Schedule of Sessions

(All sessions will take place at the Hotel Albuquerque, in the rooms indicated.)

Thursday, 8 October
8:30 AM–4:00 PM

SHOT Graduate Students Workshop

Organizers: **Atsushi Akera** (Rensselaer Polytechnic Institute, United States)
Francesca Bray (SHOT President, University of Edinburgh, United Kingdom)
Lars Heide (Copenhagen Business School, Denmark)

Chair: **Lars Heide** (Copenhagen Business School, Denmark)

Participants:

Abdullah Almowanes (York University, Canada)
René Christensen (University of Southern Denmark)
Ross Coen (University of Washington, United States)
Itamar Friedman (University of South Carolina, United States)
Colin G. Garvey (Rensselaer Polytechnic Institute, United States)
Hunter Hollins (George Washington University, United States)
Simon Judkins (University of Southern California, United States)
Lauren Kilgour (University of Pittsburgh, United States)
Michael Lachney (Rensselaer Polytechnic Institute, United States)
Owen D. McCarron (IDA Science and Policy Institute, United States)
Michael Murphey (Mississippi State University, United States)
Gretchen Pruett (Independent Scholar, United States)
Jonathan Puff (University of Michigan, United States)
Dustin Studelska (University of Minnesota, United States)
Samantha Thompson (Lowell Observatory, United States)

Thursday, 8 October
5:30–9:00 PM

Opening Plenary (5:30–6:30 PM)

Speaker: **Dong-Won Kim** (Harvard University, United States)

Discussion: **By the Audience**

Opening Reception (6:30–9:00 PM)

1. Constructing Technology's Promise
Chair and comment: **Sonja D. Schmid** (Virginia Tech, United States)

Ian Johnson (Ohio State University, United States) **[Robinson Prize Candidate]**: Death Rays, Teletanks, and Chemical Weapons: The Soviet Military's Cult of Technology in the Interwar Period
Anna Åberg (Caucasien et Centre-Européen, EHESS, France): Endless Energy for the Young: Fusion in Soviet Popular Communication 1950–1969
Sean F. Johnston (University of Glasgow, United Kingdom): Trusting the Technological Fix: Tracing a Technological Faith

2. Ordinary Agents
Chair and comment: **Arwen Mohun** (University of Delaware, United States)

Ellen Foster (Rensselaer Polytechnic Institute, United States): Hacking, Making, and DARPA: Historical Narratives of Co-option, Appropriation, and Collaboration
Seneca Vaught (Kennesaw State University, United States): The House That Slaves Built: African Labor and the Technopolitics of Tabby Construction Practices
Loretta Hall (Independent Scholar, United States): Ordinary People in the History of Space Exploration
Waqar Zaidi (Lahore University of Management Science, Pakistan): Tackling "The Problem of Atomic Energy": The Contested Emergence of Techno-scientific Atomic Expertise, 1945–1946

3. Infrastructures of Racialization: Complex Categories and Research Challenges

Organizer: **Geoff D. Zylstra** (New York City College of Technology, United States)
Chair: **Suzanne Moon** (University of Oklahoma, United States)
Comment: **Chandra D. Bhimull** (Colby College, United States)
(*Sponsored by **EDITH***)

Nina E. Lerman (Max Planck Institute for the History of Science, Germany): Learning and Working: Apprenticeship and Categories of Childhood in an Early National U.S. City
Edna Suárez-Díaz and **Vivette García Deister** (Universidad Nacional Autónoma de México): Technologies of Human Diversity: Genomic Medicine and the Genetic History of Mexicans
Geoff D. Zylstra (New York City College of Technology, United States): Can I Use This Image…of a White Man Shooting a Black Man? Interpreting Technology and Race in the Nineteenth Century
Fallon Samuels Aidoo (Harvard University, United States): Civil Rights at Work on the Right-of-Way: A Work-Place History of Railway Maintenance under New Management

4. Alternative Cultures/Alternative Technologies: Conscious Construction of the Path Not Taken

| Organizer: | **Pamela Edwards** (Shepherd University, United States) |
| Chair and Comment: | **Jennifer Croissant** (University of Arizona, United States) |

Pamela Edwards (Shepherd University, United States): What Would the Goddess Use? Technological Choice and Environmental Consciousness in the Women's Land Movement
Ian Hartman (Northwestern University, United States): Strange Attractor: Terrence McKenna, the "Archaic Revival," and the Orientalist Foundations of Techno-Utopianism
Kathleen Ochs (Colorado School of Mines, United States): Metal Arrowheads and Thumb Pianos: Society, Technology, and Values
Nathan Kapoor (University of Oklahoma, United States): Potential Energy: Wind Power for Electrical Energy Generation in Late-Nineteenth Century Great Britain, 1870–1900

5. Outside Technologies: Instruments and Their Users in the Field Sciences
Organizer:	**Philipp Lehmann** (Max Planck Institute for the History of Science, Germany)
Chair:	**Lino Camprubí** (Max Planck Institute for the History of Science, Germany)
Comment:	**Jeremy Vetter** (University of Arizona, United States)

Kena Wani (Duke University, United States): Disciplining the Body in 19th Century Astronomical Expeditions in England and Colonial India
Matthew Hersch (Harvard University, United States): Field as Instrument, Instrument as Field: Scientific Investigations aboard *Aurora 7*
Philipp Lehmann (Max Planck Institute for the History of Science, Germany): Standardizing African Rain: Training, Technologies, and Practices in Colonial Meteorology
James Fleming (Colby College, United States): Cutting the Gordian Knot of Meteorology: New Technologies and New Knots

6. Satellite Remote-Sensing and Environment
| Organizer: | **Gemma Cirac Claveras** (Institut Pierre Simon Leplace, France) |
| Chair and comment: | **Erik M. Conway** (California Institute of Technology, United States) |

Roger D. Launius (National Air and Space Museum, United States): "We will learn more about the Earth by leaving it than by remaining on it": NASA and the Unintended Forming of an Earth Science Discipline in the 1960s
Gemma Cirac Claveras (Institut Pierre Simon Leplace, France): The Emergence and Evolution of Satellite Remote-Sensing in France, or How Scientists Lost Control of Satellite Data
Johan Gärdebo (Royal Institute of Technology, Sweden) **[Robinson Prize Candidate]**: For the Benefit of All Mankind, and Ourselves: European Remote Sensing for Environment and Commerce, 1977–1994
Nina Wormbs (Royal Institute of Technology, Sweden): Sublime: Remote Sensing Imagery as Environmental Icons

