

## Geography 1000 Lecture 3

January 12,  
2009

The many origins  
of the  
environmental  
movement in the  
United States

### Changing Concerns of the Environmental Movement

- ♦ It is all too convenient to pretend that the environmental movement is monolithic, but this is just not true.
- ♦ Especially at present, there are many movements which sometimes have conflicting goals, YET all are part of the “Environmental Movement” broadly defined.

**BUT**, these books are measures of the times they were written.

- ♦ The Utopian era of the 1870s-1890s seems overlooked. Many dozens of “model” settlements such as the Amana Colony, and “Fruitland” are established in response to the harsh working conditions in the factory towns of the Northeast--a feeling that people had “lost touch” with nature.

### Environmental SCIENCE— cannot be separated from Environmental POLITICS !!

- ♦ In this lecture, and throughout the class, we must consider events in their proper context...we all “know” the earth is a system, but we overlook the concrete political and economic realities under which change is possible.
- ♦ Public concerns are driven by crises.
- ♦ Legislation is driven by public concern.
- ♦ All responses are influenced by social, cultural, economic, and political context.

### Movements have to have a history.....I guess...

- ♦ Is a common topic enough to allow the “environmental movement” to trace its roots to Walden Pond (*Walden* H.D. Thoreau 1854)



### Religions played important roles in this early era..... IN THE US!

- ♦ Communities of Mennonites, Quakers, Amish and other groups rejected both the trappings and the economies created by industrial growth. This link, between human spirituality, and the “natural” world remains to the present in the United States, BUT less in other nations.

## Conservation/Preservationist Era

- ◆ 1864 Congress creates Yosemite National Park (control by Calif.)
- ◆ 1866 “Ecology” coined by the German biologist Ernst Haeckel
- ◆ 1892 John Muir begins the Sierra Club.
- ◆ 1893 13 million acres of forest preserve created by Pres. Harrison

### For the sake of order.....

- ◆ The Environmental Movement could be grouped into four periods
- ◆ 1)Conservationist/Preservation movements of the late 19th cent.
- ◆ 2) 1966-1980 -Public outcry and first era of legislation
- ◆ 3)1980s to early 1990s-the idea of a “win-win” period of negotiated agreements which did not work well
- ◆ 4) 1995 on--Public action and legislation

### In the second era, health and pollution issues come to the forefront...after accidents.

1966 US B-52 with nuclear bombs crashes near Spain.

- ◆ 1969 Santa Barbara oil spill (Union Oil)
- ◆ 1978 BIG YEAR: bLove Canal, 3-Mile Island, Amoco Cadiz spill off France.
- ◆ 1984 Bhopal, India UnionCarbide plant
- ◆ 1986 Chernobyl Nuclear Plant

### Early Leaders wished to conserve the American West, responding to.....

- ◆ 1872 Mining Act--rights to sub-surface resources on public land are sold @ \$5.00/acre
- ◆ Dam Building throughout the nation begins with 1913 Hetch Hetchy Vally (Yosemite) and continues through 1950s.

### Post World War II Prosperity comes with a cost....

- ◆ Europe’s Industrial Capacity is sharply diminished by the War. US industrial firms fill the “gap” in part with monies from the Marshall Plan.
- ◆ Research and Development Bugets are flush with cash. War-time inventions are applied to civilian uses. (synthetic rubber, electronics, petro-chemical products for farm and industry.
- ◆ Chem.fertilizers and pesticides allow the US to become the world’s “breadbasket”

### The second “era involves the public concern about pollution as well as land preservation.

- ◆ 1962 *Silent Spring* by Rachel Carter warns of the effects of pesticides.
- ◆ 1965 Sierra Club wins lawsuit stopping NY’s Storm King Mts. Power Project in court--a new tool!
- ◆ 1968 Grand Canyon Dam Project stopped.
- ◆ 1969 Cuyahoga River catches fire

## Public Outcry Matters in the US

- ◆ 1969--National Environmental Policy Act--creates the EPA.
- ◆ 1970 Clean Air Act (air-born emissions controlled)
- ◆ 1970 the First Earth Day
- ◆ 1972 Water Pollution Control Act
- ◆ 1978 Love Canal, NY gets federal disaster funds
- ◆ 1979 Three Mile Island almost melts down--no new reactors since.

## Reagan-Era Negotiations instead of Laws

- ◆ In response to a real change in political philosophy, companies were regulated by existing legislation, on a case by case basis with few new laws.
- ◆ Not all bad, but few “victories”.

## Environmental Issues in Political Context in 2009

- ◆ June 2002 Bush administration recognizes “Global Warming” after suggesting 2 years before it was not really a proven theory—after industry leaders express concern about the cost of new regulations! Now we all agree!!!
- ◆ Limits on mercury pushed through Congress despite complaints by municipal water works that it is too costly—cities fight regulation due to cost!.
- ◆ Great Lakes drilling looks like it will not pass, BUT with 2008 foreign oil prices at record levels (\$150/bbl) new pressures to use more coal and to drill in new areas mounted (Alaska, G. Lakes)—now (January 2009 --\$55.00—pressure is OFF!)

