

Conference Schedule

Thursday, 15 October

8 AM-5 PM

Registration Desk, North Lobby Concourse

Executive Council Meeting (open to all members), Duquesne Room

12-5 PM

Editorial Board Meeting, *IEEE Annals of Computer History*, Birmingham Room

TOURS:

12.30 PM Fallingwater

12.45 PM Monongahela Valley Iron and Steel Industry

1 PM Pittsburgh's East End Cultural Amenities: Vestiges of the Pittsburgh's Coal, Iron, and Steel Barons

All tours DEPART from the Liberty Avenue hotel exit PROMPTLY at the times listed above. Box lunches available at time of boarding.

5.30-7 PM

Buses to Senator John Heinz History Center DEPART FROM Liberty Avenue hotel exit.

The Senator John Heinz History Center is located at 1212 Smallman Street. In good weather, it can be reached from the Hilton on foot in 17 minutes. Maps are available in the Registration Packet.

7-8 PM

Opening Plenary Session, Senator John Heinz History Center

Brian Hayes (2006 Sally Hacker Prize winner and senior writer, *American Scientist*), "Industrial America Seen Through a Chain-Link Fence"

8-10 PM

Reception, Senator John Heinz History Center

9-10.15 PM

Buses depart from Heinz History Center back to the Hilton

Friday, October 16

6:30-9 AM

Tour of Pittsburgh's Strip Ethnic Food District

Bus will depart from Liberty Avenue hotel exit

7-8.30 AM

Graduate Student Breakfast (please register in advance), LeBateau Room

8 AM–5 PM

Registration, Ballroom Lobby

Book Exhibit, Heinz and Allegheny Rooms

8.30-10 AM

1. Women at Work: Machines, Tools, Bodies, and Gendered Labor

Birmingham Room

Chair: **Susan Schmidt Horning** (St. John's University)

Commentator: **Rosalind Williams** (Massachusetts Institute of Technology)

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

Daryl Hafter (Eastern Michigan University): Making Preindustrial Machines Fit

Women Workers' Bodies

Gerard Fitzgerald (New York University): You learnt to spin and you learnt to hear:

Sensory History, Workscapes, and the Lives of Southern Women Mill Workers, 1900-40

Amy Sue Bix (Iowa State University): 'If You Can Ice a Cake, You Can Lay Bricks!':

Women and Tools, Bodies and Skills

2. From National Security to Commercial Manufacturing: Cold War Transits of Technologies

Smithfield Room

Chair & Commentator: **Robert Friedel** (University of Maryland)

Co-organizers: **David C. Brock** (Chemical Heritage Foundation) and **Christophe Lécuyer** (University of California)

Christophe Lécuyer and **David C. Brock**: From Nuclear Physics to Semiconductor Manufacturing: The Making of Ion Implantation

Leo B. Slater (Naval Research Laboratory): From Military to Manufacturing: Electronics and Materials Research at the Naval Research Laboratory

Cyrus Mody (Rice University): Acoustic Microscopy in the 1970s: Converting Military to Civilian by Converting Electronic to Acoustic

3. Web 2.0 and the History of Technology

Ft. Pitt Room

Chair: **Sheldon Hochheiser** (IEEE History Center)

Commentator: **Thomas J. Misa** (Charles Babbage Institute)

Organizers: **Michael N. Geselowitz** (IEEE History Center) and **Thomas J. Misa** (Charles Babbage Institute)

Stephanie H. Crowe (Charles Babbage Institute): Experimenting with Web 2.0 at the Charles Babbage Institute

Suzanne Fischer (The Henry Ford): The History Museum as Communication Platform

Michael N. Geselowitz (IEEE History Center): The IEEE Global History Network

4. Obsolescence and Waste

Benedum Room

Chair & Commentator: **Stephen H. Cutcliffe** (Lehigh University)

Djahane B. Salehabidi (Cornell University) [**Robinson Prize Candidate**]: The Hidden Life of Technologies: Rethinking the black box, technological systems and materiality through waste

David N. Lucsko (University of Detroit Mercy): Obsolescence Enforced: 'Clunker' Legislation and the Automotive Enthusiast, 1960s–2000s

Emily Lynn Osborn (University of Chicago) [**Robinson Prize Candidate**]: Scrap: Recycling Aluminum, Diffusing Technology and the Making of a West African Artisanal Sector, 1945–2005

5. Operating Technological Networks

Duquesne Room

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

Commentator: **Kenneth Lipartito** (Florida International University)

Organizers: **Kenneth Lipartito** (Florida International University) and **Lars Heide** (Copenhagen Business School)

Damon Yarnell (University of Pennsylvania): Behind the Line: Purchasing Agents, Inter-firm Control and the Advent of Mass Production at Ford Motor Company, 1908-27

Nathan Ensmenger (University of Pennsylvania): From Computer Operations to Operating Systems: The Hidden Costs of Business Computing

Jytte Thorndahl (Danish Museum of Electricity, Denmark): Large Infrastructure between Technology and Politics: Decline of Gas in Aarhus, Denmark in the 1960s and 70s

6. DDT (Re)considered: Disease Control, Environmental Change, and the Politics of Science

Brigade Room

Chair & Commentator: **Suzanne Moon** (University of Oklahoma)

Organizer: **David Kinkela** (State University of New York, Fredonia)

Thomas Robertson (Worcester Polytechnic Institute) [**Robinson Prize Candidate**]:

The Country that DDT Made: USAID, DDT, and Nepal

Sabine Clarke (Wellcome Unit for the History of Medicine, University of Oxford, UK): Rethinking the Idea of the Postwar Hegemony of DDT: Insecticides, Disease Control, and Scientific Research in British East Africa

David Kinkela (State University of New York, Fredonia): DDT and the Politics of Science and Health in a Global Age

7. *Inventing Place*

Rivers Room

Chair & Commentator: **Eda Kranakis** (University of Ottawa, Canada)

Rania Ghosn (Harvard University): The Politics of Energy Infrastructures: The Trans-Arabian Pipeline and geographies of oil across the Middle East

