Fall 1994
MIT: Fischer & Turkle

Proseminar: SOCIAL AND CULTURAL STUDIES OF SCIENCE

Introduction

I. Environment/Ecology
   A. Metanarratives in the Late Twentieth Century?
       Metanarratives, Cultural Contexts/effects/Refractions,
          Science&Civil Society
   B. Environmental Issues/Constructing Worlds: Illness, Power, Popular Epidemiology
   C. Environmental Issues/Political Economy/Embedded Knowledges

Interlude 1: Cultural History as a Form of Historical Ethnography

II. Biopower & The Rise of the New Biology

III. Computers: Fragmentation, Decentralization, Intensified Control & the Postmodern
               Condition

Interlude 2: Technological History (as Ethnography of Engineering)

Interlude 3: Interviewing, Narratives, Life Histories

Interlude 4: Visualizing Science

IV. Sociology of Science, Ethnography, Cultural Studies of Science (Concluding Checklist)
      A. "Social Constructivism" vs Philosophy of Science
      B. Ethnography and the Project of Describing (Post)Modernity
      C. Cultural Studies of Science
          1. Alternative Traditions of Theorizing Science and Technology: France, Central
                      Europe, Frankfurt School, Anthropology as Cultural Critique
          2. Civil Society and Science & Technology

Wk 1. INTRODUCTION

Film: Island of Flowers

Background readings (recommended):
Lyotard, Jean-Francois. 1979/84. The Postmodern Condition: A Report
on Knowledge. "Introduction" "Knowledge in Computerized Societies"
"Legitimation", "Language Games" [pp xxiii-xxv, 1-10]
Edwards, Paul. 1994. "Tools, Metaphors & Discourse." *The Closed World*. ch. 2
Fischer, Michael. 1994. "Functionalism" "Postmodern Anthropology"

I. ENVIRONMENT/ECOLOGY

Wk 2. Metanarratives in the Late Twentieth Century?

Questions: Is ecology a unified science/paradigm, or only an umbrella for a congeries
of research programs, unified only (if at all) by public concern. Can one
write a unified historical sociology/anthropology of ecology/ecological
studies? Models, fieldwork, experiment as alternative research modes;
equilibrium systems, economic models, circulation (Gaia) and emergent
organization, and competing incommensurate research worlds.

Reading:
Bowler, Peter J. 1992. The Environmental Sciences: p 532 passim
Douglas, Mary & Aron Wildawsky. Risk and Culture: into, sociol of envir groups
Gottweis, Herbert. "German Politics of Genetic Engineering & its Deconstruction"
Social Studies of Science, 1994.
Kelley, Kevin. 1994. Out of Control: The Rise of Neo-Biological Civilization.
pp 77-84; 92-99; 132-64 (reconstructing ecosystems, Lovelock &
Gaia, Biosphere 2)

Lyotard, Jean-Francois. 1979. The Postmodern Condition: A Report on Knowledge.
White, Hayden. Metahistory: Intro.
Haraway, Donna. "Cyborg Manifesto", "Situated Knowledges" In Simians,
Cyborgs, and Women. Routledge 1991.

Writing Exercise: write a 3 page reaction to Bowler and White; integrate if you can,
insights from Gottweis, Chaloupka/Bennet, Douglas, Kelley, Lyotard, and
Haraway, but keep the focus on Bowler and White.

Further: What are the other master narratives of the late 20th century?

(ii) physicists' search for unified science, complexity & emergent models
Eger, Martin. 1993 "Hermeneutics and the New Epic of Science" In McRae, ed. The Literature of Science. Georgia.
Galison, Peter. 1994. "History of Physics: The Material Culture of the Laboratory." Paper for St. Petersburg Workshop

(iii) genome/molecular biol/ sociobiology
Fortun, Michael. 1993. Mapping & Making Genes & Histories: The Genomic Project in the United States, 1980-1990. Harvard PhD
Keller, Evelyn Fox. 1994. "Situating the Organism between Telegraphs and Computers."

