

editorial

Giving physics its place in history

Many years ago, Karl T. Compton declared "Physics has exerted a more powerful beneficial influence on the intellectual, economic and social life of the world than has been exerted . . . by any other agency in history. In spite of this fact, many people do not know who the physicist is or what he does." More recently, Murray Gell-Mann spoke of the resurgence in our society of superstition and the rejection of rationality, and of our failure to communicate to the public or to students "the meaning and importance, let alone the beauty and excitement of science."

If anyone has any doubt that we have failed to communicate to the public or to students the role physics has played in American life, he needs only to examine a sampling of the textbooks now being used in secondary-school or college history classes. With rare exceptions, one seeks in vain to find, in the index, any mention of physics or, in the text, of the impact that scientific research has had on every phase of American life. There are minor poets, writers, politicians, and generals galore, but no mention of Michelson, Millikan, or A. H. Compton, to say nothing of the large number of recent Nobel Prize Winners in physics. The great shift of world leadership in science from Europe to America in the past few decades is completely lost sight of in texts that are titled "Perspectives in United States History."

Who is to blame for this minuscule coverage of physics in history textbooks? Can we expect the professional historian to follow and evaluate the significance of advances in physics? He may have had only a smattering of physics in high school or college, and who of us who have spent our entire professional life in physics can claim to follow the advances occurring outside our own speciality? As Robert Oppenheimer said so eloquently ten years ago at the dedication of the Niels Bohr Library: "We are so engulfed by the changes, the massiveness, the ferocity, the brashness, the virtuosity, the confusion of the current scene in physics, that we do not understand it very well." If Oppenheimer had trouble in understanding, what chance has the professional historian?

What then are we to do? Almost unnoticed by the physics profession, the American Institute of

Physics has in the past ten years broadened the Niels Bohr Library into a "Center for History of Physics." This Center has worked with physicists and with the small but growing number of historians of science to collect or cause to be preserved a unique and irreplaceable assemblage of manuscript autobiographies, letters, notebooks, photographs, and tape-recorded interviews of those participating in the developments of 20th-century physics. Several studies related to the history of contemporary physics have been carried out by the staff and a variety of services have been performed for teachers, authors and scholars. Funds however, for this important work are very limited and are being reduced, thus making it almost impossible to bring this rich historical documentation to the attention of professional historians and the public at large.

Realizing the critical need to expand the work of the Center for History of Physics, the AIP Governing Board recently authorized a drive for funds for this purpose from physicists, industry, foundations, and public-spirited individuals. If enough additional funds are raised it will be possible for the Center to take positive steps to improve the understanding of the role physics has played in the past and can play in the future, as we move into a world of ever-increasing population and dwindling natural resources.

Thus, one answer to "What can you do?" is very simple. Learn more about the AIP Center for History of Physics and support it by becoming a "Friend" of the center if only by making a financial contribution. Unless physicists themselves rally to the support of the Center's efforts to improve the understanding of the impact of physics on society, our appeal to others will be abortive and the relevance of physics to contemporary civilization will continue to be ignored and the surge of irrationality quickened.

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Council of the Friends of the
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