

Cultural Designs for Sustainability

Cultures, to judge from the last 100,000 years of human history, constitute resource management designs which, with varying success, provide for collective action to address specific sustainability problems. Sustainability problems arise from complexly related sets of variables at multiple scale levels, and exhibit important non-linearities. Research programs on environmental issues have proliferated over the last decade and provide increasingly useful information with which to formulate solutions to sustainability problems. Human interventions, unfortunately, too often make things worse rather than better. Cultural institutions may produce, exacerbate, or minimize sustainability problems, and variations in cultural design correspond with successful or failed responses to sustainability problems. This seminar surveys 100,000 years of human responses to sustainability problems, analyzes solution effectiveness and failure, and applies the lessons learned to the problems we face today.

Six learning modules make up this course:

1. You will determine what counts as “collapse” – what you would see if it happened, and how it comes about.
2. You will familiarize yourself with complexities involved in evaluating and responding to sustainability issues.
3. You will determine the extent to which human history has been characterized as continuous improvements in productivity.
4. You will learn how cultural designs produce effects and achieve useful goals – because and/or despite our propensity to mess things up badly....
5. You will evaluate the possibility that cultural designs rest on evolutionary foundations.
6. You will evaluate means to diagnose and correct sustainability problems.

Your take-away? Tools for thinking critically and creatively about survival.

REQUIREMENTS: Active participation in a series of 7 blog discussions (12 pt font, single spaced, 1000 word limit for any one contribution – unless you receive permission to make it longer); and 3 PowerPoint presentations. You may draw on earlier papers and commentary for subsequent comments or essays – the more, the better, and remember to cite people as well as literature properly. I expect each written contribution to integrate ideas and perspectives that you develop earlier in this class. Your last assignment will thus count as your Final, from which I will evaluate your mastery of the concepts and skills that are part of the course.

BLOG DISCUSSION CONTRIBUTIONS (60% of your grade): Paste your submissions into the blog space given you on HuskyCT. If you want specific comments on your submissions, *paste your discussion into an email* to handwerker@uconn.edu and I will embed comments directly.

POWERPOINT presentations (40% of your grade): Present and discuss in class.

You must write acceptably well or you will fail this course. I expect correct spelling, punctuation, and grammar in all written communication – that includes emails. Write for adults who may want to know what you've learned, like your parents or grandparents. That means lots of specifics, examples, details, and clearly laid out arguments. Adhere to this rule and you'll do fine: *Write concisely with active verbs*. Use Strunk & White's *The Elements of Style* as your guide to good writing. Consult the writing center for additional help.

I will assign grades as points (e.g., 2.0=C, 3.0=B, 3.3=B+, A=4.0, B+/A-=3.5). Use a 12 pt font and single space.

1. For a C, address the question directly and clearly in ways that link what you write to the assigned readings.
2. For a D or an F, submit a commentary with no links to the assigned readings, which addresses the question indirectly, or obscurely, or all three.
3. Your grade will shift from a C to a B as you add details that make it clear that you mastered the required readings and how they apply to the issues you write about.
4. Your grade will shift from a B to an A as you add breadth and specifics that make it clear that you have begun to see the wider implications of the issues you write about.

I want you to produce arguments, not provide opinions. Opinions don't count because we have no reason to think they're any more than your fantasy. Arguments count to the extent that they (1) contain no logical fallacies and (2) provide evidence (the stronger the better) that a claim corresponds with a set of observations. Critically evaluate your own argument, and those of others. Critical evaluations do *not* consist of statements like "I don't believe you," or "I don't understand," or "you should have written on something else," or "but that doesn't account for this contradictory example." No one cares what you 'believe' unless you can justify the belief with evidence. It's your responsibility to get the information so you do understand. It's not your business to tell someone else what topic to write on. And instances do not invalidate generalizations. Critical evaluations consist of statements like "This argument doesn't make sense, and here's why – [cite and explain the logical fallacies and/or evidence weaknesses]," or "This argument makes sense, and here's why – [cite and explain its strengths in logic and evidence]."

