

## **PRELIMINARY PARALLEL SESSION SCHEDULE**

### **SHOT ANNUAL MEETING 2021\***

**(JOINT SHOT-HSS SESSIONS INCLUDED)**

*Version 14 November 2021*

*Time zone: US Central Time (CT)*

*Please note: for the online conference session lengths will be shortened from 90 to 60 minutes.*

## **Thursday, 18 November 2021**

**1:00 PM – 5:00 PM (CT)**

SHOT Virtual Conference Desk (mail only)

Tech Support through Cadence from 3PM to 6PM (NOT during the Opening Plenary)

## **Thursday, 18 November 2021**

**3:30 PM – 5:00 PM (CT)**

ECIG Business Meeting

**3:30 PM – 4:30 PM (CT)**

**T1: Technology and the Modern North American City**

Organizer: **David Hochfelder** (University at Albany, SUNY)

Chair: **Jonathan Coopersmith** (Texas A&M University)

Commentator: **Jonathan Coopersmith** (Texas A&M University)

**Douwe Schipper** (Johns Hopkins University): *"Government Is Not Created to Serve Experts": The Baltimore Highway Revolt as Resistance against a Technopolitical Regime*

**David Hochfelder** (University at Albany, SUNY): *Operation Breakthrough: An Experiment in Marketbased Housing Construction*

**T2: ROUNDTABLE: Technologies of Disaster in the COVID Era: An Agenda for Disaster Research**

Organizer: **Scott Knowles** (Korea Advanced Institute of Science and Technology)

Panelists:

**Hyunah Keum** (Korea Advanced Institute of Science and Technology (KAIST))

**Scott Knowles** (Korea Advanced Institute of Science and Technology)

**Ashley Rogers** (Whitney Museum)

**T3: Law, Politics, and Technological Regimes**

Chair: **Matthew L. Jones** (Department of History, Columbia University)

**Andrew McGee** (Carnegie Mellon University): *"The Electronic Origins of the Neoliberal Order: Data Processing and Telecommunications Systems as Elements of Debates over U.S. Political Economy, 1970-1990"*

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\* Please note: Receptions, Social events, and SIG events are not included yet in this version of the program.

**Joel Mackler** (Northwestern University School of Law): *Considering Fourth Amendment Protections for Communications and Metadata in Light of the History of Communication Technologies*

**Thomas Haigh** (U. of WI-Milwaukee & Siegen University): *Technology and Empire: IBM's Communist Collaboration*

**Hugo Ljungbäck** (University of North Carolina at Chapel Hill): *Domains on Display: Representing Internet Infrastructure through Anthony Svatek's TV*

#### **T4: Landscapes of Racial Capitalism: The Bay Area and Beyond**

Organizer: **Miriam Powell** (Stanford University)

Chair: **Miriam Powell** (Stanford University)

**Miriam Powell** (Stanford University): *Sorting Residues of Racial Capitalism: Waste, Collection Work, and the Politics of Green Austerity in San Francisco*

**Katja Schwaller** (Stanford University): *In the Entrepreneurial Garden: Nature, Cognitive Labor, and the Corporate Campus*

**Adrienne Hall** (UNC Chapel Hill): *From Rooptown to Prison Town USA: Geographies of Racial Capitalism in Susanville, CA*

**Aliyah Dunn-Salahuddin** (Stanford University): *"The Ecology": Structural and Material Inequities in San Francisco's Bayview-Hunters Point*

#### **T5: Infrastructure and Environmental Injustice in the U.S. Southwest**

Organizer: **Erika Bsumek** (University of Texas at Austin)

Chair: **Felipe Cruz** (Tulane)

**Erika Bsumek** (University of Texas at Austin): *Damming Zion: Water and Infrastructures of Dispossession on the Colorado Plateau*

**Andrew Curley** (University of Arizona): *New New Deals and Colonial Implications: The Legacies of Coal in Today's Energy and Infrastructure planning*

**Traci Voyles** (University of Oklahoma): *Carceral Conservation: Infrastructures of Violence, Confinement, and Incarceration at California's Salton Sea*

#### **T6: Technologies of Power and Subversion**

Chair: **Yulia Frumer** (JHU)

**Panita Chatikavanij**, presenter and **Lee Vinsel** (Virginia Tech): *Technologies of the Civil Rights Movement: The Case of Black Experiences of Buses*

**Kaitlyn Smith** (University of South Carolina): *"You Can Reach and Turn It Off:" Narratives of Technological White Supremacy in the US South, 1900-1963*

**Salem Elzway** (University of Michigan): *Mechanical Slaves on the Line: Race, Robots, and the Sociotechnical Hierarchy of Labor at Lordstown*

**Ritaja Mukherjee**, presenter (Jadavpur University) & **Ajanta Biswas**, Co-Author (Rabindra Bharati University): *Jesters to Rescue: Stand-up - comedy in Digital India*

## Thursday, 18 November 2021

5:45 PM – 7:00 PM (CT)

### Joint SHOT-HSS Land Acknowledgement and Opening Plenary

#### Land-acknowledgement

Organizer: **Marissa Petrou** (Guilbeau Center for Public History at University of Louisiana at Lafayette)

**Jan Golinski**, HSS President (University of New Hampshire)

**Arwen Mohun**, SHOT President (University of Delaware)

**Chief Creppel** (United Houma Nation)

#### Opening Plenary: Environment, Infrastructure, and Social Justice: Public Engagement in Historical and Multidisciplinary Research

Organizer and Chair: **Gabrielle Hecht** (Stanford University)

**Alesia Montgomery** (Stanford University Libraries)

**Jason Ludwig** (Cornell University, Department of Science and Technology Studies)

**Gregg Mitman** (University of Wisconsin–Madison)

**Lisa Onaga** (Max Planck Institute for the History of Science)

## Friday, 19 November 2021

8:00 AM – 5:00 PM (CT)

SHOT Virtual Conference Desk open (Mail only)

Tech Support through Cadence from 8:30 AM to 5:30PM (NOT during Social Events)

## Friday, 19 November 2021

8:30 AM – 10:30 AM (CT)

ECIG Student Workshop I

#### *Co-Organizers:*

**Juyoung Lee** (Johns Hopkins University)

**Patrick John F. Mansujeto** (University of the Philippines-Diliman)

**K. Thamarai Selvan** (Indian Institutes of Technology Madras)

**N. Bucky Stanton** (Rensselaer Polytechnic Institute)

**Viswanathan Venkataraman** (King's College London)

#### *Presenters:*

**Madhu Narayanan** (Indian Institute of Technology Madras): *Making Bamboo Baskets : Craft and Technology in Twentieth Century South India*

**Michelle Choi Ausman** (Rensselaer Polytechnic Institute): *The State of Race and Underrepresented Minorities in STEM Higher Education*

**Francesca Battista** (Virginia Tech): *Words about numbers: The United States and the Metre Convention*

**Konstantin Georgiev** (Rice University): *Making the Truth True: Mobilizing Science to Substantiate Truth Claims in Soviet Siberia*

**Mentors:**

**Ellan Spero** (MIT and Station1)

**Stephen Brain** (Mississippi State University)

## **Friday, 19 November 2021**

**9:00 AM – 10:00 AM (CT)**

### **F1: Satellites, Communication, and the State**

Chair: **Erik Conway** (NASA's Jet Propulsion Laboratory)

**Yannis Fotopoulos** (National and Kapodistrian University of Athens, Greece) and **Stathis**

**Arapostathis** (National and Kapodistrian University of Athens, Greece): *Law and telecoms: the co-production of regulation, along with the socio-technical networks in modern Greece, 1929 – 2019*

**Gemma Cirac-Claveras** (Universitat Pompeu Fabra): *Trading with weather. Governmental and commercial meteorological satellites*

**Toma Kawanishi** (Virginia Tech): *Appropriating a Tool of Empire: A History of Communication Technology in Imperial Japan*

### **F2: Embodied Nature: Envirotech in Modern Latin America**

Organizer: **Rocio Gomez** (Virginia Commonwealth University)

Chair: **Germán Vergara** (Georgia Tech)

Commentator: **Mikael Wolfe** (Stanford University)

**Mónica Salas Landa** (Lafayette College): *“México Progresa:” Pemex’s Propaganda Apparatus and the Fabrication of a Technological Nationalism, 1950-1970*

**Germán Vergara** (Georgia Tech): *Where the Air is Unclear: The “Invention” of Air Pollution in Mexico City During the Twentieth Century*

**Rocio Gomez** (Virginia Commonwealth University): *From Pittsburgh to Peru: Environmental Crises and Corporate Colonialism in Vanadium Mining, 1906-1945*

**Diana Montañó** (Washington University at St. Louis): *(Dis)Placing Necaxa: Power Networks and Erased Histories in Mexico (1890s-1914)*

### **F3: Silenced Diagnoses**

Chair: TBA

**Magdalena Zdrodowska** (Jagiellonian University): *Not definite extinction: (silent) film intertitles as a deaf guerilla technology*

**Bethany Johnson** (University of South Carolina): *“‘Good’ Kids Made ‘Bad’”: Encephalitis Lethargica, Health Infrastructure Technology, and the Social Burden of Survival* (Robinson Candidate)

**Sharrona Pearl** (Drexel University): *Mediated diagnoses, or; is there dyslexia without reading?*

#### **F4: Autarkic Environments**

Organizer: **David Munns** (City University of New York):

Chair and Commentator: **Stuart Leslie** (JHU)

**David PD Munns** (CUNY): *An Excremental History: Building Life Support Infrastructure in the Space Age*

**Yakup Emre Karasahan** (University of Delaware): *Picturing Progress: Ottoman Modernization through Photography*

**Hyungsub Choi** (Seoul National University of Science and Technology): *Imagining Autarky in South Korea: The Technological Conditions of a Postcolonial State*

**David Burel** (ASU): *Architectural Environments: Environmental and Technological Philosophies of the Built Environment in the American Southwest with Earthships and Biosphere 2*

#### **F5: Domesticating Technology**

Chair: **Amy Sue Bix** (Iowa State University)

**Laura Puaca** (Christopher Newport University): *Betty Crocker and Blindness: Creating Assistive Technologies for Visually Impaired Homemakers in the 20th Century U.S.*

**Alexander Parry** (Johns Hopkins University): *Safety for Some: Domestic Accidents and the American Voluntary Safety System* (Robinson Candidate)

**Myrna Moretti** (Northwestern University, RTVF Screen Cultures): *"Part of Our Lives Now: Domesticating the Computer on Family Ties"* (Robinson Candidate)

**Florencia Pierri** (MIT Museum): *Toys that Teach: Computer Games in 1960s America*

#### **F6: Cable Empires: Superimposing U.S. Intelligence Cable Infrastructure on the British Submarine Telegraph Cable**

Organizer: **Kristie Macrakis** (Georgia Tech)

Chair: **Stephanie Grey**

**Gloria Calhoun** (Georgia Tech): *"Indigenous Knowledge and Imperial Industry: Origins of Submarine Telegraph Cables"*

**Kristie Macrakis** (Georgia Tech): *"Passing the Global Espionage Torch: British and US Cable Collaboration at the National Security Agency"*

**Clare Barbour** (Georgia Tech): *"Mapping Snowden's Files: GIS Evidence of Technological Colonialism and the 'Persistence' Feature of Infrastructure"*

#### **F7: Tech History in Tech Policy (Roundtable)**

Organizers: **Meg Jones** (Georgetown University) and **Sarah Bell** (Michigan Technological University)

Co-chairs: **Meg Jones** (Georgetown University) and **Sarah Bell** (Michigan Technological University)

