
Term Information

Effective Term Autumn 2021

General Information

Course Bulletin Listing/Subject Area Anthropology
Fiscal Unit/Academic Org Anthropology - D0711
College/Academic Group Arts and Sciences
Level/Career Graduate
Course Number/Catalog 7001
Course Title Society and Environment
Transcript Abbreviation Soc and Env
Course Description This course provides an overview of major theoretical paradigms that have shaped anthropological research on humans and their environment. The goal is to train students to think theoretically as anthropologists by critically examining primary and secondary sources for a selection of theoretical paradigms on social-ecological systems.
Semester Credit Hours/Units Fixed: 3

Offering Information

Length Of Course 14 Week, 12 Week, 8 Week, 7 Week
Flexibly Scheduled Course Never
Does any section of this course have a distance education component? No
Grading Basis Letter Grade
Repeatable No
Course Components Seminar
Grade Roster Component Seminar
Credit Available by Exam No
Admission Condition Course No
Off Campus Never
Campus of Offering Columbus

Prerequisites and Exclusions

Prerequisites/Corequisites
Exclusions
Electronically Enforced No

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code 45.0201
Subsidy Level Doctoral Course
Intended Rank Masters, Doctoral

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

Course Details

Course goals or learning objectives/outcomes

- Explain what culture is and how it shapes humans experience, perception, and behavior.
- Interpret and represent other cultures without judging them by the standards of their own culture.
- Explain how elements of culture are interrelated and should be understood within context.
- Consider the range of human variation when studying human behavior and biology.
- Explain how human diversity is a product of evolutionary and cultural processes.
- Evaluate the history of the main theoretical paradigms in anthropology.
- Connect anthropological theories to research endeavors.
- Construct their own conceptual framework drawing from anthropological (and other) theories.
- Meet ethical, collegial, and professional expectations in and outside the classroom.

Content Topic List

- Archaeological theory
- Analysis of archaeological data
- Cultural history
- Past lifeways
- Explaining cultural change

Sought Concurrence

No

Attachments

- 7001 syllabus theory 1 Ecology v2.docx: Syllabus

(Syllabus. Owner: Healy,Elizabeth Ann)

Comments

- See 12-21-20 email to M. Hubbe *(by Oldroyd,Shelby Quinn on 12/21/2020 03:45 PM)*

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Healy,Elizabeth Ann	11/20/2020 09:23 AM	Submitted for Approval
Approved	Guatelli-Steinberg,Debra	11/20/2020 10:14 AM	Unit Approval
Approved	Haddad,Deborah Moore	11/20/2020 10:35 AM	College Approval
Revision Requested	Oldroyd,Shelby Quinn	12/21/2020 03:45 PM	ASCCAO Approval
Submitted	Healy,Elizabeth Ann	02/19/2021 04:45 PM	Submitted for Approval
Approved	Guatelli-Steinberg,Debra	02/20/2021 12:25 PM	Unit Approval
Approved	Vankeerbergen,Bernadette Chantal	02/23/2021 04:50 PM	College Approval
Pending Approval	Jenkins,Mary Ellen Bigler Hanlin,Deborah Kay Oldroyd,Shelby Quinn Hilty,Michael Vankeerbergen,Bernadette Chantal	02/23/2021 04:50 PM	ASCCAO Approval

ANTHROPOLOGY 7001

THEORY 1:

SOCIETY AND ENVIRONMENT

Instructor: Brutus Buckeye
brutus.1@osu.edu
4034 Smith Laboratory
Tel. (614) 292-4149

Autumn 2021
Hours of instruction: TR 11:10 – 12:30
Classroom: Smith Lab 4094
Office hours: W 12-3 PM or by appointment

COURSE DESCRIPTION

This course provides an overview of major theoretical paradigms that have shaped anthropological research on humans and their environment. This course will train students to think theoretically as anthropologists by critically examining primary and secondary sources for a selection of theoretical paradigms on social-ecological systems.

