

## Science Studies Network Seminar I: Science in Democracy

Fall 2008 - HUM596

### Faculty Fellows:

Leah Ceccarelli (Communication)  
Sarah Elwood (Geography)  
Simon Werrett (History)  
Joanne Woiak (Disability Studies/History)

### Graduate Fellows:

Brandon Olsen (Philosophy)  
Monica Aufrecht (Philosophy)

### Seminar meetings

Simpson Center seminar room (Communication 202)  
Mondays, 2:00-1:30 (see SSNet calendar for dates)

### Seminar Description

This course is linked to the 1<sup>st</sup> quarter of the 2008-09 Science Studies Network seminar on *Democratizing Science*, a year-long faculty and graduate seminar, sponsored by the Simpson Center, that will meet every second week through the academic year.

The focus of the Fall quarter seminar is a cluster of questions about the role of scientific experts and expertise in democratic deliberation that have long been contentious. For example, how can the power of scientific inquiry be effectively mobilized for the public good without ceding authority to scientific experts?; and how are non-experts to adjudicate the technical advice offered by scientific experts? A complementary set of questions have to do with scientific accountability: what responsibilities do scientists have to those who are affected by policies based on their advice, or on knowledge, technologies, and forms of practice that they play a role in producing? Debates about these issues have roots, in the American context, in Deweyan pragmatism, and they have drawn the attention of political theorists concerned to understand how deliberative processes work in democracies, as well as science studies scholars who are interested in the role of contextual values in the sciences. Focal questions include:

- How can the power of scientific inquiry be effectively mobilized for the public good without ceding authority to scientific experts?
- What uses have publics of various kinds made of scientific expertise and authority?
- How have public interests—regulation, funding, demands for accountability—structured scientific practice, in the range of democratic contexts in which it has taken shape?
- In what ways are scientists be accountable to those affected by their practice and authority, and by the results of their inquiry?

The schedule of readings follows; details are available at: <http://depts.washington.edu/ssnet/>

### Requirements and logistics

Graduate students who enroll in HUM596 will be expected to attend all the bi-weekly Science Studies Network seminar meetings in the Fall quarter, as well as two additional meetings with core faculty at the beginning and end of the quarter. Each bi-weekly SSNet seminar meeting will be a discussion of precirculated readings lead by members of the core organizing group; the two graduate seminar meetings will be on topics and readings selected by the student participants in the seminar. Writing requirements will include a series of short response papers to selected readings and a summary reflection on the seminar as a whole.

**Credit:** 2 hours; C/NC

## Science Studies Network Seminar I: Science in Democracy

### Reading schedule

**October 6:** Science in Democracy planning meeting

**October 13:** HUM596: Sarah Elwood – **Science, Democracy and Politics: Core Debates and Ideas**

- Jasanoff, S. (2004) Ordering knowledge, ordering society. In S.Jasanoff, Ed., *States of Knowledge: The Co-production of Science and Social Order*. London: Routledge. pp. 14-45.
- Jasanoff, S. (2005) Civic epistemology. Chapter 10 in *Designs on Nature: Science and Democracy in Europe and the United States*, Princeton University Press. 247-271.

**October 20:** Leah Ceccarelli – **Manufactured Controversy**

- Leah Ceccarelli, "Manufactroversy: The Art of Creating Controversy Where None Existed," *Science Progress* (Spring/Summer 2008): 82-84. <http://www.scienceprogress.org/2008/04/manufactroversy/>
- David Michaels, "Knowing Uncertainty for What It Is: In Reporting on the Science of Global Warming, Journalists Contend with Powerful, Well-Funded Forces Using Strategies Created by Tobacco Companies," *Neiman Reports* (Winter 2005): 75-77.
- Naomi Oreskes, "Anti-Realism in Government. Book Review of Chris Mooney's *The Republican War on Science*," *Science* 310 (7 October 2005): 56.