## Meanwhile...Congress Marches On....

- ◆ 1972 DDT is banned in the US (we still export this product) AND the Federal Insecticide, Fungicide, and Rodenticide Act is introduced.
- ◆ 1973 Endangered Species Act
- ◆ 1980 SuperFund legislation is enacted--still limited money, but better than nothing!

## Clinton-era Prosperity helps the movement....

- ◆ The expanding global economy alters the “geography” of production--lower cost inputs come from foreign sources reducing pressure on US mining areas and forests.
- ◆ More revenue available to fund clean-up, because ‘It’s the economy , stupid’

## Bush Presidency: Court is still out

- ◆ Kyoto Accord—December 1997 brought 166 nations agreed in principle to reduce carbon dioxide emissions and other “green house” gases. Spring 2001—the US decided not to sign the treaty. BUT US sent full delegation to BALI meeting –December 2007.
- ◆ “Flip flop” on lead and mercury levels BUT now agreed to reductions suggested by EPA. Ironic since Chinese toy scares Fall 2007 were about Lead in Paint! (scare before Fall 2008 Milk scare)
- ◆ Supports North slope (Alaska) oil exploration and possible “angle drilling” under the Great Lakes.
- ◆ War has slowed domestic policy decisions.

## 2009 Michigan Issues

- ◆ New Great Lakes Legislation in December of 2007 will form a new International Agency designed to improve water quality, and protect the drainage basin from pollution and water removal (later lecture). Starts this year (2009)
- ◆ Need new source of funding needed to clean up “super fund sites”
- ◆ Great Lakes Issues : Invasive Species, Water Quality, Water Levels, Dredging, sediment issues

## Greater Prosperity also brings more Americans in contact with nature

- ◆ 1962 --membership in major environmental groups is estimated at 411,000
- ◆ 1992 --membership exceeds 7,790,000 in the same 7 groups.
- ◆ (Audubon, Izaak Walton, National Wildlife Fed., Sierra Club, Wilderness Soc, EDF and NRDC)

## Environmental Issues in Michigan Agriculture in 2009

- ◆ BIG debate on bio-fuels based on agricultural products such as corn, sugarbeets, switchgrass— LOTS on this in other lectures
- ◆ Food Surplus in the US provides opportunities to restructure the economics of crop production
- ◆ Prosperity allows for new eco-products such as organic foods and beverages
- ◆ BUT increases in scale have also created new problems such as CAFOs or “Hog Hotels” with 20,000 – 100,000 hogs generate a lot of manure that pollutes groundwater and run-off ( This is a growing problem in Michigan)

## SCIENCE PLAYS A ROLE...

- ◆ New sources of research money emerged once legislation created government organizations concerned with environment.
- ◆ There as never been as much data available to monitor long-term environmental trends-  
-SO WE REALLY DO KNOW MORE .

## BUT, its not just about money...

- ◆ Since the late 1980s, topics related to environmental science and ecology are taught in most schools.
- ◆ Better environmental reporting and the “shrinking world” concept have brought greater awareness to the American Public.
- ◆ The rise of NGO’s and better funding for these organizations has also helped.

## Issues in Industry in 2009

- ◆ Existing legislation and regulation is best suited for “point source” polluters such as industrial plants. Non-point source pollutants (parking lot runoff, agriculture) less controlled.
- ◆ However, just as the use and release of some toxic compounds are regulated, substitutes are created which MAY also pose new threats.
- ◆ New transportation infrastructure challenges and opportunities

So.....the focus of the class is on the present, but the past matters.

- ♦ The material in the coming weeks is designed to “fit” our three themes.
- ♦ Stewardship
- ♦ Sustainability and what this means.
- ♦ Sound Science and what we know about how the different ecosystems of our world function.

### Sustainability is a bit less clear...

- ♦ In many of your classes, you will hear teachers discuss “sustainable” practices.
- ♦ Sustainable for how long? Ideally in perpetuity.....
- ♦ How big a system? Local, regional, global....
- ♦ Who bears the cost of transition to sustainable practices?

Stewardship is just what you think it is.....How do we as individuals play different roles (and make contributions) to positively impact our environment?

Our own actions

Legislation and support of legislation

Employment activities

Sound Science—different visions of science—and different perspectives on science will be the meat and “taters” of this class.

Environmental science—really still in its infancy –has many interesting debates which we cover in this class.

THANK YOU FOR YOUR ATTENTION—NEXT—we start on ecosystem structures and concepts!!



EX-Groundhog entering new phase of the ecosystem!!