



Peter Harriott

July 21, 1927 – September 13, 2021

Peter Harriott '49, professor emeritus of chemical engineering in the Robert Frederick Smith School of Chemical and Biomolecular Engineering died September 13, 2021, in Ithaca, New York, at the age of 94.

In a Cornell career that stretched 48 years Peter was widely known as a dedicated and generous teacher, colleague, and mentor as well as a chemical engineer with a deep knowledge of the fundamentals of unit operations. Outside of Cornell, he is best known for the classic textbook “Unit Operations of Chemical Engineering,” which is still widely in use and is considered by many to be one of the most comprehensive introductory undergraduate chemical engineering textbooks ever written. The book is currently in its seventh edition, with Professor Harriott adding chapters with each new edition, up to and including the most recent in 2005.

Peter Harriott was born in Ithaca in 1927 to a mother and father (John Frederick and Stella (Fahl) Harriott) who were both proud members of the Cornell University Class of '22. In a recorded interview arranged by Cornell, Peter revealed that in the seventh

grade his teacher asked him to predict his own future and without missing a beat he said, "I will go to Cornell University and I will be a chemical engineer." Which is exactly what he did.

Peter graduated from Cornell with a degree in chemical engineering in 1949. He earned his doctorate from MIT in 1952 and worked for General Electric in Waterford, New York, for a year before getting an unsolicited call from Professor Charles Winding at Cornell, offering a faculty position. Professor Winding had seen a bound copy of Peter's lecture notes and problem sets from the Distillation class he taught at MIT as a grad student and was so impressed he asked Peter to come and teach at Cornell. Peter jumped at the chance and joined the faculty of what was then the School of Chemical Engineering in 1953.

He worked closely with some of the school's founders, including professors Fred H. "Dusty" Rhodes and Julian Smith. Peter then spent the next 48 years teaching undergraduate and graduate chemical engineering students about process control, chemical reactor design, air pollution control, membranes and synthetic fuels. He supervised graduate research in process control, mass transfer, kinetics, air pollution control and reactor design until his retirement in 2001.

For many years after retirement, Harriott continued to give guest lectures in several classes at the Robert Frederick Smith School of Chemical and Biomolecular Engineering. He especially enjoyed joining first-year students on their final day of the semester so that could teach them his "Reynold's Number Song" about predicting fluid flow patterns.

"In many ways, Peter was the last of his generation of Cornell chemical engineers," said Susan Daniel, Fred H. Rhodes Professor and William C. Hooey Director of Chemical and Biomolecular Engineering. "He was a founding father of the department and a real giant in the field." Jeff Tester '66, M.S. '67, the David Croll Sesquicentennial Fellow and professor of chemical and biomolecular engineering, was both a student and a colleague of

Harriott's. "I was privileged as a senior ChemE student to have Peter as the instructor, he was always forthcoming to make sure we understood the key issues." Tester said. "Later in my career, I had a chance to interact with him on several research topics. He had a unique ability to focus his knowledge of chemical engineering fundamentals and operations on solving complex engineering problems."

Peter was a National Science Foundation Postdoctoral Fellow, and a member of the American Chemical Society and the American Institute of Chemical Engineers. In 2008, he was presented the Warren K. Lewis Award for Chemical Engineering Education by the American Institute of Chemical Engineers in honor of his deep commitment to his students and to the field.

The same year that Peter joined the faculty at Cornell, he met and married his lifelong partner, Mary-Lou (White) Harriott. The two met through their membership in the Albany Chapter of the Adirondack Mountain Club and their love of the outdoors continued through the rest of their years together. He later said it was by far the most momentous year of his life because marrying his wife and teaching at Cornell were the two best decisions he ever made. He and his Mary Lou designed and helped construct their house in Ellis Hollow in 1955, where they raised five sons, all of whom studied engineering.

Peter's sons have fond memories of playing softball on a field their father created on land just to the east of the Ellis Hollow house. Peter was pitcher, umpire, and final arbiter of any disputes that arose during these games.

Away from work, Peter had a deep and abiding love of nature and the outdoors. This was evident in his active memberships in the Nature Conservancy and the Adirondack Mountain Club, his founding of the Cayuga Trails Club, and his extracurricular work with the Tompkins County Environmental Management Council. He was a Boy Scout leader for many years.

He also loved singing and for most of his adult life he was part a chorus or singing group.

Peter Harriott was predeceased by his wife, Mary-Lou Harriott, and a son, John Harriott. He is survived by sons George Harriott, James Harriott, Paul Harriott, and Douglas Harriott, as well as seven grandchildren and two great-grandchildren.

Written by Chris Dawson