



**SHOT ANNUAL MEETING
PHILADELPHIA (PENNSYLVANIA, USA)
26-29 OCTOBER 2017
PROGRAM
(VERSION 22 September 2017)**

Annual Meeting Program (sessions) – page 1
Special Interest Group Events – page 31
Tours – page 32

Thursday, October 26, 2017

15.00 – 16.30 **T1: Engineers and Democracy** (Organizer: Andrew Butrica, Independent Scholar)

Chair: Andrew Butrica

Engineers as Politicians and Politicians as Engineers in Twentieth-Century Iran (Sadegh Foghani, University of South Carolina)

Engineers on the Edge: Environmental Regulation and the Challenges of Managing Urban Infrastructure 1960-2000 (Eric Hardy, Loyola University)

Promoting Fresnel in America: The Army Corps of Topographical Engineers and the De-democratization of Science in the Nineteenth-Century United States (James Risk, University of South Carolina)

How to Sell a Neutron Bomb: Captain John Morse and Technopolitical Network-Building, 1958-64 (Annie Tomlinson, Cornell University)

T2: The Politics of Material Objects

Chair: TBA

The Moral of Morale: Encounters of Weapons, Technologies and Knowledge in Imperial Frontiers during the Second World War on the India-Burma Borderworlds (Aditya Kiran Kakati, Princeton University)

How to Make the Future of Fish (Phoebe Sengers, Cornell University)

Norwegian Food: The Biography of 'Fake Butter' (Per Østby, Norwegian University of Science and Technology)
The Screen and the Apparatus: Synchronization across Media (Ariel Rogers, Northwestern University)

T3: Energy in History: Some Thoughts on Causation and Contingency
(Organizer: Jack Brown, University of Virginia)

Chair: Richard Hirsh, Virginia Tech
Commentator: Ann Norton Greene, University of Pennsylvania

Reckoning with Energy to Recast US History (Jack Brown, University of Virginia)
The Original Bridge Fuel: Camphene Lighting in Antebellum America and the Origins of the Oil and Gas Energy Regime (Jeffrey Manuel, Southern Illinois University)
Rhetoric, Reality and Nuclear Power (David Hecht, Bowdoin University)

17.30 Welcome and Plenary at the Chemical Heritage Foundation

Plenary Session Technology, Democracy and Participation
(Organizers: The Local Organizing Committee)

Chair: Babak Ashrafi, Consortium for the HSTM, Philadelphia

Donna Riley, Virginia Tech
Nathan Ensmenger, Indiana University

19.00 Opening Reception at the Chemical Heritage Foundation

Friday, October 27, 2017

08.00 – 10.00 **F1: Graduate Students Workshop I** (Organizer: Jennifer Alexander, University of Minnesota)

F2: Technological Unemployment and the Future of Work: This Time Is Different – Or Is it? (Organizer: Jonathan Coopersmith, Texas A&M)

Chair: Daryl Hafter, Eastern Michigan University

Diversity and the Future of Work: How Can we Make It Different This Time? (Janet Abbate, VPI)
The Luddites: From Machine Breakers to Dreamy Romantics (Yakup Bektas, Tokyo Institute of Technology)
Do Robots Own the Future? A History-Centered Examination of Technological Unemployment and Economic Uncertainties (Amy Bix,

Iowa State University)

Technological Innovation and Jobs: Taking the Very Long Historical View (Bernie Carlson, University of Virginia)

This Time is Not Different: The Politics of Productivity (Louis Hyman, Cornell University)

The Future of Work: Good Jobs for All? (Philip Scranton, Rutgers University)

Men Or Robots? (Chris Rasmussen, Fairleigh Dickinson University)

F3: Beyond Borders: Aviation History from a Global View (Organizer: Jenifer Van Vleck, Smithsonian Institution)

Chair and Commentator: James Gormly, Washington & Jefferson College

Cold War Friendly Skies: Pan Am, Aeroflot and the Political Economy of Detente (Steven Harris, University of Mary Washington)

The Global Failure of Supersonic Air Travel: Insight from the Soviet Union (Christopher Zakroff, Georgia Institute of Technology)

A Monroe Doctrine of the Air? The United States and the 1928 Havana Convention (Sean Seyer, University of Kansas)

Air Scare: A Cultural History of Hijacking (Jenifer Van Vleck, Smithsonian Institution)

F4: Where is the Sex in the History of Technology? (Organizer: Donna Drucker, TU Darmstadt)

Chair: Marie Hicks, University of Wisconsin-Madison

Commentator: Heather Munro Prescott, Central Connecticut State University

Form and Reform: Technology and Women's Sexuality in Late Nineteenth-Century American Medicine (Donna Drucker, TU Darmstadt)

Intimate Appliances: A Photographic Series (Lindsey Beal, Massachusetts College of Art & Design)

State of the Sex Toy Studies Field (Hallie Lieberman (Georgia Institute of Technology)

Sexuality and the Automobile: A Cultural Historiography (Katherine Parkin, Monmouth University)

F5: Maintaining Natures (Organizers: Alice Clifton, Georgia Institute of Technology and Nicole Welk-Joerger, University of Pennsylvania)

Chair: David Nye, University of Southern Denmark

Commentator: Thomas Zeller, University of Maryland

Urgent Roads for the 'Unknown': The Roads of the Algerian Sahara in the 1950s (Angelica Agredo Montealegre (King's College London))
Front-Line Fowl: Messenger Pigeons as Communications Technology in the United States Army (Alice Clifton, Georgia Institute of Technology)
Hydro or Social Engineering? The Question of Draining the Polesie Marshes in Interwar Poland (Slawomir Lotysz, Polish Academy of Sciences)
Measuring Maintenance: Cow Condition and Calorimeters in America's Early 20th Century (Nicole Welk-Joerger, University of Pennsylvania)

F6: Computers and Futures: Expectations of a Future with Computers in Eight Countries 1945-75 (Organizer: Dick van Lente (Erasmus University, Rotterdam))

Chair: Andrew Russell, SUNY Polytechnic Institute
Commentator: Thomas Misa, University of Minnesota

The Social Impact of Computers in New Zealand, Anticipations and Concerns 1968-78 (Janet Toland, Victoria University, Wellington New Zealand)
Imagining the Future Role of Computers in the Shadow of Communism: The Polish People's Republic from the Early 50s to the Early 70s of the 20th Century (Miroslaw Sikora, Institute of National Remembrance Katowice, Poland)
Too Many Mathematicians? How the Soviets Lost the Cold War Computer Hardware Competition but (maybe) are Winning the Hacking War (Barbara Walker, University of Nevada, Reno)
Society Transformed by Computers: The Netherlands in the 1950s and 60s (Dick van Lente, Erasmus University, Rotterdam)

F7: Infrastructures of Maintenance: Animals, Regulations and Expertise (Organizer: Benjamin Wollet, University of Delaware)

Chair: Ann Greene, University of Pennsylvania
Commentator: TBA

Maintaining Life: Managing Geographies of Excess in an African City 1890s-1940s (Tasha Rijke-Epstein, University of Michigan)
The Faltering of the Hydraulic Mission: Technology and the Limits of Irrigation in Cuyo, Argentina 1960-90 (Facundo Martin, Universidad Nacional de Cuyo and Mark Healey, University of Connecticut)
For Good Measure: The Role of Regulatory Records in Environmental Maintenance (Eira Tansey, University of Cincinnati Libraries and Hillel Arnold, Rockefeller Archive Center)
Maintaining Trade, Technology and Ecosystems along the US-Mexico Border 1992-2004 (Benjamin Wollet, University of Delaware)

F8: The Sky's the Limit: Alternative and Ephemeral Effluence in Transboundary Technological Systems (Organizer: Lisa Ruth Rand, University of Wisconsin-Madison)

Chair: Sabine Höhler, KTH Royal Institute of Technology Stockholm
Commentator: Max Liboiron, Memorial University of Newfoundland

Seeing Skyglow: Materializing Artificial Light at Night at the US National Park Service (Sara Pritchard, Cornell University)

Radio Pollution: From Sparks to White Spots (Nina Wormbs, KTH Royal Institute of Technology)

Boundary Crossings of Sound and Vibration: Low Frequency Noise Regulations in Taipei, Taiwan (Jennifer Hsieh, Stanford University)

'Allow Equitable Access to this Orbit': Resistance to the Technological Colonization of Geosynchronous Space 1972-80 (Lisa Ruth Rand, University of Wisconsin-Madison)

F9: 'The Measure of Men': Human-Machine Encounters in East Asia's Long Twentieth Century (Organizer: Victor Seow, Harvard University)

