

Roger D. Turner

History and Sociology of Science Department
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RESEARCH AND TEACHING INTERESTS

Environmental knowledge and public policy; History of the earth and atmospheric sciences; Computing and communications technologies; Infrastructure and urban history.

EDUCATION

University of Pennsylvania

Ph.D. Candidate, History and Sociology of Science. Expected Graduation, May 2010.

“Weathering Heights: The Emergence of Aeronautical Meteorology as an Infrastructural Science”

M. Susan Lindee, Primary Advisor. Readers: Ruth Schwartz Cowan and James Rodger Fleming (Colby College)

Major Fields: History of Modern Science; History of Modern Technology; History of Computing and Communications.

M.A. History and Sociology of Science. May 2005

Brown University

B.A. *magna cum laude*, Independent Concentration in History of Science, May 2001

Honors Thesis: “The Seeds of Distrust: Emotional Knowledge and the Rejection of an Environmental Technology.” Joan Richards, Primary Advisor.

PUBLICATIONS

Review of Kristine C. Harper, *Weather by the Numbers: The Genesis of Modern Meteorology. Technology & Culture* (October 2009): 49-50.

“More Than Just Talking,” review of Bernard Mergen, *Weather Matters: An American Cultural History Since 1900*. *Science*, September 4, 2009: 1208.

“Keeping Meteorology Masculine: The American Meteorological Society’s Response to TV ‘Weather Girls’ in the 1950s,” in *Weather, Local Knowledge and Everyday Life: Issues in Integrated Climate Studies*, Vladimir Jankovic and Christina Barboza, eds. (Rio de Janeiro: MAST, 2009): 147-158.

“Laughing at the Weather? The Serious Business of Weather Cartoons,” *History of Science Society Newsletter*, January 2009: 1, 4.

“Horace Robert Byers,” in *The New Dictionary of Scientific Biography, volume 1* (Charles Scribner’s Sons, 2007): 468-471.

“Francis Wilton Reichelderfer,” in *The New Dictionary of Scientific Biography, volume 6* (Charles Scribner’s Sons, 2007): 219-223.

*“Teaching the Weather Cadet Generation: Aviation, Pedagogy, and Aspirations to a Universal Meteorology in America, 1920-1950,” in *Intimate Universality: Local and Global Themes in*

the History of Weather and Climate, edited by James R. Fleming, Vladimir Jankovic, and Deborah R. Coen (Sagamore Beach, MA: Science History Publications, 2006): 141-173.

Editor, *The Guide to the History of Science, 9th Edition*. (University of Chicago Press, 2002): 390 pages.

“John Harrison,” “Igor Sikorsky,” “Pedro Nunes,” short biographical essays in *Science and Its Times*, edited by Neil Schlager (Gale Group, 2001).

* Denotes peer reviewed

CONFERENCE PANELS ORGANIZED

“Drawing in Print Culture: Why Cartoons Matter to the History of Science.” History of Science Society Annual Meeting, November 22, 2009, Phoenix, AZ.

“From Dissertation to Book.” History of Science Society Annual Meeting, Pittsburgh, PA. November 7, 2008. (Co-organized with Jacqueline Wernimont, Brown University). Sponsored by the HSS Graduate Student and Early Career Caucus.

“The Public Faces of Weather.” Weather, Local Knowledge and Everyday Life Conference, Rio de Janeiro, Brazil. May 29, 2008.

“Environmental Science as Industrial Research.” History of Science Society Annual Meeting, Crystal City, VA. November 3, 2007. Sponsored by the Earth and Environment Forum.

CONFERENCE PAPERS AND PRESENTATIONS

(Scheduled) “Building an Operational Environmental Surveillance System: Upper Air Forecasting in the United States 1919-1939,” American Society for Environmental History, March 13, 2010, Portland, OR.

(Scheduled) “Science Most Attenuated: The Entertaining and Educational Development of Television Weather Cartoons,” History of Science Society Annual Meeting, November 22, 2009, Phoenix, AZ.

“Where is the Dust Bowl in American Meteorology? Explaining a Curious Absence.” Climate Change Science, Environmental Challenges, and Cultural Anxiety: Historical Perspectives, April 3, 2009, Colby College.

“Comic Strips, Military Training, and Early TV Weather.” Presidential History Symposium, American Meteorological Society 89th Annual Meeting, January 13, 2009, Phoenix, AZ.