Committed Participants

**Morgan Ames** (University of California, Berkeley)

**Gerardo Con Diaz** (University of California, Davis)

**Colin Garvey** (Stanford University)

**Dan Greene** (University of Baltimore at Maryland)

**Richard John** (Columbia University)

**Joy Lisi Rankin** (AI Now Institute / NYU)

**Hannah Zeavin** (University of California, Berkeley)

**Tamara Kneese** (University of Kansas)

**F8: Crowd Control: Masses, Flows, and Conflict**

Organizer: **Scott Kushner** (University of Rhode Island)

Chair: **Scott Kushner** (University of Rhode Island):

**Xiaoyue Li** (University of Michigan): *Crowd, Line and Dot: The Management of Railway Porters in Colonial Egypt, 1882-1922*

**Helga Tawil-Souri** (New York University): *Through the Turnstile*

**Stefan Höhne** (Kulturwissenschaftliches Institut Essen): *Apparatuses of Separation: Turnstiles, Crowd Control, and the Emergence of Self-Service around 1910*

**Jason Ludwig** (Cornell University) and **Rebecca Slayton** (Cornell University): *Information Infrastructures and Anti-Racist Protest: Inequality and Innovation*

**D. Kim Foundation Sponsored JOINT SHOT-HSS SESSION**

**F9: Building the Margins: Infrastructure and Nation at the Intersection of Sea, Sky, and Soil in China, Japan, and Korea**

Organizer: **Subodhana Wijeyeratne** (Tokyo Woman's Christian University)

Chair: **Ian Miller** (Harvard University)

Commentator: **Zuoyue Wang** (California State University - Pomona)

**John DiMoia** (Seoul National University): *Cheju as Contested Model: Parasitology, Public Health, and Nation-Building in Post-Colonial South Korea, mid-1960s*

**Christine Luk** (Tsinghua University): *Constructing coastal biological stations in 20th century China: Tsingtao and Hong Kong*

**Subodhana Wijeyeratne** (Tokyo Woman's Christian University): *Between the Rocket and the Deep Blue Sea: Space Exploration and the "Fishing Problem" in Southern Japan, 1950-1980*

**JOINT SHOT-HSS SESSION**

**F10: When History of Science and Technology Is Difficult History (Roundtable)**

Organizer: **Aimee Slaughter** (Los Alamos Historical Society)

Chair: **Aimee Slaughter** (Los Alamos Historical Society)

**Alex Wellerstein** (Stevens Institute of Technology): *The Atomic Bombings as Past and Present: The Difficult History of Hiroshima and Nagasaki at 75+*

**Kara Swanson** (Northeastern University): *"Invention of a Slave": An Example from the Difficult History of Race, Technology, and Slavery*

**Katrina Jirik** (University of Minnesota): *Disability is Difficult History*

**Johannes-Geert Hagmann** (Deutsche Museum): *Dealing with Complex Biographies: Disentangling Physics, Ideology and Self-Image in Philip Lenard's Papers and Artefacts*

**Lara Friedenfelds** (Harvard University): *The Myth of the Perfect Pregnancy*

**JOINT SHOT-HSS SESSION**

**Session F11: Making and Doing History: On Non-Traditional Modes of Critical Engagement (Roundtable)**

Moved to a new timeslot: Friday 19 November 2021: 12:45 PM – 13:45 PM (CT)

### **JOINT SHOT-HSS SESSION**

#### **F12: Animals in/as Technologies (Roundtable)**

Organizer: **Brad Bolman** (University of Chicago)

Chair: **Brad Bolman** (University of Chicago)

**Rachel Ankeny** (University of Adelaide)

**Miguel Garcia Sanco Sanchez** (University of Edinburgh)

**Claire Webb** (Berggruen Institute)

**Gina Surita** (Princeton University)

**Anin Luo** (University of Cambridge)

### **JOINT SHOT-HSS SESSION**

#### **F13: Dueling with Data: Fairness by Calculation in the Law**

Organizer: **Michael McGovern** (Department of History, Princeton University)

Chair: **William Deringer** (Massachusetts Institute of Technology)

**Pariroo Rattan** (Harvard University): *Dueling Economists and Discriminating Models: Law and Statistics in 21st Century America*

**Cléo Chassonnery-Zaïgouche** (University of Cambridge): *Contested Rationalities: Economic Expertise in the Comparable Worth Controversy, 1979-1989*

**Michael McGovern** (Princeton University): *The Strange Career of Jim Crow Statistics: Jury Selection in New Deal America*

**Ciara Kennefick** (University of Oxford): *Mathematics and Fairness in French Contract Law, 1700 to 1850*

## **Friday, 19 November 2021**

**11:00 AM – Noon (CT)**

#### **F14: Public Works?: Community, Infrastructure, and Contested Spaces in 20th-Century America**

Organizer: **Amanda Katz** (Carnegie Mellon University)

Chair: **Amanda Katz** (Carnegie Mellon University)

**Janet Bednarek** (University of Dayton): *The Cost of Air Travel: Cleveland Hopkins Airport and the West Park Neighborhood*

**Kathryn Holliday** (University of Texas at Arlington): *Infrastructure and Race: Telephone Buildings in the Age of the Urban Crisis*

**Cara Kiernan Fallon** (Yale University): *Aging Cities: Politics, Public Health, and the Urban Street in 20th Century New York City*

**Amanda Katz** (Carnegie Mellon University): *Experimental Roads: The Object-Lesson of Rural Road Improvement, 1897-1921*

#### **F15: Writing with/about Technology: Case Studies**

Organizer: **David Brock** (Computer History Museum)

Chair: **Laine Nooney** (New York University)

**Yulia Frumer** (Johns Hopkins University): *Engineer Writers, Salaryman Readers, and the Japanese Miracle*

**Adelheid Voskuhl** (University of Pennsylvania): *Writing Periodicals: The Founding of the Engineering Profession and their News Media in the Second Industrial Revolution*

**Patrick McCray** (University of California, Santa Barbara): *Creating a TeXtual Community*

**David Brock** (Computer History Museum): *Striking Results: Electric Typewriters, Writing, and the Early Digital*

#### **F16: Constructing Energy Efficiency**

Organizer: **Hal Wallace** (Smithsonian Institution)

Chair: **Hal Wallace** (Smithsonian Institution)

Commentator: **Robert Friedel** (University of Maryland, College Park)

**Hal Wallace** (Smithsonian Institution): *Brighter is Better? The Energy Crisis and Changing the Culture of Lighting*

**George Wilkenfeld** (Independent scholar): *Visualising the invisible - energy efficiency labelling since the 1970s*

**Sarah Mittlefehldt** (Northern Michigan University): *Burning Better: Social & Environmental Implications of Energy Efficient Wood Heating Technologies in the Late-Twentieth Century*

**Jennifer Eaglin** (Ohio State University): *The Alcohol is Ours: Brazilian Ethanol Development in the 1970s*

#### **F17: Childbirth Technologies and Techniques (1700–1900)**

Organizer: **Margaret Carlyle** (University of British Columbia Okanagan)

Chair: **Cathy McClive** (Florida State University)

**Elizabeth O'Brien** (Johns Hopkins University): *The Reception of the Sims Speculum in Mexico: Technology, Empire, and Nation in mid- to late Nineteenth-Century Mexican Obstetrics*

**Jennifer Kosmin** (Bucknell University): *The Midwife's Bag: Tracing the Objects of Professional Identity in Post-Unification Italy*

**Margaret Carlyle** (University of British Columbia Okanagan): *Sizing up the Pelvis at the Paris Academy of Surgery*

**Scottie Buehler** (University of Texas at Austin): *Curving the Pelvis: The Sociomaterial Practices of André Levret's Obstetrical Forceps*

#### **F18: To Build and Destroy: Military Aviation and Infrastructure (Roundtable)**

Organizer: **Michael Hankins** (Smithsonian National Air and Space Museum)

Chair: **Sean Seyer** (University of Kansas)

**Heather Venable** (US Air Force Air Command and Staff College)

**Mary Elizabeth Walters** (US Air Force Air Command and Staff College)

**Luke Truxal** (Columbia State Community College)

**Michael Hankins** (Smithsonian National Air and Space Museum)

#### **F19: Aesthetics of Technological Desire in Latin America**

Organizer: **Yovanna Pineda** (University of Central Florida)

Chair: **Diana Montaña** (Washington University in St. Louis)

**Yovanna Pineda** (University of Central Florida): *Framing the Future: Neoliberal Soundscapes in Argentina's Documentary Films about Labor*

**Fabian Prieto Nañez** (Virginia Tech): *The Voice of the Pope: Satellite technologies and listening practices in Colombia in 1970*

**Sonia Robles** (University of Delaware): *Agents of Angst, Hope and Expectation: Radio antennas and urban growth in Mexico*

**David Pretel** (Pompeu Fabra University): *Green Gold Modernity: Machines, Peonage and Henequen in Yucatan's Gilded Age*

## **F20: Different Spaces, Places, Time**

Chair: **Atsushi Akera** (Rensselaer Polytechnic Institute)

**Danielle Shanley & Cyrus Mody** (Maastricht University): *Appropriate Technology and Technology Assessment: Mirror-Image Twins?*

**Thamarai Selvan** (Indian Institute of Technology Madras, Chennai, India): *Beating the Taval Drum: Musicians as Instrument Makers in the 20th and 21st Century South India*

**Darren Raspa** (University of New Mexico; US Air and Space Force Research Laboratory History Center): *American Jupiter: Space Force Adventures in the Aerospace Environment*

## **F21: Crowd Control: Architectures, Audiences, and Animals**

Organizer: **Scott Kushner** (University of Rhode Island)

Chair: **Rebecca Slayton** (Cornell University)

**Scott Kushner** (University of Rhode Island): *'No unseated crowd is liable to be orderly': The Technological Control of Industrial-Age Audiences*

**Neil Humphrey** (The Ohio State University): *On a Short Leash: Technologizing Canine Control in Victorian Britain*

**Joy Knoblauch** (University of Michigan): *Management by Design: Constructions of Sense and Sexuality in Robert Propst's Open Office Designs circa 1968*

**Omer Shah** (Columbia University): *Optimizing 'The Crowd' in Mecca* (Robinson Candidate)

## **SHOT Internationalization Committee sponsored session**

### **F22: Infrastructured in the Non-North (Roundtable)**

Organizer: **Gisela Mateos** (Universidad Nacional Autónoma de México)

Co-chairs: **Gisela Mateos** (Universidad Nacional Autónoma de México) and **John Krige** (The Georgia Institute of Technology (Georgia Tech))

**Gisela Mateos** (Universidad Nacional Autónoma de México)

**Edna Suárez-Díaz** (Universidad Nacional Autónoma de México)

**Irina Podgorny** (Museo de La Plata, UNLP)

**Susana García** (CONICET)

**Tatiana Acevedo** (Utrecht University)

**Lina Pinto** (University of Oxford and Universidad de los Andes)

## **D. Kim Foundation Sponsored JOINT SHOT-HSS SESSION**

### **F23: Breakdown of the Productive Self: Work Sciences and Industrial Affect in the Twentieth Century**

Organizer: **Jiemina Tina Wei** (Harvard University)

Chair and Commentator: **Jennifer Alexander** (University of Minnesota)

**Victor Seow** (Harvard University): *“To Advance Innovation and Invention, to Agitate for a Technological Revolution”: Labor Psychology in the Early People’s Republic of China*

**Jiemin Tina Wei** (Harvard University): *Ameliorating Worker Fatigue through the Body’s Motions and Pauses: Frank and Lillian Gilbreth’s ‘Motion Studies’* (Robinson Candidate)

