

An aerial photograph of New Orleans, Louisiana, at sunset. The sky is filled with soft, orange and pink clouds. In the foreground, a large, multi-decked riverboat is docked at a pier on the Mississippi River. The city skyline is visible in the background, featuring several tall skyscrapers, including the New Orleans Morpheus Hotel. A large, dark circular graphic is overlaid on the center of the image, containing the event information.

2022

SOCIETY FOR THE HISTORY
OF TECHNOLOGY

**AWARDS
ANNUAL MEETING**

NEW ORLEANS
10-13 NOVEMBER

CONTENTS

Society for the History of Technology	2
SHOT 2022 Award and Fellowship Committees	3
2022 SHOT Awards and Fellowships	5
Awards Special Interest Groups	17

THE SOCIETY FOR THE HISTORY OF TECHNOLOGY

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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.

In addition to professional historians and museum curators, SHOT members include practicing scientists and engineers, anthropologists, librarians, political scientists, and economists. 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 e-newsletters, and, with Johns Hopkins University Press the book series, *Historical Perspectives on Technology, Society, and Culture*. For further information about the Society visit our website: <http://www.historyoftechnology.org>.

SHOT 2022 AWARD AND FELLOWSHIP COMMITTEES

Leonardo da Vinci Medal

Tom Misa (Chair)
David C. Brock
Julie Cohn
Sadegh Fogani
Ann N. Greene
Shane Hamilton
Tiina Männistö-Funk
Teasel Muir-Harmony
Whitney Laemli
Roger Launius
David Munns
Kathy Steen
Laura Ann Twagira

Kranzberg Dissertation Fellowship

Laura Ann Twagira, Chair
Peter S. Collopy
Mary X. Mitchell

Brooke Hindle Postdoctoral Fellowship

Shane Hamilton, Chair
Corinna Schlombs
Hyungsub Choi

AHA Fellowship in the History of Space Technology

Representatives from the AHA, HSS, and SHOT comprise the review committee. Teasel Muir-Harmony represents SHOT in the AHA-HSS-SHOT committee.

Sidney M. Edelstein Prize

Roger Launius, Chair
David C. Brock
Asif Siddiqi
Sally Hacker Prize
Ann N. Greene, Chair
Alex Cummings
Thomas S. Mullaney

Abbott Payson Usher Prize

Whitney Laemli, Chair
Christopher Jones
Jahnavi Phalkey

Samuel Eleazar and Rose Tartakow Levinson Prize

Kathy Steen, Chair
Gerardo Con Diaz
Jeff Schramm

Joan Cahalin Robinson Prize (2022)

David Munns, Chair
Angelina Callahan
Sean Seyer
Alicia Maggard
Tasha Rijke-Epstein
Sean Syer

Bernard S. Finn IEEE History Prize

Sadegh Fogani, Chair
Alison Marsh
Alexander Magoun

Dibner Award for Excellence in Museum Exhibits

Tiina Männistö-Funk, Chair
Priscilla Chua
Doug Lantry

Martha Trescott Prize

Julie Cohn, Chair
Janet Abbate
Laura Ettinger

Race and Histories of Technologies Prize

Gabrielle Hecht, Chair
Hyungsub Choi
Tiffany Nichols
L. Ruth Rand
Tiago Saraiva
Bess Williamson

2022 SHOT AWARDS AND FELLOWSHIPS

Leonardo da Vinci Medal

The highest recognition from the Society for the History of Technology is the Leonardo da Vinci Medal, presented to an individual who has made an outstanding contribution to the history of technology, through research, teaching, publication, and other activities.

Recipient of SHOT's 2022 Da Vinci Medal:

Donald MacKenzie

The Society for the History of Technology is delighted to present the 2022 Leonardo da Vinci Medal, its highest recognition, to Donald MacKenzie for his outstanding contributions to the history of technology, through innovative research, imaginative teaching, sustained publications, and significant contributions to Technology and Culture and other society activities. For an astonishing four decades, MacKenzie has been at the forefront of advancing scholarly understandings of technology's interactions with politics, society, science, and culture.