7. Artificial Sciences? Technology, Education, and Professional Networks in Early Computing

Organizer and chair: **Thomas Misa** (University of Minnesota, United States)
Comment: **Charles H. House** (InnovaScapes Institute, United States)

Joseph November (University of South Carolina, United States): George Forsythe, the ACM, and Creating a "Science of the Artificial"
Sebastian Dziallas (University of Kent, United Kingdom): The Evolution and Purpose of Computing Curricula (1960s to 2000s)
Irina Nikivincze (Higher School of Economics, Russia): Making a "Science of the Artificial": Careers and Contributions of the First Doctoral Women in Computer Science
Scott Campbell (University of Waterloo, Canada): Professional Networks, Social Geography, and Early Computing in Canada

8. Nature Transformation and Technology

Organizer and chair: **Paul Josephson** (Colby College, United States, and Tomsk State University, Russia)
Comment: **Sara B. Pritchard** (Cornell University, United States)

Jesse Smith (University of Pennsylvania, United States): A New Port of Miami: The Environmental and Geographical Roots of a Manmade Island, 1920–1969
Matthew Eisler (University of Virginia, United States): Materiality, Super Batteries, and the Technopolitics of Electric Automobility
Arne Kaijser (Royal Institute of Technology, Sweden): Airplanes, Radio Waves, and Pollutants: Transformers of the Common European Sky
Justin Whitney (Mississippi State University, United States): "Drilling into Pele's Body": The Puna Geothermal Venture on the Big Island of Hawai'i, 1973–1993

9. Connecting Technology's Peripheries I: Unsettling the "Development" Narrative

Organizer: **Joshua Grace** (University of South Carolina, United States)
Chair and comment: **Ann Johnson** (Cornell University, United States)

Joshua Grace (University of South Carolina, United States): The Analytical Deficits of Scarcity (and Resilience): What "Making Do" Misses in East Africa's Technological History
Kate McDonald (University of California, Santa Barbara, United States): The Rickshaw and the Railroad: A Parable of Non-Western Modernity
Thomas Lekan (University of South Carolina, United States): Shock Cities on the Periphery? Re-Examining the Archive of Urbanization through Lagos Wide and Close

Friday, 9 October
10:30 AM–12:00 PM

10. Discourses of Bio-interventions
Chair and comment: **Projit Bihari Mukharji** (University of Pennsylvania, United States)

Heather Munro-Prescott (Central Connecticut State University, United States): "This is Not a Dalkon Shield": The Renaissance of the Intrauterine Device in the United States
Slawomir Lotysz (Polish Academy of Science, Poland): Health Ideologized: Making and Consuming Drugs in Communist Poland

11. Rethinking Innovation and Preindustrial Technology
Organizer: **Daryl M. Hafter** (Eastern Michigan University, United States)
Chair and comment: **Wiebe Bijker** (Maastricht University, Netherlands)

Daryl M. Hafter (Eastern Michigan University, United States): The Silk Industry of Eighteenth-Century Lyon
Elspeth Whitney (University of Nevada, Las Vegas, United States): Medieval Machine Technology—An Overview
Steven A. Walton (Michigan Technological University, United States): At the Arsenal Gate: Premodern Military Activity and the Technologies of Scale

12. Presidential Roundtable: Diversity as Method in the History of Technology
Organizer: **Ruth Schwartz Cowan** (University of Pennsylvania, United States)
Moderator: **Francesca Bray** (SHOT President, University of Edinburgh, United Kingdom)
(*Sponsored by **EDITH***)

Discussants:
Amy Sue Bix (Iowa State University, United States)
Dagmar Schäfer (Max Planck Institute for the History of Science, Germany, and University of Manchester, United Kingdom)
David Serlin (University of California, San Diego, United States)
Amy Slaton (Drexel University, United States)
Waqar Zaidi (Lahore University of Management, Pakistan)

13. Sex, Self, & Software
Chair and comment: **Nina Wormbs** (Royal Institute of Technology, Sweden)

Janet Abbate (Virginia Tech, United States) Good to Think With: Educational Visions of the Materiality of Computing
Marie Hicks (Illinois Institute of Technology, United States): Computer Love: Sex, Social Order, and Technological Matchmaking at the Dawn of the Electronic Age, 1950–1979
Gerardo Con Diaz (Yale University, United States): Ontological Contests: Patent Law and the Nature of Computer Programs, 1963–1972

14. Axis in the Air: German-Japanese Aviation Collaboration, 1920–1945
Organizer and chair: **Juergen Paul Melzer** (Harvard University, United States)
Comment: **Mark Clark** (Oregon Institute of Technology, United States)

Juergen Paul Melzer (Harvard University, United States) **[Robinson Candidate]**: Germany and the Rapid Rise of Japan's Aviation after WWI
Evelyn Crellin (Smithsonian Institution, United States): In Search of the Big Market for a Tiny Aircraft: Two Flights in Junkers A50 to Japan, 1930 and 1931
Russell Lee (Smithsonian Institution, United States): Schräge Musik (Strange Music): Shared or Independent Development?

