

# HSS 2006 Program Schedule

## Rooms

**Regency Foyer** – Convention Level  
(Third Floor)

**Regency A, B, & C** – Convention Level  
(Third Floor)

**Regency D, E, & F** – Convention Level  
(Third Floor)

**Plaza A, B, & C** – Plaza Level  
(Second Floor)

**Plaza A, B, & C** – Plaza Level  
(Second Floor)

**Georgia A & B** – Plaza Level (Second Floor)

**Balmoral** – Convention Level (Third Floor)

**Brighton** – Fourth Floor

**Dover** – Fourth Floor

**Grouse** – 34<sup>th</sup> Floor

**Kensington** – Fourth Floor

**Lord Byron** – Fourth Floor

**Oxford** – Convention Level (Third Floor)

**Prince of Wales** – Convention Level  
(Third Floor)

**Queen Charlotte** – Convention Level  
(Third Floor)

**Stanley** – 34<sup>th</sup> Floor

**Tennyson** – Fourth Floor

(\* indicates session organizer)

Note: Session numbers taken from Preliminary Program

## THURSDAY, 2 NOVEMBER

1:00 p.m - 5:00 p.m.

### HSS COUNCIL MEETING

*Georgia A & B*

5:30 p.m - 7:00 p.m.

### PLENARY SESSION

*Regency E & F*

**Jim Evans**, *University of Puget Sound*

**Rachel Ankeny**, *University of Adelaide*

**Florence Bonner**, *Howard University*

**Pam Henson**, *Office of Smithsonian Institution Archives*

7:00 p.m. - 8:00 p.m.

### WELCOME ORIENTATION FOR FIRST-TIME ATTENDEES

*Oxford*

7:00 p.m. - 8:30 p. m.

**JOINT RECEPTION WITH HSS, PSA AND 4S***Regency C & D (Cash bar)*

8:00 p.m - 9:30 p.m.

**HISTORY OF CHEMISTRY INTEREST GROUP DINNER****Fiddlehead Joe's, 1-1012 Beach Avenue, Vancouver, BC***For more information go to [www.chemheritage.org](http://www.chemheritage.org)***FRIDAY, 3 NOVEMBER**

7:30 a.m. - 8:45 a.m.

**WOMEN'S CAUCUS MEETING – ALL WELCOME***Balmoral*

7:30 a.m. - 8:45 a.m.

**COMMITTEE ON EDUCATION MEETING/BREAKFAST***Tennyson*

Friday, 9:00 a.m. - 11:45 a.m.

**(COFFEE BREAK, EXHIBIT HALL - 10:00 A.M. - 10:15 A.M.)****PUTTING THE WORLD IN ORDER: COLLECTING IN THE EIGHTEENTH CENTURY (F1)***Regency A***James Delbourgo**, *McGill University*, "Collecting the World Under Water"**Beth Fowkes Tobin**, *Arizona State University*, "The Duchess's South Pacific Shells: Gift Exchanges, Commercial Networks, and Regimes of Value in Natural History Collecting"**Matthew D. Eddy**, *Durham University*, "Symbolic Specimens. Or, Teaching University Students to Be Collectors, 1770-1800"

\***Daniela Bleichmar**, *University of Southern California*, “Seeing, Owning, and Knowing: Training the Expert Eyes of Naturalists and Art Connoisseurs”

**Chair and Commentator: Paula Findlen**, *Stanford University*

## CELLS, ANTS, APES, AND ANGELS IN NATURAL AND HUMAN ECONOMIES (F2)

*Regency B*

**Margaret Schabas**, *University of British Columbia*, “More Like Apes Than Angels: Natural Historical Modes of Thinking in the Political Economy of David Hume and Adam Smith”

**Andrew Stuart Reynolds**, *Cape Breton University*, “The Power of Metaphor: The Cell as Metaphorical and Literal Factory”

\***Abigail Lustig**, *University of Texas, Austin*, “Ant Economics and Cold War Sociobiology”

**Commentator: Mary Morgan**, *London School of Economics*

**Chair: Thomas Archibald**, *Simon Fraser University*

## IN THE LEGACY OF VANNEVAR BUSH’S “AS WE MAY THINK”: INTERACTIVITY, REPRESENTATION AND THE ARCHIVE IN AN ELECTRONIC AGE (F3)

*Regency E*

**Orit Halpern**, *Duke University*, “Screen-Memories: Temporality, Perception and the Archive in Cybernetic Thought”

**Thierry Bardini**, *Université de Montréal*, “Bush and the Nexus: Towards the Hypertextual Interface”

**Jean-Francois Blanchette**, *University of California, Los Angeles*, “From Enigma Machines to the World Wide Web: Public-key Cryptography and the Promise of Electronic Authenticity”

**Bruno J. Strasser**, *Yale University*, “Banking DNA Sequences: Physicists, Biologists and the Electronic Management of Biomedical Data”

**Commentator: Timothy Lenoir**, *Duke University*

\***Chair: Nancy Anderson**, *State University of New York - Buffalo*

## HISTORY OF EVOLUTIONARY THEORY (F4)

*Regency F*

**Ana Barahona**, *UNAM*, “The Rhetorical Construction of Eldredge and Gould’s Article on the Theory of Punctuated Equilibria in 1972”

**Raf De Bont**, *K.U.Leuven*, “Fighting on Two Fronts: Spiritualist Thinking and Evolutionary Theory in Fin de Siècle Belgium”

**William deJong-Lambert**, “Szczepan Pieni<sup>□□</sup>ek: Polish Lysenkoist”  
**Robert H. Silliman**, *Emory University*, “Pilgrim’s Progress: Leo Lesquereux (1806-1889) and the Rise of Palaeobotany in America”  
**Chair: John Huss**, *Wellesley College*

**INSTRUMENTS OF MUSIC, INSTRUMENTS OF SCIENCE: NEGOTIATING TWO WORLDS THROUGH PRACTICE AND PERFORMANCE, 1850-1910 (F5)**

*Plaza B*

**Erwin Hiebert**, *Harvard University*, “The Physics and Mathematics of Just Intonation in the History of Fixed-Tone Keyboard Construction”  
**Elfrieda Hiebert**, *Harvard University*, “Exploring Links between Science and Piano Pedagogy During the Late 19th Century”  
 \***Alexandra Hui**, *University of California, Los Angeles*, “Musical Instruments, Psychophysical Instruments: The Sound Sensation Studies of Hermann Helmholtz and Ernst Mach”  
**Gustavo Garza**, *University of California, Los Angeles*, “The Objective Preservation of Subjective Expression: The Use of the Phonograph in Ethnographic Fieldwork at the Turn of the 20th Century”  
**Chair: Emily Thompson**, *Princeton University*

**THEORETICAL PHYSICS UP CLOSE: EDITING THE PAPERS OF EINSTEIN, HILBERT, LORENTZ, POINCARÉ (F6)**

*Georgia A*

**Jeroen van Dongen**, *California Institute of Technology*, “German Reactionaries and Einstein’s Fame: The Anti-Relativity Campaign of 1920”  
**Anne J. Kox**, *University of Amsterdam*, “Hendrik Antoon Lorentz’s Scientific Correspondence: New Insights into His Thinking and His Personality”  
 \***Tilman Sauer**, *California Institute of Technology*, “David Hilbert’s Lectures on the Foundations of Physics”  
**Scott Walter**, *University of Nancy*, “Henri Poincaré’s Correspondence with Physicists, Chemists, and Engineers”  
**Chair: Diana Kormos Buchwald**, *California Institute of Technology*

**INTERPRETING NATURE AND SCRIPTURE: HISTORY OF A DIALOGUE (F7)**

*Georgia B*

**Maurice A. Finocchiaro**, *University of Nevada, Las Vegas*, “Critiques of the Biblical Argument Against Copernicanism: Ingoli, Foscarini, Galileo, Campanella”  
**Richard Oosterhoff**, *Redeemer University College*, “Did Literalization in Theology Affect Natural Philosophy? Testing Harrison’s Hypothesis”

\***Jitse Vandermeer**, *Redeemer University College*, “Georges Cuvier and the Use of Scripture in Geology”

**James Matthew Ashley**, *University of Notre Dame*, “Contesting ‘The Universe Story’: Theistic and Atheistic Interpretations of ‘Deep History’ at the End of the Twentieth Century”

**Chair:** **Jitse Vandermeer**, *Redeemer University College*

## 19TH AND 20TH CENTURY TRADITIONS: NEGOTIATING MEDICINE IN PRE-COLONIAL, COLONIAL, AND POST-COLONIAL VIETNAM (F8)

*Oxford*

\***Michele Thompson**, *Southern Connecticut State University*, “The Natural Laws of Reproduction and Inheritance in Nguyen Dynasty Vietnam, 1802-1945”

**Laurence Monnais**, *Université de Montréal*, “Can Traditional Medicine Be (Scientifically) Trustworthy? Colonial Views of Vietnamese Medicine in the First Half of the Twentieth Century”

**Michitake Aso**, *University of Wisconsin, Madison*, “Race, Science, and Nationalism in Colonial and Post-Colonial Vietnam”

**Ayo Wahlberg**, *BIOS Centre, London School of Economics*, “Caught in Transition: Traditional Medicine and the Emerging Problem of ‘unhealthy lifestyles’ in Vietnam”

**Chair:** **Michele Thompson**, *Southern Connecticut State University*

## RACE AND RACISM: STUDYING HUMANS IN TWENTIETH-CENTURY AMERICA (F9)

*Plaza C*

**Juliet Burba**, *Science Museum of Minnesota*, “Discerning the Original Type: Race and American Indian Origins in the Early Twentieth Century”

\***Margot Iverson**, *University of Minnesota*, “William C. Boyd’s Genetic Analysis of Blood-types and the Campaign to Redefine Race”

**Paul Lawrence Farber**, *Oregon State University*, “Science and Race-mixing in 20th Century America”

**Melinda Gormley**, *Oregon State University*, “Undermining Scientific Racism: Politics and Science at Columbia University”

**Chair and Commentator:** **John Jackson**, *University of Colorado*

## IN MEMORY OF MARSHALL CLAGETT (F10)

*Balmoral*

\***A. Mark Smith**, *University of Missouri, Columbia*, “How Should We Interpret ‘Experiment’ in Alhacen’s Optical Analysis?”

