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History of Science Society

19-22 November 2009

PHOENIX, ARIZONA

HISTORY OF SCIENCE SOCIETY

PO Box 117360 3310 Turlington Hall University of Florida Gainesville FL 32611-7360 USA 352.392.1677 352.392.2795 Fax www.hssonline.org





on the cover

Superstition Mountains. 2008.

Darren Shaw.

The Superstition Mountains or "The Supes" are a range of mountains east of Phoenix, Arizona.

History of Science Society

19-22 November 2009

PHOENIX, ARIZONA

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ACKNOWLEDGEMENTS

WE ARE DELIGHTED to be in Phoenix for the 2009 annual meeting. My expectations for this year have been higher than usual due to the outstanding people who have labored on the front lines. Our local arrangements members, through Arizona State University, have been exemplary, and I want to thank our local arrangements committee (Rick Creath, chair; Jane Maienschein, Melanie Hunter, Jessica Ranney, Felicity Snyder and many other volunteers) who put heart and soul into this conference. They stuffed packets, recruited student volunteers, made up restaurant guides, created a fabulous web site, and labored on too many tasks to mention. The program co-chairs, Cathryn Carson (University of California, Berkeley) and Jessica Riskin (Stanford University) assembled the 2009 program with good humor, good judgment, and good results, and we are grateful for their many hours devoted to the conference. I was genuinely excited by their creation. Our Committee on Meetings and Programs, chaired by Marc Rothenberg and by Rachel Ankeny over the past year, provided valuable feedback on the structure of the program, saving me from embarrassing missteps, and our newly formed Graduate and Early Career Caucus (especially Jacque Wernimont, Lynnette Regouby, Dawn Digrius, and Taika Dahlbom) worked on our mentorship program and career development efforts. My son, Mason, created the Web registration interface, spending hundreds of hours trouble shooting code, only asking that I feed, clothe, and house him in return. He has his father's deep appreciation. All of these volunteers make the conference possible and it you see them, please tell them, "Thank you!"

The annual meeting works because of the ongoing efforts of the HSS office staff, efforts that began years before the actual conference:

Virginia Hessels, our Coordinator, devoted untold hours on room assignments, banquet orders, a/v requests, and literally hundreds of inquiries, while our graduate students, Michal Meyer and Matt White, covered details ranging from the book exhibit, to registration challenges, to designing the meeting program, to fixing Web glitches, to many other essential tasks. They, along with numerous other students, will be working at the registration table and book exhibit—please thank them for their efforts.

Because conference expenses continue to rise dramatically, sponsorships and support are an important part of each meeting. Without the assistance of Arizona State University's Center for Biology and Society; the President's Office at Arizona State University; HSS member Melanie Hunter; the University of Chicago Press, Journals Division; the Legacy of R.L. Moore Project; Oxford University Press, Journals Division; the History Departments at the University of Florida and Arizona State University; the College of Liberal and Sciences at the University of Florida; Marjorie Webster; Brent Dibner; and a most generous anonymous donor, the conference would cost much more. I appreciate, beyond words, their help.

The HSS Executive Committee provided support, understanding, and wisdom on all aspects of the meeting and the Executive Office—they too, have my profound thanks. Finally, you the participants, make this all worthwhile. Your presence, your contributions, and your involvement create a mix that cannot be replicated. And if you are not a member of the HSS, please join us. In the end, it is our members who make all of this possible.

Jay Malone
HSS Executive Director
26 October 2009

OFFICERS & COMMITTEES

EXECUTIVE COMMITTEE

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HSS COUNCIL

2007-2009	2008-2010	2009-2011
John Beatty	Mordechai Feingold	Pamela Henson
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Publications, Ken Alder, Northwestern University

Research and the Profession, Pam Henson, Smithsonian Institution

Finances, Spencer Weart, American Institute of Physics

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Cathryn Carson, University of California, Berkeley Jessica Riskin, Stanford University

THANK YOU TO OUR VOLUNTEERS

Without our volunteers, the HSS would cease to function. Their talent, effort, and time provide us with the essential ingredients of a flourishing Society. The following members completed their terms of service this past year. Thank you for your gift to the History of Science Society!

HSS COUNCIL 2006-2008

Ken Alder Katherine Pandora Marsha Richmond Alan Rocke James Strick

HSS TREASURER

Rachel Ankeny

STANDING COMMITTEES

Education, Robert DeKosky (Chair), Jessica Wang

Honors and Prizes, Audra Wolfe (Chair)

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Derek Price/Rod Webster Prize, Sachiko Kusukawa (Chair)

Nathan Reingold Prize, Marcos Cueto (Chair)

Margaret W. Rossiter Prize, Ida Stamhuis (Chair)

Pfizer Award, Susan Lindee (Chair)

Watson Davis and Helen Miles Davis Prize, Roger Stuewer (Chair)

Joseph H. Hazen Prize, Graeme Gooday (Chair)

Nominating Committee, Norton Wise, Pamela Smith, Katharine

Anderson, David Kaiser (Chair), Thomas Söderqvist

Women's Caucus, Gwen Kay (Co Chair)

DINING IN PHOENIX

IN THE HOTEL

Compass Restaurant, 602-440-3166, serves dinner, has a lounge area

Einstein Bros. Café, 602-440-3185

Networks Bar and Grill, 602-440-3198, serves lunch and dinner

Terrace Café, 602-440-3180, serves breakfast and lunch

GROCERY STORE
NEAR THE HOTEL
Phoenix Public Market
Urban Grocery & Wine Bar

COFFEE SHOPS

NEAR THE HOTEL Drip Coffee Lounge, 602-795-9905, 2325 N. 7th St.

Lola Coffee, 602-265-5652, 4700 N. Central Ave.

LUX Coffee Bar, 602-696-9976, 4404 N. Central Ave.

Royal Coffee Bar, 602-374-8044, 209 W. Jackson

Starbucks, 602-534-8901, 125 N. 2nd St. # 100

NEAR THE HOTEL

Arizona Club, 602-253-1121, dinner
602-253-1121, 201 N. Central Ave.
#3700, serves lunch Monday–Friday,
serves dinner Friday–Saturday

Carly's Bistro, 602-262-2759, 128 E. Roosevelt St., appetizers, sandwiches, wraps, soups, and salads, serves lunch and dinner

Cibo, 602-441-2697, 603 N. 5th Ave., salads, pizza, and wine, serves lunch and dinner, closed Sunday

Durant's, 602-264-5967, 2611 N.
Central Ave., American-style
seafood and steakhouse, serves
lunch, dinner and cocktails
Monday–Friday, serves dinner
and cocktails Saturday–Sunday

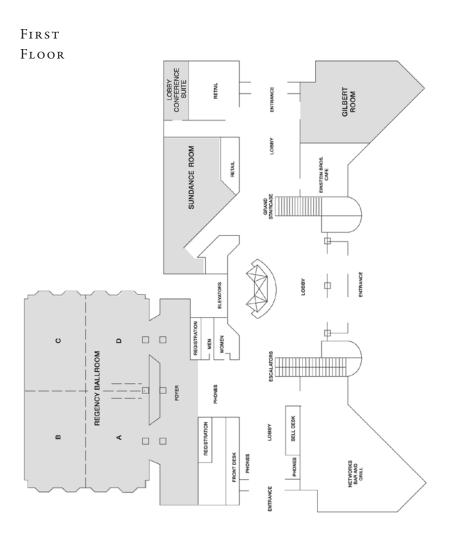
Matador Mexican Food, 602-254-7563, 125 E. Adams St., Mexican food, serves breakfast, lunch, and dinner

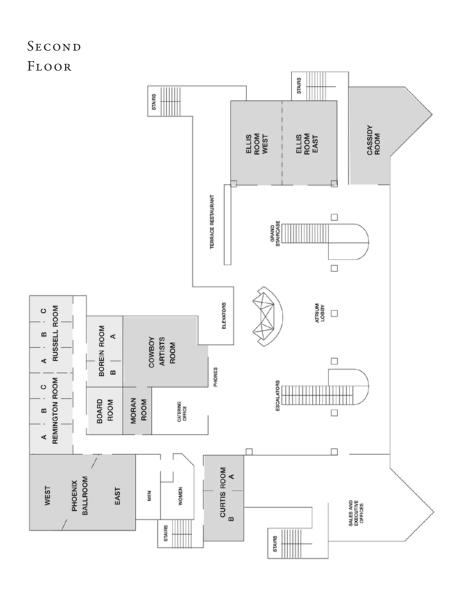
Matt's Big Breakfast, 602-254-1074, 801 N. 1st St., American-style breakfast and brunch, closed Monday