COURSE GOAL AND LEARNING OUTCOMES

The goal is to train students to think theoretically as anthropologists, i.e., understand how anthropologists use theory to describe and explain the diversity and dynamics of social-ecological systems, and this entails the following:

1. Explain what culture is and how it shapes human societies and their biocultural environment.
2. Interpret and represent the role societies differ without judging other cultures by the standards of their own culture.
3. Explain how elements of culture are interrelated to our biocultural environment and how this should be understood within specific contexts.
4. Consider the range of human variation when studying human behavior and biology.
6. Evaluate the history of the main theoretical paradigms in anthropology that relate to the discussion about social developments and human environments.
7. Connect anthropological theories to research endeavors.
8. Construct their own conceptual framework drawing from anthropological (and other) theories.
9. Meet ethical, collegial, and professional expectations in and outside the classroom.

READINGS

The required readings will be made available through Carmen. You are expected to have read the assigned readings before you come to class. As you read, highlight, take notes, summarize, look up new words or concepts, and come with questions for me and/or your

classmates. In short, be prepared to discuss the readings in class and bring the readings to class. I recommend you to go over the readings once more after class.

LEARNING OUTCOMES

The following learning outcomes will be assessed in this course. They are part of the curriculum goals for the graduate program.

1. Explain what culture is and how it shapes humans experience, perception, and behavior.
 - a. Describe anthropological definition of the culture concept (e.g., learned, dynamic, shared, tacit). (A1a)
2. Interpret and represent other cultures without judging them by the standards of their own culture.
 - a. Recognize own beliefs and practices as cultural. (A2a)
 - b. Recognize that their own beliefs and practices are not “normal”. (A2b)
 - c. Recognize cultural differences between individuals and groups. (A2c)
3. Explain how elements of culture are interrelated and should be understood within context.
 - a. Identify examples of how elements of cultures are interrelated (e.g., relationship between modes of subsistence and gender status). (A3a)
 - b. Analyze cultural phenomena holistically, i.e., studying it within local, global, and historical contexts. (A3b)
4. Critically assess how privilege and power structures interact with biological, cultural, and social systems.
 - a. Recognize inequalities within and among human societies. (A6a)
 - b. Identify the ways in which inequity interacts with biological, cultural, and social systems. (A6b)
5. Evaluate the history of the main theoretical paradigms in anthropology.
 - a. Identify current theoretical debates of anthropology. (B1c)
 - b. Evaluate various strengths and weaknesses of anthropological theories. (B1d)

ASSESSMENT OF LEARNING OUTCOMES

Seminar. The goal of the seminars is to make sense of the theoretical paradigms in the anthropology of social-ecological systems, i.e., to understand the framework and the debates about the paradigm, to appreciate its contributions, its place in the history of anthropology, and recognize how it continues to shape anthropological research on social-ecological systems. The discussions held in the seminars are not competitive debates in which participants try to 'win' by arguing for their interpretation of the theoretical frameworks. Instead, the goal is to collaboratively come to an understanding of anthropological theories of social-ecological systems (with the understanding that we may arrive at different understandings of the same paradigms). Everyone is responsible for making the seminar discussions an effective learning activity. This entails not only talking, but also listening, and encouraging others to participate.

Addendum. At the end of every week – before Friday midnight – students have to submit a paragraph or two (no longer than one page) in which they reflect on what they learned that week from reading, writing, and seminar discussion with an emphasis on what they learned from discussions with their fellow students. The goal of the assignment is for students to develop their own conceptual framework drawing from the anthropological theories discussed in the course and prepare for the term paper.

Weekly Homework Assignments (WHA). Every week students will complete one written homework assignment in which they can practice and demonstrate one or more learning outcomes. The homework assignments below are examples of the types of assignments that instructors can use to assess student learning.