Readers of T&C may be most familiar with MacKenzie's 1984 Usher-Prize-winning essay, "Marx and the Machine." It is a close and careful interpretation of Karl Marx as a technological determinist, with a persuasive argument that Marx varied his views on technology depending on the scope of his treatment. So, the famous determinist aphorism "The handmill gives you society with the feudal lord; the steam-mill, society with the industrial capitalist" is a partial truth, since (as MacKenzie put it) Marx well understood that "social relations molded technology." At the time, MacKenzie himself was productively expanding on his early publications in sociology of science, at the University of Edinburgh, synthesizing the established "labor process" and emergent constructivist perspectives on technology with deep historical research. Already by 1990, three books outlined this arc: *Statistics in Britain, 1865-1930: The Social Construction of Scientific Knowledge* (1981); *The Social Shaping of Technology* (1985, 1999), a field-shaping anthology with Judy Wajcman; and *Inventing Accuracy: A Historical Sociology of Nuclear Missile Guidance* (1990), which won two major book prizes.

Inventing Accuracy began a productive relationship with MIT Press, which published three additional of his books. Seemingly a collection of essays, *Knowing Machines* (1998) also announces an ambitious intellectual program. Results came impressively. MacKenzie's *Mechanizing Proof* (2004) examined the subtle problem of "provably correct" computer programs, one linchpin of today's computer security. *An Engine, Not a Camera* (2008) launched MacKenzie's investigations into the internal functioning of global financial flows, continued with his coedited volume *Do Economists Make Markets?: On the Performativity of*

Economics (Princeton 2008) and *Trading at the Speed of Light: How Ultrafast Algorithms Are Transforming Financial Markets* (Princeton 2021). Each of these rewards close readings; but none of MacKenzie's books are easy reads. They engage detailed knowledge of the insides of microprocessors or laser gyroscopes, or the minutia of nuclear missile guidance systems, or the topologies of fiber-optic or microwave-relay networks. A distinguishing feature of MacKenzie's scholarship is that the reader readily knows that the demanding technical material, if properly understood, will yield significant insight into the nature of technology and culture.

MacKenzie's broad influence might be gauged in two complementary ways. Early on, his books relied on his personal interviews and extensive travels as well as consultation of documentary sources to guide those interviews. A number of his 40 Ph.D students and research assistants have themselves become significant figures in the field. He also sought the widest possible publication venues, expanding well beyond scholarly journals to include business and technical fields, such as *Journal of Risk Model Validation* and *Financial Times*, as well as essays in *New Left Review*, *London Review of Books*, and numerous anthologies.

For advancing our understanding of the history of technology, for exemplifying new and productive research methods and strategies, and for widely and creatively communicating the results, Donald MacKenzie is a worthy recipient of SHOT's 2022 Da Vinci Medal.

Kranzberg Dissertation Fellowship

This award is in memory of the co-founder of the Society, and honors Melvin Kranzberg's many contributions to developing the history of technology as a field of scholarly endeavor and SHOT as a professional organization. The \$4000 award is given to a doctoral student engaged in the preparation of a dissertation on the history of technology, broadly defined and may be used in any way chosen by the winner to advance the research and writing of that dissertation.

Recipient of the 2022 Kranzberg Dissertation Fellowship:

Alfredo L. Escudero Villanueva, *Florida International University*

For: "Surveying the Andes: Indigenous Labor, Land Inspections, and the Technologies of Spanish Colonial Rule."

The committee is pleased to award the 2022 Melvin Kranzberg Dissertation Fellowship to Alfredo L. Escudero Villanueva. Escudero is a student in the Doctoral Program in History at Florida International University, and he is working on the dissertation "Surveying the Andes: Indigenous Labor, Land Inspections, and the Technologies of Spanish Colonial Rule."