Palatte, 602-462-9400, 606 N. 4th Ave., serves brunch and dinner, closed Monday–Tuesday

Pizzeria Bianco, 602-258-8300, 623 E. Adams St., pizza and salads, serves dinner, closed Monday, reservations available for groups of 6–10

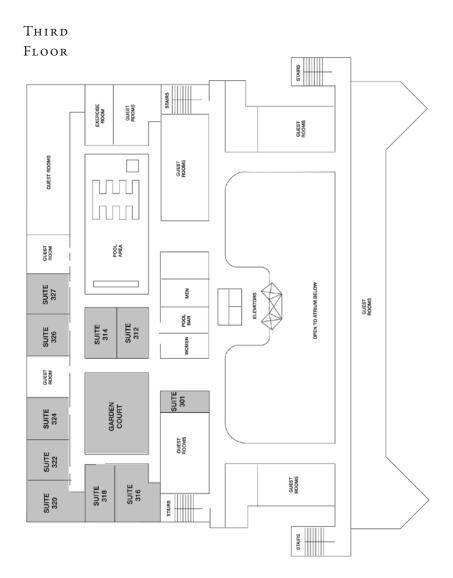
The Roosevelt, 602-254-2561, 816 North 3rd St., Americanstyle food and brewery, serves dinner, closed Mondays





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MEETING ROOMS



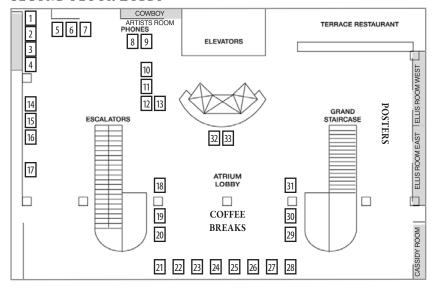
BOOK EXHIBIT

Hours

Thursday, 19 November: 7–8:30 pm (Opening Reception from 7:30–8:30 pm) Friday, 20 November: 8 am–5 pm Saturday, 21 November: 8 am-5 pm Sunday, 22 November: 8 am-noon

Vendors	table
Registration	1-4
Collective Book Exhibit	5-7
Chicago University Press	8-13
Johns Hopkins University Press	14-16
Harvard University Press	17
Huygens Institute	18
MIT Press	19-20
Scholar's Choice	21–28
Green Lion Press	29-30
Rutgers	31
B&L Rootenberg	32–33

SECOND FLOOR LOBBY



REGISTRATION DESK SCHEDULE

Thursday, 19 November: 3–7 pm Friday, 20 November: 8 am–5 pm Saturday, 21 November: 8 am–5 pm Sunday, 22 November: 9 am–noon

THURSDAY SESSION SCHEDULE

9 AM-12 PM

Executive Committee Meeting

Board Room

1-5 PM

HSS Council Meeting

Cowboy Artists Room

5:30-7 PM

SPECIAL SESSION Science and Religion: Current Perspectives

Regency Ballroom C
Organizer: Jessica Riskin, Stanford University
Chair: Paula Findlen, Stanford University
Commentator: Ann M. Blair, Harvard University
PAPERS:

- The Perils of Physico-Theology in Late Seventeenth-Century England, Stephen Gaukroger, University of Sydney & University of Aberdeen
- 2. Science and the Origins of "Religion," Peter Harrison, University of Oxford

SPECIAL SESSION/ PANEL DISCUSSION: How Should We Write the History of Science?

Regency Ballroom D
Co-Organizers: Kenneth Manning,
Massachusetts Institute of Technology, Jane
Maienschein, Arizona State University
Chair: Kenneth Manning, Massachusetts
Institute of Technology

PANELISTS:

- 1. Jane Maienschein, Arizona State University
- 2. William Newman, Indiana University
- 3. Thomas Levinson, Massachusetts Institute of Technology
- 4. Naomi Oreskes, University of California, San Diego

7-7:45 PM

First-Time Attendees and Mentor/Mentoree Reception

Ellis Room East

Graduate and Early Career Caucus Reception

Ellis Room West

7:30-8:30 PM

Opening Reception

Atrium Cash Bar

8:30-9:15 PM

Earth & Environment Forum *Suite 312*

^{*} Indicates Organizer and Chair unless otherwise specified.

8 AM-5:30 PM

Commons Room Open

Suite 301

7:30-8:45 AM

Women's Caucus Business Meeting and Breakfast

Cassidy Room

Co-chairs: Marsha Richmond & Susan Rensing

9-11:45 AM (break, 10-10:15 AM)

Women's Strategies for Participating in Science

Cassidy Room

Sponsor: Women's Caucus

- PAPERS:
- 20th-Century Women Scientists
 Through the Decades: Changing
 Conscious and Unconscious Strategies,
 Nancy Slack, The Sage Colleges
- Strategies of Participation by Subordination: Female Technical Assistants in Biological Research of the 20th Century, Helga Satzinger, Wellcome Trust Centre for the History of Medicine, University College
- 3. Strategies in the Cases of Two Pioneer Women Professors: Kristine Bonnevie and Tine Tammes, Ida H. Stamhuis, Free University Amsterdam
- Sex and Gender in the Lab: The Strategies for Studying Sex Determination Employed by Anna Rachel Whiting and Phineas Wescott Whiting, *Marsha Richmond, Wayne State University

Beyond the Argument from Design: Natural Theology in Late Medieval and Early Modern Catholic Thought

Curtis Room A/B

Chair and Commentator: Mordechai Feingold, CalTech

PAPERS:

1. Astrology as Natural Theology in the

- Later Middle Ages, Laura Smoller, University of Arkansas at Little Rock
- Atheists, Politicians, and Natural Theology in the Work of Leonard Lessius, S.J., *Brian W. Ogilvie, University of Massachusetts, Amherst
- Catholic Natural Theology in Italy after Galileo, Massimo Mazzotti, University of California, Berkeley
- Noel-Antoine Pluche as a Jansenist Natural Theologian, *Ann M. Blair, Harvard University

Understanding Extinction

Borein Room A

Chair and Commentator: Phillip Sloan, University of Notre Dame

PAPERS:

- The Fur Flies over Spotted Cats: Science and the Politics of Endangered Carnivores in the Age of Ecology, Mark V. Barrow, Jr., Virginia Tech
- Extinction, Nature's Economy, and Natural Theology, Kevin J. Francis, Evergreen State College
- 3. Dying Americans: Race, Extinction and Conservation in the New World, Sadiah Qureshi, University of Cambridge
- 4. Bringing Dinosaurs Back to Life, Lukas Rieppel, Harvard University
- A Victorian Extinction: The Great Auk, Alfred Newton, and Early Wildlife Protection, *Henry M. Cowles, Princeton University

The Many Lives of the Projector: Inventors and Charlatans, Philosophers and Statesmen in Elizabethan and Stuart England

Russell Room A-C

Chair and Commentator: Lesley Cormack, Simon Fraser University

Papers:

- "The good or bad success of this project": Projectors and the Fens, 1580–1630, Eric H. Ash, Wayne State University
- Character of a Projector: Vernacular Representations of Technological Invention in Seventeenth-Century Comedies, Poems and Pamphlets, Jessica Ratcliff, University

9-11:45 AM (continued)

- of Illinois, Urbana-Champaign
- Francis Bacon, the Patent System, and the Utopian Reform of Invention,
 *Cesare Pastorino, Indiana University
- Philosophizing Projectors and Projecting Philosophers: The Late Projects of Cornelis Drebbel (1572–1633), the Submarine and the Limits of Possibility in Early Modern Europe, Vera Keller, McGill University

Paraphrasing History: Naming, Translation, and Synonymy in Early Modern China and Japan

