

In Memoriam: Stephen F. Jacobs

College of Agriculture and Life Sciences
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Professor Emeritus of Optical Sciences **Stephen F. Jacobs** [1], the UA's first "laser man in the desert," died Feb. 24 at the age of 90.

Jacobs, who joined the UA in 1965, will be remembered for his dedication to teaching and his creative ways of sharing his excitement for optics.

"We all have very fond memories of Steve," said **Thomas Koch**, dean of the College of Optical Sciences. "In addition to his enormous contributions to the early days of laser physics and the field of quantum electronics, he was an energetic and influential contributor to the early foundations of OSC (Optical Sciences Center, the precursor to the college). Steve's many innovative contributions to scientific outreach in optics over the years were also appreciated by all."

Born Oct. 1, 1928, Jacobs grew up in New York City. His path to a career in optics began as an intense need to understand the world around him. He received a Bachelor of Science in physics from Antioch College and a doctorate in physics from Johns Hopkins University. Upon graduation, Jacobs accepted a position with PerkinElmer Corp. in Norwalk, Connecticut, where, as an optical physicist, he worked on projects such as the Baker-Nunn tracking camera.

After four years at PerkinElmer, Jacobs moved to the Technical Research Group to work with Gordon Gould. Along with Paul Rabinowitz, they succeeded in measuring light amplification, in 1961, and in building a laser oscillator, in 1962.

Aden Meinel, director of the Optical Sciences Center, recruited Jacobs to the UA, making him the center's first "laser man in the desert." With the invention of the laser came a flood of new developments in the field of quantum electronics. By the late 1960s, there was much to be learned, but no formal courses. Recognizing this need, Jacobs and Marlan Scully – then at the Massachusetts Institute of Technology – organized a series of two-week schools that evolved into advanced physics of quantum electronics workshops and technical progress reports.

With the success of the workshops, Jacobs' reputation in the optics community grew.

"In the early 1970s, it seemed that no one in optics was better known than Steve," said Professor Emeritus **James C. Wyant**. "Steve and Kathy's hospitality to faculty recruits and visiting scientists was legendary, and Steve became instrumental in bringing huge talent to OSC – such as Marlan Scully and Peter Franken."

Jacobs' son Tom recalled the family's summer and winter adventures.

"Whether it was sailing the Long Island Sound, skiing the Italian Alps, hiking the Grand Canyon or exploring the uncharted wilds of lower Baja California and the Boojum forest, my dad was a relentless explorer and avid naturalist – with his family always by his side through it all," he said.

Jacobs embraced his Sonoran Desert home with enthusiasm – raising cacti, boojum trees, olives, desert flowers and many other strange and exotic desert flora. He instilled a love of the desert in all of his children and grandchildren, all of whom still reside in Tucson.

Jacobs is survived by his wife, Kathy; his three children, Henry, Thomas and Jane; six grandchildren, Stephen, Rebecca, Sarah, Joseph, Rosalyn and Celyn; and his sister, Judith Rosen.

In memory of Jacobs, his family and the College of Optical Sciences will hold a Remembrance Ceremony on March 22 from 3 p.m. to 6 p.m. in Meinel Optical Sciences, Room 821. In lieu of flowers, the family has asked that donations be made to the Arizona-Sonora Desert Museum.

A version of this article [2] *originally appeared on the College of Optical Sciences website. A more complete biography of Steve can be found here: [Reflections: Stephen Jacobs](#)* [3]. *His 90th birthday interview can be found here: [Reflections: Special Birthday Edition](#)* [4].

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