2018
SOCIETY FOR THE HISTORY
OF TECHNOLOGY
ANNUAL MEETING
ST. LOUIS, MISSOURI
11-14 OCTOBER

CONTENTS

About SHOT 3

Welcome to St. Louis 4

Secretary's Note 6

Overview of Events and Activities 7

Tours 11

Special Interest Group Events 14

Session Schedule 16

Advertisements 44

Floor Plan St. Louis Union Station Hotel 51

Sponsors 52

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Karin Zachmann, Chair (Technische Universität München, Germany)

2018 Local Arrangements Committee

Amy Bix (Iowa State University)
Jeff Manuel (Southern Illinois University Edwardsville)
Jeff Schramm (Missouri University of Science & Technology)

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ABOUT SHOT

The Society for the History of Technology (SHOT) was formed in 1958 to encourage the study of the development of technology and its relations with society and culture. As an interdisciplinary organization, SHOT is dedicated not only to the history of technological devices and processes, but also to the relationships of technology with politics, economics, labor, social change, business, the environment, public policy, science, and the arts and humanities. SHOT includes almost 1500 individual members and 1000 institutional subscribers. In addition to professional historians and museum curators, SHOT members include practicing scientists and engineers, anthropologists, librarians, political scientists, and economists. An international society, SHOT meets annually in North America, Europe, or Asia and also jointly sponsors smaller conferences focused on more specialized topics of common interest with other scholarly societies and organizations. *Technology and Culture*, a quarterly journal, is published by the Johns Hopkins University Press for the Society for the History of Technology. In addition, SHOT publishes an annual newsletter, and, jointly with the American Historical Association, a booklet series, *Historical Perspectives on Technology, Society, and Culture*. For further information about the Society, please contact Jan Korsten, SHOT Secretary, at SHOT.secretariaat@tue.nl, or visit our website, http://www.historyoftechnology.org.

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WELCOME TO ST. LOUIS!

The local organizing committee and SHOT are delighted to have you join us at SHOT's 2018 annual meeting in St. Louis, Missouri.

This area where the Missouri, Illinois, and Mississippi rivers converge was a site of major Native American Indian population, as evidenced by the expansive earthworks of Cahokia mounds in Illinois. First visited by the French in the 1670s and formally founded in 1764 by French fur traders, St. Louis grew into a major industrial, commercial, and transportation center by the middle of the 19th century. European immigrants flocked to St. Louis, where vibrant Italian, Irish, and Polish neighborhoods still endure. St. Louis was also a major destination of the African American Great Migration out of the South, creating St. Louis's large and influential black community. By the turn of the 20th century, St. Louis was the fourth largest city in the nation, after New York, Chicago, and Philadelphia.

Union Station, our conference venue, opened in September of 1894 and was the largest and busiest train station in the world at the time. At its height, 22 different railroads served the station, another world record. St. Louis has a long history of beer brewing, with origins going back to German immigrants in the early 1840s. With more than 40 breweries by 1860, brewing became the largest industry in St. Louis by 1880. Still the home of global mega-brewer Anheuser-Busch, St. Louis has experienced a renaissance of small scale and craft brewing and was recently named as one of the best beer cities in America. McDonnell Aircraft, later McDonnell Douglas and now part of Boeing, was founded in St. Louis in 1939 and is famous for developing technologies such as the F-4 Phantom and F-15 Eagle and the Mercury and Gemini space capsules.

St. Louis is home to many great restaurants and museums. The Gateway Arch (completed in 1965, designed by Eero Saarinen) with its recently renovated museum is a standout. We encourage you to visit the newly-renovated landscape park surrounding the arch and the free museum in the visitors center. Riding the unique special train embedded in the Arch takes you 63 stories up to the top, giving you a great view and an unforgettable history of technology experience! (on the weekend, you may want to make an online reservation for a ride spot.) Other local attractions of particular interest to conference attendees include Forest Park, which contains four free places to visit: the Missouri History Museum, the St. Louis Science Center, the St. Louis Art Museum and the St. Louis Zoo. The Missouri Botanical Garden, founded in 1859, is the oldest institution of its type west of the Mississippi and has a unique Climatron. The mercantile library at the University of Missouri - St. Louis campus, National Museum of Transportation, National Great Rivers Museum, historic Eads bridge, and unique City Museum may all interest SHOT attendees.

While suburbanization and deindustrialization hit St. Louis hard after World War II, it remains a historic and vibrant city with an amazing history of technology, science and industry. Enjoy our conference and your time in St. Louis!

Amy Bix, Jeff Manuel, and Jeff Schramm
SHOT 2018 Local Arrangements Committee

SECRETARY'S NOTE

SHOT celebrates its 60th anniversary in St. Louis. The main venue of the 2018 annual meeting is St. Louis Union Station Hotel. This National Historic Landmark was once one of the world's largest and busiest train stations. The station opened in 1894 and was operational until 1978. In the early 1980's the building was converted into a hotel and a conference center. This beautiful historic complex with its tangible links to a great railroad past is an appropriate location for the SHOT annual meeting.

The Program Committee and the Local Organizing Committee managed to build an inspiring program with sixty-seven sessions, several presidential roundtables, an interesting plenary opening, innovative 'you write, I present' sessions, various lunch sessions, breakfast meetings, tours, as well as a number of SIG meetings and workshops on Sunday.

SHOT prides itself on being an open and friendly organization, especially at our annual meeting. You are welcome to sit in on the Executive Council's deliberations on Thursday, and you are also invited to attend our Members' SHOT Business Meeting on Friday.

This year's program is the result of the hard work of the 2018 Program Committee. On behalf of SHOT, I want to thank committee members Ling-Fei Lin (committee chair), Cyrus Mody, and Karin Zachmann for putting together such a wonderful program. I also want to thank our local organizers Amy Bix, Jeff Manuel, and Jeff Schramm for all their effort.

I also want to thank John Krige, Richard Hirsh, Sonja Beekers, Jeroen Carbaat, F. Dean Schultheiss, Henk Treur, and our volunteers, for their assistance in organizing the annual meeting. Finally I also want to thank the staff of the St. Louis Union Station Hotel. This is going to be a great meeting, and SHOT owes you all a debt of gratitude for all your hard work!

I wish you a pleasant, inspiring, and fruitful meeting!

Jan Korsten

OVERVIEW OF EVENTS AND ACTIVITIES

Thursday, 11 October

1:00 PM–5:00 PM	Registration Desk *Terminal Atrium A*
9:00 AM–3:00 PM	Executive Council Meeting (open to all members) *Wabash |Cannonball*
1:30 PM–4:30 PM	Big Beer! Anheuser-Busch Brewmaster Tour
4:00 PM–5:00 PM	*Technology and Culture* Editorial Committee meeting *Missouri Pacific*
6:00 PM–7:00 PM	Opening Plenary "Kranzberg's Laws at 60" *(Moulin, Jefferson Room - 2017 Chouteau Ave. St. Louis MO 63103)* Busses will depart from the 20th Street entrance of St. Louis Union Station hotel from 5:30 PM onwards. Busses back to the hotel directly after the plenary and after the Opening Reception.
7:00 PM–10:00 PM	Opening Reception *(Moulin, Malt House Room - 2017 Chouteau Ave. St. Louis MO 63103)* Busses back to the hotel during and directly after the reception.

Friday, 12 October

7:00 AM–9:00 AM	Breakfast (for all attendees) *Terminal Atrium B*
7:00–8:00 AM	Breakfast Meetings • Graduate Student Breakfast *Illinois Central – take breakfast from Terminal Atrium B and then go to the venue*
8:00 AM–5:00 PM	Registration Desk *Terminal Atrium A*
8:00 AM–5:00 PM	Book Exhibit *Frisco and Burlington*
8:00 AM–10:00 AM	Session Block 1 (see Session Schedule)
9:00 AM–11:30 AM	NSF Speed Dating *Frisco and Burlington* (One to one meetings with a NSF representative to discuss research proposal ideas. You can block a time slot at the NSF table in Frisco and Burlington)

9:00 AM–11:30 AM	Missouri Botanical Garden Tour
10:00 AM–10:30 AM	Coffee Break *Terminal Atrium A and B*
10:30 AM–12:00 (Noon)	Session Block 2 (see Session Schedule)
12:00 (Noon)–1:30 PM	St. Louis Historic Architecture Walking Tour
12:00 (Noon)–1:30 PM	Lunch *(Lunch not provided)*
12:00 (Noon)–1:30 PM	Lunch Meetings and events • Lunch Session: **Technology: Critical History of a Concept** – *Illinois Central* (For more information see Session Schedule, please note that lunch is not included) • Lunch Session: **Funding Opportunities for Historians of Technology** – *New York Central* (For more information see Session Schedule, please note that lunch is not included) • SIGCIS Lunch – *Midway 3 – lunch included* • WITH Lunch – *Midway 4 – lunch included*
1:30 PM–3:00 PM	Session Block 3 (see Session Schedule)
1:30 PM–3:30 PM	NSF Speed Dating *Frisco and Burlington* (One to one meetings with a NSF representative to discuss research proposal ideas. You can block a time slot at the NSF table in Frisco and Burlington)
3:00 PM–3:30 PM	Coffee Break *Terminal Atrium A and B*
3:30 PM–5:30 PM	Session Block 4 (see Session Schedule)
5:30 PM–6:30 PM	SHOT Business Meeting (open to all members) *Wabash Cannonball*
6:30 PM–8:30 PM	Da Vinci Lecture Chair: **Francesca Bray** (University of Edinburgh) Lecture by Da Vinci Medalist 2018 **Joy Parr** followed by Hors d 'Oeuvres, *New York Central and Illinois Central + Terminal Atrium A+ B*
6:00 PM–9:00 PM	Little Beer! Earthbound Brewing Tour
8:00 PM–11:00PM	Graduate Student Mixer *Midway 5*
9:00 PM–11:00 PM	Hospitality Suite *Grand Hall Balcony*

