

HSS 2001



Preliminary Meeting Program

Thursday, 8 November, 2001

5:00 TO 7:00 p.m.

PLENARY SESSION:

*2001: A History Odyssey:
Science Fiction and the History of Science*

James Gilbert (University of Maryland), "Popularizing Darwinism"

Steven Dick (U.S. Naval Observatory), "The Biological Universe and Science Fiction"

Mark Adams (University of Pennsylvania), "2001: The Visionary Roots of Arthur C. Clarke"

Friday, 9 November, 2001

9:00 to 11:45 a.m. (* indicates Session Organizer)

1. *Practical Mathematics, Mixed Mathematics and Natural Philosophising in the Early 17th Century: Boundaries, Articulations and Power Plays*

***Schuster, John**, "Hydrostatics, Physico-Mathematics and the Origins of Micro-Mechanism: Or What Rene and Isaac Did in 1619."

Gaukroger, Stephen, "The Idea of a Mathematical Physics in the Early Seventeenth Century"

Neal, Katherine, "Putting Astrology and its Patrons in their Place: Professor Henry Briggs, Sir Christopher Heydon and King James on Astrology, Astronomy and Mathematics"

Boschiero, Luciano, "The Beginnings of Post-Galilean Natural Philosophical Thought: 1638-1647"

Commentator: Applebaum, Wilbur

Chair: TBA

2. *Rectifying Names, Identifying Things: Philology and Natural History in Germany and China*

Phillips, Denise, "The Generality of Language and the Particularity of Nature: Natural History and *Bildung* in Germany, 1815-1850"

Nappi, Carla, "The Name of the Rose: Naming and the Classification of Nature in the *Bencao gangmu*"

Cooper, Alix, "Latin Words, Vernacular Worlds: Language and Environment in Early Modern German Natural History"

Preliminary Meeting Program (* indicates Session Organizer)

2. *Rectifying Names, Identifying Things: Philology and Natural History in Germany and China* (continued)

***Shen, Grace**, "Making History Natural: Writing 20th century vernacular into 17th century travels"

Commentator: Grafton, Anthony

Chair: Elman, Benjamin

3. *Theory Constructions: The Rise of Theoretical Disciplines in the Early 20th Century*

Laubichler, Manfred, "The *Fin-de-Siecle* Origins of Theoretical Biology"

***Seth, Suman**, "When is a Crisis not a Crisis?: Theoretical Physics in the *Fin-de-Siecle*"

Ruehl, Martin, "The Use and Disadvantage of Theory: Rickert, Dilthey and the Crisis of Historicism at the *Fin-de-Siecle*"

Lanzoni, Susan, "Forging a Foundational Psychology: Ludwig Binswanger's Turn to Phenomenology"

Commentator: Wise, Norton M.

Chair: TBA

4. *Biology in the Public Eye: Authority, Science, and Politics in the Cold War*

***Selya, Rena**, "The Microbiologist and His Times: Salvador Luria and the Anti-Vietnam War Movement"

Wolfe, Audra, "Science and Liberty for All: The Biological Sciences Curriculum Study"

Jolly, Christopher, "Linus Pauling's Influence on the Scientific Debate over Fallout Hazards"

Harman, Oren, "C. D. Darlington and the Anglo-American Response to the Lysenko Affair"

Chair: Mendelsohn, Everett

5. *Cultures of Display: Science and the Visual in Victorian Britain*

Bellon, Richard, "George Bentham Visits the Crystal Palace"

Waller, John, "Looking the Truth in the Face: Francis Galton and the Criminal Physiognomy"

***Alberti, Sam**, "*Conversaciones* and Science in Provincial England"

Commentator: Gooday, Graeme

Chair: TBA

6. *National Scientific Identity in 18th-Century Britain and America*

Grau, Kevin, "Station to Station: Articulating Identity and Nation in 18th-Century British Science"



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6. National Scientific Identity in 18th-Century Britain and America (continued)

Drake, James, "Appropriating a Continent: Natural Science, Geographical Categories, and Anglo-American Identity in the Eighteenth Century"

McKenzie, Matthew, "Redefining Science in Local Terms: Navigational Science and Centers of Calculation in New England, 1760-1800"

