

Robert R. Davis

Robert R. Davis, editor of *PHYSICS TODAY* from 1950 to 1965, died of lung cancer on 2 December 2002 at his home in Sandia Park, New Mexico.

Born in Buhl, Idaho, on 19 August 1917, Bob grew up in Portland, Oregon, and Monterey, California. He first attended College of the Pacific in Stockton, California, to play football for legendary coach Alonzo Stagg. He subsequently transferred to UCLA and then to the University of California, Berkeley, from which he was graduated in 1941 with a BA in English literature.

Bob's career in physics began in 1942 with a chess game. His first opponent was his neighbor, Stanley Frankel—a student of J. Robert Oppenheimer—who was working on neutron diffusion calculations at the Berkeley Radiation Laboratory. Bob had never before played chess, but Frankel was so impressed by Bob's rapid learning curve and prognostic calculation skills in chess that he introduced Bob to Oppenheimer, who, by spring 1942, was heading the new weapons theoretical design project that would become Project Y in Los Alamos, New Mexico. Oppenheimer immediately put Bob to work at the Radiation Laboratory doing calculations for nuclear fission development.

By then the country was at war. American physicists already concerned about the implications of Lise Meitner's and Otto Frisch's 1939 theoretical interpretation of nuclear fission had begun several investigations of nuclear energy production, following Albert Einstein's advice to President Franklin D. Roosevelt in 1939 to support nuclear bomb construction before Germany did.

As nuclear bomb construction, the most extensive R&D project in US history, became a chief wartime priority requiring high security, Project Y, the new lab, was set up in 1943 under Oppenheimer's directorship in Los Alamos. Bob was among the first of the Radiation Lab staff to be transferred to Project Y's theoretical division. In time, he did calculations for most of the Project Y groups (he would later call himself a human computer) and attended all Project Y seminars, making him one of the few Project Y staffers who watched the whole bomb development. Thus, he learned cutting-edge physics and developed a vast network of contacts among physicists, some of whom, including Carson Mark, Charles Critchfield, Victor Weisskopf, I. I. Rabi, Nicholas Metropolis, and Phil Morrison, became Bob's friends, supporters of his work at *PHYSICS TODAY*, and sometime chess opponents.

After World War II ended, Bob edited technical reports and, with Los Alamos historian David Hawkins, histories of Los Alamos. In 1949, Bob moved to New York, where, on Oppenheimer's recommendation, he was hired by the American Institute of Physics (AIP) as assistant editor for *PHYSICS TODAY*. In 1950, he became editor.

Bob was only 33 when he assumed the formidable responsibility of producing a monthly magazine interesting to all physicists. He thought *PHYSICS TODAY* should be a conversation between theoreticians and experimentalists, old

guard physicists and young turks, and, most especially, physics students and their teachers. He often said the students were the future of physics, therefore the magazine's most important readership.

Although he worked with a low budget and a skeleton staff, Bob held *PHYSICS TODAY* to the same standard of perfection as William Shawn's *New Yorker*. The content had to be substantial, the editing and fact-checking impeccable, the design clearly readable, and all contributors' voices, however idiosyncratic, carefully preserved. Bob's network of contacts in physics provided a rich pool of potential contributors, but he also raided conferences and meetings for good speeches and lectures, especially those signaling new developments in physics.

Accordingly, *PHYSICS TODAY* published, for example, Enrico Fermi on nuclei (1952), Hans Bethe on nuclear forces (1954), Meitner's and Dorothy Weeks's lectures on women in physics (1960), Weisskopf on nuclear structure (1961), Murray Gell-Mann on particle physics (1964), Robert Karplus on the Science Curriculum Project (1964), and Robert J. Spinrad on computers in physics (1965).

Bob often turned physicists into reporters, persuading Metropolis to cover the 1955 Fermi memorial symposium, Freeman Dyson to cover the 1962 Pugwash conference, and Michael Danos to report on the 1965 Paris Conference on Nuclear Physics. In time, Bob invited letters to the magazine and added staff-written news departments, notably Book Reviews, Science Education, and Research Facilities.

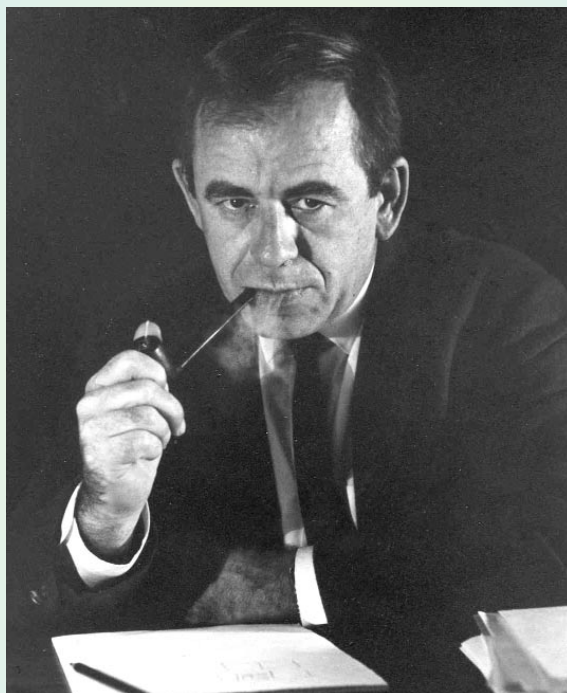
It was not all smooth sailing. Bob's desk usually consisted of 18-inch paper piles that he called archaeological strata. *PHYSICS TODAY* was criticized during the 1950s for reporting those House Un-American Activities Committee hearings relevant to the physics community (and embarrassing to the HUAC). Bob responded that the record spoke for itself, as it did in 1963 when *PHYSICS TODAY* reported with satisfaction on the Enrico Fermi Award given to Oppenheimer by the Atomic Energy Commission.

Bob was sometimes reminded years later that *PHYSICS TODAY* never carried Einstein's obituary. Yet, in 1965, with a better historical perspective, *PHYSICS TODAY* published Martin Klein's lecture on Einstein's unconventional education compared to standard American science education and on Einstein's substantial contributions to public affairs.

By the time Bob left *PHYSICS TODAY* at the end of 1965, he had led it from an obscure 32-page AIP stepchild to a profitable more than 120 pages. With a circulation of 45 000, it had become the most prestigious and widely read physics publication in the world.

Bob spent the next year consulting on grant proposals for Brookhaven National Laboratories before retiring to New Mexico. There, he painted, photographed, gardened, watched football, read history, and served as ad hoc editor for editors and writers who often consulted him.

He never stopped playing chess.



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