JOHN A. FOCHT, JR.

1923–2010

Elected in 1986

"For developing innovative, practical methods of designing piles subject to extreme loads and heavy mat foundations on deep soil formations."

BY WILLIAM F. MARCUSON III

JOHN ARNOLD FOCHT, JR., of Houston, Texas, the highly esteemed consulting geotechnical engineer and 1990 American Society of Civil Engineers (ASCE) president died October 22, 2010. He was 87.

John was born in Rockwall, Texas, on August 31, 1923, to John A. Focht, Sr., and Fay Goss Focht. He moved to Austin in 1926 when his father joined the civil engineering faculty at the University of Texas. He attended public schools, graduating from Austin High in 1940. He earned the rank of Eagle Scout while in high school. John attended the University of Texas, where he received his B.S. in civil engineering degree in 1944. John was then called to military service and served his country in the U.S. Army during the occupation in France and Germany.

After the war, John attended Harvard University under the G.I. Bill, earning a master of science in civil engineering degree in 1948. While at Harvard he studied under Karl Terzaghi, Arthur Casagrande, and other early pioneers of the emerging field of soil mechanics. John and Dr. Casagrande became lifelong friends, and it was at Casagrande's urging that John began working at the U.S. Army Engineer Waterways Experiment Station (WES) in Vicksburg, Mississippi, in 1948.

While at WES, John applied his knowledge and judgment to the design of levees, locks, and other structures being built by the U.S. Army Corps of Engineers along the Mississippi River system, including the Morganza Floodway. John met Edith Rials at a square dance in Vicksburg, and they married on August 8, 1950, just prior to John's return to active duty at the outbreak of the Korean War. John served in the 434th Engineering Battalion as a captain and company commander, where his company was responsible for the construction and maintenance of roads and bridges.

After John was honorably discharged from the Army in 1953, he moved to Houston and joined Greer and McClelland, which became McClelland Engineers. He was a member of a three- or four-man leadership team that was responsible for McClelland's growth from a small Houston group of about 20 to a multinational organization of more than 800 employees offering a wide range of geotechnical services to industry and government. He was an internationally renowned consulting engineer, having consulted and lectured around the world.

Throughout his career John contributed widely to many different aspects of pile foundation design. When development of offshore structures began to rapidly expand in the 1950s, he led development of the first satisfactory design analysis for nonlinear soil-pile interaction under storm loading and the first useful correlation of soil test data with such soil behavior. His contributions acquired special significance when design load requirements of such structures rapidly outstripped the practical applicability of pile load tests. Other aspects of pile design for which John developed techniques that continue to be used in today's practice include laterally loaded pile groups and tension-loaded piles in sand.

Focht was closely involved with the development and application of state-of-the-art techniques required in the design and construction of heavily loaded mats resting on deep soil foundations. He applied the observational approach of soil mechanics to solutions of many related design problems, such as deep excavation bracing, construction dewatering, prediction of excavation heave, permanent basement dewatering, and control of long-term settlement.

The city of Houston has benefited from Focht's work. He was responsible for the design of both Lake Livingston and Lake Conroe dams, and his innovations and judgment guided the foundation design of most of Houston's tallest buildings, including the JP Morgan Chase Tower, the tallest soil-supported building in the world. John was also involved in the design and construction of many southeastern Texas and Louisiana refineries and chemical plants as well as Port of Houston facilities and much of the original development of the Johnson Space Center. His pioneering work also led to many innovations in the support of offshore exploration and drilling structures both in the United States and around the world, particularly relating to pile foundation design and construction. Much of the research conducted in this area at the University of Texas was due to his personal ties to that institution as well as his personal relationships and strong influence within the oil and gas exploration industry. In 2001, John was honored for this innovation, creativity, and work with the Offshore Pioneer Award by the Offshore Energy Center.

He was elected to the National Academy of Engineering in 1986 for developing innovative, practical methods of designing piles subject to unprecedented loads and heavy mat foundations on deep soil formations.

John received numerous awards, including Distinguished Engineering Graduate from the University of Texas in 1964. He received national awards from ASCE for five of his more than 40 papers, mostly on embankment dams, pile foundations, and offshore structures. He was the Texas Society of Professional Engineers Region IV Engineer of the Year and state Engineer of the Year in 1987. He served as president of the ASCE from 1989 to 1990. John was the ASCE Karl Terzaghi Lecturer in 1993—the highest honor bestowed on a geotechnical engineer; a national honor member of Chi Epsilon in 2000; and an ASCE Geo-Institute "Hero" in 2002. Also in 2002 he received the Texas Section ASCE Lifetime Achievement Award. He also received an award in recognition of his dedicated service as a founding director of Civil Engineering Certification, Inc.

John was a driving force for the creation of specialty certification within the ASCE, and it is likely the program would not have come to fruition without his long-term efforts to promote advanced, post-license certification for civil engineers. He was a frequent speaker at universities in the United States and presented invited lectures in Mexico, China, Taiwan, Thailand, Singapore, and Saudi Arabia. He also was a member of Tau Beta Pi and Chi Epsilon.

In addition to professional activities, John was active in his community. When John and Edith moved to Houston Heights in 1953, they joined Grace United Methodist Church where they were both active. John served as chairman of the board of Grace Church and taught a high school Sunday school class for over 15 years. At Fair Haven United Methodist Church he served on the board and as finance chairman. He was a member of United Methodist Men at both churches.

John served as a committeeman for a Cub Scouts pack and a Boy Scout troop and as a scoutmaster. Focht believed that focus, drive, dedication, and self-discipline were important personal characteristics. He also thought the Boy Scouts taught these traits and that the attainment of the rank of Eagle demonstrated that you were on the path to learning that quitters never win. John was pleased that his son John and grandson Kyle were Eagle Scouts and that grandson Thomas was finishing his requirements for Eagle.

John also served as a director for the Northwest YMCA. During his term as president of ASCE, his theme was "The Civil Engineer Being a Good Citizen Engineer," and the Texas ASCE membership created an award in his honor named the "John A. Focht Jr. Citizen Engineer." This award is given annually to an engineer for outstanding contributions in the community.

He is survived by his devoted wife, Edith; their two children and their spouses, Cheryl and John A. Focht III and Scott and Judy Focht Rimato; and six grandchildren.