15. Engineering Resources
 Chair and comment: **Lars Heide** (Copenhagen Business School, Denmark)

Hanna Vikström [Robinson Prize Candidate], **Per Högselius**, and **Dag Avano** (Royal Institute of Technology, Sweden): Swedish Steel and Global Resource Colonialism: Sandvik's Quest for Alloying Metals during the Interwar Era
John E. Murray and **Javier Silvestre** (Rhodes College, United States): New Process Technologies in European Coal Production, 1850–1900: The Case of Mine Ventilation

16. A Vicious Cycle: Histories of the Nuclear Fuel Cycle
Organizer: **Caroline R. Peyton** (University of South Carolina, United States)
Chair: **Paul Josephson** (Colby College, United States, and Tomsk State University, Russia)

Tatiana Kasperski (Centre Alexandre Koyré, France): Does Nuclear Fuel Have Nationality? Controversies Surrounding Westinghouse Nuclear Fuel Assemblies in Soviet-Type Ukrainian Reactors
Jason Krupar (University of Cincinnati, United States): The Disappearing Nuclear Landscape: Snapshots of Lost Atomic Technologies
Caroline R. Peyton (University of South Carolina, United States): Plutonium and Palmettos: The Politics of Nuclear Reprocessing

17. The Cultural Landscape of Space
Chair and comment: **Jonathan Coopersmith** (Texas A&M, United States)

Hyoung Joon An (Georgia Institute of Technology, United States) **[Robinson Prize Candidate]**: The Sputnik Shock and South Korea's Rocket Fever, 1958–1969
Erik M. Conway (California Institute of Technology, United States): Surveyor and the Culture of Testing: Making Engineering Knowledge in the Early Space Age
Kristen A. Starr (Independent Scholar, United States): Conflict, Command, and Control: NASA Public Affairs during Project Gemini

18. Digital Histories of Technology
Organizer and chair: **Finn Arne Jørgensen** (Umeå University, Sweden)

Finn Arne Jørgensen (Umeå University, Sweden): Introduction: Writing Digital Histories of Technology
Mats Fridlund (Aalto University, Finland): History Mining of Engineering Journals: Exploring Data Mining to Understand Transnationalism of Finnish Industrialization, 1880–1910
Hanna Rose Shell (Massachusetts Institute of Technology, United States): A History of Technology Beyond Words
Douglas O'Reagan (University of California, Berkeley, United States): Visualizing Historical Patent Co-Inventor Networks
Christopher Jones (Arizona State University, United States): Digital Tools for Exploring Fire Insurance and Loss

19. Religion and Technology I: Integrating Belief and Modern Technology
Organizer: **Jennifer Karns Alexander** (University of Minnesota, United States)
Chair: **Ann Greene** (University of Pennsylvania, United States)
Comment: **Nina Reid-Maroney** (Huron University College, Canada)

Aleksandra Majstorac Kobiljski (L'École des Hautes Études en Sciences Sociales, France): Christ and the Engineering of Modern Japan: Diary and Personal Notes of Shimomura Kotaru (1863–1937)
Amy Sue Bix (Iowa State University, United States): "Remember the Sabbath": A History of Technological Decisions and Innovation in Orthodox Jewish Communities
Jennifer Karns Alexander (University of Minnesota, United States): Engineering, Religion, and Industrial Ethics: Jack Keiser and Industrial Missions in Post-war Britain

20. Space Technology and the Earth Environment in the 1970s and 1980s
Organizer: **Sara B. Pritchard** (Cornell University, United States)
Chair and comment: **David Nye** (University of Southern Denmark)

Lisa Ruth Rand (University of Pennsylvania, United States): Down to Earth: Falling Space Junk and an Expanding Environmental during the 1970s
Sara B. Pritchard (Cornell University, United States): Looking Upward: Light Pollution, Astronomy, and Rethinking Artificial Lighting during the Long 1970s
Neil M. Maher (NJIT-Rutgers University, United States): Thinking Globally: Space Data and the Making of Whole Earth Environmentalism

21. The View from Above
Chair and comment: **Angelina Long Callahan** (United States Naval Research Lab)

Felipe Fernandes Cruz (University of Texas at Austin, United States): Napalm Colonization: Aviation and Indigenous Peoples in the Amazon
Blair Stein (University of Oklahoma, United States): Silver Darts and Snowbirds: Climate and Canadian Aviation Mythmaking
Charles Halvorson (Colombia University, United States): A Measure of Acceptable Impairment: The WinHaze Program and the EPA's Long Struggle to Simulate Environmental Degradation

22. Computer Networks in Africa and Latin America
Organizer: **Andrew L. Russell** (Stevens Institute of Technology, United States)
Chair: **Christopher Leslie** (New York University, United States)
Comment: **Janet Abbate** (Virginia Tech, United States)
(*Sponsored by SIGCIS*)

Gregg Pascal Zachary (Arizona State University, United States): Digital Africa: Researching the History of Computers and Culture in the Sub-Saharan
Beatrice Choi (Northwestern University, United States): Layers of Myth and Magic: The Role of the "Artist Class" in Brazilian Technology Transfer and the Myth of Use-Neutrality

*23. Joined Panel 25

24. Industry-Academic Relations in the Second Industrial Revolution
Organizer and chair: **Lee Vinsel** (Stevens Institute of Technology, United States)
Comment: **Stuart Leslie** (Johns Hopkins University, United States)

Jeremy Blatter (Harvard University, United States): Of Square Pegs and Round Holes: Polytechnics, Scientific Management, and the "Human Factor"
Eric Hounshell (University of California, Los Angeles, United States): "Role Strain" in Experience and Theory: Tangled Loops of Empirical Research and the Sociology of Science at the Columbia Bureau of Applied Social Research, ca. 1945–1970
Ellan F. Spero (MIT-Singapore University of Technology and Design): Technologies of Collaboration: Academic-Industrial Partnerships in Chemical Research and Education in the Second Industrial Revolution

25. Connecting Technology's Peripheries II: Empire, Its Aftermath, and Technopolitics from the "Global South"
Organizer, chair, and comment: **Joshua Grace** (University of South Carolina, United States)

Marta Macedo (University of Lisbon, Portugal): Standard Cocoa: Plantation Technologies and Connected Histories of the Empire
Ann Johnson (Cornell University, United States): "Water, Water Everywhere and Not a Drop to Drink": Water Treatment Technologies in the Global South, A Tale of Two Cities

Daniel Ringrose (Minot State University, United States): French Technology on the Periphery: Inventing the Global Firm in Argentina, 1900–1955
Gregory Ferguson-Cradler (Princeton University, United States): Development by Fishmeal: Peruvian and Norwegian Industrial Infrastructure and the Creation of a Global Market

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Friday, 9 October
3:00–4:30 PM

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26. Vernacularizing Histories of Technology in South Asia

Organizer:	**Projit Bihari Mukharji** (University of Pennsylvania, United States)
Chair and comment:	**Suzanne Moon** (University of Oklahoma)