**Sam Schirvar** (University of Pennsylvania): *The Politics of Stress: Human Factors Engineering, Occupational Health, and Air Traffic Control, 1968-1981*

#### **JOINT SHOT-HSS SESSION**

##### **F24: Building Race into the Machine: The Ongoing Challenges of “Big Data”**

Organizer: **Erik Peterson** (The University of Alabama)

Chair: **Iris Clever** (University of Chicago)

**Erik Peterson** (The University of Alabama): *Afraid of the Dark: Making the First ‘Index of Nigrescence’ (1850s-1900)*

**Iris Clever** (University of Chicago): *Tracing race in forensic anthropological data practices: the case of Fordisc*

**Abigail Nieves Delgado** (Utrecht University, Freudenthal Institute): *Making race (ir)relevant: historical biases in facial recognition technologies*

**Catherine Stinson** (Queen’s University, Kingston): *The artifice of AI mindreading*

#### **JOINT SHOT-HSS SESSION**

##### **F25: Death in the Time of Cholera: Bureaucracy, the State and Contested Communications in Nineteenth-Century Spain and the Ottoman Empire**

Organizer: **Alex Schweig** (University of Arizona)

Chair: **Alex Schweig** (University of Arizona)

**Alex Schweig** (University of Arizona): *Contested Quarantines and Interruptions: The Effects of Cholera on Late Ottoman Mobilities*

**Ruth Oropeza** (University of Arizona): *Sanitation in the time of Cholera: Spain, Epidemics and the Dirección General de Beneficencia y Sanidad, 1830-1860*

**Isacar Bolaños** (California State University, Long Beach): *Disease and the State in Late Ottoman Iraq, 1821-1899*

#### **JOINT SHOT-HSS SESSION**

##### **F26: Laser Focus: Planning, Modeling, and Implementing Interferometry to Illuminate the Science-Technology-Policy Interface**

Organizer: **Connemara Doran** (Harvard University)

Chair: **Theresa Levitt** (University of Mississippi)

Commentator: **David Kaiser** (Massachusetts Institute of Technology (MIT))

**Connemara Doran** (Harvard University): *Precision Interferometry from Fizeau and Michelson to the Cosmic First Light*

**Tiffany Nichols** (Harvard University): *More Than Models: Prototypes as Historical Records of the Evolving Epistemic Understandings of the Future Object of Study*

**Daniel Kennefick** (University of Arkansas): *Lasers in Space: A Preliminary Focus on the History of LISA, the Proposed Space-Based Gravitational Wave Detector*

## **JOINT SHOT-HSS SESSION**

### **F27: Explaining Everything: Models, Machines, and Black Boxes in Histories of Science and Technology**

Organizer: **Lan Li** (Rice University)

Chair: **Elizabeth Petrick** (Rice University)

**Els Woudstra** (Rice University): *“The Boxed Gut: Human Waste Production and Digestive Anxiety in the United States (1951-1979)”*

**Lan Li** (Rice University): *“Battery Boxes: Cyborg Connections and Cesarean Sections in Colombo (1962–1985)”*

**Jan Müggenburg** (Leuphana University, Lüneburg): *“Functional Boxes: UNIFACE, the Personal Computer, and Accessibility in 1990s Germany”*

**Rodolfo John Alaniz** (University of Texas at Austin): *“Body Boxes: Sexual Inversion and the Embodiment of Sexual Selection”*

## **Friday, 19 November 2021**

**12:30 PM – 2:00 PM (CT)**

### **Plenary Lecture: Da Vinci Medalists 2020 and 2021**

- **Chair: Arwen Mohun** (University of Delaware)
- **Da Vinci Medallist 2021: Suzanne Moon** (The University of Oklahoma)
- **Da Vinci Medallists 2020: Maria Paula Diogo** (New University of Lisbon) and **Arthur P. Molella** (Director Emeritus, Lemelson Center, National Museum of American History)

## **Friday, 19 November 2021**

**12:45 PM – 13:45 PM**

### **FUTURES (joint SHOT-HSS SESSION)**

**Making and Doing History: On Non-Traditional Modes of Critical Engagement (Roundtable)**

Organizers: **Crystal Lee** (MIT) and **Ranjodh Singh Dhaliwal**, UC Davis/Notre Dame)

Co-chairs: **Ranjodh Singh Dhaliwal** (UC Davis / Notre Dame) and **Crystal Lee** (MIT)

**Laine Nooney** (New York University)

**Xiaochang Li** (Stanford University):

**Bess Williamson** (Art Institute of Chicago)

**Mar Hicks** (Illinois Institute of Technology)

**Whitney Pow** (New York University)

# Friday, 19 November 2021

2:30 PM – 3:30 PM (CT)

## **F28: Social Justice in the Twentieth-Century Aviation Industry**

Organizer: **Caroline Johnson** (The University of Texas at Austin)

Chair: **Michael Hankins** (Smithsonian National Air & Space Museum)

Commentator: **Chandra Bhimull** (Colby College)

**Delali Kumavie** (Harvard University): *Trapped in the Airport: Haunted Borders and Racialization in Abdulrazak Gurnah's By the Sea*

**Caroline Johnson** (The University of Texas at Austin): *"On a Social Basis": The International Society of Women Airline Pilots, 1978-2001* (Robinson Candidate)

**Phil Tiemeyer** (Kansas State University): *Global Stewardesses in the Jet Age: Cosmopolitanism's Effects on Working Women*

**Marc Alsina** (Johns Hopkins University): *"En la Argentina, todos vuelan": Aviation and Progress in Juan Perón's "New Argentina", 1943-1955* (Robinson Candidate)

## **F29: Making and Modeling Wireless Waves, from Hertz to Andronov**

Organizer: **Alexei B. Kojevnikov** (University of British Columbia)

Chair: **Karl Hall** (Central European University)

**Chen-Pang Yeang** (University of Toronto) *How to Make Sense of Heinrich Hertz's Claim of Discovering Electric Waves*

**Scott A. Walter** (Université de Nantes): *Solving the Triode: the Appleton–van der Pol Collaboration*

**Shaul Katzir** (Tel Aviv University): *Dynamic Theories and Models in Developing Wireless- Related Devices*

**Climério Paulo da Silva Neto** (Federal University of Western Bahia), Co-Author **Alexei B. Kojevnikov** (University of British Columbia): *Nonlinear Feedback Loop: Radio-Engineering and Fundamental Science in the Soviet School of Oscillations*

## **SHOT Internationalization Committee sponsored session:**

### **F30: Beyond the Deficiency Narrative? Postcolonial Histories of LTS in Sub-Saharan Africa**

Organizer: **Dazhi Yao** (Institute for the History of Natural Sciences, Chinese Academy of Sciences)

Chair: **Dazhi Yao** (Institute for the History of Natural Sciences, Chinese Academy of Sciences)

Commentator: **Jethron Ayumbah Akallah** (Maseno University, Kisumu, Kenya)

**Jessica Pourraz** (Université Gustave Eiffel, Institut Francilien Recherche Innovation en Société):

*Making Medicines in post-colonial Ghana State policies for industrial development and production of technical knowledge*

**Frank Edward** (University of Dar es Salaam, Tanzania): *Swala Bicycles: A Hubris Account from Tanzania*

**Jean Gecit** (Sorbonne University): *History of solar energy in West Africa: Environment, Infrastructure and Social Justice (1960-1987)*

### **F31: Transnational Transfers of Technologies in Late Socialist Eastern Europe: Infrastructural Cooperation and the Question of Socialist Justice**

Organizer: **Andy Bruno** (Northern Illinois University)

Chair: **Andy Bruno** (Northern Illinois University)

**Viktor Pál** (University of Ostrava): *Scientists and long duration environmental change in Hungary, 1800-1990*

**Christine Evans** (University of Wisconsin-Milwaukee): *One Hour in Our World: Envisioning Satellite Communications across the Iron Curtain*

**Stephen Brain** (Mississippi State University): *Divided by a Common Goal: Soviet and U.S. Scientific Exchange during the Space Age*

**Saara Matala** (Chalmers University of Technology): *Infrastructure of Transnational Security and Welfare: The Finnish-Soviet Oil Trade, 1972-1992*

### **F32: The Nuances of Innovation I-Strategy and Process**

Chair: TBA

**Emmet von Stackelberg** (Rutgers University–New Brunswick): *The Indeterminacy of Incorporation: Purity, Waste, and the Chemical Origins of Motion Pictures* (Robinson Candidate)

**Phillip Bradford** (University of Connecticut), Co-Author **Paul Miranti**: *From Analogy to Identity: Carrier Circuit Multiplexing at the Bell System, 1900-1939*

**Howie Schneider** (The University at Albany): *Wouldn't be Cool if We Tried This....* (Robinson Candidate)

### **F33: The Architecture and Imaginaries of Harrowing Places**

Chair: **Stuart Leslie** (JHU)

**Bree Lohman** (University of Toronto, Institute for the History and Philosophy of Science and Technology): *Breaking Ground: The SAGE Underground Complex in North Bay, Ontario, 1959-1963* (Robinson Candidate)

**Angela Cope** (York University): *A Plastic Architecture: An Antarctic Case Study and Future Imaginaries*

**Yijun Sun** (University of Massachusetts Amherst): *The Spirits of Wireless: Ghost Hunting in the 19th Century Wireless Engineering*

**Joseph Makkos** (Louisiana State University): *1969 Hurricane Camille Scrapbook Collection*

### **F34: Risky Technologies and Technologies of Risk**

Organizer: **Stefan Esselborn** (Technical University Munich (TUM))

Chair: **Karin Zachmann** (Technical University Munich (TUM))

**Stefan Esselborn** (Technical University Munich (TUM)): *'Project Risk Strategy'. Nuclear Energy and the Emergence of Risk Research in West Germany*

**Siegfried Evens** (KTH Stockholm): *Nuclear Risks, Old and New. Governing Water, Steam and Nuclear Safety*

**Elijah Huges** (Wesleyan University): *Egress*

### **SHOT PRESIDENTIAL session I**

#### **F35: Blackness and Material Culture**

Organizer and Chair: **Arwen Mohun** (University of Delaware)

Commentators: **Audience**

**Panel:**

**Kelli Coles** (University of Delaware): *“Phebe Cash of Newburyport, MA: Black Girls & Women’s Contributions to Needlework & Textile Production in Early America”*

**Ashley Rogers** (Whitney Institute and Whitney Plantation Museum): *“Whitney Plantation: Interpreting Slavery, Technology and Labor in Public History”*

**Rayvon Fouché** (Purdue University): *“Limited Edition: Innovation, Technology, and the Racialization of Sneakers”*

**F36: Cold War Enclosures**

Organizer: **Jeffrey Mathias** (Cornell University)

Chair: **Leah Aronowsky** (Columbia University)

**Jordan Bimm** (University of Chicago): *Designs on Mars: Cold War Models of a Green and Red Planet*

**Poornima Paidipaty** (London School of Economics): *‘The Grammar of the Semi-Exact Sciences’: Norbert Wiener in India, 1955-1956*

**Jeffrey Mathias** (Cornell University): *Inner Space/Outer Space: Sensory Deprivation and the Astronaut*

**Bernard Geoghegan** (Kings College London): *Cybernetic Colonialism*

**JOINT SHOT-HSS SESSION**

**F37: Systems Thinking and Its Politics in Cold-War East Asia and Beyond**

Organizer: **Yize Hu** (Johns Hopkins University)

Chair: **Sigrid Schmalzer** (University of Massachusetts Amherst)