(iv) political economy: from centralized to decentralized systems
Forman, Paul. 1987 "Behind Quantum Mechanics: National Security as basis for physical research in the United States 1940-60.
Gottweis, Herbert. 1994. "German Politics of Engineering & Its Deconstruction." Social Studies of Science.
Hughes, Tom. 1993. "Modern and Postmodern Engineering"
Leslie, Stuart. 1993. The Cold War and American Science. Columbia UP
Martin, Emily. 1994. Flexible Bodies. Beacon.
Nandy, Ashis, ed. 1988. Science, Hegemony, & Violence. Oxford.
Haraway, Donna. 1993. "Modest Witness @ Second Millenium. The FemaleMan Meets OncoMouse ."
Traweek, Sharon - "Kokusaika (International Relations), Gaiatsu (Outside Pressure), and Bachigai (Being Out of Place)."

Beniger, James. "The Control Revolution" In Albert Teich, ed. Technology and the Future. St. Martins 1990.
Harvey, David. 1989. The Conditions of Postmodernity.

(v) scientific method
Popper, Kuhn, Feyerabend, et al.
Callebaut, Werner. 1993. Taking the Naturalistic Turn, or How Real Philosophy of Science is Done. Chicago.
Crease, Robert. 1993. The Play of Nature: Experimentation as Performance. Indiana UP
Lynch, Michael. 1993. Scientific Practice & Ordinary Action: Ethnomethodology & Social Studies of Science. Cambridge.
Rosenberg, Steven. 1992. The Transformed Cell: Unlocking the Mysteries of Cancer. Putnam.
Good, Mary Jo DelVecchio & Irene Cutter. Interview. Late Editions.

(vi) information theory/Cybernetics
Emmeche, Claus. 1994. The Garden in the Machine Princeton.
Turkle, Sherry and Seymour Papert. 1990. "Epistemological Pluralism: Styles and Voices Within the Computer Culture"

Questions: How are relevant meaning structures created: subjective experiences, statistical objective mapping of risk, institutional formation of possibilities for experience and for setting up objective parameters, discursive formations that screen out certain kinds of information, alternative perspectives that highlight different kinds of salience.

How can one "write" about risk and disaster in ways that break through the repetitiveness of the circulation of images of disaster?

What are the countervailing political institutions for managing risk and disaster? Do these significantly differ in places like the U.S., Europe, Japan, India . . . Are they changing in the context of globalization?

Reading:

Balshem, Martha. 1993. ch. 4 "A Cancer Death" Cancer in the Community. [environmt vs lifestyle: voice, class, & constructing a case history]

Dumit, Joseph. 1994. "A Digital Image of the Category of Person: PET Scanning & Objective Self-Fashioning."

Good, Byron. 1994. "How Medicine Constructs Its Objects" Medicine, Rationality & Experience: ch. 3. Cambridge.

Hess, David. 1994. "Walls and Laws in Cultures: Depasteurizing Biology, Medicine and STS."

Jackson, Jean. 1992. "'After a While No One Believes You': Real & Unreal Pain." in MJ Good, P. Brodwin, A. Kleinman, & B. Good ed., Pain In Human Experience.

Laughlin, Kim. 1994. "India Calling: Third World Environmentalism Confronts the West." Late Editionns. vol. II.

Reich, Michael. 1991. Toxic Politics. Cornell.

Visvanathan, Shiv & Harsh Sethi. 1989. "Bhopal: A Report for the Future." Lokayan Bltn 7(3).

Visvanathan, Shiv & Rajni Kothari. "Bhopal: The Imagination of a Disaster." Lokayan Bltn. 3(4-5).

Yoneyama, L. "Hiroshima and the Politics of Ethnic Memory."

