

Archaeology 101B/301B

Humanized Landscapes: Archaeological Approaches to Human-Environment Interactions

Instructor:

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Archaeology has had a long interest in the environments of past societies and human relationships with those environments. This attention to human-environment relationships has been growing as issues of environmental variability and change, as well as sustainability and human impacts on environments, have become contemporary concerns. This course focuses on the perspectives, methods, and data that archaeology can bring to such discussion. We will consider the importance of paleoenvironmental data to archaeological research, the ways in which it can be used, and the various methods of recovering and analyzing such data to reconstruct human-environment interactions in prehistory.

Texts

Redman, Charles L.

1999 *Human Impact on Ancient Environments*. University of Arizona Press, Tucson.

Roberts, Neil

1998 *The Holocene: An Environmental History*. 2nd ed. Blackwell Publishers, Malden, MA.

We will also use a variety of articles and book excerpts, available on Coursework (bibliographic information is listed with each assignment).

Requirements and Grading

Your final grade will be calculated as follows:

- 10% Participation (participation in and engagement with class discussion, as well as attendance)
- 15% Presentation of readings in class
- 35% Midterm (to cover fundamental concepts; material from *both* lecture and readings)
- 40% Final Paper (due 10 December; ~2500 words)

(If taking the course for 3 units, the final paper will be reduced to 500 words, and its weighting reduced to 20%; the midterm will count for 55%).

Note: Listed readings are to be completed *for that class*.

I. Why?

Week 1

25 September – Introduction: What can archaeology offer?

27 September – The Easter Island Parable

- Reading:
- Redman, Ch.1
 - Diamond, J. 1995. Easter's End. *Discover* 16(8):63-69.
 - pp1-12 in Gonick, L. and A. Outwater. 1996. *The Cartoon Guide to the Environment*. Harper Perennial, New York.

Week 2

2 October – The Big Picture

- Reading:
- pp1-19 in Diamond, J. 2005. *Collapse: How Societies Choose to Fail or Survive*. Penguin, London.
 - Kirch, P. V. 2005. Archaeology and Global Change: The Holocene Record. *Annual Review of Environmental Resources* 30:409-440. **Read pp409-428.**
 - Hayashida, F. 2005. Archaeology, Ecological History, and Conservation. *Annual Review of Anthropology* 34:43-65. **Read pp43-51.**

4 October - The Easter Island Parable Revisited

- Reading:
- Hunt, T. L. 2007. Rethinking Easter Island's Ecological Catastrophe. *Journal of Archaeological Science* 34:485-502. (We'll consider this in detail later; for now worry about the general argument rather than the specifics).
 - Weiss, H. and R. S. Bradley. 2001. What Drives Societal Collapse? *Science* 291(5504):609-610.

II. What?

Week 3

9 October – What are human-environment interactions, anyway?

- Reading:
- Redman, Ch.2
 - pp1-28 in Simmons, I. 1989. *Changing the Face of the Earth: Culture, Environment, History*. Basil Blackwell, Oxford.

11 October – Historical Perspective, and A Thorny Theoretical Problem (Humans *in or of* Nature?)

- Reading:
- pp11-29 in Barry, J. 1999. *Environment and Social Theory*. Routledge Introductions to Environment. Routledge, London.
 - pp1-17 in Simmons, I. G. 1993. *Interpreting Nature: Cultural Constructions of the Environment*. Routledge, London.
 - pp3-7 in Goudie, A. 2006. *The Human Impact on the Natural Environment: Past, Present, and Future*. 6th ed. Blackwell, Malden, MA.