Buy these books (Amazon usually ships faster than alternative online sources):

- (1) McAnany, PA and Yoffee N, editors. *Questioning Collapse*. Cambridge: Cambridge Univ Press, 2009. ISBN: 978-0-521-7366-3
- (2) Handwerker, W. Penn. (2009) *The Origin of Cultures*. Left Coast Press. ISBN: 978-1-59874-068-4
- (3) Moran, Emilio *Human Adaptability*. 3rd Edition. Boulder: Westview Press, 2008. ISBN 978-0-8133-4367-9

Find all other reading online, here:

<http://www.anth.uconn.edu/faculty/handwerker/389readings/339%20readings.htm>

I will assume college prep levels of knowledge and skills to find the answer to questions, like 'What counts as plagiarism?' I will give you an F for the *course* if I see you submit someone else's work as your own. No one can achieve their best without help and I urge you to help one another do better. In the process, you will use someone else's ideas or words. Give them credit for helping you! Citations to others, including to the readings, count heavily in all assignments.

In summary, your course grade will come from the following:

60% from 7 Discussion Board contributions
40% from 3 PowerPoint presentations

I will answer questions in class and online, either with email (handwerker@uconn.edu) or Skype conversations (Skype username: docpenn).

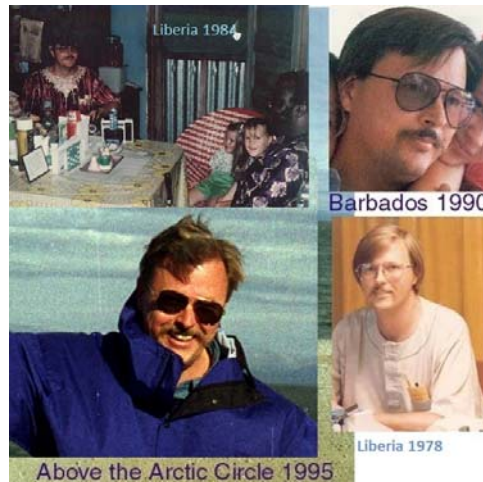
VERY STRONG RECOMMENDATION:

You will do your best if you frame your reading and writing *as a means to achieve the stated 'learning goals.'*
You handicap yourself if you focus only on the assignments.

WHO AM I?

Penn Handwerker graduated from Willamette University in 1966 with a B.A. and from the University of Oregon in 1971 with a PhD. I taught at the University of Oregon, Washington State University, and Humboldt State University before coming to the University of Connecticut as a Professor of Anthropology in 1994. I trained as a general anthropologist with an emphasis on the intersection of biological and cultural anthropology, and have published in all five fields (applied, archaeology, biological, cultural, and linguistics) of anthropology. I have conducted field research in

West Africa (~3 years residence in Liberia, with short excursions to Sierra Leone, Ghana, Cote d'Ivoire, during 1968, 1969-70, 1977-78, 1984),
the West Indies (5+ years residence, in Barbados during 1985, 1986, 1990, 1991, and 1992, Antigua during 1988 and 1989, and St. Lucia during 1986 and 1990),
the Russian Far East (Chukotka in 1995),
and various portions of the contemporary United States (Oregon, California's North Coast, Connecticut, and Alaska).



I developed new methods with which to study cultures while I studied topics that included the causes and consequences of entrepreneurship in both food production and marketing, corruption, human fertility, and both inter- and intragenerational power differences. My current research focuses on the possibility that the most effective collective action for community sustainability reflects the cultural assumption that each person knows what's best for him or herself. See <http://www.anth.uconn.edu/faculty/handwerker/> for more information.

WHO ARE YOU?

Please use the General Discussion board on HuskyCT to tell us a little about yourself.

MODULE 1: What Does Collapse Look Like?

Learning Goals:

- Identify interdependencies among communities and individuals.
- Describe what you would see with a real collapse?

Readings:

Orlov, Dmitry. Social Collapse Best Practices (2009).

http://fora.tv/2009/02/13/Dmitry_Orlov_Social_Collapse_Best_Practices#fullprogram

McAnany, PA and Yoffee N, editors. *Questioning Collapse*. Cambridge: Cambridge Univ Press, 2009. ISBN: 978-0-521-7366-3

Recommended for advanced study:

Diamond, J. *Collapse*. NY: Penquin, 2005. ISBN: 0-14-30.3655-6

DUE Jan 27th – PowerPoint presentation that explains what must happen for you to have grilled salmon for dinner Friday, March 11th.

