africa: integrated conservation and development projects and beyond." *BioScience* 50(7): 585-592.
- Oates, John F. 1999. *Myth and Reality in the Rain Forest: How conservation strategies are failing in West Africa*. Berkeley: University of California Press.
- Ribot, Jesse. 1996. "Participation without Representation: Chiefs, Councils and Forestry Law in the West African Sahel." *Cultural Survival Quarterly* Fall 1996.
- Terborgh, John, Carel van Schaik, L. Davenport, and M. Rao. 2002. *Making parks work: Strategies for preserving tropical nature*, Covelo, CA: Island Press.
- Tsing, Anna L., J. Peter Brosius, and Charles Zerner. 1999. "Assessing Community-based Natural Resource Management: Conference Report." *Ambio* 28(2): 197-198.

Western, David, and R. Michael Wright, eds. 1994. *Natural Connections: Perspectives in Community-Based Conservation*. Washington, D.C.: Island Press.

Wilshusen, Peter R., Steven R. Brechin, Crystal L. Fortwangler, and Patrick C. West. 2002. "Reinventing a square wheel: Critique of a resurgent "protection paradigm" in international biodiversity conservation." *Society and Natural Resources* 15: 17-40.