Jennifer S. Light (Northwestern University), Nationality and Neighborhood Risk at the Origins of FHA Underwriting: A Study in Historical GIS

10-10.30 AM

Coffee Break with introduction to the Special Interest Groups (SIGs),
Ballroom Lobby

10.30 AM-12.30 PM

8. *Materiality Meets Practice*

Birmingham Room

Chair: **JoAnne Yates** (Massachusetts Institute of Technology Sloan School)

Commentator: **Gerard Alberts** (University of Amsterdam, Netherlands)

Organizer: **Thomas Haigh** (University of Wisconsin—Milwaukee)

Thomas Haigh (University of Wisconsin—Milwaukee): Opening the Beige Box:

Materiality and the Evolution of the IBM PC, 1981-95

Jeffrey Tang (James Madison University): Plug and Play: Standardized Connectors and Home Audio Reproduction

Allan Olley (University of Toronto, Canada): The Right Job for the Tools:
Transitioning to the Computer Age

David Alan Grier (George Washington University), The Material Origins of Virtualization

9. *Technological Shifts*

Smithfield Room

Chair & Commentator: **Glenn Bugos** (NASA Ames Research Center)

Lillian Hoddeson (University of Illinois, Urbana): Does Analogy Motor Invention?
The Technological Consequences of Stanford Ovshinsky's Nerve Cell Analogy

Rachel Plotnick (Northwestern University) [**Robinson Prize Candidate**]: Computers, Systems Theory and the Making of a Wired Hospital: A History of Technicon Medical Information System, 1964-87

Sarah Lowengard (Independent Scholar): Center from the Periphery: Conceptual and practical motivations in the mechanization of color printing 1640-1795

Yasushi Sato (National Graduate Institute for Policy Studies, Japan): An Inconspicuous Giant in the History of Japanese Computing: NTT and its Early Masterwork, DIPS-1

10. From Benefit to Burden: The Unintended Environmental Consequences of Technologies Intended to Address Environmental Hazards

Ft. Pitt Room

Chair: **Jared N. Day**, Carnegie Mellon University

Commentator: Audience

Organizer: **Carl A. Zimring** (Roosevelt University)

Carl A. Zimring (Roosevelt University) [**Robinson Prize Candidate**]: From Profit-Boosting Blight Fighter to Toxic Fluff Machine: The Changing Environmental Legacy of the Automobile Shredder in Late Twentieth-Century America

Finn Arne Jørgensen (Norwegian University of Science and Technology, Norway): Too Close to Nature? Dealing with Leisure Cabin Sanitation Technology, 1960-80

Angie Gumm (Iowa State University) [**Robinson Prize Candidate**]: “A City Can’t Afford to Experiment”: The Baltimore Pyrolysis Plant and the End of the Waste-to-Energy Dream

11. STS in Nonwestern Contexts: What Registers Do We Use Now?

Benedum Room

Chair & Commentator: **Clapperton Chakanetsa Mavhunga** (Massachusetts Institute of Technology)

Organizer: **Clapperton Chakanetsa Mavhunga** (Massachusetts Institute of Technology)

Deborah Breen (Boston University): Re-invention at Journey’s End: Preliminary Considerations of the Ship-Breaking Industry in Asia

Grace Davie (Queens College-CUNY): Social Science in South Africa: The Case for Co-Production

Kenji Ito (Graduate University for Advanced Studies, Japan): Price of Transdisciplinarity: Politics, Academia, and Introduction of STS into Japan

Hanna Rose Shell (Massachusetts Institute of Technology) [**Robinson Prize Candidate**]: Old Clothing as Portable Technology: Lives and Afterlives of the Social Fabric

12. Technological Cultures of Media

Duquesne Room

Chair: **Emily Thompson** (Princeton University)

Commentator: **Alexandra Hui** (Mississippi State University)

Alice Goff (University of California, Berkeley) [**Robinson Prize Candidate**]:

Recording Lag: Recording and Replaying Cylinder One of the Berlin Phonograph Archive

Fred Katz (University of Maryland) [**Robinson Prize Candidate**]: Appreciating the Best Music: Sound Technology, Expertise, and *The Phonograph Monthly Review*, 1926-32

Abigail Lambke (Independent Scholar): Language & Technology; Podcasting Rhetoric

13. Picturing Radiation

Brigade Room

Organizer: **Dolores L. Augustine** (St. John's University)

Chair: **Bill Luckin** (University of Bolton)

Commentator: **Howard P. Segal** (University of Maine)

Dick van Lente (Erasmus University, Netherlands): Radiation and the peaceful atom in the Netherlands

Hirofumi Utsumi (Otemon Gakuin University, Japan): Nuclear Energy in an A-Bombed Country: Analyzing Representations in *Asahigraph*, 1945-65

Dolores L. Augustine (St. John's University): Subversive Radioactivity: Undermining Official Narratives Concerning Atomic Technologies in Divided Germany

Sonja Schmid (Virginia Tech): Radiation Popularized: How Soviet media mastered radioactivity, 1945-65

Hans-J. Bieber (Independent Scholar): The Indian Case

***14. Increasing Women's Participation in Engineering and Computer Science:
Perspectives from the Field and from History - Roundtable***

Rivers Room

Organizer: **Jennifer Light** (Northwestern University)

Participants: **Allan Fisher** (Laureate Education, Inc); **Janet Abbate**, (Virginia Tech),
Marie Hicks (Duke University), **Patricia L. Eng** (U.S. Nuclear Regulatory
Commission), **Ruth Schwartz Cowan** (University of Pennsylvania)

15. Technology and Socioeconomic Transformations in Early Modern Europe

Traders Room

Chair: **Marianne P. Fedunikiw** (York University, Canada)

Commentator: Audience

Organizer: **Bert Hall** (University of Toronto, Canada)

Bert Hall (University of Toronto, Canada): *The Saiger Process, the Judgment of Jove,*
and Renaissance Ecology: The Debate Over Silver Mining