Borein Room B

Chair and Commentator: Ruth Rogaski, Vanderbilt University

PAPERS

- Tradutore, Traditore: Constructing Science Via Translation in China 1600–1900, Benjamin A. Elman, Princeton University
- Anatomy of a Textual Monstrosity: Dissecting the Mingli Tan (De Logica, 1631), Joachim Kurtz, Emory University and the Max Planck Institute for the History of Science
- Radicle Translation: Synonymy and the Roots of Resemblance in Qing Natural History,
 *Carla Nappi, University of British Columbia
- Indexing Nature: Homonymy and Synonymy in Early Modern European and Japanese Encyclopedias of Natural History, Federico Marcon, University of Virginia

Understanding Complexity in Biological Systems

Phoenix Room East
Chair and Commentator: Ann Kinzig,
Arizona State University

Papers:

- From Ecosystem to Complex Adaptive System: Shifting Strategies in Modern Ecology, Sharon E. Kingsland, Johns Hopkins University
- Reassembling the Pieces: Biological Systems and Systems Biology, James Collins, National Science Foundation
- 3. The Superorganism; How Did We

- Come to Understand What It Is? Bert Hölldobler, Arizona State University
- Organisms, Systems, and Networks:
 Overlapping Paradigms to Explain Complexity
 in 20th-Century Biology, *Manfred Dietrich
 Laubichler, Arizona State University

Defining Applied Science in the Long 19th Century: Anglo-American Perspectives in International Contexts

Remington Room A-C

Chair and Commentator: James McClellan, Stevens Institute of Technology

PAPERS:

- From Art to Applied Science: The Discourse of Science and Industry in the 19th Century, Eric Schatzberg, University of Wisconsin, Madison
- Scientific Authority and the Civil Model:
 Science, and the State in Different Branches
 of Anglo-American Engineering, Jennifer
 Alexander, University of Minnesota
- Born in Translation: The Origins of the Phrase "applied science," *Robert Bud, The Science Museum
- "Vague and artificial": The Historically Elusive Distinction between Pure and Applied Science, Graeme J. Gooday, University of Leeds

SPECIAL SESSION I: Research and Pedagogy: A History of Quantum Physics through the Textbooks. (I) From the Origin to the Eve of Quantum Mechanics

Phoenix Room West
Papers:

- Drude's Lehrbuch der Optik, Marta Jordi Taltavull, University of Barcelona/Max Plank Institute for the History of Science
- Against the Wind: Otto Sackur and His Daring Lehrbuch der Physikalische Chemie, *Massimiliano Badino, Max Planck Institute for the History of Science
- 3. Fritz Reiche's 1921 Quantum Theory Textbook, Clayton A. Gearhart,

- St. John's University (Minn.)
- Sommerfeld's Atombau und Spektrallinien, Michael Eckert, Deutsches Museum
- Max Born's Vorlesungen über Atommechanik, Domenico Giulini, MPI for Gravitational Physics

The Psychological Society: Origins, Boundaries, Limits

Ellis Room East

Chair and Commentator: Greg Eghigian, Pennsylvania State University

PAPERS:

- The Utilitarian Self: The Neurosciences and Political Reform in Nineteenth-Century Britain, Cathy Gere, University of California, San Diego
- On Hans, Rolf, and Others: Wonder Animals in French Psychical Research and Early Psychology, Sofie Lachapelle, University of Guelph and Jenna Healy, University of Toronto
- Deception, the "Law of Economy," and the Making of Psychological Americans, *Michael Pettit, York University
- Escaping the "Alien Framework": Indigenizing Psychology in India, Wade Pickren, Ryerson University

Networks/Communities in Early Modern Science

Ellis Room West

Chair and Commentator: Alix Cooper, SUNY, Stony Brook

PAPERS:

- Cultivating a Discipline: Marin Mersenne as Mathematical Intelligencer, *Justin Grosslight, Harvard University
- The Camel's Face: Exotic Animals in the Sixteenth-Century Arts and Sciences, Daniel Margocsy, Harvard University
- "Rest assured, I expect some pretty things from Candia": Venetian Apothecaries and the World of Collecting, Valentina Pugliano, Oxford University
- 4. Contradictory Tropics: Columbian Geopolitics in Oviedo's Official Histories of the Indies, Nicolas Wey-Gomez, Brown University

SPECIAL SESSION: Session 1: Roundtable Discussion on Classification in Special Fields in the History of Science

Cowboy Artists Room
Organizer and Chair: Stephen Weldon,
University of Oklahoma

PAPERS:

- History of Science and the Universal Decimal Classification (UDC), Elaine de Souza, Pontifical University of São Paulo
- Sources on Medieval Arabic Science, Ana Maria Alfonso-Goldfarb, Pontifical University of São Paulo
- Documents on Latin American Colonial Science, Márcia H.M. Ferraz, Pontifical University of São Paulo
- Issues in Classification and Controlled Vocabulary: Experiences from Work in Nineteenth-Century American Science, Daniel Goldstein, University of California, Davis

12-1 PM

Committee on Meetings and Programs (CoMP)

Suite 322

Suite 320

12-1:15 PM

Forum for the History of the Mathematical Sciences Luncheon

12-12:30 PM

Forum for History of Science in America Business Meeting

Sundance Room

12:30-1:30 PM

Forum for the History of Science in America Distinguished Lecture, Quentin Wheeler, Arizona State University, "The History of Taxonomy is Just One Thing after Another"

Sundance Room

1-3 PM

Nominating Committee *Suite 324*

1:30-3:10 PM

Mathematical Genealogies: Astronomy, Geometry, Number Theory

Borein Room A
Chair: Joseph Dauben, City
University of New York

PAPERS:

- Realism in Ptolemaic Astronomy:
 The Case of the Flawed Lunar Model,
 Liz Burns, University of Toronto
- Geometrical Loci: Ancient and Modern, Sabetai Unguru, Tel-Aviv University
- Hearing the Irrational: Music and the Development of the Modern Concept of Number, Peter Pesic, St. John's College
- 4. "Seeking Our Own Forerunner": A Reappraisal of the Role of the Idea of "the Intellectual Sameness of Mankind" in Mei Wending's (1633–1721) Study of Western Mathematics, Shin Min Cheol, Seoul National University

Induction, Error, and Context: Problems in the Philosophy of Science

Borein Room B

Chair: Matt Chew, Arizona State University PAPERS:

 Jacopo Zabarella's Real Influence on Early Modern Science, John P. McCaskey, Stanford University

- On Leaping to Conclusions Inductively: Interpretation and Anticipation in Bacon's Cosmological Reasoning, Daniel Schwartz, University of California, San Diego
- Is it Wrong Not to Speak About Errors? Bart Karstens, University of Leiden
- Autonomy and Delocalisation of Knowledge, Jouni-Matti Kuukkanen, University of Leiden

Manifold Forms of Natural Knowledge Transmission

Remington Room A–C

Chair: Kevin Chang, Academia Sinica, Taiwan Papers:

- To Popularize Medicine: A Study on Medicine and Society in China (10–12th Century), Ruixue Yan, Peking University
- How Did Knowledge Circulate in Early Modern Natural History? Aldrovandi's Building Blocks, Fabian Krämer, Max Planck Institute for the History of Science
- Early Recipe Books: Evidence of Non-Traditional Alchemy, Robin L. Gordon, Mount St. Mary's College
- Botany between Knowledge and Science: Botany in the Romantic Vienna and "Voyages into the Flower Fields of Life," Marianne Klemun, University of Vienna

Astronomy and Society

Russell A-C

Chair: Marc Rothenberg, National Science Foundation

PAPERS:

- Hidden Eclipses and Misidentified Comets: Debate and the Extent of Astronomical Knowledge in 10th–12th Century Japan, Kristina Buhrman, University of Southern California
- How Science Became Boring: Observational Astronomy in the 19th Century, Kevin Padraic Donnelly, Brandeis University
- 3. Frederik Kaiser, Popular Astronomy, and the Decline of Natural Theology, Frans van Lunteren, Leiden University
- Educating Astronomers. The Astronomical Community, 1880–1940, David Baneke, Leiden University

Strains of Definition in 20th-Century Biology: E. Coli, Sex, Death, Life

Ellis Room East Chair: Grace Sirju-Charran, University of the West Indies

PAPERS:

- Cultures of Cultures: Standardizing a Model Organism at the Yale E. Coli Genetic Stock Center, 1968-90, Tom Reznick, Yale University
- 2. How the X and Y became the Sex Chromosomes, Sarah S. Richardson, University of Massachusetts, Amherst
- 3. Researching Aging Under Glass: The Discovery of the Hayflick Limit and the Molecularization of Cellular Aging, 1961-92, Lijing Jiang, Arizona State University
- 4. Cell Model Experiments, Biosignatures and Microscopy in the 1930s: Wilhelm Reich's Bion Experiments, James E. Strick, Franklin and Marshall College

Technology Transfer: To, From, and Around East Asia

Ellis Room West Chair: Grace Shen, York University Papers:

- The Typing Rebellion: Toward a Global History of the Chinese Typewriter, Thomas S. Mullaney, Stanford University
- 2. Engineers as the Agents of Science and Empire, 1880–1914, Xiao (Shellen) Wu, Princeton University
- 3. Japanese Chemistry and the Russo-Japanese War, Yoshiyuki Kikuchi, Massachusetts Institute of Technology
- 4. Self-Sufficiency for the Colony or for the Empire? The Alternative Technology at Central Research Laboratory in Korean Peninsula under Japanese Colonial Rule in the late 1930s, Taehee Lee, Seoul National University

Theories of Mind, Brain, and Cognition in Social Engagement

Cassidy Room Chair: Stephen Casper, Clarkson University PAPERS:

Giving Shape to the Common Brain:

- Cerebral Organization and Political Unity in the 18th Century, Nima R. Bassiri, University of California, Berkeley
- 2. "Crazy, bedeviled, bewitched or something": Concepts of Insanity in the United States, 1800-43, Rachel N. Ponce, University of Chicago
- 3. Nervous Societies and the Fragmented Self-Sigmund Freud and Biological Psychiatry, Katja Guenther, Princeton University
- Crisis and Method. Edmund Husserl's Logical Investigations in History of Economic Thought, Andreas Georg Stascheit, Dortmund University of Applied Sciences and Arts

Industrial and Technological Research Communities of the Mid-20th Century

Phoenix Room East Chair: Dana Freiburger, University of Wisconsin, Madison

PAPERS:

- Where are the I.G. Farben Observatories? The World of Industrial-Scientific Collaboration in German Astrophysics, Juan Andres Leon, Harvard University
- 2. The Formation of Spectroscopy Users' Group and the Changing Status of Spectroscopy, Mina Park, Massachusetts Institute of Technology
- 3. Fact, Fiction, and Fortran: Computers between Science and Engineering at MIT and Carnegie Tech, 1962–75, Andrew B. Mamo, University of California, Berkeley

Teaching the History of Science Using the Web

Phoenix Room West Sponsor: The Committee on Education Organizer and Chair: Michael Reidy, Montana State University PAPERS:

- Online Images and Learning: Going Beyond Visual Aids, Kerry V. Magruder, University of Oklahoma
- 2. Blogging the Classroom? The Promise and Limits of Web 2.0 for Teaching the History of Science, Audra J. Wolfe, University of Pennsylvania
- 3. Your Daily History of Science:

1:30-3:10 PM (continued)

Blogging a Discipline, Michael D. Barton, Montana State University

3:10-3:30 PM

Coffee Break

Atrium

3:30-5:30 PM

Science as Empire? Natural Knowledge, Political Economy, and Imperial Governance in the Early Modern Atlantic World

Phoenix Room West
Chair: Robert Westman, University
of California, San Diego
Commentator: Maria Portuondo,
Johns Hopkins University

PAPERS:

- Scientific Practices in the Iberian Atlantic: The Comprehension of the New World and the Construction of a Eurocentric World Picture, Mauricio Nieto Olarte, Universidad de los Andes (paper read by Camilo Quintero, Universidad de los Andes)
- The Order of Nature and Empire at Stake: A Botanical Debate in the Spanish Atlantic (1792–1801), *Matthew J. Crawford, Kent State University
- On the Practice of Collecting Natural Objects in the Spanish Context: Old Bureaucratic Devices for New Scientific Aims? 1712–1812, Marcelo Fabión Figueroa, European University Institute (paper read by Matthew J. Crawford, Kent State University)
- Hernández Meets the Huitzitzilin: Natural Knowledge and Authority in the First Spanish Scientific Expedition, 1571–1651, Iris Montero, University of Cambridge

Popularizing and Policing "Darwinism" 1859–1900

Phoenix Room East
PAPERS:

 Charles Kingsley: Darwin's Other Bulldog, *Piers J. Hale, University of Oklahoma

- Asa Gray: Design Theorist Among the Darwinians?, Thomas Russell Hunter, University of Oklahoma
- St George Jackson Mivart: Theistic Evolutionist and Darwinian Outcast, John M. Lynch, Arizona State University
- 4. Anglo-American Popularisers of Evolution, 1859–1900, Bernard Vise Lightman, York University

Baroque Science

Russell A-C

PAPERS:

- Making "Nothing, All": Imagination, Passions, and Early Modern Science, Raz Chen-Morris, Bar-Ilan University
- 2. From Divine Order to Human Approximation: Mathematics in Baroque Science, Ofer Gal, University of Sydney
- 3. The Baroque Nature of Boyle's New "Physico-Chymical" Science, *Victor Boantza, McGill University
- 4. Instruments and the Habits of Knowledge, Jean-Francois Gauvin, Harvard University

From Gibbs to Einstein, In Memory of Martin J. Klein

Ellis Room West

Chair: Jed Z. Buchwald, Caltech PAPERS:

- Einstein, Lorentz & M. Klein, A.J. Kox, University of Amsterdam & Caltech
- Thermodynamics and Relativity: Einstein and Klein, Daniel Siegel, University of Wisconsin, Madison
- Fathoming Max Planck: A Personal Account of Klein, Kuhn, and the Shaping of Quantum History, Allan Needell, Space History Division, NASM
- 4. Martin Klein and Chinese Studies in the History of Modern Physics, Danian Hu, The City College of the City University of New York
- Fathoming Einstein: M. Klein & The Einstein Papers Project, *Diana Kormos Buchwald, CalTech

Beyond the Cabinet: Collections and Collecting in 20th-Century Science

Borein Room B

Chair: Robert Kohler, University of Pennsylvania PAPERS:

- Laboratories, Museums, and the Comparative Perspective: Alan A. Boyden's Serological Taxonomy, 1925–62, Bruno J. Strasser, Yale University
- Building a Statistical Laboratory: A Collector's Tale, *Dan Bouk, Colgate University
- Accounting for Taste: Home Economists, Quantification, and Changing Eating Patterns in 20th-Century America, Gabriella M. Petrick, New York University

Techniques of the Subject in the Human Sciences

Remington Room A–C
Sponsor: The Forum for the History
of Human Science
Chair: Ellen Herman, University of Oregon
Commentator: Henrika Kuklick,
University of Pennsylvania

PAPERS:

- Subjects of Delusion: Early 20th-Century Psychopathological Methods, *Susan Lanzoni, Massachusetts Institute of Technology
- 2. Seeing the Heart: Feeling Emotions, Otniel E. Dror, The Hebrew University
- The Multiple Psychologies of Subjectivity: Accountings of Experiments in Mid-Century America, Jill Morawski, and Nicholas Alt, Wesleyan University

Mathematical Recreations and the History of Mathematics

Borein Room A

PAPERS:

 Having Laid Great Wagers: Mathematical Instruments as Popular Culture in Early Modern England, *Kathryn James, Beinecke Library, Yale University

- Franklin's Mathematical Recreations, Paul Pasles, Villanova University
- Playing Cards and American Mathematical Learning, 1800–2000, Peggy A. Kidwell, Smithsonian Institution
- WFF 'N PROOF and other Mathematical Recreations from the 1960s, David L. Roberts, Prince George's Community College

Technoscience, Past and Present

Ellis Room East

PAPERS:

- Science and Power: Toward a History of Applied Science, Ann Johnson, University of South Carolina
- Hybrid Experts in 18th-Century Prussia, *Ursula Klein, Max Planck Institute for the History of Science
- Naturalizing Natural Knowledge in Tokugawa Japan: The Career of Hiraga Gennia (1729–79), Lissa Roberts, University of Twente
- 4. From Private Networks to Bureaucratic Procedures, Beate Ceranski, University of Stuttgart