**Edith Dudley Sylla**, *North Carolina State University*, “The Place of Jacob Bernoulli’s *The Art of Conjecturing* in the History of Mathematics”

**Bruce Eastwood**, *University of Kentucky*, “From Computus to Astronomy in the Carolingian Renaissance”

**Sabetai Unguru**, *University of Tel-Aviv, Israel*, “Interpretation and Overinterpretation of Apollonius’s *Conica*”

**Chair: David Lindberg**, *University of Wisconsin-Madison*

## CHEMISTRY AND SOCIETY (F11)

*Brighton*

**Jacob Stegenga**, *University of California, San Diego*, “The Chemical Characterization of the Gene: A Sociological Analysis of Scientific Reception”

**Debasmita Patra**, *University of Hyderabad*, “History of Institutionalization of Solid State Chemistry in India: Deriving From a Particular Case”

**Martha Harris**, *University of Toronto*, “Chemical Reductionism Revisited: The Physico-Chemical Nature of the Chemical Bond”

**Donald Cotter**, *Mount Holyoke College*, “Unconditional Surrender: The Herty/Smith Feud of 1917, and the Triumph of Nationalist Rhetoric in the American Chemical Society”

**Chair: Alan Rocke**, *Case Western Reserve University*

## PSYCHOLOGY AND MADNESS (F12)

*Prince of Wales*

**Christopher D. Green**, *York University*, “The Historical Impact for Experimental Psychology of Johns Hopkins U. Choosing G. S. Hall Rather than C. S. Peirce for Its Philosophy Professorship in 1883”

**Sultana Banulescu**, *Princeton University*, “A Baltic Noblewoman and Italian Psychoanalysis”

**Jennifer L. Bazar**, *York University*, “The Toronto Asylum as Seen by Society”

**Kathryn McKay**, *Simon Fraser University*, ““Before the Cuckoo’s Nest: Accusations of Madness and First Nations Women””

**Henderikus J. Stam**, *University of Calgary*, “Instruments of Intelligence: Animals in Early Twentieth-Century Psychology”

**Chair: Elizabeth Williams**, *Oklahoma State University*

## ART, PERFORMANCE, AND SCIENCE (F13)

*Plaza A*

**Hanna Rose Shell**, *Harvard University*, “Productive Mimesis and the Art of Disappearance: Abbott H. Thayer, Protective Coloration in Nature, and the Modeling of Strategic Invisibility (1890-1920)”

**Cornelius Borck**, *McGill University*, “The Posthumanism of the Avantgarde: Artistic Experiments in Prosthetic Vision”

**Sofie Lachapelle**, *University of Guelph*, “Science on Stage: Magic Shows and ‘Amusing Physics’ in Nineteenth-Century Paris”

**Laura J. Snyder**, *University of Pittsburgh*, “‘Connexion and Unity’ in William Whewell’s Science of Architecture”

**Chair: TBD**

**12:00 p.m - 12:30 p.m.**

**FORUM FOR THE HISTORY OF SCIENCE IN AMERICA (FHSA) BUSINESS MEETING**

*Regency A*

**12:00 p.m - 1:00 p.m.**

**ORGANIZATIONAL MEETING OF THE SOCIETY FOR THE PHILOSOPHY OF SCIENCE IN PRACTICE (SPSP)**

*Kensington*

Open to all, please bring your lunch

**12:00 p.m - 1:15 p.m.**

**GRADUATE STUDENT PROFESSIONAL ORIENTATION AND JAM SESSION**

*Prince of Wales*

Refreshments provided

**12:30 p.m - 1:15 p.m.**

**FORUM FOR THE HISTORY OF SCIENCE IN AMERICA DISTINGUISHED SCIENTIST LECTURE**

**Spencer Weart**, *American Institute of Physics*, “A Historian among Scientists, a Scientist among Historians”

*Regency A*

**Friday, 1:30 p.m. - 3:10 p.m.**

**AGRICULTURAL SCIENCE (F14)**

*Regency F*

**Seung-joon Lee**, *University of Wisconsin, Whitewater*, “Taste in Numbers:

Agricultural Science and the Rice Control Policy in Guomindang China, 1927 - 1937”

**Micha Rueber**, *Mississippi State University*, “In One End and Out the Udder: Vitamins, Oleo Margarine, and American Dairy Science”

**Bert Theunissen**, *Utrecht University*, “The ‘Holsteinisation’ of the Dutch Dairy Cattle Breeds in the 1970s and 1980s”

**Theodore James Varno**, *University of California, Berkeley*, “Sewall Wright at the Bureau of Animal Industry: Inbreeding and the Agricultural Roots of the Modern Synthesis”

**Chair: Jim Fleming**, *Colby College*

### THE NEWTONIAN REVOLUTION (F15)

*Georgia B*

**Massimo Mazzotti**, *University of Exeter*, “The Catholic Newton”

**Joel Kenton Press**, *California University of Pennsylvania*, “What Leibniz Failed to See in Locke’s Conception of Space”

**Edward T. Richards, Jr.**, *University of Tennessee*, “Securing the Conceptual Foundations of Newton’s Mechanics: The Case for a Post-Principia De Gravitatione”

**Chair: Jody Yoder**, *Independent Scholar*

### CULTURES OF ALCHEMY IN EARLY MODERN EUROPE (F16)

*Prince of Wales*

**Dane Thor Daniel**, *Wright State University, Lake Campus*, “Alchemical Aspects of Paracelsus’ Theology”

**Cesare Pastorino**, *Indiana University, Bloomington*, “The Alchemical Background to Bacon’s Proteus”

**Kevin Chang**, *Academia Sinica*, “Balsamic Pills: The Alchemical Background and Commercial Value of the Stahlian Equivalent of Universal Medicine”

**\*John C. Powers**, *Virginia Commonwealth University*, “Alchemy at the University: Herman Boerhaave’s Lectures at Leiden”

**Chair: Bruce Moran**, *University of Nevada*

### HISTORY OF SCIENCE AND PEDAGOGY (F17)

*Plaza A*

**Michelle D. Hoffman**, *University of Toronto*, “Factoring History into the Equation: History of Science in Ontario High School Physics Textbooks, 1911-present”

**Trevor J. Owens**, *University of Wisconsin*, “A Child’s Eye View of Life as a Scientist: Science, Society, and Gender in the History of Children’s Biographies of Marie Curie and Albert Einstein”

**Sage Ross**, *Yale University*, “Natural Philosophy Images: Pedagogy and Popular Science in America”

**Steve Sturdy**, *University of Edinburgh*, “Scientific Method for Medical Practitioners: The Case Method of Teaching Pathology in Early Twentieth-Century Edinburgh”

**Chair: Richard Olson**, *Harvey Mudd College*

## HISTORY OF MODERN ASTRONOMY (F18)

*Regency E*

**Matthew C. Aberman**, *University of California at Santa Barbara*, “The Politics of Pure Speculation”

**Francesca Bavuso**, *College Misericordia*, “Figures in Obsolescence: Changes to Constellation Imagery in Nineteenth-Century Europe”

**David Michael Gossman**, *Texas Tech University*, “The Scientist and the Craftsmen Traditions in the Twentieth Century: George Ellery Hale and George W. Ritchey at Mount Wilson Observatory”

**Woodruff T. Sullivan**, *University of Washington*, “Radio Astronomy after World War II: A New Way of Doing Business”

**Chair: Marc Rothenberg**, *Smithsonian Institution*

## THE SCIENCE OF THE MIND (F19)

*Regency B*

**Howard Hsueh-Hao Chiang**, *Princeton University*, “Effecting Science, Affecting Medicine: Homosexuality, the Kinsey Reports, and the Contested Boundaries of Psychopathology in the United States, 1948-65”

**Ziv Eisenberg**, *Yale University*, “Old Ideas, New Science: Mental Health and the Medical Care of Pregnant Women in Mid-Twentieth-Century America”

**Alexandra Rutherford**, *York University*, “Inside the Human Skinner Box”

**Martin Staum**, *University of Calgary*, “Nature and Nurture in French Psychology and Sociology, 1873-1914”

**Chair: Karin Wetmore**, *Harvard University*

## SCIENCE AND SOCIETY IN THE COLD WAR (F20)

*Georgia A*

**Ellen Bales**, *University of California, Berkeley*, “From Calamity Mesa to Boyertown, Pennsylvania: Risk, Radon, and Regulation in Cold War America”

**Patrick David Slaney**, *University of British Columbia*, “James B. Conant on Science Education: Science, Security and the Institutions of Social

Order in the Early Cold War”

**Alex Wellerstein**, *Harvard University*, “Patenting the Bomb: Nuclear Weapons, Intellectual Property, and Technological Control”

**Roland Wittje**, *Norwegian University of Science and Technology*, “Nuclear Physics Instrumentation in Norway: 1933-1955”

**Chair: Zuoyue Wang**, *California State Polytechnic University, Pomona*

## THE SPACES OF SCIENCE (F21)

*Plaza C*

**Talitha Bolton**, *University of Kent at Canterbury*, “Mapping British Institutions of Science: The Spatial Characteristics of the Common Cold Unit and Porton Down’s Chemical Defence Experimental Establishment”

