Peter Arnold Moldauer

On 27 January 1984, while attending a professional conference at the International Center for Theoretical Physics in Trieste, Italy, Peter Moldauer died in an automobile accident.

Moldauer was born on 18 June 1923. He received his MA from Harvard University and PhD degree from the University of Michigan. His doctoral dissertation dealt with the principles of relativistic quantum theory, a field in which he retained a lifelong interest. After appointments at the Massachusetts Institute of Technology and the University of Connecticut, he came to Argonne National Laboratory in 1957. A decade later he was appointed senior physicist. During the more than 25 years of his tenure at Argonne, he was a visiting professor and guest lecturer at a number of prominent institutions both in the US and abroad. He was a fellow of APS.

Moldauer was an internationally recognized authority on the theory and application of statistical nuclear processes, particularly those relevant to neutron-induced reactions. His theoretical formulation of compound-nucleus fluctuations is widely employed in the interpretation of compound-nucleus reactions. Moldauer was very much interested in the foundations of quantum theory, where his notable clarity of thought helped illuminate an often murky area. He had a gift for seeing through the complicated mathematics to the underlying physics by using his own perceptive judgements. He maintained a strong interest in the engineering applications of nuclear physics, particularly in the neutronic design of fast-reactor systems. Moldauer wrote (together with D. Okrent and S. Yiftah) the monograph *Fast Reactor Cross Sections*, using fundamental theoretical concepts to predict nuclear data at a time when direct measurements were unavailable or unreliable. Time has proven those predictions to be remarkably valid. He provided valued guidance and physical insight for experimental endeavors, often working closely with the experimentalists. He made use of his physical understanding to construct extensive nuclear-model programs, guided their use, and made them the friends of the experimentalists. Throughout his life Moldauer retained a deep interest in the social implications of nuclear science and very much enjoyed the exercise of his appreciable artistic skills.

MOLDAUER

Peter Moldauer was the close personal friend and professional associate of numerious individuals the world over. He was a unique and irreplaceable man whose loss is sadly felt.

R. R. Ringo
A. B. Smith
Argonne National Laboratory

George Ernest Owen

George E. Owen, professor of physics and former dean of Homewood Schools at Johns Hopkins University, died on 24 February 1984, at the age of 62. A gifted physicist of many interests, Owen left his mark on every undertaking.

Owen received his early training in St. Louis, earning a PhD in physics at Washington University in 1950. His were among the early experiments that clarified the interpretation of the spectral shapes that were crucial to the understanding of the weak interaction. By making careful studies of electron trajectories in specially shaped magnetic spectrometers and taking extreme care to prepare both the source and the detector, Owen managed to avoid the ambiguities encountered by his predecessors.

After coming to Johns Hopkins in 1951, Owen developed a program for studying the mechanism by which nuclear constituents can be exchanged during collisions, formulating a number of theoretical principles governing the exchange and then initiating the construction of a Van de Graaff accelerator to test his hypotheses. He also designed energy-sensitive neutron detectors and participated in a series of experiments to produce metastable beams of hydrogen atoms to be used as a source of polarized protons. In the early 1960s, Owen became fascinated with the new developments in semiconductor physics. Having already completed a book entitled *Introduction to Electromagnetic Theory*, he wrote three volumes on the *Fundamentals of Electronics* with P. W. Keaton. His familiarity with semiconductors led to the development, with Y. K. Lee, of detectors capable of measuring gamma-ray energies and polarizations; this work played an essential role in the unraveling of the structure of heavy nuclei under strong excitation.

An inspiring teacher, Owen was always accessible to students in his nuclear laboratory. Whether employed in impromptu lectures or formal courses, his talent for creating images—concrete or abstract—via geometric and mathematical symbols resulted in lucid and well-constructed lessons, that gave the student a clear view of principle and applications. In 1968, Owen became chairman of the physics department and went on to become the dean of arts and sciences in 1972; in the latter post, he made profound and beneficial changes in the University's structure. In 1978 he became dean of Homewood Schools, at which post he remained until 1982.

An early chapter of Owen's last book, *The Universe of the Mind*, is entitled "Observation as an Art" and, in a way, it delineates the essence of Owen's style in science: For him, each physical inquiry had to be encompassed by a design that integrated an intuitive feeling for the physical apparatus with the mathematical formulation necessary to obtain the results.

Leon Madansky
The Johns Hopkins University
P. W. Keaton
Los Alamos National Laboratory

Herman W. Hoerlin

Herman W. Hoerlin, widely recognized as one of the world's experts in the physics of high-altitude nuclear detonations, died in Bedford, Massachusetts on 6 November 1983.

Hoerlin was born on 5 July 1903, in Schwäbisch Hall, Germany and studied in Berlin and Stuttgart, where he received his DrIng in 1936. For his thesis, he measured cosmic rays incident upon the global region between Spitzbergen and the Magellan Strait and established the world's highest observation station, at 20 000 ft in the Peruvian Andes. Hoerlin confirmed the then much-disputed particle nature of cosmic rays within two months after Arthur H. Compton completed his worldwide studies and before Robert Millikan published his work.