Los Alamos with various assemblies used to establish the bare critical mass of metallic ^{235}U led to the design of the Godiva Reactor. After the reactor's reactivity was quickly forced to prompt criticality, it safely provided, within a few microseconds, large bursts of neutrons. In the late 1950s, the program to find how to apply nuclear energy to rockets was begun. Facilities at Los Alamos provided the critical experiments necessary to design the graphite-moderated, hydrogen-cooled propulsion units. That program was terminated before operational rockets were achieved.

Under Hugh's leadership of the criticality group, the experimental facility, designated Technical Area 18, in Pajarito Canyon, New Mexico, became world famous. During Hugh's tenure, no criticality experiment harmed any person—a remarkable record considering the number of experimental assemblies that have achieved criticality.

Hugh provided criticality and safety advice to the government on a number of occasions. He was active in the American Nuclear Society and associated organizations. A member of numerous and various committees, he also served on the board of directors of the American Nuclear Society (1966–69). Hugh retired from Los Alamos in 1976 and moved with his wife to Albuquerque in 2001.

Hugh's interests ranged from his work with colleagues in the field of nuclear physics to bird watching, excursions with friends, observations of wildlife, writing, photography, and treasured reunions with his brothers and sister and their extended families.

Norman L. Pruvost
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Los Alamos, New Mexico

Richard Thomas Robiscoe

Richard Thomas Robiscoe, an outstanding professor of theoretical physics at Montana State University (MSU) in Bozeman, died on 26 November 2003 in Bozeman as a result of congenital heart disease.

Dick was born in Detroit, Michigan, on 9 July 1938. As a child, he showed unusual talent at the piano, a love he pursued his entire life. He attended the University of Chicago to study theoretical physics and completed his master's work in 1961. He earned his PhD, under the direction of William Lichten, in 1965 for his dissertation on the Balmer series of hydrogen, particularly the study of level crossings in the excited states. Following postdoctoral work at Yale University, he joined the University of Michigan, Ann Arbor, in 1966 as an assistant professor of physics.

Richard Thomas Robiscoe

His early work was in experimental atomic and molecular physics using high-precision atomic beam spectroscopy, fundamental transition and decay processes, beam velocity distributions, and production of polarized beams. In that work, he continued to focus on hydrogen, specifically to study the Lamb shift. Dick was the first person, after Willis Lamb, to measure the Lamb shift, and did so by an original and ingenious method. Whereas Lamb used an RF field to induce transitions, Dick used a static electric field. And the hyperfine components went unresolved in Lamb's original work, but Dick could measure an isolated hyperfine component thanks to a special trick called the Majorana flop.

Dick's experimental skill was accompanied by a good understanding of theory. He collaborated with W. L. Williams of the University of Michigan to measure once more the hydrogen fine structure. As sole author of the papers derived from his PhD thesis work, Dick had published results that deviated slightly but significantly from conventional wisdom. The pressure was on him to confirm his published work with a new and improved experiment that he and Williams, as young assistant professors, had devised after much consultation with their senior colleague Robert Lewis.

In 1967, Dick first saw the town of Bozeman while on a fishing vacation. He returned for a family vacation in 1968, which subsequently led to the family's relocation there in 1969, when Dick accepted a position in MSU's physics department. Except for a few years as a visiting professor of physics at ETH Zürich and as a visiting professor and consultant at Los Alamos National Laboratory (LANL), Dick remained at MSU for the rest of his career.

From the late 1960s to the mid-1980s, Dick's interests turned mostly to theory, especially in atomic physics and applied quantum mechanics. His work included analyses of experimental systematics, basic transition mechanisms and rates, and perturbation calculations. In addition, he spent time on energy conservation and exponential decay. He continued theoretical modeling and, in the late 1980s, began a collaboration with LANL on electromagnetic pulse phenomena, including pulse generation, propagation, and detection. During that period, he also became an expert witness on automobile accident reconstruction.

Dick's love of language and his wonderful sense of the ridiculous were especially evident when he wrote the classic letters on the "chicken accelerator" (see PHYSICS TODAY, April 1971, page 9) and the "John Quincy atom" (PHYSICS TODAY, January 1973, page 101). He retired from MSU in 1996.

Dick loved camping, fishing, and enjoying the Montana wilderness. He loved classical music, as both a performer and an audience member. He was an avid reader, a devoted fan of the Detroit Tigers, and a correspondent par excellence.

Perhaps Dick's most enduring legacy is the influence he had on his graduate students, who remember him as a devoted, organized, and caring teacher. If there was something he knew and you didn't, he could find a way of helping you understand. He was commonly described as witty and dedicated, or as "the best teacher I ever met." His class notes were legendary: meticulous, thorough, and better than a textbook. He once told his electromagnetism class that if he got his way when he died, he would ask God to show him an electron. He was universally adored and revered as a teacher, and, despite his health problems, students profited from his "beautiful mind." Not surprisingly, he chose as his epitaph, "Time flies like an arrow, fruit flies like a banana." To quote his son Richard, "He had passion."

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