Saturday, 13 October

7:00–9:00 AM	Breakfast (for all attendees) *Terminal Atrium B*
7:00–8:00 AM	Breakfast Meetings • International Scholars Breakfast – *Midway 3 – take breakfast from Atrium B and then go to the venue* • Envirotech Breakfast Meeting – *Midway 4 – Breakfast in room*
8:00 AM–5:00 PM	Registration Desk *Terminal Atrium A*
8:00 AM–5:00 PM	Book Exhibit *Frisco and Burlington*
8:00 AM–10:00 AM	Session Block 5 (see Session Schedule)
9:00 AM–11:00 AM	NSF Speed Dating *Frisco and Burlington* (One to one meetings with a NSF representative to discuss research proposal ideas. You can block a time slot at the NSF table in Frisco and Burlington)
10:00 AM–10:30 AM	Coffee Break *Terminal Atrium A and B*
10:30 AM–12:00 (Noon)	Session Block 6 (see Session Schedule) *(Please note: the Graduate Student Workshop II will end at 12:30 PM)*
12:00 (Noon)–3:00 PM	Cahokia Mounds tour
12:00 (Noon)–1:30 PM	Lunch *(Lunch not provided)*
12:00 (Noon)–1:30 PM	Lunch Meetings • Lunch Round Table: **Thirty-Five Years and Counting: The Enduring Intellectual Legacy of Joseph Corn's Winged Gospel** – *Wabash Cannonball* (For more information see Session Schedule) • ECIG Lunch *Midway 3 - lunch included* • EDITH Lunch Meeting – *Midway 4 - lunch included* • Jovians and Mercurians Lunch Meeting (Maggie O'Brien's, 2000 Market Street) - Group leaves from hotel main lobby at noon. • SMiTInG lunch meeting (*Bootleggin' BBQ Tavern, 1933 Washington Ave*) – Group leaves from hotel main lobby at 12:10 PM
1:30 PM–3:00 PM	Session Block 7 (see Session Schedule)
3:00 PM–3:30 PM	Coffee Break *Terminal Atrium A and B*
3:30 PM–5:30 PM	Session Block 8 (see Session Schedule)

6:00 PM–7:00 PM	Presidential Address Chair: **Francesca Bray** (University of Edinburgh) **John Krige** (SHOT President 2017-18): *Knowledge. Knowhow and National Security – New York Central and Illinois Central*
7:00 PM–8:00 PM	Cocktail Reception *Terminal Atrium A and B*
8:00 PM–10:30 PM	Awards Banquet Citations read by **Tom Misa**, presentation by **John Krige** *Regency Ballroom C*
10:00 PM-11:00 PM	Hospitality Suite *Grand Hall Balcony*

Sunday, 14 October

7:00 AM–9.30 AM	Breakfast - *Terminal Atrium B*
7:00 AM–8:30 AM	**SIGCIS Conference Breakfast** – Breakfast in room *Illinois Central*
7:00 AM–8:30 AM	**Albatrosses Breakfast Meeting** *Colorado Eagle – take breakfast from breakfast in Atrium B and go to the meeting room*
8:00 AM–10:00 AM	**Asia Network Breakfast Meeting** *Missouri Pacific – Breakfast in room*
8:00 AM - 5:00 PM	**IEEE History Committee Meeting** *Breakfast and meeting in Jeffersonian/Knickerbocker - lunch in Missouri Pacific*
8:30 AM–9:30 AM	**Prometheans Breakfast Meeting** *Wabash Cannonball – take breakfast from breakfast in Atrium B and go to the meeting room*
8:30 AM–11:00 AM	**Albatrosses Workshop** *Colorado Eagle*
8:45 AM–12:15 PM	**SIGCIS Conference Workshop** *New York Central, Frisco, Burlington Route*
9:30 AM– 11:30 AM	**Prometheans Sunday Meeting** *Wabash Cannonball*
10:00 AM–12:00 (Noon)	**EDITH and WITH Lightning Session** *Texas Special*
12:15 PM - 2:00 PM	**SIGCIS Conference Lunch** *Illinois Central*
1:00 PM–5:00 PM	**SIGCIS Conference** *New York Central, Frisco, Burlington Route*

TOURS

Note: all tours will depart promptly from the North Entrance of Union Station Hotel at the times listed below.

Thursday, 11 October

1:30 PM–4:30 PM

Big Beer! Anheuser-Busch Brewmaster Tour

For many people, St. Louis is synonymous with beer. This tour offers a unique behind-the-scenes look at the technologically-fascinating brewing, packaging, and distribution processes in the massive Anheuser-Busch St. Louis brewing complex, with origins dating back to 1852. This St. Louis Beermaster Tour will take you through the Budweiser Clydesdale Paddock and Stables, the historic Brew House, Lager Cellar, Packaging Facility, and Finishing Cellar, with a free sample directly from a Finishing Tank for those 21+. As a special SHOT bonus, the tour will be accompanied by a working Anheuser-Busch Engineer.

Please Note: Flat, closed-toe shoes are required for all guests for your safety. Guests under 13 are not permitted to join this tour.

Friday, 12 October

9:00 AM-11:30 AM

Missouri Botanical Garden Tour

Founded in 1859, the 79-acre Missouri Botanical Garden is the nation's oldest botanical garden in continuous operation. Today, the Garden is a National Historic Landmark and a internationally-renowned center for botanical research, horticultural display, conservation, and science education. An oasis in the city of St. Louis, the landmark includes a 14-acre Japanese garden, the largest in North America. The garden's Climatron, built in 1960, was the first conservatory built in a geodesic dome, and has been named one of the top-100 US architectural achievements. The Climatron features over 1,400 different tropical species, exotic fish, and a bridge to view the rain-forest canopy. SHOT member David Munns, author of *Engineering the Environment: Phytotrons and the Quest for Climate Control in the Cold War*, will offer a special tour through the Climatron dome, discussing its technological, architectural, and historic significance. The visit also offers ample time for exploring the garden on your own.

12:00 (Noon)–1:30 PM

St. Louis Historic Architecture Walking Tour

This small personalized walking tour gives you an up-close view of the important technologies, architecture, and historical importance of the St. Louis built environment. The Gateway Arch, the ultimate St. Louis image and the world's tallest arch, was designed in 1947 by Eero Saarinen and features a newly-renovated park area and museum. The 1890 Wainwright Building, designed by Louis Sullivan, is one of the world's first skyscrapers and has been named one of "Ten Buildings That Changed America." Other downtown landmarks include the Cass Gilbert-designed public library, the Renaissance-revival city hall, Busch Stadium,and the old court house, site of the Dred Scott decision. The tour provides an excellent look at St. Louis's significant role in American transportation history, with two National Historic Landmarks: the 1874 Eads Bridge (the world's first steel-truss bridge) and spectacular Union Station, once the world's biggest and busiest, handling 100,000 passengers per day in the 1940s. The tour also covers St. Louis's twenty-first-century changes, including new skyscrapers and the central urban park and sculpture garden. The tour will offer an excellent look at how St. Louis structures shaped and were shaped by the city and its people.

6:00 PM–9:00 PM

Little Beer! Earthbound Brewing Tour

For many people, St. Louis is synonymous with beer. This is a special SHOT tour of small craft brewer Earthbound Brewing, spearheading the city's craft-beer renaissance. The tour will highlight the technology, art, and evolution of small-batch creative brewing. Earthbound's brewery is located in a 150-year-old repurposed building, with barrel-vaulted ceilings, a beer garden, and connections to a neighborhood network of underground caves. This building is one of just a handful of buildings remaining from influential St. Louis architects Jungenfeld & Co, who designed each brewery in a special style; renovation allows today's visitors to view the unique construction of post-Civil War lagering cellars. Earthbound offers an amazing range of beer choices (plus wine, tea, and custom sodas), with sustainable barbeque and other food options; the tour includes time for you to have beer and dinner at Earthbound on your own. *Please Note: Flat, closed-toe shoes are required for all guests for your safety. Tour includes stairs and is not fully accessible.*

Saturday, April 13

12:00 (Noon)–3:00 PM

Cahokia Mounds

A UNESCO world heritage site, Cahokia is the largest pre-Columbian settlement in North America north of Mexico. The over-six square mile city (1550 ha) housed almost 40,000 people at its peak and was occupied between 800 and 1400 CE by the Native-American Mississippian culture. The park covers 2,200 acres (890 ha), or about 3.5 square miles (9 km2), and contains about 80 mounds, including the 100-foot tall (30 m) Monks Mound, the biggest pyramid north of Mesoamerica and the single biggest Pre-Columbian earthwork. Other features include the Woodhenge, burial and sacrificial sites, and the remains of a copper workshop, plazas, terraces, palisades, urban planning, and astronomical alignments. This tour will offer ample time to visit the museum and outdoor mounds. On the day of our visit, the Chickasaw Nation will be hosting a fall festival at the grounds, featuring traditional drumming, flute music, and stomp dancing, art, storytelling, stickball games and social games.

SPECIAL INTEREST GROUP EVENTS

The **Albatrosses**, whose interests cover all things related to aviation and aerospace, will gather over Breakfast at **Sunday** between 7:00 AM–8:30 AM. Those who wish to attend should grab their food first from the general breakfast, then meet up with the group. The Albatrosses are also organizing a workshop on **Sunday** from 8:30 AM–11:00 AM.

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 St. Louis, network members will meet over breakfast on **Sunday** at 8:00 AM ($20). 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 (Noon) ($20). SIGCIS is also organizing a workshop on **Sunday** from 7:00 AM–5:45 PM, for $45 (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 St. Louis, the group will meet over lunch on **Saturday** at 12:00 (Noon) ($20). EDITH is also organizing in collaboration with WITH a Lightning Session on **Sunday** from 10:00 AM–12:00 AM.

WITH (Women in Technological History) will gather over lunch on **Friday** at noon ($20). WITH is also organizing in collaboration with EDITH a Lightning Session on **Sunday** from 10:00 AM–12:00 (Noon)

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

The **Mercurians**—the Communications Technology Interest Group—and the **Jovians**—the Electrical History Interest Group—will be holding their annual luncheon meeting at Maggie O'Brien's, 2000 Market Street, The group will leave from the main lobby of the hotel, gathering at noon on Saturday. There will be the usual agenda and conversation.

The **Prometheans** (SHOT's Engineering SIG) will hold a breakfast meeting at the conference hotel on **Sunday** from 8:30 AM-9:30 AM, followed by a work-in-progress session and open discussions about the Prometheans and the International Network for Engineering Studies (INES) from 9:30 AM – 11:30 AM. Please contact the organizer, Atsushi Akera at akeraa@rpi.edu for additional details.

