Prize Ceremony

HSS 2021 ANNUAL MEETING
Prize Ceremony
Friday 19 November, 2021 6PM CST

SARTON MEDAL
Bernadette Bausaude-Vincent

PFIZER AWARD
María M. Portuondo

DEREK PRICE/ROD WEBSTER PRIZE
Elise K. Burton

JOSEPH H. HAZEN EDUCATION PRIZE
Douglas Allchin & Michael P. Clough

PHILIP J. PAULY PRIZE
Emily Pawley

RONALD RAINGER PRIZE
Whitney Barlow Robles

MARGARET W. ROSSITER PRIZE
Sharon Strocchia

WATSON, HELEN, AUDREY, & MILES DAVIS PRIZE
Matthew Stanley

NATHAN REINGOLD PRIZE
Oliver Lucier
Eloges

Lisa Nocks (2021)
Arthur Norberg (2021)
Ed Grant (2021)
Herbert Mehrtens (2021)
Gabriele Oropallo (2021)
Maya Peterson (2021)
Noel Swerdlow (2021)
Frances Kohler (2021)
Hunter Dupree (2020)
Richard Olsen (2020)
Henry Frankel (2020)
Howard Segal (2020)
Great interventions, We for Years, analyses Harvard, Panic Honourable response chapter, the Castro public together Society (completed, Race The History with Science, the graduate student essay award goes to Luísa Reis Castro for her essay on “Mosquitoes, Race, and Politics in Brazilian Science: Yellow Fever Campaigns and their Afterlives”. Castro completed a PhD at MIT in History, Anthropology, and Science, Technology, and Society (HASTS) in 2021 and is currently Postdoctoral Fellow at the University of Southern California Society of Fellows in the Humanities. The committee found that this essay expertly wove together the histories of science and medicine, race and politics into a compelling story of public health in 20th century Brazil. Using a wide range of documentary and archival material, Castro shows how ideas of race and whiteness, but also the aspirations of a new nation shaped the yellow fever response in the early 20th century and how they continue to shape Brazil’s response to mosquito-borne diseases today. This essay was adapted from a dissertation chapter, and we look forward to reading more.

Honourable mention goes to Brad Bollman for his essay “Knowing Nervous Pointers: Anxiety, Panic, and Deafness”. Bollman completed a PhD in the Department of the History of Science at Harvard University in 2021 and is now a Postdoctoral Researcher at the Stevanovich Institute on the Formation of Knowledge at the University of Chicago. His first book project, The Dog Years, explores the history of the beagle dog as an experimental animal. Bollman’s essay analyses a chapter in the history of psychiatry and takes a failed research project as its focus to explore how knowledge is made and unmade at the intersection of science, medicine and institutional careers. Gun-shy pointer dogs offered psychiatrists a potential animal model for human anxiety and for exploring the affects of environment and genetics on mental illness. We appreciated the interdisciplinary approach, the way the author clearly stated his interventions, and the dogs. We also enjoyed the expert story-telling that culminated in a Great Reveal (which we will not give away here).
FHHS/JHBS John C. Burnham Early Career Award (given annually to an early career scholar for an unpublished manuscript)
Selection committee: Jaipreet Virdi (chair), Rosanna Dent, and Peter Collopy


Honorable mention: Brad Bolman, "Knowing Nervous Pointers: Anxiety, Panic, and Deafness."

Luis Fernando Bernardi Junqueira, "A Science for the Spirit: Popular Culture and the Early Popularization of Psychical Research in China, 1900-1920"

At a moment when the history of science is increasingly being conceptualized as a global history of knowledge, Luis Fernando Bernardi Junqueira’s study of the flows of psychical research is posed to make a crucial contribution to the history of the human sciences. Methodologically rich, with sources across at least four languages, this paper introduces readers to a huge and varied collection of scientific and popular accounts of psychical phenomena from Japan and Europe into China. As he traces the movement, adaptation, and translation of these sources, Junqueira examines how “Spiritual Science” (xinling kexue) opened new paths for reformers in Republican China to conceptualize the links between Western science and Eastern traditions in ways that ameliorated critiques of the reductive nature of materialism in science, served their political projects. The judges were particularly impressed with the sophisticated arguments and the extraordinary use of language and translation to weave a global history. “A Science for the Spirit”—and the broader project that it is part of—promises to expand our understanding of the intersections of popular science, the human sciences, and state building projects.

