

**Paul R. Josephson**  
**Changing Notions of Progress: Technology and the Environment**  
Colby College, 2003

Since the time of the Scientific Revolution (1500-1700) and Enlightenment (late 18<sup>th</sup> century), many western thinkers have promoted the practical arts, technology, and science as the keys to the betterment of the human condition. They have advocated the use of various production, harvesting, and processing technologies to ensure adequate resources for present and future generations. They have sought to tame nature so that it might operate in a regular and predictable fashion. They have assumed that “progress,” based largely on technological achievements, in and of itself was good. Condorcet and other enlightenment thinkers set forth this view directly; policy makers, engineers, leaders and citizens have embraced this view in a variety of ways. In this course, we shall examine notions and physical manifestations of progress, first focusing on European views of nature, technology, and progress, and then turning to the same notions in the United States, in all covering a broad stretch of history—some four hundred years (1500-2000).

We will consider the development of technology from simple machines to large scale systems that developed to manage natural resources scientifically. I hope to organize two field trips, one to Millinocket, the Great Northern Paper Company and a snowmobile museum most likely during the third week of January, and the other to the Kingman Hydroelectric Power Station near Moscow.

**Requirements:**

Students are expected to attend all classes and to participate in class discussions; join in the two field trips and learn from them; complete all the reading in a timely fashion and be prepared to discuss it; and undertake a variety of writing assignments:

Attendance, Participation:	25%
Two Quizzes, each 7.5%	15%
Three Thought Pieces, each 10%	30%
Two Field Trips, each 5%	10%
Final Exam	20%
Total:	100%

I will discuss the nature of the writing assignments with you before each one is due. In sum, this course equals a grand total of 10, or perhaps 11 or 12, as follows: 2 Quizzes, 3 Thought Pieces, One Final Exam, 2 Fieldtrips; and 5 video extravaganzas including the classic “Derzu Uzala,” a film about the exploration of Siberia and the impact of universal knowledge upon indigenous people.

**Reading:**

Carolyn Merchant, The Death of Nature  
James Scott, Seeing Like a State  
William Cronon, Changes in the Land  
Daniel Worster, Dustbowl  
Richard White, The Organic Machine

## Schedule of Lectures, Discussions, Readings

### Week 1:

- January 6      Introductions, Theories, Concerns
- January 7      European Worldviews  
                 Carolyn Merchant, The Death of Nature, 164-252.
- January 8      European Worldviews  
                 Carolyn Merchant, The Death of Nature, 164-252  
                 Lynn White, "The Historic Roots of Our Ecologic Crisis," Science, 155  
(10 March 1967): 1202-07, handout.
- January 9      European Worldviews  
                 James Scott, Seeing Like a State, 11-52, 266-302.

### **First Thought Piece Due**

### Week 2:

- January 13     European Worldviews  
                 James Scott, Seeing Like a State, 193-222.
- January 14     Revisionist Worldviews  
                 Alfred Crosby, Ecological Imperialism, handout, 132-216.  
                 William Denevan, "The Pristine Myth: The Landscape of the Americas in  
1492," Annals of the Association of American Geographers, vol. 82, no. 3 (1992),  
369-85.

### **Quiz 1**

- January 15     Film: "Derzu Uzala"
- January 16     New World Worldviews  
                 William Cronon, Changes in the Land, 19-81.

### Week 3:

- January 20     New World Worldviews  
                 William Cronon, Changes in the Land, 108-158.
- Second Video Extravaganza: "The Goddess and the Computer"

### **Second Thought Piece Due**

January 21 New World Worldviews  
Daniel Worster, Dustbowl, 1-79

**Quiz 2**

January 22 Kingman Hydroelectric Power Station Fieldtrip

January 23 New World Worldviews  
Daniel Worster, Dustbowl, 81-138

Stirrups, barbed-wire and other important inventions

Week 4:

January 27 Progress as a Way of Life  
Third Video extravaganza on the Dust Bowl and Maine Forestry (ca. 1930)

**Third Thought Piece Due**

January 28 Progress as a Way of Life  
Richard White, The Organic Machine (entire)  
Langdon Winner, “Do Artifacts Have Politics?” handout

January 29 Progress as a Way of Life  
Richard White, The Organic Machine (entire)

January 30 Video Extravaganza II: The Silent Spring of Rachel Carson

**Final Exam Due**