

Geog 4/561

crn: 36130/36131

Environment **Alteration**

Tu, Th 12-1:20 in 41 Library

Human alterations of the earth's major ecosystems. Consequences of human activity at different times and places with respect to soils, atmosphere, vegetation, landforms, and water.

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photo: Slum, top of the rueChamplain, Paris 1872 by Charles Maxwell

This course examines the changes humans have engendered in their surrounding environments, and the corresponding influences of these environmental changes on social, economic, and political systems.

Since the early 1800s the scale and reach of human-caused environmental alteration has increased substantially along with rapid industrialization, population growth, and increased trade and commodification. The processes and patterns of dramatic human influences on nature, however, have a much longer history. This extends, at least, to the end of the last ice age around 12,000 years ago.

The class traces the impact, direct and indirect, of humans on environments throughout the globe, from the time period of their expansion out of the African continent (perhaps around 70,000 years ago?) to the pervasive effects of modern industrialized societies. This long history demonstrates that the environmental changes caused by human action, whether deliberate or unplanned, have had profound, and unforeseen, influences on human societies and the daily lives of individuals.

Topics the class covers include:

- prehistoric land management and subsistence-level influences on wildlife and the environment;
- the origins and diffusion of agriculture;
- urbanization and the expansion of infrastructure and trading networks;
- deforestation and reforestation;
- colonialism, industrialization, and commodification;

- the exploitation of freshwater and ocean ecosystems, and;
- relationships between natural resources and human conflict.

Learning Objectives:

There are both content- and skills-related learning objectives for the course. In regards to content, students should understand the influences humans have had on their natural surroundings and the varying responses of societies to these environmental changes. . Content the class will engage with (that is, examine and discuss) include:

- the multiple sources of data and information needed to reconstruct the history of past environments and societies;
- the different spatial and temporal scales over which the causes and consequences of human-induced environmental change operate.
- the different outcomes - on the environment and on society - that similar 'drivers' (such as population growth or chemical agriculture) produce based on location, history, social organization, and chance.

Course work includes the use of multiple types data, using soil forming and erosional processes as a thread running throughout the course topics, and draws from a wide range of disciplines to examine both short- and long- term environmental changes caused by humans. Students are encouraged, through in-class group exercises and term-long projects, to develop the collaborative skills and interdisciplinary thinking necessary to understand the complex linkages between the processes causing both human and 'natural' environmental change.

The course combines lectures with group exercises, quizzes, and activities which require student engagement with the course material and each other. These include:

- The creation of a online webpage/blog as part of a collaborative group project, collecting news or cultural items relevant to class topics based on the class themes and geographic areas assigned to your group.
- A short presentation in class of an image, chart or cultural item relevant to the subject matter for the assigned week.
- Tests, Quizzes, and Group Exercises
- A final project or paper:
 - **project** - working with the UO special collections in the library, Jordan Schnitzer Art Museum, and Museum of Natural History to find primary materials related to class topics.
 - **paper** - writing a traditional short research paper on the environmental change of a specific place.

For these projects to be successful, students will need to actively participate in class discussions and group activities. Students are encouraged to explore, and then to clearly articulate (in written text and oral/visual presentations) the physical changes humans have caused to specific environments, the socioeconomic processes which have encouraged these alterations, and the subsequent responses to and influences of these changes on human societies. This will require completing readings on time, engaging with non-traditional course materials (such as paintings, pop songs, and movies), and being willing collaborators with other members of the class.

Course Text:

Dirt - The Erosion of Civilisation, by David R. Montgomery.

Other required readings: will be available online or from the course website.

Required readings will include content created or curated by student groups for their course blogs.

Grading and Requirements:

**late work is marked down by 10% per day. In-class exercises and quizzes cannot be late.*

Specialty Group Course Pages - (10%) - Post news, articles, or cultural item related to class topics and the assigned group themes. This will be created using Canvas. Grading for this will be based on submission to the course topic pages and a short summary at the end of materials and content of the group-maintained page.

Presentation - A Picture (or chart) and 1000 words (10%) [*Presentations* weeks 6 through 9 - sign up during week 5] - This project will focus on a single visual image or short series of images (photograph, map, chart, satellite image etc.) **on two slides maximum** which depicts a “story” about environmental alteration which can be told in around 2 minutes. Presentations should match the topic of the particular week, and, if appropriate, can be posted to your group blog.

Presentations should illustrate the physical alterations (existent or potential) of a particular activity or project on the environment and discuss the social, political, cultural, and/or economic ramifications. A one to two paragraph summary and a one to three page written discussion of the image (including citations) should accompany the presentation of the single slides.

Quizzes/Take-Home Assignments/Group Activities/Participation (50%) - 2 longer tests and several shorter in-class quizzes and group work, as well as take-home assignments, and regular online reading quizzes. Most will focus on course readings and lectures. Some assignments will be longer and take-home, and will require

students to find material relevant to the course topics and discuss it briefly with the class. Group projects are intended to prepare students for the longer final project or paper in the class.

Research Paper / Special Collections Project (30%) [*Proposal* Week 4, *Draft and initial bibliography* Week 8, *Final Paper* (formatted) Week 11] - Students will complete a 5-10 page paper (not including figures, illustrations, and bibliography) on an instructor-approved topic or question, with at least 6 properly-cited bibliographic sources and notes. The paper should analyze environmental alterations of a specific site, describing the biophysical, social, political, cultural, and economic dimensions of the landscape change. A proposal, bibliography, and rough draft of the paper are included in the overall grading of the paper [proposal (5 pts), draft (35pts), full paper (100 pts)]. The paper is due Week 11, at the time of the scheduled final.

Graduate Credit - The work in this portion of the class will be 5% of the course grade, and the quiz portion of the grade will adjusted to 45% of the total grade for graduate credit. Students taking the class for graduate credit have the following additional requirements:

- meetings outside of class with other graduate students and the instructor to discuss readings (including additional graduate readings): 2 or 3 times during the term (time and place to be determined based on student availability),
- identify related readings to their paper topics, suitable for the entire class, in a short annotated bibliography due during week 8,
- an oral presentation of their research papers during Week 9 or 10 of the class.