Meredith, Margaret, "The Power and Problem of Authority: Early American History in a Trans-Atlantic Context"

Lindsay, Debra, "Paleontology: 'Canadian' fossils / American Science"

Chair: TBA

7. Evolutionary Theory in Mind, Body and Society

Cheung, Tobias, "Uncertain Organisms: The Struggle for Identity in Cuvier's Comparative Anatomy"

Alter, Stephen, "Darwin on Unconscious Development in Mind and Language"

Regal, Brian, "Racing Out of Central Asia: Henry Fairfield Osborn and the Origins of Man"

Shavit, Ayelet, "Evolutionary models resonate with social shifts"

Vetter, Jeremy, "Getting into the Field: Transportation Networks, Colonial Infrastructure and the Making of Anthropological Knowledge in the Nineteenth Century"

Chair: TBA

Friday, 9 November, 2001

12:30 to 1:30 p.m.

FORUM FOR THE HISTORY OF SCIENCE IN AMERICA DISTINGUISHED HISTORIAN LECTURE:

Balancing Acts

Sally Gregory Kohlstedt, University of Minnesota

Friday, 9 November, 2001

1:30 to 3:10 p.m.

1. Experimental Design, Experimental Practice

Dettloff, John, "Material Culture and Experimental Practice in the Enlightenment Laboratory"

Harvey, Joy, "Dr. Mary Putnam Jacobi and the Forbidden Experiment"

Hall, Nancy, "Sir Ronald Fisher and Randomized Experimental Design"

Otis, Laura, "Müller's Lab: The Struggle for Personal Space"

Chair: TBA

2. Science and War

Dow, Michael, “MIT’s new Masque of Power: Scientific Authority in the Service of the Cold War State”

Girard, Marion, “Chemical Warfare Scientists in 1914-1918 Britain: Servants to the War Effort?”

Nelligan, James, “Reimagining Anthrax: Science, Perception and the Construction of Biological Threat”

Van Berkel, Klaas, “The Fruits of War. Dutch science under German occupation, 1940-1945”

Chair: TBA

3. Visualizing Nature

Brownstein, Daniel, “Mapping Bodies and Spaces in Early Modern Italy”

Geimer, Peter, “Noise or Nature? Photographing the Invisible around 1900”

Golan, Tal, “Visuality and Authority: Machines as Eye-Witnesses”

Jones-Imhotep, Edward, “Imag(e)ining the Laboratory: post-war ionospheric research and the panoramic ionogram”

Chair: TBA

4. Science off the Beaten Path: Magic, Vampires, Spirits and Physiological Sciences

Mazzotti, Massimo, “The Natural Philosophy of Vampires”

Hochadel, Oliver, “Science for the Public: Natural Magic in the Enlightenment”

Croce, Paul, “In Search of William James’s Medical Thesis: Physiological Science and Water-Cure Therapies”

Lachapelle, Sofie, “When Faith was not Enough: The Scientific Study of the Afterlife in France, 1880-1910”

Chair: TBA

5. Breaking Traditions in the Heavens: Theory, Practice and Popular Perception

Vanden Broecke, Steven, “On the natural-philosophical and textual problems of late Renaissance Astrology”

Bandyopadhyay, Prasanta, “Traversing the Path of Kepler’s Elliptical Orbit: A Close Look at the New Astronomy”

Saridakis, Voula, “Who was Elisabetha Hevelius? ‘Domestic’ Astronomy in the Early Modern Period”

Levitt, Theresa, “No More Magic Moonbeams: Astronomy as Public Science in Nineteenth-Century France”

Chair: TBA

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6. Uses and Abuses of History of Science

Kipnis, Nahum, "Unappreciated Discoveries: How to deal with them?"