Brenda Buchanan (University of Bath, UK): The Birth of British Gunpowder
Engineering Overseas: The Case of the Mole at Tangier, 1661-84

Steven A. Walton (Penn State University): Scientific Military Technology for the
Empire: Technology of the Royal Artillery as Mediator between Theory and Practice

Michael Adas (Rutgers University): Technology as the Key to the 'Great Divergence':
Competition, Technology Transfers and European Overseas Expansionism from the
Fifteenth Century

12.30-2 PM

Overview of Funding Opportunities with the National Science Foundation,

Mike Gorman (NSF), LeBateau Room

Computers, Information, and Society Lunch, Sterling's 1 (Lobby Level, behind
elevators)

Tensions of Europe Network Lunch, Kings Garden North

Women in Technological History (WITH) Lunch, Kings Garden South

Asia Network Lunch (meet Suzanne Moon in hotel main lobby)

2-4 PM

Walking Tour of Pittsburgh's Old Financial District

Led by Mark Samber

Meet at Liberty Avenue hotel exit

2-3.30 PM

16. Sidney M. Edelstein Prize Roundtable

Ballroom 3 & 4

A panel discussion of this year's prize-winning book, with a response by the winner.

Chair: **Eda Kranakis** (University of Ottawa, Canada)

Panelists: **Suzanne Moon** (University of Oklahoma); **Bart Hacker** (National Museum of American History); **Michael Adas** (Rutgers University)

Respondent: **William K. Storey** (Millsaps College)

17. The Transnational Geopolitics of Energy Supply

Birmingham Room

Chair: **Arne Kaijser** (Royal Institute of Technology, Sweden)

Commentator: **David Nye** (SDU-Odense, Denmark)

Organizers: **Anna Åberg** (Royal Institute of Technology, Sweden), **Ana Paula Silva** (New University of Lisbon, Portugal), **Vincent Legendijk** (Eindhoven University of Technology, Netherlands)

Anna Åberg (Royal Institute of Technology, Sweden) [**Robinson Prize Candidate**]:

Two Front Negotiations: the Different Politics of a Natural Gas pipeline

Ana Paula Silva (New University of Lisbon, Portugal): Imperial Weapons for Geopolitical Power Games – Electricity Networks in Portuguese African Colonies

Vincent Legendijk (Eindhoven University of Technology, Netherlands): Ensuring Europe's Electricity: Vulnerability Viewed from Various Vistas

18. Technologies of Purification and Remediation in Post-World War II United States

Smithfield Room

Chair & Commentator: **Rachel P. Maines** (Cornell University)

Organizer: **Zachary Falck** (Independent Scholar)

Daniel Holbrook (Marshall University): Controlling Dust: The Emergence of High Efficiency Air Filtration in the Post-War Period

Zachary Falck (Independent Scholar): Incinerating a Beach to Create a Park: Dioxin in Eastern Missouri, 1968-2001

Jared Day (Carnegie Mellon University): When the Mining (and the Pumping) Stops: Technological Innovation and the Cleaning Up of Butte, Montana, 1960-present

19. Technological Translations of the Body

Ft. Pitt Room

Chair: **Barbara Hahn** (Texas Tech)

Comment: **Audience**

Michelle Gibbons (University of Pittsburgh): Reform(ing) Phrenology: The Psychograph as Rhetorical Technology

Brent Malin (University of Pittsburgh): Electrifying Speeches: The Technologizing of the Voice in Early 20th Century US

Jaipreet Viridi (University of Toronto, Canada): Interpreting the Cephaloscope: Instruments, Diagnosis, and the Medicalization of the Deaf, 1800-50

20. Technologies of Road Safety

Benedum Room

Chair: **Cotten Seiler** (Dickinson College)

Commentator: **Bill Luckin** (University of Bolton, UK)

Organizer: **Mike Esbester** (University of Reading, UK)

Barbara Schmucki (University of York, UK): “We object to the assumption that carelessness should be punishable by death.” A history of pedestrian safety or how ‘non-users’ adapted to technology

Peter Norton (University of Virginia): From Speed to Recklessness: Redefining Risk for the Motor Age

Mike Esbester (University of Reading, UK): On the avoidance of street accidents. Automobility, technology and safety education, c.1916-70

21. Cultural Histories of Spaceflight Technologies

Duquesne Room

Chair: **Jim Hansen** (Auburn University)

Commentator: **Martin Collins** (Smithsonian Institution)

Organizer: **Margaret A. Weitekamp**, (National Air and Space Museum, Smithsonian Institution)

Zara Mirmalek (University of California, San Diego): Mars Time and Rocket Science: Coordinating Mars Exploration using the Mars24 Solarclock

Timothy Stoneman (Clemson University): Project Look Up: NASA and Satellite Evangelization

Margaret A. Weitekamp (National Air and Space Museum, Smithsonian Institution)

[**Robinson Prize Candidate**]: When Space Shuttle Technology Equaled Education

22. Intersections of Art and Technology

Brigade Room

Chair & Commentator: **Kristen Haring** (Auburn University)

Daniel Wuebben (Independent Scholar) [**Robinson Prize Candidate**]: Dashes, Dots, and Lines: Poetic Responses to the Electric Telegraph

Jane Gavan (University of Sydney, Australia): Looking Forward: The History of technology in the future from the perspective of contemporary visual arts practices

Christine Filippone (Rutgers University): A Tool for Transformation: Systems Theory in Contemporary Art

23. Risk and Hazard in the Manufactured Gas Industry in the 19th Century

Rivers Room

Chair, Commentator & Organizer: **Joel A. Tarr** (Carnegie Mellon University)

Leslie Tomory (University of Toronto, Canada): Unsafe gas? The notion of safety in the early history of the manufactured gas industry

Christine Meisner Rosen (University of California, Berkeley), The New York Metropolitan Board of Health and the Abatement of New York City's Gas Nuisance

