

# David Gordon Wilson - A Few Words of Farewell

On Thursday, May 2, 2019, Dr. David Gordon Wilson, best-known as an engineering professor emeritus at the Massachusetts Institute of Technology Cambridge (MIT), died of complications from a fall in his Winchester home at the age of 91. Due to his lifetime involvement with bicycle science and technology and human transport in general, he became the guiding spirit of the renaissance of cycling and was called the “father of recumbents”, respected worldwide for his expertise, thereby helping to bring the bicycle field back to academia. Wilson taught mechanical engineering design and often used bicycles as examples. In 1967 with his own and sponsor’s money, he organized an international competition for developments in human powered transportation. One of the 73 entrants was Frank Rowland Whitt, a chemical engineer and technical editor of CTC’s journal *Cycle Touring*. Whitt sent the manuscript of a book that he had written to David with a request for help with finding a publisher in the U.S.A. David contributed his own research and became a coauthor of *Bicycling Science* that was published by MIT Press in 1974. With its successive updated editions (2nd Ed. in 1982 and 3rd Ed. in 2004), actually completely rewritten by David, this book became MIT Press’s all-time best-seller. Many readers of this book became life-long bicycle devotees. This success enabled David to have Archibald Sharp’s *Bicycles & Tricycles*, a historical treatise from 1896, reprinted by MIT Press.

The publicity given to Wilson’s work on bicycles detracted somewhat from his achievements and international reputation in the engineering field: He held over 60 patents for improvement of gas turbines (jet engines), the design of the centrifugal pump for the world’s first artificial heart, and other engineering subjects. He co-founded Wilson TurboPower Inc., a company focused on the development of microturbines, after his retirement from MIT. The Department of Engineering

at MIT in which he worked so long has no list of his publications, but his last publication with co-author Theodosios Korakianitis: *The Design of High-Efficiency Turbomachinery and Gas Turbines* (1998), is the standard text in its field and is now in its second edition at MIT Press.

David’s *curriculum vitae* is an interesting collection of diverse activities - from Ship’s Engineering Officer for the Donaldson Line to Director of MIT’s Office of Minority Education. Born in Sutton Coldfield, Warwickshire, England, a son of an electrical engineer and a music teacher in 1928, David studied at the University of Birmingham and got his Ph.D. at the University of Nottingham. After graduation, he apprenticed at Brush Electrical Co. Ltd., where luckily, his boss assigned him to the gas turbine section where David found his life theme. A postdoc stipend brought him to MIT and Harvard University followed by work at the Boeing Co. in 1957-58. This was followed by two years at Ibadan University in Nigeria as a senior lecturer. In 1958, a British turbine-machinery company hired David as a vice president and sent him to their U.S. office in Massachusetts. In 1960 he became Associate, and in 1966 full, Professor of Engineering at the Massachusetts Institute of Technology (MIT).

In his last letter, David wrote that he had found a publisher for his memoirs. So there is hope that we can soon read about his feats in waste disposal, a carbon fee on fuels, his involvement in “Concerned Scientists”, his “Avatar 2000” recumbent bicycle, authorship of *Human Powered Vehicles* (1995) with Allan V. Abbott, and his editorship of *Human Power* and *Cycle Tech* magazines. Everyone who met David praised his friendliness, honesty, and tact, and they were impressed by the breadth of his knowledge about all aspects of cycling and so many engineering subjects. With his wife Ellen and daughter Susan, the worldwide cycling community mourns the loss of their tireless advocate. I have lost a friend whose selfless support I shall never forget.

-Hans-Erhard Lessing



David Gordon Wilson 1928-2019