STS.011

Lecture on Cold War Science
Lecture overview

• 1. General transformation of science

• 2. Effects on universities

• 3. Resistance
General Transformation of science

• 1. Rise of Big science
• 2. Dominance of physics
• 3. Government funding
• 4. Militarization of science
• 5. New centers of power
• 6. New networks of power
Archipelago of national labs

- LANL
- LLNL
- Sandia
- Brookhaven
- Argonne
- Oak Ridge
- Hanford
- INEL
- Savannah River
Government funding

- DoD,
- DOE,
- ONR,
- DARPA
- Vannevar Bush and NSF
1983 statistics

• Military funded:
  • 82% EE
  • 54% aeronautics
  • 29% materials science
New centers of power

- MIT - Draper & Lincoln, CIS
- Harvard – Russian Research center
- Caltech - JPL
- Stanford -- SRI
- Johns Hopkins – Applied Physics
- Georgia tech – GTRI
Networks of power

- Cronyism & grants
- Industry-academic-government
- Regional networks:
  - Route 128
  - Silicon Valley
Effects Inside Universities

• 1. Pre-WWII situation
• 2. Univs that benefited
• 3. Reshaping of fields
• 4. Secret research
• 5. McCarthyism
• 6. new hierarchies
Universities that benefited

- Stanford
- MIT
- Johns Hopkins
Reshaping of fields

• Rebecca Lowen, *The Making of the Cold War University*
• Field geology, ecology, pol. Philosophy
• Particle physics, EE, area studies,
• political science
• Psychology
• anthropology
secrecy

- Classified research & theses
- Severed communities
- 1960s and 1970s
- Widnall Report
Resistance

- Wiener
- 1960s
- MIT
- Stanford