**November 3:** Monica Aufrecht – **Election Special: Science-based Public Policy: Hidden Challenges**

- David Goldston, "Hazy Reasoning Behind Clean Air: science alone can't determine how regulations are written," *Nature* Vol. 452 April 3 2008, pp. 519.
- Susan Kelly, "Public Bioethics and Publics: Consensus, Boundaries, and Participation in Biomedical Science," *Science, Technology, & Human Values*, Vol.28, No. 3 (Summer 2003), pp. 339-364.

**November 17:** Joanne Woiak – **Eugenics in Democratic Contexts**

- Mark Largent, "'The Greatest Curse of the Race': Eugenic Sterilization in Oregon, 1909-1983," *Oregon Historical Quarterly* 103.2 (2002): 188-209.
- Alexandra Minna Stern, "Eugenics and Historical Memory in America," *History Compass* 3 (2005): 1-11.

**November 24:** HUM596: Brandon Olsen – **Third Wave Science Studies**

- H.M. Collins and Robert Evans (2002) 'The Third Wave of Science Studies: Studies of Expertise and Experience', *Social Studies of Science* 32(2): 235-296. Focus on pp. 235-272.
- H.M. Collins and Robert Evans (2003) 'King Canute Meets the Beach Boys: Responses to the Third Wave', *Social Studies of Science* 33(3 ): 435-452.
- Other relevant readings: responses to various published reactions to "Third Wave":
  - Rip, Arie (2003) 'Constructing Expertise in a Third Wave of Science Studies?', *Social Studies of Science* 33(3): 419–34.
  - Wynne, Brian (2003) 'Seasick on the Third Wave? Subverting the Hegemony of Propositionalism', *Social Studies of Science* 33(3): 401–17.
  - Jasanoff, Sheila (2003) 'Breaking the Waves in Science Studies', *Social Studies of Science* 33(3): 389–400.
  - Gorman, Michael (2002) 'Levels of Expertise and Trading Zones', *Social Studies of Science* 32(6): 933–38

**December 1:** Simon Werrett – **Food Politics**

- Steven Shapin, "How to Eat Like a Gentleman: Dietetics and Ethics in Early Modern England," in *Right Living: An Anglo-American Tradition of Self-Help Medicine and Hygiene*, ed. Charles E. Rosenberg (Baltimore, MD: Johns Hopkins University Press, 2003), pp. 21-58.
- D. Winickoff, S. Jasanoff, L. Busch, R. Grove-White and B. Wynne, "Adjudicating the GM Food Wars: Science, Risk and Democracy in World Trade Law", *The Yale Journal of International Law*, Vol 30 (2005):81.

## Science Studies Network Seminar II: Democracy and Diversity in Science

Winter 2009 - HUM596

### Faculty Fellows:

Sareeta Amrute (Anthropology)  
Angela Ginorio (Women's Studies)  
Andrea Woody (Philosophy)

### Graduate Fellows:

Julie Homchick (Communication)  
Jentery Sayers (English)

### Seminar meetings

Simpson Center seminar room (Communication 202)  
Mondays, 2:00-1:30 (see SSNet calendar for dates)

### Seminar Description:

This course is linked to the 2<sup>nd</sup> quarter of the 2008-09 Science Studies Network Colloquium on *Democratizing Science*, a year-long faculty and graduate seminar, sponsored by the Simpson Center, that will meet every second week through the academic year.

Science at its best—well functioning science—is often taken to exemplify democratic ideals of deliberation: the high value placed on the open exchange of ideas, requirements of public reporting not only of the results of inquiry but of their bases, and the emphasis on collective practices of critical scrutiny are key examples of deliberative processes that are presumed necessary for, or central to, successful science. Dewey characterized democratic deliberation as an experimental process, while contemporary “proceduralist” theorists of science like Longino and Kitcher reframe ideals like objectivity in terms of well functioning processes of community deliberation which ensure that scientific inquiry draws on a rich and diverse a range of epistemic resources as possible. A growing body of historical and socio-cultural scholarship reinforces these normative arguments for broad critical engagement, throwing into relief the crucial contributions made to the sciences by diversity among its practitioners, and the forms and contexts of its practice. The goals of the Winter quarter SSNet seminar are to assess these lines of argument for recognizing the importance of diversity in science, and to articulate more clearly exactly how scientific practice is, or should be, informed by ideals of (democratic) deliberation. Focal questions include:

- In what ways does science at its best—well functioning science—exemplify democratic ideals of deliberation, the open exchange of ideas, critical engagement?
- Can ideals of objectivity, research integrity, credibility be articulated in terms of procedural requirements for ensuring that hypotheses, methods, conclusions are subject to critical scrutiny?
- How have the sciences been transformed, and enriched, by diversity among its practitioners, and in the forms and contexts of its practice?

### Colloquium format and requirements

Presenters will give a five-minute introduction before discussion, as well as a handout listing core questions and/or themes relating to readings. Readings will be posted on a GoPost website to download as PDFs or to be read online. The website will also include a bibliography, accumulated over the course of the quarter. The URL for the website is: <https://catalysttools.washington.edu/gopost/board/ssnet/8059/>

Graduate participants in HUM596 are asked to do the following:

- Attend all meetings of the regular SSNet colloquium (1/26, 2/9, 2/23, 3/9) and the two additional meetings of HUM 596 (2/2, 3/2).
- Compose short responses to each session and post them to the Catalyst site by noon on the Wednesday following each session.
- Present a question and/or comments to initiate discussion at the beginning of the two sessions of HUM 596.

**Credit:** 2 hours; C/NC

## Science Studies Network Seminar II: Democracy and Diversity in Science

Winter 2009 - HUM596 – Syllabus

### January 12: Curriculum Planning Meeting

#### January 26: Sareeta Amrute – **Genetic Testing and Social Identities** (led by)

How do communities use genetic testing to map out, verify and reconceptualize who they are? What happens when scientists try to anticipate the needs of the communities from whom they sample? This session explores what happens when genetic testing meets other, sometimes conflicting ways of investigating and managing identities.

- Alondra Nelson, "BioScience: Genetic Genealogy Testing and the Pursuit of African Ancestry." *Social Studies of Science* 38 (2000).
- Jenny Reardon, "Democratic Mis-Haps: The Problem of Democratization in an Age of Biopolitics." *Biosocieties* 2/2 (2007).

#### February 2: HUM 596: Andrea Woody – **Well-ordered Science: Democratic on the Inside?**

This session will explore whether, and in what respects, science as a practice functions ideally according to democratic principles. In other words, should the internal workings of science follow the principles of democratic representation and deliberation? The reading from Longino introduces the social nature of science and relates it to the scientific ideal of objectivity, while the reading from Kitcher explores in greater detail whether the best ("well-ordered") science would be democratic.

- Helen Longino, "Values and Objectivity," *Science as Social Knowledge* (Princeton University Press, 1990).
- Philip Kitcher, "Well-ordered Science," *Science, Truth, and Democracy* (Oxford University Press, 2003).

#### February 9: Colloquium with Kelly Moore (University of Cincinnati)

A sociologist whose primary interest is understanding "how governments and social movements shape knowledge production and distribution," Moore has recently published *Disrupting Science: Social Movements, American Scientists, and the Politics of the Military, 1945-1975* (Princeton 2008). She will give a public lecture on this new book on Feb. 10th, and discuss her new work on "the politics of nutrition" with the SSNet seminar.

#### February 23: Angela Ginorio – **Democratizing science and social justice: Case studies and the "who" and "how"**

The focus of this session will be on the social sciences. Flyvbjerg argues for the importance of values and power as central to analysis in the social science, and the need for case studies for deep understanding of both structure and process. In Ch. 10 Flyvbjerg provides a case study of decision making in urban design (from an expert perspective) while Simpson provides a case study of the clash between expert decision makers and grassroots activists. Sclove's critique of STS (as of 1996) provides a disciplinary context for this discussion.