Commentator: **Egle Rindzeviciute** (Kingston University London)

**Sigrid Schmalzer** (University of Massachusetts Amherst)

**Bo An** (Yale University/MPIWG)

**Yize Hu** (Johns Hopkins University)

**Angela Xiao Wu** (New York University)

**JOINT SHOT-HSS SESSION**

**F38: Making Sense of the World: Science, Technology & the Senses**

Organizer: **Gabriella Petrick** (University of Stavanger)

Chair: **Gerard Fitzgerald** (George Mason University)

**Gabriella M. Petrick** (University of Stavanger)

**Andy Flack** (University of Bristol)

**Mica Jorgenson** (University of Stavanger)

**Elaine LaFay** (Rutgers University)

**Alice Would** (University of Bristol)

**JOINT SHOT-HSS SESSION**

**F39: Sound and Color as Infrastructure: Electrifying the Built Environment in the Long 20th Century**

Organizer: **Lida Zeitlin Wu** (UC Berkeley)

Chair: **Lida Zeitlin Wu** (UC Berkeley)

Commentator: **Sandy Isenstadt** (University of Delaware)

**Harry Burson** (UC Berkeley): *Producing Sonic Space: Telephony and the Emergence of Stereophonic Sound*

**Lida Zeitlin Wu** (UC Berkeley): *Choose Your Color': Mood Conditioning the Postwar Domestic Interior*  
**Carolyn Kane** (Ryerson University): *The Neon Surround: History, Theory, and Technique*

#### **JOINT SHOT-HSS SESSION**

#### **F40: "Intellectual Property, National Security, and the Anglo-American Hegemonic Transition, 1914–1945"**

Organizer: **Katherine Epstein** (Rutgers University-Camden)

Chair: **Margaret Graham** (McGill University, emerita)

**Kathryn Steen** (Drexel University): *"Radio, U.S. Patent Law, and World War I"*

**Michael Falcone** (Yale University): *"The Politics of Erasure: Memory, Technology, and Institutions in Second World War-era Anglo-American Diplomacy"*

**Katherine Epstein** (Rutgers University-Camden): *"Yesterday's China: US Patent Law and Anglo-American Technology Transfer"*

#### **JOINT SHOT-HSS SESSION**

#### **F41: Health and Computation Before the Internet**

Organizer: **David Theodore** (McGill University)

Chair: **Hannah Zeavin** (UC Berkeley)

**Rachel Plotnick** (Indiana University): *Care and Feeding for the Computer: Imagining Machines' "Preventive Medicine"*

**Jeff Nagy** (Stanford University): *Hardening Feeling: Computing Psychiatric Data at Rockland State, 1960–1972*

**David Theodore** (McGill University): *Simulating Surgery ca. 1970*

**Julie Zook** (Texas Tech University): *Hospital Architecture and the Geometry of Nurse Paths*

## **Friday, 19 November 2021**

**4:30 PM – 5:30 PM (CT)**

#### **F42: Infrastructures of Urbanization. Toward an Envirotechnical Analysis of Circulation and Disconnection in the City**

Organizers: **Felix Mauch** (Technical University Munich) and **Jan Hansen** (Humboldt University of Berlin)

Chair: **Jan Hansen** (Humboldt University of Berlin)

**Rachel Leibowitz** (SUNY College of Environmental Science and Forestry): *No Park, No Plant. The Battle over Chicago's Central District Water Filtration Plant*

**Jan Hansen** (Humboldt University of Berlin): *Governing Disaster: Street Gutters, Urban Fragmentation, and the Making of 'Modern' Los Angeles, 1910s–1930s*

#### **F43: NASA and the Environment**

Organizer: **Brian Odom** (NASA)

Chair: **Brian Odom** (NASA)

**Dana Burton** (George Washington University): *Contextualizing the Technoscientific Search for Evidence of Life Beyond Earth* (Robinson Candidate)

**Jenifer Barton** (Memorial University of Newfoundland): *'We were shot down!': The Life and Death of NASA's 1982 Global Habitability Initiative*

**Lisa Rand** (Science History Institute): *The Pursuit of Sustainable Orbital Infrastructure at NASA*

**Erik Conway** (NASA's Jet Propulsion Laboratory): *Near-Earth Objects as Environmental History, Revisited*

#### **F44: Petrocultural Shocks, Hazardous Infrastructures and the Anti-Oil Movement**

Organizer: **Anna Åberg** (Chalmers University of Technology)

Chair: **Anna Åberg** (Chalmers University of Technology)

Commentator: **Per Högselius** (KTH-Royal institute of Technology)

**Kristoffer Ekberg** (Chalmers University of Technology): *Petrocultural Reactions - the Campaign Against Swedish Royal Dutch Shell in the 1990s.*

**Christos Karampatsos** (NKUA, Greece), **Spyros Tzokas** (IMS-FORTH, Greece), **Giorgos Velegarakis** (IMS-FORTH, Greece), and **Gelina Harlaftis** (University of Crete): *On Hazardous Infrastructure and "Geopolitical Numbers": Greek Gas Pipelines and Deposit Estimates from the Eastern Mediterranean to the Balkans, 2009-2021*

**Jens Millkrantz** (Chalmers University of Technology): *Petrocultural Shock: 'Big Oil' Encounters the Emerging Swedish Welfare State, 1932-1947*

#### **F45: Spatial Experiments and Imperial Experts in the Middle East and North Africa**

Organizer: **Austin Cooper** (University of Pennsylvania)

Chair: **Jennifer Derr** (University of California Santa Cruz):

**Daniel Williford** (University of Wisconsin–Madison): *Laboratories for the Local: Public Works of Experimentation in the French Empire*

**Austin Cooper** (University of Pennsylvania): *Saharan Fallout and Radioactive Metrics for Postcolonial Sovereignty in 1960s Tunisia*

**Zachary Cuyler** (New York University): *The Highway and "La Lutte Douanière": Automobility, Fiscality, and the Making of Lebanon as an Economic Space*

#### **F46: The Nuances of Innovation II-Patents and Standards**

Chair: **Andrew McGee** (Carnegie Mellon University)

**Björn Hammarfelt** (University of Borås): *The crucial link: The emergence of patent citations as indicators of science and technology interaction in the 1980s*

**Peter Meyer** (U.S. Bureau of Labor Statistics): *The great aviation patent spike of 1910*

**Paolo Magaudda** (University of Padova): *How does innovation work in today's bicycles industry? The history of the "gravel bike"*

**Stephen Mihm** (University of Georgia): *A Unifying Current: The Bureau of Standards and the Age of Electricity*

#### **F47: Cultural Representations of Technology**

Organizer: **Paul Yandle** (North Greenville University)

Chair: **Paul Yandle** (North Greenville University)

Commentator: **Benjamin Gross** (Linda Hall Library)

**Logan Blizzard** (University of Pittsburgh): *“When a Newsletter Becomes a Magazine: The Boom (and Bust) of 1980s Computer Magazines”*

**Sarah Bell** (Michigan Technological University): *“How to Marry a UNIVAC: Early Television Comedy and the Domestication of Thinking Machines”*

**Paul Yandle** (North Greenville University): *“She Had Never Been Farther South Than New York”: The Nationalization of Racist Regional Mythologies in the Southern Railway’s Travel Promotions, 1894-1911”*

**F48: Environments, Infrastructures, and Social Justice in Africa** has been moved to Saturday (S17)

#### **SHOT PRESIDENTIAL session II**

**F49: Systemic and Epistemic Racism in the History of Technology**

**Organizer: Gabrielle Hecht** (Stanford University)

#### **Panelists**

**Chandra D. Bhimull** (Colby College, Department of Anthropology and the African-American Studies Program)

**Edward Jones-Imhotep** (University of Toronto’s Institute for the History and Philosophy of Science and Technology)

**C. Chakanetsa Mavhunga** (MIT)

**Lisa Nakamura** (University of Michigan, Department of American Cultures at the University of Michigan)

**Asif Siddiqi** (Fordham University)

**F50: Cutting both ways: Technology, the new, and unintended consequences in the American South**

Organizer: **Jonathan Shafer** (Association of National Park Rangers)

Chair: **Cari Casteel** (University of Buffalo)

Commentator: **Jonathan Shafer** (Association of National Park Rangers)

**Matthew Sparacio** (Southeastern Oklahoma State University): *The Choctaw Civil War Reconsidered: Environment, Infrastructure, and Justice on the Southern Frontier*

**Christopher Bishop** (Jacksonville State University): *Vessels of Salvation: The Adoption of Technical and Aesthetic Standards in Southern Methodist Architecture*

**John Mohr** (University of Alabama in Huntsville): *Smooth Moves: Vehicle Design and the Rhetoric of Progress in the New South*

#### **JOINT SHOT-HSS SESSION**

**F51: Global Water Constructions**

Organizer: **Charlie Cervantes De Blois** (University of Minnesota)

Chair: **Hannah Conway** (Harvard University)

**Hannah Conway** (Harvard University): *How Infrastructures Age: Public Power, the TVA, and Environmental Justice in Memphis, TN since 1933*

**Charlie Cervantes De Blois** (University of Minnesota-Twin Cities): *Tsuguo Nozaki’s Fieldwork and the “Collaborative” Nature of Dam-Building in the Third World*

**Luna Sarti** (University of Pennsylvania): *From God's Waters to Unworthy Matter: Profit, the Textile Industry, and the Secularization of the Arno River in 13th-Century Florence*

**John Doyle-Raso** (Michigan State-University): *"Mr. Crane, the Faithful Husband": Making an "Indicator" and "Flagship" Species for Ugandan Wetland Conservation, 1986 to Present*

**SHOT Internationalization Committee sponsored JOINT SHOT-HSS SESSION**

**F52: Contested Collaboration in Modern and Contemporary East Asia**

Organizer: **Jaehwan Hyun** (Pusan National University)

Chair: **Aya Homei** (The University of Manchester)

**Yi-Tang Lin** (University of Geneva): *How to Modify Research in Regime Change? Chinese Rockefeller Fellows in Biology and Chemistry From 1949 to 1966*

**Kaori Iida** (The Graduate University for Advanced Studies, SOKENDAI): *Studying Biological Effects of Radiation: Contested Collaborations of Japanese and American Scientists in the Bombed City Hiroshima*

**Jaehwan Hyun** (Pusan National University): *"There Were Always Conflicts": Writing About Collaboration With Japanese Scientists in Anti-Japanese South Korea*

**Meng Zhang** (Peking University): *Between Cooperation and Assimilation: Educating Chinese Medical Students in Japan's Occupied Beijing*

**JOINT SHOT-HSS SESSION**

**F53: Faithful Representations: Observation, Mediation, and the Visual Reproduction of Nature**

Organizer: **Samantha Thompson** (National Air and Space Museum)

Chair: **Elizabeth Kessler** (Stanford University)

**Katie Boyce-Jacino** (Arizona State University): *'So true to nature': Illusion and Immersion in the Early Planetarium*

**Lois Rosson** (University of California, Berkeley): *Transcribing the Lunar Environment: Art, Draughtsmanship, and the USGS Moon Maps of the 1960s*

**Samantha Thompson** (National Air and Space Museum): *Capturing the Northern Lights: The use of television cameras to measure and study aurora*

**Talia Shabtay Filip** (Northwestern University): *Seeing the World with Super-sight: The Science Photography of Berenice Abbott*

**JOINT SHOT-HSS SESSION**

**F54: Integrated Courses: Benefits, Challenges, and Successes (Roundtable)**

Organizer: **Gregory Macklem** (University of Notre Dame)