Escudero's project examines the 16th century technological interactions and negotiations between Andeans and Spanish agents drawing together a study of colonial data collection – as a technology of rule – and diverse indigenous technologies –as well as scientific epistemologies—

as observed and documented in vistas (land inspections and censuses). By looking at how colonial agents gathered information about agricultural and textile technologies, techniques, and production, for example, Escudero draws attention to shifting colonial epistemologies and technologies of data collection and storage but also a complex history of indigenous knowledge transfer.

Escudero will use the Fellowship to conduct archival research in Peru and Bolivia.

Brooke Hindle Postdoctoral Fellowship

The Brooke Hindle Postdoctoral Fellowship in the History of Technology honors the contribution of Brooke Hindle to the work of the Society for the History of Technology. The Fellowship, made possible thanks to the great generosity of his family, is for \$10,000 and may be used for any purpose connected with research or writing in the history of technology for a period of not less than four months during the year following the award.

Recipient of the 2022 Brooke Hindle Postdoctoral Fellowship:

Colette Perold, *University of Colorado*

For: “The Empire of Informatics: IBM in Brazil Before Modern Computing.”

Perold’s proposed project will offer original and significant insights into the history of computing in Latin America, specifically the political and economic exercise of power by IBM in Brazil from the 1910s to the 1960s. Squarely situating the history of computing technology in Brazil within Latin American historiography and transnational historical political economy, Perold’s book manuscript is strongly framed to make important contributions to multiple fields. Her application package makes abundantly clear that she will capitalize upon the funding provided by the fellowship to complete necessary research for the manuscript within the timeframe allowed by the award.

AHA Fellowship in the History of Space Technology

The Fellowships in Aerospace History are offered annually by the National Aeronautics Space Administration (NASA) to support significant scholarly research projects in aerospace history. These fellowships grant the opportunity to engage in significant and sustained advanced research in all aspects of the history of aerospace from the earliest human interest in flight to the present, including cultural and intellectual history, economic history, history of law and public policy, and the history of science, engineering, and management. NASA provides funds to the American Historical Association and to the History of Science Society to allow both associations to award fellowships.

Recipient of the 2022-23 AHA Fellowship in the History of Space Technology:

Jorden Pitt, *Texas Christian University*

For: “The Traumatic Blue Sky: The Psychological Consequences of Aerial Combat in the Twentieth Century.”

Sidney M. Edelstein Prize

Established in 1968 through the generosity of the late Dr. Sidney Edelstein, a noted expert on the history of dyes, founder of a successful specialty chemical manufacturing firm, and 1988 recipient of SHOT's Leonardo da Vinci Award, the Edelstein Prize is awarded by SHOT to the author of an outstanding scholarly book in the history of technology published during any of the three years preceding the award. The prize, donated by Ruth Edelstein Barish and her family in memory of Sidney Edelstein and his commitment to excellence in scholarship in the history of technology, consists of \$3500 and a plaque.

Recipient of the 2022 Sidney M. Edelstein Prize:

Sarah A. Sao, *Columbia Law School*

For: *Policing the Open Road: How Cars Transformed American Freedom* (Harvard University Press, 2019).

This exceptionally stimulating book makes the argument that the “fundamentals of policing in the United States as well as constitutional law emerged as a response to the rapid adoption of automobiles, and its consequences, in the twentieth century. In earlier eras, the author concludes, most individuals did not interact with the police on a regular basis, mostly viewing them as a friendly presence on the streets or mostly absent in the farms and hinterlands. The rise of the automobile culture of the twentieth century sparked a radical transformation in this relationship in which law-abiding citizens now engaged with police on a regular basis, and almost always that interaction was negative. Police departments rapidly expanded to patrol ordinary citizens driving in cars; at the same time pressing to reduce constitutional protections against unreasonable search and seizures and thereby allow police to stop citizens suspected of a crime. This discretionary policing has been much debated, condemned, etc., but overall, the trend has been toward more oversight and surveillance, greater latitude for policing, and only moderate recourse in response to police actions.

Sally Hacker Prize

The Sally Hacker Prize was established in 1999 to honor exceptional scholarship that reaches beyond the academy toward a broad audience. Any book published in the three years preceding the year of the award is eligible. The prize consists of an award of \$2,000.

