

# BENJAMIN SIMS

Statistical Sciences Group  
Los Alamos National Laboratory

## POSITIONS HELD

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*Scientist*, Statistical Sciences Group, Los Alamos National Laboratory, 2003 – present.

*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.

## EDUCATION

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*Ph.D.* Science Studies Program and Sociology Department, University of California, San Diego, 2000. Dissertation: *On Shifting Ground: Earthquakes, Retrofit and Engineering Culture in California*. Committee: Steven Shapin (chair), Chandra Mukerji, Geoff Bowker, Andrew Scull, Gerald Doppelt.

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

*B.A.* Science in Society Program, Wesleyan University, 1991. Coursework in physics, public policy, and philosophy and sociology of science.

## RESEARCH INTERESTS

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*Problems of interest:* Complex organizations; risk and safety; resilience in socio-technical systems; maintenance and repair practices; modeling, simulation and policy.

*Objects of study:* Infrastructure, cyber security, the U.S. nuclear weapons complex, science and engineering workplaces, emergency response organizations, communities exposed to disasters.

*Methods:* Social network analysis; statistical analysis; qualitative and quantitative text analysis; ethnographic methods, including participant observation, interviewing, and expert judgment elicitation.

## OTHER PROFESSIONAL TRAINING

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Center for Computational Analysis of Social and Organizational Systems Summer Institute, Carnegie Mellon University, June 8-14, 2009. Training in social network analysis, automated text analysis, and organizational simulation methods.

## PUBLICATIONS

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Benjamin Sims and Christopher R. Henke, "Repairing Credibility: Repositioning Nuclear Weapons Knowledge after the Cold War," *Social Studies of Science*, Vol. 42, No. 3 (June 2012): 324-347.

Benjamin Sims, "Resilience and Homeland Security," in *Limn Number One: Systemic Risk*, Stephen J. Collier, Christopher M. Kelty, and Andrew Lakoff, eds. (2011): 6-8; previously published online as *Anthropological Research on the Contemporary Studio, Episode 2: Systemic Risk*, available at <http://anthropos-lab.net/studio/episode/02/>.

Benjamin Sims, "Disoriented City: Infrastructure, Social Order, and the Police Response to Hurricane Katrina," in *Disrupted Cities: When Infrastructure Fails*, Stephen Graham, ed. (Routledge, 2009): 41-53.

Benjamin Sims and Christopher Henke, "Maintenance and Transformation in the U.S. Nuclear Weapons Complex," *IEEE Technology & Society Magazine*, Vol. 27, No. 3 (Fall 2008):32-38.

Benjamin Sims, "Safe Science: Material and Social Order in Laboratory Work" (reprint) in *Law and Science Volume II: Regulation of Property, Practices, and Products*, Susan Silbey, ed., International Library of Essays in Law and Society (Ashgate, 2008): 335-368.

Benjamin Sims, "Book Review: Masco, J. (2006). *The Nuclear Borderlands: The Manhattan Project in Post-Cold War New Mexico*," *Science, Technology and Human Values*, Vol. 33, No. 1 (January 2008): 137-142.

Benjamin H. Sims, Andrew C. Koehler, and Gregory D. Wilson, "Expert Opinion in Reliability," in *Encyclopedia of Statistics in Quality and Reliability*, Fabrizio Ruggeri, Ron Kenett, and Frederick W. Faltin, eds. (John Wiley and Sons, 2008).

Benjamin Sims, "Things Fall Apart: Disasters, Infrastructure, and Risk," *Social Studies of Science*, Vol. 37, No. 1 (February 2007): 93-95. (Introduction to "Special Section: Comments on the Hurricane Katrina Disaster," with comments by Wesley Shrum, Barbara L. Allen, Benjamin Sims, Jameson M. Wetmore, Chandra Mukerji, Christopher R. Henke, Wiebe E. Bijker, and Stephen Hilgartner.)

