

cleonics and vacuum physics. He was the author of a text, *Vacuum Technology*, and had been vice-president (1956) and president (1957) of the American Vacuum Society.

John W. Matthews

John W. Matthews, a widely recognized authority on the properties of electronic materials, died 20 May at the age of 45.

A native of Johannesburg, South Africa, Matthews studied physics at the University of Witwatersrand. He received his BSc in 1954, his master's in 1956, and his PhD in 1963. He remained at the University through 1969, attaining the rank of senior lecturer in 1965 and Reader in 1968. Concurrently, Matthews was a visiting scientist at Cambridge University, Churchill College and the University of Virginia. Most recently Matthews was research group manager in the physical-sciences department at IBM's Thomas J. Watson Research Center in Yorktown Heights, New York. A holder of several IBM patents, he did extensive work in exploring the characteristics of thin semiconductor and metal films, and on the interfaces between solids.

Bruce C. Heezen

Pioneer in mapping the ocean floor, and Columbia University faculty member for 23 years, Bruce C. Heezen died at sea south of Iceland on 21 June. He was 53 years old.

Heezen devoted his career to explaining features of the ocean bottom and was at the time of his death studying the Reykjanes Ridge, a submarine mountain range whose globe-circling extent he discovered in 1959 with the late Maurice Ewing.

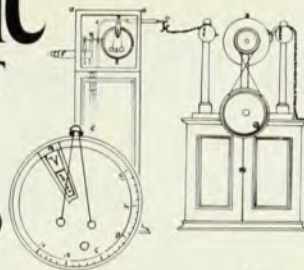
Born in Vinton, Iowa, Heezen earned his AB from the University of Iowa, Iowa City, in 1948, and his master's degree (1952) and PhD (1957) from Columbia University. He was appointed to the faculty at Columbia in 1960 and became associate professor there in 1964. Since 1964 Heezen conducted research at Columbia's Lamont-Doherty Geological Observatory in Palisades, New York.

Much of Heezen's research focused on the evolution and structure of submarine landscapes, and his discoveries in this field were major contributions to theories of seafloor spreading and continental drift.

The American Geophysical Union had awarded its prestigious Walter H. Bucher Medal for his life's work of "original contributions to the basic knowledge of the earth's crust" the month of Heezen's Iceland voyage. He was the author of several books, including the popular *The Face of the Deep*, published in 1971. □

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