[Theater of Stones: Seeing After Chernobyl]

Methodological/Writing Supplements

Brooks, Peter. 1984. "Fictions of the Wolf Man: Freud & Narrative Understanding." Reading for the Plot. Random House. pp.264-85

Good, Byron, H. Herrera, Mary-Jo DelVecchio Good, and J. Cooper. 1982. "Countertransference, reflexivity, and interpretation in a psychiatric cultural consultation clinic." CMP 6:281-303.

Writing Exercise: Take some area of science or technology with which you are familiar (or fantasize the same) and try to produce an account of the symbolic forms that mediate its experiential and cognitive structure using Byron Good's "How Medicine Constructs its Objects" as a model or stimulus. OR Take some case of social conflict over technological risk or disaster and suggest how you might write a case study that could be attention-arresting and provocative in getting people to think about the situation in new ways. Integrate if you can insights from Reich, Visvanathan, Balsham, Yoneyama, and Laughlin.

Supplements:

Brown, Phil & Edwin J. Mikkelsen. 1990. No Safe Place: Toxic Waste,
Leukemia, and Community Action. Calif
[Bullard, Robert. Invisible Houston.; Unequal Protection; Dumping in Dixie]
Martin, Emily. 1987. Woman in the Body. Beacon.
Rapp, Rayna. 1990. "Constructing Amniocentesis: Maternal & Medical
Discourses." In Faye Ginsburg & Anna Tsing, ed. Uncertain
Terms: Negotiating Gender in American Culture. Beacon.
Sandler, Tim. 1994. "Nuclear time Bomb: 7 Reasons to Close Plymouth's
Pilgrim Power Plant Now." Boston Phoenix, Aug 5-11, p 17-21
Shulman, Seth. 1992. The Threat at Home: Confronting the Toxic Legacy of
the U.S. Military. Beacon

Wk 4. Environmental Issues/Political Economy/Embedded Knowledges

Questions: Continued issues of where to locate systematicities, how to elicit and
utilize embedded knowledges. When is metaphor merely
metaphor, and when is it a real link to discursive disciplining and
cognitive limitations?

Reading:
Davis, Mike. 1993. "Dead West: Ecocide in Marlboro Country." NLR
Castells, Manuel & Peter Hall. 1994. Technopoles of the World: The Making
of 21st Century Industrial Complexes. Routledge
Wilson, Alexander 1992. "On the Frontiers of Capital: Nuclear Plants and
Other Environmental Architectures." The Culture of Nature, ch 8.

Broad, William. Star Warriors
Gusterson, Hugh.
Stewart, Kathleen. 1994. "Beyond Science in Las Vegas." Late Edns

Levi-Strauss, Claude. 1972 "Structuralism & Ecology." repr in
The View from Afar. Basic Books 1985.
Detienne, Marcel. 1972/77. The Gardens of Adonis. Harvester.
Zimmerman, Frances.1982/87. The Jungle and the Aroma of Meats. Cal.
Srinivasan, Raman "Cheenu". 1994. "No Free Lunch: Designing the Indian
National Satellite." and "Poetry in Motion: Rehabilitating Medicine
in India."

dams: Kayapo films

Writing Exercise: Compare the ways in which political economy and structuralism
make systemic logics appear from ecological knowledge. To what degree is
cultural material such as adduced by Srinivasan important in understanding
such systematicities?

Supplements
Fitzgerald, Deborah. 1990. The Business of Breeding. Cornell.
modes of production: Malthus, Marx, Wm Allen, Rene Dumont,
Audrey Richards, Vandava Shiva?
Geertz, Clifford. 1963. Agricultural Involution.