- Bent Flyvbjerg, *Making social science matter: Why social inquiry fails and how it can succeed again* (Cambridge University Press, 2001). Chapters 9 and 10: Methodological guidelines for a reformed social science (129-140); Examples and illustrations: Narratives of value and power (141-161).
- Richard Sclove, "STS on other planets." In the *European Association for the Study of Science and Technology* (1996): <http://www.easst.net/review/june1996/sclove>
- Andrea Simpson, "Who Hears Their Cry? The Case for Environmental Justice in Memphis, Tennessee." *The Environmental Justice Reader: Politics, Poetics, and Pedagogy*. Eds. Joni Adamson, Mei Mei Evans, and Rachel Stein. (University of Arizona Press, 2002).

#### March 2: HUM 596: Julie Homchick – **Intelligent Design and Pluralism**

While pluralism and openness are characteristics commonly associated with democracy and diversity, these terms are particularly charged within the context of the controversy over intelligent design (ID). By looking at how proponents of ID have embraced the values of pluralism and openness and how opponents of intelligent reject IDers adoption of these values, we will explore the meanings of democracy and diversity within this case study.

- John Angus Campbell, "Intelligent Design, Darwinism, and the Philosophy of Public Education." Darwinism, *Design, and Public Education*. Eds. John Angus Campbell and Stephen C. Meyer. (Michigan State University Press, 2003) 3-44.
- Kenneth Miller, "Closing the American Scientific Mind." *Only a Theory: Evolution and the Battle for America's Soul* (Viking, 2008). 165-191.

**March 9: Jentery Sayers – "Can You Fix My Computer?" Or, Science, Technology and the Participatory Question**

What are the potentials and limitations of nonexpert participation in science and technology? Focusing particularly on the notion of innovation, this session explores how shaping and being shaped by technologies figure into the everyday disconnects between technology professionals and nonexperts. How do these disconnects influence the diversification and democratization of science? And how is participatory technology articulated in the first place, by whom, and for whom? The readings, both of which unpack STS approaches to understanding technology and democracy, should facilitate conversations about distinguishing technology from science (if that's possible), team expertise (or collaboration), displaced politics, and participatory technocultures.

- Martin Lengwiler, "Participatory Approaches in Science and Technology." *Science, Technology, & Human Values* 33/2 (2008): 186-200.
- Roel Nahuis and Harro van Lente, "Where Are the Politics? Perspectives on Democracy and Technology." *Science, Technology, & Human Values* 33/5 (2008): 559-581.

**Science Studies Network Seminar III: Normative Claims for a Democratic Science**  
Spring 2009 - HUM596

**Faculty Fellows**

Malia Fullerton (Bioethics & Humanities)  
Mott Greene (Earth & Space Sciences)  
Phillip Thurtle (History/CHID)  
Alison Wylie (Philosophy/Anthropology)

**Graduate Fellows**

Sara Breslow (Anthropology)  
Julie Homchick (Communication)

**Seminar meetings**

Simpson Center seminar room (Communication 202)  
Mondays, 2:00-1:30 (see SSNet calendar for dates)

**Seminar Description**

This seminar is linked to the third quarter of the 2008-09 Science Studies Network (SSNet) Colloquium on Democratizing Science, a year-long faculty and graduate seminar that meets every second Monday through the academic year.

The Spring seminar will focus on a set of normative questions about why the sciences should be democratized and, more specifically, about how the epistemic resources of diverse communities—within and outside the conventional boundaries of established scientific disciplines—can be deployed effectively in the practice of science. Students will consider examples of collaborative research in a range of fields in which various kinds of publics play a role, not just as beneficiaries of inquiry or as its subjects, but as active partners in all aspects of the research process. Focal questions include:

- How can the resources of diverse communities, within and outside the conventional boundaries of scientific disciplines, be effectively engaged in the practice of science?
- Can “best practices” be identified that embody ideals of reciprocity, accountability, research partnership in scientific practice?
- What is the “epistemic payoff” of collaborative practice; how is the science enriched, transformed?