Week 4

16 October – “Concepts That Organize Our Thoughts”

- Reading:
- Redman, Ch.3

18 October – Past (Human) Environments

- Reading:
- Roberts, Ch.1

III. How?

Week 5

23 October – Reconstructing Past Environments

Reading: •Roberts, Ch.2

IV. Who?

25 October – Past Humans I: Foragers

Reading: •Redman, Ch.4
•Roberts, pp78-90
•Klein, R. G. 1992. The Impact of Early People on the Environment: The Case of Large Mammal Extinctions. In *Human Impact on the Environment: Ancient Roots, Current Challenges*, edited by J. E. Jacobsen and J. Firor, pp. 13-35. Westview Press, Boulder.
•Pyne, S. J. 1993. Keeper of the Flame: A Survey of Anthropogenic Fire. In *Fire in the Environment: The Ecological, Atmospheric, and Climatic Importance of Vegetation Fires*, edited by P. J. Crutzen and J. G. Goldammer, pp. 245-266. John Wiley and Sons, Chichester. **Read pp245-253.**

Week 6

30 October – Past Humans II: Agricultural Societies

Reading: •Redman, Ch.5
•Roberts, Ch.5
•pp16-33 in Smith, B. D. 1995. *The Emergence of Agriculture*. Scientific American Library, New York.

1 November – Past Humans III: Agricultural Societies→Urban Societies

Reading: •Redman, Ch.6
•Roberts, Ch.6

Week 7

6 November – **Midterm**

8 November – Case Study I: The Maya Collapse (or, Environmental Impacts on Human Culture)

Reading: •Hodell, D. A., J. H. Curtis and M. Brenner. 1995. Possible role of climate in the collapse of Classic Maya civilization. *Nature* 375:391-394.
•Rosenmeier, M. F., D. A. Hodell, M. Brenner and J. H. Curtis. 2002. A 4000-Year Lacustrine Record of Environmental Change in the Southern Maya Lowlands, Petén, Guatemala. *Quaternary Research* 57:183-190.
•Shaw, J. M. 2003. Climate Change and Deforestation: Implications for the Maya Collapse. *Ancient Mesoamerica* 14:157-167.

Week 8

13 November – Case Study II: Industrial Pollution before the Industrial Age (or, Human Degradation of the Environment)

Reading: •Hunt, C. O., D. D. Gilbertson and H. A. El-Rishi. 2007. An 8000-year history of landscape, climate, and copper exploitation in the Middle East:

the Wadi Faynan and the Wadi Dana National Reserve in southern Jordan. *Journal of Archaeological Science* 34:1306-1338.

15 November – Case Study III: The Anthropogenic Amazon (or, Deliberate Human Alteration of the Environment)

Reading: •Heckenberger, M. J., A. Kuikuro, U. T. Kuikuro, J. C. Russell, M. Schmidt, C. Fausto and B. Franchetto. 2003. Amazonia 1492: Pristine Forest or Cultural Parkland? *Science* 301:1710-1714.

-Thanksgiving Break-

Week 9

27 November – Case Study IV: The Island Pacific (all of the above)

Reading: •Kirch, P. V. 1997. Microcosmic histories: island perspectives on "global" change. *American Anthropologist* 99(1):30-42.
•Spriggs, M. 1997. Landscape Catastrophe and Landscape Enhancement: Are Either or Both True in the Pacific? In *Historical ecology in the Pacific Islands: prehistoric environmental and landscape change*, edited by P. V. Kirch and T. L. Hunt, pp. 80-104. Yale University Press, New Haven.
•Vitousek, P. M., T. N. Ladefoged, P. V. Kirch, A. S. Hartshorn, M. W. Graves, S. C. Hotchkiss, S. Tuljapurkar and O. A. Chadwick. 2004. Soils, Agriculture, and Society in Precontact Hawai'i. *Science* 304:1665-1669.

V. So?

29 November – The Pristine Myth

Reading: •Denevan, W. M. 1992. The Pristine Myth: The Landscape of the Americas in 1492. *Annals of the Association of American Geographers* 82(3):369-385.
•pp3-30, 350-366 in Mann, C. C. 2005. *1491: New Revelations of the Americas before Columbus*. Vintage Books, New York.

Week 10

4 December – Past Perspectives on Modern Environmental Issues

Reading: •Redman, Ch.7 and 8

6 December – Easter Revisited: Diamond vs. Hunt. How do we choose?

Reading: •Hunt, T. L. 2007. Rethinking Easter Island's Ecological Catastrophe. *Journal of Archaeological Science* 34:485-502.

10 December – ***Final Paper Due***