

HSSC 505
Fall 2007

Robert Aronowitz, Instructor
Office Hours Monday, 2:45-3:00 and by appt.
325 Logan Hall
8-5621
aronowit@wharton.upenn.edu

Tuesday 1:30-4:20 or to be determined
Logan Hall 337

This course is an introduction to the history and sociology of science, medicine, and technology. We will read a broad range of articles and books selected for different reasons: to explore the varied assumptions, methods, and problems in this field; to gain familiarity with canonical texts and central scientific problems and developments; and to learn about the research interests of our faculty.

Students will write something every week, usually 4-6 page comparative assessments of the assigned readings, or “book reviews,” as well as a short final paper. Active participation in all class discussions is a *very* important part of this small class. Effectively engaging in such discussions is part of what you will be learning to do.

Each week there will be a required reading as well as a more open-ended, individualized assignment.

You can buy, borrow, or check out most of the necessary books. I have extra copies of Genesis and Development of a Scientific Fact and Cholera Years. Many of the articles are either easily downloadable from the internet or Penn’s library homepage OR will be handed out in class or sent electronically to you.

September 11 **Introduction**

September 18 **Social construction**

Ludwik Fleck, Genesis and Development of a Scientific Fact.

1. Find and read 2 historiographic pieces that use Fleck. Some suggestions:

--Between Two Poles: Bronislaw Malinowski, Ludwik Fleck, and the Anthropology of Science. Roberto J. Gonzalez, Laura Nader, C. Jay Ou, *Current Anthropology*, Vol. 36, No. 5 (Dec., 1995), pp. 866-869.

--Ludwik Fleck's Roles in Society: A Case Study Using Joseph Ben-David's Paradigm for a Sociology of Knowledge. Gad Freudenthal, Ilana Lowy, *Social Studies of Science*, Vol. 18, No. 4 (Nov., 1988), pp. 625-651.

--<http://www.fmag.unict.it/~polphil/PolPhil/Fleck/Fleck.html>

2. Write review/response paper in which you use Fleck to illuminate something else – other disease, history of science topic, current concern.

September 25 **Scientific revolutions**

Thomas Kuhn, [The Structure of Scientific Revolutions](#).

Do literature search to find recent citations to Kuhn. Write a short response about incorporating your reactions to both Kuhn and how he is read by others.

Some web places to begin:

<http://www.philosophersnet.com/magazine/article.php?id=137&el=true>

http://en.wikipedia.org/wiki/The_Structure_of_Scientific_Revolutions

[http://directory.google.com/Top/Society/Philosophy/Philosophers/K/Kuhn,_Thomas_S./](http://directory.google.com/Top/Society/Philosophy/Philosophers/K/Kuhn,_Thomas_S/)

Michael Dennis, “Historiography of science: An American perspective,” in *Science in the 20th Century*, ed. John Krige and Dominique Pestre (Amsterdam: Harwood, 1997), 1-26.

Joseph Rouse, “Science as practice: Two readings of Thomas Kuhn,” in Rouse, *Knowledge and Power: Toward a Political Philosophy of Science* (Ithaca: Cornell University Press, 1987), 26-40.

October 2 **The Scientific Revolution**

Steve Shapin, [The scientific revolution](#).

Do a summary/analysis of at least 3 readings from Shapin’s historiographic essay. What would Shapin think of them?

October 9 **History of disease**

Charles Rosenberg, [The Cholera Years](#).

Read two historiographic essays:

1. R. Cooter's and Reverby/Rosner from *Locating Medical History: The Stories and Their Meanings*, edited by Frank Huisman, John Harley Warner.
2. "Emerging Themes in the History of Medicine," by Allan M. Brandt in *The Milbank Quarterly*, Vol. 69, No. 2, Health, Society, and the "Milbank Quarterly:" Essays in Honor of David P. Willi's Editorship (1991), pp. 199-214.

3.

Choices for writing assignment:

- A. Response to readings: read 2 history of disease articles from Rosenberg and Golden's Framing Disease or other more recent history of disease articles and write response paper.
- B. Proquest exercise – compare New York Times coverage of particular disease or health problem in 20 year periods.

October 16 **Fall Break**

October 23 **History of technology**

Tom Hughes: American Genesis

Write review, connect to any interest (and/or technological system) of your own.

October 30 **Biography, evolution.**

Janet Browne, The Power of Place.

1. Read 3 history of science articles on Darwin or popular press articles about evolution use in review of Browne.

OR

2. Compare reviews of Browne book. E.g.
http://books.guardian.co.uk/review/story/0,12084,868117,00.html#article_continue
Explore Darwin popularization: what do you think?

<http://www.amnh.org/exhibitions/darwin/>

3. Respond to some published or archival material from Darwin at <http://darwin-online.org.uk/>

4. Skim another Darwin biography and contrast, e.g. Adrian Desmond and James Moore, *Darwin: The Life of a Tormented Evolutionist* (New York: W. W. Norton, 1991).

November 6 **Environmental History**

Read either W. Cronin's Nature's Metropolis or Changes in the Land (we will decide together).

Write essay on how Cronin's approach might be relevant to whatever interests you in the history of science, medicine, and technology.

November 13 **History of biology and technology.**

Shobita Parthasarathy, Building Genetic Medicine.

Write review.

November 20 **Material culture**

Rob Kohler, Lord of the Flies.

Write review in which you imagine the usefulness of Kohler's method and approach to other problems in the history of science.

November 27 **Culture Wars**

Ian Hacking, Social Construction of what.

E. Armstrong, 1998. "Diagnosing Moral Disorder: The Discovery and Evolution of Fetal Alcohol Syndrome." Social Science & Medicine 47:12:2024-2042

R. Aronowitz, Lyme Disease: The Social Construction of a New Disease and Its Social Consequences, Milbank Q., 1991.

Write short response paper.

December 4 **Risk**

L. Daston, 1997. "The Domestication of Risk: Mathematical Probability and Insurance, 1650-1830." From The Probabilistic Revolution (Cambridge, MIT), 237-260.

Douglas, M. "Risk as a Forensic Resource." Daedalus, 1990, vol. 119, no. 4, pp. 1.
Available from Penn text via link on library page
(http://proxy.library.upenn.edu:8545/searchFullrec.do?id=R03563449&area=abell&forward=critref_fr).

U. Beck. 1992. Risk Society: Towards a New Modernity. London. Sage. Chapter 1

A. Giddens. 1990. The Consequences of Modernity. Stanford, Stanford U Press.
Chapter 1

Jeremy Greene. 2007. Prescribing by numbers Baltimore, Johns Hopkins (excerpts).

Adriana Petryna, "Biological Citizenship: An Anthropology of Chernobyl-Exposed Populations," Osiris 19 (2004).

Nicholas Rose. 2001. "The politics of life itself." Theory, Culture and Society 18(6): 1-30.

Final assignment due:

Choose one of the following five journals and compare approaches and contents in any two years that are at least ten years apart (1980 compared to 1990, for example, or 1942 compared to 1952). Report to class and hand in 8-10 page summary/analysis. Think about topics explored, methods used, questions asked.

Isis

Bulletin of the History of Medicine

History of Science

British Journal for the History of Science

Technology and Culture

Social Studies of Science