SMiTInG, SHOT's military technology interest group, will again hold its traditional Saturday lunch meeting in St. Louis. SMiTInG Chair Bart Hacker invites anyone interested in the history of military technology to join the group Saturday, October 13, for lunch at the Bootleggin' BBQ Tavern, 1933 Washington Ave., about a 10-minute walk from the Union Station Hotel. Outstanding St. Louis-style dry-rubbed bbq and craft beers (among other things). We'll leave from the main lobby of the hotel at 12:10 PM, or you can meet the group in the Tavern, if you prefer. No agenda, just conversation. If you want to join, please contact Hacker, Bart (hackerb@si.edu) for reservations sake.

ECIG, SHOT's **Early Career SIG**, will gather for a lunch meeting on **Saturday** from 12.00 (Noon)–1;30 PM. Those who wish to attend should grab their food first, then meet up with the group.

SESSION SCHEDULE
SHOT ANNUAL MEETING ST. LOUIS

Thursday, 11 October 2018

6:00 PM – 7:00 PM

"Kranzberg's Laws at 60"
Opening Plenary
Le Moulin, Jefferson Room – (2017 Chouteau Ave. St. Louis MO 63103)
Organizers: **Amy Bix** (Iowa State University), **Jeff Schramm**, and **John Krige** (Georgia Tech)
Chair: Jeff Schramm (Missouri University of Science and Technology)

Panelists:
Eric Schatzberg (Professor and Chair, School of History and Sociology, Georgia Institute of Technology)
Lee Vinsel (Virginia Tech)
Laura Ann Twagira (Assistant Professor of History, Wesleyan University)
Jonathan Coopersmith (Texas A&M University)
Dagmar Schäfer (Max Planck Institute for the History of Science)
Mara Mills (Associate Professor, Department of Media, Culture, and Communication, New York University)

Friday, 12 October 2018

8:00 AM – 10:00 AM

1: Environmental Humanities and the History of Technology
Round Table, sponsored by Envirotech
New York Central
Organizers: **Etienne Benson** (U Penn) and **Jim Fleming** (Colby College)
Chair: **Etienne Benson** (U Penn)
Commentator: **David Nye** (University of Southern Denmark)

Camille Cole (Yale University)
Kent "Kip" Curtis (Ohio State University)

Jim Fleming (Colby College)
Spring Greeney (University of Wisconsin-Madison
Adam Lucas (University of Wollongong)
Lisa Ruth Rand (University of Wisconsin-Madison)
Kristoffer Whitney (Rochester Institute of Technology)

2: Nuclear Europeans: Transnational approaches to the history of a contested technology
Jeffersonian/Knickerbocker
Organizer: **Arne Kaijser** (KTH Royal Institute of Technology)
Chair: **Richard Hirsh** (Virginia Tech)
Commentator: **Sonja Schmid** (Virginia Tech)

Paul Josephson (Colby College): *Society-Industry Relations in the Nuclear Industry, 1950s-present*
Helmuth Trischler (Deutsches Museum): *Nuclear Energy: A Public Technology*
Arne Kaijser (KTH Royal Institute of Technology): *Nuclear installations at borders*
Karl-Erik Michelsen (Lappeenranta University of Technology): *Transnational governance of nuclear power in Eastern Europe after the collapse of the Iron Curtain*

3: Graduate Students' Flash Talks
Presidential Panel
Conductor
Organizers and chairs: **John Krige** (SHOT President), and **Janet Browne** (HSS President)

Dana Freiburger (University of Wisconsin-Madison): *What Hath God Taught: Teaching Telegraphy at Notre Dame in the 1870s*
Patrick John F. Mansujeto (University of the Philippines-Dilman): *Aerial Assimilation in the Philippines During the American Colonial Period*
Bo An (MIT): *China and Cybernetics: The Case of Qian Xuesen*
Mario Bianchini (Georgia Institute of Technology*): East Germany and the Spirit of Technological Utopia*
Harvard Brede Aven (Oslo Metropolitan University): *A Particle of Angst and a Wave of Hope: The Two Cultures, Nuclear Physics, and Environmental Futures in the Technoscientific Public Sphere*
Tiffany Nichols (Harvard University): *Local Disturbances: Navigating Geographic and Social Noise in LIGO's Consideration of an East Coast Site*
Annie Handmer (University of Sydney): *Gateways, Passages, Openings, and Enclosures in the History of Technology*

4: Infrastructure in Africa: Local Knowledge and Technological Know-How
Texas Special
Organizer: **Arwen P. Mohun** (University of Delaware)
Chair and Commentator: **Nina Lerman** (Whitman College)

Arwen P. Mohun (University of Delaware): *The Infrastructure of Empire: Local Knowledge and Telegraph-Building in Central Africa, 1898-1901*
Jethron Akallah (Maseno University), and **Mikael Hård** (Darmstadt University of Technology): *Under the Radar: Local Water - supply Practices in Nairobi, 1940-1980*
Laura Ann Twagira (Wesleyan University): *Listening to Musokura: Lessons from Mali on Women, Technology, and Materiality*
Benjamin Twagira (Emory University): *We Are What We Know': Radio, Rumor and Identity in Militarized Kampala, ca. 1966-86"*

5: Innovators, Disruptors, and Thought Leaders
Sponsored by SIGCIS
Colorado Eagle
Organizer: **Bretton Fosbrook** (University of Toronto)
Chair and Commentator: **Kira Lussier** (IHPST, University of Toronto)

Matt Wisnioski (Virginia Tech): *Lifelong Kindergarten: Play and the Making of Innovators*
Molly Sauter (McGill University*): William J Casey and the Foundations of Modern Venture Capital*
Bretton Fosbrook (University of Toronto*): The Work of a Thought Leader: Why Business Management Publishing Matters to Historians of Innovation*

6: Human-Machine Interfaces: industrial design, ergonomics, psychology and semiotics in the early history of computing
Station Master
Organizer: **Elisabetta Mori** (Middlesex University, London)
Chair: **Winifred R. Poster** (Washington University, St. Louis)
Commentator: **Paul Thomas Rubery** (SUNY-Stony Brook)

Elisabetta Mori (Middlesex University, London): *Early Olivetti Computer Design: Sottsass, Maldonado, and the Sign System for ELEA* **(Robinson Prize Candidate)**
Corinna Kirsch (Stony Brook University, New York): *Computers as "Conversation Machines" at the Hochschule für Gestaltung Ulm, 1964-1965* **(Robinson Prize Candidate)**
Luke Stark (Dartmouth College, Hanover, *NH): After the Clinic: Jurgen Ruesch, Weldon Kees, and Cybernetic Non-Verbal Communication, 1950-1960*

Evangelos Kotsioris (Princeton University): *Designing Compatibility: The Soviet Unified System of Electronic Computers*

7: Negotiating Infrastructure and Society in the Middle East
Missouri Pacific
Organizer: **Alex Schweig** (University of Arizona)
Chair and Commentator: **Begüm Adalet** (Cornell University)

Pauline Lewis (UCLA): Entangled: *The Role of Private Capital in Ottoman Submarine Telegraphy*
Xiaoyue Li (University of Michigan): *Multiplicity of Knowledge: Everyday Negotiations of Railway Technology in Colonial Egypt, 1882-1919*
Alex Schweig (University of Arizona): *Fortunately, the Patient Died of Typhoid Fever: The Role of the Railroad in the Spread of the 1893 Anatolian Cholera Epidemic, and the Efforts to Contain It*
Elham Bakhtary (George Washington University): *Strings of Imperialism: Afghanistan's Resistance to Telegraphy*

8: Communication Technologies-in-Use
Wabash Cannonball
Chair and Commentator: **Jonathan Coopersmith** (Texas A&M University)

Scott Kushner (University of Rhode Island): *"Accurate ticket and dollar control": Ticketing, Computing, Tomorrows*
Miaofeng Yao (University of Minnesota): *Different Typewriters for Different Modernities: Society, Language, and Chinese Typewriters*
Logan Blizzard (University of Pittsburgh): *"Mimic Game": Spectacular Representation via Electric Baseball Bulletin Boards in the Early 20th Century* **(Robinson Prize Candidate)**
Jan Hadlaw (York University): *'Be a Dandy Dialer'—Educating Urban Telephone Subscribers, 1928-29*

Friday, 12 October 2018

10:30 AM – 12:00 AM

9: Government Control: Modernity, State Power, and Technological Innovation
Conductor
Organizer: **Jonathan Shafer** (Auburn University)
Chair: **Lisa Ruth Rand** (University of Wisconsin-Madison)
Commentator: **Jim Fleming** (Colby College)

Jonah Bea-Taylor (Army Corps of Engineers): *Coastal engineering, federal sponsorship, and the transformation of American coastlines*
Brian Jirout (South Carolina State Museum): *Aerial Photography on the Farm: Remote Sensing and the transformation of American Agriculture*
Jonathan Shafer (Auburn University): *Practical, patriotic, and picturesque: Statecraft, recreation, and history preservation on National Park Service parkways* **(Robinson Prize Candidate)**
Derek Nelson (University of New Hampshire): *"Is the Port of New York In Danger?": Shipworms and the Professionalization of Marine Woodborer Research and Prevention, 1920-1950* **(Robinson Prize Candidate)**

10: Why some forms of very high speed transport have been adopted, not others
Missouri Pacific
Organizer: **Jim Cohen** (The City University of New York)
Chair and Commentator: **Albert J. Churella** (Kennesaw State University)

Jim Cohen (The City University of New York): *The development of very high speed, tracked air cushion vehicle technology in the United States, 1965-1975*
Victor Marquez (Independent Scholar): *Investments, risk, and the relativity of speed*
Steven Pieragastini (Boston College): *The history and current status of magnetic levitation (Maglev) technology in Japan and East Asia* **(Robinson Prize Candidate)**
Zhihui Zhang (Institute for History of Natural Sciences, Chinese Academy of Sciences): *Competition between Magnetic Levitation (Maglev), and Steel Wheel Technology for High Speed Ground Transportation Projects in China*

11: Technological Advancement as the Generator of Scientific Progress?
Station Master

Organizer: **David Colaco** (University of Pittsburgh)
Chair: **Mark Povich** (Washington University in St. Louis)
Commentator: **The Audience**

David Colaco (University of Pittsburgh): *Technological Development, Data Integration, and "Unification": Is theory the cause of scientific progress, or the effect?*
Rick Shang (Washington University in St. Louis): *Competition, and the Creation of Neuroimaging: The History of Positron Emission Tomography 1976-1985*
Nina Atanasova (The University of Toledo): *Virtual Morris Water Maze: The Independent Life of an Experimental System*
John Bickle (Mississippi State University): *Tool development drives progress in neurobiology, and engineering (not deep theory) drives tool development: The case of the patch clamp*

