



## HENRY L. MICHEL

1924–2001

Elected in 1995

*“For leadership in applied research technology transfer professional activities  
and for promoting alternative forms of project execution.”*

BY JAMES L. LAMMIE

HENRY L. MICHEL passed away on May 23, 2001, and the engineering and construction industry lost a leader, a teacher, and an ambassador. But we did not lose a role model, for the way in which Henry conducted himself throughout his life will continue to set an example for those who come after him.

Henry’s interest in engineering started at an early age. It was the 1930s, and the Flushing High School in Queens, New York, was so crowded that students attended classes only in the morning or afternoon. So for a half-day, Henry watched the construction of Whitestone Bridge from an excellent vantage point on Long Island Sound as the bridge was rushed to completion for the 1939 World’s Fair. After watching the bridge through completion, Henry decided that he wanted to be an engineer to be able to build such structures.

However, on his 18th birthday, he received two birthday cards and a letter from his draft board, which changed his plans.

The next two plus years were spent in the Army Signal Corps, which started with several electrical engineering courses at Manhattan College, followed by two and a half

years in New Guinea and the Philippines. After his military service Henry entered Columbia University to study civil engineering. While there he found a mentor in Mario Salvadori, a world-renowned structural engineer. During his summers at Columbia, Henry worked on the Penn Central Railroad, where he found supervisors too old-fashioned to provide a career workplace. After graduation, Henry joined United Engineers and Constructors and studied evenings in order to pass his professional engineering exam.

Henry, now married, moved on to Toledo and Edmonton, Canada, as a resident engineer on oil refinery construction projects. Edmonton was a desolate family outpost, but Henry and his wife, Liz, were able to turn the local cow palace into a temporary concert hall with periodic performances by the Vienna Boys Choir, Arthur Rubinstein, and others.

In 1954, Henry and his family moved to England. Henry often told younger staff members that his relocation package on this move consisted of one *one-way* airline ticket. Henry started as a resident engineer on upgrading Royal Air Force stations to NATO standards, and seven years later he was named project director for the total RAF program. Henry was then asked by his mentor, Mario Salvadori, if he would take over an office and a major project in Rome. Henry agreed. When he arrived in Rome, he found that the office he was to manage was in bankruptcy. But since his wife and two daughters and their station wagon were already en route to Rome, Henry decided to start his own company, which he did and which became quite successful, particularly in the Middle East, where Henry's engineering management and marketing skills and his ability to develop relationships at senior governmental levels led to work in Libya, Saudi Arabia, Kenya, Iran, and Lagos as well as Italy and Switzerland. However, by 1965, Henry decided that he did not want to be a permanent expatriate, so he sold the company to his partners and returned to New York.

Back in New York, Henry was unemployed, but at a luncheon he met a senior engineer from Parsons Brinckerhoff (PB), who encouraged him to meet with Walter S. Douglas, then PB's managing partner. Henry did not mention that he

had applied to PB's personnel department twice and had been turned down both times. He was hired by Mr. Douglas and was at work at PB in three days. He was initially manager of transportation projects and then was also assigned defense installations and commercial and marine facilities projects. Four years later he became a full partner and a senior vice president. As the junior partner, Henry had all the jobs that the other partners were not interested in. So he took over the water resources group and, with the help of Paul Gilbert, grew it from six to 35 staff members and won several high-profile water projects in Colorado.

But one of Henry's greatest accomplishments for PB came in 1975 when Walter Douglas retired after unsuccessfully trying to sell the company. As Henry had led the effort to block the sale of the company to a large conglomerate, he was asked to find out how to make the company profitable in order to be able to buy Mr. Douglas's shares. Henry then led the reorganization of the 80-year-old partnership into a modern corporate structure. For his efforts he was elected chairman and chief executive officer of Parsons Brinckerhoff.

Henry then led the effort to set up an employee stock ownership program that dramatically expanded ownership of the company among senior managers and technical personnel. He then set up a three-track professional development plan for managers, technical, and project management personnel with formal training and defined levels of achievement at each level. He also established and funded research programs for professional and technical staff members throughout the organization.

Another major contribution by Henry to PB and to the industry was his strong endorsement of growth into international markets. PB had a limited history of international marketing, including its railroad work in China in 1899 and work in South America during the Great Depression of the 1930s. Henry planned a much more strategic approach to overseas work. Starting in the early 1970s, Henry supported an effort and hired key staff to pursue major projects in geographies that had growth potential but lacked strong local

engineering capability. The marketing approach stressed teaming with local firms whenever possible. Once the project was won, it then became a base to establish a local company, staffed predominantly by local nationals and with local leadership in place as quickly as possible. Technical excellence and knowledge transfer were provided by U.S. expatriates who were periodically rotated back to the United States. A 20-year partnership in Cairo, PB-Sabbour, was built on Henry's personal relationships. A project win in Hong Kong flagged a gap in the capability of the large British firms that dominated the civil engineering sector there. So PB developed a mechanical/electrical capability in the Far East that led to it having the largest M&E firms in Hong Kong and Singapore, both with Chinese PB shareholders as leaders. During Henry's period of international leadership, PB operations grew to 100 offices on six continents and PB staff grew from 500 to more than 4,000.