Small Groups, Big Science

Cassidy Room

Commentator: Nathaniel Comfort, Johns Hopkins University

Chair: Sejal Patel, National Institutes of Health PAPERS:

- The Board and the Ward: Practicing Ethics at the National Institutes of Health circa 1953, *Laura Stark, Wesleyan University
- Smokers, Salons, and Small Groups: Modeling Society in Cold War America, Jamie Cohen-Cole, Yale University
- 3. Between the Doctor and His Plumber: Making Embryo Research Ethics Public, J. Ben Hurlbut, Harvard University

Coughing It Up to Everything Else: The Unnatural History of the Tobacco Industry

Cowboy Artists Room
Chair and Commentator: Angela
Creager, Princeton University

PAPERS:

Tobacco Industry Research on Smokers

3:30-5:30 PM (continued)

and Smokers' Behavior in the Era of the Tobacco and Health Crisis, 1950–90, Louis M. Kyriakoudes, The University of Southern Mississippi

- 2. Filter Farce or Filter Frustration? Dashed Faith in Big Science, and the Intractable Cigarette "Filter Problem," *Bradford C. Harris, Stanford University
- "It Has the Potential of Waking a Sleeping Giant": The Tobacco Industry's Private Debate on Publishing Internal Polonium Research, *Brianna Rego, Stanford University
- Agnotology in Action: The History of Popular Ignorance of Tobacco Harms as Revealed through the Tobacco Industry's Formerly Secret Archives, Robert N. Proctor, Stanford University

6-6:30 PM

Announcement of 2009 Awards and Prize Winners

Regency Ballroom C–D (See program on page 32)

6:45-7:45 PM

HSS Distinguished Lecture On Science as



Historical Narrative
Regency Ballroom C-D
M. Norton Wise, University
of California, Los Angeles
Introduction: Mary S. Morgan,
London School of Economics

7:45-8:15 PM

Prize Winners' Reception

Regency Ballroom Foyer & Regency A Cash Bar

7:45-8:30 PM

Caltech's Bacon Prize Reception in Honor of Naomi Oreskes

Sundance Room Open Bar

8-11 PM

Graduate and Early Career Caucus Reception

Suite 320

8 AM-5:30 PM

Commons Room Open

Suite 301

7:30-8:45 AM

Osiris Editorial Board

Suite 324

9-11:45 AM (break, 10-10:15 AM)

Reorienting Galileo in His Different Intellectual Traditions

Phoenix Room East
Chair: Domenico Bertoloni Meli,
Indiana University

PAPERS:

- Practitioners, Galileo and the Emergence of Pre-Modern Mechanics, Matteo Valleriani, Max Planck Institute for the History of Science
- Strange Realism: Galileo's Struggle with Astronomical Hypotheses, Mario Biagioli, Harvard University
- Measuring the Heaviness of the Air: Teaching Galileo's "Two New Sciences" at the Jesuit Collegio Romano in the 17th Century, *Renee J. Raphael, University of Cambridge
- 4. Rethinking 1633: Writing about Galileo after the Trial, Paula Findlen, Stanford University

Producing Knowledge for Policy: Research Program Planning and Scientific Assessments

Cassidy Room

Chair and Commentator: Naomi Oreskes, University of California, San Diego

PAPERS:

- Collapse and Translation: How Scientists
 Assess the West Antarctic Ice Sheet,
 *Jessica O'Reilly, Princeton University and
 University of California, San Diego
- 2. Constructing Science and Politics in Global Affairs, Clark Miller, Arizona State University
- Producing Knowledge for Policy: Ozone Depletion Science and Scientific Assessments,

Keynyn A. R. Brysse, Princeton University

 The Past, Present, and Future of West Antarctica: Research on the Behavior of a Continent, 1957–90, William Thomas, American Institute of Physics

The Faces of Natural Theology: God's Book(s) of Nature?

Ellis Room West

Commentator: Christopher Hamlin, University of Notre Dame

PAPERS:

- Charles Bovelles: Natural Theology and the Harvest of Late Medieval Mysticism, *Richard Oosterhoff, University of Notre Dame
- Lutherans Read the Book of Nature, Kathleen Crowther, University of Oklahoma
- "Ex Naturae Libro Declarabimus": William Harvey and Natural Theology, Benjamin Goldberg, University of Pittsburgh
- The Credible Audiences of the Natural Theology, Adam R. Shapiro, Huntington Library/ University of British Columbia

Envisioning and Implementing Science and Technology in Japan, 1860–1960

Borein Room

Commentator: James Bartholomew, Ohio State University

Papers:

- The Origin of Modern Developmentalism in Japan, Nobuhiro Yamane, Waseda University
- Made For Japan: Sorting Silkworms and Standardizing Cocoons, *Lisa A. Onaga, Cornell University
- Japanese Engineers and "Comprehensive Technology" in Wartime "Manchukuo" and China, 1931–45, Aaron S. Moore, Arizona State University
- 4. Securing "National" Food and Science: Examining Japan's Science on Whales, Fumitaka Wakamatsu, Harvard University

9-11:45 AM (continued)

Risk and Scientific Authority

Ellis Room East

PAPERS:

- Science, Certainty, and the "Negro Question": A Narrative of Life at Risk, 1896, Megan J. Wolff, Columbia University
- Coronary Artery Disease and the Consolidation of Medical Authority, Todd Olszewski, National Institutes of Health
- Making the Crash Barrier: Medical Authority, Engineering Culture, and Bureaucratic Practice in American Automotive Safety, 1966–80, Lee Vinsel, Carnegie Mellon University
- "These rays that blast and wither but do not consume": American Scientists' Evolving Rhetoric on Radiation, 1895–1935, *Matthew B. Lavine, Mississippi State University
- Mothers and Home Isolation in Early 20th-Century American Medical Practice, Bridget Collins, University of Wisconsin, Madison

SPECIAL SESSION (II) Research and Pedagogy: A History of Quantum Physics through the Textbooks. (II) Quantum Books in a Time of Fast Change

Phoenix Room West
Commentator: David Kaiser, Massachusetts
Institute of Technology

PAPERS:

- Van Vleck's Quantum Principles and Line Spectra (1926), Michel Janssen, University of Minnesota
- Teaching Quantum Physics in Cambridge, *Jaume (James) Navarro, Max Planck Institute for the History of Science/University of Cambridge
- 3. The Infancy of Quantum Statistics, Daniela Monaldi, Max Planck Institute for the History of Science
- Pauli's 1933 Die allgemeinen Prinzipien der Wellenmechanik, Don Howard, University of Notre Dame

Notes from Underground: Digging through Narratives in the Earth Sciences

Russell Room A-C

Commentator: Mott Greene, University of Puget Sound

PAPERS:

- Accounts of the New Madrid Earthquakes, Conevery Valencius, Harvard University
- "Did You Feel It?" Earthquake Spotters in the Nineteenth-Century Alps, *Deborah R. Coen, Barnard College
- The Chilean Earthquake and the Pulse of the Earth, Matthias Dörries, University of Strasbourg
- 4. Serpentine Histories: Thinking About Assembling California, Jon Christensen, Stanford University

Jesuit Science and Faith at the Margins of Empire: French and Spanish Missionary Botany, Surgery, and Natural History in the Colonial Atlantic World

Remington Room A-C
PAPERS:

- Reevaluating and Assessing the American Sources of Nieremberg's Historia Naturae (1635), Domingo Ledezma, Wheaton College
- The Natural History of Secrets: The Jesuit
 Encounter with the Indigenous Knowledge

 Systems of French North America, Christopher

 M. Parsons, University of Toronto
- The Blood of Christ and the Knowledge of Man: Jesuit Natural Philosophy and Medicine Confront Jesus' Sacred Heart in 18th-Century Mexican Anatomical Analysis, Michelle Molina, Northwestern University
- 4. From the Rhetoric of Savagery to a Science of Race: Humans as a Category of Analysis in 18th-Century Jesuit Natural History, Río de la Plata, 1754–90, *Kristin L. Huffine, Northern Illinois University