Chair: Francesca Bray, University of Edinburgh
Commentator: TBA

Engines of Energy Extraction: Technology and Labor in Manchurian Coal Mining (Victor Seow, Harvard University)

'Farms Echoing with the Clamor of Machines': The Kyöngun'gi and Rural Mechanization in South Korea (Hyungsub Choi, Seoul National University of Science and Technology)

Searching for 'a Refrigerator for Koreans': The (Re)invention of the Kimchi Refrigerator in South Korea in the 1990s (Tae-Ho Kim, Chonbuk National University)

Asian Fit for Asian Bodies: 3D Anthropometry and the Functionalization of Body Differences in East Asia (Chihyung Jeon, Korea Advanced Institute of Science and Technology)

F10: Presidential Panel on Theorizing Human Agency and the Self: What Does/Can History Of Technology Contribute to the Humanities? (Organizer: Martin Collins, Smithsonian Institution)

Chair: Martin Collins, Smithsonian Institution

Katherine Boyce-Jacino, Johns Hopkins University

Christopher Otter, Ohio State University

Amy Slaton, Drexel University

Ashwini Tambe, University of Maryland

Adelheid Voskuhl, University of Pennsylvania

10.00 – 10.30 Coffee Break

10.30 – 12.30 **F11: Graduate Students Workshop II** (Organizer: Jennifer Alexander,

SHOT – PHILADELPHIA 2017 – PRELIMINARY PROGRAM – VERSION 22 SEPTEMBER – –

University of Minnesota)

F12: Presidential Roundtable: Thinking with Ann Johnson (Organizer: Lee Vinsel, Virginia Tech)

Chair: Karen Rader

Knowing Technology: Ann Johnson, Knowledge Communities and Historical Epistemology (David Brock)

Beyond Disciplines: From Knowledge Communities to Mensch-Hood (Alexandra Hui, Mississippi State University)

Neurodiversity and Invisible Disabilities, Thinking About our Profession and our Students (Allison Marsh, University of South Carolina)

Seeking Closure: Ann Johnson on Emerging Technologies (Patrick McCray, University of California Santa Barbara)

Ann Johnson on Engineering and Natural History in Early America (Timothy Minella, University of South Carolina)

Ann Asked, We Should Try to Answer: What if we Wrote the History of Science from the Perspective of Applied Science? (Cyrus Mody, Maastricht University)

It's Hip to be Square: How Ann Johnson Showed us a Way beyond Social Construction (Lee Vinsel, Virginia Tech)

Aren't we all, deep down, Closeted Philosophers? Ann Johnson's Suggestions and Concerns about the Place of Philosophy in HPS, STS, Engineering Studies and Contemporary Universities (Adelheid Voskuhl, University of Pennsylvania)

F13: Technologies, Bodies and the Self

Chair and Commentator: Ronald Kline (Cornell University)

Gender, Technology and Disability: The Creation of Assistive Devices for Disabled Homemakers in the Post-World War II US (Laura Puaca, Christopher Newport University)

Hands across Borders during the Cold War: Making Bionic Upper Limbs in America, Canada, Germany, Italy, UK and USSR from 1945-89 (David Foord, St Thomas University)

A Patented Self (Denise Pilato, Eastern Michigan University)

Homo Microbis: Technoscientific Imaginaries of a more than Human Body (Terje Finstad, Norwegian University of Science and Technology)

F14: Conceptual History Meets History of Concepts: Rethinking Technology, Innovation and Applied Science (Organizer: Eric Schatzberg, Georgia Institute of Technology)

Chair: TBA

Commentator: TBA

Technological Change: The Study of a Transdiscursive Object (Benoit Godin, INRS)

The Technical Sciences in the Shadow of Pure Science in Post-War West Germany (Désirée Schauz, Akademie der Wissenschaften zu Göttingen)

Defining Technology through the Instructions of Training (Robert Bud, Science Museum London)

Critiquing the Critiques: Public Discourse about the Technology during the Long 1960s (Eric Schatzberg, University of Wisconsin-Madison)

F15: International Scholars (Organizer: Jenny Leigh Smith, Hong Kong University of Science and Technology)

Chair: TBA

Waqar Zaidi, Lahore University of Management Sciences

Edison Renato Silva, Universidade Federal do Rio de Janeiro

Yang Haiyan, Peking University

Marta Macedo, Institute of Social Sciences of the University of Lisbon

Zhang Zhuhui, Institute for History of Natural Sciences, Chinese Academy of Sciences

F16: Electrifying the World: Post-Colonial Narratives in Electrification (Organizer: George Wilkenfeld (George Wilkenfeld and Associates))

Chair and Commentator: George Wilkenfeld (George Wilkenfeld and Associates)

Municipal Pride versus State Power: Electrification in Colonial New South Wales and Federation Australia, 1890-1914 (George Wilkenfeld, independent scholar, Australia)

Politics of Electrification in the Dissident Regions: Electrification of the Eastern Provinces of Turkey in the 1930s (Esra Bakkalbasioglu, University of Washington Seattle)

'Left Far Behind': The Electrification of Reefton as a Model for Imperial Energy Transitions (Nathan Kapoor, University of Oklahoma)

Electricity and Urbanization in the Madras Presidency 1895-1947 (Srinivasa Rao, Bharathidasan University, India)

F17: Governance in the History of Information Technology: Law, Policy and Regulation (Organizer: Gerardo Con Diaz, University of California Davis)

Chair and Commentator: Nathan Ensmenger, Indiana University

IBM and its Patent Portfolio: Antitrust and Intellectual Property Law in the History of Software 1956-69 (Gerardo Con Diaz, University of California Davis)

The Machine in the Market: Computing and Financial Techno-Regulation at the New York Stock Exchange 1963-75 (Devin Kennedy, Harvard University)
A Right to a Human in the Loop: A Comparative Legal History of Automated Decision-Making and Personhood from Data Banks to Algorithms (Meg Jones, Georgetown University)
Governing by Numbers: Metrics and the Irreducible Uncertainties of Cybersecurity (Rebecca Slayton, Cornell University)

F18: Presidential Roundtable on Method and Scale in the Global History of Technology (Organizer: Aleksandra Kobiljski, CNRS France)

Chair: Francesca Bray, University of Edinburgh

Francesca Bray, University of Edinburgh
Aleksandra Kobiljski, CNRS France
Lissa Roberts, Professor of Long Term Development of Science and Technology, University of Twente
Giorgio Riello, University of Warwick
Mikael Hard, Department of History of Technology, Technical University of Darmstadt

F19: Participation and Barriers to Participation in the Development of Industrialized Mining (Organizer: Fredric Quivik, Michigan Technological University)

Chair: William Storey, Millsaps College
Commentator: Sarah Grossman

The Anaconda Company and the Deer Lodge Valley Farmers: Metal Mining and a Failed Legislative Effort in 1903 to Control Industrialization's Environmental Impacts (Fredric Quivik, Michigan Technological University)
Beyond Butte: Anaconda Copper, Geological Exploration and the Creation of a Worldwide Mining Firm (Mark Hendrickson, University of California San Diego)
Exporting Expertise and Capital: American Mining Engineers and Foreign Direct Investment in the Chilean Copper Mining Industry 1894-1930 (Eric Nystrom, Arizona State University)
Reaction to Deindustrialization on the Anthracite Landscape (Bode Morin, Eckley Miners Village)

F20: Trans-Global South Conversation on the Concept of 'Technology' (Organizers: Clapperton Mavhunga, MIT and Projit Mukharji, University of Pennsylvania)

Clapperton Chakanetsa Mavhunga, MIT
Projit Mukharji, University of Pennsylvania

Pablo Gomez, University of Wisconsin
Gabriela Soto-Laveaga, Harvard University
Kathryn de Luna, Georgetown University
Carla Nappi, University of British Columbia
Geri Augusto, Brown University
Robyn d'Avignon, NYU
Marwa Elshakry, Columbia University

12.30 – 14.00

Commemorative Event for Ann Johnson ([Lee Vinsel](#))

Grab the Mike and tell us about your work in five minutes ([John Krige](#))

The Road from Uppsala: 25 Years of SHOT's Internationalization ([Francesca Bray/Mats Fridlund](#))

14.00 – 15.30

F21: Technologies Derived From Conflict

Chair: Edward Jones-Imhotep, York University

Commentator: TBA

North of Modernity: Pragmatism and the DEW Line (Michael Laurentius, York University)

The Missile, The Forest and The Garbage Can: Reliable Design and Rational Decision-Making in the Minuteman Program (Daniel Volmar, Harvard University)

Collecting Randomness for the Vernam System: The Cryptographic Use of Noise at Bell Labs, 1917-45 (Charles Berret, Columbia University)