3.30-4 PM

Coffee Break, Ballroom Lobby

4-5.30 PM

Plenary Session Honoring the Winner of the Leonardo da Vinci Medal

Ballroom 3 & 4

Steve Usselman (Georgia Tech) presiding

Susan J. Douglas (University of Michigan) recipient

5.30-7 PM

Pretzels, Beer, and Syllabi: Teaching the History of Technology

Kings Garden North and South

9-11 PM

Three Rivers Cruise and Dessert Buffet

**Departing from Roberto Clemente Bridge Pier, 6th St. and Fort Duquesne Blvd.
Maps for this 5-minute walk from the Hilton are printed on the backs of the event ticket.**

9-12 Midnight

Hospitality Suite, Kings Garden North

Saturday, October 17

7-8.30 AM

Editorial Board Breakfast (by invitation only), Forbes Room

International Scholars Breakfast (by invitation only), Stanwix

Envirotech SIG Breakfast, Kings Garden South

8 AM–5 PM

Registration, Ballroom Lobby

Book Exhibit, Heinz and Allegheny Rooms

8.30–10 AM

24. Why Here? Why Now? Understanding Places of Invention

Birmingham Room

Chair: **Arthur Molella** (Lemelson Center, Smithsonian Institution)

Commentator: **Bruce Hevly** (University of Washington)

Organizer: **Joyce Bedi** (Lemelson Center, Smithsonian Institution)

Paul Israel (Thomas A. Edison Papers): Thomas Edison's Places of Invention

Gwen Ottinger (Chemical Heritage Foundation) [**Robinson Prize Candidate**]: Making Place-Based Technology Travel: The Story of the Buckets

Joyce Bedi (Lemelson Center, Smithsonian Institution): Looking at Invention through the Lens of Place

25. State and Technology (I): Postcolonial Perspectives

Smithfield Room

Chair & Commentator: **Yakup Bektas** (Tokyo Institute of Technology, Japan)

Madhumita Saha (Iowa State University) [**Robinson Prize Candidate**]: The State of India, Postcolonial Agricultural Policy and Pre-Green Revolution Wheat Technology

Sulfikar Amir (Nanyang Technological University, Singapore) [**Robinson Prize Candidate**]: Leviathan and the Airplane: The Rise and Fall of the Technological State in Indonesia, 1966-98

26. Navigating Virtual and Physical Landscapes: Geocaching, Locative Media, and Video Games

Ft. Pitt Room

Chair: **Stephen H. Cutcliffe** (Lehigh University)

Commentator: **Hugh Slotten** (University of Otago, New Zealand)

Organizer: **Silas Chamberlin** (Lehigh University)

Silas Chamberlin A High-Tech Easter Egg Hunt: Geocaching in Historical Perspective

Nathan Schulman (California Institute of the Arts): Navigating the Cityscape: Digital Locative Media in the Modern City

Matthew Schandler (Lehigh University) [**Robinson Prize Candidate**]: Navigating Virtual Worlds: Agency and Alternatives in the History of Video Games

27. Chemical Trails: Circulating Technology in Social and Natural Space

Benedum Room

Chair: **Matthew N. Eisler** (University of Western Ontario, Canada)

Commentator: **Myrna I. Santiago** (Saint Mary's College of California)

Organizer: **Matthew N. Eisler** (University of Western Ontario, Canada)

Christopher Jones (Harvard University Center for the Environment/University of

Pennsylvania): Pittsburgh's Lost Energy Hinterland: Oil Flows By Water, Rails, and

Pipes in the Nineteenth Century

Jody A. Roberts (Chemical Heritage Foundation): Accidental Technology Transfer? or

Unruly Technology: Illegal (Chemical) Border Crossings in the Pacific Northwest

Matthew N. Eisler (University of Western Ontario, Canada): Hydrogen Futurism in

Environmental and Energy Technopolitics

28. Reforming Technology to Serve Community: Old Order Amish, Mennonites, and

Hutterites

Brigade Room

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

Commentator: **Arwen Mohun** (University of Delaware)

Organizer: **Donald B. Kraybill** (Elizabethtown College)

Donald B. Kraybill (Elizabethtown College) [**Robinson Prize Candidate**]: From the

Buggy to the Byte: How the Amish Adapt Technology

Judson Reid (Cornell University): Tractors without Tires: Old Order Mennonites'

Selective Modification of Modern Farm Technology

Rod Janzen (Fresno Pacific University): Hutterites and the Communal Response to

Technology

29. Behind the Curtain Wall: Skyscrapers Reinterpreted, Redesigned, and Recycled

Rivers Room

Chair & Commentator: **James Hassinger** (Southwestern Pennsylvania Corporation)

Organizer: **Stuart W. Leslie** (Johns Hopkins University)

Stuart W. Leslie (Johns Hopkins University): The Strategy of Structure: Rethinking

Pittsburgh's Corporate Skyline

Amy Slaton (Drexel University): Knowledge Found and Lost: Secrecy and Liability in Skyscraper Preservation and Repair

Gregory K. Dreicer (Chicago Architectural Foundation): Reinterpreting the Skyscraper

30. Confrontation and Cooperation in the Cold War (I)

Duquesne Room

Chair & Commentator: **Paul Josephson** (Colby College)

Helena Durnova (Brno University of Technology, Czech Republic): Computers as the messengers of freedom in Soviet bloc countries

Anna Geltzer (Cornell University): Cybernetics without computers? Medical cybernetics in the USSR

10-10.30 AM

Coffee Break, Ballroom Lobby

10-12 Noon

Films of Pittsburgh factory workers made in 1904: A Screening and Discussion

Julian Reitman (Independent Scholar)

Brigade Room

Walking Tour of Three Rivers Bridges

Larry Cartwright (Carnegie Mellon University)

Departs from Liberty Avenue hotel exit

10.30-12.30 PM

31. Instruments and Knowledge Production

Birmingham Room

Chair & Commentator: **Bruce Hevly** (University of Washington)

Isaac Record (University of Toronto, Canada) [**Robinson Prize Candidate**]: Marks of History: Trusting Instruments