Recipient of the 2022 Sally Hacker Prize:

Kate Crawford, *University of Southern California*

For: *Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence* (Yale University Press, 2021).

Kate Crawford's *Atlas of AI* explores the nature of artificial intelligence. She carefully maps dystopian and utopian assumptions about AI, some of which date back to the Cold War while some derive from the more recent, breathless hype of Silicon Valley. Two myths that are strong in the AI field are that nonhuman systems are perfect analogues for human brains, and that intelligence is an ahistorical, natural, abstract entity. Instead, she argues, AI is "neither artificial nor intelligent," in itself.¹ Rather, what we think of as AI – Apple's Siri, or *The Terminator's* Skynet – is, in reality, constituted by a layered, overlapping and interconnected set of processes defined by their human designers and operators. AI is embedded in and the product of social, cultural, economic, political and environmental context. Crawford acts as a tour guide, taking the reader on a series of personally narrated journeys to various sites in her atlas – lithium mines, digital factories and Amazon warehouses, data collection and classification operations, New Guinea villages to explore the history of facial recognition, and military and municipal government applications. AI, she insists, is "a structure of power that combines infrastructure, capital and labor." Rather than an abstract system, it is embedded and intertwined with both human and natural worlds.

The purveyors of AI could become the Sorcerer's Apprentice or the builder of a Golem if the systems they have created are misunderstood simply as super-intelligent digital beings with sinister intentionality that can overawe and subjugate humans – each with their own sweeping, imperial ambitions. "As long as AI remains the 'new' tool of the military-corporate-industrial complex, one that protects capital and property while it demands exploitation of the third world, there is little hope for social change," as the writer and artist Molly Hankwitz recently observed of Crawford's book. "The technology is too pervasive; too fast; and too privatized..."² What is

¹ Kate Crawford, *Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence* (New Haven: Yale University Press, 2021), 69.

² Molly Hankwitz, review of *Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence*, *Leonardo* 55, Issue 3 (2022): 311-313.

really happening, Crawford argues, is much more complicated and possibly more destructive to the long run of human flourishing than the AI fantasies of science fiction. This book is a sober corrective to wild fables about AI that draws on the best practices in the history of technology.

Kate Crawford's elegant and capacious approach to artificial intelligence in *Atlas of AI* provides a model of the best kind of inquiry in both science and technology studies (STS) and cultural history. Lucid in writing and argument, we award it the Sally Hacker Prize for 2022.

Abbott Payson Usher Prize

The Abbott Payson Usher Prize was established in 1961 to honor the scholarly contributions of the late Dr. Usher and to encourage the publication of original research of the highest standard. It is awarded annually to the author of the best scholarly work published during the preceding three years under the auspices of the Society for the History of Technology. The prize consists of a check and a certificate.

Recipient of the 2022 Abbott Payson Usher Prize:

Robert MacDougall, *Western University Canada*

For: "Sympathetic Physics: The Keely Motor and The Laws of Thermodynamics in Nineteenth Century Culture," *Technology and Culture*, vol. 60 no. 2, 2019, p. 438-466.

In "Sympathetic Physics: The Keely Motor and the Laws of Thermodynamics in Nineteenth-Century Culture," Robert MacDougall deftly traces the long and winding career of a perpetual motion machine invented by John Worrell Keely in Philadelphia in 1873. Attracting widespread interest and investment for nearly three decades, The Keely Motor, it was said, could "drive locomotives without smoke, power factories without coal, and propel ships across the Atlantic using only a teacup of water for fuel." "It is a shame," MacDougall writes, "it never worked."

MacDougall uses this previously little-remembered historical episode to paint a complex and vivid picture of late-nineteenth century America. He ingeniously probes the "work" the fraudulent motor performed for both its boosters and its critics, from investors captivated by dreams of profit without effort to the publishers of *Scientific American*, who saw the motor both as a useful foil and as a tool for selling magazines, unconcerned with the publicity they generated for Keely as a result. MacDougall further provides a subtle and captivating account of the author, art collector, and philanthropist Clara Jessup Bloomfield's influential support for Keely. Recasting Bloomfield as neither a dupe nor a victim, the article reveals how she reconceptualized the technology as the embodiment of an alternative physics and metaphysics as well as a repudiation of anti-feminist psychology, a goal rooted in part in her personal grief at her daughter's institutionalization.