DUE Feb 3rd – PowerPoint presentation that identifies 6 banal things that, if they happened, would make it impossible for you to have grilled salmon for dinner Friday, March 11th.

DUE Feb 10th – Discussion #1: Identify three critical issues we need to address to properly evaluate a community's response to sustainability problems?

MODULE 2: Critical Parameters

Learning Goals:

- Identify specific ways that human choices shape or aggravate sustainability problems.

Readings:

- Hardin, Garrett. The Tragedy of the Commons. *Science* 1968; 162:1243-1248.
- Acheson James M. Institutional Failure in Resource Management. *Annual Review of Anthropology* 2006; 35:117-34.
- Liu, J. et al.
2007 Complexity of Coupled Human and Natural Systems. *Science* 317:1513-1516.
- Ostrom, Elinor
2000 The Danger of Self-Evident Truths. *PS – Political Science & Politics* 33: 33-44.

Recommended for advanced study:

- Ostrom, Elinor.
1998 A Behavioral Approach to the Rational Choice Theory of Collective Action. *American Political Science Review* 92:1-22.
- Dietz, Thomas, et al. The Struggle to Govern the Commons. *Science* 2003; 302: 1907-1912.
- Folke, Carl, T. Hahn, P. Olsson, and J Norberg. Adaptive Governance of Social-Ecological Systems. *Annual Review of Environment & Resources* 2005;30:441-73.

DUE Mar 3rd – Discussion #2: Describe specific forms of variation in how sustainability problems arise from complexly related sets of variables at multiple scale levels, and exhibit important non-linearities.

Choose one sustainability problem for intensive study in Module 6.

MODULE 3: 100,000 Years of Progress

Learning Goals:

- Identify trends in the last 100,000 years of human history.
- Identify notable failures and successes in the last 100,000 years of human history.
- How does this compare with the last 50 years of human history?

Readings:

Handwerker, W Penn. *The Origin of Cultures*. Walnut Creek, CA: Left Coast Press, 2009.
Chapters 1,2,3

Boserup, Ester *Population and Technological Change*. Chicago: Univ of Chicago Press, 1981.
(selections)

Simon, Julian Resources, Population, Environment: An Oversupply of False Bad News. *Science*
1980; 208:1431-1437.

RELATED:

[E. COLI TURNS BIOMASS INTO BIODIESEL](http://www.popsi.com/science/article/2010-01/little-help-e-coli-turns-biomass-directly-biodiesel#) <http://www.popsi.com/science/article/2010-01/little-help-e-coli-turns-biomass-directly-biodiesel#>
<http://en.wikipedia.org/wiki/Biodiesel>

Tomatoes Grow Well In Diluted Seawater And Produce More Natural Antioxidants
<http://www.sciencedaily.com/releases/2007/03/070319091015.htm>

Hans Rosling

<http://www.youtube.com/watch?v=jbkSRLYSojo>

http://www.youtube.com/watch?v=hVimVzgtD6w&feature=player_embedded

Recommended for advanced study:

Tainter, Joseph A. Archaeology of Overshoot and Collapse. *Annual Review of Anthropology* 2006;
35: 59-74

Kirch, P. Archaeology & Global Change: The Holocene Record. *Annual Review of Environment & Resources* 2005; 30:409-440.

DUE Mar 3rd – Discussion #3: Critically evaluate the proposition that human history has exhibited continuous improvements in productivity and higher quality lives.

DUE Mar 17th – Discussion #4: *If* the earth (or specific regions) has (have) a carrying capacity, as Malthus claimed, why can't we know what it is?

MODULE 4: Cultural Designs and Our Success as a Species

The most important characteristic of human nature is that we cannot *not* create, live as a part of, and change cultures. In this sense, cultures are built into us. We can't wish cultures away. Our brains produce them in the normal course of their operation. In fact, to accomplish any goal we must participate in cultures.

