

Chuck Williams
Environmental History and Ecological Change
Háskóli Íslands
2003
Topics: World, Comparative

Fimmtudagur 10:00 – 13:00 (Oddi 104)

Kennari: Charles E. (Chuck) Williams, Fulbright-Prófessor
Skrifstofa: 41 Nyí Gar_ur (hæ_ 2)
Office hours: Mi_vikudagur 13-14:00 and by arrangement
Sími: 525-4245
Netfang: chuck@hi.is

Course description: ☐

Environmental history is a field of scholarship that examines the relationships between human society and the natural world over recorded time. An interdisciplinary endeavor, environmental history draws upon and synthesizes information from the natural sciences, archaeology, anthropology, history, literature, the arts, and other fields in an attempt to explain the human condition as a function of the environment and the pervasive influence humans have had on the environment since our rise as a species. There are many ways in which environmental history can be examined. We will use a systems-based approach, organized ecologically, to examine the changing dynamics of human-environment relationships over time. Although our focus will be on global environmental issues, whenever possible, we will examine local and regional case histories that pertain to Iceland and the North Atlantic.

Required texts:

McNeill, J.R. 2000. *Something new under the sun: an environmental history of the twentieth-century world*. W.W. Norton and Co. **(M)**
Goudie, A. 2000. *The human impact on the natural environment*. MIT Press. **(G)**

Supplementary readings:

A list of additional readings will be given to students in the first few weeks of class. Copies of the papers will be placed on reserve in the library or another secure place

(TBA). Supplementary readings will be used to expand on issues and concepts raised in the course textbooks and will provide opportunities for focused discussion.

Course requirements and grading:

This course will be run as a seminar, thus student participation in class discussions is vital for success of the class. Grades will be based primarily on class participation (20%), a final research paper or essay (50%), and a final presentation that summarizes key aspects of the research paper/essay (30%). Details on paper organization and presentation format will be provided in a separate handout.

Tentative Course Outline		
Date	Topic	Reading
30 Janúar	Welcome; introduction	M 1, G 1
6 Febrúar	Ecology, environment and history	M 1, G 1
13 Febrúar	Lithosphere: soils, landforms	M 2, G 4,6
20 Febrúar	Atmosphere: climate change, pollution	M 3,4 G 7
27 Febrúar	Hydrosphere: water development, pollution	M 5,6 G 5
6 Mars	Land use and agriculture	M 7
13 Mars	Biodiversity: forests, oceans, wildlife	M 8, G 2-3
20 Mars	Settlement and urbanism	M 9
27 Mars	Energy, technology and economics	M 10
3 April	Environmental politics and the future	M 11, G 8
10 April	Final presentations	

Supplementary readings

Papers that are available online from the National and University Library of Iceland are marked with an *. Copies of other papers will be supplied by the instructor one week before the scheduled discussion date (afterwards, papers will be available outside of my office).

A. Ecology, environment and history

- *Cronon, W. 1992. A place for stories: nature, history, and narrative. *Journal of American History* 78:1347-1376.
- *Crosby, A.W. 1995. The past and present of environmental history. *American History Review* 100:1177-1189.
- *Lowenthal, D. 2001. Environmental history: from genesis to apocalypse. *History Today* 51:36-42.
- *Pyne, S.J. 1990. Firestick history. *Journal of American History* 76:1132-1141.
- White, L., Jr. 1967. The historic roots of our ecological crisis. *Science* 155:1202-1207.
- Worster, D. 1988. Appendix: doing environmental history. Pp. 289-307 in D. Worster (ed.), *The Ends of the Earth: Perspectives on Modern Environmental History*. Cambridge University Press.
- *Worster, D. 1990. Transformation of the Earth: toward an agroecological perspective in history. *Journal of American History* 77:1087-1106.

B. Lithosphere: soils, landforms

- *Glasby, G.P. 2000. Lessons learned from deep-sea mining. *Science* 289:551-553.
- *Hodges, C.A. 1995. Mineral resources, environmental issues, and land use. *Science* 268:1305-1312.
- *Pimentel, D. et al. 1995. Environmental and economic costs of soil erosion and conservation benefits. *Science* 267:1117-1123.
- *Simpson, I.A. et al. 2002. Soil limitations to agrarian land production in premodern Iceland. *Human Ecology* 30:423-443.
- *Simpson, I.A., A.J. Dugmore, A. Thomson and O. Vésteinsson. 2001. Crossing the thresholds: human ecology and historical patterns of landscape degradation. *Catena* 42:175-192.