Projit Bihari Mukharji (University of Pennsylvania, United States): Sound Politics: Gramophone Records and the Making of the Pakistan Movement, 1920–1947
Prakash Kumar (Pennsylvania State University, United States): "Something to Extend": Multiple Meanings of American Agricultural Extension in India and the Immobility of Technology
Asif Siddiqi (California Institute of Technology, United States): Rockets from Thumba: Geography, Science, and the Cold War in India, 1961–71
Amit Prasad (University of Missouri, Columbia, United States): Entangled Histories, Postcolonial Ambivalence, and Cultures of Techno-Scientific Innovations in India

27. Image / Text / Tech

Chair and comment:	**Gokhan Ersan** (School of The Art Institute of Chicago, United States)

Luci Marzola (University of Southern California, United States) **[Robinson Prize Candidate]**: Better Pictures Through Chemistry: DuPont, Kodak, and the Hollywood Panchromatic Turn
J. Dakota Brown (Northwestern University, United States): The Linotype: Agency and Mechanization in Turn-of-the-Century Typography
Elizabeth Kessler (Stanford University, United States): Extraterrestrial Time Capsules: Postcards for Aliens and Prescriptions for Cosmic Citizenship

28. Making Data Move

Chair and comment:	**Hyungsub Choi** (Seoul National University, South Korea)

Charles H. House (InnovaScapes Institute, United States): Emergence of Corporate Wide-area Computer Communications Networks
Quinn DuPont (University of Toronto, Canada) and **Bradley Fidler** (University of California, Los Angeles, United States): The Co-Development of Early Computer Network and Cryptography Infrastructure
Dongoh Park (Indiana University, United States): Building a Digital Obligatory Gateway: Sociotechnical Development of Public Key Infrastructure in South Korea

29. Bodywork

Chair and comment: **Shannon K. Withycombe** (University of New Mexico, United States)

Cari Casteel (Auburn University, United States): Common Scents: Women, Dress Shields, and Deodorant in the U.S., 1880s–1920s
Samantha Killmore (University of Sydney, Australia): Marvelous Machines: The Technological Networks of 19th Century Exercise Devices and the Construction of the Race/Gender Analogy
Deanna Day (Chemical Heritage Foundation, United States): "No More Tears": The Co-constitutive Development of Shampoo Technology and Notions of Proper Baby Care

30. Techno-Exhibitionism

Chair: **TBA**
Comment: **Miriam Levin** (Case Western Reserve University, United States)

Eric Bellin (University of Pennsylvania, United States) **[Robinson Prize Candidate]**: Constructing the Spectacle: Charles Fox, His Team, and the Way to Building at Hyde Park, 1831–1851
Matthew Henderson (Auburn University, United States) **[Robinson Prize Candidate]**: New South Technics: The 1895 Atlanta Exposition and the Rise of the Industrial South
Jeff Nagle (University of Pennsylvania, United States): "Not Just a Country Faire, Not Just a Europe Fair": Regionalism, Environment, and Technological Interventions at the 1892 Knoxville World's Fair

31. Cognition in the Field

Chair and comment: **Håkon With Anderson** (Norwegian University of Science and Technology)

Sean Silver (University of Michigan, United States): Single-Reflector Instruments and the Technical History of Extended Cognition
Sverker Sörlin (Royal Institute of Technology, Sweden): Building Landscapes of Authority: Truth, Technologies, and Precision in Early Scientific Glaciology

32. The Meaning of Failure in Early Drone R&D

Organizer: **Angelina Callahan** (Naval Research Laboratory, United States)
Chair: **Roger D. Launius** (Smithsonian Institution, United States)
Comment: **Howard McCurdy** (American University, United States)

Laurence Burke (Carnegie Mellon, United States): Flying Bombs for the First World War
Angelina Callahan (Naval Research Laboratory, United States): False Starts and Seeming Dead Ends: Identifying and Coping with Failure in Drone R&D
Alexander Calta (American University, United States) **[Robinson Prize Candidate]**: Unleashed: The Question of U.S. Navy Drone Development and Deployment, 1936–1946

33. Turning the SHOT Yacht: Changing Our Ideas about Selves, Knowledge, and Material

Organizer: **Amy E. Slaton** (Drexel University, United States)
Chair and provocateur: **Tiago Saraiva** (Drexel University, United States)

Amy E. Slaton (Drexel University, United States): Human / Human-Made
Donna M. Riley (Virginia Tech, United States): Sovereign Knowledge, Sovereign Selves
Martin Collins (Smithsonian Institution, United States): The Self in the Material Turn

34. Presidential Roundtable: The Future of SHOT: A Graduate-Led Forum
Co-organizers: **Alice Clifton** (Georgia Institute of Technology, United States)
                                        John Krige (SHOT President-Elect, Georgia Institute of
                                        Technology, United States)
                                        Francesca Bray (SHOT President, University of Edinburgh,
                                        United Kingdom)
Chair: **Alice Clifton** (Georgia Institute of Technology, United States)

Discussants:
Anna Åberg (Caucasien et Centre-Européen, EHESS, France)
Alice Clifton (Georgia Institute of Technology, United States)
Johan Gärdebo (Royal Institute of Technology, Sweden)
Emily Gibson (Georgia Institute of Technology, United States)
Tisha Hooks (Yale University, United States)
Lisa Onaga (Nanyang Technological University, Singapore)
Dustin Studelska (University of Minnesota, United States)

Saturday, 10 October
8:00–10:00 AM

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35. Civil Defense and the Nuclear World: An International Perspective on the Future of Shelter Studies
Organizer: **Sarah Robey** (Temple University, United States)

Peter Bennesved and **Fredrik Norén** (Umeå University, Sweden): Crisis Televised: The Media System of Swedish Cold War Civil Defense
Silvia Berger Ziauddin (Universität Zürich, Switzerland): Thinking with the Groundhog: An Animal and Media History of the Nuclear Bunker in Cold War Switzerland
Tom Bishop (University of Nottingham, United Kingdom): The Fallout Shelter Father on the New Frontier: John F. Kennedy and the Politics of Nuclear Survival
Sarah Robey (Temple University, United States): From Bomb Shelter to Fallout Shelter: The Thermonuclear Revolution in American Public Culture

