

40 years, Barry played an important role in the creation of two major astronomy facilities—the Cerro Tololo Inter-American Observatory in Chile and the Space Telescope Science Institute (STScI) in Baltimore.

Born on 12 August 1939 in Hartford, Connecticut, Barry earned a BSc in physics from Yale University in 1961, followed, in 1963, by an MSc in physics and, in 1964, a PhD in astrophysics—both from Princeton University. After a postdoc at the Hale Observatories in Pasadena from 1965 to 1967, he spent two years as an astronomy professor at the University of Michigan.

In 1969, he was offered the opportunity to move to a remote mountain site in northern Chile as one of the first astronomers at the new Cerro Tololo Inter-American Observatory, which was to provide the US astronomy community with facilities in the Southern Hemisphere. For the next ten years, Barry was as comfortable with a soldering iron and wrench as he was performing his own observations on the interstellar medium. He was one of the early pioneers in using computers to control telescopes and instruments.

In 1979, he began work on a proposal from the Association of Universities for Research in Astronomy (AURA) to create for NASA a research-oriented institution that would operate the Hubble Space Telescope (HST). When AURA's proposal won, he moved in 1981 to Baltimore to become one of STScI's first scientists.

Barry's prime responsibility was to design a system to measure the positions of stars that the telescope could lock onto and use as guides for each observation. With typical foresight, he organized an effort to obtain photographic plates of the entire sky, build a machine to digitize them, and use image-processing software to detect and measure 20 million stars. The resulting *Guide Star Catalog* was a tremendous success, and, since its publication in 1989, it has become the accepted guide star standard for most telescopes and space missions.

Recognizing that the catalog's digitized images were also of great value to the astronomical community, Barry was instrumental in arranging for their publication on a set of CD-ROMs in 1994. The availability of the Digitized Sky Survey (DSS) has revolutionized how astronomers in this information age plan observations or find an optical counterpart to sources detected at other wavelengths. Anyone with a computer—professional or amateur astronomer, teacher or student—can quickly display, manipulate, and measure an image of any part of the sky. The value of this resource was demon-



BARRY MICHAEL LASKER

strated most notably when DSS data were used to investigate the progenitor system of supernova 1987A.

Always following his thoughts to their logical conclusion, Barry realized in 1989 that it was necessary to acquire and measure new photographic survey plates to extend and enhance the original DSS. The new survey would form a much larger and more useful catalog of over two billion objects that could not only provide a tool for the next generation of telescopes, but also address a range of astrophysical topics. When it became clear that funding was inadequate, he gradually organized an international consortium of partners to carry out the work. Work on both the Digitized Sky Survey II and the *Guide Star Catalog II* is currently in progress, and will be completed in 2001.

In recognition of his long-term service to the scientific community, the American Astronomical Society awarded him its 1999 Van Biesbroeck Prize.

Whenever he could, Barry mentored bright young high school students, who came to STScI for summer positions, and he recruited local college students for part-time employment on challenging and interesting tasks. His keen interest in promoting science in education was also evidenced by his efforts to help a local school refurbish and set up a student observatory.

Barry was a reserved and modest man, but he was clearly both a gentleman and a scholar in the truest sense of the expression, and he treated everyone with respect and gave freely of his accumulated wisdom and extensive knowledge. A professional mentor to many young scientists, he provided advice that usually ended with a literary quotation (frequently from the Dr. Seuss books) to illustrate his point. His vision and kindness will be greatly missed, but

his memory will live on in the hearts and minds of those who were privileged to know and work with him.

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Stanisław Wojciech Mrozowski

Stanisław Wojciech Mrozowski, a leading figure both in the physics of carbon and in atomic and molecular spectroscopy, died on 21 February in Fort Lauderdale, Florida.

Born on 9 February 1902 in Warsaw, Poland, Mrozowski first became interested in science in his teens, when, as a high school student, he founded the Polish Amateur Astronomical Society and its bulletin *Urania*.

In 1920, he volunteered for the Polish army to defend his country against the Russian Bolshevik invasion. He took part in the defense of Warsaw and the battle of Grodno, and was decorated with Poland's Cross of Valor.

Having earned a master's degree at the University of Warsaw in 1925, Mrozowski stayed at the university and began research on the atomic spectroscopy of mercury, zinc, and cadmium, and the molecular spectroscopy of mercury. He earned a PhD in physics there in 1929.

Of those early researches, particularly noteworthy were his original conception, in 1936, of potential energy curves for diatomic mercury molecules and experimental studies of atomic hyperfine structures using a kind of Zeeman filter now known as the Mrozowski filter. He wrote over 50 articles dealing with these subjects, some of them jointly with his wife Irene, who was also a physicist. This work brought him to the attention of the interna-

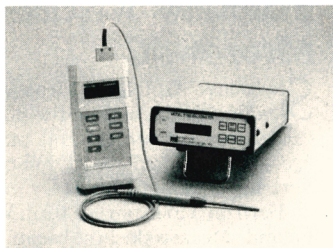


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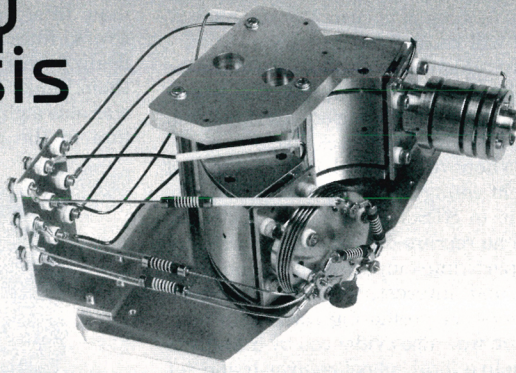
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tional physics community, and he was invited to visit some of the leading laboratories and to give lectures at conferences, among them the first international congress on photoluminescence, held in Warsaw in 1936.

In 1939, Mrozowski traveled to the University of California's Berkeley campus to spend a sabbatical year with Ernest Orlando Lawrence, and he happened to leave Poland just before the German invasion that launched World War II. He remained in the US, and, after completing his stay at Berkeley, joined Robert Sanderson Mulliken at the University of Chicago, where he remained until the end of the war.

In 1944, the Great Lakes Carbon Corp approached Mrozowski with a request to assemble and lead a physics research team in the corporation's R&D division. This position, which he held for four years, marked for him the beginning of a new and highly successful research career in the physics of carbon.

In 1949, he accepted a professorship at the University of Buffalo, where he organized a PhD program and established several research groups in addition to his own, the Carbon Research Laboratory, of which he became the director. Under his leadership, this new domain of the solid-state physics of carbon expanded rapidly. He proposed and tested the band model of the electronic structure of carbon and simultaneously carried out a range of applied studies with the support of grants from government and industry. His laboratory became a world center for carbon physics, and, in 1962, he founded the international journal *Carbon*, which he edited for 20 years.

Mrozowski maintained many international contacts. He liked to travel and visit laboratories abroad, and bring scientists from other countries to his laboratory as visitors and postdoctorate fellows, among them a significant number from his native Poland, where he extended help to individuals and institutions during the postwar years. He was also actively involved in the Kościuszko Foundation of New York and in the Polish Institute of Arts and Sciences in the US.

After retiring from Buffalo in 1972, he transferred to Ball State University, where he engaged in part-time teaching and research until he was well into his nineties.

His was a long and interesting life, full of accomplishment, excitement, adventure, and great personal satisfaction, having been in the forefront of scientific advances both in Poland and in the US.

LUCJAN KRAUSE

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