**Eric Brown**, *Princeton University*, “The Lab and the Field in 19th Century American Economic Geology”

**Dmitry Valerievich Efremenko**, *Russian Academy of Sciences*, “Societal and Historical Background of V. I. Vernadsky’s Theory of Noosphere”

**Sarah Grossman**, *University of New Mexico*, “Extending the Area of Freedom: Categorical Differentiation, Topographical Analysis, and the New Mexico Territory”

**Chair: TBD**

## THE IMPERIAL CONTEXT OF SCIENCE (F22)

*Oxford*

**Kuang-chi Hung**, *Harvard University*, “When the Green Archipelago Encountered Formosa: Colonial Governance, Capitalism and the Emergence of Modern Forestry in Colonial Taiwan (1895-1930s)”

**Kristian Hvidtfelt Nielsen**, *Steno Institute, University of Aarhus*, “Postcolonial Partnership: Science, State and Media in the Galathea Deep Sea Expedition 1950-52”

**Brian Schefke**, *University of Washington*, “The Hudson’s Bay Company as a Context for Science in the Columbia Department”

**Rajive Tiwari**, *Belmont Abbey College*, “Astronomy Education and Religion in Colonial India”

**Chair: Fritz Davis**, *Florida State University*

## STUDIES IN MOLECULAR BIOLOGY (F23)

*Brighton*

**Elena A. Aronova**, *Salk Institute & University of California at San Diego*, “‘Humanitarizing’ Molecular Biology: Programs in the Humanities and Social Sciences at the Salk Institute for Biological Studies, 1964-1975”

**Heiko Stoff**, *TU Braunschweig*, “Active Substances as Precarious Substances: Institutionalizing Research on Enzymes, Vitamins and Hormones in Germany, 1920-1970”

**Justin Suran**, *University of California, San Francisco*, “Colin M. MacLeod & Cold War Microbiology”

**Edna Suárez**, *Max Planck Institute for History of Science*, “‘Information’ as ‘History’: Metaphor and Politics in the Early Days of Molecular Evolution”

**Chair: TBD**

## SCIENCE AND SOCIETY (F24)

*Balmoral*

**Lino Camprubi**, *University of California, Los Angeles*, “Transforming Regimes: Continuity of Scientific Institutions in Spain (1950-1980)”

**Yulia Egorova**, *Cardiff University*, “Science and Culture: Conversations with Geneticists”

**Brigit Ramsingh**, *University of Toronto*, “Making History: A. Linton Davidson and the Story of the Canadian Food and Drug Directorate”

**Frank W. Stahnisch**, *Johannes Gutenberg-University of Mainz*, “German-Speaking Neuroscientists in North-America after 1933: The Issue of Emigration-Induced Scientific Change”

**Chair: Jim Strick**, *Franklin and Marshall*

## PHYSICS AND PHYSICISTS (F25)

*Regency A*

**Paul Arpaia**, *Indiana University of Pennsylvania*, “Radium as a Cultural Phenomenon in Late 19th-century Italy”

**Deepanwita Dasgupta**, *University of Minnesota*, “Doing Science from a Colony: S.N. Bose and His Communications with Einstein”

**Christina Turner**, *University of Notre Dame*, “The Early History of Gravitational Lensing”

**Kelley Wilder**, *Max Planck Institute for the History of Science*, “Trusting the Photochemical Trace: Creating Quantitative Data from a Photographic Plate”

**Chair: Yves Gingras**, *CIRST*

## RACE AND SCIENCE (F26)

*Plaza B*

**Conor Burns**, *University of Toronto*, “Ethnological Diversity in a New Light: Daniel Wilson’s 1858 Critique of North American Ethnology.”

**Andrea Patterson**, *California State University, Fullerton*, “The Medicalization of Racism: Public Health Policies in the Early-20th-Century American South”

**Jessica Weaver**, *University of Notre Dame*, “The British Bathing Ritual in India: Environmental Determinism and the 19th century Case for Cold Bathing in Warm Climates”

**Samuel Talcott**, *DePaul University*, “Kant’s Concept of Race and the Science of Living Things”

**Chair: Joan Steigerwald**, *York University*

**(COFFEE BREAK, EXHIBIT HALL - 3:10 P.M. - 3:30 P.M.)**

**Friday, 3:30 p.m. - 5:30 p.m.**

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### **MATHEMATICS BEFORE THE ‘ARTS AND SCIENCES’ (F27)**

*Oxford*

**Travis D. Williams**, *University of Rhode Island*, “Courtly Identity and Early Modern Mathematics: Hyperbolic Multiplication in ‘The Merchant of Venice’”

**J.B. Shank**, *University of Minnesota*, “Courtly Mathematics? Evangelista Torricelli’s Finite Volume Infinite Solid in Cultural Context”

\***Jacqueline Wernimont**, *Brown University*, “Refiguring the Literary Family Tree: Recognizing the Place of Mathematics in a History of Literature”

**Chair: Karen Parshall**, *University of Virginia*

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### **ARE MOUNTAINS NECESSARY? WORKING WITH ALTITUDE IN EUROPEAN SCIENCE, 1840 - 1920 (F28)**

*Regency F*

\***Michael S. Reidy**, *Montana State University*, “Joseph Dalton Hooker and Verticality in the Mid-Nineteenth Century”

**Robert Marc Friedman**, *University of Oslo*, “Geophysical Science for Tough Guys: Polar Heroics and Norwegian Auroral Research”

**Bruce Hevly**, *University of Washington*, “Does Up Equal North? Travelogue, Local Knowledge and Natural Law in James David Forbes’s *Norway and Its Glaciers*”

**Chair and Commentator: Bernard Lightman**, *York University*

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### **SCIENCE, TECHNOLOGY, MORALITY, AND COMMUNITY: 20TH-CENTURY AFRICAN-AMERICAN COMMITMENTS AND IDEALS (F29)**

*Brighton*

\***Helena Pycior**, *University of Wisconsin, Milwaukee*, “The Pioneering African-American Research Scientists: Superimposed Callings to Research, Teaching, and Service”

**Ronald Elbert Mickens**, *Clark Atlanta University*, “Black Scientific Organizations”

**Rayvon Fouché**, *University of Illinois at Urbana-Champaign*, “Facing the Challenge of a New Age’: Martin Luther King, Jr., Science, and Morality”

**Commentator: Kenneth Manning**, *MIT*

**Chair: Helena Pycior**, *University of Wisconsin-Milwaukee*

## **HUMANISTS, ARTISANS, AND LABORATORIES: A SESSION IN MEMORY OF OWEN HANNAWAY (F30)**

*Plaza A*

**Organized by Sharon Kingsland**, *Johns Hopkins University*

**Simon Schaffer**, *University of Cambridge*, “Laboratory Work and the Spaces of the World”

**Mary Henninger-Voss**, “Mathematicians and the Word”

**Pamela H. Smith**, *Columbia University*, “Butter and Mercury, Lizards and Vermilion: Artisanal Views of Nature in Early Modern Europe”

**Commentator: Barbara Becker**, *University of California, Irvine*

**Chair: John Servos**, *Amherst College*

## **THE GRANDE DAME OF ENLIGHTENMENT SCIENCE: CELEBRATING EMILIE DU CHÂTELET’S 300TH BIRTHDAY (1706-2006) (F31)**

*Regency E*

**Matthew Jones**, *Columbia University*, “From Sociability to Vis-Viva: Emilie du Châtelet on Social and Natural Order”

**Judith P. Zinsser**, *Miami University, Ohio*, “Mme Du Châtelet and the Historians”

\***Jean-Francois Gauvin**, *Harvard University*, “Expérience, Luxury, and Natural Philosophy: Du Châtelet and Scientific Instruments at Cirey”

**Chair and Commentator: Mary Terrall**, *University of California Los Angeles*

## **MEDICINE AND THE MODERN CITY (F32)**

*Georgia B*

\***Suzanne M. Fischer**, *University of Minnesota*, “Selling Scientific Medicine: ‘For Men Only’ Advertising Medical Institutes, Immigrants and Scientific Popularization in Early Twentieth-Century Chicago”

**Rachel Ponce**, *University of Chicago*, “Murder, Passion, and Insanity: Rationalization and Pathologization in Late-Nineteenth and Early-Twentieth Century France and the United States.”

**Joseph M. Gabriel**, *University of California, San Diego*, “Contagious Habit:

Drugs, Addiction, and Metaphors of Infection, 1870-1910”

**Chair and Commentator: Michael Sappol**, *National Library of Medicine*

### ON THE TRAIL OF WILDLIFE MIGRATION STUDIES (SA6)

*Plaza B*

**Joseph E. Taylor III**, *Simon Fraser University*, “Peeking into the Black Box: The Science and Politics of Mapping Pacific Salmon Migratory Patterns”

\***Dan Bouk**, *Princeton University*, “The Migrating Jersey Bird: The Study and Control of Salt Marsh Mosquitoes”

**Robert M. Wilson**, *Syracuse University*, “A Bird’s Eye View of North America: Avian Migration Studies and Waterfowl Management, 1920-1960”

**Commentator: Philip Pauly**, *The State University of New Jersey*

**Chair: Jane Maienschein**, *Arizona State University*

### SITUATING NEWTON IN PHILOSOPHICAL CONTEXT (F34)

*Balmoral*

**Andrew Janiak**, *Duke University*, “Newton as a Critic of Descartes”

\***Mary Domski**, *University of New Mexico*, “Locke and Newton on the Mathematical Nature of Natural Philosophy”

**Eric Schliesser**, *Syracuse University & Leiden University*, “Hume’s Attack on Newton’s Philosophy”

**Chair and Commentator: Daniel Garber**, *Princeton University*

### CIRCULATION OF KNOWLEDGE IN POSTWAR JAPAN (F35)

*Regency B*

\***Hyungsub Choi**, *Johns Hopkins University*, “Replicating the Transistor in Occupied Japan, 1948-1954”

