

with the Israeli Institute of Archaeology. Working closely with archaeologists, scientists at the lab provided new insight into many provenience problems.

Perlman "retired" from the Hebrew University in 1985 and returned to the Lawrence Berkeley Laboratory. There he helped Asaro organize a program to measure the abundance of the element iridium in thousands of rock samples, with the goal of determining the validity of the relationship, proposed by Luis Alvarez, between massive extinctions of life on Earth and the impact of large asteroids or comets.

At the Hebrew University, as at Berkeley, Perlman was always a teacher, and there were strong bonds of affection between him and his students. His versatility, brilliance, quick wit and unselfishness impressed us all.

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Harlan J. Smith

Harlan J. Smith, the director of McDonald Observatory of the University of Texas at Austin for 26 years, died on 17 October 1991 at the age of 67. He was responsible for building the astronomy department at Austin, for overseeing major additions to the facilities at McDonald Observatory and for pioneering public outreach programs.

Smith received his BA (1949), MA (1951) and PhD in astronomy (1955) from Harvard University. He joined the astronomy faculty at Yale University in 1953 and came to the University of Texas in 1963 to become chair of the department of astronomy and director of McDonald Observatory. That move coincided with the university's decision to assume responsibility for the operation of McDonald, after initially sharing that responsibility with the University of Chicago.

Smith had a strong belief in and zeal for bringing the message of astronomy to the public. He was legendary for his enthusiastic lectures to any group. He also developed the "StarDate" radio program, which is now heard worldwide. He strongly believed in humanity's destiny to explore space and supported that goal in any way he could.

As a researcher Smith discovered (with Dorrit Hoffleit) the optical variability of quasars. He studied the influence of solar wind on radio emissions from Jupiter and discovered the existence of a class of variable stars he



Harlan J. Smith

named dwarf Cepheids.

Smith's later research interests included planetary radio emission analysis, quasars, variable stars, photometry and instrumentation. In addition to his research he served on many national scientific committees of NASA, the National Science Foundation and the National Research Council, and was chairman of the board of the Association of Universities for Research in Astronomy.

Smith was among the first astronomers to realize the importance of ground-based observations in the planning and support of space missions. In the 1960s he convinced NASA to fund the McDonald Observatory's 107-inch telescope for that purpose, and NASA still supports planetary research on that telescope. His effort also opened the door for other NASA-funded telescopes, such as some of those at the Mauna Kea Observatory in Hawaii.

Smith was a member of the National Academy of Sciences *ad hoc* Committee on the Large Space Telescope (1966-70), a project that eventually resulted in the Hubble Space Telescope. As chair of the NASA Space Science Board committee on space astronomy and astrophysics (1977-80), he played a key role in proposing the Great Observatories series of orbital telescopes, which includes the Advanced X-Ray Astronomy Facility, the Gamma Ray Observatory and the Space Infrared Telescope Facility as well as the Hubble Space Telescope. And Smith was chair of a national committee that recommended that NASA support the Search for Extra-Terrestrial Intelligence program.

Smith also developed the award-winning educational film series *The Story of the Universe*.

Smith's interests in international

scientific cooperation and world peace were reflected in his hosting many scholars from around the world at the University of Texas, McDonald Observatory and his home.

Increasingly, international cooperation in space and on Earth became the focus of Smith's research. He had a particular interest in and love of China, which he visited several times, and he was responsible for a very vigorous scientific exchange with that country. At the time of his death, he was working on the return of humans to the Moon and the establishment of lunar astronomical observatories. Smith's dream was that the coming decades would see increasing numbers of telescopes on the surface of the Moon, probing the universe under the ideal conditions the lunar environment affords.

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Amulya L. Laskar

Amulya Lal Laskar, a professor of physics at Clemson University, died of lung cancer on 19 July 1991. Born in Dacca (now the capital of Bangladesh) in 1931, he received his BSc (with honors) and his MSc at Calcutta University and his PhD at the University of Illinois in 1960.

Laskar's research was dominated by the study of diffusion in solids. After almost any colloquium he was able to show that what was really important in the research that had just been described was diffusion. He made one of the first demonstrations that diffusion along dislocations could shortcut other mechanisms.

Laskar built a laboratory for the study of diffusion at Clemson. His lab demonstrated that the thermodynamic parameters of defects, especially near the melting point, must be considered to be functions of the temperature. His group also made the first observation of self-polarization at the λ transition in ammonium halides, among other achievements.

Laskar was on the advisory board of *Defects and Diffusion Forum*, directed a NATO Advanced Study Institute on diffusion in materials and an Indo-US workshop on diffusion in solids, and edited the books *Diffusion in Solids*, *Superionic Solids* and *Solid Electrolytes and Diffusion in Solids*.

Laskar's colleagues appreciated him for his support and pleasant