12: Future of SHOT: Gateways to the Next 60 Years
Presidential Round Table, sponsored by ECIG
New York Central
Organizer: **Alice Clifton** (Georgia Institute of Technology)
Chair: **Colin Garvey** (Rensselaer Polytechnic Institute)

Panelists:
Katrin Boniface (University of California Irvine)
Alice Clifton (Georgia Institute of Technology)
Juyoung Lee (Johns Hopkins University)
Eden Medina (Indiana University Bloomington)
Hugo Silveira Pereira (Interuniversity Center for the History of Sciences and Technology)
Xincheng Shin (Georgia Institute of Technology)
Honghong Tinn (Earlham College)

13: New Perspectives on Teaching the History of Technology
Unconventional Session
Texas Special
Organizers: **William Logan** (Pacific Union College), **Erinn McComb** (Mississippi State University), and **Kathleen Ochs** (Colorado School of Mines)
Chair and Commentator: **William Logan** (Pacific Union College)

Panelists:
Amy Gangloff (Lindenwood University-Belleville)
William Logan (Pacific Union College)

Erinn McComb (Mississippi State University)
Kathleen Ochs (Colorado School of Mines)

14: Reconsidering Skills and Science in the Early Industrial Revolution
Jeffersonian/Knickerbocker
Chair and Commentator: **Ross Basset** (North Carolina State University)

Dustin Studelska (University of Minnesota): *Forgetting the Hand: Neoclassical Ceramics and the Skill They Obscure* **(Robinson Prize Candidate)**
Dazhi Yao (Chinese Academy of Sciences): J.*A.C. Chaptal's Conversion: the Interaction between the Chemical Revolution and Chemical Industry in the late 18th Century*
John Pannabecker (Independent Scholar): *Technological Innovation and Social Networks in Paris during the Restoration*

15: Digital History and History of Technology: A Critical Dialogue
Presidential Round Table
Colorado Eagle
Organizer: **Andreas Fickers** (University of Luxembourg / C2DH)
Chair: **Pascal Griset** (Paris-Sorbonne University)
Commentator: **Andrew Russell** (SUNY Polytechnic Institute)

Valérie Schafer (University of Luxembourg / C2DH): *Does Born-Digital Heritage turn Historians into Digital Historians?*
Anita Lucchesie (University of Luxembourg / C2DH) and **Andreas Fickers** (University of Luxembourg / C2DH): *Technology's Storytellers Reloaded: A Text-Mining Experiment of "Technology & Culture"*
Sean Takats (George Mason University): *Digital History Projects and Historical Artifacts*

16: Cyborg Politics in the Cold War
Wabash Cannonball
Chair and Commentator: **Ronald R. Kline** (Cornell University)

Bo An (Yale University): *China and Cybernetics: The Case of Qian Xuesen*
Mario Bianchini (Georgia Institute of Technology): *From Sports Field to Factory: Sport as Technological Consciousness in East Germany*
Layne Karafantis (NASA): Designing with Purpose: *Human Factors Engineering at NASA*

Friday, 12 October 2018

12:00 (Noon) – 1:30 PM – Lunch Sessions

Technology: Critical History of a Concept
Illinois Central
Organizer and Moderator: **Eric Schatzberg** (Georgia Institute of Technology)

Panelists:
Rosalind Williams (Massachusetts Institute of Technology)
Thomas Misa (University of Minnesota)

Funding Opportunities for Historians of Technology
New York Central
Organizer and Moderator: **Babak Ashrafi** (Consortium for History of Science, Technology & Medicine)

Panelists:
Babak Ashrafi (Director, Consortium for History of Science, Technology & Medicine)
Benjamin Gross (Vice President for Research and Scholarship, Linda Hall Library of Schience, Engineering and Technology)
Erik Rau (Hagley Mueum & Library)
Lilla Vekerdy (Smithsonian Institution)
The panelists will discuss research resources and funding opportunities available through their institutions.

Friday, 12 October 2018

1:30 PM – 3:00 PM

17: Labor, Stress, and Problem-Solving: Modeling the Human Mind in US Cybernetics & AI in the mid-20th Century
Missouri Pacific
Organizer: **Jonnie Penn** (University of Cambridge)
Chair: **Margaret Minsky**
Commentator: **Tara Abraham** (University of Guelph)

Angelica Clayton (Yale University): *Psychological Stress and the Language of the Mind in Early Cybernetic Models*

Colin Garvey (Rensselaer Polytechnic Institute): *The "General Problem Solver" Doesn't Exist: Mortimer Taube & The Art of AI Criticism*
Jonnie Penn (University of Cambridge): *The Logic Behind the Logic Theory Machine, 1955-56*

18: Constructing Social Landscapes
Wabash Cannonball
Chair and Commentator: **Jonathan Bea-Taylor** (Army Corps of Engineers)

Kathryn Carpenter (University of Missouri-Kansas City): *"Cesspools," Springs, and Snaking Pipes: The use of technology to reroute the water and the social landscape of Hot Springs National Park* **(Robinson Prize Candidate)**
Eric Hardy (Loyola University New Orleans): *Going Against the Flow: The Evolution of Constructed Wetlands as Storm Water Mitigation in New Orleans and Atlanta*
Justin Shapiro (University of Maryland, College Park): *Decent, Safe, and Sanitary? Kenilworth Courts and the Environmental Obstacles of Washington, D.C.'s Public Housing Program*

19: "Enclosures" in the History of Technology: Public Historians of Technology and Engineers Discuss their Silos (and Try to Break them Down)
You Write, I Present Session
Texas Special
Organizer and Moderator: **Michael Geselowitz** (IEEE History Center at Stevens Institute of Technology)

Author 1: **Mary Ann Hellrigel** (IEEE History Committee): *Conducting oral histories in the history of technology*
Reader/Commentator 1: **Robert Dent** (IEEE History Committee)
Author 2: **Allison Marsh** (USC and IEEE History Committee): *Recognizing landmarks in the history of technology*
Reader/Commentator 2: **Jason Hui** (IEEE History Committee)
Author 3: **Corinna Schlombs** (RIT and IEEE History Committee): *Awarding/Supporting historical research and publication*
Reader/Commentator 3: **Janina Mazierska** (IEEE History Committee)

20: Assimilating the Gun: Military Technology in the Long Sixteenth Century
Sponsored by SMiTnG

Colorado Eagle
Organizer: **Kang Hyeok Hweon** (Harvard University)

Chair: **Steve Walton** (Michigan Technological University)
Commentators: **Victor Seow** (Harvard University) and **Yulia Frumer** (Johns Hopkins University)

Roger Lee de Jesus (University of Coimbra): *Gun and Gunpowder Production in Portuguese Asia (16th century)*
Barend Noordam (Freie Universität Berlin and Hebrew University of Jerusalem): *Debating the Gun: The Reception of Guns in Ming Military Manuals*
Hyeok Hweon Kang (Harvard University): *Divine Machine: Korea's Reception of the Gun* **(Robinson Prize Candidate)**

21: Sustaining Technologies in Times of Crisis
Jeffersonian Knickerbocker
Chair and Commentator: **Josep Simon** (Universidad del Rosario)

Yovanna Pineda (University of Central Florida) and **Scott Launier** (University of Central Florida): *Harvesting Technology Use and Development in Argentina During the Interwar Period, 1930-1945*
Éverton Luís de Oliveira (University of Campinas): *History of social technologies in the Brazilian semi-arid: a solution for the water scarcity*
Beatrice Choi (Northwestern University): *Innovation on Standby: Political Pitfalls, Economic Uncertainty, and Scientific Frustrations in Local Computer Innovation at Rio de Janeiro's National Computer Science Laboratory (LNCC)*

22: Redefining Spaces
New York Central
Chair and Commentator: **Matthew Hersch** (Harvard University)

Jeffrey Nesbit (Harvard University): *Blockhouse: From Military Fortification to Cybernetic Ports of Control*
Hari Durrani (Columbia Law School): *"Our Window on the World": Life in the Orbital Heterotopia of the International Space Station* **(Robinson Prize Candidate)**
Tiffany Nichols (Harvard University): *Hidden Technicalities: Consideration of U.S. Military Sites by the Laser Interferometer Gravitational-Wave Observatory (LIGO) for Placement of Large-Scale Interferometers*

23: Deskilling, Labor, and Gender: Gardening, Sewing, and Laundry in 20th-Century America
Conductor
Organizer: **Linda Przybyszewski** (University of Notre Dame)
Chair and Commentator: **Rachel Maines** (Columbia University Seminar in the History and Philosophy of Science)

Anastasia Day (University of Delaware): *How the Home-Grown Tomato Became So Expensive: Exploring Technologies of Home Food Production in the 1940s*
Linda Przybyszewski (University of Notre Dame): *Deskilling and the Loss of Moral Certainty: The Evolution of Garment Pattern Drafting and Sewing Education in the 20th Century United States*
Spring Greeney (University of Wisconsin-Madison): *Why We Stopped Boiling Clothes: Race, Steam Laundries, and the Transformation of Cleanliness, 1898-1936*

24: Engineering Studies and the History of Technology
Roundtable Discussion, sponsored by the Prometheans
Station Master
Organizer: **Amy Bix** (Iowa State University)
Chair: **Amy Bix** (Iowa State University)

Panelists:
Cyrus Mody (Maastricht University)
Atsushi Akera (Rensselaer Polytechnic Institute)
Amy Slaton (Drexel University)
Brent K. Jesiek (Purdue University)
Matt Wisnioski (Virginia Tech)

Friday, 12 October 2018

3:30 PM – 5:30 PM

25: To Electrify or Not to Electrify: Examining Electrification Options and Trajectories
You Write, I Present Session
Missouri Pacific
Organizer: **Anto Mohsin** (Northwestern University in Qatar)
Chair: **Begüm Adalet** (Cornell University)
Mutual commenting

Leo Coleman (Hunter College): *Technology's Constitution: Electricity Grids and State Boundaries in India and Scotland after 1947*
Fredrik Meiton (University of New Hampshire): *The Non-Electrification of Nablus*
Anto Mohsin (Northwestern University in Qatar): *The Indonesian Electric Cooperatives*