WHA: Anthropological Perspectives. You will write a short essay in which you (1) explain what the value of an anthropological approach is; and (2) how you will use the different anthropological perspectives in your own research, teaching, and professional career. The essay should be no longer than 4 double-spaced pages. -

WHA: Critical analysis of anthropological theory. In this homework assignment, students will use the following set of instructions to critically analyze the readings for that particular week: (1) explain the theoretical framework and its major concepts; (2) discuss the strengths and weaknesses of the theoretical framework and its contribution to the discipline of anthropology; (3) discuss how this theoretical framework can be used to study your topic; and (4) discuss how different writers assess the theoretical framework. Students are advised to consult secondary sources to complete this homework assignments. Secondary sources can be review articles, like William Roseberry's Annual Review of Anthropology article about 'Marx and Anthropology' (1988) or chapters in a textbook or an encyclopedia, like McGee, R. Jon, and Richard L. Warms. 2012. Anthropological theory: An introductory history. 5th edition ed. Boston: McGraw-Hill. Students have to paraphrase and avoid quotations – in other words, they have to describe and explain these theoretical concepts and frameworks in their own words.

WHA: History of anthropological theory. This homework assignment prompts students to connect the history of anthropology to broader histories of social and epistemological frameworks (in humanism and in science). Students will select for in-class presentation a work of art broadly defined—painting, film, photograph, music, literature. The presentation will be accompanied by a one-page outline that describes how that historical artwork (representing between 1770 and 1970) reflects or amplified intellectual and social trends of its time (or of the time represented) and how, in turn those trends are represented in seminal anthropological works of that time. An example might be the film "Angels & Insects" and its portrayal of the broader context in which evolutionary theory and the Ascent of Man was conceived.

WHA: What is hot? The goal of this homework assignment is to find out what are the "hot" theoretical paradigms of today, i.e., what are popular, contemporary theoretical paradigms or concepts? Contemporary means in the last three to five years. In the essay, students have to do the following: (1) discuss the research strategies that they used to figure out what is "hot"; (2) describe the main players or theorists; (3) explain the theoretical paradigms and the questions they address; (4) discuss the strengths and weaknesses of theoretical paradigms; (5) discuss how it builds on earlier theoretical paradigms; and (6) explain contributions of paradigms to discipline of anthropology.

WHA: Theory and current conditions This assignment builds on the History of Anthropological Theory with students selecting an artwork (conceived broadly) of the past three to five years for in-class presentation. The presentation will be accompanied by a one-page outline that describes how that artwork reflects or amplifies intellectual and socio-economic trends current today. In recursive class discussion and with other exercise explores how in turn those trends are influential in and impacted by anthropology.

WHA: Paradigm detection. In this homework, students will select one recent article from a faculty member in the department that was published in the last five years and identify the theoretical paradigm(s) that are used explicitly and implicitly in the article. Students have to write a two-page analysis in which they (1) explain how they detected the paradigms (e.g., terminology, theorists, questions, explanations, concepts, approaches, citations); and (2) explain how the paradigms have shaped the research and article.

WHA: Linking theory to research. In this homework assignment, students will use the following set of instructions to critically analyze the readings for that particular week: (1) explain the theoretical framework and its major concepts; (2) discuss how the theoretical frameworks shapes empirical research in the assigned research article, for example, how it shapes the research questions, research design, sampling strategies, methods used, data collected, and/or how the data is used to answer the research questions; (3) discuss how the theoretical concepts or frameworks can shape their own research project and/or generate meaningful research questions

about your topic. Here too, students have to paraphrase and avoid quotations – in other words, they have to describe and explain these theoretical concepts and frameworks in their own words.

Peer review. In week 12, students will review the first draft of the term paper of one of their peers. Detailed instructions for peer-review will be made available to the students, drawing from instructions from professional journals and publishers (e.g., Elsevier) and the rubric for the term paper. The reviewer should provide critical and constructive feedback for the author, but in the final paragraph of the review should describe what the reviewer learned from reviewing. The goal of the peer review is for students to develop supportive professional habits and relationships with their peers.