“Comics in the TV Weather Report: Tracing the Visual Style of Contemporary Science’s Most Popular Genre.” History of Science Society Annual Meeting, November 8, 2008, Pittsburgh, PA. (Poster)

“Keeping Meteorology Masculine: The American Meteorological Society’s Response to TV ‘Weather Girls’ in the 1950s,” Weather, Local Knowledge and Everyday Life Conference, Rio de Janeiro, Brazil. May 29, 2008.

“Contextualizing the Second International Polar Year: Early Arctic Aviation and the Bergen School of Meteorology,” Polar Gateways Conference, January 23, 2008, Barrow, AK. (Presented remotely)

- “Finding the Friendly Skies: Airline Meteorology, 1919-1941.” Presidential History Symposium, American Meteorological Society 88th Annual Meeting, January 22, 2008, New Orleans, LA.
- “A Science and Industry of the Air: Airline Meteorology, 1919-1941.” History of Science Society Annual Meeting, November 3, 2007, Crystal City, VA.
- “The Spitsbergen School: Polar Aviation and Geophysical Meteorology between World War I and World War II,” Making Science Global, Smithsonian Institution, October 31, 2007, Washington, D.C.
- “The Ever-Changing Weatherman: Representing Technical Authority in 20th Century America.” Association of American Geographers Annual Meeting, panel on “Weather and Society,” March 9, 2006, Chicago, Illinois.
- “Ways of Knowing the Weather: Aviation, University Education, and the Development of Digital Computing.” History of Science Society Annual Meeting, November 2005, Minneapolis, Minnesota.
- “Ways of Knowing the Weather: American Meteorological Culture and the Mass Production of Atmospheric Knowledge.” Mephistos Conference. Brown University, March 2005.
- “Building Information Technology Resources for the STS Community: Opportunities, Challenges, and the Recreation of the *Guide to the History of Science*” MIT-Cornell-RPI STS Graduate Student Conference. Cornell University, February 2005.
- “Aviation, World War II, and the Reformation of American Meteorological Culture.” Presidential History Symposium, American Meteorological Society 85th Annual Meeting, January 13, 2005, San Diego, California.
- "Weather Modification: Trust, Science and Civic Epistemology." Society For Social Studies of Science Annual Meeting, August 27, 2004. Paris, France.
- “American Meteorological Culture during World War II.” International Commission for History of Meteorology, July 7, 2004. Polling, Germany.
- “Carl-Gustaf Rossby and the Development of Aeronautical Meteorology.” American Meteorological Society, 84th Annual Meeting, January 13, 2004. Seattle, Washington.
- “The Seeds of Distrust: Emotional Knowledge and the Rejection of an Environmental Technology.” Science Studies Undergraduate Group Thesis Presentations, May 4, 2001. Brown University, Providence, RI.
- "How Feminist Harangues are Making Science Class Cool." Santa Fe Institute. Santa Fe, New Mexico, August 1999.

INVITED PRESENTATIONS

- Weekly Colloquium, History and Sociology of Science Department, University of Pennsylvania.
 “Comic Strips, Military Training, and Early TV Weather Reports.” January 26, 2009.
- Monthly Meeting of the Washington, D.C. Chapter, American Meteorological Society.
 “Weathering Heights: How Aviation Transformed American Meteorology.” December 4, 2008.

Earth Science Department Colloquium, Millersville University of Pennsylvania. “Weathering Heights: How Aviation Transformed American Meteorology.” September 25, 2008.

“Meteorological Entrepreneurs.” Columbia History of Science Group weekly seminar. Seattle, Washington, May 7th, 2002.

TEACHING EXPERIENCE

University of Pennsylvania

Guest Lecture, HSSC 319: Science in Context. “The History of Atmospheric Science and Climate Change.” January 21st, 2009.

Guest Lecture, HSOC 010: Health and Societies: Global Perspectives. “Climate Change and Global Health,” February 28th, 2008.

Teaching Assistant, HSSC 110: Science and Literature.

An upper level lecture built around 20 classic science fiction novels, from Jules Verne to Orson Scott Card. I crafted weekly lesson plans and led discussion sections. Worked with Mark Adams (History of Science), Spring 2006.

Teaching Assistant and Communication Within the Curriculum Fellow, HSOC 010: Health and Societies: Global Perspectives.

Introductory survey of social science and historical perspectives on international public health. I received special training in integrating and evaluating public speaking assignments. Worked with David Barnes (History of Medicine), Fall 2005.

