

BENJAMIN SIMS

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EDUCATION

Ph.D. Science Studies Program and Sociology Department, University of California, San Diego, 2000.
M.A., 1994.

Dissertation: *On Shifting Ground: Earthquakes, Retrofit and Engineering Culture in California.*

Committee: Steven Shapin (chair), Chandra Mukerji, Geoff Bowker, Andrew Scull, Gerald Doppelt.

B.A. Science in Society Program, Wesleyan University, 1991.

Coursework in physics, public policy, and philosophy and sociology of science.

POSITIONS HELD

Technical Staff Member, Statistical Sciences Group, Los Alamos National Laboratory, 2003 – present.
Member of the System Ethnography and Qualitative Modeling Team.

Postdoctoral Research Associate, Statistical Sciences Group, Los Alamos National Laboratory, 2002 – 2003.

Postdoctoral Research Associate, Environment, Safety and Health Division, Los Alamos National Laboratory, 2000 – 2002.

Teaching Assistant, Sociology Department, University of California, San Diego, 1994-1995, 1997.

Teaching Assistant, Revelle College Humanities Program, University of California, San Diego, 1995-1996.

RESEARCH INTERESTS

Areas of interest: Science and technology studies; technological innovation and design; science and engineering organizations and work; complexity in socio-technical systems; risk and safety in science and technology; applications of science and technology studies to science and engineering problems.

Objects of study: Technologies including consumer products, civil infrastructure, and nuclear technology; science and engineering laboratories and other work settings.

Methods: Ethnographic and qualitative methods, including participant observation, interviewing, and document analysis; qualitative methods to support quantitative modeling.

TEACHING INTERESTS

Science, technology, and society; social studies of engineering, design, and innovation; risk, technology, and disasters; ethnographic and qualitative methods; general sociology; sociology of science; sociology of professions.

DISSERTATION

On Shifting Ground: Earthquakes, Retrofit and Engineering Culture in California. Examines the history and organizational context of the seismic retrofit program at the California Department of Transportation (“Caltrans”), an effort to reinforce older freeway structures throughout the state to current seismic safety standards. In particular, focuses on how earthquake risks are understood in public and political contexts, how engineers assess the difficult-to-define risks posed to structures by earthquakes, and how these risk assessments enter into the design process. Also examines peer review in engineering and how Caltrans engineers and managers coped with rapid changes in their knowledge base. Based on archival and ethnographic research and interviews carried out at Caltrans, university research laboratories, and engineering firms.

PUBLICATIONS

Benjamin Sims and Christopher Henke, “Repairing the Nuclear Stockpile: Aging Technology, Tacit Knowledge, and the Future of the Nuclear Weapons Complex.” Manuscript in preparation.

Benjamin Sims, “Things Fall Apart: Comments on Hurricane Katrina,” introduction to comments section on Hurricane Katrina. *Social Studies of Science*, forthcoming 2006.

Benjamin Sims, “‘The Day After the Hurricane’: Infrastructure, Order, and the New Orleans Police Department’s Response to Hurricane Katrina.” *Social Studies of Science*, forthcoming 2006.

Benjamin Sims, “Safe Science: Material and Social Order in Laboratory Work.” *Social Studies of Science*, Vol. 35, No. 3 (June 2005): 333-366.

Benjamin Sims, “Concrete Practices: Testing in an Earthquake-Engineering Laboratory.” *Social Studies of Science*, Vol. 29, No. 4 (August 1999): 483-518.

SELECTED PRESENTATIONS

Benjamin Sims, Andrew Koehler, and Greg Wilson, *The Sociology of Parts: Complexity in Socio-Technical Systems*. Society for Social Studies of Science, Pasadena, CA, October 2005.

Benjamin Sims, Panel Introduction, *Hurricane Katrina: Chaos at the Intersection of Science, Technology, Society and Nature*. Society for Social Studies of Science, Pasadena, CA, October 2005.

Greg Wilson, Andrew Koehler, and Benjamin Sims, *Representing Weapons*. Society for Social Studies of Science, Pasadena, CA, October 2005.

Andrew Koehler, Benjamin Sims, and Richard Klamann, *Creating Boundary Objects in Applied STS: A New Approach to the Graphical Representation of Socio-Technical Systems*. Society for Social Studies of Science, Paris, France, August 2004.

Benjamin Sims, *The Eternal and the Ephemeral: Bridges, Disposable Diapers, and the Limits of Technological Change*. Society for the History of Technology, Atlanta, Georgia, October 2003.