F22: Communication and Technologies

Chair: Mara Mills, New York University

Commentator: Ramesh Subramanian, Quinnipiac University, Connecticut

Opening Up the Internet and Finding It Discriminatory, The Public Discourse on Network Neutrality in the US (Po-Jen Bono Shih, Virginia Polytechnic Institute and State University)

Don't Sit Around and Blab Your Mouth: The Changing Social Structures of Family Life Seen Through Accounting Practices of 20th Century Landline Telephony in Denmark (Mette Simonsen Abildgaard, Aalborg Universitet and Lee Humphreys, Cornell University)

F23: Cold War Technologies

Chair and Commentator: John Krige, Georgia Institute of Technology

Rebuilding the Knights of the Air: The Cultural Origins of Fourth Generation Fighter Aircraft (Michael Hankins, Kansas State University)
Trading PLATO: US-Soviet Cooperation in Computer-Based Education (Ekaterina Babintseva, University of Pennsylvania)
Weapons Acquisition in the 1980s U.S. Army: A New Perspective on the History of the Reagan-Era Defense Buildup (Thomas Lassman, Smithsonian National Air and Space Museum and Historical Office, Office of the Secretary of Defense)

F24: Technology in the Anthropocene Roundtable Discussion
(Organizer: Scott Knowles, Drexel University)

Chair: Scott Knowles

Scott Knowles and Students

F25: Grassroots Motorsports (Organizer: John Alic, Independent Scholar)

Chair: Andrew Russell, SUNY Polytechnic Institute

It's Out in the Garage: The Culture and Technology of Street-Based Motorsports (David Lucsko, Auburn University)
The Mighty Midget: Grassroots Open-Wheel Racing (Alison Kreitzer, University of Delaware)
Unlikely Innovators: Motorsport Pioneers Imprisoned in WWII for Japanese Ancestry (Norman Mayersohn)
High Class and Grassroots: Sports Cars in American Automotive Culture (Jeremy Kinney, National Air and Space Museum, Smithsonian Institution)
Wrenching and Racing in the 1960s (John Alic, Consultant)

F26: Problematizing the Pipeline: Understanding Disability/Ability in STEM (Organizer: Jessica Martucci, Chemical Heritage Foundation)

Chair: Jody Roberts, Chemical Heritage Foundation
Commentator: David Caruso, Chemical Heritage Foundation

Making a Difference: Some Challenges for Historical Studies of Disability and Technology (Amy Slaton, Drexel University)
'Everyone Wanted One Just Like Mine': Questioning Assumptions about Adaptive Technology and Dis-/ability in the Lab (Jessica Martucci, Chemical Heritage Foundation)
Beyond Accessible Design: NTID, DeafSpace and the Construction of Sociotechnical Spaces (Kristoffer Whitney, Rochester Institute of Technology)

F27: Bridge and Curb Chain: The Impacts of Technology and

Knowledge in the Relationship between the China and Tributary Countries during Ming and Qing (Organizer: Yuyu Dong, Shanghai Jiao Tong University)

Chair: TBA

Commentator: Sa Rina, Shanghai Jiao Tong University

Presenting Tribute, Pacification Policy and Spreading of Technology: Overseas Students' Contribution in Fujian to Transmission of Timing Technology by Water Clock and its Effect on Ryukyu from the 17th to 18th Century (Yuyu Dong, Shanghai Jiao Tong University)

Reverse the Positions: The Conflict of Measuring Technology between East and West during the Geodesic Survey to Korea in the 18th Century (Yuzhen Guang, University of Science and Technology in China)

Authenticating 'Human Science' in late Imperial China: the Case of Miao Albums (Jing Zhu, University of Edinburgh)

F28: History of AI and Its Discontents (Organizer: Colin Garvey, RPI)

Chair and Commentator: Thomas Haigh, University of Wisconsin

Let's Learn from AI Winter! The History of AI and Its Discontents in South Korea (Youjung Shin, KAIST)

The Evolution of AI Risk in America, 1956-96 (Colin Garvey, RPI)

Intuition, Automation and Corporations: Debates over Artificial Intelligence in Corporate America, 1970-90 (Kira Lussier, University of Toronto)

F29: Nuclear Science and Engineering in the Michigan Memorial-Phoenix Project (Organizer: Joseph Martin, Consortium HSTM)

Chair and Commentator: Stuart W. Leslie, Johns Hopkins University

The Phoenix Project at the Science-Industry Nexus (Joseph Martin, Consortium HSTM)

'Civilizing the Atom': Training Nuclear Engineers in Michigan (David Munns)

'A Country Worthy of Attention': Mexican Students at the Phoenix Project (Gisela Mateos/Edna Suárez-Díaz)

F30: The Hidden Material Histories of Data as Sites of Epistemic Virtue (Organizer: Aaron Plasek, Columbia University)

Chair and Commentator: TBA

'Our Commercial Babies': Lotus Marketplace and Visions of Consumer Intimacy (Aaron Plasek, Columbia University)

'Fusion Centers and Intelligence Sharing: A Match Made in Heaven or Hell? (Andi Dixon, Columbia University)

Constructing Words: Material Computing Devices, 'Tractable' Problems and the Origins of the Belief in the 'Unreasonable Effectiveness of Data' (Caroline Jack, Data and Society)

F31: Technology and the Environment in Authoritarian Regimes
(Organizer: Viktor Pal, University of Helsinki)

Chair: Tiago Saraiva, Drexel University

Commentator: Marta Macedo, Institute of Social Sciences of the University of Lisbon

Fascism by FIAT: Mechanization and Monoculture in Mussolini's Battle for Grain, 1925-35 (Robert Corban, Columbia University)

The Emission of Sulfur Dioxide in GDR: Between Technology, Economics, Diplomacy and Public Opinion (Michel Dupuy, Institut d'Histoire Moderne et Contemporaine)

Environment and Technology in State-Socialist Hungary in the 1980s (Viktor Pal, University of Helsinki)

F32: Work and Use in the Pre-Industrial Textile Industry (Organizers: Sarah Lowengard, The Cooper Union and Daryl Hafter, Eastern Michigan University) at the Philadelphia Museum of Art

Room: The Costume and Textiles Study Room, The Dorrance H. Hamilton Center for Costume and Textiles, Philadelphia Museum of Art, which is located on the 2nd Floor of the **Perelman Building, 2525 Pennsylvania Ave at Fairmount Avenue (N. 25th Street)**. *For directions see in the back of this program*

Chair and Commentator: Daryl Hafter, Eastern Michigan University

Dye Technologies, Technology Transfer and New Markets in Eighteenth Century Europe (Sarah Lowengard, The Cooper Union)

Silk in Colonial Mexico (Elena Phipps, Independent Scholar)

American Homespun (Linda Welters, University of Rhode Island)

F33: Technologies of Global Health in Africa (Organizer: Heidi Morefield, Johns Hopkins University)

Chair: Anne Pollock, Georgia Institute of Technology

Making Insecticide-Treated Nets appropriate for Africa in the Late Twentieth and Early Twenty-First Centuries (Kirsten Moore-Sheeley, Johns Hopkins University)

Research, Development and the Emergence of the 'NTDs': Cases from Post-Colonial Africa (Mari Webel, University of Pittsburgh)

Appropriate for Whom? Appropriate Technology and International Health in South Africa and Zimbabwe (Heidi Morefield, Johns Hopkins University)

In the Shadows of the Dynamite Factory: Material and Social Legacies of Extraction for Pharmaceuticals in South Africa (Anne Pollock, Georgia Institute of Technology)

15.30 – 16.00

Coffee Break

16.00 – 17.30

F34: Playing with Technology: Fun and Games for Citizens and Consumers (Organizers: Jesse Smith, University of Pennsylvania, and Ingrid Ockert, Princeton University)

Chair and Commentator: Roger Turner, Independent Scholar

Summertime and the Living is Plastic: PVC and the Creation of a Summer Toy Industry (Angela Cope, York University)

As Seen on TV: Science, Technology and the Television Set (Ingrid Ockert, Princeton University)

Carnival Cruise Line's 'Fun Ships': Transforming Technologies of Transportation into Technologies of Fun (Jesse Smith, University of Pennsylvania)

Technology, Play, Participation: Construction Toys and the Shaping of Ideal Citizens (19th and 20th centuries) (Artemis Yagou, Deutsches Museum, Munich)

F35: Democratizing the Technologies of Pop Music: Songs in the Key of Gender, Fandom and Digital Sampling (Organizer: Asif Siddiqi, Fordham University)

Chair: Patrick McCray, University of California Santa Barbara

Rebel Rousers: Girls Playing with Sound and Technology in the 1960s (Susan Schmidt Horning, St John's University)