26: Totalitarian Technology
Colorado Eagle
Organizer: **Matthew Hersch** (Harvard University)
Chair: **Maria Gonzalez Pendas** (Society of Fellows in the Humanities / Columbia University)
Commentator: **Asif A. Siddiqi** (Fordham University)

Daniel Asen (Rutgers University-Newark*): Fingerprinting and Photography: A History of 'Fascist' Identification Technologies in Japanese-Occupied Beijing, 1937–1945*
Matthew Hersch (Harvard University): *Do Rockets Have Styles? Space Exploration and Technological Choice, 1945–1950*
Ramesh Subramanian (Quinnipiac University): *Dark Days: The Indian 'National Emergency' and the Technologies that Enabled It (1975–1977)*

27: Technologies-in-Use
Round Table
New York Central
Organizer: **Lee Vinsel** (Virginia Tech)
Chair: **Lissa Roberts** (University of Twente)
Commentator: **Francesca Bray** (University of Edinburgh)

Darina Marykanova (Universidad Autónoma de Madrid): *Engineering Progress: public works in political debate of the Mediterranean countries in the First Era of Globalisation (1880-1918)*
Andrew Russell (SUNY Polytechnic Institute): *Maintenance and Operations in the Bell System, 1917-1939*
Sonja Schmid (Virginia Tech): *Preparing for the Unprecedented: Nuclear Emergency Response Technologies and the Politics of Anticipated (non-)Use*
Lee Vinsel (Virginia Tech): *Getting Maintenance Organized: Technologies-in-Use, Learning, and Occupational Identity in the American Railroad Industry*

28: Technology, Modernity, and Human-Animal Relations
Jeffersonian Knickerbocker

Organizers: **Peter Soppelsa** (University of Oklahoma) and **Etienne Benson** (University of Pennsylvania)
Chair and Commentator: **Rebecca Woods** (University of Toronto)

Cassie Adcock (Washington University St. Louis): *Hidebound Industry in an 'Agricultural Country': Protecting Cattle in India, 1907–1927*
Etienne Benson (University of Pennsylvania): *Engineering the Pain-Free City: Electrocution as Animal Rescue in the United States, 1900–1920*
Peter Soppelsa (University of Oklahoma): *Technologies of the War on Rats during the Third Plague Pandemic, 1894–1959*
Kathleen Sullivan (Mississippi State University): *The Nature of the Beast: Vaccines and Zoonotic Disease in Mid-Twentieth-Century America*

29: **Pre-Modern Technological and Economic Innovation**
Texas Special
Chair and Commentator: **Pamela O. Long** (Independent Scholar)

Anne McCants (Massachusetts Institute of Technology*): Competition, and Innovation in Gothic Cathedral Construction*
Phillip Reid (Independent scholar): *Stasis and Change in a Key Artisanal Technology: The Merchant Ship in the British Atlantic, 1600-1800* **(Robinson Prize Candidate)**
Adam Lucas (University of Wollongong): *The role of milling in the commercialization of the feudal economy*

30: **Hydraulic Landscapes**
Illinois Central
Organizer and Chair**: Stuart W. Leslie** (Johns Hopkins University)
Commentator: **Rina Faletti** (University of California)

Xincheng Shen (Georgia Institute of Technology): *Meandering Shortcut: Transplanting Water System in Colonial Shanghai and the Dual Reality of Technological Globalism*
Daniel Macfarlane (Western Michigan University): *Nature Empowered: Hydraulic Models, Engineers, and the Hydraulic Landscape of Niagara Falls*
Owain Lawson (Columbia University): *'Sisters in Misery': Rural and Urban Effects of the Litani Project, 1955-65*

Ramya Swayamprakash (Michigan State University): *Borderlandia: Amusement Parks, Public Lands, and the story of emptiness in the Detroit River*

31: Narrative Technology - new approaches to the science-technology gateway
Conductor
Organizer: **Dominic Berry** (London School of Economics and Political Science)
Chair and Commentator: **Karen Rader** (Virginia Commonwealth University)

Dominic Berry (London School of Economics and Political Science): *Narrative starting points: where to place your fingertips on the history of DNA synthesis*
Lijing Jiang (Colby College): *Stories of the "Living Fossil" across the Pacific: Narratives of Evolutionary History and Resource Management in Metasequoia Research*
Tiago Saraiva (Drexel University): *White Writing: Cloning Citrus and Racial Degeneration in South Africa*

32: Legal Histories of Technology I
Station Master
Organizer: **Meg Jones** (Georgetown University)
Chair and Commentator: **Gerardo Con Diaz** (University of California, Davis)

Kathryn Steen (Drexel University): *Inventing Policy: The Challenge of U.S. Patent Governance in the Interwar Years*
Sarah Bell (Michigan Technological University): *The Congressional Act as a Funding Stream for Computing Technologies A Case Study of the Kurzweil Reading Machine*
Jillian Foley (University of Chicago): *Regulating Technological Secrecy* **(Robinson Prize Candidate)**
Andrew McGee (Library of Congress): *The Courts Consider the Computer: Electronic Computers as Objects of Litigative and Administrative Fascination in the U.S. Federal Courts, 1950-1985*

Saturday, 13 October 2018

8:00 AM – 10:00 AM

33: Cold War Diplomacy and Technology Transfer
Missouri Pacific
Chair and Commentator: **Stuart W.Leslie** (Johns Hopkins University)

Kenzo Okuda (Independent scholar): *UK-US cooperation on atomic energy development during World War II and UK political warfare toward Japan in the Cold War period*

Miroslaw Sikora (Institute of National Remembrance Poland): *To share or not to share? Expectations, (mis)trust, deception and nativity in the US policy toward Polish People's Republic in the area of science and technology during the 50s – 70s*
Ling-Ming Huang (Georgia Institute of Technology): *Creating Hybridity in the Design and Construction of the Taipei Metro* **(Robinson Prize Candidate)**

34: Legal Histories of Technology II
Wabash Cannonball
Organizer: **Meg Jones** (Georgetown University)
Chair: **Kara Swanson** (Northeastern University School of Law)
Commentator: **The Audience**

Mary Mitchell (Purdue University*): Moving Targets: Analogy and Bricolage in the Regulation of Technological Change*
Meg Jones (Georgetown University): *The Development of Consent to Computing*
David Zvi Kalman (University of Pennsylvania): *Rabbinic Legal Responses to Technology in the 19th Century: Lagging or Leading?* **(Robinson Prize Candidate)**
Hugo Silveira Pereira (Interuniversity Center for the History of Sciences and Technology): *The Portuguese railway legislation (1845-1892)*

35: Protective and belligerent technologies in twentieth century warfare
Texas Special
Organizer: **Mark Crowley** (Wuhan University, China / Harvard Center for European Studies)
Chair and Commentator: **Christopher Sellers** (State University of New York at Stony Brook)

Mark Crowley (Wuhan University, China / Harvard Center for European Studies): *"Health is Wealth": The drive to improve occupational health in British coalmines during the Second World War*
Peter Thorsheim (University of North Carolina, Charlotte): *Secrecy at the Expense of Safety: Protective Technologies in Britain's Chemical Weapons Factories*
Amy Hay (University of Texas Rio Grande Valley): *"The Weed Killers": Chemical Warfare in Vietnam*

36: Other Spaces: Displacement, Disruption, and Violence in the Space Age
Colorado Eagle
Organizer: **Asif Siddiqi** (Fordham University)
Chair and Commentator: **Edward Jones-Imhotep** (York University)
Lisa Ruth Rand (University of Wisconsin-Madison): *Decay and Disruption: The Globalizing By/Products of the Cold War Space Industry*

Ellen Power (University of Toronto): *Narratives of radiation, risk and uncertainty in the clean-up of satellite Cosmos 954*
Anna Reser (University of Oklahoma): *Making Way for 'America's Spaceport': Displacement and Disruption on Florida's Space Coast*
Asif Siddiqi (Fordham University): *Sites of Exclusion: The Disturbing Legacy of Cold War Space Research in Kenya*

37: Technological Rituals
Jeffersonian Knickerbocker
Organizer: **Whitney Laemmli** (Columbia University)
Chair and Commentator: **Yulia Frumer** (Johns Hopkins University)

Matthew Henderson (University of Virginia): *The Hock of the Old: American Collectors of American Antiques, 1919 - 1979*
Whitney Laemmli (Columbia University): *Taylorism Transfigured: Movement, Spirit, and Technology in the WWII British Factory*
Maria González Pendás (Columbia University): *Building Redemption: Concrete Technologies, Brick Geometries, and Catholicism in Mid-century Latin America*
Jennifer Karns Alexander (University of Minnesota): *Technology, ritual, and protest: The 20th Anniversary Mass of the United Farm Workers of America*

38: User Communities in the History of Computing: New Methods and Directions
New York Central
Sponsored by SIGCIS
Organizer: **Gerardo Con Diaz** (University of California, Davis)
Chair and Commentator: **Janet Abbate** (Virginia Tech)

Stephanie Dick (University of Pennsylvania): *MACSYMA: Making a Mathematical Community*
Marie Hicks (National Humanities Center): *Bootstrapping Digital Governance: Trading Programming for a New Computer at the Administrative Staff College of India in the 1970s*
Gerardo Con Diaz (University of California, Davis): *Copyright Law and the Angry Programmers: The League for Programming Freedom, 1985-1995*
Matthew Jones (Columbia University): *Through the List-Serve, Darkly: User Groups, and the Emergence of Data Mining in the 1990s*

39: Moving crops and the scales of history: a round-table
Round Table
Conductor
Organizers: **Francesca Bray** (University of Edinburgh), **Barbara Hahn** (Texas Tech), **John Lourdusamy** (Indian Institute of Technology Madras), and **Tiago Saraiva** (Duke University)
Chair: **Francesca Bray** (University of Edinburgh)

Dominic Berry (Narrative Science Project, Economic History, LSE)
Courtney Fullilove (Wesleyan University)
Aleksandra Kobiljski (CNRS - EHESS)
Pamela O. Long (Independent Scholar)
Harro Maat (WURL)
Marta Macedo (Institute of Social Sciences, University of Lisbon)
Gabriela Soto Laveaga (Harvard University)

40: Energy gateways: an international history of interconnection
Station Master
Organizer: **George Wilkenfeld** (George Wilkenfeld and Associates)
Chair: **Julie Cohn** (Center for Public History University of Houston)
Commentator: **Arne Kaijser** (KTH Royal Institute of Technology)