The overarching goal of the seminar is to specify conditions of best practice, clearly identifying what is to be gained epistemically, as well as socially or politically, from various forms of reciprocity, accountability, and research partnership.

**Format and requirements**

Graduate students enrolled in HUM596 are expected to attend all the bi-weekly SSNet colloquium meetings in the Spring quarter, as well as two meetings with core faculty at the beginning and end of the quarter. Members of the core organizing group (seminar fellows) will lead seminar discussion of pre-circulated readings. The two dedicated HUM596 microseminar meetings will focus on topics and readings relevant to the research interests of enrolled students. Writing requirements include short on-line commentaries on assigned readings, and reflection on the seminar as a whole. The syllabus and detailed outline of requirements follow; for readings, discussion notes, and podcasts of colloquium meetings see:

<http://depts.washington.edu/ssnet/index.php>

**Credit:** 2 hours, C/NC

SSNet Colloquium / HUM 596 Graduate Microseminar  
**Spring 2009 – NORMATIVE CLAIMS FOR A DEMOCRATIC SCIENCE  
SEMINAR SCHEDULE**

**April 6:** Digital Media Town Hall + Introduction to SSNet Spring Colloquium

**April 13:** HUM596: Alison Wylie – **Legacies and Lineages of Community Based Participatory Research**  
Samuel Hickey and Giles Mohan (2004) "Towards Participation as Transformation," in *Participation: From Tyranny to Transformation? Exploring New Approaches to Participation in Development*, ed. Hickey and Mohan. New York: Zed Books, pp. 3-23.  
Alison Wylie (2009 mss) "Legacies of Collaboration: Transformative Criticism in Archaeology"  
Elizabeth McLean Petras and Douglas V. Porpora (1993) "Participatory Research: Three Models and an Analysis." *The American Sociologist* 23.1: 107-26.

**April 20:** Mott Greene - **Interest-group Liberalism, Stakeholder Politics, Paradoxes of Democratization**  
Theodore J. Lowi (1979) *The End of Liberalism* (1979): "Pluralism and Capitalist Ideology," and "The New Public Philosophy: Interest Group Liberalism"  
Sheila Jasanoff (2005) *Designs on Nature*: chapter 10: Civic Epistemology.  
James Madison: Federalist #10 <http://www.constitution.org/fed/federa10.htm>

**May 4:** Julie Homchick – **Intelligent Design: Policy and Politics**  
The Wedge Document: <http://ncseweb.org/creationism/general/wedge-document>  
Eugenie Scott and Glenn Branch (August 12, 2002) "'Intelligent Design' not accepted by most scientists," *National Center for Science Education*  
<http://ncseweb.org/creationism/general/intelligent-design-not-accepted-by-most-scientists>  
Kitzmiller v. Dover timeline (October 17, 2008) *National Center for Science Education*.  
<http://ncseweb.org/creationism/legal/kitzmiller-v-dover-timeline>: read the introductory paragraph and listen to the presiding judge of the Kitzmiller v. Dover case, John E. Jones III  
<http://www.pbs.org/wgbh/nova/id/judge.html>: read the excerpt from the judge's decision  
John G. West. "Dover in Review" (January 6, 2006) *Discovery Institute*: Section I.  
<http://www.discovery.org/a/3135>

**May 11:** HUM596: Phillip Thurtle – **Space as Analytic**  
Robert E. Mitchell (forthcoming) "Introduction" and "Bioart and the Folding of Social Space," in *Media Life: Bioart and the Vitality of Media*. Seattle: University of Washington Press.  
Phillip Thurtle (2007) "The Poetics of Life: Luther Burbank, Horticultural Novelties, and the Spaces of Heredity." *Literature and Medicine* 26.1: 1-24.