Benjamin Sims, "'The Day After the Hurricane': Infrastructure, Order, and the New Orleans Police Department's Response to Hurricane Katrina." *Social Studies of Science*, Vol. 37, No. 1 (February 2007): 111-118.

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.

## INVITED TALKS

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Benjamin Sims, *Breakdown, Obsolescence, and Repair: Drivers of Change in Urban Infrastructure*. International Urban Retrofit Workshop: Theories and Concepts, Dynamics and Practices, Politics and Implications. Manchester, UK, September 2012.

Benjamin Sims, *The Social Impact of Infrastructure Destruction: Social Order, Sociotechnical Systems, and Layered Indicators*. Exploratory Simulation Technologies Group, Sandia National Laboratory, January 2010.

Benjamin Sims and Christopher Henke, *Repairing Nuclear Weapons: Credibility in the Test Ban Era*. Department of Science and Technology Studies Colloquium Series, Cornell University, September 2009.

Benjamin Sims, *A Sociotechnical Framework for Infrastructure Analysis: Capturing Scale and Complexity*. Science Studies Research Group, Department of Science and Technology Studies, Cornell University, September 2009.

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

#### CONFERENCE PRESENTATIONS

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Benjamin Sims, *Infrastructure, Social Order, and Community Resilience: A Socio-Technical Perspective*. International Research Committee on Disasters Meeting, Broomfield, CO, July 2010.

Benjamin Sims, *Social Responses to Infrastructure Destruction: Toward a Socio-Technical Model of Community Resilience*. Los Alamos National Laboratory, February 2010.

Benjamin Sims, *A Sociotechnical Framework for Understanding Infrastructure Breakdown and Repair*. Society for Social Studies of Science Annual Meeting, Washington, DC, October 2009.

Benjamin Sims, *Infrastructure, Social Order, and the Police Response to Hurricane Katrina*. Risk Symposium 2008: Effective Communication: Tools, Theory, and Applications, Santa Fe, NM, March 2008.

Benjamin Sims, *Revisiting the Uninvention Hypothesis: A Transactional View of Tacit Knowledge in Nuclear Weapons Design*. Society for Social Studies of Science Annual Meeting, Montreal, Canada, October 2007.

Benjamin Sims and Christopher Henke, *Repairing Nuclear Weapons: Maintenance and Transformation in U.S. Nuclear Weapons Work since the Cold War*. American Sociological Association Annual Meeting, Regular Session on Technology, New York, NY, August 2007.

Benjamin Sims and Christopher Henke, *Stockpile Stewardship and the Reliable Replacement Warhead: Socio-Technical Repair in the Nuclear Weapons Complex*. Proceedings of the 2007 IEEE International Symposium on Technology and Society, Las Vegas, NV, June 2007.

Benjamin Sims and Christopher Henke, *Repairing the Nuclear Stockpile: Aging Technology, Tacit Knowledge, and the Future of the Nuclear Weapons Complex*. Society for Social Studies of Science, Vancouver, Canada, November 2006.

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, *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.

## INVENTION

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John Ambrosiano, Tim Cleland, Benjamin Sims and Karin Verspoor, *KnowledgeZone*. The invention is the core element of a digital service enhancing the ability of users to form effective collaborative social networks. U.S. Patent No. 7,933,856, issued April 26, 2011.

## PROFESSIONAL AFFILIATIONS

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### American Sociological Association

#### Section memberships:

Science, Knowledge, and Technology

Organizations, Occupations and Work

Social Practice and Public Sociology

Community and Urban Sociology

Society for Social Studies of Science

Society for the History of Technology

## SERVICE

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

Hacker-Mullins Graduate Student Paper Award Committee, 2006, 2012.

### 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, "Special Section: Comments on the Hurricane Katrina Disaster," *Social Studies of Science*, Vol. 37, No.1 (February 2007): 93-158.

### 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.

### Manuscript Reviewer

*Social Studies of Science*

*Human Relations*

*Journal of Computer-Mediated Communication*

*Spontaneous Generations*