Term paper. The capstone assignment for this course is a term paper in which students draw on theoretical frameworks covered in the course (and others) to develop their conceptual framework and research project. In the term paper, students should: (1) explain what a conceptual framework is; (2) describe clearly their own conceptual framework; (3) convince the reader of the importance of the topic and (4) the rigor of methodology. In addition, students should be discussing (5) how different theoretical frameworks yield different understandings of the topic and (6) what the advantages and disadvantages are of using different theoretical frameworks. Students should not just use the frameworks from their own subfields, but use frameworks from multiple subfields (and disciplines). The term paper should be no longer than 15 pages double-spaced. The term paper should align with the students' research interests and advance their dissertation research. It may be preparation for their doctoral exam.

Evaluation: Course responsibilities will be weighted in the following way:

1. Weekly homework assignments (HWA)(14)	30%
2. Seminar	10%
3. Peer review	10%
4. Addenda (14)	15%
5. Term paper	35%
Total	100%

Final grades will be calculated following this breakdown: A >93; A- 90-92; B+ 87-89; B 83-86; B- 80-82; C+ 77-79; C 73-76; C- 70-72; D+ 67-69; D 60-66; E < 60.

UNIVERSITY STATEMENTS

Office of Disability Services Statement

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Mental Health Statement

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614--292--5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at 614--292--5766 and 24 hour emergency help is also available through the 24/7 National Suicide Prevention Hotline at 1--800--273-TALK or at suicidepreventionlifeline.org.

Title IX Statement

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at <http://titleix.osu.edu> or by contacting the Ohio State Title IX Coordinator at titleix@osu.edu.

Diversity Statement

The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to

reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

Committee on Academic Misconduct Statement

All students should become familiar with the rules governing academic misconduct, especially as they pertain to plagiarism and cheating. Ignorance of the rules is not an excuse and all alleged cases of academic misconduct will be reported to the Committee on Academic Misconduct ([COAM \(Links to an external site.\)](#)[Links to an external site.](#)).

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct <http://studentlife.osu.edu/csc/>.

TENTATIVE COURSE SCHEDULE

Week	Content	Assignment	Learning Outcome(s)
1	Conceptual frameworks	WHA: History of anthropological theory, Addendum	B1a, B1e-f, B2a, B3a
2	Historical materialism	WHA: History of anthropological theory, Addendum	B1a-b, B1d-f, B2a-b, B3a-d
3	Cultural ecology	WHA: Critical analysis of anthropological theory, Addendum	B1a-b, B1d-f, B2a-b, B3a-d
4	Behavioral ecology	WHA: Critical analysis of anthropological theory, Addendum	B1a-b, B1d-f, B2a-b, B3a-d
5	Cultural niche construction	WHA: History of anthropological theory, Addendum	B1a-b, B1d-f, B2a-b, B3a-d
6	Environmental archaeology	WHA: Anthropological perspectives, Addendum	A1a – A5e, B2a-b, B3a-d
7	Landscape archaeology	WHA: History of anthropological theory, Addendum	B1a-b, B1d-f, B2a-b, B3a-d
8	Historical ecology	HW WHA Critical analysis of anthropological theory, Addendum	B1a-b, B1d-f, B2a-b, B3a-d
9	Cultural landscapes	WHA: Critical analysis of anthropological theory, Addendum	B1a-b, B1d-f, B2a-b, B3a-d
10	Political ecology	WHA: Paradigm detection, Addendum	B1c, B2a-b, B3a-d
11	Post-structuralism	WHA: Linking theory to research, Addendum	B2a-d, B3a-d
12	Anthropocene	Peer review, Addendum	F1c, F1d, B3a-d, B2a-b
13	Complex adaptive systems	WHA: What is hot?, Addendum	A1b, B3a-b, B1e
14	Resilience and sustainability	WHA: Theory and current conditions, Addendum	B1a-c, B2a-b, B2d, B3a-d
Exam Week		Term paper	B1d-e, B2a-d, B3a-d

TENTATIVE SCHEDULE WITH COURSE READINGS**W1. Conceptual frameworks**

Ravitch, Sharon M., and Matthew Riggan. 2012. Reason & Rigor: How conceptual frameworks guide research. Los Angeles (CA): Sage.