The committee was impressed both by the article's intellectual sophistication and its quiet

stylistic elegance. MacDougall seamlessly weaves together the story's multiple strands while simultaneously addressing larger thematic questions about innovation and failure, gender and power, and the relationships between technology, science, and society. The story MacDougall tells, moreover, continues to resonate today, helping us think more lucidly about the forces that sometimes allow even the most transparent technological puffery to capture social, political, and economic capital.

Samuel Eleazar and Rose Tartakow Levinson Prize

The Samuel Eleazar and Rose Tartakow Levinson Prize is awarded each year for a single-authored, unpublished essay in the history of technology that explicitly examines, in some detail, a technology or technological device or process within the framework of social or intellectual history. It is intended for younger scholars and new entrants into the profession. The award consists of a check and a certificate.

Recipient of the 2022 Samuel Eleazar and Rose Tartakow Levinson Prize:

Alexander Parry, *Johns Hopkins School of Medicine*

For: "Home Is Where the Harm Is: Laundry Equipment, Injuries, and the United States Voluntary Safety System, c. 1920–1980."

The article is a polished, well-researched account of household hazards addressed by Americans in their own homes. Focusing particularly on the risks posed by new household laundry equipment such as wringer washers and electric irons, the author explores the way American society responded to the dangers--by trying to give Americans the tools to make their own homes safer, even as the burden of risk remained on private households.

In an era preceding federal consumer regulations, the burden of mitigating risk lay on American households, but help came in the form of education from safety professionals, product safety evaluations from third parties like Underwriters Laboratory and Consumers Union, and even through producers competing for markets by developing safer products. As the author points out, this "voluntary" system worked best for those consumers with the resources, education, and time to invest in making their households safer. While wealthier and more literate families were exposed to safety proclamations, poorer and less literate families were left out of this voluntary arrangement.

With telling anecdotal episodes and systematic analysis, the author provides a compelling history with expansive research across many kinds of sources (advertisements, magazines and news reports, nonprofit and government publications, public health and medical literature) and thorough, helpful citations. The author taps into several well-developed historiographies, such as the history of housework and domestic technology, the history of consumption, and the

history of risk and safety, synthesizing this diverse historiography to make a new contribution that highlights the American emphasis on individual and household responsibility that continued to shape American expectations of safety even after government regulation increased.

Joan Cahalin Robinson Prize (2021)

Established in 1980 by Dr. Eric Robinson in memory of his wife, the prize is awarded annually for the best-delivered paper by an individual who is making his or her first appearance at the Society's annual meeting. Candidates for the award are judged not only on the quality of the historical research and scholarship of their paper, but also on the effectiveness of the oral presentation. The Robinson Prize consists of a check and a certificate.

Recipient of the 2021 Joan Cahalin Robinson Prize:

Hayley Brazier, *University of Oregon*

For: "Out of Sight, Out of Mind: Public Perception and the Visibility of Seafloor Technologies."

Honorable Mention Joan Cahalin Robinson Prize 2021:

Jiemín Tina Wei, *Harvard University*

For: "Ameliorating Worker Fatigue through the Body's Motions and Pauses: Frank and Lillian Gilbreth's 'Motion Studies'."

Bernard S. Finn IEEE History Prize

The Bernard S. Finn IEEE History Prize is supported by the IEEE Life Members' Fund and administered by the Society for the History of Technology. The prize is awarded annually to the best paper in the history of electrotechnology—power, electronics, telecommunications, and computer science—published during the preceding year. The prize consists of \$500 and a certificate.

Recipient of the 2022 Bernard S. Finn IEEE History Prize:

Diana Montaña, *Washington University in St. Louis*

For: "Ladrones de Luz: Policing Electricity in Mexico City, 1901-1918," *Hispanic American Historical Review* (2021) 101 (1): 35-72.

