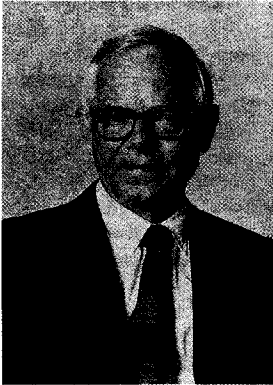


Robert Bradford Newman • 1917–1983



A paraphrase of the Acoustical Society's stated purpose, *to increase and diffuse the knowledge of architectural acoustics and to promote its applications in the practice of architecture*, personifies the professional life of Robert Bradford Newman. His death on 2 October 1983 in Lincoln, Massachusetts, left an irreparable void in the lives of his family, friends, students, faculty colleagues, and fellow architects and acousticians.

Bob Newman was born 5 November 1917, in Ungkung, Kwangtung Province, China. He was the first of

four sons of medical missionary parents, Henry Ware Newman, M.D., and Ethel Smith Newman. When the family returned to the United States in 1925, Bob was speaking Chinese like a Mandarin and English like a teacher of grammar, capabilities that led to his amusing mixture of tongues at parties and his compelling insistence on correct usage of written and spoken English.

In 1938 Bob graduated from the University of Texas with a B.A. degree in physics, in which he also received an M.A. degree in 1939. There he studied under and worked with Professor Charles Paul Boner, 25th ASA President, who inspired Bob to develop a life-long love of architectural acoustics. From Professor Boner he acquired a professional skill in tuning organs and a strikingly effective style of teaching by use of amusing anecdotes to illustrate important points and drive them home.

After receiving his degrees in Texas, Bob went east to work at RCA, where during 1939–40 he started applying his knowledge of acoustics to the solution of communications problems. In 1941 he went to the Harvard Electro-Acoustics Laboratory under the direction of Dr. Leo L. Beranek, to work on problems of voice communication in noisy combat vehicles. As an expert in testing microphones and loudspeakers, Bob ran the electroacoustic testing facility for the Laboratory. Because of this special capability, Bob was "drafted" in 1943 to upgrade and manage the electroacoustic transducer test facility at the Naval Aeronautics Engineering Station in Philadelphia, where he worked until the end of the war. During these years, Bob formed friendships with many acoustic workers in war-time laboratories, including persons whom he would join later as colleagues throughout the rest of his life.

In January 1946 Bob enrolled in the Physics Department at M.I.T. to obtain a doctor's degree under Professor Richard H. Bolt, then Director of the Acoustics Laboratory. Upon learning that Dick had received a degree in architecture before he obtained his degrees in physics, Bob asked whether he should take some courses in architecture and Dick encouraged him to do so. He did, and he never returned to physics.

In 1949 he was awarded a master's degree in architecture, only three years after starting with no previous study in the field. Even so, his academic performance was of such high quality that he was immediately offered a faculty post in the M.I.T. Department of Architecture, where he served successively as Instructor, Assistant Professor, and Associate Professor until 1976, and then as Adjunct Professor the rest of his life.

The other major event that followed directly after Bob received his master's degree was his entry into a lifelong association with an organiza-

tion devoted to acoustics. Together, Leo Beranek, who was then a professor in the M.I.T. Electrical Engineering Department, and Dick Bolt invited Bob to become the third partner in the firm they had formed in order to undertake the acoustics consulting on the United Nations Permanent Headquarters. Thus was formed Bolt Beranek and Newman Inc., in which Bob conducted a vigorous consulting practice until his death. He also had been a Senior Vice President and a member of the Board of Directors.

In his first teaching assignment at M.I.T. he took on the architectural acoustics course that Dick had started earlier, and Bob then molded it into an extraordinarily effective and popular course. He gave his last lecture in that course four days before he died.

Further to express his love of teaching, Bob started lecturing at other academic institutions. Throughout his career he lectured at several dozen universities including the Universities of Arkansas, Auburn, California, Guadalajara, Minnesota, Nebraska, Oregon, Pennsylvania, Princeton, Singapore, Texas, Toronto, Utah, and Yale.

In parallel with his academic duties at M.I.T., Bob enjoyed a special relation with Harvard. There he was Visiting Lecturer in Acoustics from 1955 to 1971, and then was appointed Professor of Architectural Technology, the position he held until his death.

