

## 16. Environmentalism

### Pollution is not new

- polluted water medieval cities
- deforestation 16th C., ship building
- air pollution 19th C. England

### 19th C naturalists

- - Ralph Waldo Emerson (1803-1883)
- - Henry David Thoreau (1817-1862)

### 19th C anti-technologists

- Luddites
- Henry Adams, *The Virgin and the Dynamo*

### Rachel Carson, *Silent Spring* (1962)

- grew up during the depression
- respected marine biologist
- *The Sea Around Us* (1955)
- focused on chemicals & pesticides
- painted a picture of potential catastrophic consequences - a silent world

### 1950s

- Strontium 90, main concern
- appeared in fatty tissue, mother's milk
- Carson turned to pesticides

### Argument

- interaction between living things and environment is natural
- humans have acquired the power to alter the natural world
- chemicals are destroying natural balance in nature

### Data

- 500 new chemical a year
- 1940-1960, 200 new chemicals to kill insects
- producing more food when food surpluses are a \$1B problem
- chemicals are biocides not insecticides

### View of our use of pesticides

- Future Historians may well be amazed by our distorted sense of proportion. How could intelligent beings seek to control a few unwanted species by a method that contaminated the entire environment and brought the threat of disease and death even to their own kind?

**Overall assessment:**

- The "control of nature" is a phrase conceived in arrogance, both of the Neanderthal age of biology and philosophy, when it was supposed that nature exists for the convenience of man. The concepts and practices of applied entomology for the most part date from that Stone Age of science. It is our alarming misfortune that so primitive a science has armed itself with the most modern and terrible weapons, and that in turning them against the insects it has also turned them against the earth. (p.. 262)

**Vannevar Bush, 1950:**

- The upsetting of the balance of nature is not the result of any fortuitous natural cataclysm or catastrophe. It is we, mankind, who are making the changes. We have made it possible for more people to live, and to live longer, and in so far as we have done so as a result of planned advances in medicine, the accomplishment has been a deliberate and predictable one. I must say I can see no harm in this. And I think that our next moves are perfectly clear: we must vigorously press our endeavors to upset the balance of nature in still more ways. (Vannevar Bush, MIT Symposium, 1950.)

**Carson was not alone**

- 1957 European report on air and water pollution
- 1958, USDA report on pesticides
- March, 1960, Congress, Subcommittee on Appropriations, held hearings on "Environmental Health Problems"

**Lake Erie Pollution**

- 1960s Cuyahoga River caught fire
- covered in Life Magazine
- charts

**Post 1960**

- 1961 WHO report on air pollution
- by 1965, health effects were appearing from nuclear fallout of the 1950s
- 1965, New York City blackout
- 1966. Barry Commoner

**Commoner, background**

- Washington University, St. Louis
- initial concern, radioactive fallout
- 1958, Baby Tooth Survey
  - Strontium 90
  - ten-year study
- mid-1950s begins to organize

**1958, Committee for Nuclear Information (CNI)**

- founded by leading activists
- activities
  - environmental studies
  - speakers bureau
  - high school curricula
  - legislative initiatives
- 1964, Committee for Environmental Information

#### **Publications**

- 1958, Nuclear Information
- 1964, Science and Citizen
- 1969, Environmental Magazine

#### **Studies**

- 1956-1975 Nuclear Testing, Fallout, Radiation
- 1956-1973 Air Pollution,
- 1960-1977 Energy
- 1964-1976 Water Pollution
- 1968-1972 Lead
- 1968-1973 Pesticides
- 1970-1976 Solid Waste

#### **Barry Commoner**

##### ***Science and Survival (1966)***

- is science getting out of hand?
- problems
- raises issue of the "biosphere"
- see life as molecules, not its wholeness

#### **Commoner broadens the attach**

- linked to military, too secret
- science is being driven by politics, not science
- science is no longer serving society

#### **Commoner's thesis**

- The obligation that our technological society forces upon all of us, scientist and citizen alike, is to discover how humanity can survive the new power which science has given it. It is already clear that even our present difficulties demand far-reaching social and political actions.

#### **continued....**

- Solution of our pollution problems will drastically affect the economic structure of the automobile industry, the power industry, and agriculture and

will require basic changes in urban organization. To remove the threat of nuclear catastrophe we will be forced at last to resolve the pervasive international conflicts that have bloodied nearly every generation with war.

### **Other works**

- *Closing Circle: Nature, Man and Technology* (1971)
- *Social Costs of Power Production* (1975)
- *Politics of Energy* (1979)

### ***Making peace with the Planet* (1990)**

- environmental movement has failed
- \$100 B spent -10,000 pages of federal regulations
- attacking symptoms not the disease
- cannot clean up chemicals - too expensive
- most stop producing chemical pollutants
- cannot take a course of compromise, environmental groups are wrong
- grass roots environmentalism is the only way

### **Problems**

#### **late 1960s**

- Chemical pesticides
- Environmental pollution
- Radioactive fallout
- Air pollution:
- Water pollution:
- Greenhouse effect
- Radiation
- Industrial hazards
- Contamination of food
- Cancer causing chemicals
- Endangered species

### **Political ramifications**

- Barbara Ward, *Spaceship Earth* (1965)
- “Modern science and technology have created so close a network of communication, transport, economic interdependence ... that planet earth ... has acquired the intimacy, the fellowship, and the vulnerability of a spaceship.”
- environmental crisis required a new politics
- also required a new science?