Interlude 1: CULTURAL HISTORY as a form of historical ethnography
  Reading: Kuhn, Thomas. 1968. "The History of Science." IESS
              Westman, Robert. 1994. "Two Cultures or One? A Second Look at
                Kuhn's The Copernican Revolution." ISIS 85(1):79-115
              Alexandrov, Denis A. 1994. "Historical Anthropology of Science in
                Russia." St. Petersburg Workshop: Science & Technology with
                a Human Face.
          Courtier Science
              Biagoli, Mario. 1994. Galileo, Courtier. Chicago.
          Gentleman Science -
              Shapin, Steven. 1994. Social History of Truth, Civility & Science in
                17th Century England. Chicago.
              Shapin, Steven & Simon Shaffer. 1985. "Intro." Leviathan & the
                Air Pump.
              Golinski, Jan. 1992. Science as Public Culture: Chemistry &
                Enlightenment in Britain 1760-1820. Intro & Ch. 3
          Romantic Science
              Koerner, Lisbet. 1994. Goethe and Botany. ISIS
          Fin-de-Siecle articles
              Bayertz, Kurt. 1990. "Biology & Beauty: Science & Aesthetics in
                Fin-de-Siecle Germany." In Mikulas Teich & Roy Porter, ed.
                Fin-de-Siecle & Its Legacy. Cambridge.
          Modernism -
              Galison, Peter. 1990. "Aufbau/Bauhaus: Logical Positivism and
                Architectural Modernism" Critical Inquiry.
              Greenberg, Valerie. 1990. Transgressive Readings: The Texts of Franz
                Kafka and Max Planck. Michigan.
          Renaissance and Postmodern Visualization
              Stafford, Barbara. 1994 Artful Science: Enlightenment Entertainment
                and the Eclipse of Visual Education. MIT

II. BIOPOWER: the rise of the new biology
Wk 1. Immunology
          Martin, Emily. 1994. Flexible Bodies. Beacon

          Anderson, Warrick, Myles Jackson, & Barbara Rosenkrantz. 1994. "Toward
            an Unnatural History of Immunology."
          Haraway, Donna. 1991 "Biopolitics of Postmodern Bodies: Constitution of Self
            in Immune System Discourse." Simians, Cyborgs, and Women.
          Haraway, Donna. 1993. "Modest Witness, Second Millenium: The female Man
            Meets OncoMouse." Paper, British Association of Social Anthropology.
          Tauber, Alfred. 1994. "Postmodernism and Immune Selfhood."

    Supplements:
          Latour, Bruno. Pasturizing France. ch. 1
          Rapp, Rayna.
          Adams, Alice. 1994. Reproducing the Womb: Images of Childbirth in
            Science, Feminist Theory, & Literature. Cornell. ch 4,9,10,11,12,13

Wk 2. Molecular Biology & Genetic Engineering
        Kay, Lily. "Inscriptions, Discursivities, and Instrumentalities."
              "Writing the Book of Life"
              "Life as Technology: Representing, Intervening & Molecularizing."
                STS Working Paper No. 16.
       Rheinberger, Hans-Jorg.
       Rabinow, Paul. - Late Editions piece with Tom Wolf

Supplements
       Gottweis, Herbert. 1994. "German Politics of Genetic Engineering & Its
           Deconstruction." Social Studies of Science
       Keller, E. F. 1994. "Situating the Organism between Telegraph and
           Computers." B.U. Seminar: Postmodernism & Science.
       Fortun, M.
       Gilbert, Scott. "Reconstructing the Body in the Intercultural University
       Teitelman, Robert. 1989. Gene Dreams: Wall Street, Academia, & the Rise
           of Biotechnology. Basic.

