

At a Meeting of the Faculty of Arts and Sciences on October 3, 2017, the following tribute to the life and service of the late Erwin Nick Hiebert was placed upon the permanent records of the Faculty.

ERWIN N. HIEBERT

Born: May 27, 1919

Died: November 19, 2012

Erwin N. Hiebert, Professor of the History of Science, *Emeritus*, was born in Waldheim, Saskatchewan, and grew up as the son of a Mennonite minister, Cornelius N. Hiebert, and Tina Harms, in a Mennonite community in Winnipeg. The precepts of this radically egalitarian and rationalist sect colored his research and teaching. Hiebert was notably open-minded, advising many dissertations remote both in topic and approach to his own interests. He trained and supported women students when this was unusual among his colleagues, a testimony to his strong sense of fairness. Above all, he was a scholar, never happier than in his Widener study, immersed in the world of scientific and philosophical ideas.

Hiebert belonged to a generation of historians of science who came to the field as working scientists, often with a background in war research. He received his B.A. in Chemistry and Mathematics from Bethel College and, in 1943, his M.A. in Chemistry and Physics from the University of Kansas. His first job after college was as a research chemist with the Standard Oil Company of Indiana, under the jurisdiction of the Manhattan Project. He spent 1946–1947 in Washington, D.C., as Assistant to the Chief of the Scientific Branch of the War Department. After earning an M.Sc. in Physical Chemistry from the University of Chicago in 1949, he moved to the University of Wisconsin–Madison, where he took his Ph.D. in the History of Science and Physical Chemistry in 1954.

In the aftermath of World War II, numerous scientists felt impelled to reflect more broadly on the implications of science in the atomic world. Hiebert's first published book, *The Impact of Atomic Energy* (1961), examined these implications from an ethical and religious point of view. Like fellow chemist and Harvard president James Bryant Conant, Hiebert however also sought illumination in the history and philosophy of science, with the aims of understanding the extraordinary conceptual innovations that had prepared the way for the meteoric rise of physics and chemistry in the twentieth century and of preparing a democratic citizenry to make informed decisions in a techno-scientific age.

Hiebert taught at San Francisco State College as an assistant professor, 1952–1954; at Harvard as an instructor in History of Science, 1955–1957, and a visiting professor, 1965; and at the University of Wisconsin–Madison, 1957–1970, as a

professor in the Department of the History of Science and department chair, 1960–1965, before returning to Harvard as a professor in the Department of the History of Science from 1970 until his retirement in 1989 (as well as department chair, 1977–1984). These stations in an academic career were punctuated by excursions farther afield, some unsurprising in an academic vita (a Fulbright fellowship to the Max-Planck-Institut für Physik in Göttingen, 1954–1955; a fellowship at the Institute for Advanced Studies in Princeton, 1961–1962; and visiting professorships at the Universität Tübingen, 1965, the Zentrum für interdisziplinäre Forschung at the Universität Bielefeld, 1978–1993, and the Hebrew University, 1973), others rather more so (tours as a scientist on a geophysical expedition to the Arctic, 1959, and as a consultant for Kabul University, 1961).

Hiebert's scholarship focused on three main areas: the history of chemistry and the physical sciences more broadly in the modern period; the relations between science and religion; and, dearest to him, the philosophy of science from the perspectives of major scientists, especially those active in the German-speaking world c. 1850–1930. In his books *Historical Roots of the Principle of the Conservation of Energy* (1962) and *The Conception of Thermodynamics in the Scientific Thought of Max and Planck* (1968) as well as in articles on Walther Nernst, Ludwig Boltzmann, Hermann von Helmholtz, and Wilhelm Ostwald, Hiebert sought to understand how the stimulus of doing science inspired philosophical reflections on ontology and epistemology—and in some cases, how the philosophy inspired the science. He had little patience with professional philosophy of science, untethered from the actual doing of science, especially science at the frontiers of knowledge. There was an echo of Erwin's own voice when he described Boltzmann's contempt for traditional philosophy and the latter's philosophy of science as “drawn mainly . . . [from] the way in which he has been doing science all his life.”

Hiebert felt still closer to the Austrian physicist, psycho-physicist, and philosopher Mach, whose scientific experiments and historico-philosophical criticisms of scientific concepts (e.g., of Newtonian inertia) were pursued in tandem. The quotation Hiebert chose to cite in his magisterial *Dictionary of Scientific Biography* article on Mach might as well have served as the motto of his own career as a historian of science: “Historical investigation not only promotes the understanding of that which now is, but also brings new possibilities before us, by showing that which exists to be in great measure *conventional* and *accidental*.”

In seminars, with the texts spread out on the table, Erwin shone, reading with his students line by line, his enthusiasm for his subject matter infecting even the most phlegmatic. The impression of the intensity with which he grappled with ideas and arguments, as well as the *esprit de corps* that welded the seminar into a community of inquiry, lingered long after the memory of specific passages had faded.

Erwin and his wife, Elfrieda, made students warmly welcome in their home in Belmont, sometimes treating them to impromptu musical performances, Erwin playing the clarinet and Elfrieda the piano. In addition to her considerable accomplishments as a pianist, Elfrieda held a doctorate in musicology. Erwin's many female graduate students felt they owed a special debt to Elfrieda for her dedication to scholarship and to the piano alongside her wholehearted commitment to her three children, Catherine, Margaret, and Thomas. Above the mantelpiece of the Hiebert home in Belmont hung a reproduction of Rembrandt's *The Mennonite Preacher Anslo and His Wife*, a moving image of a companionate marriage. It surprised no one who knew them that Erwin died only a few months after Elfrieda.

Respectfully submitted,

Lorraine Daston
Anne Harrington
Peter L. Galison, Chair

An extended version of this Minute was previously published as "Erwin N. Hiebert (1926 - 2012)," Department of the History of Science, Harvard University, accessed May 16, 2017, <https://histsci.fas.harvard.edu/people/erwin-n-hiebert>.