The committee received upwards of 35 titles to consider this year and what a terrific group of books they were. Every author had chosen a topic that was strikingly innovative and wrote for general audiences with great flair. The Davis Prize for 2021 goes to Matthew Stanley, Einstein’s War: How Relativity Conquered Nationalism and Shook the World, an absorbing study of high-level science during an epic period in history. Stanley shows how Einstein’s life was deeply enmeshed in a world riven by the disruption of the First World War and explores the role that Arthur Eddington played in establishing the theory of relativity, even though the two became ostensible enemies on either side of national lines. The book is impressive in scope, beautifully written, alert to both the science and to historical method, and embeds science in the politics and cultural context of the day while telling a compelling story about scientific internationalism. It is also very accessible to a general reader. Stanley demystifies Einstein’s supposed "genius" and draws attention to the inextricable links between science and politics. The committee felt that Einstein’s War brilliantly captures the setbacks and excitements of a highly significant moment in our field.

Janet Browne
Tara Abraham
Michael Robinson
The Spanish Disquiet sets the protagonist within the grand sweep of approaches to knowledge in early modern Europe. Rejecting both artisanal empiricism and ancient philosophy as viable pathways out from the epistemological cul de sac that he and other contemporaries feared, Arias Montano undertook a hugely creative and courageous effort, integrating a wide range of forms of knowledge in order to offer a wholesale new interpretation of the natural world and God’s plan for humanity within it. Drawing on her vast scholarship, incisive analysis, and elegant story-telling, and immersing her account within the ferment of period approaches, María Portuondo masterfully charts the quest of this wide-ranging polymath. Arias Montano was highly respected across Europe and widely read in his own day, but has been nearly forgotten as a consequence of subsequent narrowly teleological accounts of the scientific revolution. His “scientific enterprise” emerges from this study as a product of intense soul-searching, spurring ambitious proposals and grandiose designs. Biblical exegesis grounded knowledge of nature to enable humanity’s salvation, demonstrating how modern science emerged from many competing intellectual strands, some of which have faded in retrospective memory. Arias Montanos’ Magnum Opus demands from the historian of science an engagement not only with meteorology, mechanics or botany, but also with biblical philology and Mosaic philosophy. The Spanish Disquiet offers an exemplary alternative model for how and why to write the history of any kind of science, perhaps especially of those roads not taken.
DEREK PRICE/ROD WEBSTER PRIZE

The Price/Webster Prize is awarded annually to the best article published in Isis in the previous three years. It recognizes “original research of the highest standard” and represents the finest our field has to offer. It is a pleasure to award the 2021 Price/Webster Prize to Elise K. Burton for the article “Red Crescents. Race, Genetics, and Sickle Cell Disease in the Middle East.”

This article offers an illuminating, detailed, and bold new treatment of a topic—the study of sickle cell disease—that has been extensively explored in the sciences of heredity and history of racialized science. It sets up an exciting and important puzzle by asking what can be learned by moving an almost paradigmatic case from the context in which it has been conventionally studied—largely the modern US, as well as parts of the African continent—into the transnational scientific networks of the 1950s Middle East region. Burton shows how the work of elite researchers studying sickle cell among marginalized Arab-speaking communities served to hardened otherwise flexible, complex, and locally-specific histories and practices into seemingly natural categories of race. In doing so, Burton exposes—and transcends—the American bias in history and historiography of sickle cell in particular, and of race concepts generally, which focus on a distinctively US-based anti-Black racism. The article gives fresh insight into the mechanisms through which global geopolitics played out in specific communities and structured seemingly timeless and universal scientific categories—to insist upon a more capacious, global history of racial formation.