Guest Lecture, HSSC 212: War and Technical Knowledge. “Meteorology as a Military Science.” Fall Semester, 2005

Writing Across The University Fellow, BIOL 003: What Every Lawyer, Businessperson, and Citizen Should Know about Molecular Biology.

After training in how to teach expository writing, worked with students to improve the organization, structure and grammar of their drafts. Worked with Sally Zigmund (Biology), Spring 2004.

Millersville University

Guest Lecture, ESCI 379: History of Meteorology. “Ways of Knowing the Weather,” April 13, 2005.

Brown University

Teaching Assistant, ES 152: Conceptions of Property Rights from Locke to Deep Ecology Assisted students with essay drafts and prepared teaching materials. Worked with Caroline Karp (Environmental Studies), Spring 2001.

Santa Fe Institute

Teaching Assistant, “Working with Adaptive Agent Models”

Helped middle and high school students and their science teachers learn to build computer simulations using the StarLogo programming environment. July 1998.

PROFESSIONAL EXPERIENCE

Copy Editor, *Historiography of Science, Technology and Medicine: Writing Recent Science*, Ronald Doel and Thomas Söderqvist, eds. (Routledge, 2006)

Information Manager, History of Science Society, July 2001–August 2003.

Designed and programmed web-accessible databases used to manage descriptions of more than 300 institutions, 100 journals, and 5,000 individuals involved in the history of science. Assisted with the Society's successful \$125,000 capacity-building challenge grant application to the National Endowment for the Humanities.

GRANTS, FELLOWSHIPS AND HONORS

National Air and Space Museum, Smithsonian Institution, Guggenheim Fellow, 2009-10.

National Science Foundation, Graduate Research Fellowship, 2003-05, 2006-07.

American Meteorological Society, Graduate Fellowship in History of Science, 2007-08.

University of Pennsylvania, William Penn Fellow, 2005-06, 2007-9.

Pan Am Historical Foundation, Dave Abrams and Gene Banning Research Grant, July 2009.

Royce Fellowship for Independent Research, Brown University, 2000-2001.

Research at Brown Grant, Brown University, 2001.

Elected to *Phi Beta Kappa* (Rhode Island Alpha), 2000.

NSF Research Experience for Undergraduates, Santa Fe Institute, 1999.

Invited Workshop Participant

Weather and Society * Integrated Studies, National Center for Atmospheric Research, Boulder Colorado, August 2008.

Oceans and Atmospheres, the 2006 Dibner/Marine Biological Laboratory Summer Seminar. Woods Hole, Massachusetts. May 2006.

Instruments at Work. First Dutch International Summer School in the History of Science. Utrecht University Museum, July 2005.

Summer Policy Colloquium, American Meteorological Society. NSF-funded Student Participant, Washington, D.C. June 2004.

PROFESSIONAL AFFILIATIONS

American Meteorological Society

Appointed Chair of the History Committee, 2010.

International Commission for History of Meteorology

Webmaster and member of the Executive Committee, 2007 – 2009

Designed and implemented Website's first major redesign since 2001

History of Science Society

Society for the History of Technology

PEER REVIEWER

Isis

Bulletin of the American Meteorological Society

International Journal of Mass Emergencies and Disasters

National Science Foundation, Polar Programs Division

MEDIA

“In ‘Toon with the Weather,’” *SAS Frontiers*, July 2008. An Internet slide show produced in collaboration with the University of Pennsylvania’s External Affairs division. Available at <http://www.sas.upenn.edu/home/SASFrontiers/turner.html>

“Teaching Military Pilots Weather Mechanics—Using Cartoons,” by Arielle Kane, *The Daily Pennsylvanian*, October 23, 2008: p. 1. A profile of my work on comic training manuals.

Profile of my work on weather cartoons slated for publication in *Air & Space/Smithsonian Magazine*, by Susan Frith.

Quoted in “Scientists Savor Air of Relief,” By Sandy Bauers, *The Philadelphia Inquirer*, September 14, 2007, B4. Comments on the 20th anniversary of the Montreal Protocol.

ACADEMIC SERVICE

University of Pennsylvania

Vice President for Policy and Administration,

Graduate Student Government of the School of Arts and Sciences 2007-2008

University Council Committee on Libraries 2003-2006

Brown University

Founded the Science Studies Undergraduate Group

Fall 2000

Dean’s Committee on Academic Advising

1999-2000