Richard Hirsh (Virginia Tech): *Filling in the Gaps on Interconnection: A Cross-national Study of Rural Electrification in the 1920s and 1930s*
Adewumi Damilola Adebayo (University of Cambridge): *From the PWD to the ECN: Indigenous Agency, Development Planning, and Regulation of Electricity Production in Nigeria, 1923-1950*
Nicole Hesse (University of Stuttgart): *Grid of Knowledge: Wind Energy Usage in Southern France 1880-1940*
George Wilkenfeld (George Wilkenfeld and Associates*): A Confluence of Water and Power – the Snowy Hydro Scheme, grid interconnection and the creation of the Australian National Electricity Market*

41: Graduate Student Workshop I
Illinois Central
Organizer and Chair: **Colin Garvey** (Rensselaer Polytechnic Institute)
Commentators: **Patrick McCray** (UCSB), **Sabine Höhler** (KTH Royal Institute of Technology), **Nina Lerman** (Whitman College), **Lee Vinsel** (Virginia Tech)

Tasha Schoenstein (Harvard University)
Patrick John F. Mansujeto (University of the Philippines-Diliman)
Ranjodh Singh Dhaliwal (UC Davis)
Jieshu Wang (Arizona State University)
Betsy Frederick-Rothwell (University of Texas, Austin)
Fabian Prieto-Nanez (University of Illinois at Urbana-Champaign)

Saturday, 13 October 2018

10:30 AM – 12:00 AM

42: Educational Technology in the Information Society

Missouri Pacific
Organizer: **Todd Dresser** (University of Wisconsin-Green Bay)
Chair: **Bruce Seely** (Michigan Tech)
Commentator: **Joy Rankin** (Michigan State University)

Brandon Jackson (Independent Scholar): *Early Radios as Educational Technologies*
Ekaterina Babintseva (University of Pennsylvania): *Technologies of Creativity: Minds, Algorithms, and Education in the Mid-Century Soviet Union*
Todd Dresser (University of Wisconsin-Green Bay): *"Addressing Societies Unmet Needs as Profitable Business Opportunities": PLATO at the University of Illinois, and the Control Data Corporation*
Josep Simon (Universidad del Rosario, Bogota (Colombia*)): Technologies in the Classroom: Appropriating the Material Culture of Education in Latin America (19th-21st centuries) for the History of Technology*

43: Gendered Technologies, and Separate Spheres

Wabash Cannonball
Chair and Commentator: **Amy Slaton** (Drexel University)

Cari Casteel (University at Buffalo): *"Gender in the Bath": Technologies and Space in the American Household*
Elizabeth Semler (University of Minnesota): *"'I Finally Felt Valued': The Construction of an Environment of Equality at Cray Research, 1972-1996"* **(Robinson Prize Candidate)**
Anna Turza (War Studies University in Warsaw): *War is a woman. How women's paramilitary training influenced the situation of women in the interwar Poland*

44: Imagining Spaceship Earth
Texas Special
Chair and Commentator: **Valerie Neal** (Smithsonian - National Air and Space Museum)

Rebecca Perry (University of Virginia): *Imaging Space: Planetary Voyages and Computer Graphics at NASA/JPL*
Annie Handmer (University of Sydney): *Wilderness or Open Space? Contextualising Environmental Concern in the Second Space-Age* **(Robinson Prize Candidate)**
David Munns (John Jay College, CUNY): *The Alga-tron, and the Aqua-Hamster: Engineering Models of Closed Ecosystems to Live In Space*

45: Controlling Information on and with Paper
Conductor
Chair and Commentator: **Tom Misa** (University of Minnesota)

Kyle Bickoff (University of Maryland): *Infrastructures of Knowledge: The Hollinger Box, and the Containerization of Memory* **(Robinson Prize Candidate)**
Paul Ceruzzi (Smithsonian Institution): *Calvin Mooers, Zatocoding, and Early Research on Information Retrieval*
Paul Miranti (Rutgers Business School), and **Phillip Bradford** (University of Connecticut): *Information Innovation, and Diffusion: Walter A. Shewhart, and the Development of the Control Chart, 1918-1954*

46: Soil, Dirt, and Sediment: New Perspectives on Technoscience and the Environment
Sponsored by Envirotech
Colorado Eagle
Organizer: **Theodora Dryer** (University of California, San Diego)
Chair: **Layne Karafantis** (NASA)
Commentator: **Courtney Fullilove** (Wesleyan University)

Penelope K. Hardy (Xavier University): *Sampling the Sea Bottom: The Collection and Use of Sediment on the Challenger Expedition*
Christine Keiner (Rochester Institute of Technology): *From Fallout to Sea Snakes: The Panatomic Canal Debate and Pre-NEPA Environmental Impact Assessment*
Theodora Dryer (University of California, San Diego): *Computing Sugar Beets, 1920-1940*

47: Technologies of Self-Determination and Collective Action in African American Expert Communities
Sponsored by EDITH
Jeffersonian Knickerbocker
Organizer: **Lisa Ruth Rand** (University of Wisconsin-Madison)
Chair: **Fallon Samuels Aidoo** (University of New Orleans)
Commentator: **E. Prasad Venugopal** (University of Detroit Mercy)

Selika Ducksworth-Lawton (University of Wisconsin - Eau Claire): *Broadcasting a Movement: Communications Technology for Armed Self-Defense in Louisiana, 1965-1967*
Charnell Chasten Long (University of Wisconsin - Madison): *Technologies of Counter-Publics: The Social Origins of the African American Scientist* **(Robinson Prize Candidate)**
Chanda Prescod-Weinstein (University of Washington): *When Is She a Mathematician, Technologist, Biologist, Physicist? The Challenges of Boundary Work Among African American Women in STEM*

48: Digital Economies of Labor, Transnational Mobilities
Station Master
Organizer: **Winifred Poster** (Washington University, St. Louis)
Chair: **Elisabetta Mori** (Middlesex University)
Commentator: **Srirupa Prasad** (University of Missouri, Columbia)

Hamid R. Ekbia (Indiana University Bloomington): *The Paradox of Platforms: A Revisionary History of Computing*
Michael Palm (University of North Carolina, Chapel Hill): *Carry That Weight: Online Record Sales and International Traffic in the Digital Economy*
Winifred Poster (Washington University, St. Louis): *From Knowledge Work to Maintenance Work on the Global Information Highway: Histories of ICT Outsourcing in India*

49: Public Memory, Technology, Strategy, and Cultural Values in the Pacific WW2
Round Table
New York Central
Organizer: **Pnina Abir-Am** (Brandeis University)
Chair and Commentator: **Roger Launius** (Launius Historical Services)

Pnina Abir-Am (Brandeis University): *Historiographic surplus of the 50th, and 60th commemorations of the end of WW2 in the US, and Japan*
Alex Roland (Duke University): *Asymmetrical Naval War in the Pacific, 1941-1945*

Takashi Nishiyama (SUNY at Brockport): *Making Better Sense of Wartime Technology: The Japanese Zero Fighter as a Case Study*

50: Graduate Student Workshop II (ends 12:30 PM)
Illinois Central
Organizer and Chair: **Colin Garvey** (Rensselaer Polytechnic Institute)
Commentators: **Patrick McCray** (UCSB), **Sabine Höhler** (KTH Royal Institute of Technology), **Gerardo Con Diaz** (University of California, Davis), **Lee Vinsel** (Virginia Tech)

Chamee Yang (University of Illinois at Urbana-Champaign)
Nathaniel "Bucky" Stanton (Rensselaer Polytechnic Institute)
Rosalind Donald (Columbia University)
Ericka Leonor Herazo Berdugo (Universidad de los Andes)
Anna Lehr Mueser (University of Pennsylvania)

Saturday, 13 October 2018

12:00 AM – 1:30 PM – Lunch Session

Lunch Round Table
Thirty-Five Years and Counting: The Enduring Intellectual Legacy of Joseph Corn's Winged Gospel
Wabash Cannonball
Organizers and Moderators: **Aaron Alcorn** (Vintage Computing, Living Computers: Museum + Labs), **Alan Meyer** (Auburn University)
Discussants:
Joseph J. Corn (Stanford University)
Amy Sue Bix (Center for Historical Studies of Technology and Science, Iowa State University)
Jason Weems (University of California, Riverside)
Margaret Weitekamp (National Air and Space Museum, Smithsonian Institution)

Saturday, 13 October 2018

1:30 PM – 3:00 PM

51: The Ecology of Technology
Missouri Pacific

Organizer: **Cole Stratton** (Indiana University)
Chair: **James Schwoch** (Northwestern University)
Commentator: **Jason A. Gallo** (Science and Technology Policy Institute)

James Schwoch (Northwestern University): *Trees, Telegraphy and Telecommunications Networks*
Hannah Conway (Harvard University): *Designing for Resilience: The Industrialization of Microbial Labor and Development of Self-Healing Concrete*
Cole Stratton (Indiana University): *Towards a Political Ecology of the iPhone 5C* **(Robinson Prize Candidate)**

52: Standards, and Calculations as Technologies of Trust: Institutions, Markets, Publics
Wabash Cannonball
Organizer: **Ashton Merck** (Duke University)
Chair and Commentator: **Stephen Mihm** (University of Georgia)

Aashish Velkar (The University of Manchester): *Standards as Technologies of Trust*
Ann Daly (Brown University): *"Men of Honor and Intrinsic Value": Personal, and Institutional Authority at the New Orleans Mint, 1839-1848*
Ashton Merck (Duke University): *The Internationalization, and Privatization of Food Safety Standards*

53: Intellectual and Institutional Challenges to Internationalizing SHOT
Presidential Round Table
New York Central
Organizer and Chair: **John Krige** (Georgia Institute of Technology)
Moderator: **Francesca Bray** (University of Edinburgh)

Panelists:
Josep Simon (Universidad del Rosario, Bogota (Colombia))
Dazhi Yao (Chinese Academy of Sciences)
Anna Guagnini (University of Bologna)
Aleksandra Kobiljski (French National Research Center (CNRS))
Marta Macedo (Institute of Social Sciences of Lisbon)
Darwin Stapleton (Rockefeller Archive Center)

54: From Abstract and Keywords to Film-making: Creating Historical Videos In and Out of an Academic Context