36. Religion and Technology II
Chair and comment: **John Staudenmaier, SJ** (University of Detroit Mercy, United States)

Robert Geraci (Manhattan College, United States): Narendra Modi and the Revelation of Vedic Technology
Nicole Welk (University of Pennsylvania, United States) **[Robinson Prize Candidate]**: From Schauberger to Swartzentruber: Alternative Water Technologies from 1947–2015
David Kirby (University of Manchester, United Kingdom): Unwanted Visions of Tomorrow: Movie Censorship and the Depiction of Technological Futures, 1930–1968
Catherine L. Newell (University of Miami, United States): The End is Nigh: The Rocket, the Space Station, and the Technological Apocalypse

37. Theorizing Diversity in the History of Computing
Organizers and co-chairs: **Marie Hicks** (Illinois Institute of Technology, United States) and **Ruth Schwartz Cowan** (University of Pennsylvania, United States)
Comment: **Tisha Hooks** (Yale University, United States)
(*Sponsored by **EDITH** and **SIGCIS***)

Elizabeth Petrick (New Jersey Institute of Technology, United States): From the Dynabook to Autism Apps: Tracing the Ideals of Tablet Computing
Sarah McLennan (College of William and Mary, United States) **[Robinson Prize Candidate]**: Computing and the Color Line: Race, Gender, and Opportunity in Early Computing at NASA
Tolu Odumosu (University of Virginia, United States): Why Diversity Was Crucial to the Creation and Adoption of the GMS Standard for Mobile Communication

38. Rewiring Public and Private: Computing for Public Sector and Public Interest

Organizer and comment: **Thomas Misa** (University of Minnesota, United States)
Chair: **Kim Tracy** (Michigan Technological University, United States)

Bernadette Longo (New Jersey Institute of Technology, United States): Who Will Benefit from U.S. Computer Development? Establishing Open Communication Channels for Technology Development after World War II
Andrew Meade McGee (University of Virginia, United States): Defining Public Interest Computing: The Early Washington ACM Community and Discussions of Policy, Governance, and Democracy in the Age of the Mainframe, 1947–1968
Janet Toland (Victoria University of Wellington, New Zealand): Computing Opportunities for All: ACM's Role in Influencing Public Policy on Universal Access and Education, 1960 to 2010
Ksenia Tatarchenko (New York University, United States): "Primum Non Nocere" [First, Do No Harm]: Computer Expertise, Responsibility, and Cold War International Encounters

39. Tinkering with Technology: Modification and Improvisation by User and Consumer

Organizer: **Penelope K. Hardy** (Johns Hopkins University, United States)
Chair: **Layne Karafantis** (Johns Hopkins University, United States)
Comment: **Joe Corn** (Stanford University, United States)

David Burel (Auburn University, United States) **[Robinson Prize Candidate]**: If You Cannot Buy One, Build One: The Persistence of User Modification and Conversion of Road Vehicles into Recreational Vehicles
Penelope K. Hardy (Johns Hopkins University, United States) **[Robinson Prize Candidate]**: Tinkering at Sea: Technological Adaptation and Intervention at the Origins of Oceanography
Maurits Ertsen (Delft University of Technology, Netherlands): Getting Everybody to Clap at the Same Time: Tinkering with Gezira Irrigation Technology through Time (1920–1950)
Yana Boeva (York University, Canada) **[Robinson Prize Candidate]**: Tinkering as Design: Users as Designers Repurposing Obsolescence

40. Technology and Affect
Organizer: **Peter Soppelsa** (University of Oklahoma, United States)
Chair and Comment: **Chandra Bhimull** (Colby College, United States)

Peter Soppelsa (University of Oklahoma, United States): "The Face of Paris Destroyed": Public Works and the Urban Body
Orit Halpern (The New School University, United States): "Demo or Die": Architecture Machine Group and the Rise of the Responsive Environment
Brenton Malin (University of Pittsburgh, United States): Projecting Emotions: Communication Research and Emotional Control in the Early 20th Century United States
Whitney Laemmli (University of Pennsylvania, United States): "To Bring that Swing and Lilt in Labor": Visualizing Affect in the Mid-Century Corporation, 1940–1970

41. Engineers as Artists, Artists as Inventors
Organizer: **W. Patrick McCray** (University of California, Santa Barbara, United States)
Chair and comment: **Matthew Wisnioski** (Virginia Tech, United States)

Andrew Nelson (University of Oregon, United States): Robust Action and the Rise of the CCRMA-lites: The Emergence of Computer Music at Stanford
W. Patrick McCray (University of California, Santa Barbara, United States): Spinoffs and Fallout: Commercializing the Engineer-Artist Nexus
Peter Sachs Collopy (University of Southern California, United States): Engineering Video Art: Collaboration and Professional Identity
Dawna Schuld (Indiana University, United States): Engineering Experience: Art, Technology, and the Making of Phenomenal Art

42. What Is Colonial Technology?
Organizer and chair: **Philip Brown** (Ohio State University, United States)

Hiromi Mizuno (University of Minnesota, United States): Colonial Technocrats of the Japanese Empire: The Taiwan Technology Association
Philip Brown (Ohio State University, United States): Improving on Nature
Shuntaro Tsuru (Kyoto University, Japan): Incorporating the Reactions of Local Populations: Extension of Cultivation Techniques by Japanese Sugar Company under Colonial Taiwan
Toshihiro Higuchi (Kyoto University, Japan): Natural Enemies, Colonial Friends: Tokuichi Shiraki, Pacific Empires, and the Introduction of Biological Control Agents in Colonial Taiwan

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Saturday, 10 October
10:15–11:45 AM

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43. Railroad Construction, Labor Regimes, and Commerce in the Portuguese and Colonial Frontier Zones
Organizer: **Anne E. C. McCants** (Massachusetts Institute of Technology, United States)
Chair and comment: **Ellan F. Spero** (Singapore University of Technology and Design)