**Kenji Ito**, *The University of Tokyo*, “Transmission of Feynman Diagrams from the United States to Japan: A Case of a Resonance of Scientific Practice”

**Chigusa Kita**, *Kansai University, Japan*, “Transistor Computer on Campus since 1960”

**Chair & Commentator: Sharon Traweck**, *University of California, Los Angeles*

### TALKING ABOUT THE BIRDS AND THE BEES: POPULARIZING BEHAVIORAL BIOLOGY IN THE 20TH CENTURY (F36)

*Regency A*

**Amanda Rees**, *University of York*, “Working with Beasts: Animal Societies in 20th Century Popular Culture”

**Graeme Beale**, *University of Edinburgh*, “One for the Birds? The Tinbergen School’s Presentation of Ornithology as the Behavioural Science of Ethology”

**Tania Munz**, *Princeton University*, “Famous Scientists, Popular Beasts: Teaching the Public about Animals in the Works of Karl von Frisch and Konrad Lorenz”

\***Mark E. Borrello**, *University of Minnesota*, “Lessons from Nature? Conservation, Overpopulation and a World Out of Balance”

**Chair: David Sepkoski**, *University of North Carolina, Wilmington*

## CLINICAL MEDICINE AND MEDICAL SCIENCE (F37)

*Prince of Wales*

**Henry B. Kreuzman**, *College of Wooster*, “Where, When, Who, and What: The Empirical Nature of Alexander Gordon’s Arguments that Childbed Fever is Infectious”

**Anna Geltzer**, *Cornell University*, “Penicillin as an Emerging Technology”

**Paul Dimeo**, *University of Stirling, Scotland*, “The History of Science, Drugs and Sporting Performance, 1920-1960”

**Colin L. Talley & Howard Kushner**, *Rollins School of Public Health at Emory University*, “Public Health Science and Smoking in Atlanta, 1964-2006”

**Chair: Tricia Koenig**, *Université Louis Pasteur, Strasbourg*

## CONTEXTUALIZING THE COGNITIVE REVOLUTION (F38)

*Plaza C*

**Tara H. Abraham**, *York University*, “Warren S. McCulloch’s Mechanization of the Brain and Mind”

\***Gregory Radick**, *University of Leeds*, “The Reactionary Origins of the Chomskyan Revolution: The Unmaking of a Modern Synthesis”

**Hunter Crowther-Heyck**, *University of Oklahoma*, “Patrons of the Revolution: Ideals and Institutions in Postwar Behavioral Science”

**Chair: Ellen Herman**, *University of Oregon*

## ON THE ORIGINS OF PRAGMATISM (F39)

*Georgia A*

\***Paul Jerome Croce**, *Stetson University*, “Rejected Science: William James’s Use of His Father’s Beliefs”

**David E. Leary**, *University of Richmond*, “Between Peirce (1877) and James (1898): G. Stanley Hall and the Origins of Pragmatism”

**Francesca Bordogna**, *Northwestern University*, “‘Enchanted’ Pragmatism: G. Papini and G. Prezzolini’s Variety of Pragmatism, and Its Uses”

**Cecelia A. Watson**, *University of Chicago*, “‘And My Picture, of Course, Has Not Altered’: John La Farge’s Influence on William James’s Pragmatism”

**Chair: Francesca Bordogna**, *Northwestern University*

**Friday, 5:45 p.m. - 6:30 p.m.**

**MEETING OF EARTH AND ENVIRONMENT FORUM**

*Regency B*

**Friday, 6:30 p.m. - 7:30 p.m.**

**HSS/PSA JOINT RECEPTION**

*34th Floor of the Hyatt Regency – Cash Bar*

**Friday, 7:30 p.m. - 9:30 p.m.**

**TEACHING WITH HARMONICS: INTEGRATING HISTORY OF SCIENCE CONTENT INTO THE NON-HISTORY-OF-SCIENCE COURSE (F40)**

*Regency E*

**A Panel Discussion Sponsored by the Committee on Education**

\***Julie Newell**, *Southern Polytechnic State University*

**Daniel Kevles**, *Yale University*

**Edward B. Davis**, *Messiah College*

**Chair: Robert DeKosky**, *University of Kansas*

**COPING WITH EXCEPTIONAL CIRCUMSTANCES – NATURAL DISASTERS (F41)**

*Plaza A*

**Sarah Dry**, *University of Cambridge*, “Saving Lives Everyday: Disaster Prevention in mid-Victorian Britain”

**Jordan Kellman**, *University of Louisiana, Lafayette*, “Highly Mutable Mobiles: Guillaume Le Gentil’s Passage to Brahmanic Astronomy as a Response to Disaster”

**Matthias Dorries**, *Université Louis Pasteur*, “Responding to Natural Hazards: Krakatau”

**Felix Driver**, *University of London*, “Disaster in the Tropics: The Wreck and Salvage of HMS Thetis, 1830-1854”

**Chair:** \***Jordan Goodman**, *University College London*

**NATURAL KNOWLEDGE: ROUNDTABLE ON THE HISTORIES OF SCIENCE AND THE ENVIRONMENT (F42)**

*Regency B*

**Michael Egan**, *McMaster University*

**Ron Doel**, *Oregon State University*

\***Carolyn Merchant**, *University of California, Berkeley*

**Chair & Commentator:** **Benjamin Cohen**, *University of Virginia*

**TEACHING WOMEN, GENDER AND SCIENCE: EXTENDING THE LIMITS (F43)**

*Regency A*

**Organized by Elizabeth Green Musselman**, *Southwestern University*

**Monica H. Green**, *Arizona State University*, “The Whole Enchilada: On the Virtues of Teaching Aristotle to AIDS”

**Mara Mills**, *Harvard University*, “Teaching Feminist Science Studies After the Biological Turn”

**Susan Rensing**, *Mississippi State University*, “Teaching Women, Gender, and Science at Mississippi State”

**Grace Sirju-Charran**, *University of the West Indies*, “Content and Pedagogy of a Course on Gender and Science”

**Chair:** **Sally Gregory Kohlstedt**, *University of Minnesota*

**Friday, 3 November, 9:00 p.m. - 11:00 p.m.**

**GRADUATE STUDENT PARTY**

*Regency Foyer*

**SATURDAY, 4 NOVEMBER**

**7:30 a.m. - 8:45 a.m.**

**OSIRIS BREAKFAST**

*Tennyson*

## PSA WOMEN'S CAUCUS BREAKFAST (REGISTRATION REQUIRED)

*Balmoral*

## COMMITTEE ON MEETINGS AND PROGRAMS

*Dover*

## COMMITTEE ON RESEARCH AND THE PROFESSION

*Cavendish*

**Saturday, 9:00 a.m. - 11:45 a.m.**

**(COFFEE BREAK - EXHIBIT HALL - 10:00 A.M. - 10:15 A.M.)**

### PROBING THE WORLD WITH WAVES (SA1)

*Regency F*

**George E. Smith**, *Dibner Institute*, "Messages from the Inside of the Earth"

**Edward Jones-Imhotep**, *York University*, "Images and the Enemy:

Ionosondes and the Nature of War"

**Claire Calcagno**, *Dibner Institute*, "Sounding the Past: The Development of Sonar Surveying in Underwater Archaeology"

**Jeremiah James**, *Dibner Institute*, "Modeling and Mimesis in Early X-Ray Crystallography"

\***Chen-Pang Yeang**, *MIT/University of Toronto*, "How Much Wave Theory Did Radio Ionospheric Sensors Need?"

**Chair: Jed Buchwald**, *California Institute of Technology*

### MAKING KNOWLEDGE TRAVEL: THE CIRCULATION OF SKILLS AND INSTRUMENTS IN EARLY MODERN SCIENCE (SA2)

*Regency B*

**Jessica G. Riskin**, *Stanford University*, "Mechanical Christs, Hydraulic Brutes and the Invention of Consciousness"

**Stephane Van Damme**, *CNRS*, "Philosophical Mobility within European Capital Cities between Scientific Practices and Sociability: A Comparative Study."

\***Koen Vermeir**, *Harvard University*, "Divination and the Circulation of Contested Knowledge Claims (1690-1720)"

**Nicholas Dew**, *McGill University*, "Baroque Metrology and the Travels of the Seconds Pendulum, 1672-1726"

**Chair: Lorraine Daston**, *Max Planck Institute for the History of Science*

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**THE IMPACT OF THE GREAT WAR ON SCIENCE AND SCIENTISTS (SA3)**

*Georgia B*

\***Matthew Stanley**, *Iowa State University*, “Work of National Importance: British Science, A.S. Eddington, and Conscription in the Great War”

**Stefan Wolff**, *Deutsches Museum*, “German Physicists in World War I – The Role of Wilhelm Wien”

**Charlotte Bigg**, *Max Planck Institute for the History of Science*, “From the Belle-Epoque to the Années Folles: What Was the Impact of the First World War on the French Physical Sciences?”