Chimisso, Cristina, "Historical epistemology or Total History? Georges Canguilhem's Approach to the History of the Sciences"

Shermer, Michael, "Stephen Jay Gould as Historian of Science: A Quantitative Content Analysis of His Works"

Chair: TBA

7. Creating Natural Knowledge

Gerson, Elihu, "The Origins of Natural History"

Crowther-Heyck, Kathleen, "Reforming Nature: Natural Knowledge in the Vernacular Print Culture of Sixteenth-Century Germany"

Jamison, Andrew, "Hybrid Identities in the Making of Western Science"

Flannery, Maura, "The Legacy of Francis Lee Jaques: Dioramas in the 20th Century and Beyond"

Chair: TBA

8. Sex differences, Aging, and Therapeutics

Pearl, Sharrona, "Sensational Science: Men, Women, and Mesmerism in Wilkie Collins' *A Woman in White* and *The Moonstone*"

Levens, Joshua, "Sexual Arousal and the CNS: the Contributions of W. Horsley Gantt and Frank A Beach"

Goodfellow, Sarah, "Menopause: Hers and His? Medical Visions of the Climacteric in the Latin 19th Century"

Watkins, Elizabeth, "Science Confronts Aging: The Case of Hormone Replacement Therapy"

Chair: TBA

Friday, 9 November, 2001

3:30 to 5:30 p.m.

1. Building the Next Big Machine

***McCray, Patrick**, and ***Smith, Robert**, "Seeing the Future: The Origins of the Next Generation Space Telescope"

Paris, Elizabeth, "A Laboratory Life: Making Lemonade in High Energy Physics"

Collins, Harry, "Growing Pain: Scientific Knowledge and Organisational Change in Path Breaking Research"

Fitzpatrick, Anne, "The Next Big Simulation: Computers in the Nuclear Arms Race"

Chair: Westfall, Catherine

2. Beyond Cold War Borders: Examining the Politics of Science in International

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Affairs

Doel, Ronald, "U.S. Science Attaches in the Early Cold War: A Comparative International Perspective"

Krige, John, "Philanthropy and the National Security State: The Ford Foundation's Support for European Physics in the late 1950's"

Kimmelman, Barbara, "Regulation and Debate in International Agricultural Industries: The Case of Antibiotic Feed Additives In the U.S. and U.K."

***Barth, Kai-Henrik**, "Transnational Science, International Affairs: Scientists and Arms Control Initiatives in the 1980s"

Chair: Weart, Spencer

3. *Heroes and Anti-Heroes: Public Images of the Victorian Man of Science*

Secord, James, "Crowds and Celebrities: Faces of Knowledge in the Pictorial Press"

Secord, Anne, " "Be what you would seem to be": Samuel Smiles, Thomas Edward, and the Making of a Working-Class Scientific Hero"

***Lightman, Bernard**, "Scientists as Anti-Heroes: Materialism and Tyndall's Belfast Address"

Chair and Commentator: Kohlstedt, Sally

4. *Daily Life in 19th-Century European Science*

Geison, Gerald, "Daily Life in Pasteur's Scientific Enterprise"

Cahan, David, "Habits of the Eye and Mind: Helmholtz as a Private Man"

***Finkelstein, Gabriel**, "'The more civilized a nation is, the smaller the rooms': Daily Life through the Eyes of Emil du Bois-Reymond"

Chair and Commentator: Levine-Clark, Marjorie

5. *Party Man, Opportunist, Independent Thinker: The Careers of Three Physicists in Communist East Germany*

Hoffmann, Dieter, "The Life After: Klaus Fuchs in East Germany"

Walker, Mark, "Friedrich Möglich: A Scientist's Journey from National Socialism to Communism"

***Augustine, Dolores**, "Werner Hartmann: An East German Physicist's Fall from Grace"

Chair and Commentator: Kojevnikov, Alexei

6. *Ulterior Motives in Science Inquiry*

***Stocking, George**, "A.I.Hallowell's Boasian Evolutionism: Human Ir/Rationality in Cross-Cultural, Evolutionary, and Personal Context"

Richards, Robert, "The Erotic Sources of Goethe's Science"

6. *Ulterior Motives in Science Inquiry (continued)*

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Lustig, Abigail, "Erich Wasmann's Catholic Evolutionism"
Chair and Commentator: Brain, Robert

7. *Landscapes of Colonial Knowledge: Representing Malaria in Europe, Jerusalem and North Africa*

***Haynes, Douglas**, "Theater of Malaria: Demonstrating Transmission in Rome and London"

Sufian, Sandy, "Mapping the Marsh: Malaria and the Sharing of Medical Knowledge in Mandatory Palestine"

Osborne, Michael, "French Colonial Medicine in the Nineteenth Century"