MMMBop: From Analogue to Digital, Oklahoma to the Internet (Louie Dean Valencia-Garcia, Texas State University)

Digital Sampling as History of Technology: MIA's 'Paper Planes' and the Sonic Quotations of Globalized Pop (Asif Siddiqi, Fordham University)

F36: Engineers and Power

Chair: TBA

Commentator: TBA

The Revolt of Chinese 'Red Engineers' (Zhihui Zhang, Chinese Academy of Sciences)

What Counts as a Practical Engineer: The Changing Meaning of 'Practical Capability' in the History of Chinese Engineering Education since 1949 (Qin Zhu, Colorado School of Mines)

Engineers on the Edge: Environmental Regulation and the Challenges of Managing Urban Infrastructure, 1960-2000 (Eric Hardy, Loyola University)

F37: Men-Machine Relationships in the 20th Century: How Technology Mediated Concepts, Practices and Models of the Human
(Organizer: Martina Hessler, Helmut-Schmidt University, Hamburg)

Chair and Commentator: Oliver Müller

Nothing More Than Button Pushing? Men-Machine Relations in Psychiatric Therapy in the middle of the 20th Century (Max Gawlich, University of Heidelberg)

German Psychotechnics and the Men-Machine Adaptions (Kevin Liggieri, University of Bochum)

Thinking Machines? How the Computer Changed Concepts and the Practices of Playing Chess (Martina Hessler, Helmut-Schmidt University, Hamburg)

F38: Fear of Technology – Technology of Fear (Organizer: Karena Kalmbach, TU Eindhoven)

Chair and Commentator: TBA

Karena Kalmbach, TU Eindhoven

Andreas Spahn, TU Eindhoven

Ginevra Sanvitale, TU Eindhoven

Katharina Loew, University of Massachusetts Boston

F39: Nuclear Danger

Chair: Stefan Esselborn, Technische Universität Munich

Commentator: TBA

Computing's Promise, Bomb's Peril: The Culpeper Computing Switch, the Federal Reserve's Nuclear Bunker and Concomitant Narratives of Technological Transformation of American Society, 1969-89 (Andrew McGee, Carnegie Mellon University)

The Peculiar Expense of the British Atom: The Internal Critics of the British Nuclear Power Programme, 1957-83 (Thomas Kelsey, King's College London)

An Undefined Nuclear Legacy: How to Classify and Manage the Nuclear Waste in Modern Russia? (Andrei Stsiapanau, European Humanities University)

F40: History of AI and Its Discontents II (Organizer: Colin Garvey, RPI)

Chair: Colin Garvey, RPI

Commentator: Sepanie A. Dick, University of Pennsylvania

AlphaGo Shock and AI's Effect on Korean Society (Mi-seon Maeng, Seoul National University)

The Unreasonable Success of Intelligent Tutoring Systems (Shreeharsh Kelkar, University of California Berkeley)

Upper Level Ontologies: The Contested Languages of Artificial Intelligence (Andrew Iliadis, Temple University)

F41: Technological Innovation and the Diffusion of Techniques and Expertise in Britain, France and America in the Eighteenth and Nineteenth Centuries (Organizer: Adam Lucas, University of Wollongong, Australia)

Chair and Commentator: Marie Thébaud-Sorger, CNRS France

Judging Technology: The French Académie des Sciences and the Examination of Inventions, 1750-1835 (Jérôme Baudry, University of Geneva)

Technological Innovation and Diffusion in the British Coal Mining Industry, 1825-95 (Adam Lucas, University of Wollongong, Australia)

For the Public Good? The Role of the State in the Promotion of Technology in the Long Nineteenth Century (Steven Walton, Michigan Technological University)

F42: The Changing Faces of ‘Technoscience’: Chemistry and Industry from the Eighteenth Century until the Twentieth Century (Organizer: Joris Mercelis, Johns Hopkins University)

Chair and Commentator: Ellan Spero, MIT

Chemical Knowledge and the 18th Century Chemical Industry (Leslie Tomory, McGill University, Montreal)

Beyond Synthetic Organic Chemistry: Photographic and Electrochemical Technoscience c. 1880-1914 (Joris Mercelis, Johns Hopkins University)

‘The Question we Told Our Correspondents to Ask Washerwomen’: American Consumers and the Construction of Industrial Expertise, 1890-1950 (Spring Greeney (Beckman Center for the History of Chemistry, Chemical Heritage Foundation)

F43: The Genres of the History of Technology (Organizer: Jennifer Lieberman, University of North Florida)

Chair: Jennifer Lieberman, University of North Florida

Jennifer Lieberman, University of North Florida

Clifford Siskin, New York University

Rosalind Williams, MIT

Chanda Prescod-Weinstein, University of Washington

Suzanne Moon, University of Oklahoma

F44: Standardizing Taste: Techniques to Tame Market Judgement by Objectifying the Senses (Organizer: Xaq Frohlich, Auburn University)

Chair: TBA

Commentator: Roger Horowitz, Hagley Library and Museum

An Age of Standards: The Rise of the FDA's Food 'Standards of Identity' System, 1930s-50s (Xaq Frohlich, Auburn University)

Standardizing 'Natural' Scents: Contested Expertise in Perfume Materials in the Early Twentieth Century (Galina Shyndriayeva, University of Tokyo)

Standardizing Freshness: Peppermint, Toothpaste and the Manufacturing of Cleanliness in Modern Japan (Feng-en Tu, Harvard University)

18.30 Da Vinci Lecture and Heavy Hors d'Oeuvres, Drexel University

20.30 Graduate Student and Early Career Scholars Mixer

Saturday, October 28, 2017

07.00 Graduate Student Breakfast

08.00 – 10.00 **S1: Presenting History of Technology in 21st Century Exhibits at The National Air and Space Museum**

(Organizer: Michael Neufeld, National Air and Space Museum, Smithsonian Institution)

Chair: Deborah Douglas, MIT Museum

Commentator: Emily Gibson, National Science Foundation

Reinventing the Early Flight Gallery (Tom Crouch, National Air and Space Museum, Smithsonian Institution)

America Takes Flight: The Democratization of Air Travel (Rober van der Linden, National Air and Space Museum, Smithsonian Institution)

We All Fly: General Aviation and the Relevance of Flight (Dorothy Cochrane, National Air and Space Museum, Smithsonian Institution)

Destination Moon: Lunar Flight Technology from Ancient Dreams to Contemporary Exploration (Michael Neufeld, National Air and Space Museum, Smithsonian Institution)

S2: Tracing Tracks, Monitoring Flows in Logistics Environments

(Organizer: Felix Mauch, TU Munich)

Chair: Adelheid Voskuhl, University of Pennsylvania

Commentator: Mats Fridlund, Aalto University, Finland

Knowing the Land – Territorialism and the Production of Logistical Space
(Felix Mauch, TU Munich)

Controlling the Intersection of Logistical Space and Marine Environments – the idea of a Virtual Ocean Observatory (Nils Hanwahr (LMU Munich)

Forgetting the Sea: Securing Insecurity and the Logistics of Disavowal (Sophia Rhee, University of Chicago)

Origins and Evolution of the 3PL in International Transportation, 1960-2008
(Joe Lupton, Georgia Institute of Technology)

S3: Eclectic Makers of Industrial Transitions in the Long Nineteenth Century, 1790-1922 (Organizer: Pamela Edwards, Independent Scholar)

This panel is sponsored by EDITH

Chair: Pamela Edwards, Independent Scholar

Commentator: Ruth Cowan, University of Pennsylvania

Looking for Ladies and Finding Lads: The Diverse Makers of Mid-Atlantic Appalachia, 1790-1870 (Pamela Edwards, Independent Scholar)

From Glover to a Women's Typographical Union, 19th Century Women Continually Venture into the Printing Trade (Dianne Roman, Virginia Commonwealth University)

Design Utopia or Design Fiction? Reassessing the History of Design Education and Industrialization in the US and UK (Laura Scherling, Teachers College, Columbia University)

Breathing within the History: The Ever Evolving 'Making' in the Art Studio at Teachers College (Sohee Koo, Teachers College, Columbia University)

S4: Fostering Postwar Innovation: A Collection of Schemes
(Organizer: Eric Hintz, Smithsonian Institution)

Chair and Commentator: Kathryn Steen, Drexel University

Between Novelty and Progress: Corporate Innovation in a Consumer Age
(Samuel Franklin, Brown University)

Incubating Entrepreneurs: University Innovation Centers and the Making of Innovators in the 1970s (Matthew Wisnioski, Virginia Tech)

The Return of the Lone Inventor (Eric Hintz, Smithsonian Institution)