**Ole Molvig**, *Yale University*, “The First World War and the Reorganization of Scientific Communication”

**Chair: Matthew Stanley**, *Iowa State University*

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**OBSERVATION AND EXPERIMENT IN THE EARLY MODERN PERIOD (SA4)**

*Regency A*

**Wilbur Applebaum**, *Illinois Institute of Technology*, “Copernicanism, Precision and Causality at the Watershed of the Scientific Revolution”

**Paolo Palmieri**, *University of Pittsburgh*, “Replicating Galileo’s Pendulum Experiments”

**Michael Nauenberg**, *University of California Santa Cruz*, “Huygens “Anomalous Suspension” Revisited”

**Yaakov Zik & Giora Hon**, *University of Haifa*, “Laying Bare the Sources of Errors: Kepler’s Optical Part of Astronomy”

**Renee Jennifer Raphael**, *Princeton University*, “Accepted by Mathematicians and Confirmed by Experiments: An Investigation of 17th-Century Attempts to Verify Galileo’s Science of Motion through Experiment”

**Chair: Jonathan Seitz**, *Drexel University*

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**MEDICINE AND PUBLIC HEALTH (SA5)**

*Regency E*

**Mary Frances Chicorelli**, *The State University of New Jersey - Rutgers*, “The Pain Paradigm: John Bonica, Ronald Melzack and Patrick Wall’s Quest to Conquer Chronic Pain”

**Aryn Martin**, *Cornell University*, “‘Nature’s Experiment’: A Genealogy of Chimeras Made and Found in 20th-Century Clinical Medicine”

**Robert N. Proctor**, *Stanford University*, “Why Have So Many Medical Historians Been Working For the Tobacco Industry As Expert Witnesses?”

And How Does Defense Expert Testimony Differ from that of Plaintiff's Witnesses?"

**Daniel Schneider**, *University of Illinois at Urbana-Champaign*, "Public vs. Private Science: Biological Sewage Treatment and the Struggle Over Patents, 1896-1937"

**Nicolas Rasmussen**, *University of New South Wales, Australia*, "Amphetamine and the Reinvention of Depression, 1935-1955"

**Chair: Cathy Gere**, *University of Chicago*

## SCIENTIFIC TRANSFER ACROSS THE SEAS (F33)

*Brighton*

**Vera Schwach**, *Norwegian Institute for Studies in Research and Higher Education Centre for Innovation Research*, "Seek a Field of Science and Find Fishes. Johan Hjort and the Emergence of Oceanography 1890-1920"

**Jennifer M. Hubbard**, *Ryerson University*, "The Canadian Fisheries Expedition 1914-1915: Johan Hjort and the Birth of a Scientific Program in Canada"

\***Mary Carmel Finley**, *University of California, San Diego*, "The Voyages of the Pacific Explorer: Oceanographic Research, Catching Fish and Making Money, 1946-48."

**Christian Jennings**, *University of Wisconsin, Stevens Point*, "Looking Forward to History of Science in Africa: A New Framework for Research and Writing"

**Chair: Helen Rozwadowski**, *University of Connecticut*

## COLD WAR ASTRONOMY (SA7)

*Plaza B*

\***David H. DeVorkin**, *Smithsonian Institution - National Air and Space Museum*, "Leo Goldberg and the Two Chinas"

**Teasel Muir-Harmony**, *University of Notre Dame*, "Tracking Diplomacy: The Smithsonian Astrophysical Observatory's Satellite Tracking Station in India"

**John Krige**, *Georgia Tech*, "Why Did the Ford Foundation Support the Creation of the European Southern Observatory (ESO) in the Early 1960s?"

**Patrick McCray**, *University of California, Santa Barbara*, "The 'Global Science-Sport' of Satellite Tracking during the IGY"

**Commentator: Robert Smith**, *University of Alberta*

**Chair: Ron Doel**, *Oregon State University*

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## NUCLEAR PERIPHERIES: CHALLENGING GEOGRAPHIC, INSTITUTIONAL AND DISCIPLINARY NARRATIVES IN NUCLEAR HISTORY (SA8)

Sponsored by the Pacific Circle Commission of the Division of History of Science and Technology

*Georgia A*

\***Jacob Darwin Hamblin**, *Clemson University*, “The Other Atomic Scientists: Oceanographers and Radioactive Waste in the Fifties”

**Gabrielle Hecht**, *University of Michigan*, “Scenes from the Nuclear Life of Radon, Set in South Africa, Australia, and other ‘Peripheries’”

**Jahnvi Phalkey**, *Georgia Institute of Technology*, “Urgent and Highly Important: The Organization of Nuclear Research in Postwar India (1946-1948)”

**Diego Hurtado de Mendoza**, *Universidad Nacional de San Martin*, “Promise and Peril of Nuclear Ambitions: Argentina during the 1976-1983 Military Regime”

**Commentator: Morris Low**, *The Johns Hopkins University*

**Chair: Roy MacLeod**, *University of Sydney*

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## LOCAL KNOWLEDGE AT THE MARGINS OF SCIENCE AND EMPIRE (SA9)

*Prince of Wales*

**Theodore Binnema**, *University of Northern British Columbia*, “Peter Fidler and Enlightenment Science in the Hudson’s Bay Company Territories, 1788-1822”

**Marianne Gosztonyi Ainley**, *University of Victoria*, “‘Marginal’ Landscapes of Science? Gender, Environments, and Colonial Encounters in Nineteenth-century Australia, Canada, and New Zealand”

**Julie Cruikshank**, *University of British Columbia*, “Melting Glaciers and Emerging Histories in America’s Far Northwest”

\***Suzanne Zeller**, *Wilfrid Laurier University*, “Wild Life: The Animal Stories of Ernest Thompson Seton (1860-1946), the Canadian North, and Post-Darwinian Biology”

**Chair: Graeme Wynn**, *The University of British Columbia*

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## ARTIFICIAL RADIATION, “NATURAL” LABORATORIES (SA34)

*Plaza C*

\***Alistair Sponsel**, *Princeton University*, “‘The Greatest Laboratory in the World’: The 1947 Scientific Resurvey of Bikini Atoll”

**Soraya de Chadarevian**, *University of Cambridge*, “Biology Under the Cloud: ‘Unplanned’ Experiments and Strategic Implications”

\***Judy Johns Schloegel**, “Nuclear Fear, the Atomic Energy Commission, and Environmental Research at Argonne National Laboratory, 1955-1975”

**Ronald Rainger**, *National Science Foundation*, “Radioactivity and Experimentation in Southern California”

**Chair and Commentator: Karen Rader**, *Virginia Commonwealth University*

**WATCHES AND APPLES, EXAMINERS AND GENES: INTERSECTIONS IN THE HISTORY OF SCIENCE, TECHNOLOGY, AND INTELLECTUAL PROPERTY (SA11)**

*Plaza A*

**Mario Biagioli**, *Harvard University*, “From Ciphers to Patents: Registering Priority Claims in Early Modern Europe”

**Kara Swanson**, *Harvard University*, “Scientific Men, Working Ladies, and the Inventive Community in the Antebellum United States Patent Office”

\***Daniel Kevles**, *Yale University*, “Policing Intellectual Property in New Fruits: The Case of the Golden Delicious Apple”

**Brendan Alexander Matz**, *Yale University*, “Hybrid Corn and Transgenic Plants: A Comparative Analysis of Intellectual Property Regimes”

**Prakash Kumar**, *Colorado State University*, “Battle Against Bt Cotton: The Principle of ‘Biological and Intellectual Commons’ in the Anti-GMO Movement in India”

**Chair: Abena Osseo-Asare**, *University of California, Berkeley*

**UNDERSTANDING OTHER NATURES: COLONIAL NATURAL HISTORY IN SPANISH PERU, FRENCH EGYPT AND BRITISH INDIA (1737-1947) (SA12)**

*Oxford*

**Jane H. Murphy**, *Princeton University*, “Eighteenth-Century Colonies, Natural History, and Old World Exploration”

**Matthew James Crawford**, *University of California, San Diego*, “The Case of Quina: Trans-Atlantic Institutions and Natural History in the Spanish Colonial Empire, 1737-1792”

**Minakshi Menon**, *University of California, San Diego*, “Colonialism and Its Forms of Knowledge: British Natural History in Late Eighteenth and Early Nineteenth-Century Colonial India”

\***John Mathew**, *Harvard University*, “Fashioning a Regional Natural History: The Fauna of British India Series”

**Chair and Commentator: Everett Mendelsohn**, *Harvard University*

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**WOMEN AND PEOPLE OF COLOR IN THE PROFESSION: PROBLEMS AND PROSPECTS (SA13)**

Sponsored by the Women's Caucus

Balmoral

**Organized by Elizabeth Green Musselman**, *Southwestern University*

**Jane R. Camerini**, *University of Wisconsin, Madison*

**Sharrona Pearl**, *Harvard University*

**Londa Schiebinger**, *Stanford University*

**Chair: Marsha Richmond**, *Wayne State University*

**12:00 p.m. - 12:30 p.m.**

**FORUM FOR THE HISTORY OF HUMAN SCIENCES (FHHS) BUSINESS MEETING**

*Regency A*

**12:00 p.m. - 1:00 p.m.**

**Don Opitz, Round Table Discussion, "Fishing for Jobs: Strategies for Making the Big Catch"**

*Regency E*

Graduate/Early Career audience

**12:00 p.m. - 1:15 p.m.**

**COMMITTEE ON FINANCE MEETING**

*Dover*

**12:00 p.m. - 2:00 p.m.**

**NOMINATING COMMITTEE MEETING**

*King George*

12:00 p.m. - 3:00 p.m.

**COMMITTEE ON PUBLICATIONS MEETING***Tennyson*

12:30 p.m. - 1:15 p.m.

**FORUM FOR THE HISTORY OF HUMAN SCIENCES DISTINGUISHED LECTURE****Jill Morawski**, *Wesleyan University*

“Experimenter, Heal Thyself: Relational Problems in the Psychology Laboratory”

*Regency A*

Saturday, 1:30 p.m. - 3:10 p.m.