Angus Buchanan (University of Bath, UK): Astronomical Engineers

Augustin Cerveaux (Université de Strasbourg – IRIST, France) [**Robinson Prize Candidate**]: How ‘fundamental research’ performed on Du Pont’s strategy in pigments in the interwar years

32. State and Technology (II): National Institutes and Government Agencies

Traders Room

Chair and Commentator: **Rudi Volti** (Pitzer College)

Manyong Moon (Chonbuk National University, South Korea): The Dual Green Revolution in South Korea: Reforestation and Agricultural Revolution under the Authoritarian Regime

Ana Cardoso de Matos (CIDEHUS – University of Évora, Portugal): Gas Industry and environment in Lisbon during the second half of the century

Sabil Francis (University of Leipzig, Germany): Negotiating Technology: The IITs in India

33. Cultures of Learning and Knowledge Circulation

Smithfield Room

Chair: **Robert Kargon** (Johns Hopkins University)

Commentator: **Miriam Levin** (Case Western Reserve University)

Sonja Petersen (Technical University of Darmstadt, Germany): Passing on Technologies and Knowledge through Handwritten Notebooks during the Nineteenth and Twentieth Centuries

Atsushi Akera (Rensselaer Polytechnic Institute): The Carnegie Plan for Liberal Professional Education: Reforming Undergraduate Engineering Education at the Carnegie Institute of Technology, 1945-70

Tae-Ho Kim (National University of Singapore): Forgotten “Industrial Warriors”: “Skill Olympics” and the Rise and Fall of Vocational Training in South Korea in the 1970s

Raoul De Kerf (University of Antwerp, Belgium): Early modern apprenticeship and the circulation of knowledge: the gold and silversmiths in Antwerp

Maria Paula Diogo (Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Portugal): Circulating knowledge, training engineers in the European Periphery: Manuel de Azevedo Fortes and his textbook *O Engenheiro Português*

34. Methodological Challenges: Artifacts and Determinism

Ft. Pitt Room

Chair & Commentator: **Eric Schatzberg** (University of Wisconsin-Madison)

Mats Fridlund (University of Copenhagen, Denmark): Gunning at Determinism: Affordances, Agencies and Artifactualities of the Firepower Revolution and the Shaping of Modern Terrorism

Hansen Hsu (Cornell University): Cocoa Developers on iPhone: Boundary Work and Cultural Contestation within an iPhone Startup

Vivien Hamilton (University of Toronto, Canada) [**Robinson Prize Candidate**]: What can we learn from material evidence?: An examination of pre-WWI x-ray technology

Catriona Rooke (University of Nottingham, UK) [**Robinson Prize Candidate**]: Regulating nicotine in the UK: the story of how Nicorette came to be a medicine, but not a drug

35. The Instability of Technological Identities

Benedum Room

Chair & Commentator: **Edmund Russell** (University of Virginia)

Yasuo Deguchi (Kyoto University, Japan) and **Chigusa I. Kita** (Kansai University, Japan): Punched cards from accounting office to laboratory: Eckert and von Neumann

Emily K. Gibson (University of Massachusetts Amherst): Flying is Changing Women!?: Women as Popularizers of Commercial Aviation in the 1920s-30s and the Renegotiation of Traditional Gender and Technological Boundaries

D. Travers Scott (University of Southern California): Technology, Pathology, Etiology: Discourses of Disease and Electric Communication

James D. Skee (University of California, Berkeley) [**Robinson Prize Candidate**]: Reusing the Obsolete: The RMS “Queen Mary” in Long Beach, California

Anika Schleinzer (Aachen University, Germany) [**Robinson Prize Candidate**]: Gendering the building brick – the creation of a technical boy toy in early 20th century Germany

36. Consumer Agency in the History of Technology

Duquesne Room

Chair & Commentator: **Karin Zachmann** (Deutsches Museum, Germany)

Susan V. Spellman (Miami University-Hamilton) [**Robinson Prize Candidate**]: The “Keys” to Modern Retailing: How Small Businessmen Made the Cash Register a Fixture in Every Store

Dov Lungu (York University, Canada) and **Zbigniew Stachniak** (York University, Canada): The Toronto Region Association of Computer Enthusiasts (1976-85): A case study in the evolution of the Computer Hobbyist Movement in Canada

37. Paths Not Taken and Paths Retraced in the History of Information Technology

Rivers Room

Chair: **Helena Durnova** (Technical University of Brno, Czech Republic)

Commentator: **Peter Meyer** (US Bureau of Labor Statistics)

Organizer: **Thomas Haigh** (University of Wisconsin—Milwaukee)

Jonathan Coopersmith (Texas A&M University): Transmission Error: Fax, Failure, and Roads Less Traveled in the History of Technology

Paul E. Ceruzzi (National Air and Space Museum, Smithsonian Institution): Manned Space Flight and Artificial Intelligence: “Natural” Trajectories of Technology and their Implications for Historians

Chris McDonald (Princeton University): From Computer Utility to Time-Sharing: Politics and Technology in the 1960s American Computer Industry

Evan Koblentz (InfoAge Science Center): The Pre-History of Portable Computers

38. Robots in Practice

Forbes Room

Chair: **Roger D. Launius** (National Air and Space Museum, Smithsonian Institution)

Commentator: **Lisa Nocks** (New Jersey Institute of Technology)

Organizer: **Frank Dittmann** (Deutsches Museum, Germany)

Hironori Matsuzaki (Carl von Ossietzky University of Oldenburg, Germany)

[**Robinson Prize Candidate**]: M.A Humanoid robots and the borders of the social world. A cross-cultural analysis between Europe, the USA, and Japan

Ralf Spicker (Deutsches Museum, Germany): Between Science Fiction and technological concepts: An Overview over the History and (near) Future of industrial robots

Catarina Caetano da Rosa (RWTH Aachen University): Can medical robots act?

Frank Dittmann (Deutsches Museum, Germany): Service Robots – The Brownies of the 21st Century?