Co-Organizer: **Anna Geltzer** (University of Notre Dame)

Chair: **Erik Peterson** (University of Alabama)

**Eunjeong Ma** (POSTECH (Republic of Korea))

**Eleanor Louison** (Michigan State University)

**David Dennis** (Dean College)

**Rob Lawson** (Dean College)

**Jessica Pisano** (Dean College)

**Anna Geltzer** (University of Notre Dame)

## **JOINT SHOT-HSS SESSION**

### **F55: Medical Algorithms: Computing, Diagnosis, and Health in the United States**

Organizer: **Gerardo Con Diaz** (University of California, Davis)

Chair: **Gerardo Con Diaz** (University of California, Davis)

**Andrew Lea** (Johns Hopkins University): *Computerizing Diagnosis: Minds, Medicine, and Machines in Twentieth-Century America*

**Jeremy Greene** (Johns Hopkins University): *The Automated Clinic: Computerized Health Testing and the Architecture of Prevention, 1960-1980*

**Gerardo Con Diaz** (University of California, Davis): *Prometheus' Patents: Owning Medical Algorithms in the 21st Century*

**Hannah Zeavin** (University of California, Berkeley): *Auto-Intimacy: Algorithmic Therapies*

## **Friday, 19 November 2021**

**7:00 PM – 10:00 PM (CT)**

### **Linda Hall Library – History of Science and Technology Trivia Night**

Looking for a fun way to decompress after the first full day of the HSS-SHOT Virtual Conference? Join the staff of the [Linda Hall Library](#) at 7:00 PM, CT on Friday, November 19 for four rounds of fun and challenging trivia questions inspired by our incredible collections:

- Round 1 - History of Science & Technology Grab Bag
- Round 2 - The Name is the Same
- Round 3 - Paper Cuts [Questions about rare books inspired by the Library's new [YouTube series](#)]
- Round 4 - Focus on the Fellows

Form a team of up to six people and compete for fabulous prizes! (Don't have a team? Sign up solo, and we'll find one for you!)

Participation in the quiz is free, but spots are limited. Click [here](#) to register!

## **Saturday, 20 November 2021**

**8:00 AM – 5:00 PM (CT)**

**SHOT Virtual Conference Desk (mail only)**

**Tech Support through Cadence from 8:30 AM to 5:30PM (NOT during Social Events)**

**7:30 AM – 9:00 AM (CT)**

**Envirotech Breakfast meeting**

**EDITH Breakfast Meeting**

**8:30 AM – 10:30 AM (CT)**

**ECIG Student Workshop II**

**Co-Organizers:**

**Juyoung Lee** (Johns Hopkins University)

**Patrick John F. Mansujeto** (University of the Philippines-Diliman)

**K. Thamarai Selvan** (Indian Institutes of Technology Madras)

**N. Bucky Stanton** (Rensselaer Polytechnic Institute)  
**Viswanathan Venkataraman** (King's College London)

**Presenters:**

**Alejandra Ruiz Leon** (Georgia Tech): *Creating TECNO-ITINTEC: The first interactive science museum in Latin America*

**Kyle Harmse** (Stanford University): *Engineering the Counter-Revolution: The G5 howitzer and technopolitical power in Apartheid South Africa*

**Baasit Abubakr** (Jawaharlal Nehru University): *Circuits of the Colony: A History of Colonial Electrification in Jammu and Kashmir 1900-1947*

**Lydia LaFavor** (Auburn University): *Green Arrows at the Gates of Saigon: The End of Fixed-Wing Evacuation Operations at Tan Son Nhut Airbase, Republic of Vietnam, April 1975*

**Zohar Sapir Dvir** (Tel Aviv University): *'Autoimperialism' in the French Mediterranean Technology, (Auto)mobility, and Culture (1918-1939)*

**Mentors:**

**Eric Schatzberg** (Georgia Tech)

**Sabine Clarke** (University of York)

**Co-Organizers:**

**Juyoung Lee** (Johns Hopkins University)

**Patrick John F. Mansujeto** (University of the Philippines-Diliman)

**K. Thamarai Selvan** (Indian Institutes of Technology Madras)

**N. Bucky Stanton** (Rensselaer Polytechnic Institute)

**Viswanathan Venkataraman** (King's College London)

**Presenters:**

**Alejandra Ruiz Leon** (Georgia Tech)

**Kyle Harmse** (Stanford University)

**Baasit Abubakr** (Jawaharlal Nehru University)

**Lydia LaFavor** (Auburn University)

**Zohar Sapir Dvir** (Tel Aviv University)

## **Saturday, 20 November 2021**

**9:00 AM – 10:00 AM**

### **S1: Mobility Justice and the Bicycle in Historical Perspective**

Organizer: **Patrick Bek** (Eindhoven University of Technology)

Chair: **Peter Norton** (Associate professor University of Virginia)

**Njogu Morgan** (Postdoc University of the Witwatersrand): *Cycle tracks, road safety and apartheid control in Springs, South Africa (1950s-1970s)*

**Hendrik-Jan Dekker** (PhD Candidate TU Eindhoven): *Bridging the Gap: Representation, Power and Knowledge in Cycling Activism in the 1970s*

**Nathan Cardon** (Lecturer University of Birmingham): *Rethinking the Emergence of the Safety Bicycle: Global Empires and Transimperial Circuits*

**Patrick Bek** (PhD Candidate TU Eindhoven): *Governmentality and Company Control over Workers' Bicycle and Moped Practices in Postwar Netherlands, 1947-1970*

## **S2: Historicizing engineering ethics**

Organizer: **Ryan Hearty** (Johns Hopkins University)  
Chair: **Atsushi Akera** (Rensselaer Polytechnic Institute)  
Commentator: **Julie Mark Cohen** (independent scholar)

**Timothy Shultz** (US Naval War College): *Technical and Ethical Aspects of Remote Warfare*  
**Ryan Hearty** (Johns Hopkins University): *Environmental Ethics and Engineering Education in the US, 1970-1996*  
**Sarah Nelson** (Vanderbilt University): *Engineering Consent: the Stanford Research Institute and Ethics of Research Contracting in the Age of Satellite Development and Decolonization, 1960-1969*

## **S3: Technologies of the Underground and Underwater**

Chair: **Maria Paula Diogo** (NOVA School of Science and Technology, CIUHCT)

**Handy Acosta Cuellar** (Tulane University): *Keeping the Furnace Alive: African Slaves and Subaltern Metalworking Technologies in Early Modern Cuba* (Robinson Candidate)  
**Amber H. J. Chiero** (Augusta University): *Mineral Miscreants: Mining, Hydropower, & Environmental Activism in Central America*  
**Erik Isberg** (KTH Royal Institute of Technology): *Timing an Anthropocene ocean: Temporality and environmental knowledge in the Deep Sea Drilling Project 1968-1983*

## **S4: Controlling Knowledge, Access, and Perceptions: Nuclear Endeavors at the Civilian-Military Interface**

Organizer: **Sonja Schmid** (Virginia Tech)  
Chair: **John Krige** (The Georgia Institute of Technology (Georgia Tech))

**Sharon Weiner** (American University): *Constructing the Tritium "Requirement" for Nuclear Weapons*  
**Aditi Verma** (Harvard University): *Technology Transfer, Control, and Re-Invention of the Indian Pressurized Heavy Water Reactor*  
**Olamide Samuel** (SOAS University of London): *Perceptions of Maturity: Transferring Nuclear Technologies to Africa*  
**Taylor Loy** (Virginia Tech): *Tritium in Transition: The Material Culture of a Special Ingredient*

## **S5: Patents as Scientific Information: Four translations**

Organizer: **Eva Hemmungs Wirtén** (Linköping University)  
Chair: **Eva Hemmungs Wirtén** (Linköping University)

**Johanna Dahlin** (Linköping University): *Translating the Inventor: Forced labour as Intellectual Property*  
**Isabelle Strömstedt** (Linköping University): *Translating an Institution: the Swedish Patent Office on Display*  
**Mattis Karlsson** (Linköping University): *Distorted Dimensions in a Patent Document: a (mis)translation of earth*  
**Jose Bellido** (University of Kent): *Patents Translated: Microfilm as a Legal Technology*

## **S6: Managing Memories: Technologies as Memory Devices and Objects to be Remembered**

Organizer: **Alex Reiss Sorokin** (Massachusetts Institute of Technology)

Chair: **Stephanie Dick** (University of Pennsylvania)

**Alex Reiss-Sorokin** (Massachusetts Institute of Technology): *A Complete Record of the Past: Trusting Early Computerized Legal Databases (1966-1970)* (Robinson Candidate)

**Meg Leta Jones** (Georgetown University): *Solving the Web's Memory Problem: Cookies, User Identity, and Consumer Privacy*

**James Hay** (University of Illinois- Urbana-Champaign): *The Conjoined Governmentalities of Media Museums, the City Dump, & the "Green City"*

## **S7: The Importance of Military Infrastructure: Temporary, Permanent, and In-Between**

Organizer: **Laurence Burke** (National Air and Space Museum)

Commentator: **Angela Riotto** (Army University Press)

Chair: **Lee Vinsel** (Virginia Tech)

**Eric Perinovic** (Temple University): *Practicality Outstripped by Ambition: West German Military-Aviation Infrastructure*

**Laurence Burke**(National Air and Space Museum): *A Floating City: The Aircraft Carrier as Mobile Infrastructure*

**Frank Blazich** (National Museum of American History): *Bridging the Gap: Invention, Innovation, and the Naval Landing Pontoon at Normandy*

**Jack Grobe** (University at Albany, SUNY): *Before Paperclip: The American Campaign to Steal German Military Technology, 1919- 35"* (Robinson Candidate)

## **SHOT Internationalization Committee sponsored session**

### **S8: Science, technology, and the modernizing states in South Asia**

Organizer: **Madhumita Saha** (Amity Institute of Social Sciences)

Chair: **Prakash Kumar** (Dept. of History, Pennsylvania State University)

**Aparajith Ramnath** (Ahmedabad University): *From technical expert to authority on economic planning: The later career of Sir M. Visvesvaraya, c. 1920-1955*

**Renny Thomas** (Indian Institute of Science Education and Research): *Techno-Spiritual' Worlds: On writing the history of Rituals and Machines in India*

**Madhumita Saha** (Amity Institute of Social Sciences): *Contested vision of modernity: Compost pits and fertilizer factories in pre-Green Revolution Indian agricultural development*

**Waqar Zaidi** (Lahore University of Management Sciences): *Civil Aviation and the Pakistani State, 1947 - 1960*

## **D. Kim Foundation Sponsored JOINT SHOT-HSS SESSION**

### **S9: Global Taiwan as Method: Rethinking Global Science, Technology, and Medicine**

Organizer: **Wayne Soon** (Vassar College)

Chair and Commentator: **J. Megan Greene** (University of Kansas)

**Hsinyi Hsieh** (University of California San Francisco): *Indigenous Species for Imperial Projects: The Taiwan Monkey as a Research Subject from Japanese Colonial Sciences to Postwar US Naval Medical Research*

**Wayne Soon** (Vassar College): *Making Actuarial Science Precarious: International Labor Organization and the Taiwan Health Insurance Program, 1960–1970*

**John Hayashi** (Harvard University): *History's Rhythm: Taiwanese Timber and Japanese Climate Science in the Twentieth Century*

**Ying Jia Tan** (Wesleyan University): *Taiwan as Trailblazer for Tropical Hydropower, 1919-1935*

#### **JOINT SHOT-HSS SESSION**

**S10: Raw Materials, Supply Chains, and the Politics of Scientific Technologies – Round Table**

Organizer: **Christine von Oertzen** (Max Planck Institute for the History of Science)