Texas Special

Workshop-style session

Organizer: **Sam Smiley** (AstroDime Transit Authority)

Chair: **Patrick McCray** (UCSB)

Commentator: **The Audience**

Sam Smiley (AstroDime Transit Authority): *Ornamentalism: The Migrations and Translations of Japanese Knotweed*

Yovanna Pineda (University of Central Florida): *Filming Memories and Artifacts of Industrialization from Argentina's Past*

David C. Brock (Center for Software History, Computer History Museum), and **Hansen Hsu** (Center for Software History, Computer History Museum): *Video Ethnography and the Dynamic Artifacts of Computing*

55: Materializing Sight: Psychology, and Technologies of Vision in the Twentieth Century

Jeffersonian Knickerbocker

Organizer: **Cameron Brinitzer** (University of Pennsylvania, History, and Sociology of Science)

Chair: **Erica Robles-Anderson** (New York University, Media Culture, and Communication)

Commentator: **Matthew Jones** (Columbia University)

Cameron Brinitzer (University of Pennsylvania, History, and Sociology of Science): *Materializing Nonverbal Minds: The Technical Measurement of Looking-Time in Experimental Psychology* **(Robinson Prize Candidate)**

Alex Campolo (New York University, Media Culture, and Communication): *Computing, and Human Behavior: Allen Newell, and Applied Information Processing at Xerox PARC*

Erica Robles-Anderson (New York University, Media Culture, and Communication): *Personal Computing through Portrait Display: The Xerox Alto as Object Lesson in Upright Views*

Benjamin Lindquist (Princeton University): *"Synthesis by Art": Synthetic Speech, and the Conversion of Tacit Knowledge into Algorithms* **(Robinson Prize Candidate)**

56: Man, Superman, and Machine

Station Master

Chair and Commentator: David Nye (University of Southern Denmark)

Michael Hankins (United States Air Force Academy): *From Snoopy to Starbuck: The Evolution of Fighter Pilots in Popular Culture, and the Embrace of Science Fiction*
Lisa Nocks (IEEE History Center): *Industry and Imagination in the Nineteenth Century: The Steam Man Phenomenon*
Alexander Magoun (IEEE History Center at Stevens Institute of Technology): *Fear, and the Electrical Sublime: Why Frankenstein became Electric*

57: An Offering of Tools, and Advice for a Post-Grad Work/Life; Or, 'Get a Job!'
Illinois Central
Presidential Round Table sponsored by ECIG
Organizer and Chair: **Colin Garvey** (Rensselaer Polytechnic Institute)

Theodora Dryer (University of California, San Diego)
Emily Gibson (National Science Foundation)
Layne Karafantis (NASA)
Pamela Long (Independent Scholar)
Suzanne Moon (University of Oklahoma)
Erik Rau (Hagley Library)
Andy Russell (SUNY Polytechnic Institute)

58: The Cold War Expo: A Gateway to the World, and Beyond – A Round-table on comparative history, collaborative publishing, and contemporary practices
Conductor
Round Table
Organizer: **Ellan Spero** (École polytechnique fédérale de Lausanne (EPFL))
Moderator: **Miriam Levin** (Case Western Reserve University)

Ellan Spero (École polytechnique fédérale de Lausanne (EPFL)): *A Garden City for "Progress and Harmony", Singapore at the Osaka '70 Expo*
Michelle Demeter (Florida State University): *Advancing an Optimistic Technological Narrative in an Age of Skepticism: General Electric, and Walt Disney's Progressland at the 1964-1965 New York World's Fair*
Robert Kargon (Johns Hopkins University): *How the Cold War Changed the Future: Science, and Technology at the 1964 New York Fair*
Stuart W. Leslie (Johns Hopkins University): *Who We Are, Not What We Make: Techno-Humanism, and Expo '58*

Arthur Molella (Smithsonian Institution): *The Human Spirit in an Age of Machines: The Pietà, and the Computer at the 1964-65 New York World's Fair*
Katie Uva (CUNY Graduate Center): *1964, and the State of the City*

59: Outreach Presentation: NSF funding opportunities for historians of Technology
Colorado Eagle
Organizer: **Fred Kronz** (National Science Foundation)

The outreach presentation will cover funding opportunities at NSF for historians of technology. It will be of interest to researchers at multiple levels from grad students to well-established historians. It will be given by Fred Kronz, director of the Science, Technology, and Society Program at the National Science Foundation

Saturday, 13 October 2018

3:30 PM – 5:30 PM

60: Power and Silence: (Non-)Engagements in the History of Technology
You Write, I Present Session, sponsored by EDITH
Missouri Pacific
Organizers: **Kara Swanson** (Northeastern University) and **Amy Slaton** (Drexel University)
Chair and Provocateur: **Gabriela Soto Laveaga** (Harvard University)

Author 1: **Pablo Gomez** (University of Wisconsin): *Enslaved Histories: African Diasporic Technologies and the Limits of Historicism*
Presenter 1: **Kara Swanson** (Northeastern University)
Author 2: **Kara Swanson** (Northeastern University): *The Black Inventor in the History of Race, Politics, and Technology*
Presenter 2: **Pablo Gomez** (University of Wisconsin)
Author 3: **Amy Slaton** (Drexel University): *History, Technology, and the Strategic Cruelties of Merit*
Presenter 3: **Debjani Bhattacharyya** (Drexel University)
Author 4: **Debjani Bhattacharyya** (Drexel University): *The Right against Mobility: A History of Caste and the Built Environment*
Presenter 4: **Amy Slaton** (Drexel University)

61: The Cost of Engineering to Society: Risk and Failure in Ground Transport
Wabash Cannonball
Organizer: **Julie Mark Cohen** (Independent Scholar)
Chair and Commentator: **Matthew Wisnioski** (Virginia Tech)

David Schley (Hong Kong Baptist University): *The Urban Locomotive in Nineteenth-Century America*
Katie Valliere Streit (University of Houston): *Dirt Cheap: Assessing the Failures of Road Engineering in Tanzania*
Julie Mark Cohen (Independent Scholar): *U.S. Bridge Failures: The Cost of Extrapolation in Design Decision-Making*
David A. Banks (Social Science Research Council*): Cultivating a New Engineer: Using Transportation History to Reconsider*

62: To Boldly Preserve: Archiving the History of the Next Half-Century of Spaceflight
Round Table
Texas Special
Organizer: **Jonathan Coopersmith** (Texas A&M University)
Chair and Commentator: **Angelina Callahan** (Naval Research Laboratory)

Discussants:
Jonathan Coopersmith (Texas A&M University): *Failure Is an Option: Why We Need to Act*
Roger Launius (Launius Historical Services): *Whither Space Archives for the Future?*
Valerie Neal (Smithsonian - National Air, and Space Museum): *Writing Space History in the 21st Century*
Erik Rau (Hagley Library): *To Boldly Collect: Building Space Archives and Beyond*
Asif A. Siddiqi (Fordham University): *Comments*

63: The Historical Reach of American Engineering Education
Colorado Eagle
Sponsored by Prometheans
Organizer: **Atsushi Akera** (Rensselaer Polytechnic Institute)
Chair and Commentator: **Bruce Seely** (Michigan Tech)

Atsushi Akera (Rensselaer Polytechnic Institute): *Who's at the Helm of U.S. Engineering Education? The Historical Origins of ABET's EC 2000 and Its Subsequent Implementation*
Timothy Stoneman (Georgia Tech Lorraine): *The Blast Furnace in the Classroom: Site Learning in International Engineering Education*

Ellen Foster (Purdue University): *'Everyone Makes': A critical history of 'diversity', and 'equity' discourse in STEM pedagogy practices*

64: Symbolisms of technology
Jeffersonian Knickerbocker
Organizer: **Dolly Jørgensen** (University of Stavanger)
Chair: **Peter Soppelsa** (University of Oklahoma)
Commentator: **Rosalind Williams** (Massachusetts Institute of Technology)

Jacques Vest (University of Michigan): *Ready-Made: Victor Talking Machine Company, and the Technological Aesthetic of Centralization* **(Robinson Prize Candidate)**
Joshua Nygren (University of Central Missouri): *Making John Deere Green: US Farm Machinery and Soil Erosion, 1936-1950*
Blair Stein (University of Oklahoma): *The Language of Technology and the Trans Canada Air Lines/Air Canada Transition, 1961-1965*

65: Navigating Technological Color Lines: Networks and Mobility in African American History
New York Central
Organizer: **Christopher Blakley** (Rutgers University–New Brunswick)
Chair: **Rayvon Fouché** (Purdue University)
Commentator: **Erinn McComb** (Mississippi State University)

Christopher Blakley (Rutgers University–New Brunswick): *"She Took With Her A Small Black Horse": Fugitive Mobility, Equine Mastery, and the Envirotechnical Boundaries of Slavery in British America* **(Robinson Prize Candidate)**
Xavier Macy (Rutgers University–New Brunswick): *Pooling, and Police: Automobiles, Black Organization in the Montgomery Bus Boycott, and Carpool Criminalization* **(Robinson Prize Candidate)**
Alan Meyer (Auburn University): *"Are You the Pilot?" African Americans in the Not-So Friendly Skies of Commercial Aviation.*

66: Technologies of Communication in Crossing and Constructing Borders
Conductor
Chair and Commentator: **Cyrus Mody** (Maastricht University)
Sonia Robles (Universidad Panamericana, Mexico City): *Cross-Border Dreams: Mexican Radio Entrepreneurs, and their International Audience*

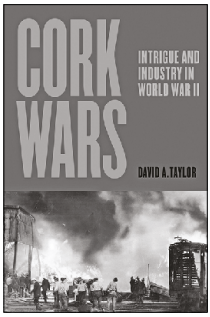
Waqar Zaidi (Lahore University of Management Sciences): *Maintaining Pakistani Civil Aviation, Maintaining the State*

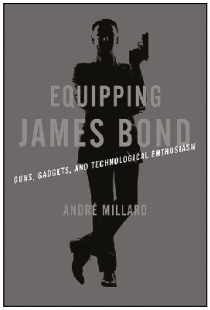
67: Innovation Out of the Blue: Managing Serendipity in Energy Conversion Systems
Station Master
Organizers: **Lillian Hoddeson** (University of Illinois), **Julie Cohn** (University of Houston), **Abby Spinak** (Harvard University), **Matthew Eisler** (University of Strathclyde)
Chair: **Matthew Eisler** (University of Strathclyde)
Commentator**: Paul Israel** (Rutgers University)

