Arsham Amirkian

1899–1990

By Eugene J. Peltier

Arsham Amirkian, a former chief engineering adviser of the U.S. Naval Facilities Engineering Command (formerly Bureau of Yards and Docks), died on July 2, 1990, at the age of ninety-one.

Dr. Amirkian was born in Kighie, Armenia, in 1899. He graduated from Bézazian College, Constantinople, in 1917; Ecole Supérieure ties Ponts et Chaussées with a B.S. in civil engineering in 1919; Cornell University with the degree in civil engineering in 1923; and the Institute of Technology (Technische Hochschule) of Vienna, Austria, in 1960 with a D.Sc. based on a thesis of his theory of protective construction.

He was elected to the National Academy of Engineering in 1980. He was a brilliant engineer and was known for his many innovative projects that served the Navy and the Seabees, as well as the entire technical community and engineering profession.

Dr. Amirkian, who lived in Chevy Chase, Maryland, started his career in 1923 as a structural draftsman working for five steel fabrication shops. In 1928 he entered government service as an assistant structural engineer with the U.S. Navy Bureau of Yards and Docks in Washington, D.C. He remained with the command until May 31, 1971, advancing through the grades of chief design engineer and special structural consultant to that of his position as chief engineering consultant.
Dr. Amirikian’s area of specialization was very broad, including but not limited to the analysis and design of special structures, waterfront installations and auxiliary floating craft, and the development of application techniques for welded steel and precast concrete construction. He received the U.S. Navy Civilian Career Achievement Award for the development of the Ammi Lift Dock and Transfer System. He received the Department of Defense Distinguished Civilian Service Award for his concept and design of Ammi Tactical Support Structures a the invention of the biserrated orthotropic framing system.

He was granted awards for progress in engineering design for arc welded structures. The award he received in 1968 from the American Welding Society was for welded pontoon bridges used in the war effort in Vietnam. He received several awards in design competitions sponsored by the J. F. Lincoln Arc Welding Foundation. He also received the Alfred E. Lindau Award from the American Concrete Institute in 1958, the George W. Goethals Medal of the Society of American Military Engineers in 1971, and the Ernest E. Howard Award from the American Society of Civil Engineers in 1978.

Dr. Amirikian had a long association with technical and professional societies and took an active part in their work through committees. He was chairman of the American Welding Society Committee 17. This committee developed, over a period of time, a new code for welding reinforcing bars. Nothing of this sort was available heretofore, and previous work was done without formulating standards or guidelines.

His publications, which well exceeded one hundred, included Analysis of Rigid Frames published in 1942, Basic Structural Engineering in 1954, and The Influence of the Art of Welding on the Creative Concepts of Structural Design in 1966.

His creative designs included timber and reinforced concrete structures. One of his designs in timber, the U.S. Navy’s famed wooden hangar for dirigibles, of which fourteen were built during World War II, was appraised by Engineering News Record as the most outstanding structural development of the period. He developed two types of thin-section concrete framing systems, one for floating craft and one for shore structures, for which he
received an award from the Concrete Reinforcing Steel Institute in 1952.

Dr. Amirikian was a honorary member of the American Society of Civil Engineers and the American Welding Society and was a registered professional engineer in several states. He retired as a colonel in the Air Force Reserve in the mid-1960s. Besides English and his native Armenian, he spoke and wrote French and Turkish and read and wrote German, Spanish, and Italian.

In a field of wide scope covering a variety of shore facilities and floating craft, his entire career was devoted to developing and improving methods of structural analysis, framing arrangements of increased efficiency, and construction techniques and procedures of greater economy. If he had been allowed another ambition, it might have been to have capped his distinguished career by extending his contact and influence in the ever-widening theater of world science and applied techniques, perhaps through a new assignment such as a technical or scientific attaché in a U.S. embassy abroad or in a special educational endeavor in his prime field of structural engineering.

Dr. Amirikian was a most honored engineer; he received numerous awards from government, industry, and technical societies.

His dedication and expertise in several fields were an inspiration to many who worked with him and had the privilege of knowing him. He truly left his mark in furthering the knowledge base of the engineering profession.