III. COMPUTERS: Fragmentation, Decentralization, Intensified Control, & the Postmodern
                Condition
      Reading: Bukatman, Scott. 1993. Terminal Identity. Duke.
          Emmeche, Claus. 1994. The Garden in the Machine. Princeton.
          Hayles, Kathrine. 1990. Chaos Unbound. Cornell
          Landow, Richard. 1993. The Electronic Book.
          Levy, Steven. 1992. Artificial Life: A Report from the Frontier Where
             Computers Meet Biology. Vintage.
          Lotfalian, Mazyar. 1994. "A Tale of an Electronic Community." Late Edts.
          McNeill, Daniel and Paul Freiberger. Fuzzy Logic. Simon & Schuster.
          Perloff, Marjorie. 1991. Radical Artifice: Writing Poetry in the Age of
             Media. ch. 2, 4.
          Poster, Mark. 1990. The Mode of Information. Chicago. pp 1-10; ch 2
          Pound, Chris. 1994. "Framed or How the Internet Set Me Up." Late
             Editions II
          Resnick, Mitchell. 1994. Turtles, Termites, and Traffic Jams. MIT
          Turkle, Sherry. 1990. "Epistemological Pluralism: Styles and Voices
             Within the Computer Culture." (with Seymour
             Papert) Signs 16(1):128-57
             1994. "Project Athena at MIT" (with Donald Schon) Donald
                Schoen & Martin Rein. Frame Reflection. Basic
             n.d. "Living in the MUD: Multiplicity and Identity in Virtual
                Reality."
             n.d. "Paradoxical Reactions and Powerful Ideas: Educational
                Computing in A Department of Physics."
             1994 chapters on MUDs from new book
          Ulmer, Greg. 1985. Applied Grammatology. JHU.
             1989. Teletheory: Grammatology in the Age of Video. Routledge
             1994. Heuretics. JHU

Wenders, Wim. To the End of the World.

Interlude 2: TECHNOLOGICAL HISTORY (as Ethnography of Engineering)

Bucciarelli, Lawrence. 1994. Designing Engineers. MIT

Srinivasan, Raman Cheenu. 1994.

Supplements
Hecht, Gabriela. 1992. "The Reactor in the Vineyard: Technological Choice &
    Cultural Change in the French Nuclear Program 1945-69."
Koch, Ellen. 1990. The Process of Innovation in Medical Technology: American
    Research on Ultrasound, 1947-62. Ph.D. dissertation, Penn.
Graham, Loren. 1993. The Ghost of the Executed Engineer. Harvard.
Ronell, Avital. 1993. "Our Narcotic Modernity." In V.A. Conley, ed. Rethinking
    Technologies. U. Minn.
Hughes, T. - "Modern & Postmodern Engineering."

Interlude 3: INTERVIEWING NARRATIVES/Life Histories: Scientific Imaginaries Volume
Abir-Am, Pnina.
Bernstein, Jeremy. 1978. Experiencing Science. Dutton.
        1991   Quantum Profiles. Princeton.
        1993. Cranks, Quarks, and the Cosmos. Basic.
Bass, Thomas. Camping with the Prince: Science in Africa. Ch. on Thomas Odhiambo.
Fischer, Michael. 1994. "Eye(I)ing the Sciences and their Signifiers (Language,
    Tropes, Autobiographers: InterViewing for a Cultural Studies of
    Science." Late Editions II.
        1994. "Autobiographical Voices and Mosaic Memory." In K.
    Ashley, L. Gilmore, &   Autobiography and Postmodernism.
        1986. Ethnicity and the Postmodern Arts of Memory. In J.
    Clifford and G. Marcus, ed. Writing Culture. Calif.
Good, Mary-Jo DelVecchio, Irene Cutter, et al. 1994.
Gornick, Vivian. 1983. Women in Science. Simon & Schuster.
Hill, Diana and Roger Eugene Hill. 1994.

Interlude 4: VISUALIZING SCIENCE
Dumit, Joseph. 1994. "A Digital Image of the Category of the Person: PET Scanning
    and Objective Self-Fashioning." SAR Conference Paper.
Lynch, M. & Woolgar. 1988. Representation in Scientific Practice. MIT
Visual Representations in Science and Technology, Galveston Conference 1994
Videotape Useage and Film
Good, Mary-Jo.