12.30-2 PM

Members' Meeting (all welcome; light lunch available), LeBateau Room

Mercurians and Jovians SIG Lunch

Meet Andy Butrica and Jonathan Coopersmith in the main hotel lobby to walk to a local restaurant

TEMSIG SIG Lunch

Meet Allison Marsh in the main hotel lobby to walk to a local restaurant

Prometheans SIG Lunch

Meet Jack Brown in the main hotel lobby to walk to a local restaurant

2-3.30 PM

39. Hot and Cold: Consumers and the Technology of Temperature Control

Birmingham Room

Chair & Commentator: **Gabriella Petrick** (New York University)

Organizer: **Jonathan Rees** (Colorado State University – Pueblo)

Jonathan Rees (Colorado State University – Pueblo): Inventing the Cold Chain:

Technology and Demand in the American Natural Ice Industry

Sean Adams (University of Florida), The Highest Class of Steam: District Heating and the Consumption of Heat in Gilded Age America

Terje Finstad (Norwegian University of Science and Technology, Norway): From storage technology to sales machine: Frozen goods counters and the reform of Norwegian retail 1950-65

40. Girls Buy Dresses; Boys Buy Video Games: Gender, Technology, and Consumption in Twentieth-Century America

Smithfield Room

Chair & Commentator: **Regina Lee Blaszczyk**

Organizer: **Deirdre Clemente** (Carnegie Mellon University)

Deirdre Clemente (Carnegie Mellon University) [**Robinson Prize Candidate**]:

Technology in Vogue: Synthetic Fibers, Fashion, and American Femininity, 1935-60

Michelle Mock (Carnegie Mellon University) [**Robinson Prize Candidate**]: Gender and the Advertising of Kitchen Technology, 1900-50

Racquel Gonzales (University of Texas at Austin) [**Robinson Prize Candidate**]: This is a Man's Man's Man's World?: The Gendering of Video Games through Television Advertising

41. Making Technologies Public

Ft. Pitt Room

Chair & Commentator: **Alex Roland** (Duke University)

Organizer: **Jason Young** (York University, Canada)

Andrew Meade McGee (University of Virginia) [**Robinson Prize Candidate**]: A Sort of Breathing IBM Machine: The Social Security Administration, Publicized Technology, and Promotion of the Public's Role in an Information System, 1936-79

Jason Young (York University, Canada): "We're all Sidewalk Superintendents": Transit Promotion, Commercial Interest, and Public Observation during the Construction of Toronto's Yonge Street Subway, 1949-54

Allison Marsh (University of South Carolina): The Pipeline and the People: Traveling the Dalton Highway

42. Spaces of Juxtaposed Technologies

Traders Room

Chair & Commentator: **Thomas Zeller** (University of Maryland)

Hakon W. Andersen (Norwegian University of Science and Technology, Norway): No man's land and no man's technology? The North Sea as transnational common

El Hadi Jazairy (Harvard University) [**Robinson Prize Candidate**]: Terraforming Artificial Territories in the Gulf

43. Cars Reframed

Benedum Room

Chair & Commentator: **Gijs Mom** (Eindhoven University of Technology, Netherlands)

Stephen T. Koerner (Independent Scholar): In Search of the 'All-Canadian Car'

Mathieu Flonneau (University of Paris I Panthéon-Sorbonne, France): Reform the automobile industry and invent a social urban model: At the origins of the citizen turn in automotive history, 1970-90

44. Confrontation and Cooperation in the Cold War (II)

Duquesne Room

Chair & Commentator: **Thomas Lassman** (National Air and Space Museum, Smithsonian Institution)

James L. Johnson (Case Western Reserve University) [**Robinson Prize Candidate**]: Internationalism in Astronautics: Frank Malina and the Lunar International Laboratory Committee (1960-69)

Hugh Richard Slotten (University of Otago, New Zealand): Satellite Communications, the International Telecommunication Union, and Cold War Diplomacy

Angelina R. Long (Georgia Institute of Technology) [**Robinson Prize Candidate**]: Making the Atmospheric Sciences Global: Satellites as National and International Assets

45. Locality and Innovation Dynamics

Brigade Room

Chair & Commentator: **Angela Lakwete** (Auburn University)

Yosuke Meshitsuka (Hitotsubashi University, Japan): The hidden role of traditional merchants in the industrialization of Japan

Mark Samber (Long Wave Consulting Group): When Innovation and Economic Prosperity Stop: Social Responses to Regional Economic Crises in Pittsburgh, 1907-21

46. Reader's Theater as a Teaching Tool

Rivers Room

Marianne P. Fedunski (York University, Canada)

A workshop on a teaching technique that uses dramatic scenes from plays or other sources to stimulate with students or other audiences. For this workshop, Dr. Fedunski will use dramatized scenes from the *Judgment of Jove*, a late 15th century Latin dialogue by Paulus Nivis in which a human silver miner is accused before a panel of pagan gods and goddesses of attempting to rape and murder Mother Earth through his mining activities.

3.30-4 PM

Coffee Break, Ballroom Lobby

4-5.30 PM

47. Technology Across Borders

Traders Room

Chair & Commentator: **Bruce Seely** (Michigan Tech)

Ashok Maharaj (Georgia Institute of Technology): Coproducing Tropical Images:
Circulation of Remote Sensing Technology in India and Brazil

Lin Ling-Fei (Cornell University): The Changing Discrepancies between Taiwanese
and Chinese Semiconductor Industry from 1949-2002—the Myth of Technology
Transfer Determinism

48. Making Images

Smithfield Room

Chair & Commentator: **Cynthia Bennet** (Iowa State University)

Marta Macedo (University of Coimbra, Portugal): Agriculture science and
photography in the making of the Port Wine national landscape

Stephen P. Rice (Ramapo College of New Jersey): “One of the best means ever devised
for the introduction of inventions”: Wood Engraving and Popular Mechanical
Illustration in Nineteenth-Century America