Eduardo Beira (Instituto Superior Técnico, Portugal) and **Anne E. C. McCants** (Massachusetts Institute of Technology, United States): Transport Technology and Economic Change on the "Frontier" of Trás-os-Montes, Portugal
Bruno J. Navarro (New University of Lisbon, Portugal) and **Hugo Silveira Pereira** (Inter-university Research Centre for the History of Science and Technology, Portugal): Building Railways in the Portuguese Colonies of Africa and India: The Mormugão and Ambaca Railways
Ian J. Kerr (University of London, United Kingdom, and University of Manitoba, Canada): Building the Infrastructures of Empires: Labor, Labor Processes, and Technology Transfer in Large-scale Construction Projects in Britain's Asian and African Colonies, c. 1850–c. 1920

44. Constructing Foods and Creating Tastes: Histories of Foods in Transnational Perspectives

Organizer and chair: **Kellen Backer** (Syracuse University, United States)
Comment: **Jonathan Rees** (Colorado State University, Pueblo, United States)

William Carleton (University of New Mexico, United States): Seeds of Change: Dr. Fabian Garcia, the New Mexican Chile Pepper, and Modernity in the Early Twentieth-Century U.S.-Mexico Borderlands
Kellen Backer (Syracuse University, United States): Procuring Uniformity: The Quartermaster Corps, Standardization, and the Mass Production of American Food in World War II
Gabriella Petrick (George Mason University, United States): "Discovering" the Fifth Taste: Making Umami

45. Computer Users, Experts, and Citizens

Organizer:	**Andrew L. Russell** (Stevens Institute of Technology, United States)
Chair:	**Jason Gallo** (Science and Technology Policy Institute, United States)
Comment:	**Ronald R. Kline** (Cornell University, United States)

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Evan Hepler-Smith (Princeton University, United States): "The Sins of our Forefathers": Chemists, Information Systems, and the Elusive Ideal of Unique Chemical Names
Kevin Driscoll (Microsoft Research New England, United States): Building a Grassroots Internet: Technical Culture and the Dial-Up Bulletinboard System

46. Whose History? Museum Collections, Public Display, and Interpreting the History of Technology

Organizer:	**Tilly Blyth** (Science Museum, London, United Kingdom)
Chair:	**Margaret Weitekamp** (Smithsonian Institution, United States)

Tilly Blyth (Science Museum, London, United Kingdom): Beyond the Artifact: Broadening Audiences and Engaging Publics in the History of Technology
Jennifer Levasseur (Smithsonian Institution, United States): Overcoming the Past: Using New Sources to Interpret Artifacts
Sophie Goggins (National Museums Scotland, United Kingdom): Patient Groups and Collections

47. Spreading the Word

Chair:	**Erik Rau** (Hagley Museum and Library, United States)
Comment:	**John Krige** (Georgia Institute of Technology, United States)

Timothy Stoneman (Georgia Tech Lorraine, France): Creating the Protestant Voice of Europe, 1948–1970
Amy Kaminski (NASA, United States) **[Robinson Prize Candidate]**: Sharing the Shuttle with America: NASA and Public Engagement with Human Space Slight Technology after Apollo
Joshua Brinkman (Virginia Tech, United States): Gender, Work Processes, and the Modernization of American Agriculture: Exploring Historical and Cultural Challenges Faced by the Organic Foods Movement

48. The Power of the Print

Chair:	**Molly Berger** (Case Western Reserve University, United States)
Comment:	**Honghong Tinn** (Earlham College, United States)

Noeme Santana (University of London and Science Museum, United Kingdom): Progress, Efficiency, and Operational Management: The S. Pearson & Son Photographic Albums of His Majesty's Factory, Gretna
Eric C. Nystrom (Rochester Institute of Technology, United States): Change of Plans: Blueprint Technology and the Evolution of the Visual Culture of American Mining Engineering

49. Probing Television
Chair and comment: **Alexander B. Magoun** (IEEE History Center / Stevens Institute of Technology, United States)

Luke Stadel (Northwestern University, United States): Television as Endoscopy: A History of Seeing Inside the Body
Nick Hall (University of London, United Kingdom): ADAPT: Using Hands-on Technological Simulation to Communicate Television's Clockwork Past to Future Digital Users
Reem Hilu (Northwestern University, United States): "TV Goes Powww!": Voice Controlled Media and Domestic Space

50. Disruptions → Designs
Chair: **Kevin Borg** (James Madison University, United States)
Comment: **Sophie Hochhäusl** (Boston University, United States)

Edmund Potter (Mary Baldwin College, United States): To Build Anew with Science and Technology: Reconceiving the Construction Techniques of the Trenches of the Great War for an Utopian Future
Tasha Rijke-Epstein (University of Michigan, United States): Languishing Latrines: Enactments and Enchantments of Sanitation Infrastructure in Colonial, Urban Majunga, Madagascar, 1902–1941

Saturday, 10 October
12:45–2:15 PM

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51. Detecting and Concealing
Chair: **Paul Josephson** (Colby College, United States, and Tomsk State University, Russia)

James Schwoch (Northwestern University, United States): Ear Trumpets, Hand Screens, Isolation Booths, and a Nerve Center that Girdles the World: Communications Security and the Telegraph in 19th Century Washington, D.C.
E. Prasad Venugopal (University of Detroit Mercy, United States): The Origins of the Racial Classification of Human Hair in Forensic Investigations
Racquel M. Gonzales (University of California, Irvine, United States): Expertise at Your Fingertips: Fingerprinting, Home Correspondence Education, and Citizen Detection in Early Twentieth Century America

52. Ordering Concepts of Information Technologies
Organizer: **Andrew L. Russell** (Stevens Institute of Technology, United States)
Chair and comment: **Rachel Maines** (Cornell University, United States)
(*Sponsored by* **SIGCIS**)

Craig Robertson (Northeastern University, United States): Information as Modular: Organizing Paper in Early 20th Century Filing Cabinets
Andrew L. Russell (Stevens Institute of Technology, United States): Modular Design: Project Tinkertoy and the Building Materials of the Information Age
Daniel Holbrook (Marshall University, United States): Clean, Pure, and Orderly

53. "Up in the Air": Aerospace Technologies as Arenas for Public/Private Cooperation and Contention
Organizer: **Sean Seyer** (University of Kansas, United States)
Chair and comment: **Alan Meyer** (Auburn University, United States)