Innovation in Practice: The 'Technology Drive Policy' and the 4M DRAM R&D Consortium in the 1980s and 1990s, Korea (Sangwoon Yoo, Seoul National University)

S5: Data Management: A Mandated Opportunity (Organizer: Jonathan Coopersmith, Texas A&M University)

Chair: TBA

Commentator: Ed Hackett, Brandeis University

Data Management and Sharing (Fred Konz, National Science Foundation)
Adventures in Data Management: Challenges and Key Developments in Collaborative Research (Megan Finn, University of Washington)
Making the Invisible Visible: Data Management and the Historian (Kim Fortun, RPI)
What Tools Do Historians Need to Address the Data Gap? (Alex Wellerstein, Stevens Institute of Technology)

S6: Natural Resources, Technology and Politics in the Twentieth Century (Organizer: Hanna Vikström, KTH Royal Institute of Technology)

Chair and Commentator: Roger Eardley-Pryor, Chemical Heritage Foundation

Is There a Supply Crisis? Sweden's Critical Metals, 1917-2014 (Hanna Vikström, KTH Royal Institute of Technology)
Swedish Mineral Resource Ideologies and Politics in the Third World: The Case of LAMCO in Liberia, 1955-80 (Karl Bruno, KTH Royal Institute of Technology)
The Rush to the North Sea: Oil Security in Britain during the Cold War (Roberto Cantoni, CERI Sciences Po, France)
Deep Sea Mining (c. 1965-82) or Why the Ocean Floor has not become a Space for Resource Extraction (Yet) (Ole Sparenberg, Saarland University, Germany)

S7: Engineering Education and Practice (Organizer: Atsushi Akera RPI)

Chair: Atsushi Akera, RPI
Commentator: Jeff Schramm, Missouri University of Science and Technology

Writing the History of Engineering Technology Education at the Oregon Institute of Technology (Mark Clark, Oregon Institute of Technology)
Floating a Concrete Canoe: The Growth of College Engineering Competitions as Professional Training, 1970-2017 (Amy Bix, Iowa State University)
Reconstructing the Cape Fear: Re-engineering the Coast after the American Civil War (John Davis, Harvard University)

S8: The 'Failed' Tools of Empire: The Rejected and Unexpected Technological Innovations and Networks that Shaped the British Empire (Organizer: Katie Streit, University of Houston)

Chair and Commentator: William Storey, Millsaps College

'The Great Mass are Utterly Worthless': Ordnance Committees and the Invention Screening Process in Victorian Britain (Daniel LeClair, Lone Star College, Texas)

Coal, Steel and the British Raj: Geologists and Indian Independence, 1870-1910 (Aja Tolman, University of Oklahoma)

An Indian Road Revolution in Africa: The Expansion of Inter-Regional Automotive Transportation in Southern Tanzania (Katie Streit, University of Houston)

S9: Along the Margins: Prisons, Disabilities and Technological Knowledge-Making of the Social Periphery (Organizer: Beth Robertson, Carleton University, Canada)

Chair: Robert MacDougall, University of Western Ontario
Commentator: Mara Mills, New York University

Troubling Modernity: Technologies for the Deaf in Colonial South Asia (Aparna Nair, University of Oklahoma)

'Rehabilitation Aids for the Blind': Disabling Technological Knowledges in Cold War Canada (Beth Robertson, Carleton University, Canada)

Correctionetics: Prison Technology and the Carceral State (David Theodore, McGill University, Montreal)

Designing from the Margins: Women as Producers of Disability Technologies in the mid 20th Century US (Bess Williamson, School of the Art Institute of Chicago)

S10: The Republic of Plants: Plant Agency in the Movement of Crops (Organizer: Tiago Saraiva, Drexel University)

Chair: Francesca Bray, University of Edinburgh
Commentator: Tiago Saraiva, Drexel University

From Savior to Frankenstein: The Changing Crops of Corn in Germany, 1950s to 2000 (Franziska Torma, Technische Universität München)

Political Economy of Emergency Food: Class Conflict on Bark Bread during the Great Finnish Famine of the 1860s (Timo Myllintaus, University of Turku, Finland)

Standardizing Robusta: Coffee Beans and Agricultural Science and Colonial Angola (Maria do Mar Gago, University of Lisbon)

Corn Production with Atrazine, Atrazine's Use in the United States and West Germany, 1950-91 (Elena Kunadt, University of Wuppertal, Germany)

S11: Round Table on the BHC at SHOT: Beyond Firms and Machines (Organizer: Xaq Frohlich, Auburn University, Erik Rau, Hagley Museum and Library and Jonathan Coopersmith, Texas A&M)

Hyungsub Choi, Seoul National University

Barbara Hahn, Texas Tech
Richard John, Columbia University
Philip Scranton, Rutgers University
Lee Vinsel, Virginia Tech
JoAnne Yates, MIT

10.00 – 10.30

Coffee Break

10.30 – 12.30

S12: Safety Tested: (Dis)Proving Technical Safety in History I
(Organizer: Stefan Esselborn, Technische Universität Munich)

Chair and Commentator: Karin Zachmann, Technische Universität Munich

The Architecture of Fire Testing in 19th Century American Cities

(Johnathan Puff, University of Michigan)

What About the Children? Chemical Testing Programs in the United States and European Union (Arthur Daemmrich, Smithsonian Institution)

'Safe Enough' or Hazardous to Public Health? The Changing Classifications of Diesel Emissions in the USA and in Europe since the 1970s (Christopher Neumaier, Zentrum für Zeithistorische Forschung Potsdam)

Slow Down and Live! The Postwar Focus on Safe Travel (Renée Blackburn, MIT)

S13: Big Power and the People: Electrification Projects and the Publics They Engage (Organizer: Julie Cohn, University of Houston)

Chair: David Nye, University of Southern Denmark

Electrification's Golden Spike: The 1967 Completion of North America's Power Grid (Julie Cohn, University of Houston)

Ghana's Electric Dreams: Waiting for Light (Stephan Miescher, University of California Santa Barbara)

The Southeast Asian Power Grid (Anto Mohsin, Northwestern University in Qatar)

Destined to be Unsafe: Anti-Nuclear Activism at the South Texas Nuclear Project (Joseph Stromberg, San Jacinto College, Texas)

S14: The Changing Realities of Democracy, Politics and Communication Technologies (Organizer: Jonathan Coopersmith, Texas A&M University)

Chair: TBA

Commentator: Richard John, Columbia University

Self-Organization and Radical Networking: FidoNet in China (1995-98)

(Bo An, Yale University)

Forging the Fax: From Astroturf to 'Alternative Facts' (Jonathan Coopersmith, Texas A&M University)

Citizen Scientists, Political Animals: Lay Science in Political Debates (Rosalind Donald, Columbia University)

The Jallikattu Protests of Tamil Nadu: An Exercise in Reviving Cultural Heritage through Social Media (Ramesh Subramanian, Quinnipiac University, Connecticut)

S15: Technical Environments and Envirotechniques (Organizer: Etienne Benson, University of Pennsylvania)

Chair: Sara Pritchard, Cornell University

Commentator: Nicholas Shapiro, Chemical Heritage Foundation

Making Technology, Unmaking the Environment: Accounting for Ecosystems in the Modern Risk Society (Leah Aronowsky, Harvard University)

Direct Experience and the Envirotechniques of Global Mega-Geomorphology (Etienne Benson, University of Pennsylvania)

Representing and Sensing: Insufficient Metaphors for Scientific Observations of Deep Ocean Environments (Lino Camprubi, Max Planck Institute for the History of Science)

What Got Caught in the Whirlwind? Environmental Techniques and Mid-Century Digital Computing (Bernard Geoghegan, Coventry University)

S16: Technology in the History of the Modern Middle East (Organizer: Aleksandra Kobiljski, CNRS France)

Chair: Aleksandra Kobiljski, CNRS France

Commentators: Suzanne Moon, University of Oklahoma and Akhram Khater, International Journal of Middle East Studies

Of Plows and Tractors (Elizabeth Williams, Brown University)

Decolonizing Infrastructure? (Ahmad Shokr, Swarthmore College)

Popular Protests, Public Utilities (Ziad Abu-Ris, Ohio University)

Dammed Rivers, Lost Souls (Joseph Lombardo, The New School for Social Research, New York)

S17: History of Engineering Ideas, Values and Design (Organizer: Amy Bix, Iowa State University)

Chair and Commentator: Jennifer Alexander, University of Minnesota

Causes and Consequences of Unrecognized and Misused Codified Knowledge (Julie Mark Cohen, Independent Scholar)