The empirical research is stunning. Burton draws upon material from an impressive number of languages and dialects while simultaneously guiding the reader deftly through the details of post-war genetics. The article provides a sophisticated study of Arab and Turkish political history, demonstrating in detail the ways that such histories and local contexts served as specific resources for scientific ideas and, in turn, how scientific data were put towards social and political ends. The article persuasively documents how the boundaries of scientific categories realigned to fit nationalist movements, decolonial projects, and contests over Cold War politics of belonging—and thus the political fabrication of racial classifications.

The article is relevant and accessible to anyone interested in the politics of classification, the history of race science, the history of genetics, and the history of the modern Middle East. Along with its empirical sagacity, careful analysis, and impressive creativity, Burton’s research marks—and enacts—opportunities to work for greater social justice in the sciences, in our communities, and in our own field.

Laura Stark
Bernard Lightman
Suman Seth
JOSEPH H. HAZEN EDUCATION PRIZE

This year’s prize is awarded to two extraordinary scholars/educators who have contributed significantly over the better part of the last two decades to enhancing science education in the K-12 curriculum by introducing themes and insights drawn from the history of science. Both Michael P. Clough and Douglas Allchin are leaders in their field, internationally recognized for their work, and the winners of a variety of prestigious awards. Through the development and core understanding of the role played by Nature of Science (NoS) instruction, Clough and Allchin share the notion that the history of science provides the perfect framework to debunk narratives of science, and more broadly of the production of knowledge, centered around the “outstanding or genius individual,” the “stalwart,” the “trailblazer,” and other such similar tropes. Their numerous books, articles, talks, pedagogical innovations, and website productions have provided education experts, young scientists, and science teachers, working in classrooms all over the world, with novel methods of bringing science to life to a youthful audience. We would highlight particularly Allchin’s original role-playing simulations he has developed on Galileo, nuclear technoscience, and Rachel Carson to help make fundamental issues about science come alive for K-12 students, and Clough’s leading role in the development of the “Story Behind the Science” website, which is full of material, as the website puts it, to “help students explore the development of key science concepts through the eyes of the scientists who were involved.” Both Clough and Allchin have proven themselves throughout their careers to be deeply committed to finding ways to allow K-12 students to appreciate the dynamic and contingent quality of the doing of science. Allchin has had an active presence in the HSS (being himself a former Chair of the Committee on Education) as well as in several other international organizations, including the International Society for the History, Philosophy and Social Studies of Biology (ISHPSSB) and the International History, Philosophy, and Science Teaching Group (IHPSGC). Clough has held various leadership positions in the Association for Science Teacher Education (ASTE), the National Association of Research in Science Teaching (NARST) and the National Science Teachers Association (NSTA) and, with colleagues, has raised more than 2 million dollars in funding for his research. Together, their work has reached hundreds, if not thousands, of professionals in Europe, in the USA, and in Latin America eager to find better ways to teach the Nature of Science and to engage with students on the social role of science and scientists.

Awarding this year’s Hazen Education Prize to both Clough and Allchin is, for this committee, a manner of recognizing the tremendous significance and value of teaching the history of science to K-12 students in today’s world. And what could be more resonant with the very idea of the Nature of Science than to acknowledge that bringing the history of science into a broader system of education can itself only be successfully accomplished through a variety of different, albeit overlapping and complementary, contributions from more than just one individual. Many excellent, and equally committed educators, are what the world needs today. Allchin and Clough are examples to follow and we laud their work on behalf of the history of science and science education.