Sean Seyer (University of Kansas, United States): The Power of an Unratified Convention: Regulating Aviation before the Air Commerce Act
Emily K. Gibson (Georgia Institute of Technology, United States): Air France—"The World's Largest Airline": A Commercial Firm as the Chosen Instrument of France's Colonial Mission, 1948–1950s
Brian Jirout (Georgia Institute of Technology, United States): Civil Remote Sensing for Sale: Commercializing Landsat Image Use, 1978–1989

54. Presidential Roundtable: Learning from Africa's Technology Stories
Organizer: **Laura Ann Twagira** (Wesleyan University, United States)
Chair and moderator: **Gabrielle Hecht** (University of Michigan, United States)

Discussants:
Tara Dosumu-Diener (University of Michigan, United States)
Jennifer Hart (Wayne State University, United States)
Drew Thompson (Bard College, United States)
Laura Ann Twagira (Wesleyan University, United States)

55. Building Environments
Chair and comment: **Geoff D. Zylstra** (New York City College of Technology, United States)

Maria Paula Diogo (New University of Lisbon, Portugal) and **Ana Simões** (University of Lisbon, Portugal): Utopian Visions: The Role of Techno-science in Shaping the Lisbon Landscape at the Turn of the 20th Century
Victor Marquez (Future Urban Mobility Program, Mexico City, Mexico): Delirious Mobility and the Return of the Bicycle!
Meredith Sattler (Cal Poly, San Luis Obispo, United States): Early Technological Innovation in the Systems Approach to Environmental Design: Architect Beverly Willis's CARLA Platform

56. Radios, Planes, and Lighted Spectaculars: Current Research on the History of Technology in Twentieth-Century Mexico
Organizer and chair: **J. Justin Castro** (Arkansas State University, United States)
Comment: **J. Brian Freeman** (Indian River State College, United States)

J. Justin Castro (Arkansas State University, United States): Insecurity and Authoritarianism: State Building, Insurrection, and Radio Broadcasting in Revolutionary Mexico
Pete Soland (University of Arizona, United States): Death to the Dinamiteros: Aviation Terrorism and Civilizing Discourse of Mexico's Security State, 1952–53
Toni Salazar Loftin (University of Texas, Dallas, United States): "To Brighten and Beautify the City": The History of Electric Spectaculars in Mexico City

57. Rethinking 1947 and 1991 in India: High Technology and the State
Organizer and comment: **Ross Bassett** (North Carolina State University, United States)
Chair: **John Bosco Lourdusamy** (Indian Institute of Technology, Madras)

Aparajith Ramnath (Indian Institute of Management, Kozhikode): International Networks and Aeronautical Engineering in Late-Colonial India: Hindustan Aircraft Limited, 1940–47
Ramesh Subramanian (Quinnipiac University / Yale University, United States): High Technology and the Developing State: The Development of India's PARAM Supercomputer
Colin Agur (Yale University, United States): Re-Imagining the Indian State: Three Phases in Telecom Policy, 1947–present

58. Normative Subjectivities in the Postwar United States
Organizer: **Caroline Jack** (Cornell University, United States)
Chair: **Aaron Trammell** (Rutgers University, United States)
Comment: **Nathan Ensmenger** (Indiana University, United States)

Renyi Hong (University of Southern California, United States) **[Robinson Prize Candidate]**: Postwar Office Interiors and Worker Subjectivities
Caroline Jack (Cornell University, United States): Empathy for the C-Suite: Management Simulation Games in the Classroom
Aaron Trammel (Rutgers University, United States): Ludic Subjectivity

59. Roundtable: History of Video Games as History of Technology?
Organizer: **Raiford Guins** (Stony Brook University, United States)
Chair: **Finn Arne Jørgensen** (Umeå University, Sweden)

Discussants:
Raiford Guins (Stony Brook University, United States)
Lori Emerson (University of Colorado, Boulder, United States)
Melanie Swalwell (Flinders University, Australia)
Elizabeth Losh (University of California, San Diego, United States)
Henry Lowood (Stanford University, United States)

60. Railways, Space, and Power in Asia (2:30–4:00 PM)
Chair and comment:　　　　　**William K. Storey** (Millsaps College, United States)

Wang Bin (Chinese Academy of Sciences, China): Contested Interconnections: Colonialism and the Making of Railway Junctions in Early 20th Century China
Aparajita Mukhopadhyay (Salisbury University, United States): Technologies and Social Spaces: Railways in Colonial India
Irene Anastasiadou (Berlin University of Technology, Germany): Iron Silk Roads: Railways and Europe–Asian Relations in the Years of the Cold War

61. Rethinking Craftsmanship (2:30–4:00 PM)
Chair and comment:　　　　　**Daryl M. Hafter** (Eastern Michigan University, United States)

Jochen Büttner (Max Planck Institute for the History of Science, Germany): Design Matters: The Unequal-Armed Balance from Classical Times to the Middle Byzantine Period
Heidi Hausse (Princeton University, United States) **[Robinson Prize Candidate]**: Setting the Record Straight: The Invention of Mechanical Limbs in Sixteenth-Century Europe
Nadège Sougy (Université de Neuchâtel, Switzerland): Made in Geneva: The Watch-Making of Geneva in the 19th and 20th Centuries

62. Intelligent Machines (2:30–4:00 PM)
Chair:　　　　　**Adelheid Voskuhl** (University of Pennsylvania, United States)
Comment:　　　　　**Nathan Ensmenger** (Indiana University, United States)

Julie Wosk (State University of New York, United States): Female Androids and Robots in a Changing Technological World
David Parisi (College of Charleston, United States): Touching Utopia: Virtual Reality and the New Discipline of Computer Haptics
Colin Garvey (Rensselaer Polytechnic Institute, United States): AI in Japan: A Cross-Cultural Comparison

63. Up, Up, and Away (2:30–4:00 PM)
Chair and comment:　　　　　**Deborah Douglas** (MIT Museum, United States)

Patrick Luiz Sullivan De Oliveira (Princeton University, United States) **[Robinson Prize Candidate]**: The Ascending Republic: French Ballooning in the Wake of the Franco-Prussian War
Jordan Bimm (York University, Canada): Spaceships in the Basement: A History of the Space Cabin Simulator
Adam Rothstein (Independent Scholar, United States): Creating a Usable Historical Narrative of Future Drone Technology