IV SOCIOLOGY OF SCIENCE, ETHNOGRAPHY, CULTURAL STUDIES OF SCIENCE:
    SSK et al vs Philosophy of Science
        International Encycl of Soc Sci
        Lynch, Michael. 1993. Scientific Practice and Ordinary Action: Ethnomethodology
            & Social Studies of Science. Cambridge.
        laboratory studies
        Latour: Science in Action
        Jasanoff, Sheila. 1992. "What Judges Need to Know about the Sociology of Science."
            Jurimetrics. pp 345-59
        Rouse, Joseph. 1993. "What are Cultural Studies of Scientific Knowledge?"
            Configurations
        Nelkin
    Ethnography and the Project of Describing (Post)Modernity
        Traweek, Sharon. 1988. Beamtimes and Lifetimes. Harvard
        Rapp, Rayna.
        Martin, Emily. 1994. Flexible Bodies. Beacon.
        Hess
        Rabinow
        Downey
    Cultural Studies of Science
        alternative traditions: French, Central Europe, Frankfurt School, Anthr as Cult Crit
        civil society, science & cultural studies:
            Hayles, K. Chaos Bound.
            McRae Murdo William, ed. 1993. The Literature of Science: Perspectives
                Popular Scientific Writing. Georgia UP
            Penley, Constance and Andrew Ross, ed. 1991. Technoculture. Minn.
            Slade, Joseph & Judith Lee, ed. 1990. Beyond the Two Cultures: Essays on
                Science, Technology & Literature. Iowa State UP
            Leonardo: Journal of the International Society for the Arts, Sciences & Technology
            Ross, Andrew. 1991. "New Age — A Kinder, Gentler Science?" Strange
                Weather. Verso.

        Thomas Pynchon; Gravity's Rainbow

Wk 9. New Media/New Society? Evocative Objects-to-Think-With

Bukatman, Scott. 1993. Terminal Identity. Duke.
Hayles, Kathrine. 1990. Chaos Unbound. Cornell
Poster, Mark. 1990. The Mode of Information. Chicago. pp 1-10, ch 2
Stone, Allucquere Rosanne. 1993. "Will the Real Body Stand Up?" in
M. Benedikt, ed.

Suppl.:
Landow, Richard. 1993. The Electronic Book.
Lotfalian, Mazyar. 1994. "A Tale of an Electronic Community." Late Edns.
Perloff, Marjorie. 1991. Radical Artifice: Writing Poetry in the Age of
Media. ch. 2, 4.
Pound, Chris. 1994. "Framed or How the Internet Set Me Up." Late
Editions II
Turkle, Sherry. 1990. "Epistemological Pluralism: Styles and Voices
Within the Computer Culture." (with Seymour Papert)
Signs 16(1):128-57
1994. "Project Athena at MIT" (with Donald Schon) Donald
Schoen & Martin Rein. Frame Reflection. Basic
n.d. "Living in the MUD: Multiplicity and Identity in Virtual Reality."
n.d. "Paradoxical Reactions and Powerful Ideas: Educational
Computing in A Department of Physics."
Ulmer, Greg. 1985. Applied Grammatology. JHU.
1989. Teletheory: Grammatology in the Age of Video. Routledge
1994. Heuretics. JHU

Wenders, Wim. To the End of the World.

Week 10: A-Life, Open Systems, Biology and Computers

Emmeche, Claus. 1994. The Garden in the Machine. Princeton.
Kelly, Kevin. 1994. Out of Control. Addison-Wesley.
Resnick, Mitchell. 1994. Turtles, Termites, and Traffic Jams. MIT

Suppl:
Levy, Steven. 1992. Artificial Life: A Report from the Frontier Where
Computers Meet Biology. Vintage.
McNeill, Daniel and Paul Freiberger. Fuzzy Logic. Simon & Schuster.

Interlude 2: TECHNOLOGICAL HISTORY (as Ethnography of Engineering)

Bucciarelli, Lawrence. 1994. Designing Engineers. MIT
Hughes, T. - "Modern and Postmodern Engineering."

Supplements
Hecht, Gabriela. 1992. "The Reactor in the Vineyard: Technological Choice &
Cultural Change in the French Nuclear Program 1945-69."