Benjamin Sims, *Science vs. Bureaucracy? Safety and Institutional Culture at Los Alamos*. Society for Social Studies of Science, Atlanta, Georgia, October 2003.

Greg Wilson, Andrew Koehler, Benjamin Sims, Laura McNamara, and Deborah Leishman, *Knowledge Modeling and Integration at Los Alamos National Laboratory*. Joint Statistical Meetings, San Francisco, CA, August 2003.

Benjamin Sims, *The Meaning of Laboratory Danger: Order and Ritual in Scientific Work*. Society for Social Studies of Science, Milwaukee, Wisconsin, November 2002.

Benjamin Sims, *What is Safety Culture? A Social Science Perspective on Laboratory Safety*. Environment, Safety and Health Division Seminar Series, Los Alamos National Laboratory, March 2002.

Benjamin Sims, *Good Housekeeping: Safety, Knowledge and Order in Laboratory Work*. Invited talk, Science Studies Program Colloquium Series, University of California, San Diego, November 2001.

Benjamin Sims, *Terrains of Risk: Safety and Organizational Politics at Los Alamos*. Poster presentation, "Technologies of Uncertainty: Reconstructing Order Through Rhetorics of Risk" workshop, Cornell University, April 2001.

Benjamin Sims, *Civil Engineers: Professional Tensions in Engineering Peer Review*. Society for Social Studies of Science, San Diego, California, October 1999.

Benjamin Sims, *Black Boxes or Boundary Objects: Computer Models in Design Engineering*. Society for Social Studies of Science, Halifax, Nova Scotia, October 1998.

Benjamin Sims, 'Scientific Research in a Construction Environment': *Testing and the Organization of Work in an Earthquake Engineering Laboratory*. Round table presentation, American Sociological Association, San Francisco, California, August 1998.

Benjamin Sims, *Meaning and Machine Behavior: On the Interpretation of Player Pianos and Other Recording Devices*. Society for Social Studies of Science, New Orleans, Louisiana, October 1994.

LOS ALAMOS NATIONAL LABORATORY INTERNAL REPORTS

Kristin Omberg, Andrew Koehler, Benjamin Sims, and Greg Wilson, *Capabilities Analysis in Support of the Bioagent Autonomous Networked Detectors (BAND) Proposal*, July 15, 2005.

Benjamin Sims, Michael Hamada, and Matthew McNally, *Technical Uncertainties at P&G Baby Care: Sources and Mitigations*, Los Alamos National Laboratory Controlled Publication 05-0025, January 5, 2005.

Benjamin Sims and John Ambrosiano, *Projects, Resources, and Line-Program Interactions: Preliminary Results of an Organizational Study*, July 15, 2004.

Benjamin Sims and John Ambrosiano, *Modeling Program Management at LANL: Organizational and Conceptual Issues*, October 7, 2003.

Benjamin Sims, Michael Hamada, Deborah Leishman, Muir Robertson, and Matthew McNally, *MMP Uncertainty Quantification Project: Report on Initial Results*, June 23, 2003.

OTHER RESEARCH EXPERIENCE

Science Studies Program Field Internship, University of California, San Diego, 1994. Funded to carry out ethnographic research at the California Space Institute at UCSD. Assisted in writing a proposal for the

NASA Student Explorer Demonstration Initiative small satellite program and conducted oral history interviews for the University Archives.

Research Intern, Smithsonian Institution, National Museum of American History, 1990. Conducted research and identified archival materials on the history of nuclear weapons and ozone depletion for the exhibit *Science in American Life*.

PROFESSIONAL AFFILIATIONS

American Sociological Association
Section memberships:
Science, Knowledge, and Technology
Organizations, Occupations and Work
Sociological Practice

Society for Social Studies of Science

Society for the History of Technology

International Network for Engineering Studies

SERVICE

American Sociological Association, Science, Knowledge, and Technology Section:

Section-at-large member, Hacker-Mullins award committee, 2006.

Society for Social Studies of Science:

Organizer, discussion section on Hurricane Katrina, 2005 Annual Meeting, Pasadena, CA.

Member of program committee, 2003 Annual Meeting, Atlanta, GA.

Social Studies of Science:

Organizer, comments section on Hurricane Katrina, forthcoming 2006.

Manuscript reviewer, 2002, 2003.

National Science Foundation:

Proposal reviewer, Law and Social Science Program, 2004, 2005.

Los Alamos National Laboratory:

Co-founder and organizer of the Forum on Social Science at Los Alamos, 2000-2004.

Recruiting Committee member, Statistical Sciences Group, 2002-2003.

Seminar Committee member, Statistical Sciences Group, 2005-2006.