Chair: Castonguay, Stephane

8. *Climate and Culture: Contexts, Concepts, and Choices*

Garber, Margaret, "Airs and the *Ars Chymia* : Early Modern Physico-Chymical Concepts of Atmospheric Events"

Greene, Mott, "Attitudes Concerning Latitudes: The Origin and Early Evolution of the *Köppen-Zone* System of Climate Classification"

Kim, Sang-Hyun, "Computing Global Climate Change: The Early Development of General Circulation Models (GCMs) in Britain"

Commentator: *Fleming, James

Chair: Rainger, Ronald

Friday, 9 November, 2001

Evening Workshops: 7:30 to 9:00 p.m.

1. *Committee on Education Workshop*

Harden, Victoria, "Academic assignments that train historians for public history careers"

Lassman, Tom, "What I learned and wished I had learned in my graduate program in the history of science"

Porter, Theodore, "Growth of HSTM faculty within a general history department"

Servos, John, "What a liberal arts college is looking for in an HSTM faculty member"

2. *Issues in Ecology and Environmentalism*

Bunner, Patricia, "John Bartram and His Contribution to the Theory of Ecological Succession"

Ackert, Jr., Lloyd, "From 'Cycle of Life' to 'Microbiological Ecology, 1890-1930"

Madison, Mark, "From Essential to Endangered: The Species Question in Conservation Biology"

Chair: TBA

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3. *Science in a Warm Climate: Three Case Studies in Tradition and Innovation*

Ochs, Kathleen, "The Hula and the War Bonnet: Science or Knowledge about Nature in Traditional Oral Societies"

Penyak, Lee, "Obstetrics and the Inclusion of Women in Mexico's Medical Establishment, 1850-2000"

Catania, Basilio, "Antonio Meucci: How Electrotherapy Gave Birth to Telephony"

Chair: TBA

4. *Science and Society in America*

Gumienny, Kevin, "An Irreligious Philosopher Must be Mad': Public Lectures on Natural Philosophy and the Experiences of Captain John MacPherson in 18th-Century Philadelphia"

Krupar, Jason, "From Inner-Space to Outer Space: T. Keith Glennan and the Science Managers of the Early Cold War"

Walls, Laura, "Cultivating Truth: Ralph Waldo Emerson's Life in Science"

Chair: TBA

Saturday, 10 November, 2001

9:00 to 11:45 a.m.

1. *Ecology and the Social Order*

***Cittadino, Gene**, "Ecology on Trial: East Meets West on the Texas-Oklahoma Border"

Cameron, Laura, "(Un)orthodox Ecologies: Succession and Social Order in the Works of Marietta Pallis"

Potthast, Thomas, "Ethology Goes Environmentalist: Konrad Lorenz' Ecological Politics"

Anker, Peder, "From Bauhaus to Animal House: Towards a History of Ecological Architecture"

Commentator: Pauly, Philip

Chair: Cittadino, Gene

2. *Quantification and Modeling in Science and Society*

Zuidervart, Huib J., "Limits on expectations: Quantification, instrumentation and organisation in 18th century meteorology"

Maas, Harro, "Mimetic experiments: Stanley Jevons' construction of evidence for theories"

***Stamhuis, Ida**, " 'Biologists, not applied statisticians,' statistics and genetics at the beginning of the 20th century"

2. *Quantification and Modeling in Science and Society (continued)*

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de Gans, Henrik, "Modeling in applied population forecasting prior to World War II"
van den Bogaard, Adrienne, "The emergence of the aggregate variable 'Consumption' and its measuring method, 1920-1955"
Chair: Stamhuis, Ida

3. *Race, Class, and Gender in Victorian Britain*

Rozwadowski, Helen, " 'We Must Not Forget the Women': Involvement of Women in Victorian Marine Science"
***Reidy, Michael**, " 'Scientists' and 'Subordinate Labourers': Class and the Creation of Victorian Science"
Green-Musselman, Elizabeth, "Race and Science: Cape Colony Natural History as Hybrid Knowledge"
Opitz, Donald, " 'Behind folding shutters of Whittingehame House': managing natural history and domesticity at the country estate after the professional turn"
Commentator: Camerini, Jane
Chair: Reidy, Michael

