

George Burton Du Bois

June 20, 1906 — September 25, 1988

George Du Bois was the right person in the right place for Cornell University when he returned to his alma mater in September 1947 as an associate professor in the Department of Machine Design in the Sibley School of Mechanical Engineering. World War II was over and a new era for engineering education was beginning. The sudden and great increase in the number of students had to be met by a concurrent increase in the faculty. At the same time, curricula were being completely revised to incorporate the many significant technological advances made during the war years and to meet the demands of a rapidly expanding industrial economy. George's eighteen years of industrial experience, in what we would now call "hi-tech" industries, were invaluable in the education of mechanical and administrative engineering students and in the continuing education of new, young instructors and assistant professors who came to Cornell with minimal contact with industry.

George was born and raised in Newark, New York, where his father, John Edmund Du Bois, was the editor and publisher of a semi-weekly newspaper. His early contact with printing and paper-handling machinery and with power and sailboats at the family's summer home on an island in Sodus Bay, combined with an innate curiosity as to why and how things work, made it inevitable that he would become an engineer.

He entered Cornell University in 1923 in a six-year program combining arts and sciences with engineering. He majored in mathematics and physics in the Arts College, and in the automotive option in mechanical engineering. He received the A.B. degree in 1927 and the M.E. degree in 1929.

He was a member of Delta Upsilon, the Society of Automotive Engineers, and Tau Beta Pi.

George was employed by the Sperry Development Company, Brooklyn, New York, for two years before entering what would be the focal point for the rest of his career—the field of aircraft engines. He worked for the Lycoming Division of Aviation Manufacturing Company, Williamsport, Pennsylvania, for five years, rising to the position of project engineer for a new 200-hp radial engine. He then joined the Engine Division of the Wright Aeronautical Corporation, Wood Ridge, New Jersey. At Wright he served as project engineer on a number of increasingly larger and more powerful engines until in 1945 he was put in charge of the rear section design group. In 1946, he was put in charge of the reciprocating engine design group.

At Cornell George's extensive, up-to-date knowledge and experience in design, manufacturing, and experimental testing and development were quickly put to use in many ways—from the development of the terminal, all-inclusive course in a new four-term sequence of required courses, to the development of new elective courses in automotive engineering, creative design, and design for manufacturing, to the securing of a major award from the National Advisory Committee for Aeronautics (NACA, now NASA) for research on high-speed plain bearings.

His contributions to creative design were widely recognized in industry, as well as in academia. He served as a consultant to several companies, including the A.C. Division of General Motors Corporation, the Procter and Gamble Company, and the Corning Glass Works. Reunioning alumni often bring up the names of professors whose ideas have had the greatest impact upon their professional lives. Professor Du Bois—and his approach to creative design and design for manufacturing—comes up frequently. Many alumni have said that they still keep their sets of his mimeographed notes close at hand.

A research effort of the magnitude of the NACA project was most unusual for a university in 1948. It involved, initially, the design and development of a bearing test machine with many unique capabilities. The scope of the research soon expanded to include theoretical studies, along with the analysis of the experimental data. The theoretical developments in the early 1950s by the late Professor Fred W. Ocvirk, related to the short-bearing approximation, are known and used throughout the world. The design procedure that was developed by combining experimental results with theory is still the simplest and best approach to the design of “short journal bearings.” The project continued for more than a decade with Professor Du Bois in charge, and directly involved in the details, throughout the entire period.

George was a “gentleman” in every sense of the word. He was always considerate, accommodating, very patient and forgiving. In the course of numerous, often somewhat heated, departmental and course group discussions, he was always the first to suggest what frequently became the reasonable compromise. He was interested in students as individuals; he enjoyed working with them on special project investigations, and he served enthusiastically for many years as faculty advisor to the Student Branch of the Society of Automotive Engineers, and as an alumnus advisor to Delta Upsilon fraternity.

Professor Du Bois was a registered professional engineer in the State of New York. While at Cornell he joined the American Society of Mechanical Engineers and for a number of years served as secretary of the Fluid Film Section of the ASME Lubrication Activity. He was elected to the honor societies of Sigma Xi and Phi Kappa Phi. George was promoted to professor in 1951 and to professor emeritus in 1971.

Professor Du Bois is survived by his wife, Evelyn Davis Du Bois; a stepson, Dr. Melzar T. Richards of Ithaca; a cousin; two nephews; and a niece.

Dennis G. Shepherd, Robert L. Wehe, Richard M. Phelan