Chair: **Viktoria Tkaczyk** (Humboldt University Berlin)

#### **Panelists**

**Sven Dupré** (University of Utrecht)

**Sebastian Felten** (University of Vienna)

**David Pantalony** (Physical Sciences and Medicine Canada Science and Technology Museum)

**Fanny Gribenski** (CNRS, Paris/New York University)

**Suzanne Marchand** (Louisiana State University)

Simon Werrett

#### **JOINT SHOT-HSS SESSION**

**S11: Navigating the Profession with Chronic Illness or Invisible Disabilities**

Organizer: **Allison Marsh** (University of South Carolina)

Chair: **Allison Marsh** (University of South Carolina)

**Allen Driggers** (Tennessee Technical University): *Chrohn's*

**Jillian Hinderliter** (University of South Carolina): *Auto-Immune*

**Caroline Peyton** (University of Memphis): *RA*

**Laura Smith** (University of Arkansas): *Meniere's*

#### **JOINT SHOT-HSS SESSION**

**S12: Vast Canvases: Science, technology, and the rendering of marine environments**

Organizer: **Samantha Muka** (Stevens Institute of Technology)

Chair: **Samantha Muka** (Stevens Institute of Technology)

**Hayley Brazier** (University of Oregon): *Out of Sight, Out of Mind: Public Perception and the Visibility of Seafloor Technologies* (Robinson Candidate)

**Samm Newton** (University of Wisconsin Madison): *Pteropods Realized: Organismal Technology and the Co-production of Environmental Value*

**Penelope Hardy** (University of Wisconsin- La Crosse): *Drafting the Deep: Knowing the Ocean through Images in the Mid-Nineteenth Century*

**Samantha Muka** (Stevens Institute of Technology): *Creating Responsible Pollution?: C-WARP, Conservation, and the Ocean as Landfill*

#### **JOINT SHOT-HSS SESSION**

**S13: Practicing and Formalizing: Engineering Creativity in the Twentieth Century**

Organizer: **Ekaterina Babintseva** (Harvey Mudd College)

Chair: **Patrick McCray** (University of California, History Department)

Commentator: **Janet Abbate** (Virginia Tech, Department of Science, Technology, and Society)

**Honghong Tinn** (University of Minnesota, Twin Cities): *City of Displacement: Electronics, Creativity, and Urban Space in Taiwan*

**Ekaterina Babintseva** (Harvey Mudd College, Hixon-Riggs Early Career Fellow in Science and Technology Studies): *Producing Rule-Based Creativity: Automation and Thinking in Late Socialism and Capitalism*

**Aaron Mendon-Plasek** (Columbia University, Department of History): *Creativity as efficacy criteria: how machine learning became artificial intelligence in the 1980s and reshaped our descriptions of the social world*

**Evan Hepler-Smith** (Duke University Department of History): *Making it Explicit: Formalization and Creativity in Chemistry*

## **Saturday, 20 November 2021**

**11:00 AM – Noon (CT)**

### **S14: Warfare and Bodies**

**Chair: Hannah Zeavin** (University of California, Berkeley)

**Michelle Spektor** (Massachusetts Institute of Technology): *Database of the Potential Dead: Religion, Military Service, and Biometric Identification in Israel*

**Gerard Fitzgerald** (George Mason University): *Germ Warfare: O. H. Robertson, Chemical Germicides, and the Technological Challenge of Airborne Disease Prevention in the United States Military, 1941-1947*

**Peter Thompson** (University of Illinois, Urbana-Champaign): *The Dispersing and Dispensing of Colonial Bodies: Germany's Racialized Deployment of Mustard Gas in the Interwar Period*

### **S15: Pedagogy of Engineering Ethics (Unconventional session)**

Organizer: **Brit Shields** (University of Pennsylvania)

Chair: **Ron Kline** (Cornell University)

**Margo Boenig-Liptsin** (UC Berkeley)

**Jennifer Alexander** (University of Minnesota)

**Jenna Tonn** (Boston College)

**Brit Shields** (University of Pennsylvania)

**Atsushi Akera** (Rensselaer Polytechnic Institute)

### **S16: Prometheus in the Garden of Eden: Gardens as Anthropogenic Object: Roundtable**

Organizer: **Maria Paula Diogo** (NOVA School of Science and Technology, CIUHCT)

#### **Panelists**

**Maria Paula Diogo** (NOVA School of Science and Technology, CIUHCT)

**Ana Simões** (School of Sciences, University of Lisbon, CIUHCT)

**Ana Duarte Rodrigues** (School of Sciences, University of Lisbon, CIUHCT)

**Anna Aberg** (Chalmers University of Technology)

**Leme José Luís** (NOVA School of Science and Technology, CIUHCT)

**Davide Scarso** (NOVA School of Science and Technology, CIUHCT)

**Agusti Nieto-Galan** (Universitat Autònoma de Barcelona)  
**Ivo Louro** (NOVA School of Science and Technology, CIUHCT)  
**xAna Matilde Sousa** (School of Fine Arts, University of Lisbon, CIEBA)  
**Nina Wormbs** (KTH Royal Institute of Technology)  
**Johan Gärdebo** (Linköping University)  
**Tiago Saraiva** (Drexel University)

#### **S17: Environments, Infrastructures, and Social Justice in Africa**

Organizer: **Tasha Rijke-Epstein** (Vanderbilt University)  
Chair: **Tasha Rijke-Epstein** (Vanderbilt University)  
Commentator: **Laura Ann Twagira** (Wesleyan University)

**Jethron Ayumbah Akallah** (Maseno University): *From Flying Toilets to Flying Water Pipes: Re-imagining Infrastructure Development in Kibera Informal Settlement, Nairobi*  
**Joshua Grace** (University of South Carolina): *Cars After African Socialism: History, Sustainability, and Mobility in an East African City*  
**Tasha Rijke-Epstein** (Vanderbilt University): *Engineered Omby (cattle): Technoscience, Animate Nationhood, and Socialist Madagascar*  
**Stephan Miescher** (University of California, Santa Barbara): *Ghana's Inland Water Highways: Infrastructure and Challenges of Volta Lake Transport*

#### **S18: New Historical Approaches to Artificial Intelligence**

Organizers: **Aristotle Tympas** (National and Kapodistrian University of Athens) and **Matthew L. Jones** (Department of History, Columbia University)  
Chair: **Adelheid Voskuhl** (University of Pennsylvania)

#### **Panelists**

**Matthew L. Jones** (Department of History, Columbia University)  
**Aristotle Tympas** (Department of History and Philosophy of Science, National and Kapodistrian University of Athens)  
**John Tinnell** (University of Colorado): *The Anthropologist of AI: Lucy Suchman on the Limits of Human-Computer Interaction*

#### **S19: Present Perfect Progressive**

Organizer: **N. Bucky Stanton** (Rensselaer Polytechnic Institute)  
Chair: **N. Bucky Stanton** (Rensselaer Polytechnic Institute)

**Celine Nguyen** (Royal College of Art): *Design, Information, Translation: Revisiting the Jacquard Loom* (Robinson Candidate)  
**Samaa Elimam** (Harvard University): *The Technological Monument: Engineer-Historians and the Making of the Past in the Nile Valley* (Robinson Candidate)

#### **S20: Gender, Race, Class, and the Infrastructure of the Sky**

Organizer: **Alan Meyer** (Auburn University)  
Commentator: **Amy Sue Bix** (Iowa State University)  
Chair: **Michael Neufeld** (Smithsonian National Air and Space Museum)

**Roger Connor** (Smithsonian National Air and Space Museum): *“Ghetto Birds”*: Los Angeles Police Department Helicopters and Race Since 1969

**Peter Eveleigh** (University of Manchester): *“Just a Lot of Enthusiastic Boys”*: The Deliberate Exclusion of “The Man in the Street” from the Elite Skies of England

**Erinn McComb** (Del Mar College): *“Querer es Poder”*: The Story of America’s First Latina Military and Commercial Airline Pilot

**Alan Meyer** (Auburn University): *“Last Hired and First Fired”*: The Enduring Lack of Racial Diversity in the Airline Cockpit

#### **SHOT Internationalization Committee sponsored session**

##### **S21: Vacant timeslot**

##### **S22: “From the ‘Black Box’ to the ‘Empty Box’: Infrastructure and Social Justice in the Southern Cone**

Organizer: **Sonia Robles** (University of Delaware)

Chair: **Nelson Arellano Escudero** (Universidad Academia de Humanismo Cristiano Chile)

**Miguel Muñoz Asenjo** (Universidad de Santiago de Chile): *Imaginaries in the transition towards the establishment of a sanitation system in Santiago de Chile (1886-1931)*

**Jorge Mujica-Urzúa** (Universidad Metropolitana de Ciencias de la Educación Chile): *A White Elephant on the Andes: The Great Grubb Refractor at the core of the modernization of the Chilean National Astronomical Observatory*

**Lucia Juarez** (University of Edinburgh): *The power of the invisible. Iron architecture and the soft enforcement of the white British taste in Argentina.*

**Monica Humeres** (Diego Portales University): *“The modern criterion says”*: the forgotten axes of ‘infrastructuration’ policy in Latin America

#### **D. Kim Foundation Sponsored JOINT SHOT-HSS SESSION**

##### **S23: Capturing Motion: New Approaches to Power / Knowledge in the History of Science and Technology**

Organizer: **Hiromi Mizuno** (University of Minnesota)

Chair: **Hiromi Mizuno** (University of Minnesota)

**Kate McDonald** (University of California, Santa Barbara): *The Housewife Cart Force and Other Transport Innovations: Histories of Human Power in Contemporaneous Frame*

**Victor Petrov** (University of Tennessee): *A Song for Fujitsu: Socialist Bulgarian Accelerationism and the Japanese Model in the Late Cold War*

**James Lin** (University of Washington): *Feeding “the World’s Costliest Military Machines:” Rice, Fertilizer, and State Power in Authoritarian Taiwan, 1949-1960*

**Hiromi Mizuno** (University of Minnesota): *Nitrogen in Motion: Fertilizer Flow between the East and West in the Cold War*

#### **JOINT SHOT-HSS SESSION**

##### **S24: Another Vast Machine: Data, Models, and Simulations in the Human Sciences (Part I)**

Organizer: **Tabea Cornel** (New College of Florida)

Chair: **Emily Merchant** (University of California, Davis)

**Rebecca Lemov**(Harvard University): *From Mass to Micro Persuasion in an Age of Big Data*

**Hallam Stevens** (Nanyang Technological University): *Hadooping the Genome: The impact of text search tools in biomedicine*

**Tabea Cornel** (New College of Florida): *Fluorescent Sensors in Bayesian Brains: Transgenic Mice as Statistical Technologies in Neurogenomics*

**Christopher Phillips** (Carnegie Mellon University): *Anatomy of a Biomedical Controversy: Cancer Screening, Statistics, and Simulation Modeling*

#### **JOINT SHOT-HSS SESSION**

##### **S25: Visioneering Past and Future in Science Museums and Educational Technologies**

Organizer: **Elizabeth Petrick** (Rice University)

Chair: **Patrick McCray** (University of California, Santa Barbara)

**Elizabeth Petrick** (Rice University): *Replacing Visions: The Notetaker Prototype and the Loss of Education*

**Morgan Ames** (University of California, Berkeley): *Throwback Culture: The Role of Nostalgia in American Educational Technology*

