

## THE AMERICAN PHILOSOPHICAL SOCIETY AND THE HISTORY OF SCIENCE

*La American Philosophical Society y la historia de la ciencia*

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The late econometrician, Arthur S. Goldberger, was one of my dearest colleagues at the University of Wisconsin-Madison. Art often told me that “A good story is worth retelling.” Thus, I will say, again, that it is a great honor for me to speak about Francisco José Ayala at this 90<sup>th</sup> anniversary celebration of his birth.<sup>1</sup>

This morning, I spoke about Francisco José Ayala’s election to the American Philosophical Society (APS) and his public participation in it. My purpose in this afternoon’s talk is to describe how the American Philosophical Society became an exceptional repository of significant contributions to the history of science and to highlight and commend Francisco José Ayala’s role in the growth of our collections.

Across the past three centuries, the collections of the American Philosophical Society have gradually come to focus in three areas: American history

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<sup>1</sup> I am greatly indebted to information and advice provided by Charles Greifenstein, Curator of Manuscripts, now *emeritus*, David Gary, Associate Director of the Library for Collections, and Jane M. Whitehill.

to 1850; Native American language and culture; and the history of science, technology, and medicine. It is to the last of these that Francisco José Ayala has made great contributions.

Although we honor Benjamin Franklin as the founder of the American Philosophical Society, it was not his idea originally. Rather, it was first conceived by Franklin's friend, the botanist John Bartram. His idea went nowhere until Franklin composed his masterful and persuasive proposal for "promoting useful knowledge."

At its origin—and through much of its history—the American Philosophical Society was not about philosophy as currently understood, but about natural science—observational and experimental, theoretical and applied. Benjamin Franklin used the term, "philosophy," as shorthand for "natural philosophy," the term then used to describe science. (That word has become something of a problem; the American Philosophical Society [APS] can be confounded with the American Philosophical Association [APA], an organization focused on the practice of philosophy.) After 1734, the Society had become inactive, but it was resurrected in 1769 and achieved international visibility through the contribution of its second president, David Rittenhouse, who measured the distance from the earth to the sun by close observation of the transit of Venus (Smith, Lukens, Rittenhouse, & Sellers, 1769).

Thomas Jefferson was the third president of the APS, mainly while he was Vice President or President of the United States. His most significant scientific endeavor was to use the Society to commission, train, and equip Meriwether Lewis and William Clark to explore and record the North American continent west of the Mississippi River.

During Jefferson's time at the APS, John Vaughn, a wealthy wine merchant, began to assemble the APS Library's collections. Vaughn was a voracious buyer of books, often from Europe, and in his many decades at the Society—he actually lived in Philosophical Hall from 1822 until his death in 1841—its collection grew from hundreds to many thousands of books. The Society also obtained, largely by gift, many manuscript documents from early America and the era of the American Revolution. For example, these include Jefferson's handwritten penultimate draft of the Declaration of Independence—which contained anti-slavery language that was expunged by the Continental Congress; a first printing of the U.S. Constitution, annotated by Benjamin Franklin; a subscription list from 1793 for support of an ultimately doomed first effort by Jefferson to map the West; and the journals of Lewis and Clark, which were given to the Society by Jefferson. The Society also holds about

70 percent of Benjamin Franklin's surviving papers plus a large collection of the writings of Thomas Paine.

Another of Jefferson's scientific interests was the language of indigenous peoples. He thought that such languages would disappear as the continent was settled by Europeans, and he set out to record them. He made up lists of words that he thought must be common in any society, and he sent out emissaries—including Lewis and Clark—to collect their indigenous equivalents. His hypothesis was that, by comparing the similarities and differences among indigenous languages, he could reconstruct the history of indigenous populations. However, that was not to be. When Jefferson left the White House, his collection was to be transported from Washington, D.C., to Monticello in a large trunk. Left overnight on a barge on the James River, it was taken by a group of thieves because it was the largest and heaviest item. On seeing that the contents were just a bunch of papers, the robbers dumped them into the river. The following morning, Jefferson was able to collect only about a dozen pages and scraps of pages. They are now in the APS Library.

Inspired by Jefferson's example and his own interest and expertise in philology, Peter Stephen DuPonceau, a later president of the APS, renewed the collection of Native American linguistic and cultural materials before the mid-19<sup>th</sup> century. That foundational collection was vastly enhanced by the salvage anthropologists of the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, most notably Franz Boaz and his students. In particular, aside from their papers and the photographs taken by many of these social scientists, the APS obtained wax cylinder recordings of a great many native languages, which have now been digitized. The Society's first research center—the Center for Native American and Indigenous Research—was created early in this century with multiple purposes: to preserve the Society's holdings; to share cultural and linguistic legacies with indigenous communities; and to train scholars—especially indigenous scholars—in research and advocacy.

Now, the Society's scope has expanded to include history, jurisprudence, the arts, and public affairs. And its support of research has evolved to include awarding close to two million dollars a year in small grants to scholars in every field of knowledge and to fellows whose scholarship is based on access to the Society's collections.

The APS has long had a substantial collection of manuscripts—some 14 million pages in all, and the Library has a controlled environment—as well as skilled conservators—to preserve them. Among that collection, on loan for many years, have been hundreds of original manuscripts that were collected

by an early 20<sup>th</sup> century immigrant from Lithuania, Sol Feinstone, who made it big in real estate and both collected and disseminated patriotic materials out of love for his adopted country. Feinstone's creation, the David Library of the American Revolution, housed and disseminated other parts of his collection – including 800 rare books and some 9,000 reels of microfilm copies of revolutionary era documents that he had copied. Around 2015, the fund that Feinstone had created for the Library was rapidly being depleted, and, in 2019, the APS entered into a partnership to create the David Center for the American Revolution and accept the remainder of Feinstone's collection.