4. *'Mathematization' Reconsidered: What to Do with Mathematics in the Scientific Revolution*

Galle, Karl, "Nuremberg and *De revolutionibus*: Reflections on the Biography of a "Mathematical" Community"
***Sepkoski, David**, "Mathematization and the 'Language of Nature' in the 17th Century"
Henninger-Voss, Mary, "Looking High and Low for a New Philosophy: Mathematics and the Early Modern Print Market"
Shank, J.B., " 'There was no such thing as the Newtonian Revolution and the French Initiated It: Newtonian Mechanics in France Before Maupertuis"
Chair and Commentator: Dear, Peter

5. *Practicing the Human Sciences in Fin-de-Siècle France*

***Barberis, Daniela**, "Durkheim, philosophers, and the moral guidance of the French public"
Schroeder, Iris, "When Natural Space Meets Social Theory: The Circulation of Friedrich Ratzel's Models of Space in French Sociology, History, and Human Geography around 1900"
Norris, Katharine, "Dangerous minds? The Science of Children's Lies in *Fin-de-Siècle* France"
Chair and Commentator: Brooks III, John

6. *Extended Organisms: Brains, Mind, and Artificial Intelligence*

Crowther-Heyck, Hunter, "Mind and Network"
Dror, Otniel, "The Brain as Technology"
Wisnioski, Matthew, "Playing Games: Chess, Automata, and Artificial Intelligence"
November, Joseph, "The Organism as Tape: Information Theory, Cybernetics, and the One-Dimensional Model of the Gene"
LeBlanc, André, "From Pascal to Hacking: Discourses Concerning the Machine"
Chair: TBA

7. Revising Standard Histories

Cohen, Benjamin, "The Element of the Table: Classifying Chemical Knowledge, from Affinity to Periodicity"
Harrison, Peter, "Voluntarism and Early Modern Science"
Hook, Ernest, "Different Voices were heard: Geneticists' views in the 1930s and 1940s on the consequences of race crossing"
Lewis, Jeffrey, "Biochemistry with a License: Tobacco Mosaic Virus and the Start of Molecular Biology Research in the Federal Republic of Germany, 1937-1965"
Snyder, Laura, "The Science of the 'Dismal Science': Politics, Economics and Science in 19th-Century Britain"
Chair: TBA

8. Evolution and 20th-Century Astronomy

DeVorkin, David, "Evolutionary Thinking in American Astronomy from Lane to Russell"
Dick, Steven, "Cosmic Evolution and the Biological Universe"
Palmeri, JoAnn, "Popular and Pedagogical Uses of Cosmic Evolution"
Chair and Commentator: TBA

Saturday, 10 November, 2001

12:00 p.m. (Lunch Session)

Beyond the Hallowed Halls: Careers in History of Science

Thackray, Arnold
Pang, Alex
Rothenberg, Marc
Hanson, Betsy
Appel, Toby
Garfinkel, Michele
Commentator: Thackray, Arnold
Chair: Comfort, Nathaniel

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1:30 to 3:10 p.m.

1. Texts and Contexts in Medieval Science

Dowd, Matthew, "Teaching the *Compotus*: A Commentary on Grosseteste's *Compotus Correctorius* in MS Harley 4350"

Lozovsky, Natalia, "Geography in Early Medieval Europe: Decline or Development?"

Rutkin, H. Darrel, "The 'Unnamed Master' Revisited: Mathematics, Perspective and Astrology in Roger Bacon and Albertus Magnus"

Touwaide, Alain, "Arabic Medicine in Greek Translation — How was it translated?"

Chair: TBA

2. Psychiatry, Psychology, and Cultural History

Schmidgen, Henning, "Time, psychology and telegraphy: The technological context of the reaction time experiment, 1860-1880"

Kroker, Kenton, "Dreams as Experimental Objects in American Psychology"

Baatz, Simon, "American Psychiatry in the 1920s: The Leopold-Loeb Case"

Silverman, Chloe, "From Nervous Weakness to 'Future Shock': the Cultural History of Stress, 1890-1970"

Chair: TBA

3. Twentieth-Century Physical Theory

Arns, Robert, "Who Started the Electron Spinning?"