**Petrina Foti** (Loughborough University): *Science Museums and the Intangible: Curatorial Visions of the Future*

**Elena Aronova** (University of California, Santa Barbara): *The Revolutionary Avant-Garde: Scientific Modernity at the Moscow Museum of Biology in the 1920s*

#### **JOINT SHOT-HSS SESSION**

##### **S26: Legacies of Silent Spring**

Organizer: **Marsha Richmond** (Wayne State University)

Chair: **Frederick Davis, R.** (Purdue University)

**Gene Cittadino** (New York University): *Ecology and the Bomb: A Retrospective Assessment*

**Ryan Hearty** (Johns Hopkins University): *Ruth Patrick, DuPont, and the Biological Monitoring of Pollution in the US, 1950-1970*

**David Hecht** (Bowdoin College): *Stressful Environments: Nuclear Power and the Politics of Public Health*

**Jole Shackelford** (University of Minnesota): *Chronobiology and Environmental Impact in Projects Sanguine and Seafarer*

#### **JOINT SHOT-HSS SESSION**

##### **S27: Expertise and Exercise**

Organizer: **Katherine Contess** (Brown University)

Chair: **Scott Kushner** (The University of Rhode Island)

**Adam Hebert** (University of Pittsburgh): *Faster, Higher, Stronger?: Olympic Bodies in Motion and the Loss of the "Open" Machine*

**Katherine Contess** (Brown University): *From the Harvard Fatigue Lab to Peloton: Towards a History of the Exercise Treadmill*

**Hongwei ThornChen** (Tulane University): *Performing Expertise, Reforming Customs: Cinema, Industrial Technique, and Embodied Knowledge in Semi-colonial China*

## Saturday, 20 November 2021

12:30 PM – 2.00 PM (CT)

### SHOT Awards- and Fellowships Ceremony 2021 (Plenary Session)

SHOT SIG Meetings: Prometheans Virtual Lunch Meeting

## Saturday, 20 November 2021

2:30 PM – 3:30 PM (CT)

### S28: Who Invents?

Organizer: **Eric Hintz** (Smithsonian Institution)

Chair: **Amy Bix** (Iowa State University)

**Pallavi Podapati** (Princeton University): *Inventing Critical Mobility: The Development of Sports WheelChairs* (Robinson Candidate)

**Eric Hintz** (Smithsonian Institution): *American Independent Inventors in an Era of Corporate R&D*

**Kara Swanson** (Northeastern University): *Inventing While a Black Woman: Passing, False Inventors, and the Patent Archive*

**Slawomir Lotysz** (Institute for the History of Science of the Polish Academy of Sciences): *The first 'talkie' spoke in a female voice. Helen and Joseph Tykociner's unacknowledged revolution in film making.*

### S29: History of Engineering, Environment, Infrastructure, and Social Justice (Part A: Practice)

Organizer: **Ellan Spero** (MIT and Station1)

Chair: **Ellan Spero** (MIT and Station1)

**Marjorie Hall** (Georgia Institute of Technology): *Unattainable Justice: Misguided Goals and the Persistence of Blight in the Superfund Program*

**Seohyun Park** (Virginia Tech): *Reimagining the Rivers: The Emergence of Hydrological Engineers and Large Multi-purpose Dam Construction in Postwar South Korea*

**Aybike Alkan** (Koç University, İstanbul): *Exploring the Transformation of Political Environments through the Lens of Engineering Practices*

### S30: Technology in the Field and Oceans

Chair: **Steve Usselman** (Georgia Tech)

**James Rick** (College of William and Mary): *Harvester Tinkering: Adapting Machines and Claiming Invention on Midwestern Farms in the 1880s*

**Sylvia Bates** (University of Iceland): *The development and significance of the pelagic trawl* (Robinson Candidate)

**Marta Macedo** (University of Lisbon): *Coffee on the move: technology, labor, and race in the making of a transatlantic plantation system*

### **S31: Technological Fixes and Local Communities**

Organizer: **Nathan Kapoor** (Grand Valley State University)

Chair: **Marianna Fenzi** (École Polytechnique Fédérale de Lausanne)

**Ramesh Subramanian** (Quinnipiac University and Yale Law School): *Satellites, Computers, and Monsoons: History and politics of weather monitoring in India*

**Priyanka Guha Roy** (Kazi Nazrul University): *Megaprojects, Displacement and Eco-Protesting: Gendering Ecology: The Case of the Sarder Sarovar Dam*

**Nathan Kapoor** (Grand Valley State University): *Just Steam: Geothermal Energy and Indigenous Resource Reclamation in the Anthropocene*

### **S32: Maintaining Difference through Technological Infrastructures**

Chair: **Lee Vinsel** (Virginia Tech)

**Quinn Anex-Ries** (University of Southern California): *From Urban Indigency to Teenage Pregnancy: Depo-Provera and the Grady Memorial Hospital Trials, 1967-1979* (Robinson Candidate)

**Justin Shapiro** (University of Maryland-College Park): *Environmental Control: Charting a Course for the Navajo Nation through Federal Road Construction, 1945-1966*

**Jan Hua-Henning** (University of Toronto): *The Cogs of Society: Emergency Technical Relief between Weimar and the Third Reich*

### **S33: Present Perfect Progressive: On the Past and the Imaginary II**

Organizer: **N. Bucky Stanton** (Rensselaer Polytechnic Institute)

Chair: **N. Bucky Stanton** (Rensselaer Polytechnic Institute)

**Caroline Mason** (Rensselaer Polytechnic Institute): *Organizing the Future-Past: The Politics and Promises of Information in-formation*

**N. Bucky Stanton** (Rensselaer Polytechnic Institute): *The Productive Imaginary: An Alternative Genealogy and Politics of the Imaginary*

### **S34: Female Information Workers in International Perspectives, 1880-1945**

Organizer: **Alexander Magoun** (IEEE History Center)

Commentator: **Katie Hindmarch-Watson** (Johns Hopkins University)

Chair: **Alexander Magoun** (IEEE History Center)

**Alexander Magoun** (IEEE History Center): *The United States' Wireless Women of World War I*

**Mary Ann Hellrigel** (IEEE History Center): *The Telephone Ladies and the Bell System's 'Spirit of Service' During World War II*

**Michael Feagan** (University of Western Ontario): *A Better Class of Working Girls: Intersections of Class and Gender in Canadian Telegraph Operators, 1880-1910* (Robinson Candidate)

### **S35: Entanglements and agencies: Local and Micro sites of infrastructures in the Global south 1840-1950 (Roundtable)**

Organizers: **Sebastian Rose** (University of Greenwich, Department of History) and **Mattin Biglari** (SOAS, University of London, History Department)

Panelists

**German Vergara** (Georgia Tech)

**Diana Montaño** (Washington University in St. Louis)

**Shima Houshyar** (City University of New York)

**Rana Baker** (Columbia University, New York; Department of Middle Eastern, South Asian and African Studies)

**Mattin Biglari** (SOAS, University of London, History Department)

**Sebastian Rose** (University of Greenwich, Department of History)

**Aditya Ramesh** (University of Manchester)

**Viswanathan Venkataraman** (King's College London (KCL) Dept of History)

**Monica Salsa Landa** (Lafayette College (Liberal Arts College), Department of Anthropology and Sociology)

**Yara Saqfalhait** (Columbia University)

**S36: “Of Digital Computers Called Brains”: Rehistoricizing (Mis)conceptions of Machine Intelligence**

Co-Organizer: **Théo Lepage-Richer** (Brown University)

Co-Organizer: **Ranjodh Singh Dhaliwal** (UC Davis)

Chair: **Benjamin Peters** (University of Tulsa)

**Diana Kurkovsky** (West Auburn University): *Calculating Brains and Brainless Computers: Inverting the Brain-Computer Analogy in Soviet Cybernetics*

**Théo Lepage-Richer** (Brown University): *“Looking into the Mind of a Neural Network”: On Canadian State Planning, Rational Government, and AI’s Empirical Turn*

**Xiaochang Li** (Stanford University): *Between Likeness and Likelihood: Language, AI, and the Human-Computer Imagination*

**Ranjodh Singh Dhaliwal** (UC Davis): *Daemons @ Work: Conceptions of Labor in Intelligent Machines, from Babbage to Selfridge*

**D. Kim Foundation Sponsored JOINT SHOT-HSS SESSION**

**S37: Scientists and engineers on the move (around the world): multidisciplinary reflections on national and transnational history**

Organizer: **Monique Laney** (Auburn University)

Chair: **Ross Bassett** (North Carolina State University)

**Monique Laney** (Auburn University) *Writing the history of STEM migration to the United States*

**Roland Wittje** (Indian Institute of Technology Madras): *German scientists and engineers in post-independence India*

**Irina Antoshchuk** (AISSR, University of Amsterdam/Saint-Petersburg State University): *Russian-speaking scientists and engineers as highly skilled migrants: how migration studies can help sociology of science*

**Takashi Nishiyama** (State University of New York, Brockport): *International Outflow of Technological Expertise: A Case from Japan, 1868-1952*

**JOINT SHOT-HSS SESSION**

**S38: Digital Futures in the History of Science (Roundtable)**

Organizers: **Sarah Qidwai** (University of Toronto) and **Sarah Qidwai** (University of Toronto)

Co-Chairs: **Abraham Gibson** (Arizona State University) and **Sarah Qidwai** (University of Toronto)

**Kate Sheppard** (Missouri S&T)

**Charles Pence** (Université catholique de Louvain)

**Allison Marsh** (University of South Carolina)

**Corinna Schlombs** (Rochester Institute of Technology): *Primary Sources for a Globalizing History of Technology: A Companion Website as a Teaching Tool*

#### **JOINT SHOT-HSS SESSION**

##### **S39: Animating Technoscience: Imagination, Production, and Representation**

Organizer: **Michael Meindl** (Radford University/Virginia Tech)

Chair: **Hanna Rose Shell** (University of Colorado – Boulder)

**Rebecca Perry** (Space History, Smithsonian National Air and Space Museum): *Virtual Film Production: Surfing the Database, Democratizing Technology?*

**Alana Staiti** (National Museum of American History, Smithsonian Institution): *Motion, Emotion, and the Human in the Computer: Motion Models and Computerized Bodily Form, 1971-1981*

**Colin Williamson** (Rutgers University - New Brunswick): *Animating Biology and the Biology of Animation: The Technoscience of Disney's Fantasia*

**Michael Meindl** (Radford University/Virginia Tech) and **Matthew Wisnioski** (Virginia Tech): *"Take Chances! Make Mistakes! Get Messy!": The Magic School Bus and the Reanimation of Science Education in the 1990s*

#### **JOINT SHOT-HSS SESSION**

##### **S40: Envirotech at 20: Roots and Branches (Round Table)**

Organizer: **Blair Stein** (Clarkson University)

Chair: **Tom Zeller** (University of Maryland)

**Lisa Ruth Rand** (Science History Institute)

**Dolly Jørgensen** (University of Stavanger)

**Peter Soppelsa** (University of Oklahoma)

**Blair Stein** (Clarkson University)

#### **JOINT SHOT-HSS SESSION**

##### **S41: Another Vast Machine: Data, Models, and Simulations in the Human Sciences (Part II)**

Organizer: **Emily Merchant** (University of California, Davis)

Chair: **Tabea Cornel** (New College of Florida)

**Michael Neuss** (Vanderbilt University Medical Center): *"Physicians of the Future": Reconfiguring the Patient's Chart for the Production of Usable Data*

**Emily Merchant** (University of California, Davis): *Excavating the Origins of Sociogenomics*

**Élodie Grossi** (Université Toulouse Jean Jaurès): *The New Face of Race in the Epigenetic Age: Towards a Survey of past Trauma, the Creation of Predictive Technologies and Their Limits*

