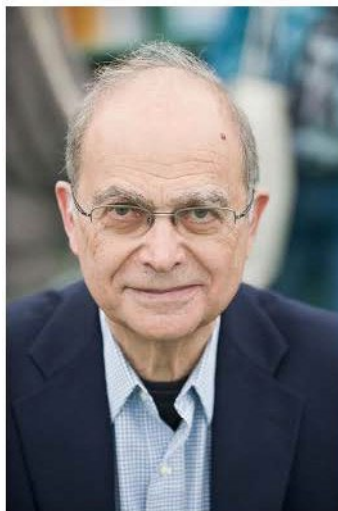


CATHRYN CARSON\*

## John L. Heilbron (1934-2023): In Memoriam

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Whether we know it or not, we live with the legacies of those who preceded us. One of John Heilbron's legacies was *HSNS*. For more than a quarter century, this journal was "John's journal." The journal mirrored its editor, and his judgment fundamentally formed it. Even through change, those who knew John can still see his trace here; we live within its shimmering outlines and respond to its call.



John Heilbron at the Telegraph Hay Festival in 2011. Source: Alamy Stock Photos.

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\*Department of History, 3229 Owinelle Hall, University of California, Berkeley, CA 94720-2550, USA, [clcarson@berkeley.edu](mailto:clcarson@berkeley.edu)

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Born on March 17, 1934, a native of San Francisco, John was drawn into the post-World War II rush to the sciences and studied at the University of California, Berkeley, in the 1950s and 1960s. Asking himself, however, what he most fundamentally wanted to do, he switched his attention from physics to history after earning a master's degree. At Berkeley he trained with Thomas Kuhn and other faculty in the Department of History. When he came to the history of science in these postwar decades, the discipline was centrally engaged in setting its own standards and terms. In this generational project, John was part of a tight-knit cohort of younger scholars in the history of the physical sciences who traveled the same path and made this nascent profession their own.

One aspect of this path was historical research and writing. John was a scholar's scholar, on the lookout for history's ironies and unexpected developments. Erudite and witty and impossibly prolific, he authored more than twenty books. He received the History of Science Society's Pfizer Award for *The Sun in the Church: Cathedrals as Solar Observatories* (1999), which meticulously revealed how the Catholic Church of the sixteenth through the eighteenth centuries contributed to resolving fine-grained astronomical problems about solar motion. That is, against the simple story of undying animosity between religion and science, he showed just how much the triumph of the heliocentric theory owed to observations conducted inside cathedrals by men of the Church. Over his career he towered over the history of the physical and mathematical sciences, covering its sweep with contributions stretching from the early modern period to twentieth-century physics. Among his other major works were *Electricity in the Seventeenth and Eighteenth Centuries: A Study of Early Modern Physics* (1979); *The Dilemmas of an Upright Man: Max Planck as Spokesman for German Science* (1986); *Lawrence and His Laboratory: A History of the Lawrence Berkeley Laboratory* with Robert W. Seidel (1990); *Geometry Civilized: History, Culture, and Technique* (1998); and *Galileo* (2013). For lifetime scholarship he was the recipient of the History of Science Society's most prestigious award, the Sarton Medal. Along with honorary degrees and memberships in a host of international academies, John's honors included the Koyre Medal from the Académie internationale d'histoire des sciences, the Sanon Memorial Lectureship of the American Association for the Advancement of Science, the Hans Rausing Lectureship of Uppsala University, the Wilkins Prize Lectureship of the Royal Society of London, the Pais Prize for the History of Physics from the American Physical Society, the Hitchcock Lectureship of the University of California, Berkeley, and the Berkeley Citation.

Another critical aspect of John's path, like that of his cohort, was institutional. At a time when the history of science was expanding, John and his colleagues worked within and alongside existing institutions-journals, museums, libraries, encyclopedias, research centers, departments-and created new ones. John's professional home base was Berkeley. Other than time spent in Copenhagen with Kuhn's Sources for History of Quantum Physics project and a brief stint at Penn, he remained at Berkeley from the start of his studies until his retirement in 1994. As milestones on this path, he was appointed to the faculty of the Department of History in 1967, set up the Office for History of Science and Technology in 1973, and took on the editorship of *Historical Studies in the Physical Sciences* with Volume 11, in 1980, moving it to the University of California Press as it transitioned from its founder Russell McCormmach.

*HSPS* belonged to the generation that came of age in John's (and Russ's) time. It had a clear disciplinary mission. John gathered its group of associate editors, adding Paul Forman and M. Norton Wise to Lewis Pyenson and R. Steven Turner. This journal was not meant as a repository for scholars seeking to make names for themselves, and it was not a wide-ranging compendium. Its new editor spelled out his intent by looking back to McCormmach's founding remarks and offering his reflections, placing himself in a lineage, not just on his own. John was determined to cultivate scholarship on the conceptual history of the recent physical sciences (since the Scientific Revolution) in their social, cultural, and institutional contexts. Articulating a call whose power today is sometimes domesticated or taken for granted, he insisted that historians recognize the stakes of scientific ideas exactly while breaking through the internal-external divide. Along with more studies of less well-trodden sciences, he pointed to the urgent need to illuminate institutional settings, funding landscapes, and other forms of social support. He wanted to see histories of experimental techniques along with ideas. Above all, he spurred colleagues' ambition to attend rigorously, not just gesturally, to connections between the content of science and its societal setting.<sup>1</sup>