The Evolving Values of Justice in Engineering-for-Development (Marie Kleine, Virginia Tech)
Engineering Intangibles (John Alic, Independent Scholar)
Embedded Social Thought and Italian Computer Technologies: The Case of Olivetti's ELEA 9003 (Simona Casonato and Luca Reduzzi, National Museum of Science and Technology Leonardo da Vinci, Milan)

S18: The Republic of Plants: Plant Agency in the Movement of Croscapes II (Organizer: Tiago Saraiva, Drexel University)

Chair: John Lourdasamy, IIT Madras
Commentator: Barbara Hahn, Texas Tech

From India to the Guyanas: The Origins of Rice Production in British Guyana and Surinam (Harro Maat, Wageningen University, Netherlands)
The Resistance of Nature: Imperial Imaginaries in the early 20th Century in Sao Tome Islands (Marta Macedo, University of Lisbon)
Rogue Species: The Cultivation of American Upland Cotton in Early Twentieth Century China (Yuan Yi, Columbia University)

S19: Teaching the History of Technology to Non-History Majors
(Organizers: Alan Meyer and Monique Laney, Auburn University)

Chair: Monique Laney, Auburn University

Atsushi Akera, RPI
Richard Hirsh, Virginia Tech
Hugh Gorman, Michigan Tech
Alan Meyer, Auburn University
Merritt Roe Smith, MIT
Steve Usselman, Georgia Institute of Technology

S20: Computers and Futures: Expectations of a Future with Computers in Eight Countries, 1945-75 II (Organizer: Dick van Lente, Erasmus University, Rotterdam)

Chair: Andrew Russell, SUNY Polytechnic Institute
Commentator: James Cortada, University of Minnesota

The Information Society and How to Live In It according to the United States, France and the Soviet Union (Margarita Boenig-Liptsin, Harvard University)
Man-Machine Dialogues in Image and Print: Circulating, Interpreting and Appropriating Representations of the Computer across the Iron Curtain (Ksenia Tatarchenko, Geneva University)
Business Machines in the Mainframe Era: Making the Future Tangible (David Schumde, Stevens Institute of Technology)

Banking the Future and the Future of Banking: Why German Savings Banks in the East and West Entered the Digital Age (Martin Schmitt, Center for Contemporary History, Potsdam)

S21: Time Out of Joint (Organizers: Kathryn de Luna, George town University and Cyrus Mody, Maastricht University))

Chair and Commentator: Cyrus Mody, Maastricht University

Time in Tangles: Methodologies of Thinking about the Materiality of Time (Tiina Männistö-Funk, Chalmers University of Technology, Sweden)

Striking Technologies: A 5000-Year History of Pyrotechnology and Sparkle in Central Africa (Kathryn de Luna, Georgetown University)

Against Teleological History of Technology: Methodological Considerations in Writing a History of Engineering in Late Sixteenth-Century Rome (Pamela O. Long, Independent Scholar)

Looking for Flame Wars (Alexandre Hocquet, LHSP Archives Poincaré, France and Frederic Wieber, LHSP Archives Poincaré, France)

S22: Maintaining Natures II (Organizers: Alice Clifton, Georgia Institute of Technology and Nicole Welk-Joerger, University of Pennsylvania)

Chair: Lee Vinsel, Virginia Tech

Commentator: Ann Greene, University of Pennsylvania

Manufacturing the Horse: Understandings of Inheritance in the Long 18th Century (Katrin Boniface, University of California Riverside)

Maintaining Tractors and Caring for Horses: Looking after Draught Power Technologies in Twentieth Century British Farming (Felicity McWilliams, King's College London)

Saving the Earth through the Power of the Sun: Solar Energy Advocacy and Opposition in the US since the 1950s (Sarah Mittlefehldt, Northern Michigan University)

Maintaining Model Ecosystems in the Laboratory: Adey's Caribbean Reef Microcosm Tank (Samantha Muka, University of Pennsylvania)

12.30 – 14.00 SHOT Business Meeting

14.00 – 15.30 **S23: Nuclear Civil Defense Studies: New Approaches and Directions** (Organizer: Sarah Robey, Idaho State University)

Chair: Mats Fridlund, Aalto University, Finland

Commentator: Sarah Robey, Idaho State University

Chinese Civil Defence Education: China's Response to the Nuclear

Threat, 1956-71 (Katrin Heilmann, Peking University)
The Incombustible Meets the Unthinkable: Asbestos in Fallout Shelters in Cold War America (Rachel Maines, Columbia University)
Civil Defense and Scientific Expertise: Cultural Images and Authority (Sarah Robey, Temple University)

S24: Making and Buying the Natural: The Democratization of Back-to-Nature Experiences (Organizer: Ai Hisano, Harvard Business School)

Chair: Kathryn Steen, Drexel University
Commentator: Arwen Mohun, University of Delaware

The Most Natural Meal of the Day: Breakfast Cereal and the Return to Nature (Michael Kideckel, Columbia University)
Buckskin Meets Buck Skein™: The Outdoor Industry and Marketing Improvements on Nature (Rachel Gross, University of Wisconsin-Madison)
Imagining the Color of Nature: The Florida Orange Industry and Color Management Practice, 1930s-50s (Ai Hisano, Harvard Business School)

S25: Radio and the Public Sphere in Democracy and Dictatorship (Organizer: Elizabeth Bruton, Science Museum London)

Chair and commentator: Michael Krysko, Kansas State University

The Hobby of Totalitarianism: Ham Radio in the Third Reich (Bruce Campbell, The College of William and Mary)
The Best of Everything (But Politics): John Reith and the BBC's Coverage in the 1920s (Elizabeth Bruton, Science Museum London)
Radio and Nation-Building in Germany, Great Britain and the United States (Heidi Tworek, University of British Columbia)

S26: Moving Beyond the Glass Case: Novel Engagements with Material Culture (Organizer: Christopher McKenna, University of Oxford)

Chair: Allison Marsh, University of South Carolina
Commentator: Anita Kassof, Baltimore Museum of Industry

Teaching with Artifacts to Understand the Global History of Trade (TAUGHT): An Ongoing Experiment at the University of Oxford (Christopher McKenna, University of Oxford)
Corporate Museums: A Look Beyond the Shop Window (Anna Guagnini, University of Bologna)
Extrapolating from Artifacts (Joyce Bedi, Smithsonian Institution)

S27: Regulating Transnational Knowledge Flows in Cold War America (Organizer: John Krige, Georgia Institute of Technology)

Chair: TBA

Controlling Knowledge by Controlling People: The Interplay of US Visa Restrictions and Export Controls in the Cold War (Mario Daniels, Georgetown University)

Export Controls as Regulatory Instruments of Knowledge Circulation in Cold War America (John Krige, Georgia Institute of Technology)

Postwar Controls and Transnational Linkages in India's Atomic Energy Program, 1948-54 (Jayita Sarkar, Boston University)

S28: Historicizing the Visual: Technology and Media (Organizer: Stefka Hristova, Michigan Technological University)

Chair: TBA

Commentator: TBA

'Now, Even Women Can Take Pictures': Writing a Cultural Biography of the Postwar Japanese Camera (Kelly McCormick, University of California Los Angeles)

The CIE Color Space: A Case Study of Visual Theory's Influence on Visual Technologies (Joel Beatty, Western Connecticut State University)

Disseminating Science and Technology: Marie Neurath's Books for All Ages, 1947-71 (Gökhan Ersan, SUNY Binghamton University)

S29: Technology, Law and Injury in the 20th Century United States (Organizer: Mary Mitchell, Purdue University)

Chair and Commentator: Angela Creager, Princeton University

Testing Tampons: Gendered Injury, Regulatory Conflict and Standard Setting (Sharra Vostral, Purdue University)

SMILES to go: Chemical Harm, Regulatory Weakness and a Computational Tool (Evan Hepler-Smith, Harvard University)

Shadow and Substance: Nuclear Weapons, Radiation Injury and International Law after the Bravo Disaster (Mary Mitchell, Purdue University)

S30: Ideologies of Industrialization in the Early American Republic (Organizer: Katheryn Viens, Massachusetts Historical Society)

Chair and Commentator: Merritt Roe Smith, MIT

Virtuous Capital: Mechanization and Economic Independence in the Early Republic (Katheryn Viens, Massachusetts Historical Society)

Industrial Manifest Destiny?: Territorial Expansion and American Weapon Improvement (Lindsay Schakenbach Regele (The Miami University of Ohio)

Beyond Industrial Policy: Patents, Invention and Citizenship in the Early Republic (Kara Swanson, Northeastern University)

S31: Envirotechnical Responses to Pollution Concerns (Organizer: Carl Zimring, Pratt Institute)

Chair and Commentator: Scott Knowles, Drexel University

Atmospheric Monitoring, Fish Consumption Advisories and the Governance of Boundary-Crossing Chemicals (Hugh Gorman, Michigan Technological University)