What about the history of science? Because of the historic origin of the APS and the fact that several of the Librarians of the Society have been students of early America, many outsiders see our frequent appearance in activities related to Early America, and, especially, the era of the Revolutionary War, as central to the role of the Society. In fact, the largest share—and the most accessed parts of the Society's collections—are those in the history of science, technology, and medicine. Some parts of that collection reflect unfortunate circumstances. The Society's history and collections demonstrate complicity with the "scientific" racism of the 19<sup>th</sup> century—e.g., the pseudo-scientific work of Samuel George Morton—as well as the eugenics movement of the first half of the 20<sup>th</sup> century. The Society has acknowledged and clearly separated itself from that unfortunate history, but we continue to maintain evidence of it for scholarly purposes.

More to the point, the Society's collections include truly rich resources in the history of 19<sup>th</sup> to 21<sup>st</sup> century science, and it continues to collect actively. For example, the Society has created the largest collection of Darwinia outside of London, recently enlarged by James Valentine's gift of his 4500-volume collection of Darwin's works. Perhaps the most extensive and valuable array of 20<sup>th</sup> century documents is the Society's collection of the papers of eminent geneticists and evolutionary biologists.

This is where Francisco José Ayala comes in. Records of the APS show that Ayala offered the APS his papers at the request of Bentley Glass (APS 1963), probably in the late 1970s or early 1980s. Baruch Blumberg (APS 1986), who was then President of the APS, worked with Charles Greifenstein to obtain a deed of gift from Ayala in May 2010. Ayala's papers arrived at the APS in July 2018, a huge and comprehensive collection that includes 201 linear feet of material.

In an August 2013 letter to then-Librarian Martin Levitt, Professor Ayala wrote:

There are several very good reasons why I chose the Library of the American Philosophical Society as the depository for my papers. First and foremost, because the APS Library has, by far, the most important—and perhaps, the most extensive—collection in the world of personal papers in my scientific fields of genetics and evolutionary biology, including those of my former mentor and author *extraordinarius* of the modern theory of evolution, Theodosius Dobzhansky. I will point out, as incidental evidence of that statement, that my “official” biographer, Dr. Susana Pinar, intends to spend no less than a full month at the APS in Philadelphia, during the forthcoming months, to research information about me in the correspondence and other files available at the APS Library.

In fact, Pinar never showed up at the APS Library, but she did publish a biography of Ayala in Spanish (Pinar García, 2016), that has, to the best of my knowledge, not been translated into English. In any event, the extraordinary record of Francisco José Ayala’s scientific life and work is available at the APS for an ambitious and skilled historian of science and biographer.

The gift of Francisco José Ayala’s papers tells only part of the story of his contributions to the APS Library. He arranged for Walter Fitch’s (APS 2000) papers to be sent to the Society after his death and, as well, for those of his former doctoral advisee, John Avise (APS 2011), to be sent to the APS. Ayala was on the board of the National Center for Scientific Education (NCSE), led by the wonderful Eugenia Scott, and arranged for the NCSE records to be contributed to the Society. He proposed to the eminent paleontologist, James Valentine (APS 2009), that he give his books to the APS. A dedicated scholar of the life and work of Charles Darwin, Valentine contributed a collection of virtually every edition of Charles Darwin’s works in every language, some 4500 books in all, including 26 of 29 British first editions. In one other case, there is some disagreement about Ayala’s role. Some attribute the gift of Theodosius Dobzhansky’s papers to Ayala and others to Dobzhansky’s correspondence with L.C. Dunn and an APS Librarian. In either case, the Society’s acquisitions of Dobzhansky’s and Ayala’s papers have surely created an incentive for others to contribute.

Over the past two decades, the American Philosophical Society has created research and training centers devoted to two of its three main areas of collection, early America and Native American language and culture. Further, the Society has at last committed to the creation of a Center for the History of Science. As part of its strategic plan for 2024 to 2028, the APS Council

approved the establishment of this Center at its November 2023 meeting. As at the other two centers, its staff will disseminate, preserve, and grow its collections; initiate seminars, public talks, conferences, and publications; and develop new resources to support pre- and post-doctoral research and training.

The collections of the American Philosophical Society in genetics and evolutionary biology will be a highly visible and key substantive resource of the Center. As anticipated in Francisco Jose Ayala's 2013 letter, the Society now holds the scientific papers of many of the giants of genetics and evolutionary biology:<sup>2</sup> Theodosius Dobzhansky, L.C. Dunn, Walter Fitch, Bentley Glass, Julian Huxley, Nina Jablonski, I. Michael Lerner, Richard Lewontin, Ernst Mayr, Barbara McClintock, Beatrice Mintz, Thomas Hunt Morgan, James Van Gundia Neel, George Gaylord Simpson, Curt Stern, James Valentine, Sewall Wright, and—of course—Francisco José Ayala. In my opinion, thanks in no small part to the endeavors of Francisco José Ayala, these scientific papers will be to the scientific collections of the American Philosophical Society as the writings of Benjamin Franklin are to its historic collections.

## References

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<sup>2</sup> There have been any number of highly distinguished women scientists in genetics and evolutionary biology, yet there are few whose original papers are housed in the APS Library. The Center for the History of Science at the APS should make the correction of this omission a high priority. Also, for brevity, the main text does not list all of the distinguished geneticists and evolutionary biologists whose papers are held at the American Philosophical Society. Other less familiar names include John Tyler Bonner, Arthur J. Cain, Hampton L. Carson, Frances Clayton, Erwin Chargaff, C.C. Li, Raymond Pearl, Philip M. Sheppard, Jack Schultz, H. Eldon Sutton, and Bruce Wallace.