Shore, Zachary. 2016. Grad School Essentials: A crash course in scholarly skills. Berkeley (CA): University of California Press.

W2. Historical materialism

Marx, K. [Selections from Grundrisse]

Childe, V.G. 1963 (1951) Social evolution. Pp. 13-27

W3. Cultural ecology

Steward, Julian. 2000. The patrilineal band. In McGee & Warms (Eds.), Anthropological theory: An introductory history (pp. 228-242). McGraw Hill.

Orr, Yancey, J. Stephen Lansing, and Michael R. Dove. 2015. Environmental anthropology: systemic perspectives." Annual Review of Anthropology 44: 153-168.

Orlove, Benjamin S. 1980. Ecological anthropology. Annual review of anthropology 9: 235-273.

W4. Behavioral ecology

Zeanah, David W. 2017. Foraging Models, Niche Construction, and the Eastern Agricultural Complex. American Antiquity 82:3-24.

Stiner, Mary C. and Steven L. Kuhn. 2016. Are we missing the "sweet spot" between optimality theory and niche construction theory in archaeology? Journal of Anthropological Archaeology.

Bird, Douglas and James O'Connell. 2012. Human Behavioral Ecology. In Archaeological Theory Today, edited by Ian Hodder, pp. 37-61. Polity Press, Cambridge.

Mohlenhoff, K. A. and B. F. Coddling. 2017. When does it pay to invest in a patch? The evolution of intentional niche construction. Evolutionary Anthropology 26:218-227.

W5. Cultural niche construction

Smith, Bruce D. 2009. Resource Resilience, Human Niche Construction, and the Long-Term Sustainability of Pre-Columbian Subsistence Economies in the Mississippi River Valley Corridor. *Journal of Ethnobiology* 29:167-183.

Laland, Kevin, Blake Matthews and Marcus W. Feldman. 2016. An Introduction to Niche Construction Theory. *Evolutionary Ecology* 30:191-202.

Bird, Douglas W., Rebecca Bliege Bird, Brian F. Coddington, and Nyalangka Taylor. 2016. A Landscape Architecture of Fire: Cultural Emergence and Ecological Pyrodiversity in Australia's Western Desert. *Current Anthropology* 57 (S13): S65-S79.

Laland, Kevin N., and Michael J. O'Brien. 2010. Niche Construction Theory and Archaeology. *Journal of Archaeological Method and Theory* 17 (4):303-322.

W6. Environmental anthropology

Vita-Finzi & Higgs 1970 Prehistoric economy in the Mt. Carmel area... *Proceedings of the Prehistoric Society* 36

W7. Landscape archaeology

Leone, Mark 1984 in Miller & Tilley, *Ideology, Power, & Prehistory*;

Cosgrove, D.E. 1984 *Social Formation & Symbolic Landscape*;

Tilley, Christopher 1994 *A Phenomenology of Landscape* Ch 2, 3-4

W8. Historical Ecology

Balée, William. 2006. The Research Program of Historical Ecology. *Annual Review of Anthropology* 35: 75-98.

Hayashida, Francis M. 2005. Archaeology, Ecological History, and Conservation. *Annual Review of Anthropology* 34: 43-65.

Posey, D.A., 1985. Indigenous Management of Tropical Forest Ecosystems: The Case of the Kayapo Indians of the Brazilian Amazon. *Agroforestry Systems* 3(2): 139-158.

