

FRANCIS EUGENE RANDALL, 1914-1949

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With the death of Francis E. Randall the field of applied physical anthropology suffered a great loss and a promising career was cut short. He was killed in the crash of an airliner at Washington on November 1, 1949, while en route to The Quartermaster Board at Camp Lee, Virginia in connection with his work in Army anthropology.

The son of Mr. and Mrs. George F. Randall, Frank Randall was born on April 1, 1914, in New Philadelphia, Ohio and attended the public schools there. In 1932 he entered Western Reserve University in Cleveland, where he majored in zoology and received an A.B. degree in 1936. There followed two years of graduate work at Western Reserve, with an M.A. degree in 1938. During this period, he was a research fellow in biology at the Cleveland Clinic and was also associated with the Brush Foundation in the study of growth and development in children. During the next two years, Randall held the position of teaching fellow in physical anthropology at Western Reserve, working under Todd and instructing in anatomy in the School of Medicine. In 1940, Randall went to Harvard to work under Hooton, and took courses in both biology and physical anthropology. His Ph.D. in 1942 was a split degree between the two departments and was the result of his work on the skeletal and dental development and variability of the gorilla, which was later published in *Human Biology*.

Early in 1942, Randall went to Wright Field, Dayton, Ohio, on a Civil Service appointment as a research physiologist for the Army Air Forces. He was commissioned in July,

becoming head of the Anthropology Unit at the Aero-Medical Laboratory. The program there involved extensive research work in physical size studies on aviation personnel for the purposes of coordination with the design of aircraft and related flying equipment. It also involved development of several types of flying equipment, such as flight clothing, helmets, and oxygen masks. Randall was instrumental in developing an oronasal mask on which he held a patent. In recognition of his work in the Air Forces, Randall received the Legion of Merit. In 1946 he was separated from the Army with the rank of Captain, and reverted to an inactive status but retained his commission as a Major, ORC.

In March, 1946, Randall began his association with the Quartermaster Corps when he became a consultant in the Research and Development Branch, Military Planning Division, Office of the Quartermaster General in Washington. In the ensuing months, he was largely responsible for the organization, planning and direction of the Quartermaster anthropometric survey. This included the procurement of anthropometric instruments, the planning and development of procedures and techniques, and the organization and training of military personnel who took the anthropometric measurements. A total of over 100,000 men and 9,000 women in the Army and Air Corps were measured by teams working at 6 separation centers, and a large series of standard somatotype photographs was obtained, which is now in the hands of Dr. Hooton at Harvard. In November, 1946, Randall received an appointment under Civil Service as an anthropologist and became head of the Anthropology Unit at the Quartermaster Climatic Research Laboratory in Lawrence, Mass. The work of this laboratory is an integral part of the program of research in human biology being carried on under the Environmental Protection Section, Research and Development Branch, Military Planning Division, Office of the Quartermaster General.

Due to his enthusiasm and effort, Randall built up the field of applied physical anthropology in the Army to a level

where it is assuming more and more importance. With the data of the anthropometric survey as a basic reference, studies of fit, size, size systems, and tariffs were developed, with the concept of correlating the body sizes of Army personnel with military clothing and other types of equipment used by them as the guiding principle. Randall's conception of this work was two-fold in that it could furnish necessary and useful data in physical anthropology as basic research and at the same time could be used in the applied sense in dealing with specific Army problems such as the improvement of clothing and other equipment. Randall was interested in various basic problems in physical anthropology, such as growth, age changes, and variation, to name but a few, and was constantly seeking new data relative to such topics in his Army material.

In the field of applied anthropometry, Randall's approach to the clothing problem was an outstanding contribution in which he was just beginning to achieve significant results. His work was a combination of anthropometry, statistics, and education. Education, in a larger sense, was necessary in convincing those with whom he was associated that he really had something to offer in his method. He used standard techniques in both anthropometry and statistics, but never hesitated in trying out or substituting experimental modifications when necessary, with the result that some of his ideas were unorthodox but extremely effective. In explaining and "selling" his methods of practical anthropometry and statistics, he faced the problem, inevitable in a comparatively new field, of doubt on the part of those with whom he had to deal. This was especially true in the clothing field.

In January, 1945, Randall was married to Edna G. Gilmore of Grand Rapids, Michigan. They lived at Canobie Lake, New Hampshire. Among many other interests, Frank became an enthusiastic devotee of sailing on the lake. Last year, Randall and his wife had begun a joint anthropometric study of Lawrence school children. In addition to his wife,

Randall is survived by his parents, and also a brother, Raymond, who reside in New Philadelphia, Ohio.

Much of Randall's writing was in the form of official reports on his work in the Air Forces and Army, which were usually classified and which had a limited distribution. However a number of his articles have been published in professional journals, and are listed in the accompany bibliography.

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