A Question of Order? Standardizing Time, Space, and Self

Borein Room A
Commentator: Kenneth Alder,
Northwestern University

PAPERS

- Standard Timescales: Between Science and History, Jimena Canales, Harvard University
- 2. Standardizing Identity Pragmatically: Civil Status Standards in Imperial Germany, *Deborah A. Brown, University of California, Los Angeles
- Interrupted Narratives: Standardizing Time on Indian Railways, Ritika Prasad, University of North Carolina, Charlotte
- The Standardization of Space: Cartographic Grids and the Politics of Computation, William J. Rankin, Harvard University

SPECIAL SESSION: I've Got a Ph.D. in the History of Science, Now What? Historians at Work in a Down Economy

Cowboy Artists Room
Sponsor: The Graduate and Early Career Caucus
Organizer(s): Gina Rumore and Jacqueline
Wernimont, University of Minnesota
and Harvey Mudd College

Chair: Gina Rumore, University of Minnesota Panelists:

- National Science Foundation, Marc Rothenberg, National Science Foundation
- 2. Curator, Robert Bud, The Science Museum
- 3. Foundation Historian, Ronald Brashear, Chemical Heritage Foundation
- 4. Independent Scholar, Pamela O. Long
- Film Maker, David Lebrun, Night Fire Films

12-1 PM

Graduate and Early Career Caucus Meeting

Cowboy Artists Room

12-1:15 PM

SPECIAL SESSION: Meet the Author of American Hegemony and the Postwar Reconstruction of Science in Europe

Sundance Room

Chair: Mary Jo Nye, Oregon State University Commentator: John Krige, Georgia Tech PAPERS:

- Science and Cold War Secrecy: The Contents of Cold War Science, Ronald E. Doel, Florida State University
- The Post W W2 Americanization of International Science and the Transnationalization of American Science, Zuoyue Wang, California State Polytechnic University, Pomona
- The Contents of Cold War Science? Naomi Oreskes, University of California, San Diego
- Resistance to American Hegemony: Neutralizing Science in Postwar European Scientific Organizations, Bruno J. Strasser, Yale University
- European Science and U.S. Philanthropy: The Rockefeller Foundation between Communism and Anti-Communism, *Pnina G. Abir-Am, Brandeis University & Scientific Legacies

12:00-12:30 PM

Forum for the History of Human Sciences Business Meeting

Gilbert Room

12:30-1:15 PM

Forum for the History of Human Sciences Distinguished Lecture "Imagining the Good Society: The Social Sciences in the American Past and Present"

Hamilton Cravens, Iowa State University Gilbert Room

12:30-1:15 PM (continued)

Forum for the History of Science in Asia

Suite 312

12-2 PM

Committee on Finances

Suite 314

12-3 PM

Committee on Publications *Suite 324*

1:30-3:10 PM

God, Soul, and Matter in Early Modern Cosmology

Phoenix Room West
Chair: Voula Saridakis, Lake Forest College
Papers:

- Before Copernicus, Were the Celestial Orbs "fictions"?, Peter Barker, University of Oklahoma
- Kepler's Astrology and the International Year of Astronomy, Patrick J. Boner, Johns Hopkins University
- Newton's Empiricism and the Emanation of Space in *De Gravitatione*, Mary A. Domski, University of New Mexico
- Newton in North America: The Reception of Newton's Theory of Comets in the Colonies, Tofigh Heidarzadeh, University of California, Riverside

Early Modern Engagements in the Study of the Earth and of Life: Magic, Religion, Physics, and History

Phoenix Room East
Chair: Jessica Riskin, Stanford University
PAPERS:

 Franciscans at the Boundaries of the Natural and the Permissible in Early Modern Venice, Jonathan W. Seitz, Drexel University

- The Toad in the Stone: Vitalism, Fertility and Earth History in Early Modern Europe, Lydia Barnett, Stanford University
- André François Deslandes (1689–1757).
 History and Physics in Early 18th-Century France, Marita Huebner, University of California, Berkeley
- Secularization of Science? A Case Study, Monika B. Gisler, ETH Zurich

Botany and Zoology Across Borders

Borein Room A

Chair: Fritz Davis, Florida State University PAPERS:

- Seeds of Knowledge: Dutch Botany in Brazil and Southeast Asia (1596–1696), Matthew B. Watts, University of Alabama
- Imagining a Tropical Laboratory: U.S. Science in the Caribbean after 1898, Megan M. Raby, University of Wisconsin, Madison
- 3. At Home in the Wild: Ynes Mexia, Naturalist, Kathryn Davis, San Jose State University
- Birds Over the Borders: Imperial Power and National Pride in U.S.-Colombia Scientific Relations, 1910–48, Camilo Quintero, Universidad de los Andes

Extreme Physics: Experimental and Theoretical Frontiers, 1860 to the Present

Borein Room
Chair: Suman Seth, Cornell University
PAPERS:

- "No such spectrum as I expected!":
 William Huggins and the Riddle
 of the Nebulae, Barbara J. Becker,
 University of California, Irvine
- Leiden's Quest for Cold and the International Temperature Scale 1927, Dirk van Delft, Museum Boerhaave / Leiden Observatory
- On the Emergence of Deviant Science: The Opposition to the Theory of Relativity in the 1920s, Milena Wazeck, Max Planck Institute for the History of Science
- 4. The Multiple Ways to Decoherence, Fabio Freitas, Universidade Federal da Bahia

Food and Water: Public Health, ca. 1850–1950

Cassidy Room
Chair: Andrea Patterson, California
State University at Fullerton

PAPERS:

- Reasoning about Cholera: John Snow and the Miasma Theory of Disease, Dana Tulodziecki, University of Missouri, Kansas City
- A Conflict of Analysis: Milk Adulteration and Analytical Chemistry in Victorian Public Health, Jacob A. Steere-Williams, University of Minnesota
- "The Science of Living Begins at the Mouth": When Nutrition Became a Part of Food and Eating, 1880–1920, Chin Jou, Princeton University
- Food Psychology, Food Technology: Ancel Keys and the W W II Development of the K Ration, Sarah W. Tracy, University of Oklahoma

Alternative Pictures of Evolution

Russell Room A – C Chair: Abigail Lustig, University of Texas PAPERS:

- How Darwin Drew the Primate Phylogenetic Tree, Joy Harvey, Independent Scholar
- The Spencer-Weismann Dispute and Alternative Evolutionary Mechanisms in the 1890s, Trevor Pearce, University of Chicago
- Morphogenesis, Slime Molds, and Searching for Shared Developmental Processes, Mary E. Sunderland, University of California, Berkeley
- 4. Sociobiology and the Superorganism, Abigail Lustig, University of Texas

Secret, Proprietary, and Privileged Knowledge

Remington Room A-C
Chair: Cathryn Carson, University
of California, Berkeley

PAPERS:

- Secrecy and the Bomb, From the Postwar to the Cold War, Alex Wellerstein, Harvard University
- 2. Fat Men, Not Little Boys: The Trinity Test and the Use of the First Atomic Bombs,

- Bruce J. Hunt, University of Texas
- Who Owns What? Private Ownership and the Public Interest in Recombinant DNA Technology in the 1970s, Doogab Yi, National Institutes of Health
- Discriminating Appraisers: A Study in Historical GIS, Jennifer Light, Northwestern University

Workshop-Digital Media and the History of Science

Ellis Room West

Sponsor: The Committee on Research and the Profession Organizer: Dawn Digrius, Stevens

Institute of Technology

Chair(s): Giny Cheong, George Mason University, Dawn Digrius, Stevens Institute of Technology PAPERS:

- What is Digital History? Trevor Owens, George Mason University
- NINES, Dana Wheeles, University of Virginia/NINES
- Teaching Digital History, Jeremy Boggs, George Mason University
- 4. Rethinking Archives, Rethinking Publishing: The Digital Humanities, Jo Guldi, University of Chicago

SPECIAL SESSION: Session 2: Roundtable Discussion on Classification in the History of Science in Different Media

Cowboy Artists Room
Organizer and Chair: Ana Alfonso-Goldfarb,
Pontifical University of São Paulo

- Images as Documents for the History of Science: Some Remarks Concerning Classification, Maria Helena Rox Beltran and Vera C. Machline, Pontifical University of São Paulo
- Management of Digital Media in History of Science, Silvia Waisse Priven, Pontifical University of São Paulo

1:30-3:10 PM (continued)