Jean-François Gauvin, Chair CoEE
John Carson
Pedro Raposo
This witty, insightful, and tightly argued book shows how entrepreneurs and "improvers" in an agricultural region of the nineteenth-century United States invested the breeding of crops, plants, and animals as well as the management and accounting of their farms with intense and diverse forms of value. When they discussed how to breed high-yield dairy cows or searched for precisely the right words to describe the sweetness of an apple, the agricultural improvers of New York State were also working through a language of commercial capitalism. When they spoke of "debts" to the land, they informed and were informed by both chemistry and regional politics. Some of their speculative visions of the future seem absurd in retrospect — and indeed, some of them failed spectacularly. Yet, others became foundational to agriculture, agrarian life, and modern relationships with food and land. One of the accomplishments of the book is to show how difficult it was to distinguish wild prognostications from sober plans.

The Nature of the Future is particularly attentive to how science became a subject of public discussion through the busy medium of the agricultural press. In so doing, Emily Pawley centers a community of knowledge-makers whose parochial squabbles and earthy concerns have much to teach us about the creation of both American environments and agricultural science.
RONALD RAINGER PRIZE

The 2021 Rainger Prize is given to Whitney Barlow Robles for her article “The Rattlesnake and the Hibernaculum: Animals, Ignorance, and Extinction in the Early American Underworld.” published in The William and Mary Quarterly. 78 (1), 2021, 3-44.

The jury truly enjoyed the article’s vivid prose and provocative thinking. Bringing together perspectives from the history of science and environmental history, the article studies the timber rattlesnake. This native of eastern North America was an object of both knowledge and different kinds of ignorance among early British naturalists between the seventeenth and nineteenth centuries. In a bold move, Robles writes rattlesnakes into her story as historical agents, exploring how this particular species’ behaviors enabled and disrupted eighteenth-century projects of study, extirpation, and conservation in ways that reverberate in current conservation efforts aimed at them. The article is highly original by tying animal agency to questions of agnotology, indicating how, despite its cultural omnipresence in early America, the rattlesnake’s “cryptic ecology” allowed it to evade “the naturalist’s gaze and flouted the work of colonialism.” Robles is sensitive to a whole range of contexts and voices, situating the story not only in a world of settler colonialism, but also in one of transatlantic exchanges and indigenous traditions of interspecies obligation. Through a varied and creative use of sources, she manages to tease out the tensions that characterized past snake-human relationships, thus offering her readers a story that goes beyond archival biases. For all these reasons, we think “The Rattlesnake and the Hibernaculum” is a more than worthy winner of the Rainger Prize.

Raf De Bont
Richard Staley
Anya Zilberstein
It’s been clear for some time that most of the health care in late medieval and early modern Europe was in the hands of women. But it’s one thing to be aware of that fact and another to be able to document its contours in any detail, given that much of this care took place in domestic spaces and was transmitted from generation to generation through oral instruction and apprenticeship. Sharon Strocchia breaks through that impasse in her remarkable study, Forgotten Healers: Women and the Pursuit of Health in Late Renaissance Italy (Cambridge MA: Harvard University Press, 2019), winner of the 2021 Margaret W. Rossiter History of Women in Science Prize. Through meticulous archival research, primarily in Florence, she has reconstructed women’s work as “agents of health” in contexts ranging from the highest levels of court society to commercial pharmacies staffed and run by nuns, to the city’s pox hospital, where the nurses, orphan girls from poor families, were responsible for making the medicines they administered. In the process, she builds up a picture of women’s medical work as differentiated, collaborative, results-oriented, and dependent on well-developed social networks, “in which knowledge flowed sideways and upward, not merely from the top down.” While focused on women, Strocchia’s book offers a powerful methodological model for redefining the history of medicine in ways that acknowledge the centrality of non-elite and informally educated knowers to the history of health care.