Learning Goals:

- Identify specific means by which human cultures determine human survival.
- Recognize basic characteristics of cultures:
 - consists of shared assumptions, shared understandings about what we should and not do (which we call cultural norms), and coordinated patterns of behavior– plus bodies of knowledge about the things of our world and how they operate, including how to make things happen.
 - identifiable only by reference to specific assumptions, norms, and patterns of behavior
 - individuals embody multiple cultures, some named, some not, some global, some local
 - the assumptions, norms, and coordinated patterns of behavior that make up a specific culture accomplish goals.
- Describe the means by which cultures structure the consequences of the choices you make.

Readings:

Hayden, Brian (1995) *Archaeology*. NY: WH Freeman (Chapter 5)
Moran, Emilio *Human Adaptability*. 3rd Edition. Boulder: Westview Press, 2008. Chapters 1-4, plus at least one from 5-9
Handwerker, W Penn. *The Origin of Cultures*. Walnut Creek, CA: Left Coast Press, 2009. Chapters 4,5,6

Films to watch:

FORAGERS

The Hunters, <http://anth.alexanderstreet.com/View/765382>

!Kung Bushman Hunting Equipment. <http://anth.alexanderstreet.com/View/764340>

PASTORALISTS

The Nuer <http://anth.alexanderstreet.com/View/765426>

Diary of a Maasai Village, parts 1-5 <http://anth.alexanderstreet.com/View/764622> through 764630

FARMERS

Dani Sweet Potatoes <http://anth.alexanderstreet.com/View/783759>

Dead Birds <http://anth.alexanderstreet.com/View/764606>

DUE Mar 24th – Discussion #5: Describe the cultural assumptions and norms that characterize one of the highly effective cultural resource management designs created by our ancestors.

DUE Mar 31st – Discussion #6: Examine the problem of the excellent-to-poor correspondence between behavior and cultural norms – how, precisely, do cultures enforce behavioral compliance to cultural norms? Does this explain how people manage to produce increasingly effective cultural design features when they can't see problems clearly much less make conscious, rational decisions?

MODULE 5: Evolutionary Foundations for Cultural Designs?

Learning Goals:

- Identify processes by which individual-level phenomena produce macro-level phenomena.
- Describe mechanisms that may account for individual selection, group selection, and both.
- Identify means by which micro-level choices may produce macro-level phenomena.

Readings:

Wilson DS and Sober E. Re-Introducing Group Selection to the Human Behavioral Sciences. *Behavioral and Brain Sciences* 1994; 17: 585-654.

[Wilson, D. S. and E.O. Wilson \(2007\). Rethinking the theoretical foundation of sociobiology. *Quarterly Review of Biology*, in press.](#)

Wilson, D.S., M. Van Vugt, and R. O’Gorman (2008). Multilevel selection theory and major evolutionary transitions: implications for psychological science. *Current Directions in Psychological Science*, [in press](#).

Recommended for advanced study:

Soltis, J., Boyd, R. & Richerson, P.J.(1995). Can Group-functional Behaviors Evolve by Cultural Group Selection? An Empirical Test. [Current Anthropology](#), 63, 473–494. [Full text](#)

Bergstrom, T.C. (2002). Evolution of Social Behavior: Individual and Group Selection, *Journal of Economic Perspectives*, 16, 67-88. [Full text](#)

Boyd, R. & Richerson, P.J. (2002). Group Beneficial Norms Spread Rapidly in a Structured Population. [Journal of Theoretical Biology](#), 215, 287–296. [Full text](#)

DUE April 7th – Discussion #7: How can selection for individuals produce selection for the properties of groups? What individual characteristics must be selected to produce sustainable groups?

MODULE 6: Diagnostics & Comparative Research

Learning Goals:

- Assess the strengths and limitations of Ostrom's proposed comparative research framework.

Readings:

Ostrom, Elinor. A Diagnostic Approach for Going Beyond Panaceas. *PNAS* 2007;104:15181-15187.

Ostrom, Elinor. A General Framework for Analyzing Sustainability of Social-Ecological Systems *Science* 2009;325:419-422..

DUE April 14th, 21st, & 28th – PowerPoint presentation that applies Ostrom's comparative research framework to describe the issues that bear on a sustainability problem of your choice.