49. Enabling Innovation: Inventors and Their (Supposed) Allies in Law, the Media, and the Market

Ft. Pitt Room

Chair: **W. Bernard Carlson** (University of Virginia)

Commentator: **Paul Israel** (Thomas A. Edison Papers/Rutgers University)

Organizer: **Eric S. Hintz** (University of Pennsylvania)

Christopher Beauchamp (Princeton University): Invention, Litigation, and the Market for Lawyers in Nineteenth-Century America

Eric S. Hintz (University of Pennsylvania): “A Swindling Concern:” The National Institute of Inventors, 1914-25

Kathryn Steen (Drexel University): What's “The Big Idea”? Patents and the Ideology of Invention

50. Infrastructures: Tools for the Governance of the Circulation of Transnational Flows in 20th Century Europe

Birmingham Room

Chair: **Johan Schot**, Technical University of Eindhoven, Netherlands

Commentator: **Arne Kaijser**, Royal Institute of Technology, Sweden

Organizer: **Frank Schipper**, Technical University of Eindhoven, Netherlands

Jíra Janáč (Charles University, Czech Republic) [**Robinson Prize Candidate**]:

Postwar Europe seen through a waterway: Building a communist canal

Ivaylo Hristov (Paissiy Hilendarski University of Plovdiv, Bulgaria) [**Robinson Prize Candidate**]: Nuclear electricity networks in Eastern Europe: The early years of the Bulgarian nuclear program, 1957-75

Frank Schipper and Johan Schot (Technical University of Eindhoven, Netherlands): The saddest chapter in the history of European integration”: The promise and pitfalls of developing a common transport policy in postwar Europe

51. Technological History of the “Third Industrial Revolution”

Benedum Room

Chair & Commentator: **Steven Usselman** (Georgia Tech)

Co-organizers: **Hyungsub Choi** (Chemical Heritage Foundation) and **Andrew L.**

Russell (Stevens Institute of Technology)

Margaret Graham (McGill University, Canada): The Global Aluminum Industry and the Third Industrial Revolution

Andrew L. Russell: Modularity Reformed: From Building Blocks to Business Schools

Hyungsub Choi: The Long Tail of the Third Industrial Revolution: Technology Platform and Supply Chain Relationships at SEMATECH

52. Users, Consumers, and Innovation

Duquesne Room

Organizer: **Alessandro Nuvolari** (Sant'Anna School of Advanced Studies, Italy)

Commentator: **Philip Scranton** (Rutgers University)

Eric von Hippel (Massachusetts Institute of Technology): Democratizing Innovation: the evolving phenomenon of user innovation

Adri Albert de la Bruhèze (University of Twente, Netherlands) and **Ruth Oldenziel** (Eindhoven University of Technology, Netherlands): The mediated production of technology and consumers. How both producers and consumers mattered in the making of the twentieth century European consumer society

Alessandro Nuvolari (Sant'Anna School of Advanced Studies, Italy): User Innovation and Intellectual Property in History and Theory

53. Technology & Culture in Postindustrial Landscapes

Brigade Room

Chair: **Fredric L. Quivik** (University of Pennsylvania)

Commentator: **Matthew Mehalik** (Sustainable Pittsburgh)

Organizer: **Pat Munday** (Montana Tech)

Jordan Kleiman (SUNY-Geneseo): Greening “Fort Apache:” Deindustrialization and Visionary Environmentalism in the South Bronx

Pat Munday (Montana Tech): Historical Preservation, Environmental Cleanup, and the Restoration Economy at America’s Largest Superfund Site

Frank Uekötter (Deutsches Museum and Rachel Carson Center for Environmental Studies, Germany): The Ruhr as Germany's Pittsburgh. From Heavy Industry to Museums and Memories

54. *Contested Narratives in the History of US Aerospace Technology*

Rivers Room

Chair: **David A. Mindell** (Massachusetts Institute of Technology)

Commentator: **Kathleen Franz** (American University)

Organizer: **Roger D. Launius** (National Air and Space Museum, Smithsonian Institution)

Monique Laney (University of Kansas) [**Robinson Prize Candidate**]: Sideshow or Center Stage? The Battle over Emphasis in Remembering German Rocket Specialists in America

Roger D. Launius (National Air and Space Museum, Smithsonian Institution): Denying the Apollo Moon Landings: Conspiracy and Questioning in Modern American History

Erik M. Conway (Jet Propulsion Laboratory): Fighting the Future: Market Fundamentalism, Technofideism, and the Denial of Global Warming

6-7 PM

Cocktail Reception, Ballroom Lobby

(International Table Silent Auction closes before Banquet)

7-9.30 PM

Awards Banquet, LeBateau and Kings Garden South

9-12 MIDNIGHT

Hospitality Suite, Kings Garden North

(Items won from International Table Silent Auction can be picked up here)

Sunday, October 18

8.30-12 Noon

Registration, East Lobby Concourse

Special Interest Group Events

Albatrosses (Aviation and Aerospace History)

8.00-9.00 AM

Breakfast: Meet in the main hotel lobby

9.15-10.45 AM

Ad Astra: Reports from Graduate Students and recent post-Docs

Duquesne Room

Led by Roger Launius, Joe Corn and Deborah Douglas, the Albatrosses will be hosting a workshop for graduate students and recent Ph.Ds to discuss their current work in the field of aviation and space history. All are welcome to attend and learn about the new research and to share ideas and information with the students. The students will make short (5-7 minute) presentations followed by discussion.