C. Atmosphere: climate change, pollution

- Bates, D. A half century later: recollections of the London fog. *Environmental Health Perspectives* 110:735.

Bell, M.L. and D.L. Davis. 2001. Reassessment of the lethal London fog of 1952: novel indicators of acute and chronic consequences of acute exposure to air pollution. *Environmental Health Perspectives* 109:389-394.

Davis, D.L., M.L. Bell and T. Fletcher. 2002. A look back at the London smog of 1952 and the half century since. *Environmental Health Perspectives* 110:734-735.

*Gilbertson, D.D., J.P. Grattan, M. Cressey and F.B. Pyatt. 1997. An air-pollution history of metallurgical innovation in iron- and steel-making: a geochemical archive of Sheffield. *Water, Air, and Soil Pollution* 100:327-341.

*Hamilton, L., P. Lyster and O. Ottersrad. 2000. Social change, ecology and climate in 20th century Greenland. *Climate Change* 47:193-211.

*Hong, S., J.-P. Candelone, C.C. Patterson and C.F. Boutron. 1994. Greenland ice evidence of hemispheric lead pollution two millenia ago by Greek and Roman civilizations. *Science* 265:1841-1843.

*Stone, R. 2002. Counting the cost of London's killer smog. *Science* 298:2106-2107.

D. Hydrosphere: water development, pollution

*Babbitt, B. 2002. What goes up may come down. *BioScience* 52:656-658.

*Ellfrig, C. 1990. Conflict in the Grand Canyon. *BioScience* 40:709-711.

*Kauffman, G.J. 2002. What if...the United States of America was based on watersheds? *Water Policy* 4:57-68.

*Postel, S. 1995. Where have all the rivers gone? *World Watch* 8(3):9-19.

*Priscoli, J.D. 1998. Water and civilization: using history to reframe water policy debates and to build a new ecological realism. *Water Policy* 1:623-636.

E. Land use change, agriculture

*Farina, A. 2000. The cultural landscape as a model for the integration of ecology and economics. *BioScience* 50:313-320.

*Hardin, G. 1968. The tragedy of the commons. *Science* 162:243-248.

*Hardin, G. 1998. Extensions of "the tragedy of the commons". *Science* 280:682-683.

*Matson, P.A., W.J. Parton, A.G. Power and M.J. Swift. 1997. Agricultural intensification and ecosystem properties. *Science* 277:504-509.

*Ostrom, E. et al. 1999. Revisiting the commons: local lessons, global challenges. *Science* 284:278-282.

Vésteinsson, O. 1998. Patterns of settlement in Iceland: a study in prehistory. *Saga Book of the Viking Society for Northern Research* 25:1-29.

F. Biodiversity: forests, oceans, wildlife

*Axelsson, A.-L., L. Östlund and E. Hellberg. 2002. Changes in mixed deciduous forests of boreal Sweden 1866-1999 based on interpretation of historical records. *Landscape Ecology* 17:403-418.

Crosby, A.W. 1988. Ecological imperialism: the overseas migration of western Europeans as a biological phenomenon. Pp. 103-117 in D. Worster (ed.), *The Ends of the Earth: Perspectives on Modern Environmental History*. Cambridge University Press.

*Pauly, D., V. Christensen, J. Dalsgaard, R. Froese and F. Torres, Jr. 1998. Fishing down marine food webs. *Science* 279:860-863.

*Sloan, N.A. 2002. History and application of the wilderness concept in marine conservation. *Conservation Biology* 16:294-305.

G. Settlement and urbanism

*Dobson, A.P. and E.R. Carper. 1996. Infectious diseases and human population history. *BioScience* 46:115-126.

Karlsson, G. 1996. Plague without rats: the case of fifteenth-century Iceland. *Journal of Medieval History* 22:263-284.

*Krause, R.M. 1992. The origin of plagues: old and new. *Science* 257:1073-1078.

*Rees, R. 1996. Under the weather: climate and disease, 1700-1900. *History Today* 46(January):35-41.

Wheelis, M. 2002. Biological warfare at the 1346 Siege of Caffa. *Emerging Infectious Diseases* 8:971-975.

H. Energy, technology and economics

*Pimentel, D. et al. 2002. Renewable energy: current and potential issues. *BioScience* 52:1111-1120.

I. Environmental politics and the future

*Ausubel, J.H. 1996. The liberation of the environment. *Daedalus* 125(3):1-17.