Toxic Contamination in a Warming World: A Case Study of PCBs (Ellen Spears, University of Alabama)

Reform or Reinforcement? Recycling and the Large Technological System of Global Aluminum Production (Carl Zimring, Pratt Institute)

S32: Detecting Crime

Chair: TBA

Commentator: TBA

'The Private Detective Business is no Different than any other Business or Profession': Technologies of Paperwork and Bureaucracy in American Detective Agencies (Jamie Pietruska, Rutgers University)

The Crime Scene of Technology: Technical Felonies in the New York Subway Mastercard (Noah McClain, Illinois Institute of Technology)

Airport Passenger Security in Hindsight: Playing Politics or Addressing True Threats? (Victor Marquez, Independent Scholar)

S33: Engineers and Society

Chair: TBA

Development and Validation of Engineering Empathy Inventory (Eunjeong Ma, Pohang University of Science and Technology) and Sung-Youn Choi, Dongguk University)

Ambivalence, Ecological Identity and Burning Garbage: Honolulu's HPOWER Incinerator as a Medium-Term Technology (Jordan Howell, Rowan University, New Jersey)

Between Scientific Education and Engineering Training: The Early History of the École Polytechnique (Dazhi Yao, Chinese Academy of Sciences)

15.30 – 16.00

Coffee Break

16.00-17.30

S34: Presidential Roundtable: Technology, Democracy and Participation (Organized by the Local Organizing Committee)

Chair: Amy Slaton, Drexel University

Yanna Lambrinidou, Virginia Tech
Barbara Hahn, Texas Tech
Jose Torero, University of Maryland

S35: Safety Tested: (Dis)Proving Technical Safety in History II
(Organizer: Stefan Esselborn, Technische Universität Munich)

Chair: Arwen Mohun, University of Delaware
Commentator: Lee Vinsel, Virginia Tech

*Nuclear Safety by the Numbers: The Deutsche Risikostudie
Kernkraftwerke as a 'Trading Zone'* (Stefan Esselborn, Technische
Universität Munich)
*Expert's Judgment to Probabilistic Safety Assessment: The Reception and
Use of the Rasmussen Report in France during the 1970s* (Ismail Goumri,
Paris Descartes University/IRSN)
*The Role of Scientific and Intuitive Risk Analysis in the Evidencing
Practice for Food Safety* (Christine Hassauer, Technische Universität
Munich)

**S36: Incorporating Technologies of Mobility: Planning, Using,
Deliberating, Democratizing** (Organizer: Mimi Sheller, Drexel
University)

Chair and Commentator: Mimi Sheller, Drexel University

*From Stakeholder Involvement to Public Participation: Two Phases of
Deliberative Decisionmaking in Infrastructural Planning 1970-2020*
(Hans-Liudger Dienel, Berlin University of Technology)
Glocalizing Cycling in a Global World (Ruth Oldenziel, Eindhoven
University of Technology and Adri Albert de la Bruhèze, University of
Twente)
*Liberalism and Urban Mobilities in Long Term Perspective: Are
Contemporary Uberized Smart Metropolis Compatible with 'Mobile
Justice'?* (Mathieu Flonneau, University Paris I Panthéon-Sorbonne)

S37: Historicizing the Visual: Visual Environments (Organizer: Stefka
Hristova, Michigan Technological University)

Chair: Joel Beatty, Michigan Technological University
Commentator: TBA

Eco-Art: Open Systems as Feminist Systems (Christine Filippone,
Millersville University)

Regarding the Pacific Coast: The Coast and Geodetic Survey and Premature Visual Technologies of the Late 19th Century (John Cloud, NOAA Central Library)

Television as an Aid to Astronomy (Samantha Thompson, Arizona State University)

S38: Non-Participation, Refusal, Resistance and Inaction (Organizer: Alana Staiti, Cornell University)

Chair: Sam Franklin (Brown University)

Commentator: Matthew Wisnioski, Virginia Tech

When Hidden Figures want to Stay Hidden: Non-Participation and Historical Narrative (Alana Staiti, Cornell University)

Spectral Territories: Interference and Obstinacy in the US National Radio Quiet Zone (Jeffrey Mathias, Cornell University)

'My Name is José Jiménez': Hispanics and Non-Participation in Early Cold War Democratic Spaceflight (Erinn McComb, Del Mar College, Texas)

Rendered Invisible – Non-Union Laborers in a Union Town (Rebecca Perry, University of Virginia)

Unknown Participation as Non-Participation: Mysterious Actors and Missing Masses within the Biosphere 2 Enclosure Missions, 1991-94 (Meredith Sattler, Virginia Tech)

S39: Women and Gender in Computing

Chair and Commentator: Tom Misa, University of Minnesota

Sekiko Yoshida: Scientific Computation with an Abacus in the Early US Space Program (Eileen Clancy, City University of New York)

The Fiction of Meritocracy: Race and Gender in the Computing and IT Workforce (Kera Allen, Georgia Institute of Technology)

The Other Women of ENIAC: Gendered Labor in Historical Memory (Thomas Haigh, University of Wisconsin)

S40: Envisioning Technology and Colonialism

Chair: TBA

Ruling Minds: The Media and State Propaganda in British-Ruled Nyasaland, 1945-64 (Paul Chiudza Banda, West Virginia University)

History of Puerto Rico's Science & Technology Innovation Policy as Part of the Island's Economic Development Efforts (Raymond Laureano-Ortiz, Independent Scholar)

S41: 'Hidden Figures' in Technology History: Inclusive Research Methodologies and Storytelling Techniques (Organizer: Fallon

Samuels Aidoo, Northeastern University)

Chair: Fallon Samuels Aidoo, Northeastern University

Discussants: Chanda Prescod-Weinstein, University of Washington, Kara Swanson, Northeastern University and Suzanne Moon, University of Oklahoma

Re-making, Re-constituting and Playing with Gender in the Historical Narrative (Ellen Foster, RPI)

Geographies of Servitude: Black Experiences of Industrialization in Philadelphia, 1830-80 (Geoff Zylstra, NYC College of Technology)

The 'Public History' and 'Hidden Figures' of Data Storytelling (Fallon Samuels Aidoo, Northeastern University)

S42: Technological Utopianism in the Twenty-First Century

(Organizer: Paul Josephson, Colby College)

Chair: Paul Josephson, Colby College

Commentator: Howard Segal, University of Maine

On Track to Utopia: Model Railroading and Utopian Futures in East Germany (Mario Bianchini, Georgia Institute of Technology)

Rethinking the Overview Effect: A Problematic Utopianism in Spaceflight (Jordan Bimm, York University)

Rotors on the Rooftops: Aerial Utopianism in the City, Yesterday and Today (Roger Connor, National Air and Space Museum, Smithsonian Institution)

From democracy to populism: Political metaphors of digital utopianism (Jessa Lingel, University of Pennsylvania)

S43: Cold War Information Technology and the Interpretation of Culture (Organizer: Ian Hartman, Northwestern University)

Chair: Ling-Fei Lin (Nanyang Technological University)

Commentator: Jennifer Light, MIT

Intergenerational Innovation: Reinterpreting Past Failures in Brazil's Infant Industries (Beatrice Choi, Northwestern University)

Cybernetics 'At A Distance': Cold War Anthropology, the RCC Project and the Interpretation of Culture (Ian Hartman, Northwestern University)

'Democracy Must Be Made Safe for Computing: On the Cultural Origins of Computer Security (Christopher Miles, Indiana University)

S44: Constructing Engineering, Constructing Identity: The Recent History of Women Engineers in Sweden and the US (Organizer:

Malin Nordvall, Chalmers University of Technology, Sweden)

Chair and Commentator: Amy Bix, Iowa State University

'You're Never Quite One of the Group': The Choices and Challenges of American Women Engineers from the Baby Boom Generation (Laura Ettinger, Clarkson University, New York)

The Resistant Profession: Gender Equality Work in the 1970s Swedish Engineering Union (Malin Nordvall, Chalmers University of Technology, Sweden)

Gendered Engineering: The Construct of Gender in Historical and Quantitative Analyses of Engineering Identity (Hined Rafeh, RPI)

18.30

Cocktail Reception and Banquet at the Chemical Heritage Foundation

Special Interest Group Events

The **Albatrosses**, whose interests cover all things related to aviation and aerospace, will gather over Breakfast at **Sunday**. Those who wish to attend should grab their food first, then meet up with the group. The Albatrosses are also organizing a workshop on **Sunday** from 11:00 AM–1:00 PM.