Prometheans (the SIG concerned with improving ties between historians of technology, engineers, and engineering education)

8.30-11 AM

Engineering Pittsburgh: A Walking Tour of the Renaissance City

Led by **Joel Tarr** and **Deborah Lange** (Carnegie Mellon University)

Meet in Benedum Room for briefing before the walk

Envirotech

9-10.30 AM

Taking Risks: New Directions in the History of Technology and Environment

Brigade Room

Moderators: **Mark Finlay** (Armstrong Atlantic State University), **Hugh Gorman** (Michigan Technological University)

Panelists: **Ed Russell** (University of Virginia); **Joy Parr** (University of Western Ontario); **Daniel Barber** (Columbia University); **Robert Gardner** (Montana State); **Shera Moxley** (Carnegie Mellon University); **Nic Mink** (University of Wisconsin-Madison)

SMiTInG (Military Technology)

Mercurians (Communications History)

Jovians (Electrical History)

9-10.30 AM

Birmingham Room

Topics in the history of military technology

Chair: **Margaret Vining** (Smithsonian Institution)

Commentator: **Andrew Butrica** (Independent Scholar)

Craig B. Waff (Air Force Research Laboratory History Office), “Training as They’ll Fight: The Development of the USAF’s Distributed Mission Training Concept (DMT)”

David J. Whalen (University of North Dakota), “From Advent to TSAT: Military Satellite Communications in Peace and War”

Barton C. Hacker (Smithsonian Institution), “Picturing Tanks: War Artists and a New Technology on the Western Front”

Kelly DeVries (Loyola University of Baltimore), “Guns and the Walls of Rhodes: The Transformation of Gunpowder Weapons at the End of the Middle Ages”

SMiTInG (Military Technology)

10.45-11 **Coffee Break**, East Lobby Concourse

11-12 Noon

Birmingham Room

Roundtable: Why should we study the social history of military technology?

Moderator: **Barton C. Hacker**

Panelists: **Bert Hall** (University of Toronto); **Steven J. Walton** (Pennsylvania State University); **Jeffrey Larrabee** (Department of Defense)

TEMSIG (Museums)

9-10.30 AM

Public Historians of Technology: A Cross-Discipline Dialogue

Rivers Room

Moderators: **Allison Marsh** (University of South Carolina) and **Eric Nystrom** (Rochester Institute of Technology)

This roundtable is a guided discussion among museum and academic professionals to address some questions from the field:

- What public history training is most useful for historians of technology?
- What does public history offer to science & technology museums?
- What unique skills or methodologies do historians of technology bring to public history?

Women in Technological History (WITH)

9-10.30 AM

Gender and Career Perspectives

Traders Room

Computers, Information and Society

A Special Workshop on Michael Mahoney and the Histories of Computing(s)

9-10.45 AM

Plenary Session

Ft. Pitt Room

William Aspray, School of Informatics and Computing, Indiana University

Gerard Alberts, University of Amsterdam

Thomas Haigh, School of Information Studies, University of Wisconsin, Milwaukee

10.45-11 AM **Coffee Break**, East Lobby Concourse

11-12.30 PM

Traditional Paper Session 1: The Computings of Science

Smithfield Room

Chair: **Andrew Russell**, Program in History, Stevens Institute of Technology

Commentator: **Chigusa Kita**, Kansai University

Joseph November, Department of History, University of South Carolina: “The Computer as File Cabinet or Oscilloscope: Two Computings of Biomedical Research”

Buhm Soon Park, Korea Advanced Institute of Science and Technology: “Chemistry by Computer: Machines and Ideas for Computational Chemistry”

Scott M. Campbell, University of Waterloo: “Agendas and the Promise of Computer Science at the University of Toronto”

Traditional Paper Session 2: The Computings of Management

Ft. Pitt Room

Chair: **Janet Delve**, School of Creative Technologies, University of Portsmouth

Commentator: **William McMillan**, *Eastern Michigan University*

Lars Heide, Copenhagen Business School: “Punched Cards in German Management of Resources in the Second World War”

David Anderson, University of Portsmouth: “The Corridors of Power: Patrick Blackett and the Political Context of Early British Computing”

Jonathan Ayles, Manchester Institute of Innovation Research, University of Manchester: “‘You’ve got to roll with it’: radical adoption of computers and changes to managerial routines at Llanwern steelworks, South Wales”

12.30-2 PM Lunch Break

2-4 PM

Dissertation Session

Smithfield Room

Cristina Turdean, Hagley Program, Department of History, University of Delaware: “Reimagining a Gambling Technology: The Digitization of the Slot Machine (1970-2000)”

Christopher McDonald, Princeton University: “A New Nervous System of Society: The Technology and Politics of Mass Computer-Communications Systems”

Hansen Hsu, Cornell University: “Connections between the Software Crisis and Object-Oriented Programming”

Works in Progress

Ft. Pitt Room

Chair and Commentator: **Janet Abbate**, Science and Technology Studies Program, Virginia Tech

Rebecca Slayton, Stanford University: “An Evolving Discipline: The Political Economy of Software Engineering”

Pierre Mounier-Kuhn, Centre National de la Recherche Scientifique: “The Emergence of Computing as an Academic Discipline in France”

Anker Helms Jorgensen, IT University of Copenhagen: “History of User Interfaces to Computers – A Mahoneyan Perspective”

Sten Henriksson, Computer Science Department, Lund University: “A brief history of the stack”

4-4.15 PM **Coffee Break**, East Lobby Concourse

4.15-5.45 PM

Traditional Paper Session 3: Political Institutions in the Histories of Computings

Smithfield Room

Commentator: **Helena Durnová**, *Department of Mathematics, Faculty of Electrical Engineering and Communications, Brno University of Technology*

Andrew Mamo, “Computing Societies: Communications Technologies and Social Science in the Cambridge Project”

Stephen Patnode, Temple University: “The Impact of Computers on Corporate Paternalism in the Post-war United States”

David Nofre, Informatics Institute, University of Amsterdam: “The Dutch politics of computing and the limits of international cooperation, 1945-65”

Traditional Paper Session 4: Computings as They Rose and Fell

Ft. Pitt Room

Chair: **David Hemmendinger**, Computer Science Department, Union College

Commentator: **Paul Ceruzzi**, National Air and Space Museum, Smithsonian Institution

Dave Goodwin, Birkbeck College, University of London: “Digital Equipment Corporation: The mistakes that led to its downfall”

Larry Owens, University of Massachusetts Amherst: “Walking Around Computerville: The PC and the Encyclopedia of Computer Science, 1976-83”

6.30 PM Dinner