**Emanuele Ratti** (Johannes Kepler University Linz): *Algorithmic Bias and Norms about the Past: The Thin Line between Predicting and Creating the Future*

## **Saturday, 20 November 2021**

**4:30 PM – 5:30 PM (CT)**

##### **S42: The Colonial Logic of Cosmic Infrastructure**

Organizer: **Asif Siddiqi** (Fordham University)

Chair: **Adelheid Voskuhl** (University of Pennsylvania)

Commentator: **Gabrielle Hecht** (Stanford University)

**Asif Siddiqi** (Fordham University): *"The Colonial Logic of Location: The Yanadi Community in India and the Violence of Spaceflight"*

**Rebecca Charbonneau** (University of Cambridge/Harvard-Smithsonian Center for Astrophysics): *"Alien Civilizations: Colonial Rhetoric in the Radio Search for Extraterrestrial Intelligence (SETI)"*

**Réka Gál** (University of Toronto): *"The Interstellar Railroad: Extending Empire into Outer Space"*

### **S43 PROMETHEANS: History of Engineering, Environment, Infrastructure, and Social Justice (Part B: Education)**

Organizer: **Ellan Spero** (MIT and Station1)

Chair: **Ellan Spero** (MIT and Station1)

**Atsushi Akera** (Rensselaer Polytechnic Institute): *"Why we teach": Exploring the Historical Reasons for an Engineering Faculty Member's Decision for Choosing an Academic Career*

**Julie Mark Cohen** (Independent Scholar, The Ronin Institute): *Technical Inadequacies in Structural Engineering Education, Recurring Infrastructure Failures, and Impositions on Society*

### **S44: Of Aquifers and Equity: Studies in Groundwater Management and Politics**

Organizer: **Steve Usselman** (Georgia Tech)

Chair: **Martin Melosi** (University of Houston)

**Sarah Hamilton** (Auburn University): *Water Underground: invisibility and ignorance in a Spanish Aquifer*

**Sam Hege** (Rutgers University): *"Farms vs. Lawns": Pumps, Politics, and the Limits of Urban Boosterism in the Texas Panhandle*

**Steve Usselman** (Georgia Tech): *The Perpetual Pumping Machine: Groundwater and Twentieth-Century Los Angeles*

### **S45: Technologies, Humans, and Environment in the Greek and Roman World**

Organizer: **Rabun Taylor** (University of Texas at Austin)

Chair: **Rabun Taylor** (University of Texas at Austin)

Commentator: **Ann Olga Koloski-Ostrow** (Brandeis University)

**Leah Long** (Arkansas State University): *1. Moving Mountains, Roman Stonecutters: Dialogues with Extraction Technologies*

**Caroline Cheung** (Princeton University): *2. Environmentally Friendly Food Storage and Packaging in Imperial Rome*

**Alex Walthall** (University of Texas at Austin): *3. How to Solve a Water Crisis in Hellenistic Sicily: Adaptive Technologies at Work in the Kingdom of Hieron II*

### **S46: Photography as Infrastructure**

Organizer: **Elizabeth Patton** (University of Maryland, Baltimore County)

Chair: **Joris Mercelis** (Johns Hopkins University)

**Ellan F. Spero** (Massachusetts Institute of Technology and Station1): *Image and Infrastructure: Scale as a Lens for Navigating Across Materials in Water Systems*

**Hugo Pereira** (CIUHCT - Interuniversity Research Centre for the History of Science and Technology): *Heralds of progress: photography and infrastructures in Portugal and its colonies*  
**Elizabeth Patton** (University of Maryland, Baltimore County): *Documenting New Orleans' Built Environment: The Role of the Photographic Archive in Constructing the Postcard City*  
**Nora Draper** (University of New Hampshire): *Surveillance in an Instant. Polaroid's ID-2 System and the Commercial Politics of Risk*

#### **S47: Computational Infrastructures**

Organizer: **Tasha Schoenstein** (Harvard University)  
Chair: **Kim Tracy** (Rose-Hulman Institute of Technology)

**Spencer Tompkins** (Independent Researcher/The New School in New York City): *From Autonomous Electronic Data Processing to Statewide Information System: Lockheed Missiles and Space Company's Analysis of California's Earthy Problems*  
**Tasha Schoenstein** (Harvard University): *To a Discipline and Beyond: Educational Infrastructures and the Construction of Computer Science*  
**Kim Tracy** (Rose-Hulman Institute of Technology): *Software: Unintentional Infrastructure*  
**Bernadette Longo** (New Jersey Institute of Technology): *Words and Power: Language as Computational Infrastructure*

#### **S48: Imagining, Limiting, Militarizing: Astroculture and the Future of Space History (Roundtable)**

Organizer: **Alexander C.T. Geppert** (New York University/NYU Shanghai)  
Chair: **Ruth Oldenziel** (Eindhoven University of Technology)

Panelists:

**Amanda Rees** (University of York)  
**Peter Westwick** (University of Southern California)  
**David A. Kirby** (Cal Poly University, San Luis Obispo)  
**Cathleen Lewis** (Smithsonian National Air and Space Museum)  
**Michael J. Neufeld** (Smithsonian National Air and Space Museum)  
**Alexander C.T. Geppert** (New York University/NYU Shanghai)

#### **S49: Maintaining Difference through Technological Regimes of Labor**

Chair TBA

**James Risk** (University of South Carolina): *Shattered! The American Flint Glass Workers Union and the Fight Against Automation in Manufacturing*  
**Kristin Brig** (Johns Hopkins University): *Wasted Labor?: Resident Sanitation Management and Infrastructure Use in Cape Town and Port Elizabeth, 1880-1900* (Robinson Candidate)  
**Paul Lucier** (Independent Scholar): *The Dead Work of Mining: Reckoning with Infrastructure and Innovation on the Comstock Lode*  
**Sangwoon Yoo** (Hanbat National University): *Industrial Conscience: Operators and Maintainers in Semiconductor Manufacturing Plants in South Korea in the 1980s-2000s*

#### **SHOT Internationalization Committee Sponsored session**

##### **S50: Trends and Challenges of Doing International History of Technology**

Organizer: **Dazhi Yao** (Institute for the History of Natural Sciences, Chinese Academy of Sciences)  
Chair: **Dazhi Yao** (Institute for the History of Natural Sciences, Chinese Academy of Sciences)

**Xinhao Du** (Institute for the History of Natural Sciences, Chinese Academy of Sciences): *Using the Past to Serve the Present: Heritage and the Changing Historiography of Agricultural Technology in the People's Republic of China*

**Timpoko Hélène Kienon-Kaboré** (Université Félix Houphouët-Boigny): *The History of Technologies in sub-Saharan Africa, Issues and Research Methodology: The Case of Côte d'Ivoire*

**Aleksandra Kobiljski** (CNRS): *Challenges of Writing History of Early Industry in Japan*

**Lucas Vinicius Erichsen da Rocha** (Federal University of Rio de Janeiro): *Envirotech? Doing Environmental History and History of Technology in Brazil*

**Hsien-chun Wang** (National Tsing Hua University): *From Chinese Nationalism to Social Constructionism: Historiography of Technology in Taiwan, 1949-Present*

#### **D. Kim Foundation Sponsored SHOT SESSION**

##### **S51: Infrastructure Megaprojects in Developing Countries: Environmental effects and transgression of Social Rights**

Organizer: **Baisakhi Bandyopadhyay** (The Asiatic Society Kolkata, India)

Chair and Commentator: **Somaditya (Soma) Banerjee** (Austin Peay State University)

**Benedict Salazar Olgado** (University of California, Irvine): *The Bataan Nuclear Power Plant: Imaginaries of Fear and Reason of State*

**Baisakhi Bandyopadhyay** (The Asiatic Society Kolkata, India): *Construction of Sardar Sarovar Dam on Narmada River in India: environmental effects and transgression of social rights*

**SK Maidul Rahaman** (Kazi Nazrul University Asansol, India): *Coal mining and health Hazards: Megaproject Development or Health Malady in colonial Bengal*

**Zhihui Zhang** (Institute for History of Natural Sciences, Chinese Academy of Sciences): *The Struggle among national prestige, the environment and social justice: Decision-making about the Three Gorges Project, 1919 to 1992*

#### **JOINT SHOT-HSS SESSION**

##### **S52: Fairness by Calculation: Four Centuries of Algorithmic Aspirations**

Organizer: **William Deringer** (M.I.T.)

Chair and Commentator: **Theodora Dryer** (AI Now Institute / NYU)

**William Deringer** (M.I.T.): *Just Fines: Mathematical Tables, Church Landlords, and Fair Algorithms, c. 1628*

**Alma Steingart** (Columbia University): *Voting by Algorithm: The 1930s Fight over Proportional Representation in Cambridge, MA*

**Rodrigo Ochigame** (M.I.T.): *Algorithmic Fairness and Actuarial Politics*

#### **JOINT SHOT-HSS SESSION**

##### **S53: UFOs and Ufology as Transnational Phenomena**

Organizer: **Greg Eghigian** (Penn State University)

Chair: **Pey-Yi Chu** (Pomona College)

**Andy Bruno** (Northern Illinois University): *The Tunguska Event in Society Ufology*

**Kate Dorsch** (University of Pennsylvania): *Countercultural Religion in Extraterrestrial Space: UFO Theologies as Cold War Logics*

**Noah Morritt** (Memorial University of Newfoundland): *"UFO New Supercraft Under Test": Science, Conspiracy Theory, and the Public Response to the 1967 Shag Harbour UFO Incident*

**Greg Eghigian** (Penn State University): *How UFOs Went Global: The Internationalization of Ufology, 1947-1980*

#### **JOINT SHOT-HSS SESSION**

##### **S54: Agriculture in Colonial and Precolonial Contexts**

Organizer: **Marlis Hinckley** (Johns Hopkins University)

Commentator: **Nathan Kapoor** (Grand Valley State University)

**Marlis Hinckley** (Johns Hopkins University): *Asceticism and Food Crops in 16th-Century Mexico*

**Marianna Fenzi** (École Polytechnique Fédérale de Lausanne): *Interconnected Cropscales, Agronomists and Varieties in the Global South*

**Sandipan Baksi** (Foundation for Agrarian Studies)

#### **JOINT SHOT-HSS SESSION**

##### **S55: Islamicate Sciences and Small Technologies in Modern South Asia**

Organizer: **Andrew Amstutz** (University of Arkansas- Little Rock)

Chair: **Projit Mukharji** (University of Pennsylvania)

**Charlotte Giles** (University of Texas/Library of Congress): *Crafting artisanal body parts: technology and embroidery in the zardozi industry of Lucknow*

**Sabrina Dattoo** (Reed College): *Advertising Medical Technologies in Urdu Print c. 1930: Prosthesis and Possibility*

**Amanda Lanzillo** (Princeton University): *Electroplating as alchemy: Labor and technology among Muslim metalsmiths*

**Andrew Amstutz** (University of Arkansas- Little Rock): *Technology against Revolution: Compiling an Urdu History of Science through Small Technologies*

## **Sunday, 21 November 2021**

### **9:30 AM – 10:30 AM (CT)**

#### **Prometheans Workshop**

*All are welcome to join in the general meeting of the Prometheans Special Interest Group devoted to engineers and engineering within the history of technology and the practices of history within contemporary engineering and education.*

### **10:00 AM – 11.30AM (CT)**

#### **Albatrosses Workshop**

### **10:00 AM – Noon (CT)**

#### **T&C Open House Session**