

Richard M. Bozorth died 1981 January 24 at the age of 84 at his home in Short Hills, NJ. In a career which spanned almost five decades, Bozorth had a tremendous influence in the field of magnetism. The following edited account, which is reprinted with the permission from the *IEEE Magnetics Society Newsletter* (summer 1981), was written by the late J. H. Van Vleck.

Born in Salem, OR, in 1896, Bozorth later graduated from Reed College in Portland. In 1917, he spent two years in the United States Army, and thereafter commenced graduate work at California Institute of Technology, Pasadena, where he received his Ph.D. degree in 1922, and remained an additional year on a post-doctoral fellowship. Although his doctoral thesis was in chemistry and he even held a DuPont fellowship his final graduate year, he was a physicist for the rest of his career. He was on the staff of the Western Electric Company from 1923 to 1925 and worked for Bell Telephone Laboratories, Inc., from 1925 until 1961 when he reached the mandatory retirement age of 65. This landmark did not, however, terminate his research career. He spent over a year as Fulbright Research Professor at the Institute of Solid State Physics of the University of Tokyo, finding the environment there so much to his liking that he stayed on longer than originally intended. After his return to the United States he held various consulting positions, including those at IBM and the Naval Ordnance Laboratory, and also spent six months at Clarendon Laboratory, Oxford, England, as U.K. Senior Visiting Research Fellow.

In 1953 I was walking the streets of Tokyo at the time of the first major scientific conference to be held in

Japan, and, while looking in the window of a bookstore, I saw a copy of Bozorth's *Ferromagnetism*. It had been reprinted in Japan, though still in English, but not for export. I decided it would be a good idea to buy a copy, as the price was considerably lower than that of the original American edition. However, I found that the supply had been exhausted. This incident, I felt, illustrated the international reputation Bozorth had in the field of magnetism.

He published well over a hundred papers, most of which relate to magnetism and which combine science and technology. He investigated many kinds of magnetic materials: ferromagnetic, ferrimagnetic, antiferromagnetic, weakly ferromagnetic, and paramagnetic. Since his early research as a chemist familiarized him with crystals, it is natural that many of his articles stress the correlation of magnetic properties with crystal structure. His research was not confined to one particular kind of magnetic measurement and embraced such diverse subjects as the Barkhausen effect, saturation, magnetostriction, and domain structure. His early work on ferromagnetic anisotropy, before the days of magnetic resonance, is particularly noteworthy.

Bozorth's impact on magnetism cannot be measured merely by his publications. From time to time he served on various administrative committees: he was a delegate to the International Union of Pure and Applied Physics in 1934 and 1948 and chairman of various committees in AIEE and the National Research Council. From 1937 to 1939 he was associate editor of the *Journal of Applied Physics*. He was official representative of the IEE of Japan at the International Conference in 1953. After the war, in 1945, he served on

the United States Naval Technical Mission to Japan, thereby doubtless starting the attachment to that country which he displayed over the years. An invited speaker at many conferences abroad, he was one of the first physicists to be invited to Russia by the Soviet Academy after World War II.

Of all Bozorth's organizational and promotional activities, however, the preeminent one was the initiation and the implementation of the now well-known annual Conference on Magnetism and Magnetic Materials, which was inaugurated in 1955. It was launched on an informal basis, but the initial attendance was about 600, much larger than expected. It continued to grow and now attracts over 1000 attendees each year. Some of us still call this conference the Bozorth Conference in honor of its founder.

Two personal qualities of Bozorth should be particularly stressed. One was his physical energy. As an undergraduate he played on the Reed College football team, which was purely intramural, but coached by none other than K. N. Compton. He was an ardent rock climber. Before his marriage to Louise Huntley he persuaded her to climb Mt. Rainier with him. With his rational physicist's mind, he felt that this would be a good test of how they would surmount life's difficulties together. In Cairo in 1953 he insisted on climbing the pyramid of Cleops. I watched him from the ground even though I was a few years younger. He was also very much interested in culture and travel. His trips to Iran and East Africa were conducted with verve and intelligence.

If all scientists and humanists were like him, C. P. Snow would not have had occasion to write about the schism between the two cultures.