In "Ladrones de Luz: Policing Electricity in Mexico City, 1901-1918," Diana J. Montaña examines the capital's electrical network during a period of substantial population growth, sociopolitical upheavals, and economic turmoil. By researching a wide range of primary and

secondary sources including 63 trial cases and several newspapers, Montaño explores the city's electrification through the modern lens of power theft committed by the residents of the capital city (Capitalinos). There are various themes that run through Montaño's article: policing, the notion of crime, private property, consumer rights, moral values and justifications, and most importantly, the entanglement between technology and the larger social, economic, and political factors. In the story that Montaño masterfully shares with us, the agents of historical and technological change are not the inventors or trained engineers necessarily, but a constellation of unconventional practitioners of electrotechnology including the users of the electrical network, lawyers, government officials, electrical expert witnesses, and the inspectors for the electrical companies. Montaño tells us that the Capitalinos did not want to be passive participants in the city's electrification; their theft was an act of protest and a demand for inclusion in the "wonder of modern, electrified Mexico City."

Dibner Award for Excellence in Museum Exhibits

The Dibner Award for Excellence in Museum Exhibits was established in 1985, through the generosity of Bern Dibner, to recognize excellence in museums and museum exhibits that interpret the history of technology, industry, and engineering to the general public. The award consists of a plaque and up to \$1,000 to cover expenses for a member of the design team to accept the award at the SHOT awards banquet.

Recipient of the 2022 Dibner Award for Excellence in Museum Exhibits:

Science History Institute, Philadelphia, USA

For: *Downstream*.

Downstream is an exhibit on the ambitious topic of water quality, focusing on water analysis, treatment, and management over the past 250 years, opened on the 50th anniversary of the United States' Clean Water Act. The exhibit offers a series of case studies involving Philadelphia's water supply. The exhibit opens and closes with the statement "We all live downstream" referring both to the history of water pollution and protection in the Delaware River basin and to the shared challenges of protecting waters world-wide.

By connecting the history of technology and science in the form of water analysis and treatment to a geographically specific story about local environmental concerns from the late 1700s to the present, the exhibit engages audiences that may have little knowledge of water issues or the science and technology brought to bear on identifying and solving water problems.

Downstream effectively displays and interprets relevant collection of objects – both from SHI's own collection and from other sources – and digital archival resources through a temporary physical exhibit and an online exhibit. Together, these elements encourage learning

about how water and its issues have been understood, and they give visitors useful knowledge of important issues that affect them every day.

The gallery exhibition compellingly displays a number of important artifacts in the history of water study and treatment, pairing them usefully with traditional text panel interpretation that is accessible in an open indoor gallery space. The exhibit and its narratives encourage both understanding and imagination by connecting the physical things of science and technology with concise historical interpretation that includes both words and images.

Online, *Downstream* presents an impressively broad selection of water-related archival resources for reading, watching, and listening. Taken as a whole, these resources emphasize the wide impact of water issues on the whole population and offer a variety of vignettes supporting the exhibit's technology-science-history approach.

Visitor engagement with *Downstream* is accomplished by the exhibition's multifaceted, exploratory approach. With its use of both physical and online presentation, the exhibition facilitates learning for readers, watchers, listeners, and those encountering artifacts firsthand. Adding hands-on interactive components, *Downstream* connects with all types of learners in ways that highlight science and technology topics usefully for a non-expert audience. The physical exhibition's narrative arc works like a mystery where visitors chronologically follow the advent of a serious problem, learn the roles of science and technology in identifying its "culprit," and gain a solid appreciation of the benefits of solving and preventing water issues. *Downstream's* online component bolsters these themes with examples of other water problems and water-related events and technologies.

Referees and Dibner committee were impressed by the way in which the *Downstream* exhibition intersects histories of technology, science and environment, effectively combining specific scientific technologies to the local context and concerns. It engages visitors to think about the history and future of waters from stinking rivers of the past to the microplastics problem of today. A range of historical artifacts from scientific instruments to cultural objects such as public films, fishing licenses, and advertising ephemera are brought together to tell a cohesive story about how water has been understood.