**POPULARIZING THE HUMAN SCIENCES IN TWENTIETH CENTURY AMERICA (SA14)**

Sponsored by the Forum for the History of Human Science

*Regency B***Benjamin Harris**, *University of New Hampshire*, “Psychology for the Masses: John B. Watson and “Psychology Today” on the Radio (1931-1932)”**Tracy Teslow**, *University of Cincinnati*, “Reveries of Race Mixing: Travelogues, Potboilers, and Popular Anthropology”\***Nadine Weidman**, *Harvard University Extension School*, “Popularizing the Ancestry of Man: Dart, Ardrey, and the Killer Instinct”**Chair and Commentator: John Burnham**, *Ohio State University***EARLY MODERN SCIENCE AND MEDICINE (SA15)***Regency F***Lesley B. Cormack**, *University of Alberta*, “From De Sphera to De Globis: Mathematical Practice and Concepts of the Earth”**Louise Curth**, *Bath Spa University, Bath*, “Astrological Medicine in Early Modern English Almanacs”**Fokko Jan Dijksterhuis**, *University of Twente*, “The Visible World. Knowledge of Things Optical in the Dutch Republic”**Dana Jalobeanu**, *Warburg Institute, London*, “Francis Bacon’s Brotherhood and Its Classical Sources: Yates Thesis Revisited”**Chair: Margaret Osler**, *University of Calgary*

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## SCIENCE AND RACE IN THE TWENTIETH CENTURY (SA16)

Plaza C

**Michelle Brattain**, *Georgia State University*, “Redefining Race in the Post-World War II Era: Anthropology, Genetics, and the UNESCO Effort to Re-educate the Public on Race”

**Alex Csiszar**, *Harvard University*, “Joseph Deniker and the Classification of Race and of the Sciences at the Fin de Siècle”

**Lisa Gannett**, *Saint Mary’s University*, “Theodosius Dobzhansky, the Typological-Population Distinction, and the Question of Race”

**Cheryl A. Logan**, *University of North Carolina, Greensboro*, “Heredity and Race in Paul Kammerer’s Endocrine Hypothesis of Somatic Induction”

**Chair: Christopher Crenner**, *University of Kansas School of Medicine*

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## EIGHTEENTH CENTURY SCIENCE AND TECHNOLOGY (SA17)

Plaza A

**Warren Alexander Dym**, *University of California, Davis*, “The Enlightenment Underground: Dowsing and the Freiberg Mining Academy”

**Michael J. Sauter**, *Centro de Investigacion y Docencia Economicas, A. C.*, “Germans in Space: Astronomy and Anthropologie in the Eighteenth Century”

**James Sumner**, *University of Manchester*, “Liquid Assets: Beer as a Chemically-Managed Commodity, 1760-1830”

**Jeffrey R. Wigelsworth**, *Dalhousie University*, “The Natural Philosophy of Thomas Morgan (d. 1743): Deist and Overlooked Newtonian”

**Chair: Klaas van Berkel**, *University of Groningen*

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## SCIENCE AND RELIGION (SA18)

Plaza B

**Taner Edis**, *Truman State University* & **Amy Sue Bix**, *Iowa State University*, “Islamic Creationism in Turkey: Historical and Intellectual Perspectives”

**Ab Flipse**, *Vrije Universiteit Amsterdam*, “‘Not a Bastion of Unbelief’: Dutch Calvinist and Roman Catholic Scientists About Science-Religion Issues in the Early Twentieth Century”

**Ernst Hamm**, *York University*, “Science, Dissenters and the Dutch Enlightenment”

**John Stenhouse**, *University of Otago, Dunedin, New Zealand*, “‘True Knowledge’ the ‘Handmaid of True Religion’: Christian Missions and the Spread of Science, 1790-1930”

**Chair: Sara Miles**, *Eastern University (retired)*

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**DISCIPLINING THE PLANT SCIENCES: SPECIALIZATION AND ITS CONSEQUENCES (SA32)**

*Brighton*

**David Brownstein**, *University of British Columbia*, “Spasmodic Research as Executive Duties Permit’: Practice and Authority in the British Columbia Forest Branch, 1912-1925.”

**Katie R. Zimmerman**, *Oregon State University*, “A Comparative Reception of Darwin: The Botanical and Sociological Work of Lester Frank Ward”

\***Christina Matta**, *University of Wisconsin-Madison*, “Boundary Zones and Disciplinary Divides: The Fischer-Smith Debate and its Multiple Contexts”

**Chair: Will Kimler**, *North Carolina State University*

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**PHYSICS AND PHYSICISTS IN THE TWENTIETH CENTURY (SA19)**

*Grouse*

**Kai-Henrik Barth**, *Georgetown University*, “Scientists, Clerics, and Nuclear Decision Making in Iran”

**Aant Elzinga**, *University of Goteborg, Sweden*, “Einstein’s Nobel Prize. Some New Light on an Old Question”

**Marijn Johannes Hollestelle**, *Leiden Institute of Physics*, “Paul Ehrenfest as a Mediator”

**Jaume Navarro**, *University of Cambridge*, “From Father to Son. The Electron and the Thomsons”

**Chair: Spencer Weart**, *American Institute of Physics*

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**MEASUREMENT, COMPUTERS, AND TECHNOLOGY (SA20)**

*Regency A*

**Daniel Eric Crosby**, *University of California, Los Angeles*, “The Logician and the Cash Register: Alan Turing’s Material Epistemology of Minds and Machines”

**Brian R. Gaines**, *University of Calgary*, “A Critical Period in the History of the World Wide Web”

**Takushi Otani**, *Kibi International University*, “Replication and Redesign of Transistor Manufacturing Through Visual Images in Japan During the 1950s”

**Frans van Lunteren**, *Utrecht University*, “Individualism and Bureaucracy in Science: Opposing the Metric Convention”

**Chair: Peggy Kidwell**, *Smithsonian Institute*

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**COLLECTING, REPRESENTATION, AND SCIENCE (SA21)**

*Prince of Wales*

**Maura C. Flannery**, *St. John’s University, NY*, “The Work of Art: Agnes Arber as Biologist/Illustrator”

**Taika Helola**, *Cultural History, University of Turku (Finland)*, “The Truth of the Matter: Biographies of Zoological Specimens”

**Marianne Klemun**, *University of Vienna*, ““Space, State, Territory and Habitat: Alpine Gardens in the Habsburg Countries””

**Nicola Pezolet**, *Université Laval*, “Anti-Functionalism and “Nomadic Science”: Asger Jorn, Giuseppe Gallizio and the “Mouvement International pour un Bauhaus Imaginiste””

**Chair: Deborah Warner**, *Smithsonian Institution*

## GENETICS AND HEREDITY IN THE 20TH CENTURY (SA22)

*Stanley*

**Ted Everson**, *Chemical Heritage Foundation*, “Genome Research Funding and the Construction of Genetic Disease”

**Jeffrey William Lewis**, *Ohio State University*, “Scientific Fundamentalism and the Gene as Secular Soul”

**Gail Schmitt**, *Princeton University*, “Modeling Cytoplasmic Inheritance: The Debate between Ruth Sager and Nicholas Gillham”

**William C. Wimsatt**, *University of Chicago*, “Did Punnett Invent the Punnett Square?”

**Chair: Garland Allen**, *Washington University*

## SCIENCE IN VICTORIAN ENGLAND (SA23)

*Regency E*

**Ian Hesketh**, *University of British Columbia*, “The Sobel Effect, Froude’s Disease, and the Making of Un-Popular History in Mid-Victorian England”

**Rebecca Brookfield Kinraide**, *Independent Scholar*, “Converging Concepts of Utility: A New Look at Intention and Reception in the Useful Knowledge Movement”

**Iwan Rhys Morus**, *University of Wales, Aberystwyth*, “Philosophical Reflections: Optical Illusions and Knowledge-Making in Early Nineteenth Century Britain”

**Kenneth G. Valente**, *Colgate University*, ““Who Will Explain the Explanation?”: Higher Dimensional Spaces and Spiritualism in Britain, 1875-90”

**Chair: John M. Lynch**, *Arizona State University*

## GENDER AND SEX (SA25)

*Balmoral*

**Kimberly A. Hamlin**, *The University of Texas at Austin*, “Plumed Peacocks, Coy Females, and Pugnacious Men: Scientific and Popular

Responses to Darwin's Theory of Sexual Selection, 1871-1910"

**Mioara Deac**, *University of Notre Dame, Notre Dame, USA*, "Sciences of the Mind, Automatic Drawing, and Feminism in Victorian England"

**Paul Burnett**, *University of Pennsylvania*, "Pregnant Men and Extra Breasts in Women!: Sexology and Sexology Magazine, 1933-60"

**Carla Bittel**, *Loyola Marymount University*, "'The 'Sexual Science' of Mary Putnam Jacobi'"

**Chair: Joan Cadden**, *University of California, Davis*

## RENAISSANCE NATURAL PHILOSOPHY AND THE OCCULT (SA26)

*Oxford*

**Darin Hayton**, *Haverford College*, "Comets, Horoscopes and Politics at the Court of Matthias Corvinus"

**Allison Kavey**, *John Jay College*, "Desiring Subjects: The Place of Desire and Imagination in The Three Books of Occult Philosophy"

\***Sheila J. Rabin**, *St. Peter's College*, "Giovanni Pico della Mirandola and the Kabbalah"

**Chair and Commentator: Irving Kelter**, *University of St. Thomas*

**(COFFEE BREAK - EXHIBIT HALL - 3:10 P.M. - 3:30 P.M.)**

**Saturday, 3:30 p.m. - 5:30 p.m.**

## ASTROLOGY: ART, SCIENCE AND MEDICINE IN EARLY MODERN CULTURE (SA27)

*Regency A*

**Mary Quinlan-McGrath**, *Northern Illinois University*, "The Visual Arts and Astrological Practice"

**Tayra Maricarmen Lanuza-Navarro**, *Instituto de Historia de la Ciencia y Documentacion "Lopez Pinero"*, *Universitat de Valencia*, "Medical Astrology in Spain During the Seventeenth Century"

**Ana Cecilia Avalos**, *European University Institute*, "Astrology and Other Occult Sciences in Seventeenth-Century New Spain"

\***H. Darrel Rutkin**, *University of Oklahoma*, "Why Newton Rejected Astrology: A Reconstruction"

**Chair: H. Darrel Rutkin**, *University of Oklahoma*

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**COMPARATIVE PERSPECTIVES ON THE HISTORY OF ECOLOGY AND CONSERVATION BIOLOGY (SA28)**

*Plaza C*

\***Stephen Bocking**, *Trent University*, "Ecologists and the Transformation of Canadian Environmental and Resource Politics, 1950-1970"

**James Turner**, *Wellesley College*, "Thinking Big: Conservation Biology and U.S. Public Lands Advocacy, 1975-2000"

**Peter S. Alagona**, *Harvard University*, "The Mojave Desert Tortoise Industry: From Wildlife Management to Conservation Biology in the New Southwest"

**Libby Robin**, *Australian National University*, "Science for a Country in Crisis: Conservation Biology in Australia 1950-2006"

**Chair: Stephen Bocking**, *Trent University*

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**LANGUAGE, LOGIC AND THE STRUCTURE OF THE UNIVERSE (SA29)**

*Regency B*

**Kevin Lambert**, *Cornell University*, "Maxwell's Method and Boole's Analogy: Or Why George Boole's Logic was Important for James Clerk Maxwell's Theoretical Practice."