- Classification Issues Related to Metadata, Software Archives, and Virtual Objects, Henry Lowood, Stanford University Libraries
- Information Retrieval in History of Science Resources on Internet: The End of Classifications?, Christine Blondel, CNRS, CRHST

SPECIAL SESSION: History of Science in Film: A Screening of "Proteus" and a Conversation with Director David Lebrun

Regency Ballroom C Organizer: Lynnette Regouby, University of Wisconsin, Madison

SPECIAL SCREENING:

"Proteus," David Lebrun, Night Fire Films

1:30-3:30 PM

Poster Session

Atrium, 2nd floor Posters:

- Cognitive Illusions and the Evolution of Science, Burton H. Voorhees, Athabasca University
- International Year of Astronomy. Celebrating the Publication of Kepler's Astronomia Nova, 1609: Kepler's Construction of the First-Ever Planetary Orbit, A.E.L. Davis, Imperial College, London
- Computers and the Visual Language of Paleobiology, David Sepkoski, University of North Carolina, Wilmington
- The Geography of Transnational Scientific Correspondence during the Revolutionary and Napoleonic Era, Elise S. Lipkowitz, Northwestern University
- A New History of the Discovery of the 20 Canonical Amino Acids, Rachel Rodman, University of Wisconsin, Madison
- 6. Historical Scholarship and Digital Archival Collections: The Contagion and Expeditions and Discoveries Websites at the Open

- Collections Program at Harvard University, Rebecca H. Wingfield, Harvard University
- 7. The Changing Place of Mathematics at U.S. Universities: 1865–80, Andy Fiss, Indiana University
- The Rise of Radio Astronomy in the Netherlands: 1944–56, Astrid Elbers, Leiden University
- The Significance of Experience in the Periphery. Engineers from the First World in the Second Half of 19th-Century Chile, Jaime Parada, Universidad Finis Terrae and Universidad Católica de Chile
- Global Science from a Dutch Perspective: Dutch Participation in 19th-Century Humboldtian Networks, Azadeh Achbari, Free University Amsterdam
- 11. The Pasteurization of American Mushroom Caves: A Study in Mycological Secrecy, Greg Brick, University of Minnesota
- The Air-Pump at the Princely Court: Natural Philosophy or Useful Technology?, Peter Schimkat, Independent Scholar
- Domestication & Decline: The Degeneration Thesis of Curt P. Richter, Nicholas E. Blanchard, Oregon State University

3:10-3:30 PM

Coffee Break

Atrium

3:15-4 PM

Newsletter Advisory Committee Suite 322

3:30-5:30 PM

The Dutch Descartes: Empiricism and Medicine

Borein Room A

Chair: Lisa Shapiro, Simon Fraser University PAPERS:

 Descartes and Medical Cartesianism, Harold J. Cook, Wellcome Trust Centre for the

- History of Medicine at University College
- Cartesian Sex. René Descartes, Dutch Physicians and the Problem of Procreation in the 17th Century, Eric Jorink, Huygens Institute (Royal Dutch Academy of Arts and Sciences)
- Christiaan Huygens and the Limits of Mechanism, *Rienk H. Vermij, University of Oklahoma

Panel Discussion: Federal Funding Opportunities in the History of Science

Borein Room B

Panelists:

- *Julia Huston Nguyen, National Endowment for the Humanities
- 2. Frederick Kronz, The National Science Foundation
- 3. Robert L. Martensen, National Institutes of Health

Collaborations in 20th-Century Mathematics

Ellis Room West

PAPERS:

- Unwilling Collaborations: Mathematics and the Ethics of Professional Responsibility During the Cold War, Sarah Bridger, Columbia University
- "If you would consider a woman...":
 Gettrude Cox and Collaboration in
 Experimental Statistics 1940–64, Edith D.
 Sylla, North Carolina State University
- Gertrude Cox and Ronald Fisher: Two Statistical Pioneers Often Collaborate and Sometimes Collide, *Nancy S. Hall, University of Delaware

Practicing Borderland Science: Medical Physics and the Production of Biological Knowledge

Cassidy Room

Commentator: Nicolas Rasmussen, University of New South Wales, Australia

PAPERS:

- Medical Physicists, Biology and the Physiology of the Cell (1920–40), Alexander Schwerin, Technical University, Brunswig, Germany
- "Whither Medical Physics"? Medical Physics in Britain, 1943–60, Alison Kraft, University of Nottingham
- Circuit Morphology: Interwar Medical Physics and the Excitable Cell, *Max Stadler, Imperial College

Speaking of Darwin: The Meaning and Application of Evolution in the 20th Century

Phoenix Room East

Chair and Commentator: Vassiliki (Betty) Smocovitis, University of Florida

PAPERS:

- "The Great Grandfather of Hybrid Corn": Charles Neo-Darwin & Identity Formation among the Maize Hybridizers, Theodore Varno, University of California, Berkeley
- Evolution in the Biological Sciences
 Curriculum Study: How the Modern
 Synthesis Permeated 1960s American
 Classrooms, Joy Rankin, Yale University
- 3. Between the Two Biologies: Competing Visions of Molecular Evolution, *Sage R. Ross, Yale University

The Paris Academy of Sciences in Print

Remington Room A-C
Chair and Commentator: Lawrence
Principe, Johns Hopkins University
PAPERS:

- The Histoire des Animaux and the Early Publication Projects of the Paris Academy of Sciences, Anita Guerrini, Oregon State University
- Paper Voyages: Publishing the Paris Academy of Sciences' Scientific Expeditions, *Florence C. Hsia, University of Wisconsin, Madison
- Mathematics, Print Culture, and the Paris Academy of Sciences, Robin Rider, University of Wisconsin, Madison

3:30-5:30 (continued)

The Known and the Lived: Science and Experience in 20th-Century Biology, Physics and Earth Sciences

Phoenix Room West
Commentator: Adelheid Voskuhl,
Harvard University

PAPERS:

- Cell Cultures and the Specificity of Life: From Philosophy of Biology to Histories of the Organism, Isabel Gabel, Columbia University
- Turbulent Times: Pilots, Physicists, and the Problem of Scale, Daniela Helbig, Harvard University
- Earthrise, or the Globalization of the World Picture, *Benjamin Lazier, Reed College

Scientific Conventions in Third Republic France

Cowboy Artists Room Chair: Scott A. Walter, University of Nancy Commentator: Theodore Porter, University of California, Los Angeles

PAPERS:

- Conventionalism in Practice: Einstein, Poincaré and the Shape of Lightwaves, Scott A. Walter, University of Nancy
- Conventionality, Dimensionality, Simultaneity: What Was Poincaré Thinking?, Connemara Doran, Harvard University
- Conventions and the Organization of Research at the Fin De Siècle, *Alex Csiszar, Harvard University

Listening, Attention: Performance and Perception in German Concert Culture, 1865–1965

Russell Room A-C
Commentator: Sally Kitch,
Arizona State University

PAPERS:

 The Aesthetics of Attention: Ernst Mach's Accommodation Experiments, His Musical Aesthetics, and His Friendship

- with Eduard Kulke, *Alexandra E. Hui, Mississippi State University
- Listening to the Body Electric. Experimental Physiology, Sound Knowledge, and the Telephone in the Late 19th Century, Axel Volmar, University of Siegen
- Listening to Emotions. Musical Hermeneutics and the Concert Hall in the Culture of the Fin de Siècle, Hansjakob Ziemer, Max Planck Institute for the History of Science

Practices of Science in Modern India

Ellis Room East
Chair: Asif Siddiqi, Fordham University
PAPERS:

- Constructing Bhadralok Physics: Images and Practices of Modern Science in Early 20th-Century India, *Somaditya Banerjee, University of British Columbia
- The Importance of Being Nuclear: Science and State Formation in India, Jahnavi Phalkey, Georgia Tech/Lorraine
- Ninety: A Story of Indian Thorium, Jaideep A. Prabhu, Vanderbilt University

6-11 PM

Society Reception, Museum Tour and Dinner Buffet

Heard Museum, 2301 N. Central Avenue Volunteers in the main lobby will guide guests to the light rail station (the Heard is a ten-minute ride away). The first 200 guests will receive a free light-rail pass. A bus at the Monroe Street entrance will be available to begin transporting guests to and from the Heard, 6:15 PM until the event ends. A buffet dinner will be served from 6:45–10 PM.

