

THE CHEMICAL HERITAGE FOUNDATION—PAST, PRESENCE, AND FUTURE: *INTERVIEW WITH ARNOLD THACKRAY*

By Svetla Baykoucheva



Arnold Thackray

Q: How was the Chemical Heritage Foundation (CHF) created, what has been its mission through the years, and what role has it played in the development of chemistry?

A: The idea for what is today the Chemical Heritage Foundation first crystallized in the late 1970s. The bicentennial of the country coincided with the centennial of the American Chemical Society in 1976, raising heritage awareness in the chemical community. The by-then well-established Center for History of Physics of the American Institute of Physics was an object of some envy. In 1980, a task force from ACS was actively reviewing options. One involved the University of Pennsylvania, home to America's first professor of chemistry (Benjamin Rush, 1761) and launch pad for ACS's History Division (in 1927).

CHF was formally inaugurated by a letter-agreement between ACS and Penn in January 1982, with each side committing \$50,000 a year for three years. Key advisors and supporters included John Haas, Ed Jefferson (DuPont CEO) and Charlie Price (former ACS President and Benjamin Franklin Professor at Penn).

In 1984, the American Institute of Chemical Engineers joined in. A "challenge gift" from Arnold Beckman in 1987 precipitated the transformation of CHF into a free-standing public charity or 501(c)(3) organization. Also, at Dr. Beckman's suggestion, other chemical organizations such as the Chemists' Club, The Clinical Chemists, and the Electrochemical Society joined as affiliates.

Today, the Chemical Heritage Foundation serves the community of the chemical and molecular sciences, as well as the wider public, by treasuring the past, educating the present, and inspiring the future. CHF carries out a program of outreach and interpretation in order to advance an understanding of the role of the chemical and molecular sciences, technologies, and industries in shaping society; maintaining a world-class collection of materials that document the history and heritage of the chemical and molecular sciences, technologies and industries; and encouraging research in its collections.

Q: The resources that the CHF is providing to the public are really impressive. Who are the users of these resources and what is the audience that you are targeting?

A: Scholars from around the world come to CHF to study and to use our resources. These scholars, who themselves interpret the chemical sciences to wider publics, are our key audience. At the same time, CHF encourages all members of the chemical community to better understand the record of achievement that is their heritage and thereby to gain inspiration for their future work. On our website and through various other media, CHF seeks to communicate actively with college and high school teachers and with students from around the globe. The basic message is very simple: the chemical sciences are the greatest human adventure ever; their past is full of inspiring tales of great achievements by individuals from every culture and every background; and their glory days lie ahead.



*The Chemical Heritage Foundation at
315 Chestnut Street in Philadelphia.*

Q: Who are the people who work in your organization, what is their background and professional orientation, and on what projects have they been working? What kind of difficulties are researchers studying the history of chemistry likely to encounter? Are there any plans at the CHF to interview famous scientists and create an oral history database?

A: CHF has always had an active oral history program and seeks to record and interpret events of the last several decades (an era of dramatic change) as well as of the more distant past. Over 300 leading scientists, innovators, entrepreneurs and industrialists have contributed to the CHF oral history program. Today, we have a special emphasis towards chemical electronics, molecular biology and biotechnology, and innovation and entrepreneurship. The great challenge that all workers at CHF face is to fashion coherent human stories out of skimpy and incomplete materials. To be a good historian, one needs to be a good detective.

Q: Are there any other organizations in the United States or in other countries that are interested in the history of chemistry, and do you have some kind of relations/common projects with them?

A: Around the globe there are many other organizations that have some level of interest in the history of the chemical and molecular sciences. However, the Chemical Heritage Foundation is unique in all the world in its focus towards the cumulating record of achievement and its ability to bring the perspective of change through time to current discussions and plans for the future.

Q: What has the connection between the CHF and the American Chemical Society (ACS) been in the past and what is it now? Are there any joint projects on initiatives such as the National Historic Chemical Landmarks Program?

A: The American Chemical Society was a crucial actor in the creation of CHF. CHF has close and warm relations with ACS, and many interactions with its various divisions and with its individual members. We are always open to suggestions as to how better to document and make known the progress of the chemical sciences and industries.

Q: I know that you have close relationship with the ACS Division of History of Chemistry, but do you see some potential opportunities for collaboration with the ACS Chemical Information Division and in what areas?

A: CHF has in the past worked actively with the Chemical Information Division for an extended project on the history and heritage of scientific information systems. That project, generously supported by Dr. Eugene Garfield, has thrown major light on the origins of modern information practices. For instance, Chemical Abstracts, which the American Chemical Society launched over a century ago, has been a major innovative resource in the wider field of information and science.

Q: Are there any major themes that connect the different projects in the organization?

A: We are always focused to the human story of scientific endeavor and the crucial importance of innovators and entrepreneurs in challenging and transforming our intellectual frameworks and thereby providing for the material progress of humanity.

Q: What more could organizations like the CHF and ACS do to improve the image of chemistry and the way the general public views chemists?

A: Our greatest failure has been and continues to be failure to command the high ground. The chemical and molecular sciences are, quite simply, the greatest human adventure ever. The story moves across the centuries and across a multitude of different cultures and ethnicities. The enterprise has intellectually and materially transformed the world for the better and today has yet barely begun to display its promise. We should be proud and privileged to be participants in this greatest human adventure ever. Knowing where the chemical sciences have come from, what they have achieved already, and where we are going will better enable us to participate in intellectual debate and challenge the naysayers and the doomsters.

Dr. Arnold Thackray served as president of the Chemical Heritage Foundation and is currently its chancellor. He received his Ph.D. from Cambridge University in 1966 and has held faculty appointments in Oxford, Cambridge, Harvard, and Hebrew University in Jerusalem. He was the founding Chairman of the Department of History and Sociology of Science at the University of Pennsylvania and today is the Joseph Priestley Professor Emeritus. Dr. Thackray's scholarship is related to the history and sociology of science, a field in which he has published many articles and books. During his career, Dr. Thackray served a number of boards, including that of the American Council on Education. He is a former President of the Society for Social Studies of Science, and a fellow of the American Academy of Arts and Sciences, the Royal Historical Society and the Royal Society of Chemistry. He has twice been awarded fellowships from the John Simon Guggenheim Memorial Foundation, has served as George Sarton lecturer of AAAS, and is a recipient of the Dexter Award of the American Chemical Society.

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Photos for this article are courtesy of the Chemical Heritage Foundation.