James, Jeremiah, "Naturalizing the Odd-Electron Bond"

Pesic, Peter, "Seeing Double: Shared Identities in Quantum Theory"

Park, Buhm Soon, "'The Hyperbola of Quantum Chemistry': The Changing Practice and Identity of a Scientific Discipline in the Early Years of Electronic Digital Computers, 1945-1965"

Chair: TBA

4. Universality and Particularity in Scientific Epistemology and Praxis

Popa, Tiberius, "Aristotle's Method of Division in 'Meteorology' IV"

Lynch, William, "Seeing, Doing and Uncovering: Interpreting Bacon's Method in the Early Royal Society of London"

Heering, Peter, "The Role of Visualization in Jean Paul Marat's Scientific Approach"

Maerker, Anna, "Experiments on Nature and Society: The tension between universality and locality in Benjamin Thompson's late 18th-century reform projects"

Chair: TBA

5. *Dissent, Controversy, Opposition: Science Marching to a Different Drummer*

Eshet, Dan, "Science and Persecution: Joseph Priestley (1733-1804), the Dissenters and Anglican Newtonianism in Late Eighteenth-Century England"

Eberhardt, Martin, "Sound Differences on Tonal Distances. The Controversy Between Carl Stumpf and Wilhelm Wundt"

Sarkar, Sahotra, "The Puzzle Posed by Plasticity: Berrill's Denial of Genes for Development"

Marcum, James, "Reconstructing Opposition in Science: The DNA Provirus Hypothesis, the Central Dogma of Molecular Biology, and the Origins of Retrovirology"

Chair: TBA

6. *Social Science, Social Problems in the Twentieth Century*

Russell, Mark, "Popularizing Eugenics: Sir George Archdall Reid and the Medicalization of Social Problems c. 1890-1910"

Danto, Elizabeth, "Eradicating Tuberculosis and Promoting Psychoanalysis: Vienna 1918"

Stapleford, Thomas, "'Workers and their families do not eat statistics': Econometrics from the 'bottom-up' during World War II"

Theerman, Paul, "Psychiatry and Social Progress after World War II: Julius Schreiber and the Institute for Social Research"

Chair: TBA

7. *Diffusing Science in the Popular Arena*

Kinraide, Rebecca, "The Many Hats of the 19th-Century Science Popularizer"

Hendrick, Robert, "Shaping Public Perceptions of Science in Late 19th-Century France: The Role of La Nature"

Kupferberg, Eric, "'Journey to the Invisible World': Popular Microscopy as Popular Culture, 1919-1939"

Barbara, Keith, "Popular Depictions of Scientific Detection"

Chair: TBA

8. *The Exact Sciences in Ancient and Modern Society*

Thibodeau, Philip, "Why Euclid's *Optics* is Incompatible with Linear Perspective"

Silva, Cibelle, "The struggle between quaternions and vectors: the historical origin of some misunderstandings in modern algebra"

Timmons, Todd, "Tension between Practical and Theoretical Science in Nineteenth-Century America: The Case of Nathaniel Bowditch"

Murray, Margaret, "Women Mathematicians in America: The Doctoral Classes of 1940- 1959"

Chair: TBA



Preliminary Meeting Program

Saturday, 10 November, 2001
3:30 to 5:30 p.m.

1. Re-positioning Astronomy: Evolving Practices, Audiences, and Institutions

Aubin, David, " 'The Sun and the Emperor's Government Belong to Everyone': Eclipse Expeditions and the Institutionalization of Astrophysics in France, 1862-1877"

***Bigg, Charlotte**, "Constructing space for the new astronomy: the public science of J. Norman Lockyer"

Canales, Jimena, "Photogenic Venus: The "Cinematographic Turn" in late nineteenth century astronomy"

Commentator: Pang, Alex Soojung-Kim

Chair: Warner, Deborah Jean

2. Ideologies of Managing Science and Technology

Kirchhoff, Jochen, "Redirecting research: Experiences from the *Notgemeinschaft der Deutschen Wissenschaft / Deutsche Forschungsgemeinschaft* in the 1920's"

Lecuyer, Christophe, "Organizational innovations in electronic component manufacturing in Silicon Valley"