**Michael E. Hobart**, *Western Washington University*, "The Zodiac of the Syllogism: Symbol and Meaning in the World of Augustus De Morgan"

\***Joan L. Richards**, "From Matter to Spirit: Language and Meaning in the World of Sophia De Morgan"

**Chair & Commentator: Norton Wise**, *University of California at Los Angeles*

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**MICROBIOLOGY, GENERAL BIOLOGY, AND MASS PRODUCTION AROUND 1900 (SA30)**

*Regency F*

**Christina Brandt**, *Max Planck Institute for the History of Science, Berlin*, "From Plant Breeding to the Laboratory: Clones, Pure Lines and Mass Production in early 20th-Century Botany and Protozoology"

**Maureen O'Malley**, *University of Exeter*, "'Everything is Everywhere': Beijerinck, Baas-Becking and Microbial Ecology"

\***Staffan Mueller-Wille**, *University of Exeter*, "Plant Breeding, Microbiology, and Biochemistry at the Carlsberg Laboratory (Copenhagen): Wilhelm Johannsen's Formative Years 1881-1892"

**Chair: John Dupre**, *University of Exeter*

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## THE RELATIONS OF NATURAL PHILOSOPHY, MEDICINE AND ENGINEERING: A NEW LOOK AT BOUNDARIES AND PRACTICE IN THE FIRST INDUSTRIAL REVOLUTION (SA31)

*Balmoral*

\***David Philip Miller**, *The University of New South Wales*, "Seeing the Chemical Steam for the Historical Fog: James Watt as Chemist"

**Trevor Levere**, *University of Toronto*, "Dr. Thomas Beddoes, James Watt, and Their Collaboration in Pneumatic Medicine"

**Larry Stewart**, *University of Saskatchewan*, "Industrialists and Instruments in the Late Eighteenth Century"

**Chair: Jan Golinski**, *University of New Hampshire*

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## USEFUL KNOWLEDGE, 1750-1850: FROM SPECULATION TO EVALUATION (SA33)

*Plaza B*

**Frédéric Graber**, *Centre Alexandre Koyré*, "Knowledge as a Decision-Making Tool - Levelling in France at the Turn of the Nineteenth Century"

\***Anna Maerker**, *Max Planck Institute for the History of Science*, "Making Natural Philosophy Useful: The Case of Kant's Natural History of the Heavens"

**Carsten Reinhardt**, *University of Regensburg*, "Knowledge as Expertise. The Interactive Development of Analytical Chemistry and the Juridical System in Germany, ca. 1850"

**Chair & Commentator: Peter Dear**, *Cornell University*

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## AT THE EDGE OF INSTRUMENT STUDIES: ALTERNATE PRACTICES AND INTERPRETATIONS IN THE HISTORY OF INSTRUMENTS IN SCIENCE (SA10)

*Prince of Wales*

\***Janet Vertesi**, *Cornell University*, "Images of Instruments: The Visual Rhetoric of Virtual Witnessing in Hevelius' Organographia"

**Boris Jardine**, *University of Cambridge*, "Darwin's Microscopes: Theory, Practice and Reputation"

**Chitra Ramalingam**, *Harvard University*, "Sparks, Striations, and Radiant Matter - Inside the Early Vacuum Tube"

**Chair: Janet Vertesi**, *Cornell University*

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## ANATOMY IN CONTEXT (SA36)

*Plaza A*

**Domenico Bertoloni Meli**, *Indiana University*, "Anatomists and Mathematicians"

**Jutta Schickore**, *Indiana University*, “Anatomy and Astronomy: Ernst Heinrich Weber on the Blood of the Lymph”

\***Anita Guerrini**, *University of California, Santa Barbara*, “Anatomy as Natural History: Perrault, Duverney, and the ‘Histoire des Animaux’”

**Lucia M. Tanassi**, *Vanderbilt University Medical Center*, “Anatomy Biopolitics: Plastination between Dismemberment and Performance”

**Chair: Jole Shackelford**, *University of Minnesota*

### SCIENCE PEDAGOGY (SA37)

*Brighton*

**Adam R. Shapiro**, *University of Chicago*, “The American Textbook Industry and the Roots of the Anti-Evolution Movement”

**Catherine Lange**, *State University of New York at Buffalo*, “Iconic Science Heroes as Models for the Pedagogical Use of the History of Science: Thomas Edison and Wilson Greatbatch”

**Johan Hendrik De Klerk**, *North West University, Potchefstroom, South Africa*, “History of Mathematics and Technology as Motivational Tools in Teaching Mathematics”

**Margaret Ursula Chmiel**, *University of Wisconsin-Madison*, “When Science Became a Sputnik: The Crises and Criticism of Secondary Science Educators 1943-63”

**Chair: Douglas Allchin**, *University of Minnesota*

### SCIENCE IN THE MARKETPLACE: SCIENTISTS, BUSINESS, AND THE AMERICAN PUBLIC (SA38)

*Regency E*

\***Megan Barnhart**, *University of California, Los Angeles*, “Selling the International Control of Atomic Energy: The Scientists’ Movement, the Advertising Council, and the Public”

**Matthew Howard Hersch**, *University of Pennsylvania*, “Geeks in Space: Selling America’s Scientist-Astronauts, 1965-1982”

**Katie Proctor**, *Cornell University*, “Selling American Optics: Clark Telescopes and the Uses of Science”

**Commentator: John Carson**, *University of Michigan*

**Chair: Sarah Igo**, *University of Pennsylvania*

### HISTORICIZING ‘PSEUDOSCIENCE’ (SA39)

*Oxford*

**Christina Wessely**, *University of Vienna*, “Fictional Objectivity. The ‘Cosmic Ice Theory’ 1894-1945”

**Veronika Lipphardt**, *Humboldt University Berlin*, “The ‘Black Sheep’ of Bio Sciences: Marginalizations and Rehabilitations of Race Science”  
**Achim Trunk**, *University of Cologne, Germany*, “A Triple ‘Pseudo’ Project? Non-Existent Enzymes as Tools in Racial Research Conducted on Auschwitz Inmates”  
**Chair & Commentator** : \***Mitchell Ash**, *University of Vienna*

Saturday, 6:30 p.m. - 7:30 p.m.



**HISTORY OF SCIENCE SOCIETY  
DISTINGUISHED LECTURE**  
Supported by the Joseph H. Hazen  
Foundation  
*Georgia A & B*

**Richard W. Burkhardt Jr.**  
*University of Illinois Urbana-Champaign*  
“The Leopard in the Garden: Life in  
Close Quarters at the Muséum d’Histoire  
Naturelle”

(Introduction by **Garland Allen**,  
*Washington University, St. Louis*)

7:30 p.m. - 8:30 p.m. - Cash Bar Reception

*Plaza Foyer*

8:30 p.m. - 10:00 p.m.

**HISTORY OF SCIENCE SOCIETY AWARDS BANQUET**  
*Plaza Ballroom*

## SUNDAY, 5 NOVEMBER

8:00 a.m. - 9:00 a.m.

**HISTORY OF SCIENCE SOCIETY BUSINESS MEETING**

All members welcome to attend

*Lord Byron*

Sunday, 9:00 a.m. - 11:45 a.m.