To promote scholarship on Asian topics and to encourage historians from Asia to participate in our activities, SHOT members have organized the **Asia Network**. In Philadelphia, network members will meet over breakfast on **Saturday** at 7:00 AM. For more information on the SHOT Asia Network, visit <http://groups.google.com/group/SHOTsigAsia> or contact Honghong Tinn at hhtinn@gmail.com.

The SIG on **Computers, Information and Society** (SIGCIS) will gather over lunch on **Friday** at 12:00 PM (\$17.50). SIGCIS is also organizing a workshop on **Sunday** from 9:00 AM–5:00 PM, for US\$35 (buffet breakfast and lunch included). For more details about this workshop, please visit <http://www.sigcis.org>.

EDITH (Exploring Diversity in Technology's History) supports both scholars and scholarship currently underrepresented in the history of technology and SHOT. In Philadelphia, the group will meet over lunch on **Friday** at 11:00 PM (\$17.50). EDITH is also organizing in collaboration with **WITH** a Lightning Session on **Sunday** from 11:00 AM–1:00 PM.

WITH (Women in Technological History) will gather over lunch on **Saturday** at 11:00 PM (\$17.50). **WITH** is also organizing in collaboration with EDITH a Lightning Session on **Sunday** from 11:00 AM–1:00 PM.

Envirotech will have a breakfast meeting on **Saturday**.

The **Jovians** (electrical history) and the **Mercurians** (communications) will hold their traditional joint lunch-time meeting on **Saturday** at 11:00 PM. Those who wish to attend should grab their food first, then meet up with the group..

The **Prometheans** (SHOT's Engineering SIG) will host a breakfast meeting on **Sunday** and a Sunday meeting from 11:00 AM to 1:00 PM.

SMiTInG, the Military Technology Interest Group will be holding a **Sunday** lunchtime meeting at 2nd Story Brewing Company, 117 Chestnut St. The group will leave from the main lobby of the hotel, gathering 12o cloc. No agenda, just conversation. Please contact Hacker, Bart [Hackerb@si.edu], for reservations sake.

ECIG, SHOT's **Early Career SIG**, will gather for a lunch meeting on **Friday** from 12.30 PM–14:00 PM. Those who wish to attend should grab their food first, then meet up with the group.

TOURS

Please note that seating is limited and that most tours sell out, so please register early
(Preferable with registration to conference)

Thursday

Thursday, October 26, 2017

* 11:00 AM-17:00 PM

Insider Tour of Hagley Museum and Library

Limited to 50 people

Hagley Museum and Library is a premier nineteenth-century industrial site museum and the most important research collection in the history of American business, technology, and industrial design. Located on 235 acres along the banks of the Brandywine in Wilmington, Delaware, Hagley is the site of the gunpowder works founded by E. I. du Pont in 1802. The museum and industrial landscape includes working rolling mills, waterwheels, and turbines, a belt-powered machine shop, workers' housing, and the du Pont family mansion. The library collections document the history of business, technology, design, industrial environments and consumer culture from the 18th century through the present day. The visit will include a behind-the-scenes view of the library's published, audiovisual, manuscript, and digital collections, an insider tour of the museum and property, and the opportunity to explore and converse with Hagley archivists, curators, and guides. A box lunch and bus travel to and from Hagley will be provided. Participants can expect to traverse a few stairs and engage in a modest level of walking

Friday

Friday, October 27, 2017

* 10:30 AM-12:30 PM

Italian Market Tour

Limited to 24 people

Minimal attendance 10!

Bring money for lunch and any purchases as these are not included.

Starting at the always-colorful South Street, head off through the neighborhood of Bella Vista in South Philly. Grab a drink at a local coffee shop and see one of the city's great murals located across from a typical neighborhood park. Swing by a historic deli, duck into a tempting bakery and stroll along Christian Street before getting to the noises, aromas and sights of the famous Italian Market of Philadelphia or, more accurately, 9th Street Market.

"The market is the oldest and largest everyday open-air market in the USA, and it's easy to understand why it is one of Philly's must-see attractions. With your local guide leading the way, explore the huge variety of stores located here, many of which are Italian in heritage. Tempt taste buds as you wander past cheeses, chocolates, spices and olive oils. Discover bakeries, butchers and a myriad of other produce stalls, plus a wonderful kitchen store. And don't worry, if the temptation to purchase becomes too great, you're likely to get a bargain, as many of these stores discount for our travelers.

Along the way, you'll get the chance to talk to some of the owners and employees of these shops and stalls, and hear fascinating stories of the development of this area over the years."

Friday, October 27, 2017

* 14:00 PM-15:30 PM

Fairmount Water Works

Short description: Tour Philadelphia's 19th-century municipal waterworks on the bank of the Schuylkill River. Operational from 1812 to 1909, the Fairmount Water Works became a National Historic Landmark for its Classical Revival architectural design and for its innovative engineering, including using steam engines, waterwheels, and then turbines to pump water up the hill on which the Philadelphia Museum of Art currently sits for gravity distribution across the city.

Saturday

Saturday, October 28, 2017

* 10:30 AM-12:30 PM

Philadelphia Navy Yard

Limited to 30 people

Saturday, October 28, 2017

* 1:30 PM-3:30 PM

Delaware River Waterfront Tour

Limited to 25 people

The wharves and docks of William Penn's city that helped build a nation are gone—lost to the onslaught of more than three hundred years of development. Yet the bygone streets and piers of Philadelphia's central waterfront were once part of the greatest trade center in the American colonies. Local historian Harry Kyriakodis will take us on a walk through the city's original port district, covering topics including Quaker settlers who first lived in caves along the Delaware River, pirates who trolled along the riverside, and the devastating yellow fever epidemic of 1793. The tour will then touch upon the waterfront's heyday as a maritime center and its later-twentieth century history, which saw much of the riverfront razed for highway purposes. The Penn's Landing zone includes many engineering, technological and historic attractions, such as the anchorage to the Benjamin Franklin Bridge, the High Pressure Water Pumping Station, and Elfreth's Alley. Pier 3 Condominium, the Race Street Pier, and Pier 19 (currently Dave & Busters) are also noteworthy for their engineering, technological and historic features, as are some ships encountered along the way. Penn's Landing has been in the news lately because funding to erect a \$225 million cap over I-95 and Delaware Avenue at Penn's Landing has been approved. This will, once again, dramatically change the city's central waterfront—making it more friendly for pedestrians rather than a gritty route for automobiles. Join Kyriakodis as he strolls Delaware Avenue and Front Street to learn the story of Philadelphia's lost waterfront.

Harry Kyriakodis is a historian and writer about Philadelphia, and has collected what is likely the largest private collection of books about the City of Brotherly Love—more than 2,800 titles, new and old. He is a founding/certified member of the Association of Philadelphia Tour Guides and gives walking tours and presentations on unique yet unappreciated parts of the city for various groups.

Saturday, October 28, 2017

* 10:00 AM-12:00 PM

Barnes Foundation tour

Limited to 30 people

Impressionist art museum.

Presentation at 10:00 by Martha Lucy; docent-led tour(s) at 10:30.

The Barnes Foundation

2025 Benjamin Franklin Parkway

Philadelphia, Pennsylvania 19130

barnesfoundation.org

DIRECTIONS

14:00-15:30 Friday, October 27 2017

F32: Work and Use in the Pre-Industrial Textile Industry

Session F32 will meet at The Costume and Textiles Study Room, The Dorrance H. Hamilton Center for Costume and Textiles, Philadelphia Museum of Art, which is located on the 2nd Floor of the **Perelman Building, 2525 Pennsylvania Ave at Fairmount Avenue (N. 25th Street)**

NOTES: The Perelman Building *not* the main building.
There is a café in the building.
No food or drink is permitted in the Study Room and you will be asked to check your coats and any large bags.

DIRECTIONS

from the Sheraton Society Hill to the Perelman Building (about 4.5 miles)

The **Philly Phlash** culture bus stops in front of the Perelman building (Stop # 10). Pick it up at Stop # 2 (Market St. @ 3rd, in front of the CVS). Return from Stop # 15 (The Rocky statue in front of the PMA main building).

Frequency: every 15 minutes. Cost: \$2/\$5 all-day pass. Estimated Time: about 25 minutes.

Philadelphia's bike share program is called **Indego**. The nearest pickup/dropoff to the Sheraton Society Hill is at 2nd St and Sansom Walk. There is a pickup/dropoff spot at N. 26th and Pennsylvania, one block from the Perelman Building. Ride north to Fairmount St., then west to Pennsylvania.

Frequency: whenever you like. Cost: Single ride \$4/½ hour. Estimated Time: about 25 minutes.

Uber/Ubershare/Taxi Frequency: whenever you like. Cost: TBD. Estimated travel time: about 20 minutes.