



## IN MEMORIAM

Tung- Yen Lin  
Professor of Civil Engineering, Emeritus  
Berkeley  
1911– 2003

T. Y. Lin, a visionary structural engineer whose pioneering work was internationally acclaimed, died at his El Cerrito, California home on November 15, 2003, one day after his 92nd birthday. He was born in Foochow [Fuzhou], China, on November 14, 1911, the fourth of 11 children of Supreme Court Judge Ting Chang Lin and Feng- Yi Kuo Link. The family moved to Beijing soon after his birth and he was home- schooled to the age of 12. He completed his precollegiate education at Hwei Wen American Methodist School and earned his bachelor's degree in civil engineering in Jiao Tong University's Tang Shan Engineering College in 1931. That same year he commenced graduate study in civil engineering at the University of California, Berkeley, receiving his master's degree in 1933. His thesis on direct moment distribution was an important contribution to structural analysis and was subsequently the first student thesis published by the American Society of Civil Engineers.

Returning to China, Lin was employed by the Chinese Ministry of Railways, quickly moving up in the ranks to the position of chief bridge engineer of the Chongqing- Chengdu railway at the age of 25, with the responsibility for the survey, design and construction of more than 1,000 bridges throughout China.

In 1941 T. Y. married Margaret Kao, whom he had known for a decade. Five years later Berkeley's offer of an appointment as assistant professor of civil engineering was accepted, signaling the beginning of a memorable career of academic and professional accomplishment. Professor Lin was an extraordinary man, with a deep love for the University of California, Berkeley. During his tenure, he served as chair of the Division of Structural Engineering and Structural Mechanics and as director of the Structural Engineering Laboratory from 1960 to 1963. He was appointed campuswide Professor of Arts and Science for the 1968-69 academic year to advance interdisciplinary teaching. From 1969 to 1970, during a turbulent time on campus, Lin chaired UC Berkeley's Board of Educational Development.

Professor Lin initiated new and innovative courses at the University, including the design of long- span bridges and large arenas. He was one of the most exuberant teachers on campus. He had the ability to capture the interest of both engineering and architecture students with his enthusiasm for the subject and the energy of his ideas. From his earliest days at Berkeley he had an untiring willingness to teach students at all levels. After his retirement he continued to be a popular lecturer at the University, fascinating and inspiring students, into the twenty- first century.

In 1957, Professor Lin conceived the idea of a World Congress on Prestressed Concrete, to be held in San Francisco and international in the broadest sense. An advisory committee was formed. The members were somewhat apprehensive at such a venture, but were finally swayed by T. Y.'s boundless enthusiasm. The leading figures in this new technology would be invited from Europe and Asia. In a particularly bold move at

the time, since the Cold War was at one of its crisis levels, the committee invited a delegation from Russia. The congress was held at the Fairmont Hotel atop Nob Hill. A week long, it was budgeted for an attendance of 500 – the actual attendance was 1,200 – a great success!

In T. Y.'s welcoming of the audience, he gave his now- famous parody of Shakespeare's Seven Ages of Man, contrasting these with the Seven Ages of Prestressed Concrete. He stated we were then in its youth with a long and brilliant future ahead. He was truly prophetic and he, himself, was a key figure in making his prophecy come true.

In a gesture of reciprocation, the advisory committee of the congress was invited the next year to visit Russia, a year prior to the commencement of cultural exchanges. The Russian premier at the time was dedicated to rebuilding the housing and the infrastructure, especially that of Moscow and Leningrad, and precast, prestressed concrete had been selected by him as the principal material for the construction. Close professional and personal relationships were established with our Russian colleagues.

Lin's perception of the potential use of technology as a means of diplomacy led him to an even more ambitious enterprise, that of establishing friendly relations between China and the U.S. On his suggestion to former comrades in China, they invited T. Y. to visit China, again the first such technical exchange. In fact, the only prior such exchange had been one of ping- pong experts. Margaret and his daughter were invited to accompany him. Mao was still head of the government but he was getting very old and weak at the time. T. Y. had been asked to give five lectures – that number turned into more than 20 as the group visited Beijing, Shanghai, Hangzhou, Guilin and Guangzhou, in a trip lasting over a month. T. Y. and Margaret's homecoming was celebrated by a gathering of their widespread families from many parts of China.

T. Y. realized more than ever the power of technology to transform political relations. He conceived his boldest project yet, his now famous International Peace Bridge across the Bering Strait, joining the then Soviet Union with Alaska and the rest of the U.S. It caught the imagination and fired the hopes of many throughout the world. Technically feasible, but economically impracticable, it was a huge symbolic success.

Lin conceived of a number of brilliant structures, often beyond the state- of- the- art at the time, cantilevered and hyperbolic roof spans extending out over space, tall buildings, and unique bridges. He would often sketch the initial concepts on the back of an envelope while flying home from a technical meeting; he would then present them to his organization and suggest the procedures for analysis and design. Most remarkable of all was his Ruck- a- Chucky Bridge in California, a curved cable- stayed bridge hung from the two mountainsides. Unfortunately, it has not yet been built but it fired the imagination of bridge architects and engineers worldwide.

T. Y. gave many lectures to engineering groups around the world. He always spoke positively, with enthusiasm, and he conveyed that enthusiasm to his audience, inspiring them to work creatively with this new material and to approach engineering in a positive manner for the creative and visionary art that it is.

Beyond his professional contributions, he was an ardent supporter of the Berkeley campus. The Lin family and the T. Y. Lin Foundation have endowed the T. Y. and Margaret Lin Chair in Engineering, assisted in the establishment of a structural engineering lecture- demonstration laboratory, and have endowed fellowships in both structural engineering and architecture.

Among the many honors and awards recognizing his professional achievements are election to the National Academy of Engineering, the 1986 National Medal of Science, Institute Honor Award of the American Institute of Architects and the Fressinet Medal of the Fédération Internationale de la Précontrainte. Professor Lin also held the distinction of Honorary Member in the American Society of Civil Engineers, the American Concrete Institute and the Prestressed Concrete Institute.

T. Y. Lin is survived by his wife Margaret, son Paul, daughter Verna, and five grandchildren: Deanna, Katie and Erik Lin and William and Maxim Lin- Yee.

Karl S. Pister  
Ben C. Gerwick  
Edward L. Wilson