

A Tribute to Arnold Thackray – Chemical Historian and Catalyzer Extraordinaire

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It is now fifteen years since the publication of the last of my fifteen volumes of *Essays of an Information Scientist*. Each volume included a foreword by a mentor or colleague who played a formative or influential role in my career and initially included Joshua Lederberg, Derek de Solla Price, Harriet Zuckerman, Robert K. Merton, V. V. Nalimov, Gerald Holton and Estelle Broadman followed by Arnold Thackray. Arnold's foreword in volume 9 published in 1987 codified our already long personal relationship. In it he asks "when did I initially encounter Eugene Garfield?" His answer was "I simply do not know!" It certainly began before 1978 when the monograph "Towards a Metric of Science : The Advent of Science Indicators" appeared, since both Arnold and I contributed papers to that collaborative work co-edited by him, Yehuda Elkana, Robert K. Merton, Harriet Zuckerman and Joshua Lederberg. You can see the *HistCite* collection and that monograph at

<http://garfield.library.upenn.edu/histcomp/elkana-to-metric-sci/index-tl.html>

It is significant that half of those colleagues who wrote forewords to *Essays* were historians. The others that followed Arnold included polymaths Heinz Pagels, Robert Brent, Anthony E. Cawkell, Barry Blumberg, Raold Hoffman and Carl Djerassi ... all with a keen sense of history of chemistry and science as well as their connection with the arts and humanities.

As I stated above, the exact circumstance of our first meeting is lost to me and Arnold. Like so many professional friendships one often does not quite remember the exact time or place of the first encounter. And like so many photographs in the drawer, you wish that you had recorded the names, dates and places where the encounters occurred. However, I do remember that spending time with Arnold has always resulted in new insights and stimulation.

When we met in the late 60s or early 70s it was probably through our mutual friendship with Bob Merton and Harriet Zuckerman. I vaguely recall that Arnold was a new professor of the History of Science at Penn. By 1987 he was already the Joseph Priestly Professor of the History and Sociology of Science. I was aware of his link to the chemical profession even before he established the predecessor organization to what is now the Chemical Heritage Foundation (CHF).

In the short time that is allotted to me there are several projects I would like to mention which will give you some anecdotal evidence of our fraternal connection.

The story of the Robert Boyle Painting.

In 2001 Arnold informed me that the CHF had a unique opportunity to acquire one of the few extant portraits of Robert Boyle, the English chemist whose name is known to every student of chemistry as the discoverer of Boyle's Law. My connection to the CHF had already been firmly established when the Eugene Garfield Foundation made a grant over a ten-year period to fund a seminar room at CHF which is now located on the fourth floor. Arnold told me he had found a potential donor who was willing to fund half the amount needed to acquire the Boyle painting from an art dealer. I don't think it took me more than fifteen minutes to close the telephone transaction. I was happy to donate funds through the foundation I had established in 1992 when ISI was sold to Thomson Reuters and was delighted to learn shortly thereafter that the other donor was John Haas, the former Chairman of Rohm and Haas who played an important role in the funding and founding of CHF. Not long afterward Mr. Haas would begin driving me home from events at CHF since he lives in Villanova, just a mile or so from my house in Bryn Mawr, Pennsylvania. I remember telling John that I had known about his company since 1950 when I worked for Louis P. Hammett at Columbia University and had used Rohm and Haas ion exchange resins in our experiments on acid base catalysis.¹ Subsequently John Haas asked me to join the Board of Trustees of Temple University Hospital and then the Board of the Chemical Heritage Foundation. This is but one of several connections I've had to thank Arnold for. I believe this is what Jeff Seeman had in mind when he asked me to join this tribute to Arnold.

It is difficult to adequately express the unique talents of this multi-faceted person. I view Arnold as a creative entrepreneurial catalyzer in the field of non-profit development. Most development officers are essentially PR persons dedicated mainly to fund-raising. I don't know if the prototypical "Philanthropo- Matchmaker" has been described anywhere but in my experience, few have combined their academic professional training with creative salesmanship in the way that Arnold has. His talent in fund-raising is the result not only of incredible persistence but also a unique talent for understanding, anticipating and helping putative donors identify a project, a societal function, or an idea that will serve their unexpressed needs to preserve a shared vision. Arnold is not only a highly competent historian of chemistry and chronicler of the chemical enterprise ... he is the consummate catalyzer. And to his credit he has also recognized the intimate connection between historical scholarship and information science. Thanks to Arnold's vision, CHF has sponsored numerous activities related to the history of chemical and scientific information.

This recognition on his past led to the publication of the two conferences ... in 1998 on the History and Heritage of Science Information Systems and in 2002 the Conference on the History of Scientific and Technological Information Systems which are paralleled by the "Historical Statistics in Information Science" published as a three-volume set by Information Today on behalf of ASIS&T.

As an appendix to this oral presentation, I have compiled a list of the CHF projects funded by the Eugene Garfield Foundation thanks to the help of Arnold Thackray and his loyal staff members including Mary Ellen Bowden. The most recent project was the Theodore and Mary Herdegen Fellowship which honors my mentor, Ted Herdegen, the chemist at Smith, Kline & French Laboratory who had so much to do with my subsequent career.

The Oral History Project at CHF which is undoubtedly a major contribution to the History of Science deserves special mention. This collection of over 130 oral histories is a gold mine of information for future historians and journalists. <http://othmerlib.chemheritage.org/> Among these are oral histories by yours truly not to mention my long time colleagues Joshua Lederberg and Carl Djerassi, but also information chemists like Madeline Henderson – the long time co-worker of James W. Perry and Allent Kent, Jacques Dubois of DARC fame, Dale Baker of CAS, Melvin Day of NASA, and library science pioneers like Saul Herner, Robert Hayes, Douglas Foskett and Maurice Line.

As a final commentary on Arnold Thackray's role in these oral histories, let me close with thanks to him for a remarkable job that he did in condensing my own oral history into a chapter of the Festschrift which was published in my honor on my 75th birthday in 2000. Just recently I came across it after a decade and realized it is probably the best biography of me I have ever read. <http://garfield.library.upenn.edu/webofknowledge.html> You will have to ask Arnold for a reprint since the Festschrift is still in print from *Information Today*, publisher of the ASIST Monograph Series.

REFERENCE:

1. Bernhard, S. A., E. Garfield, and L. P. Hammett. "[Specific Effects in Acid Catalysis by Ion Exchange Resins. III. Some Observations on the Effect of Polyvalent Cations.](#)" *Journal of the American Chemical Society*, 76(4), p.991-92, 1954.)