Martha Trescott Prize

The Martha Trescott Prize will be given annually for the best published essay in one of two areas. In even-numbered years, the prize will be awarded to an outstanding published historical essay in the area of women in technology. In odd-numbered years, the prize will be awarded to an outstanding published essay in the area of social responsibility of engineers in history. Martha Trescott was one of the pioneering spirits behind Women in Technological History (WITH). She wished to honor Frances McConnell Moore, Carroll Pursell, and Edwin T. Layton, Jr., with this prize. The award consists of a \$500 check and a certificate.

Recipient of the 2022 Martha Trescott Prize:

Kara Swanson, *Northeastern University*

For: “Inventing the Woman Voter: Suffrage, Ability, and Patents,” *Journal of the Gilded Age and Progressive Era* (volume 19 (2020): 559-574).

The 2022 Martha Trescott Prize awards an outstanding published historical essay in the area of women in technology. This year, the committee considered a large field of excellent essays, each of which contributes to the growing body of literature about women in technology history. The committee is pleased to award this year’s prize to Kara Swanson for her article, “Inventing the Woman Voter: Suffrage, Ability, and Patents,” published in the *Journal of the Gilded Age and Progressive Era* (volume 19 (2020): 559-574).

Drawing on interdisciplinary expertise in legal and social history, Swanson’s framing of this paper moves the concept of technological creativity — “inventiveness” — beyond the realm of industry to highlight its political, gender, and racial significance. She documents how the US ideal of “independence” was discursively linked to invention (and specifically patenting) and provides many examples of how this connection was made explicitly by both supporters and opponents of women’s rights. She argues that the granting of patents could be presented by suffragists as official government certification of women’s inventiveness, and therefore end their “legal disability” by proving their fitness to participate as voters in the body politic.

Swanson foregrounds the Whiteness of this construction of ‘woman as inventor,’ noting how the exclusion of Black women was both structural (Black women had less access to the patent process due to their race, their gender, and their financial status) and intentional. Her description of the “Woman’s Work in Savagery” exhibit at the 1893 Columbian Exposition, which distinguished the origins of inventiveness in non-White cultures from the accomplishments of White female patentees of the day, reinforces this point brilliantly. Reflecting on the limitations of patent records as historical sources, Swanson notes that the naming conventions used in these records made it difficult to identify female inventors, and nearly impossible to determine race, hobbling any efforts to recognize the contributions of Black female inventors.

The article is deeply researched, well-written, and engages with History of Technology literature. It helps us to understand in new ways the intersections between history of technology, history of suffrage and women’s rights, US political history, history of race and white supremacy, and history of disability. Finally, this is a story about women probing the archives of the US Patent Office to formulate a narrative about their own role in the country’s technical and industrial evolution – women doing history of technology about women in technology – a great fit for the Martha Trescott Prize.

Race and Histories of Technologies Prize

This new annual SHOT prize recognizes outstanding scholarship that explicitly explores the multiple intersections and junctures between race/ethnicity and the history of technology. The prize is part of a collective commitment for addressing systemic and epistemic racism at SHOT and in the global intellectual field it represents. The prize is intended for junior scholars and new entrants to the profession worldwide. The prize will be awarded for a single-authored, unpublished essay in any language that is of a length suitable for publication in Technology and Culture (T&C)– approximately 7,500 words (not including notes) and 100 notes.

Recipient of the 2022 Race and Histories of Technologies Prize:

Diana Madril, Arizona State University

For: “Arizona’s Gila & Salt River Water Diversion and the Increased Gap Discrepancies in Agricultural Communities”.

Diana Madril is the first recipient of the new SHOT Redi Prize recognizing outstanding scholarship exploring the multiple intersections and junctures between race/ethnicity and the history of technology. In her original study, Madril details the multi layered history of water technologies in Arizona, foregrounding Native American practices overlooked by more conventional historiographies of irrigation in the West of the US. This is no linear story starting from Hohokan traditional techniques and ending with White American sophisticated water management systems. Keeping Native Americans at the center of her longue durée narrative and making a creative use of disparate archives, Madril offers instead an enticing account of race formation processes through water technologies involving local communities of the Gila River, the Spanish Empire, The Church of Jesus Christ of Latter-day Saints, and the US Federal State.

