

DOCUMENTS OF THE GENERAL FACULTY

**REPORT OF THE MEMORIAL RESOLUTION COMMITTEE FOR
FRANCISCO ARUMÍ-NOE**

The special committee of the General Faculty to prepare a memorial resolution for Francisco Arumí-Noe, professor, architecture, has filed with the secretary of the General Faculty the following report.

Sue Alexander Greninger, Secretary
The General Faculty

**IN MEMORIAM
FRANCISCO ARUMÍ-NOE**

Francisco Arumí-Noe, professor of architecture, died on September 16, 2005. He was 65. Dr. Arumí-Noe was born in Valparaíso, Chile, in 1940 and became naturalized in the U.S. in 1965. He is survived by his daughter and son, Ana María and Francisco Alexander, children of his first wife, Betsy Arumí; and by his wife, Charlette Beillon and stepson, Phillipe. Beginning in 1962, he worked for nine years as a physics student, research physicist, and physics lecturer with emphasis on plasma physics. He received a Ph.D. in physics from The University of Texas at Austin in 1970 and taught at the University for the next 35 years. In 1971, he made a transition to become an assistant professor of architecture. He was later promoted to associate and then full professor in the School of Architecture.

Dr. Arumí-Noe developed and taught a range of principles and methods courses in architecture, including physical principles of building construction (*Statics: the statics and strength of materials*), and a suite of more advanced, innovative courses on topics relating to computer modeling and energy performance: *Manual Methods for Energy Analysis of Buildings; Applied Computer Technology; Computer Simulation; Daylighting; Thermal Design; Energy, Form and Architecture; and Solar Geometry*. He also supervised numerous advanced graduate students in individualized research.

Long before the topics of energy efficiency and building energy performance became issues of popular public concern, Dr. Arumí-Noe was performing pioneering work and making internationally notable strides in the analysis and simulation of energy use in buildings. Of particular note in Dr. Arumí-Noe's career was his research in modeling the passive solar heating and cooling of buildings. His most active period of sponsored research culminated in the development and use of the DEROB (Dynamic Energy Response of Buildings) computer software for the dynamic simulation of passive solar heating and cooling. DEROB became the national standard for determining building energy performance by the U.S. Department of Energy after it was tested and calibrated under the sponsorship of the Los Alamos Scientific Laboratories. In the 1980s, a professional society was formed to further the use of DEROB; and subsequently, the software was refined and deployed with assistance from the Lund Institute of Technology in Sweden and renamed DEROB-LTH. Four annual conferences were held from 1983 through 1987 for users of DEROB, sponsored by the U.S. Department of Energy and other sources. The software continued to be developed and applied and was extensively published by Arumí-Noe and others in peer-reviewed literature. Other more recent research by Dr. Arumí-Noe involved the integration of 3-D solid graphics modeling with energy analysis of buildings, including the development of the MUSES software codes. He continued to work on enhanced applications of MUSES, unveiling his newest applications in graduate research seminars, until the time of his death.

For many years, Dr. Arumí-Noe served on the editorial board of *Energy and Buildings*, an international journal of research applied to energy efficiency in the built environment. He was a member of the Phi Theta Kappa Honor Society, Pi Mu Epsilon Honor Society (mathematics), and Sigma Pi Sigma Honor Society (physics). He was awarded Fulbright Scholarships for travel and research in Bangladesh, Colombia, and Ecuador. Products of his research accomplishments were presented frequently over the course of his career at international conferences in the following countries: Mexico, Sweden, Portugal, Switzerland, Hungary, Czechoslovakia, South Africa, Guatemala, and the United States.

The School of Architecture realized the significance and value of Dr. Arumí-Noe's research and teaching by creating, under his supervision, a series of academic degree-granting programs and research centers. The first, beginning in the mid-1970s, was titled the Numerical Simulation Laboratory, through which the DEROB dynamic simulation software was developed. The school founded the Energy Program under Arumí-Noe's leadership in the early 1980s and began to offer a graduate degree program in computer and energy studies. In the early 1990s, the master's degree program was renamed the Design with Climate Program and more recently was renamed the Sustainable Design Program.

Dr. Arumí-Noe's teaching successes were considerable. In 1990 he received the Texas Exes Excellence in Teaching Award. Anecdotal remembrances by his former students portray his relentless efforts to build their confidence in numerical analysis methods and to learn by making assertions, rightly or wrongly. "Dare to be wrong!" was the message given to students if their answer wasn't forthcoming. His speed in writing and solving equations on the blackboard was a topic of considerable discussion. And he was considered a dramatic and effective teacher, known to produce humorous and original demonstrations, for example, on the principles of statics.

Dr. Arumí-Noe was a man of passion. In the words of a close friend, he enjoyed his coffee strong, his cigarettes unfiltered, and he could really tear up the dance floor. Eager to delve into deep discourse whenever the opportunity afforded it, he would expound on history, religion, and aesthetics. Physics and the marvels of light, wind, sun, and energy were terms that he made seem simple and profound.

This memorial resolution was prepared by a special committee consisting of Professors Daniel E. Leary (chair), Kent Butler, and Richard P. Swallow.

Distributed to the dean of the School of Architecture and the executive vice president and provost on May 6, 2008. Copies are available on request from the Office of the General Faculty, WMB 2.102, F9500. This resolution is posted under "Memorials" at: <http://www.utexas.edu/faculty/council/>.