History of science should *matter*. Its practice is not a self-serving amusement directed inward to a community of professional researchers. It is a fundamental contribution to understanding our world. His generation lived the need, John felt the demand, and he made his standards plain. Historians of science should

1. [Unsigned, J. L. Heilbron], "Editor's Foreword," *Historical Studies in the Physical Sciences* 11, no. 1 (1980), i-iii.

stop taking conventional period boundaries for granted, cutting down and thinning out the real history and missing continuities that other historians had already seen. They should escape from the thrall of scientists' narratives of their fields. They should stretch themselves, broaden their languages, and do comparisons to get at the heart of what was really happening. And they should write history well. As he laid it out:

Discussion of philosophical or other ideas that do not relate directly to scientific work or practice falls outside the scope of the journal. So does fascination with precursors. Pedantry should be kept to the minimum needed for good scholarship. Words like "Newtonian" and "Canesian" should be defined and used univocally or not at all. McCormmach counselled contributors to write with clarity and distinctness. To these may be added economy of expression and an occasional smile.<sup>2</sup>

John edited with a vigor that matched his sense of this calling. He set high expectations and ran a lean team---centrally, managing editors Jacqueline Craig and the stalwart Diana Wear, plus Berkeley graduate students and affiliates. He set directions for the field through the articles he published: away from philosophy and antiquarianism, toward science's institutions, contexts, and funding regimes. Just as much, he shaped the history of science through intense work on others' manuscripts. While he kept the door open to long articles, his core commitments were clarity and concision, no jargon, no dissembling or gesturing, rigorous empirical anchoring and line-by-line argument. His vision of the history of science allowed for creativity within clear bounds. In its service he excised what he took to be over-theorizing or wishful thinking, Aorid writing or idiosyncratic excursions. This attention to content, style, and writing went beyond a personal tic; it was a way of living up to the expectations that he set for the discipline of the history of science.

Like other institutions that John built, including the Office for History of Science and Technology at Berkeley, which housed the journal, *HSPS* put a stamp on the next generation. This was part of its mission and design. It extended its remit to experimental biology (as *HSPBS*, 1986) and expanded its editorial roster somewhat, including Berkeley colleagues and friends elsewhere. The journal put out special issues and became a major venue for the institutional history of modern science. Even after John took on taxing institutional responsibilities of his own (as chair of the Berkeley Academic Senate in 1988,

2. "Editor's Foreword," ii-iii.

then as vice-chancellor of the campus in 1990), he continued as editor. When he retired from his professorship in 1994, he remained with the journal, leading it while traveling to Pasadena, New Haven, and Oxford. It was challenging to imagine a successor to John.

I came into this picture as an assistant professor of the history of physics, hired into the History Department in 1996 and installed in 2000 as the new director of the Office for History of Science and Technology. I had not previously been part of John's circle; I had interviewed with him for graduate school one Sunday morning in a deserted 543 Stephens Hall and found him formidable, intense, intimidating. I knew French and was learning German at the time; he asked why not also Italian. But during my doctoral training I came to know and respect the students and postdocs who gathered around him; there was something special about their devotion to him and their shared field. Then I was chosen by his former colleagues to continue the lineage. And so, across the mid-2000s, with the ongoing support of Diana Wear, John and I found our way to transition the journal once again.

Transitions are seldom simple, but John was deeply supportive of seeing the journal relaunched and the institution continue. After all, that is what institutions are for. His 2007 "Swansong" evoked continuity in the form of a tribute to Russell McCormmach and a nod to a new editorial board "composed largely of people about the age Russ was when he invented *HSPS*."<sup>3</sup> We newcomers kept the stylesheet, made small changes to the cover, format, and title, and put in place somewhat larger changes to the self-understanding of the editorial team. Rather than a solo editor in chief, we constituted a five-member board with a chair, more or less from that younger generation, knit together with associate editors and self-renewing with regular turnover. The one-time one-man institution was now an evolving collective, and we knew that John had brought us together. We took his directive to heart that we should be responsible to the journal's authors (our authors), putting our names behind our referee reports, as he (and *Russ*) had.<sup>4</sup> *HSNS* remained a venue for good footnotes and longer articles. It built a more diverse and gender-balanced editorial board. And it received the best shot I could see at staying true to John's commitments to hard-won historical knowledge by means of mutual

3-J. L. Heilbron, "Swansong," *Historical Studies in the Physical and Biological Sciences* 37, no. 2 (2007), 185-87.

4. The Editors [Cathryn Carson et al.], "On Re-launching a Journal," *Historical Studies in the Natural Sciences* 38, no. 1 (2008): 1-3.

accountability. How far the discipline of the history of science would follow, however, felt beyond our control, and every year the editorial group must address this matter anew.

We live with the legacies of those who preceded us. I have often felt John looking over my shoulder, and I am not convinced he would be happy with all the changes he would see. His modd of prose remains with us; I still try to write with half his clarity and grace. History of science at Berkeley has morphed over the years for reasons both intellectual and institutional. From its base in Stephens Hall, it has gained both more and less of a foothold in the Department of History and become more closely tied to STS. History of physics has left the building. However, the journal continues. John (and others) built *HSNS* for the benefit of the discipline, and we carry that responsibility forward. In much the same way, via John's example, we recognize the seriousness and the excellences of the life of the historian of science. We believe our work matters. In this sense, we live in John's world.

John L. Heilbron passed away on November 5, 2023, in Padua, Italy, at the age of eighty-nine.