

JOSEPH HENRY

Educator

By Marc Rothenberg
Editor, Joseph Henry Papers Project

To most Americans, the phrase "diffusion of knowledge" in James Smithson's mandate has meant education. Many of the early proposals for use of the bequest envisioned the Smithsonian as some sort of educational institution.

Joseph Henry, the first Secretary, rejected the direct use of the Smithson bequest for education, but his insistence that Smithson's bequest fund research did not mean he turned his back on education.

When Henry was elected Secretary in 1846, he was both a leading researcher and an experienced teacher, having taught at the Albany Academy in New York for six years and at the College of New Jersey (now Princeton University) for almost 14 years. About half of the 1,000 or so students taught by Henry became doctors, lawyers, ministers, college professors, or senior government officials. Among the rest were businessmen, teachers, and mid-level government workers.

By all accounts, whether in contemporary letters and diaries or in later reminiscences, Henry was an outstanding teacher, beloved and respected by his students for his knowledge, sense of humor, and willingness to discuss issues outside the curriculum. A former student wrote to Henry: "Until I came under your direction I cannot recollect of ever having possessed an idea-- This is no exaggeration, but my serious opinion-- I mean that I had never once thought for myself on any one subject." Henry had, in the words of Asa Gray, a botanist at Harvard and Henry's contemporary, "a genius for education."



Nassau Hall, at the College of New Jersey, where Henry taught physics from 1832 to 1846. Graphics Arts Collection. Visual Materials Division. Department of Rare Books and Special Collections. Princeton University Library.

Henry often said he did not want to teach his students "the mere facts of natural philosophy." What he wanted his students to take away with them when they graduated was a way of thinking and learning that would be applicable in the wider world. They had to be able to distinguish between mere knowledge--"the acquaintance [sic] with facts"--and wisdom, which was "the application of principles."

"A knowledge of general principles gives a man an immense advantage over his less perfectly educated neighbour or competitor," Henry asserted. He reminded his students this

was true in "Theology Law or Medicine or in any subject to which you may turn your attention."

Reflecting on his own experience in integrating research and teaching, Henry insisted that the best college professors were researchers. He argued that when selecting professors, a college should give "the preference to a person who has made some advance in the way of original research." Henry was well aware of the shortage of researchers in the United States around 1846. By supporting research, the Smithsonian was also upgrading the quality of college science teaching.

Henry supported educational reform in other ways. He served as first president of the Columbian Association of Teachers, which was organized at the Smithsonian in December 1849 at his suggestion. This local society aimed "to elevate the character of [the teaching] profession, and secure...that rank in society to which...[teachers] were entitled."

Henry was elected first vice president of the Friends of Public Education in 1850. Two years later, he was elected president of the American Association for the Advancement of Education, which was a successor to the Friends of Public Education. The association mainly appealed to public school administrators, who were interested in such questions as school districting, school architecture, teacher qualifications, grade levels, methods of instruction, and taxation policies. The overt purpose of the association, a precursor of the National Education Association, was to formulate national standards for public education.

Henry took advantage of the forums provided by this national education reform movement to argue for the importance of using researchers as educators. In 1854, in addressing the annual meeting of the American Association for the Advancement of Education, he argued that researchers made the best textbook writers, whatever the level of instruction:

But few persons can devote themselves so exclusively to abstract science as fully to master its higher generalizations, and it is only such persons who are properly qualified to prepare the necessary books for the instruction of the many. I cannot for a moment subscribe to the opinion which is sometimes advanced that superficial men are best calculated to prepare popular works on any branch of knowledge. It is true that some persons have apparently the art of simplifying scientific principles; but in the great majority of cases this simplification consists in omitting all that is difficult of comprehension. There is no task more responsible than that of the preparation of an elementary book for the instruction of the community.

Henry went on to assert that "it should be our object to bring more into repute profound learning and to counteract the tendency to the exclusive diffusion of popular and mere superficial knowledge."

In Henry's world view, support of basic research resulted in superior teaching, superior textbooks, and superior popular expositions of science. In turn, this served to better equip young men and women to pursue their life's work, whether in law, medicine, the ministry, or any other field of endeavor. Henry believed that by serving the research community, the Smithsonian served a larger public.

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