64. Wind, Water, and Watts (2:30–4:00 PM)
Chair and comment: **Richard Hirsh** (Virginia Tech, United States)

Christian Zumbrägel (Technical University of Darmstadt, Germany): Brushing the History of Small-Scale Hydropower Technology Against the Grain
Fredrik Meiton (New York University, United States): Electrical Palestine: Technocapitalism and National Space
Katherine Dykes (Massachusetts Institute of Technology, United States): Comparison of Large Scale Wind Turbine Developments from the 1930s through the 1960s and Their Current Impact on Wind Turbine Technology

65. Roundtable: What Role Should Technology Play in the History of Capitalism? (2:30–4:00 PM)
Organizers: **W. Bernard Carlson** (University of Virginia, United States) and **Jonathan Coopersmith** (Texas A&M, United States)
Discussants:
Jonathan Coopersmith (Texas A&M, United States)
Richard John (Columbia University, United States)
Stephen Mihm (University of Georgia, United States)
Barbara Hahn (Texas Tech, United States)

66. Roundtable: H.O.T. Goes Pop! Histories of Technology in the Public Eye (2:30–4:30 PM)

Organizer and comment: **Lee Vinsel** (Stevens Institute of Technology, United States)

Discussants:
Rebecca Onion (*Slate.com* and Ohio State University, United States)
Jean Kumagai (*IEEE Spectrum*, United States)
Alex Wellerstein (*Nuclearsecrecy.com* and Stevens Institute of Technology, United States)
Sandra Upson (*Backchannel* and *Scientific American Mind*, United States)
Martin LaMonica (*The Conversation*, United States)

67. Other(ed) Epistemologies of the Technological (2:30–4:30 PM)
Organizer: **Clapperton Chakanetsa Mavhunga** (Massachusetts Institute of Technology, United States)

Pablo F. Gómez (University of Wisconsin, United States): Caribbean Epistemologies of Technology in the Age of Revolutions
Clapperton Chakanetsa Mavhunga (Massachusetts Institute of Technology, United States): African Chemistry: Opening Up the Question of the Technological from Outside the Western Episteme
Mhoze Chikowero (University of California, Santa Barbara, United States): Rethinking Broadcasting: *Madzimbabwe* Informational Systems
Anna Agathangelou (York University, Canada): When Reach Exceeds Its Grasp: Unruly Nature, Technology, and the Limits of Biocoloniality
Tisha Hooks (Yale University, United States): Epistemologies of Black and White: Race, "Color," and the Camera

68. Engineers, Technology, and Neoliberal Economic Doctrine and Practice (2:30–4:30 PM)

Organizer: **Atsushi Akera** (Rensselaer Polytechnic Institute, United States)
Chair: **Andrew McGee** (University of Virginia, United States)

James Skee (University of California, Berkeley, United States): The "Tower of Freedom":
Florida's Interama, the Rise of Microeconomics, and Real Estate Development, 1960–1970
Andrew Butrica (Independent Scholar, United States): Managers, Engineers, and Politics: The
Rise and Fall of French Telecommunications
Michael Lachney (Rensselaer Polytechnic Institute, United States): Open Education and
Personal Technologies: Neoliberal Ideologies and Educational Technology Research at MIT in
the 1970s and 1980s
Atsushi Akera (Rensselaer Polytechnic Institute, United States): Neoliberal Practice in
European Engineering Educational Reform: The Danish Response to the Bologna Process, 1999–
present

Sunday, 11 October

Prometheans Workshop

8:00 AM–12:00 PM

Following breakfast at 7:00 AM at Gardunos Restaurant & Cantina (at the Hotel Albuquerque),
the Prometheans will hold their annual workshop session from 8:00 AM to 12:00 PM. For more
information, please contact Ann Johnson at ajohnson@mailbox.sc.edu.

WITH-EDITH Workshop: **: "Beyond 'Add and Stir:' Making Difference a Central Part of
Our Scholarship" (while still getting a job and tenure**)

8:00 AM–12:00 PM

Please join WITH and EDITH for a Sunday morning workshop (8:00-12:00) on incorporating
gender, race, disability, class, sexuality, etc. into our scholarship. This structured conversation
between experienced scholars who have done so successfully and those interested in doing so
will emphasize strategies for meeting expectations of the profession, while writing technological
history that addresses the agency and experience of a wide range of actors For more information,
please contact Tisha Hooks (tisha.hooks@gmail.com) or Arwen Mohun (Mohun@udel.edu).

Albatrosses Workshop

8:00 AM–12:00 PM

Following breakfast at 7:00 AM at Gardunos Restaurant & Cantina (at the Hotel Albuquerque),
the Albatrosses will hold their annual workshop session from 8:00 AM to 12:00 PM. For more
information, please contact Angelina Callahan (angelinalcallahan@gmail.com) or Michael
Neufeld (neufeldm@si.edu).

SIGCIS Workshop: Infrastructures

7:00 AM–5:00 PM (catered breakfast at 7:00 AM, followed by the workshop at 8:00 AM)

Across academic, artistic, and popular domains, curiosity in infrastructures that sustain economic, cultural, and social interaction has never been more salient. In contrast to the hype generated by the gadgetry of innovation prophets and venture capitalists, an emphasis on infrastructure highlights networks of labor and focuses on the human, material, and ecological cost and scale of information and computing technologies.

The SIGCIS 2015 Workshop will focus on papers engaging historical dimensions of the prosaic work of building networks, cultivating workforces, and maintaining computing and information infrastructures. Related themes necessarily include maintenance, labor, and ordinary experiences with information and computing technologies; digital archives and their sustainability; cyberinfrastructures for bureaucratic and scientific collaboration; the materiality of computing, media, and information technologies; specific infrastructural technologies such as cables, fiber-optics, switching, and wireless; political and economic aspects of infrastructure maintenance and development; and tensions between local or national legal regimes and global information infrastructures. As always, the workshop will feature contributions related to the history of computing and information, whether or not there is an explicit connection with the annual theme.

The workshop will include breakfast and lunch. Anyone wishing to attend must register for the Sunday SIGCIS workshop as part of their registration for the SHOT conference. A registration form appears elsewhere in this newsletter, and also at www.historyoftechnology.org.

For further information on the SIGCIS Workshop, please consult http://www.sigcis.org/.