Koch, Ellen. 1990. The Process of Innovation in Medical Technology: American
    Research on Ultrasound, 1947-62. Ph.D. dissertation, Penn.
Graham, Loren. 1993. The Ghost of the Executed Engineer. Harvard.
Ronell, Avital. 1993. "Our Narcotic Modernity." In V.A. Conley, ed. Rethinking
    Technologies. U. Minn.
Srinivasan, Cheenu

IV. Sociology of Science, Ethnography, Cultural Studies of Science

Wk 12. Ethnographic Methods

Latour, Bruno and Steve Woolgar. 1979/2nd ed. 1986. Laboratory Life: The
        Construction of Scientific Facts. esp. Ch. 3. The Case of TRF(H);
        Postscript to 2nd. edition.
Traweek, Sharon. 1988. Beamtimes and Lifetimes: The World of High Energy
        Physicists. (HUP)

Hacking, Ian. 1988. "The Participant Irrealist At Large in the Laboratory." Br. J.
        Phil. Sci. 39, pp 277-294.
Latour, Bruno. 1990. "Postmodern? No Simply Amodern! Steps towards an
        Anthropology of Science. Stud. Hist. Phil. Sci. 21(1):145-71.
Tilley, Nicholas. 1981. "The logic of laboratory life." Sociology 15: 117-126.

Writing Exercise: Compare and contrast the several ethnographies we have read this term:
        Biagioli, Martin, Bucciarelli, Latour & Woolgar, Traweek in terms of their
        ethnographic techniques of investigation/description (what do they try to
        explain and how); their sociological characterization of the role of science
        and technology in society; their use of "object-worlds" (Bucciarelli) or
        evocative objects-to-think-with (Turkle); and their narrative questions
        about the historical genealogies of fields as well as the construction of their
        own texts in order to display and elucidate the complexities in the fields of
        science, medicine, or engineering design they take as their objects of
        description.

Wk 13: The Inner Life of Scientists and Interpretive Methods of Anthropology

Rabinow, Paul. 1994ms. The Polymerase Chain Reaction: Biotechnology Emergent.

Kolata, Gina. 1994. "Novel Kinds of Computing: Calculation with DNA" NYT 22 Nov.C1
Gifford, David K. 1994. "On the Path to Computation with DNA" Science, 11 Nov. 94
        vol. 266, pp 993-4
Adelman, Leonard. 1994. "Molecular Computation of Solutions to Combinatorial
        Problems." Science, 11 Nov. 94, vol. 266, pp 1021-23

Fischer, MMMJ. 1994. "Eye(I)ing the Sciences and their Signifiers (Language,
        Tropes, Autobiographers: InterViewing for a Cultural Studies of
        Science." Late Editions II.
Good, Mary-Jo DelVecchio. 1994.
Weber, Max. 1917. "Science as a Vocation."

Writing Exercises:

(a) Compare and contrast the writing styles of the New York Times report on biological computers, and the two articles in Science that the basis of the NYT article. Compare these then with the writing styles in ch. 3 of Latour and Woolgar, and the technical explanations in Rabinow. How does one write about science for the educated public so as neither to bowlderize nor obscure the science? Can a single style of writing suffice?

(b) Compare and contrast the account of the politics of molecular biology in Gottweiss and in Ch. 2 of Rabinow. (Or compare the use of Foucault in both and in Lily Kay.)

(c) Compare and contrast the portrayal of the "inner life of science" in the Rabinow interviews (or those in the M-J. Good interview with Irene Kuter, M.D., or the autobiographical accounts in Fischer) with the accounts in Biagioli (reconstruction of a historical figure), Latour and Woolar (note especially Jonas Salk's intro.), and B. Good. Is the co-production of an account with scientists a subversion of critical sensibility? What are the techniques used in these readings for putting interviews in context so that readers can have a basis for evaluation? What other techniques might be used?