Leah DeVun
Florence Hsia
Katharine Park
Climate Conscious: Caribbean Commodities and Holdridge Life Zones, 1940-1970

The 2021 Reingold Prize goes to Olivier Lucier for “Climate Conscious: Caribbean Commodities and Holdridge Life Zones, 1940-1970.” This essay traces the development of Holdridge Life Zones, a bioclimatic classification designed by US forester Leslie Holdridge and widely used today to model environmental effects of climate change. Lucier argues that Holdridge developed his classification system specifically for the tropics in the context of American extractions of natural resources in the Caribbean during World War II. Unlike previous deterministic climate models, which correlated climate zones with human societies and civilization, Holdridge’s model identified groupings of associations based on elevation, rainfall, and temperature and focused on the ability to grow a particular crop in a particular Life Zone. While Holdridge himself viewed his Life Zones as intimately tied to the physiognomy of specific tropical landscapes, later scientists scaled Life Zones up to larger regions, ignored the physiognomy and the focus on extraction, and focused instead on ecosystems and climate change. Lucier’s essay is well written, persuasively argued, and thoroughly and richly executed. It provides important context to the nature and origins of current approaches to climate change.

Alisha Rankin
Bob Richards
Professor Emerita in the History of Science and Technology and in Epistemology at the Université de Paris 1—Panthéon-Sorbonne is the recipient of the History of Science Society’s 2021 Sarton Medal, awarded annually to an outstanding historian of science, selected from the international scholarly community. The medal honors a scholar for lifetime scholarly achievement.

Over more than forty years, Professor Bensaude-Vincent has been a highly original and influential scholar who has integrated philosophical and sociological perspectives with historical analyses of scientific ideas, practices, and technologies. Her approach is rooted in a long tradition of French scholarship that is philosophically astute and politically insightful. Her methods and achievements are exemplified in books such as her Paul Langevin: Science et vigilance (1987); Lavoisier, mémoires d’une révolution (1993); History of Chemistry (with I. Stengers, English translation, 1996); Chemistry: The Impure Science (with J. Simon, 2008); and Carbone (with S. Loeve, 2018). Professor Bensaude-Vincent has authored or co-authored at least sixteen books and edited or co-edited another sixteen volumes, including editions of primary texts. About half of her 120 research articles and essays have appeared in English, including in the history of science journals Isis, Annals of Science, and British Journal for the History of Science.

In both her work on the physicist Langevin and on the chemist Antoine Lavoisier, Bensaude-Vincent’s aim is to replace hagiography, at the boundary of memory and history, with critical narrative and analysis that deconstructs the origin and perpetuation of mythic histories and biographies. In their History of Chemistry, Bensaude-Vincent and Isabelle Stengers move away from triumphalist history toward an account of the construction of scientific knowledge which de-emphasizes heroic discovery in favor of the history of the professions as well as the history of ideas. In Chemistry: The Impure Science, co-authored with Jonathan Simon, she reiterates earlier insights into the categories of “artificial” and “natural,” by way of arguing that the dual essential nature of the chemical sciences is the active production of manufactured objects as well as experience-and-theory based knowledge—in that way less “pure.” Bensaude-Vincent and Simon extend the notion of impurity to harmful effects that pose ecological, ethical, and political dilemmas. These themes of impure science, technoscience, constructed scientific objects, and science without borders come together in Bensaude-Vincent and Sacha Loeve’s book Carbone, a kind of poetic-philosophical biography of the chemical element Carbon, from the beginnings of life on earth to the threat of global warming.
Bensaude-Vincent’s work is uniquely original and also highly collaborative, including joint projects with colleagues in France, the USA, Germany, and elsewhere. She has directed more than twenty doctoral dissertations at the Université de Paris Nanterre and the Université de Paris 1, often co-authoring publications with students and helping launch careers of younger scholars. Teaching and lecturing positions have taken her to Barcelona, Madrid, Vienna, Bielefeld, and elsewhere, recently including fellowships at the Science History Institute in Philadelphia and the Huntington Library in Pasadena. Bensaude-Vincent is a Chevalière of the Légion d’honneur and a recipient of several other major prizes, as well as an honorary doctorate at the University of Lisbon.

Professor Bernadette Bensaude-Vincent is an engaged intellectual not only in her academic scholarship, teaching, and service but also in speaking to the challenges of the scientific and technological enterprise for the present and future of our society.