

STUART BOWYER

Stuart Bowyer passed away in Orinda, California, on September 23, 2020, from complications associated with Covid-19. He is survived by his wife, Jane, his sons, William and Robert, his daughter, Elizabeth, and five grandchildren.

Stuart was born on August 2, 1934, in Toledo, Ohio. He attended grade school at a one-room facility a mile from his father's farm in Orland Park, Illinois. He graduated from Orland Park High School as the valedictorian of his class. He received a Bachelor of Arts degree from Miami University of Ohio and a Ph.D. from Catholic University of America. He worked as a Research Physicist at the Naval Research Laboratory in Washington, D.C., a Research Professor at Catholic University, and then, as a Professor in the Astronomy Department at the University of California, Berkeley, until his retirement in 1994. He then continued his research as the Director of the Center for Extreme Ultraviolet Astrophysics at Berkeley.

He is most noted for training a group of about 30 graduate students, many of whom have gone on to become leaders in the field, and for inventing and developing the field of extreme ultraviolet astronomy. He invented and/or developed many of the instruments that are the mainstays of this field today. In the early 1980s, he won a NASA competition for an Explorer Class mission to build the instrumentation for a satellite devoted to the study of Extreme Ultraviolet radiation from celestial sources. The instrumentation was built in-house at the Berkeley Space Sciences Laboratory, which, at the peak of this effort, employed more than 150 engineers and scientists on this effort. Bowyer was one of the first, if not the first, scientists to become Principal Investigator of an entire NASA mission.

In 1989, Bowyer founded the Center for Extreme Ultraviolet Astrophysics in Berkeley. This was the first Center outside of NASA to become responsible for operational control of the mission and the instrumentation, reduction and archiving of the data obtained from the satellite, analyzing the scientific results, and managing a Guest Investigator Program.

While at Berkeley, Bowyer also investigated the nature of the local interstellar medium and he developed one of the first and still ongoing Searches for Extraterrestrial Intelligence (SETI).

Stuart Bowyer received many awards and honors, including the NASA Technical Achievement Award, the NASA Exceptional Scientific Achievement Award, the Royal Order of Aerobee Rocketeers, the Humboldt Foundation Senior Scientist, the Honorary Doctor of Science from Miami University of Ohio, the Alumni Achievement Award in Science from the Catholic University, an Honorary Doctor of Philosophy from the Catholic University, the NASA ATLAS 1 Award, the NASA-DARA Orpheus-SPAS Award, the NASA Distinguished Public Service Award, the Spanish Ministry of Education and Science Award, the ASTRO-SPAS Mission 11 Award, the Computerworld/Smithsonian Science Award, and the COSPAR Massey Award.

Over his career, Stuart Bowyer authored and/or coauthored over 500 scientific papers in the referred literature, and his work is referenced in more than 10,000 publications.

The above describes Stuart Bowyer's scientific achievements but it does not describe the man that he was. The following are some paragraphs that better describe Bowyer as a living, breathing, exciting, funny guy that he was.

From Stuart's former postdoc, Jean Brodie, Director, Centre for Astrophysics and Supercomputing, Distinguished Professor, Swinburne University in Melbourne, Australia; Distinguished Professor Emerita, UC Santa Cruz: Stuart Bowyer was a larger than life character. He did nothing by halves. People who knew him, it seemed, either loved him or hated him but no one I ever met was neutral about Stu. When I first knew him, he was in his prime, both physically and professionally. His zest for life and for fun seemed to know no bounds and one of the many things I loved about Stu was that he always made me laugh. He also taught me how to be a professional astronomer and rescued me from a situation that could easily have ended my career before it started. I came to UC Berkeley straight from Cambridge where I had done the British thing and gained a PhD in only three years. Thus, I had little in the way of preparation for being a postdoc, let alone a postdoc without an adviser (I had an independent fellowship that I elected to take at Berkeley). Stu found me floundering and suggested I join his group. I never looked back.

He was blunt, he was critical and he was supportive once you had convinced him you had a good idea. He was not easily convinced. I'd come to him with an idea, he'd tell me to go away and write up a short proposal, I'd come back with a few typewritten pages, he'd hand them back covered in red ink, I'd go away and try again. Gradually, the red ink receded and I started to understand what it would take to succeed. I never made the mistake many have made of underestimating Stu. He had an uncanny instinct about astronomy and about people; which ideas would fly and which wouldn't, who would succeed and who would not. He knew a good thing when he saw one and he got behind it one hundred percent.

He was physically tall and powerfully built and his booming voice matched his stature and his enthusiasm. One of my favorite memories of Stu was coming into the office at the Space Sciences Lab one morning to a very loud noise that I could not quite identify – an ear-splitting crack. Looking around bewildered, I heard a roar and Stu rounded the corner dressed in leather, complete with a facemask, cracking a whip! His unorthodox ways of encouraging extra effort from the members of his very large group were often hilarious and always fun. He bought beer and pizza for us all at a local place every Friday after work. He organized many memorable parties and his home, where he and his gracious wife, Jane, were tireless and generous hosts. Stu believed in working hard and playing hard and he expected both from his mentees. Nonetheless, beneath the bombastic veneer was a serious scientist with a dedication to his students and postdocs, the equal of which I have never encountered, before or since. He was always the perfect gentleman with me but at the same time I knew he cared about me, as he cared for all those in his group. His support and guidance were what launched me into a successful career.

In his later years, he did not change much. In his 80's he still loved parties and to see people enjoying themselves. He would dance and stay up late, putting folks half his age to shame with his energy and enthusiasm. The world is a less colorful and less interesting place without him. He will be sorely missed.

From Stu's longtime friend and colleague, Forrest Mozer, Professor Emeritus, UC Berkeley: When I think of Stu Bowyer, I end up with a contradiction. He was, at once, a good scientist and a great mentor while at the same time he was, in his own words, enemies with very many people. In fact, he viewed the world as comprised of his friends and his enemies. Not much in between. For me he was a friend and I liked Stu very much. But there are those who disagree, including the people whose tires he flattened when they parked in his space, or whose windshield wipers he took for the same infraction, or the people at NASA who temporarily removed him from his Principal Investigator role on the EUVE satellite because he caused them so much grief. But Stu got his revenge by deliberately overspending his NASA grant by the largest amount that I had heard of up to that time.

Stu's major scientific idea was that, contrary to the general opinion, one could learn about the universe by observing its extreme ultraviolet radiation. The scientific community was skeptical because the interstellar medium was opaque at such wavelengths. But Stu persisted, was awarded the EUVE satellite program, and he showed there were enough gaps in the medium that one could see this radiation to great distances in some directions. During this time, he had a group of graduate students who have since grown into leaders in many sub-fields of astrophysics. This may be his greatest scientific achievement - attracting very good graduate students and postdocs and helping them develop into world leaders. Stuart realized this because he once told me that he was not so smart but he was smart enough to have a team of great scientists.

One last thought. I have known some good and great people including nine Nobel Laureates as well as the richest man in the world. But, when I think of the most unforgettable people I have ever met, I think of two people, and Stuart Bowyer is one of them.