W9. Cultural landscapes

Willow, Anna J. 2012. *Strong Hearts, Native Lands: The Cultural and Political Landscape of Anishinaabe Anti-Clearcutting Activism*. Albany: State University of New York Press.

Basso, Keith H. 1996. *Wisdom sits in places: landscape and language among the Western Apache*. Albuquerque (NM): University of New Mexico Press.

W10. Political ecology (structural)

Rosenzweig, Melissa S. 2016. Cultivating Subjects in the Neo-Assyrian Empire. *Journal of Social Archaeology* 16(3): 307-334.

W11. Political ecology (post-structural)

Biersack, Aletta. 2006. Reimagining Political Ecology: Culture/Power/History/Nature. *Reimagining Political Ecology*: 3-40.

Marcos, Subcomandante. 2002. *Our Word Is Our Weapon: Selected Writings*. New York: Seven Stories Press.

W12. Anthropocene

Franklin, Adrian. 2008. A Choreography of Fire: A Posthumanist Account of Australians and Eucalypts. *In The Mangle in Practice: Science, Society, and Becoming*, A. Pickering and K. Guzik, eds. Durham, NC: Duke University Press.

Sagan, Dorion. 2011. The Human is More than Human: Interspecies Communities and the New 'Facts of Life.' *In American Anthropological Association Meeting, Montreal, QC, November*.

Tsing, Anna. 2012. Unruly Edges: Mushrooms as Companion Species: for Donna Haraway. *Environmental Humanities* 1(1):141-154.

Kawa, Nicholas C. 2016. *Amazonia in the Anthropocene: People, Soils, Plants, Forests*. Austin (TX): University of Texas Press.

W13. Complex adaptive systems

Holland, J. H. 1992. Complex adaptive systems. *Daedalus*, 121(1), 17-30.
doi:10.2307/2002541

Lansing, J. S. & S. Downey. 2011. Complexity in anthropology. In Hooker (Ed.), *Handbook of the philosophy of science*, vol. 10 -- philosophy of complex systems. Elsevier

Lansing, J. S. 2003. Complex adaptive systems. *Annual Reviews in Anthropology*, 32(1), 183-204.

Kennett, D. J., et al. 2012. Development and disintegration of Maya political systems in response to climate change. *Science* 338:788-791.

Kohler, Timothy A., et al. 2012. Modelling prehispanic Pueblo societies in their ecosystems. *Ecological Modelling* 241:30-41.

W14. Resilience and Sustainability

Holling CS. 1973. Resilience and stability of ecological systems. *Annual Review of Ecological Systems* 4:1-23

Holling, C. S., & Gunderson, L. H. 2002. Resilience and adaptive cycles. In L. H. Gunderson & C. S. Holling (Eds.), *Panarchy: Understanding transformations in human and natural systems* (pp. 25-62). Washington, DC: Island Press

Downey, Sean S., W. Randall Haas, and Stephen J. Shennan. 2016. European Neolithic societies showed early warning signals of population collapse. *Proceedings of the National Academy of Sciences* 113.35 (2016): 9751-9756.

Adams, Robert McC. 1978. Strategies of Maximization, Stability, and Resilience in Mesopotamian Society, Settlement, and Agriculture. *Proceedings of the American Philosophical Society* 122:329-335.

Stiner, Mary C. and Steven L. Kuhn. 2006. Changes in the "Connectedness" and resilience of paleolithic societies in Mediterranean ecosystems. *Human Ecology* 34:693-712.

W15. Synthesis

Fuentes, A. 2016. The Extended Evolutionary Synthesis, Ethnography, and the Human Niche: Toward an Integrated Anthropology. *Current Anthropology* 57, S13.

Bird, Rebecca Bliege. 2015. Disturbance, Complexity, Scale: New Approaches to the Study of Human-Environment Interactions. *Annual Review of Anthropology* 44 (1):241-257.