AWARDS SPECIAL INTEREST GROUPS

Mercurians Prize (Awarded by the Mercurians)

Amelia Bonea

For: “Contagion by Telephone’: Print Media and Knowledge about Infectious Diseases in Britain, 1880s–1914,” *Technology and Culture* 62, 4, (October 2021), 1063–1086.

The US\$1,000 prize is for a peer-reviewed paper in the history of communication technologies published in 2020–21 and focused on a period at least 25 years before publication. The prize committee lauded Bonea for her well-researched and innovative article. In addition to linking several strands of research in the histories of technology and communications, Bonea also drew effectively on the history of medicine’s literature. The parallel issues that have arisen with understanding COVID-19’s transmissibility made her article even more timely.

The committee also recognizes, with honorable mentions,

Gloria Calhoun

For: “Why Wire Mattered: Building U.S. Networked Infrastructures, 1845–1910,” *Technology and Culture* 62, 1 (January 2021), 156–84; and Kirsten Paige, for “Tectonic Microphonics,” *19th-Century Music*, 45, 1 (2021), 65–78.

Computer History Museum Prize 2022 (Awarded by SIGCIS)

Jacob Gaboury,

For: *Image Objects: An Archaeology of Computer Graphics* (MIT Press, 2021).

Elegant and thorough, *Image Objects* was both enjoyable to read and exciting to engage with. The committee was particularly impressed by Jacob Gaboury’s extensive range of methodological tools, each revealing a different aspect of what he astutely describes as a “phenomenal invisibility of computer graphics.” The judges found especially compelling the book’s arguments regarding the materiality of computation—arguments that the author points out are resistant to “revolutionary” narratives of computing history. With its carefully crafted assemblage of chapters, each focusing on a technical artifact of choice—an algorithm, an interface, an object standard, a programming paradigm, and a hardware platform—the book’s intellectual goals embody, and will certainly further catalyze, the interdisciplinary dialogues of the SIGCIS community.

Mahoney Prize 2022 (Awarded by SIGCIS)

Theodora Vardouli and David Theodore

For: “Walking Instead of Working: Space Allocation, Automatic Architecture, and the Abstraction of Hospital Labor,” in *IEEE Annals of the History of Computing*, vol. 43, no. 2, pp. 6-17, 1 April-June 2021.

The paper which is awarded the Mahoney Prize this year was published in 2021 in *IEEE Annals of The History of Computing* and co-authored by Theodora Vardouli and David Theodore from McGill University in Montréal. Vardouli is an Assistant Professor and Theodore is the Canada Research Chair in Architecture, Health, and Computation, both at the Peter Guo-hua Fu School of Architecture, McGill University, Montreal.

Their article investigates the relationship between computing and architecture by studying an algorithm that was used for floor layout design in postwar British hospitals. The algorithm, by Whitehead and Eldars, relied on string-diagram studies that described the pattern and volume of movement of people in a typical hospital. By studying this algorithm—the debates over, adaptation of, and use of Whitehead and Eldars’ approach—the authors situate the automation of hospital design at the intersection of building science and healthcare management. Of great interest is the fact that, through the topic of space allocation, Vardouli and Theodore aim to present “a parallel story in which researchers promoted the adoption of computers to manage hospital labor by intervening on the activities of the laborers through the hospital building itself: not through computer terminals, but through the architecture.” As they conclude, looking at the long-term consequences of computer technology for architecture: “matching activity patterns to spatial patterns as a method of designing architecture with computers persists.” Their historical study, which strongly benefits from their ability to conduct research at the nexus of design and computation, clearly contributes to a better understanding of the operational implications of algorithmic techniques, as well as showing the impact of computer technology on fields not often discussed in computer history.



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