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# Memorial of Francisco Pardillo
# May 19, 1884—July 19, 1955

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I have many good things to remember from Spain, my country of origin. But if I had to select just one cherished remembrance, I would select without hesitation the becoming a disciple and collaborator of Don Francisco Pardillo Vaquer. For he was not only one of those teachers that you love and admire, but also he was the one that made me a crystallographer. Don Francisco invited me to join his laboratory at the University of Barcelona in 1943, just after finishing my M.S., to do my Ph.D. dissertation with him. That event was most fruitful for me for it was the beginning of a long and close relationship of master and disciple that terminated only with his death, the 19th of July 1955.

Francisco Pardillo was born the 19th of May of 1884 in Castellon de la Plana, a lovely Mediterranean city of Spain. Don Francisco, after his graduation from the Institute de Segunda Enseñanza (high school) of his city, pursued the study of Natural Science at the University of Barcelona, where he graduated with honors. In 1906 he finished his Ph.D. at the University of Madrid, at the time the only Spanish institution granting such a degree. His interest in crystallography developed at that time; his dissertation "*El microesterógrafo y su aplicación a la medida de los diedros de cristales microscópicos*" was the application of an invention of his directed to the handling and study of small crystals. Soon after, Don Francisco was appointed Assistant Professor of Science at the University of Barcelona, an appointment that he shared for a short time with his appointment as research assistant at the Laboratory of Marine Biology at Palma de Mallorca. It was perhaps this appointment and his work there that exerted a great influence on his scientific personality, for ever since he has been known as a naturalist of great culture and scholarship. In 1912 Don Francisco won the oposiciones to the chair of Crystallography and Mineralogy of the University of Barcelona, becoming Professor at the age of 28. He remained in the University of Barcelona for 42 long years until his retirement in 1954.

It is not by chance that Don Francisco was an enthusiastic crystallographer, for fate wanted him to become Professor of Crystallography in the same year as the epoch-making experiment of von Laue. The clear mind of Pardillo immediately grasped the importance of the new discovery and diligently communicated it to the Real Sociedad Española de Historia Natural by the next year, making the Spanish scientists aware of such a fundamental discovery. His fame as a scientist was readily recognized, and he was elected a member of the Real Academia de Ciencias de Barcelona in 1914 and Correspondiente of the Real Academia de Ciencias of Madrid in 1919, the same year in which he became also curator of Geology of the Museum of Natural Science of Barcelona. When the Instituto Municipal de Ciencias Naturales was created in Barcelona in 1941, Dr. Pardillo was naturally named its first Director, duty that he combined with his teaching and research in the University until his retirement.

He devoted his life to teaching and research, being known and respected not only for his outstanding qualities as teacher, but for his clear understanding of the professional problems of the University. The faculty elected him Dean of Science in 1943, in which administrative position Don Francisco remained eleven years. He also served as Director of the Secretariat of Publications and Extension of the University of Barcelona, and President of the Academy of Sciences of Barcelona.

Dr. Pardillo built the first X-ray crystallographic laboratory in Spain, but the Civil War brought his work to a near standstill; it was revived in 1941 when the newly established Higher Council for Scientific Research created the Sección de Cristal-

ografía y Mineralogía, naming Pardillo as head. The Section developed rapidly until it was transformed into the Department of Crystallography, and Pardillo was named Member of Number of the Higher Council for Scientific Research. Among other honors, Pardillo held the Medal of the Order of Alfonso el Sabio for outstanding research, and a few months after his death, the Mineralogical Society of America was electing him Fellow (November 29, 1955).

Don Francisco was a lover of the method, the method that allowed him, even in the middle of his multiple administrative duties, to do research, to write, and to translate books. An indication of his activities is provided by the list of his publications.[1] But the list is only a cold reflection of the man that established modern crystallography in Spain.

[1] To obtain a copy of the complete bibliography of Pardillo's writings, order NAPS Document Number 02027. The present address is Microfiche Publications, Division of Microfiche Systems Corporation, 305 East 46th Street, New York, N. Y. 10017. The present price is $1.50 for microfiche or $5.00 for photocopies, payable in advance. Please check the most recent issue of this journal for the latest address and prices.

A selected bibliography of Pardillo's works has been published by José Amorós in "Don Francisco Pardillo-Vaquer," *Publicaciones del Departmento de Cristalografía y Mineralogía*, **2**, 79–83 (1955).

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# Memorial of Robert L. Stone
## August 16, 1912—October 3, 1969

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Dr. Robert L. Stone died on Friday, October 3, 1969, after being incapacitated for several years by emphysema. Even when it was necessary to have oxygen near at hand, his inquisitive mind did not slow down. During these last years he catalogued and photographed the wild flowers of Central Texas.

Bob Stone was born on August 16, 1912, in Huron County, Ohio. He attended elementary school in Florence, Ohio, and high school in Norwalk, Ohio, where he was a member of the National Honor Society and the National Language Fraternity (Sigma Pi Alpha). The Missouri School of Mines, Rolla, Missouri, granted him a B.S. in Ceramic Engineering in 1934. Along with this he earned Tau Beta Pi and Keramos. He earned an M.S. in Ceramic Engineering at North Carolina State College in 1936 where he was an instructor until 1939, Assistant Professor and Associate Professor until 1945. During this period he was elected to Sigma Xi and had several industrial engineering experiences. He held various war-time advisory positions from 1941 until 1946. In North Carolina Bob married Addie Mae Goldston in May 1937, who, along with his two children, lives in Austin, Texas.

From 1946 to 1951 Bob was at Ohio State University where he took a Ph.D. During this period he was Technical Secretary and Editor of *The Journal,* American Ceramic Society, and Research Engineer at the Experiment Station. It was here that his work first attracted my attention. His doctoral thesis dealt, in part, with dynamic atmosphere control in differential thermal analysis, a subject on which I was working; Bob had devised a flow-thru sample-gas pressure control technique which allowed the use of the van't Hoff relation and has become a milestone in thermal analysis.

Our association began when he joined the Chemical Engineering Faculty of the University of Texas in 1951, where he rose to Professor and Chairman of Ceramic Engineering. It was during this period that he developed the two techniques and the instrumentation which constitute his best known contributions. These are the temperature gradient method for testing ceramic materials, and the first reliable, commercially available differential thermal analysis