Today thousands of his former students in many countries around the world, including "students" who were consulting clients as well as attendees at lecture series and seminars in meetings of the AIA and other organizations—all who heard him lecture remember Bob's amusing disdain of old saws such as "sound is round" and "wood is good." They would not dare put "fuzz" on the ceiling of a church or lecture hall. They would stop short of making "stupid" acoustical mistakes when they remembered his sometimes hilarious presentations, such as vocally mimicking noise sources. Of course what made his approach so effective were the great clarity, precision, authenticity, and empathy with which he conveyed the information.

Bob's consulting achievements in acoustical designing are well known to the architectural profession, both from his many articles and technical papers published in the architectural literature and from published credits to his participation in a large number of architectural projects. A modest sample of projects on which he worked would include the following ones, starting with some of his earliest work and ending with recent projects: Aula Magna in Caracas, Oberlin College School of Music, TWA Terminal at JFK Airport, Air Force Academy, World Zionist Congress Hall in Jerusalem, First and Second Unitarian Church in Boston, Art Gallery At Yale, Goa Art Center in Goa, India, Musical Arts Center at Indiana University, Hall of Energy in Boston Museum of Science, the Rotunda at University of Virginia, Sydney Myer Music Bowl in Melbourne, State Secretariat Assembly in Shah Alam, Malaysia, Knesset Building in Jerusalem, Roy Thomson Hall in Toronto, Davies Symphony Hall in San Francisco, Victorian Arts Center in Melbourne, the Meyerhoff Hall in Baltimore, and projects not completed when Bob died, including the TVA Office of Power in Chattanooga. Beyond these and other projects in which Bob was the sole or major consultant, he contributed to very many team projects.

In his distinctive style of professional activity, Bob increased, diffused, and applied knowledge through a continuous, unified process. His projects were simultaneously sources of new data and insights, examples for students, and acoustically advanced facilities for clients. He often said "real buildings with real people using them are our research laboratories." His students were not only persons enrolled in college but also architects designing buildings. In discussing the relatively low level of acoustic literacy gen-

erally, his family background showed through when he talked about "converting the great unwashed architectural profession."

A quantitative review of Bob's career in teaching and consulting suggests that he established a unique record. He instructed several thousand students in architectural acoustics and he worked on several thousand acoustics projects in architecture. This combined achievement might never be surpassed.

Bob was a Fellow of the Acoustical Society of America, and a member of Phi Beta Kappa and Tau Beta Pi. In 1959 he was Senior Fulbright Scholar at the Royal Danish Academy of Fine Arts. He was an honorary member of the Instituto Brasileiro de Acoustica. In 1966, on behalf of Bolt Beranek and Newman Inc., he received the Brown Medal of the Franklin Institute, for contributions to the building industry. He was a director of the Boston Architectural Center, the Carroll School in Lincoln, and the DeCordova Museum, of which he was president 1971-74. In 1977 Bob was awarded the Quarter Century Citation by the Building Research Advisory Board of the National Research Council, for his "significant...contributions to building science and technology."

An event of great significance for Bob took place just four months before he died: he and Mrs. Newman went to China, the land of his birth. Professor Maa Dah-You, head of the Acoustics Institute of the Chinese Academy of Science, invited Bob to give several lectures as a guest of the Ministry of Education. During the period from 15 May to 10 June 1983, Bob lectured at Tongji University in Shanghai, Nanjing Institute of Tech-

nology in Nanjing, and Chinghua University in Beijing. During the same period, Bob and Mary visited Zhenjiang and found the hospital and house that had been built for Bob's father. The buildings are still in use as part of a larger hospital complex, the Number 1 People's Hospital.

Professional and academic achievements alone do not mark the full measure of a person. Bob Newman had those added attributes that made him a whole human. His warmth and affection for everything that life offers were thoroughly shared with his beloved wife, Mary Shaw Newman, his sons Henry Ware 2nd of Marblehead, MA and R. Bradford Newman, Jr. of Duxbury, MA, his daughter Catherine N. Kornyei of Lexington, MA, and his four grandchildren.

The Newman's gracious home in Lincoln, Massachusetts served as the focal point for regular social gatherings of Bob's students, consulting colleagues, professional friends, and neighbors. Bob often said he had the house designed with these parties in mind, and he lived life there to the fullest. His consummate friendliness and warmth, his charm and wit, his pleasant irreverence of all things and people he considered "phoney," endeared him to his countless friends and colleagues. His unique place in the history of architectural acoustics is assured.

We are grateful to several colleagues, especially Wm. J. Cavanaugh, for helping us prepare this memoir.

R. H. BOLT AND L. L. BERANEK