***Westwick, Peter**, "Business management philosophies and the Jet Propulsion Lab in the 1990's"

Commentator: Carson, Cathryn

Chair: Mendelsohn, Everett

3. The Mutual Dependency of the Public and the Personal in Victorian Science

***Richards, Joan**, "Childhood and the Reach of Reason in the World of Augustus and Sophie de Morgan"

***Porter, Theodore**, "Statistics and the Unsalvageable Self"

Browne, Janet, "The Figure of Darwin in Evolutionary Debates: Celebrity and Caricature"

Chair and Commentator: Outram, Dorinda

4. The Creation of Order: Scientific Classifications in the 18th and 19th Centuries

Brian, Eric, "Classification as a mathematical competence among eighteenth-century geometers"

Mueller-Wille, Staffan, "'Sandstone can as well hold gold' - Classifying Non-Living Nature, 1730-1770"

Lefevre, Wolfgang, "Ordering and Labelling - Guyton de Morveaus' and Lavoisiers' Reform of the Chemical Nomenclature"

***Klein, Ursula**, "Experiments, formulae, and the order of organic matter"

Chair: Buchwald, Jed

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5. *The Exners: Science in a Viennese Bildungsburger Family*

***Coen, Deborah**, "Family History and the History of Science: The Exners *en famille*"
Hofer, Veronica, "Physiology gains space: On the meaning of Sigmund Exner's Founding of the *Phonogrammarchiv*"
Stoeltzner, Michael, "Franz Serafin Exner's Indeterminist Theory of Culture"
Commentator: Sarkar, Sahotra
Chair: Hachohen, Malachi

6. *Manufacturing "Culture": The Culture Concept in Mid-Twentieth Century Social Sciences* (Sponsored by the Forum for the History of Human Science)

Cohen-Cole, Jamie, "Defining Culture: The Intellectual and Institutional Unification Project of Cold-War Social Science"
Rohde, Joy, "Coordinating the "Coordinating Science" for the New World Order: Physical and Cultural Anthropologists in the Postwar United States"
***Weinstein, Debbie**, "Diagnosing Culture and Family in the History of Family Therapy"
Commentator: Carson, John
Chair: Gilkeson, John

7. *Collecting, Exhibiting and Preserving: A Century of Colonial Science in the Pacific, 1850-1950* (Sponsored by the Pacific Circle)

Buhs, Joshua, "Natives, God and Health: John Thomas Gulick Collecting in Hawaii"
***Hoffenberg, Peter**, "19th-Century Australian Science on Display: Ferdinand von Mueller and the Exhibitions"
Kroll, Gary, "Displacing Frontiers: The Pacific Science Board's Campaign for Conservation"
Commentator: Garber, Janet
Chair: Osborne, Michael

8. *"You Youth Are Terrible People . . .:" Student Culture and the Moral Economies of Modern Physics*

Hall, Karl, "'Crushing the Enemy with His Own Weapon': Maturing Young Soviet Cadres Master Quantum Theory (and Stalinist Culture)"
***Ito, Kenji**, "'Student Radicals' in Science: Youth Cultures and the Roots of Quantum Physics Research in Interwar Japan"
Kaiser, David, "The Postwar Suburbanization of American Physics"
Chair and Commentator: Olesko, Kathryn

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Denver, Colorado

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Saturday, 10 November, 2001

6:00 to 7:00 p.m.

HSS DISTINGUISHED LECTURE:

Science, Religion, and the Unification of Nature

John Brooke, Oxford University

7:00 to 8:00 p.m. **HSS RECEPTION**

8:00 to 10:30 p.m. **HSS BANQUET**

Sunday, 11 November, 2001

9:00 to 11:45 a.m.

1. *The Mathematization of Science*

Gingras, Yves, "What Did Mathematics Do to Physics?"