9-10 AM

HSS Business Meeting

Cowboy Artists Room (Agenda printed on page 33.)

10 AM-12 PM

Drawing in Print Culture: Why Cartoons Matter to the History of Science

Phoenix Room East
Chair: Bert Hansen, Baruch College
Commentator: Constance Clark,
Worcester Polytechnic Institute

PAPERS:

- Science Most Attenuated: The Entertaining and Educational Development of Television Weather Cartoons, *Roger Turner, University of Pennsylvania
- Demonizing Evolution: Fundamentalist Cartoons from the Scopes Era, Edward B. Davis, Messiah College
- Graphic Tales of Cancer in Modern America, Michael Rhode, National Museum of Health and Medicine & J.T.H. Connor, Memorial University

Eugenics after 1945

Russell Room A–C
Commentator: Philippa Levine,
University of Southern California
PAPERS:

From Neon Genesis to Ectogenesis:
 The Phenomenology of Posthuman
 Eugenics in Japan, Jennifer Robertson,

University of Michigan, Ann Arbor

2. Old Eugenics, New Eugenics, and the Long 20th Century, *Alison Bashford, Harvard University

Historical Science in Historical Science: Historical Records as Scientific Evidence

Cassidy Room

Chair: David Spanagel, Worcester Polytechnic Institute

APERS:

- Past as Prediction: Victorian Scientists on Ancient Eclipses and the Power of Science, *Matthew Stanley, New York University
- Dr. Velikovsky's Catastrophic World: Historical Evidence and Cosmological Conflict in the Construction of Scientific Boundaries, Michael D. Gordin, Princeton University
- 3. Antiquities, Artifacts, and Agriculture: The Intersection of Natural and Human History in Early Modern Britain, Elizabeth E. Yale, Harvard University

Families, Households and Scientific Work in France, 1620–1750

Curtis Room A/B Papers:

- Family Status and Engineering Authority: The Case of Pierre-Paul Riquet and the Canal du Midi, Chandra Mukerji, University of California, San Diego
- The Family in the Network of Scientific Creativity: The Case of Claude Perrault, 1666– 88, *Oded Rabinovitch, Brown University
- Natural History Household: Réaumur and Hélene Dumoustier, Mary Terrall, University of California, Los Angeles
- 4. Scientific Families: Emilie du Châtelet and the Domestic Intellectual, Meghan Roberts, Northwestern University

10 AM-12 PM (continued)

States, Institutions, and Cultures of High Latitude Science During the 20th Century

Borein Room B

Chair and Commentator: Michael Robinson, University of Hartford

PAPERS:

- Bona Fides and Indiscretions: Defining
 Scientists and Explorers in the Interwar
 Canadian North, Christina Sawchuk, Scott
 Polar Research Institute, Cambridge University
- 2. Heroes in the Age of Polar Aviation, 1925–30, Marionne Cronin, University of Toronto
- Ivory Towers and Icy Frontiers: Cambridge and British Polar Exploration, 1920–58, *Peder Roberts, Stanford University
- Memory and Legacy: The Divergent Fate of the International Biological and Geophysical Polar Years, Michael T. Bravo, Cambridge University

Models as Technologies of Conciliation in the Early Modern Republic of Letters

Ellis Room West
Chair: Matt Jones, Columbia University
PAPERS:

- Orreries and Bowling Greens. Real and Imaginary Models in "familiar" Introductions to Astronomy, c. 1730–80, Florence Grant, King's College, London
- Teaching the "Esprit Philosophique": Exemplars and Encyclopedism in the Pedagogy of Étienne Bonnot de Condillac, Jeff Schwegman, Max Planck Institute for the History of Science
- Restitution, Plans and Knowledge in Architecture and Natural Philosophy, ca. 1650–1750, Alexander Wragge-Morley, Cambridge University
- Models, Philanthropy and Affective Seeing in 18th-Century Halle, *Kelly J. Whitmer, Max Planck Institute for the History of Science

Knowledge and Practice in Medieval and Early Modern Europe

Borein Room A

Chair: William Eamon, New Mexico State University

PAPERS:

- Translatio as Scientific Practice: Chaucer as "Lewd Compilator" of the Treatise on the Astrolabe, Elly Truitt, Bryn Mawr College
- Universalizing Nature: Prediction and Observation in Renaissance Astrometeorology, Darin Hayton, Haverford College
- Making Remedies as Wissenschaft in Early Modern Germany, *Alisha Rankin, Tufts University

Beyond Evolution vs. Special Creation: The Complexity of the Species Question in the Age of Darwin

Phoenix Room West

PAPERS:

- The Autogenesis of Species in German Science, 1790–1860, Nicolaas Rupke, Göttingen University
- "[A]s we rise in the animal scale": Recapitulation, Progressive Development, and Teaching Comparative Anatomy in 1835 Britain, James Elwick, York University
- 3. Darwin's "Conversion" Reconsidered (Again!), Paul D. Brinkman, North Carolina Museum of Natural Sciences
- 4. Darwin's Methodologically Conservative Revolution, *Richard Bellon, Michigan State University

Making Earth Science: Practices, Concepts, Things

Ellis Room East Chair: William Newman, Indiana University PAPERS:

- How American were the 49ers? The Transmission of Prospecting Knowledge from Germany to America, Warren Dym, Huntington Library
- 2. Earth, Wind, Water and Mining Machines: Leibniz, Andre Wakefield, Pitzer College
- 3. Archaeology and Erudition: Serapis and Suess, *Ernst Hamm, York University

Photography and Authenticity in 19th-Century Science

Remington Room A-C Chair: Jennifer Tucker, Wesleyan University PAPERS:

- W.H.F. Talbot and Roger Fenton at the British Museum. Photographs as Proxy in 19th-Century Assyriology, Mirjam Brusius, Cambridge University
- Is Photography Trustworthy? Depicting Antiquity in the 19th-Century Archaeology, Stefanie Klamm, Max Planck Institute for the History of Science
- Authenticating Nature: Situating
 Photographic Trust in the Late 19th-Century Scientific Periodical Press, *Geoff Belknap, Cambridge University
- Portraits of a Spark: Authenticating the Invisible in Victorian Physicists' Images of Electricity, Chitra Ramalingam, Harvard University

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SESSION SCHEDULE PLANNING WORKSHEET

Day/Time	Rooм	Session

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HSS 2009 AWARDS CEREMONY PROGRAM

FRIDAY, 19 NOVEMBER, 6 PM REGENCY BALLROOM C-D

Welcome

Executive Director, Robert J. Malone

Recognition

Program Co-Chairs Committee on Meetings and Programs Chair Local Arrangements Committee Chair

In Memoriam Pictorial

Announcement of Interest Group Prizes

Forum for the History of Human Sciences Forum for the History of Science in America

History of Science Society Prizes

Nathan Reingold Prize for best essay by a graduate student
Joseph H. Hazen Education Prize for excellence in education
Derek Price/Rod Webster Prize for best article in Isis
Margaret W. Rossiter History of Women in Science Prize for best book on the role of women in science
Watson Davis and Helen Miles Davis Prize for best book for a general audience
Pfizer Prize for best scholarly book

Sarton Medal for lifetime scholarly achievement Citation read by William Newman

Conclusion

Robert J. Malone

After the awarding of the prizes, please stay for the 2009 HSS Distinguished Lecture, given by M. Norton Wise. Introduction by Mary S. Morgan.

HSS 2009 BUSINESS MEETING AGENDA

SUNDAY, 22 NOVEMBER, 9 AM COWBOY ARTISTS ROOM

All HSS members are welcome. Refreshments will be served.

President's Welcome Jane Maienschein

Approval of Minutes

Executive Director's Report

Editor's Report
Bernie Lightman

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Synopsis by Jay Malone

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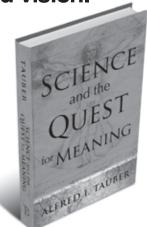
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February, May, August, November

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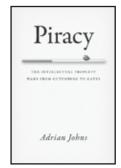
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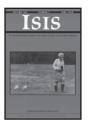
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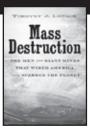
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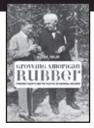


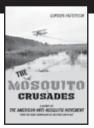
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