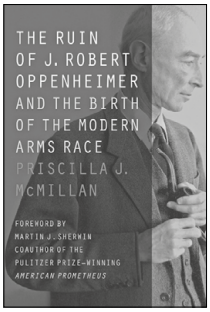
Lillian Hoddeson (University of Illinois): *Chance, and Design in Stanford Ovshinsky's Invention of the Nickel-Metal Hydride Battery*
Julie Cohn (University of Houston): *Becoming a Test-Bed: The Texas Case in American Electrification*
Abby Spinak (Harvard University): *In Search of an Inventor: The Birth of the Cooperative Business Model in Electricity History*
Matthew Eisler (University of Strathclyde): *Bounding Battery Risk: Managing Convergence in the Electric Auto Age*

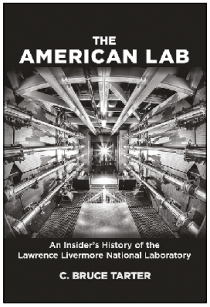
68: Gateways: Passages, Openings, and Enclosures in the History of Technology. Roundtable Discussion: "Teaching the History of Technology with a Focus on Diversity"
Illinois Central
Round Table, sponsored by EDITH
Organizer: **Monique Laney** (Auburn University)
Moderator: **Amy Bix** (Iowa State University)

Discussants:
Michael Hankins (United States Air Force Academy)
Monique Laney (Auburn University)
Nina Lerman (Whitman College)
Pamela Mack (Clemson University)
E. Prasad Venugopal (University of Detroit Mercy)









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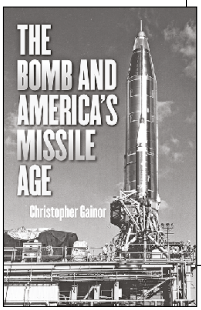

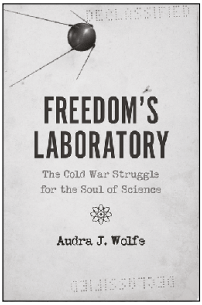

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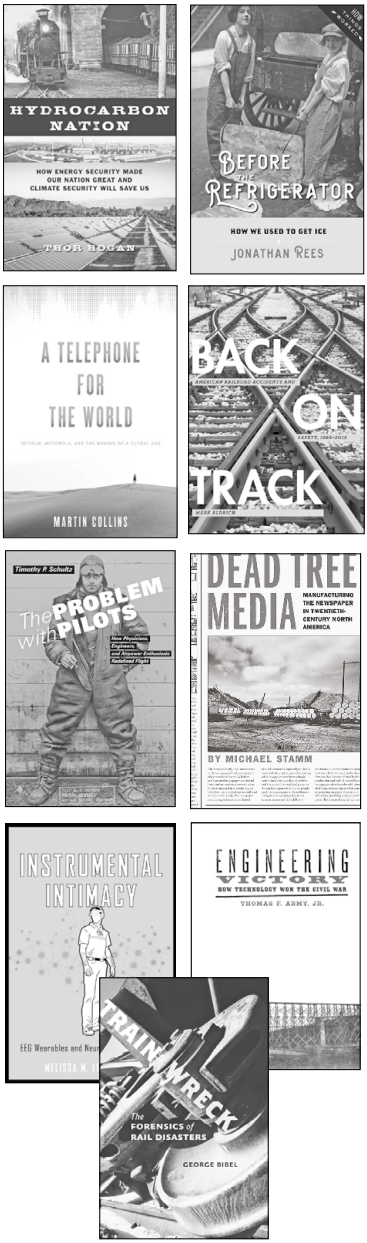

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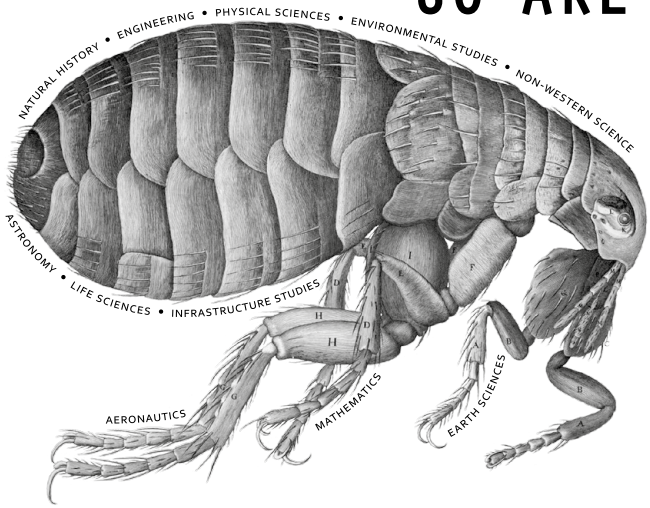

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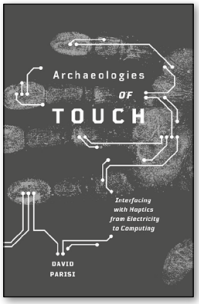

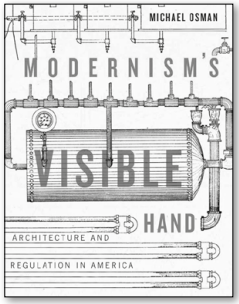

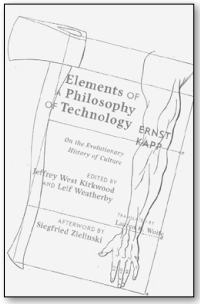

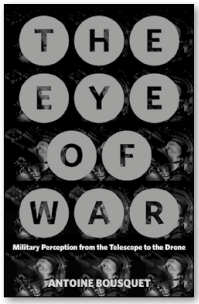

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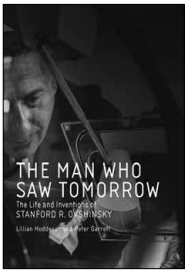

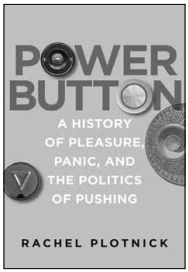

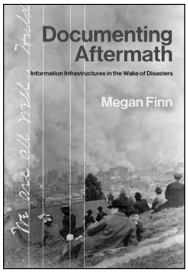

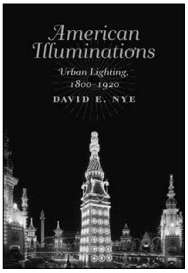

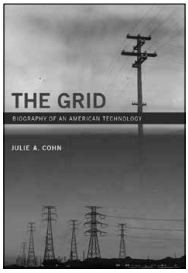

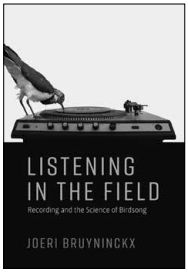

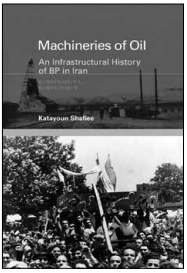

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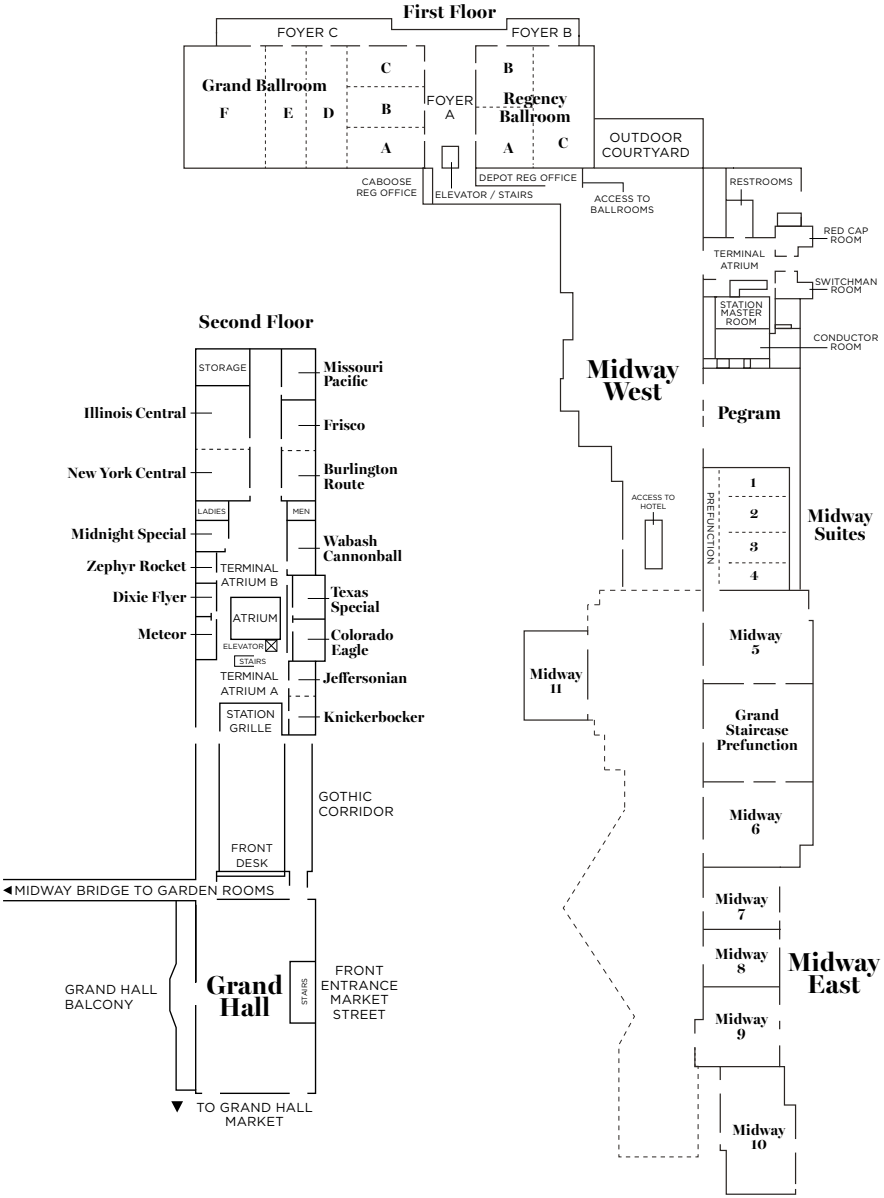

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