During his tenure as chief executive officer and later as chairman, Henry continued a very active role on projects as chairman of joint venture boards or as the primary PB contact at the senior client level. His Joint Venture (Parsons Brinckerhoff/Tudor Board Chairman role as the consultant on the Metropolitan Atlanta Rapid Transit Authority—planned and built over 20 plus years—was a case in point. Henry chaired the JV board for this multibillion-dollar project for more than half of that time, negotiating each year's contract and providing hands-on technical and political oversight and supervising the JV project director. From 1978 to 1982 he was the managing principal of the American Transit Consultants (ATC) Joint Venture, which included Parsons Brinckerhoff, Bechtel and Kaiser Engineers and which was responsible for design and construction of the \$16 billion Taipei rapid transit system in Taiwan on behalf of the Taipei Department of Rapid Transit Systems (DORTS). He had key roles in many other major infrastructure projects from Egypt to Morocco to Venezuela to Hong Kong as well as in the United States in all areas of civil engineering.

Henry was a strong advocate for the profession of civil engineering and made major contributions to education and research. In the American Society of Civil Engineering (ASCE), he was an early member of the Building Futures Council. He was a founding member of the Civil Engineering Research Foundation, recruited its first president, and served on its board of directors from 1989 to 1996. The ASCE Henry L. Michel Award for Industry Advancement of Research was established to recognize these and other contributions. At PB he set up an advanced technology group and fostered employee research. After his death the Henry L. Michel Fellowship was established to support research by PB employees.

Other organizations in which Henry was active included the American Council of Engineering Companies (fellow and chairman), the Design Professionals Coalition (chairman), the ASCE (fellow and honorary member), the Society of American Military Engineers (fellow), the Institution of Civil Engineers, the International Road Federation (chairman), and the U.S. Chamber of Commerce. Henry was also a prolific writer, speaker, teacher, and advisor. His articles appeared in such publications as *Construction Business Review*, *World Highways*, *Automotive News*, *Public Works*, *Water and Wastewater Engineering*, *Modern Construction*, *National Development*, *Worldwide Projects*, and the *Commonwealth Ministers Reference Book*, to mention a few. He also coauthored *Environmental Design for Public Projects*. He guest lectured at the Massachusetts Institute of Technology, Columbia, Cornell, Colorado State, and New York University. He also presented short courses at MIT and Polytechnic University.

Henry's many contributions were well recognized during his lifetime. His greatest recognition was election to the National Academy of Engineering in 1995. Columbia University recognized him with the Egleston Medal in 1982, the Alumni Federation Medal—the highest honor given to an alumnus—in 1991, and the Pupin Medal for service to the nation in engineering in 2000. *Engineering News-Record* selected him in 1999 as one of 125 outstanding contributors

to the construction industry in the past 125 years. The ASCE awarded him the Sverdrup Medal for Management in 1982, the CERF Award for Research in 1996, and the President's Award for Service in 1997 and selected him as an honorary member in 1998. In 1996 he received the Golden Beaver Award from the West Coast Beavers construction organization for his role in building America.

A recitation of Henry's accomplishments, while impressive, does not capture the essence of the man. Henry was an urbane, learned citizen of the world. He was a true sophisticate and a Renaissance man. He left a record and an image to be proud of.

Henry is survived by his wife, Mary Elizabeth (Liz); two daughters, Eve Michel and Ann Michel; and a granddaughter, Ava Elizabeth Milanese.

In 2005, Henry's widow, Mary Elizabeth Michel, established the Henry L. Michel Scholarship at the Columbia University School of Engineering for the study of civil engineering. This endowment enables two selected civil engineering students each year to continue their civil engineering studies at Columbia without incurring student loans.

His daughter Ann wrote:

"My father was an avid tennis player, and also enjoyed deep-sea fishing and sailing. Each winter he would take his son-in-law along on a father-son all men, mostly civil engineers, sailing trip. They would rent four or five 50' sailboats and in this armada, sail the Caribbean for a week.

He enjoyed theater and classical music. His musical tastes ranged from the classical 3 "B's," Beethoven, Brahms, and Bach, to American jazz and Louis Armstrong.

When not traveling the world, Hank was a devoted husband and father. He took his wife, his mother, and both daughters with him on many of his world travels. After his business was completed, Hank was always ready for exploring and really getting to know the countries we

were visiting. He once took me with him to Asia, and when he was done in Jakarta, he assigned me the job of arranging a trip to Borobodur. I found us a “local” hotel, and after a day there discovered why each of the small huts that served as our rooms was surrounded by an 8” high curb. The rains opened up just at dinnertime, but Dad was ready to eat, so he rolled up his pant legs and we waded to the dining building, propped our feet up on chairs in the flooded room, and were able to dine.

At home on Sundays, he would often cook a fabulous stew, carefully adding neat piles of meat, potatoes and vegetables, one after the other, culminating with seasoning the whole pot with a bottle of beer. And the Christmas roast was his affair.

My father was a lot of fun. He loved people and could remember names and stories for decades. He worked hard, leaving home at 7 AM, and rarely returning before 7 PM, but would still have time to help me with my math homework—extravagantly using a whole sheet of paper to help me see and write out all the steps in even the simplest calculation—a process which gave me a love of math, a subject I majored in at college at Cornell. My sister became an architect, I a science film maker.”