***Lagueux, Olivier**, "The Mathematization of Monsters: Isidore Geoffroy Saint-Hilaire's Teratology"

Abraham, Tara, "Nicolas Rashevsky's Application of Theoretical Physics to Biological Problems, 1930s-40s"

Martin, Olivier, "The History of Factor Analysis: An Example of Mathematization in the Humanities"

Chair and Commentator: Keller, Evelyn Fox

2. *Internationalization and Trans-national Communication in Mathematics: Influence on Context and Community*

Parshall, Karen, "Bridging the Channel: The Contextualization of British and French Contributions to Geometric Probability"

Rice, Adrian, "G. H. Hardy, the London Mathematical Society, and the Rise of British Pure Mathematical Research in the First Half of the Twentieth Century"

Martini, Laura, "A Case Study in the Evolution of a Mathematical Research Community in Pre-Unification Italy: Barnaba Tortolini (1808-1874) and the *Annali di scienze matematiche e fisiche*"

***Hunter, Patti**, "Statistics in the U.S. Comes of Age: A Case Study in American Influence Abroad"

Chair and Commentator: Dauben, Joseph

3. *Atomic Opportunities and Consequences: Postwar Radiobiology in the US, UK, and France*

Beatty, John, "Radiation Genetics as Atomic-Age and Cold-War Eugenics"

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3. *Atomic Opportunities and Consequences: Postwar Radiobiology in the US, UK, and France (continued)*

***Creager, Angela**, "Proliferating Radioisotopes: The Atomic Energy Commission's Distribution Program and Postwar Biomedical Research"

Gaudillière, Jean-Paul, "Normal Pathways: Controlling Isotopes and Building Bio medicine in Postwar France"

de Chadarevian, Soraya, "Radiobiology in Postwar Britain"

Kucher, Jerry, "Radiation Studies following World War II: Nuclear Warfare, Radiation Sickness and Curing Childhood Leukemia"

Chair: Cantor, David

4. *History and Philosophy of Science: Revisiting a Precarious Relationship*

Schickore, Jutta, "The Historicity of Epistemological Terms: Changing Notions of Error in Microscopy"

Janssen, Michel, "The role of unexplained coincidences in theory construction and theory choice"

Gal, Ofer, "From realism to constructivism and back again: remarks on D. Bloor, B. Latour and I. Hacking"

***Steinle, Friedrich**, "Experiments in history and philosophy of science"

Chair and Commentator: Burian, Richard

5. *Techne and Expert Knowledge in Ancient Greece and Rome*

Cuomo, Sarafina, "Drawing the Line: Boundary Disputes in the Graeco-Roman Antiquity"

***Tybjerg, Karin**, "A Geometry of Machines: Hero of Alexandria's Mechanical and Mathematical Treatises"

Schuermann, Astrid, "Does Technology Act Contrary to Nature?"

Schiefsky, Mark, "Techne and Method in Ancient Medicine and Mechanics"

Chair and Commentator: von Staden, Heinrich

6. *The Life Sciences and the Crisis of Ethics, 1870-1945*

***Weikart, Richard**, "Darwinism, Monism, and the Search for a Scientific Ethics in Germany, 1890-1914"

Hecht, Jennifer, "Atheism, Evolution, Nihilism, and a Transcendental Turn: The Question of Secular Ethics in France, 1870-1914"

Hawkins, Michael, "Evolutionary Ethics and the Dilemmas of Darwinism in Late Nineteenth-Century British Thought"

Dowbiggin, Ian, "Lives Not Worth Living: Charles Francis Potter, Darwinism, and the Origins of the Euthanasia Movement in America"

Chair and Commentator: Larson, Edward

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7. *New Trends in the History of Science: New World Experiences, Spain, and the Study of Nature*

Sandman, Alison, "Questionnaires and observing instruments: Standardization, credibility, and control of empirical observations in Spain and Spanish America"
Cañizares-Esguerra, Jorge, "How Derivative was Humboldt? Microsomic Nature Narratives in Eighteenth-Century Spanish America and Humboldt's Ecological Sensibilities"

***Barrera, Antonio**, "The *Casa de la Contratación* and its Chamber of Knowledge: Empirical Activities in the Spanish Empire"

Chair and Commentator: Bono, James

8. *The Sciences in Conversation with One Another: Meanings and Uses of Newtonianism in the Siècle des lumières*

Terrall, Mary, "Conjecture and Empiricism in Enlightenment Life Science"

Williams, Elizabeth, "The 'Newtonian' Defense of Medical Vitalism in Eighteenth-Century France"

Kim, Mi Gyung, "Newton in the Public Sphere of Chemistry"

***Evans, James**, "Gravitation and Generation: Hypothesis in the Thought of Charles Bonnet and Georges-Louis Le Sage"

Chair: Sloan, Philip