**May 18:** Sara Breslow – **Participatory, Transdisciplinary, and Indigenous Methodologies in Health and Environmental Research**  
Linda Tuhiwai Smith (1999) *Decolonizing Methodologies: Research and Indigenous Peoples*, pp 1-6.  
Louise Fortmann (2008) "Introduction: Doing Science Together." In *Participatory Research in Conservation and Rural Livelihoods: Doing Science Together*, ed. Fortmann. London: Wiley-Blackwell: pp. 1-9.  
Gerald V. Mohatt, Kelly L. Hazel, James Allen, Mary Stachelrodt, Chase Hensel, and Robert Fath (2004) "Unhear Alaska: Culturally Anchored Participatory Action Research on Sobriety With Alaska Natives." *American Journal of Community Psychology* 33.3-4: 263-273.  
Benrita 'Mae' Burnette and Judy DeHose (2008) "The Land has Wisdom." In *Participatory Research in Conservation and Research Livelihoods*, ed. Fortmann. London: Wiley-Blackwell: pp. 84-97.

**June 1:** Malia Fullerton – **Biotech Hobbyism: Tinkering, Treacherous or Transformative?**  
James Bloom (2009) "The Geneticist in the Garage", in the *Guardian UK*, March 19.  
Eugene Thacker (2004) "Notes Towards a Sociology of Computer Hobbyism", in *Creative Biotechnology: A User's Manual* [http://www.locusplus.org.uk/biotech\\_hobbyistET.html](http://www.locusplus.org.uk/biotech_hobbyistET.html)  
Sandra Porter (2009) "The World of DIY Bio", in *Genome Technology*, March issue  
*Optional Readings:* Brendan I. Koerner (2009) "DIY DNA: One Father's Attempt to Hack his Daughter's Genetic Code", in *Wired Magazine*, January 19. Eugene Thacker and Natalie Jeremijenko, *Biotech Hobbyist*:  
[http://www.locusplus.org.uk/biotech\\_hobbyist.html](http://www.locusplus.org.uk/biotech_hobbyist.html)

## **HUM 596 Graduate Microseminar: Democratizing Science III NORMATIVE CLAIMS FOR A DEMOCRATIC SCIENCE - Requirements**

Those registered in the HUM596 microseminar are expected to attend all the regular bi-weekly colloquium meetings of the Science Studies network in the Spring quarter, as well as two additional HUM596 meetings with core faculty scheduled for the beginning and end of the quarter.

Each bi-weekly SSNet seminar discussion will focus on precirculated readings and be lead by members of the core organizing group. The two additional micro-seminar meetings dedicated to HUM596 are also readings-based, but are intended to provide a context in which enrolled students and convening seminar fellows can focus on how the readings and discussion of the seminar bears on their research interests. Please come to these meetings with a couple of focused questions to raise about the assigned readings.

In addition to attending these meetings and participating in discussion, you must meet the following writing requirements to receive credit for the seminar:

*Reading responses:* **before** each seminar meeting post a set of comments for discussion on the “journal submission blog” that bears on the readings assigned. These can take a number of forms, but in addition to raising questions for discussion, here are two ways to focus these comments:

- identify key concepts and terms that you find puzzling, inscrutable, annoying, intriguing, in need of explication; add them to the “keywords” conversation thread on the HUM596 “journal submission” blog and track how they’re used in other contexts through the quarter;
- comment on how the arguments for democratizing science, the types of practice described, the problems addressed in the readings and in the seminar relate to your own research interests.

*Synthesis paper:* at the end of the quarter, draft a short 3-5 page paper that draws together these commentaries in reflection on the seminar as a whole. This will be due at the end of the last week of classes: **June 5th**. It would be ideal if we could develop a collective blog posting that could go on the public SSNet blog at the end of the quarter; let’s discuss the feasibility of this in the second HUM596 meeting, on May 11th.

Readings are available on-line, through the SSNet website:

***<http://depts.washington.edu/ssnet/>***

The HUM596 Journal Submission Blog is at:

***<https://catalysttools.washington.edu/gopost/board/ssnet/5831/>***