**(COFFEE BREAK- EXHIBIT HALL - 10:00 A.M. - 10:15 A.M.)****MEDICINE, MATTER-THEORY, AND ASTRONOMY BEFORE 1650 (Su1)***Georgia B***Arianna Borrelli**, *Max Planck Institute for the History of Science*, “Non-verbal Modes of Communication in Latin High Medieval Mathematics”**Frederick W. Gibbs**, *University of Wisconsin, Madison*, “The Natural Philosophy of Poison: New Theoretical Approaches to the Study of Toxins in the Latin West”**David P.D. Munns**, *Imperial College London*, “The Challenge of Variations: The Observational Traditions of Ptolemy and Aristotle, and Copernicus’ Heliocentric Solution.”**Abdelhamid I. Sabra**, *Harvard University*, “The Simple Ontology of Islamic Kalam Atomism”**Chair: TBD****COOPERATION, COMPETITION, AND EMULATION: NINETEENTH-CENTURY FRENCH OBSERVATORY SCIENCES IN INTERNATIONAL CONTEXT (Su2)***Georgia A***Fabien Locher**, *Institut National de la Recherche Pédagogique*, “The Landed Ship and the Crusade: International Cooperation and Competition in Meteorology and Geomagnetism (1830-1850)”**Laetitia Maison**, *Natural History Museum (Lyon, France)*, “A Model for Reorganizing French Meteorology? Alfred Angot’s Tour of U.S. Observatories in 1875”**Jérôme Lamy**, *Observatoire de Paris*, “Coordinating and Adjusting Astronomical Practices: The ‘Carte du Ciel’ Undertaking at the Turn of the 20th Century”



**Arnaud Saint-Martin**, *Université Paris-Sorbonne*, “The New Astronomical Eldorado: The French Look at American Astrophysics, 1900-1920”

**Chair & Commentator:** \***David Aubin**, *Université Pierre et Marie Curie*

### COGNITION AND HISTORY: THREE RESPONSES TO *THE COGNITIVE STRUCTURE OF SCIENTIFIC REVOLUTIONS* (Su3)

*Balmoral*

**Nancy Nersessian**, *Georgia Institute of Technology*, “Does Cognition Matter to History?”

**Robert S. Westman**, *University of California, San Diego*, “Cognizing the Copernican Revolution”

**William Bechtel**, *University of California, San Diego*, “Concepts, Perceptual Symbols, and the Cognitive History of Science”

**Hanne Andersen**, *University of Aarhus, Denmark*, “Philosophical Themes in *The Cognitive Structure of Scientific Revolutions*: A Response to Westman, Bechtel and Nersessian”

**Peter Barker**, *University of Oklahoma*, “Historical Themes in *The Cognitive Structure of Scientific Revolutions*: A Response to Westman, Bechtel and Nersessian”

**Chair:** \***Xiang Chen**, *California Lutheran University*

### MADE IN JAPAN? A CONSTRUCTIVIST INQUIRY INTO EAST ASIAN SCIENCE (Su4)

*Plaza B*

\***Alexander R. Bay**, *Stanford University/Chapman University*, “Beriberi, Barley, and Tools of Empire: Military Medicine in China and Korea”

**Sumiko Otsubo**, *Metropolitan State University*, “Emperor, Family, and Modernity: The Passage of the National Eugenics Law in 1940”

**James Bartholomew**, *Ohio State University*, “Uniqueness or Particularity in Modern Japanese Science: Two Examples”

**Akihito Suzuki**, *Keio University*, “Medicine, Climate, and Global Immigration in the Japanese Empire 1930-1945”

**Commentator:** **Brett Walker**, *Montana State University*

**Chair:** **James Bartholomew**, *Ohio State University*

### BEYOND EXCELLENT ADVENTURES: PERSPECTIVES ON THE CONSTRUCTION OF SCIENTIFIC EXPLORATION (Su5)

*Regency B*

\***Matthew Shindell**, *University of California, San Diego*, “‘To Hell with the Moon’: Harold Urey, Expertise, and Scientific Exploration”

**Peder Roberts**, *Stanford University*, “The Norwegian-British-Swedish Antarctic Expedition and the Making of Modern Scientific Internationalism”

**John G. Cloud**, *NOAA Central Library*, “‘The Far Away Nearby’: Situating Exoticism in 20th Century Ocean Exploration”

**Rachel Koroloff**, *Oregon State University*, “Descriptions of Kamchatka: Stepan Krasheninnikov, Georg Wilhelm Steller and Russia’s Eighteenth-Century Naturalist Tradition”

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

### EXPLORING BIOGRAPHY: APPROACHES TO ‘LIVES IN SCIENCE’ (Su6)

*Regency F*

\***Lloyd Ackert**, *Yale University*, “Parallel Biography: Ferdinand Cohn Versus Louis Pasteur on Bacterial Speciation, 1850-1870”

**Michael D. Gordin**, *Princeton University*, “Serial Biography: The Life and Death of a Journal and the Birth of National Styles”

**Neeraja Sankaran**, *University of Wisconsin, Eau Claire*, “Autobiography: Insights from F.M. Burnet’s Ego-Documents in Reconstructing His Investigative Pathway in Bacteriophage Research, 1924-1937”

**Nathaniel Comfort**, *Johns Hopkins University*, “Biographies of the Living and Near-Living”

**Chair & Commentator: Janet Browne**, *Harvard University*

### THE CONTROL OF A HEALTHY SOCIETY: INSTITUTIONALIZING STATISTICS IN THE 19TH CENTURY (Su7)

*Plaza C*

**Andrea Rusnock**, *University of Rhode Island*, “Counting in the Clinic: Medical Statistics and Hospital Medicine”

**Gabriel K. Wolfenstein**, *University of California, Los Angeles*, “Recounting the Nation: The General Register Office and Victorian Bureaucracies”

\***Ida H. Stamhuis**, *Free University Amsterdam*, “Why No Dutch Statistical Society after the Establishment of Central Official Statistics?”

**Chair and Commentator: Theodore Porter**, *University of California, Los Angeles*

### SCIENCE FRICTION? PHYSICS MEETS ASTRONOMY OVER THE LONGUE DUREE (Su8)

*Regency A*

**Richard Staley**, *University of Wisconsin, Madison*, “Relative Measures, Absolute Standards and the Perfect Laboratory”



**Peter Susalla**, *University of Wisconsin, Madison*, “Conflict or Consensus? The Neglected Middle Ground between ‘Old’ and ‘New’ Astronomy, 1890-1910”

**Daniel Kennefick**, *University of Arkansas and Einstein Papers Project, Caltech*, “Pushing the Limits: Looking for Gravitational Waves in the Post-Newtonian Approximation, 1945-1965”

**David Kaiser**, *MIT*, “When Fields Collide: Training and the Birth of Particle Cosmology”

**Commentator: Joann Eisberg**, *Chaffey College*

**Chair: Suman Seth**, *Cornell University*

## GLOBALIZING KNOWLEDGE: THE SOUTH-NORTH SCIENTIFIC RELATIONS (Su9)

*Oxford*

\***Alexis De Greiff**, *Universidad Nacional de Colombia*, “A Critical Appraisal of the Historiography of the North-South Technoscientific Relations”

**Shawn Mullet**, *Harvard University*, “Institutionalizing Brazilian Science: North American Models and the Formation of the CNPq”

**Monica Garcia**, *University of Edinburgh*, “Finitism and Medical Knowledge: Reconfiguration of French Theories of Fevers in Colombia, 1860-1900”

**Juan Andrés Leon**, *Harvard University*, “Worldwide: The Snake Venom Specificity Debates, 1890-1912”

**Commentator: Thomas Glick**, *Boston University*

**Chair: Alexis De Greiff**, *Universidad Nacional de Colombia*

## MOBILIZING YOUTH FOR SCIENCE IN THE TWENTIETH-CENTURY U.S. AND SOCIALIST CHINA (Su10)

*Brighton*

**Aaron Alcorn**, *Case Western Reserve University/National Air and Space Museum*, “‘Educating for the Air Age: Toys, Technology, and Textbooks.’”

**Larry Owens**, *University of Massachusetts, Amherst*, “Science Fiction and the Mobilization of Youth in the Cold War”

\***Sigrid Schmalzer**, *University of Massachusetts, Amherst*, “Youth and the ‘Great Revolutionary Movement’ of Scientific Experiment in Socialist China”

**Ralph Richard Hamerla**, *University of Oklahoma*, “The Historian of Science and Political Realities”

**Commentator: David Rhees**, *The Bakken Library and Museum*

**Chair: Sigrid Schmalzer**, *University of Massachusetts, Amherst*

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**(RE)PRODUCING 'MONSTERS': OLD AND NEW WORLD INTERPRETATIONS OF ABNORMAL BIRTHS DURING THE LATE SEVENTEENTH TO EARLY NINETEENTH CENTURIES (Su11)**

*Prince of Wales*

\***Margaret D. Garber**, *California State University Fullerton*, "Terror and Fantasy: Generating Facts of 'Monstrous' Births in the Journal of the Academy of the Investigators of Nature (1670-1700)."

**Adam Warren**, *University of Washington*, "'Monsters' and Their Meanings in Colonial Peru: An Examination of the Birth of Conjoined Twins in 1694."

**Sean M. Quinlan**, *University of Idaho*, "Monstrous Births, Medical Networks, and Obstetrical Authority in France, ca. 1780-1820"

**Chair: Margaret D. Garber**, *California State University Fullerton*

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**OBJECTS, IMAGES, AND CONSTRUCTS IN LIFE SCIENCES PEDAGOGY (Su12)**

*Plaza A*

**Sara T. Scharf**, *IHPST, University of Toronto*, "Training the Mind's Eye with Identification Keys"

**Dawn Mooney Digrius**, *Drew University*, "Imag(in)ing Paleobotany: The Internal Structure Debates, 1868-1895"

\***Ruthanna Dyer**, *York University*, "The Blaschkas' Glass Invertebrates in Early Biology Education"

**John L. Rudolph**, *University of Wisconsin-Madison*, "Epistemologies in Conflict: Scientific Supply Companies and the Biology-Education Reforms of the 1960s"

**Chair: Sophie La Chappelle**, *University of Guelph*

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**LIES, DAMN LIES, AND THEIR CHARACTERISTICS (Su13)**

*Regency E*

**Ken Alder**, *Northwestern University*, "Technology as Performance"

**Londa Schiebinger**, *Stanford University*, "Agnotology and Colonial Science"

\***Laura Stark**, *Northwestern University*, "Observing and Deceiving: The Science and Ethics of Research Methods, 1966-1973"

\***Alison Winter**, *University of Chicago*, "A Science of Expectation: Martin Orne and the Invention of 'Demand Characteristics' in the Design of Psychological Experiments"

**Chair and Commentator: Matt Wisnioski**, *Washington University*

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**Sunday, 10:00 a.m. - 12:00 p.m.**

**INTERNATIONAL UNION FOR THE HISTORY OF PHILOSOPHY OF SCIENCE CONSORTIUM**

*Lord Byron*