

A Memorial Minute for David Park

David Allen Park, Webster Atwell - Class of 1921 Professor of Physics Emeritus, died on January 19 at age 92. He was a brilliant scholar, a natural teacher, and an inspiration and mentor to his colleagues.

After graduating with a prize scholarship from Harvard in 1941, he taught at Williams as an instructor until 1944, when he went off to support the war research effort as an operations analyst at the Harvard Radio Laboratory and in England. After the war various fellowships helped him earn a Ph.D. and gain postdoctoral experience at the University of Michigan. He then spent a year at the Institute for Advanced Study in Princeton before returning to Williams as an assistant professor in 1952. He retired in 1988, after which he set the gold standard for professional accomplishments in retirement.

The author of eight books, dozens of articles and countless book reviews and letters to editors of all sorts of publications, David was a prolific and wide ranging scholar. In a 1973 letter to the Dean of the Faculty conveying a list of David's publications, his department chair noted it included publications in at least seven sub-fields, work done in collaboration with three Williams colleagues in three different fields, and both books and articles surveying contemporary physics, using the kind of imaginative dissection of sophisticated concepts that he brought to his classroom teaching.

Indeed, many of David's books and articles are essentially teaching vehicles, often based on original research. Of course, every paper should teach. But many of David's papers go well beyond simply informing or clarifying to encourage the reader to adopt an entirely new point of view. The value of such a change of perspective is illustrated in one paper by pointing out the advantage of the heliocentric picture of the solar system over the geocentric picture. The numbers can be made to come out the same in each, but expressed in the heliocentric picture the regularities are more transparent. Some of David's re-imaginings are illustrated by simple geometric arguments; others involve rather sophisticated mathematics, often ingeniously simplified.

One of David's first books was a text for teaching quantum theory to advanced undergraduates. It may have been the first quantum text to aim at and succeed in helping students develop an intuitive understanding of the subject with a minimum of mathematical fog. A Harvard professor who had warned one of his students that taking a job at Williams would be professional suicide was so impressed that such a book could be written here that he changed his mind and not only encouraged the move, but supported it materially in ways that the college could not. Five of David's other books are better known since they appeal to a general audience. They review the evolution of human perceptions of time, light, and how events follow from one another, starting with early Greeks right through modern physics. Two of them won Phi Beta Kappa book awards. They are accessible and instructive to non-scientists. To a physicist they are poetry.

David's many reviews range over a very wide variety of topics, from books about science to books about history, philosophy, music and art. Often they employ ingenious juxtapositions, sometimes bringing a smile as well as driving home a point. Consider this comment in a review of a book about the painter Peter Bruegel. "Some of the older historians used to guess that

Bruegel was born a peasant. It is as if to guess from his paintings that Renoir was born a woman.”

In 2005 at age 85 David published a book called *The Grand Contraption* and delivered a series of three brilliant public lectures celebrating the 100th anniversary of the 1905 Einstein papers that revolutionized physics. The book reviews 4000 years of cosmology in Europe and the Near East, as human descriptions of natural processes developed from myth to law to recognition of unpredictability. In assessing the quantity and quality of work involved to produce the book, a reviewer commented that it is “well documented and massively informative.” The Einstein lectures demonstrated not only David’s generosity in wanting to enrich the community, but also a depth of insight and an obvious joy in sharing these iconic ideas.

If the body and quality of David’s writing seem to suggest that he could have done nothing else, it should be pointed out that he was very interested in classroom teaching, at which he was both popular and effective. He taught in the History of Ideas program. He taught a course for non-scientists called the Natural Philosophy of Time, as well as courses bringing modern developments in physics to undergraduate majors. He organized an MIT seminar about time and was a founder and president of the International Society for the Study of Time. During his leaves he lectured and taught in Ceylon, India, Papua New Guinea and many places in Europe as well as MIT and the University of North Carolina.

And while all this might suggest that he could not have had time for his colleagues, he was, in fact, a persuasive spokesperson for the group of Young Turks who conceived and pushed through to completion the Bronfman Science Center as a means to foster interdisciplinary cooperation in student-faculty research. He also was very generous with both advice and time when helping new department members. Many of these conversations led to joint projects, significant changes in teaching, and even publications by young faculty members acknowledging David’s support. Almost all the members of the physics and astronomy departments, along with members of other departments, have such stories to tell.

Nor were students and faculty the only beneficiaries of David’s fascination with ideas and his expansive spirit. These qualities, which he shared with his wife Clara, radiated out into the community in many ways, not least from the frequent Sunday evening social gatherings in the Park living room.

What can we say about the importance of these qualities and achievements? Like faith, fascination with the life of the mind and generosity to others are caught, not taught. Surely the contribution that David has made to our community has more to say about the importance of this remarkable man, at least to us, than any list of books and articles.

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