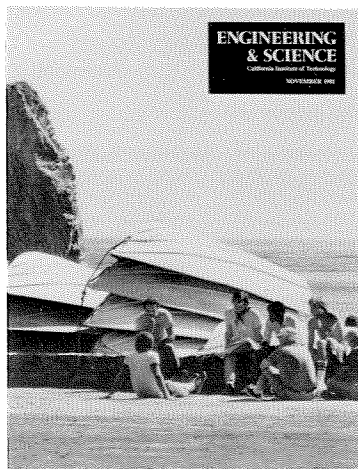


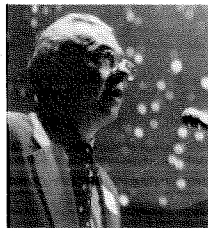
In This Issue



Catalina 1981

On the cover — one view of Freshman Camp, with boats, the beach, and people to get acquainted with. For more pictures, see "Camping In" on page 18.

According to Hoyle



No stranger to controversy, Sir Fred Hoyle got his apology "out of the way right in the beginning" to

those who he presumed would disagree with the views expressed in his Seminar Day address to the general session last May. That talk, "The Universe: Past and Present Reflections," a section of which (mostly the present reflections) is excerpted on page 8, did indeed present a daring and original view of the origin of life, one quite at odds with generally accepted theories. But this is the Hoyle style; his steady-state theory of cosmology has been exciting controversy ever since he proposed it in 1948.

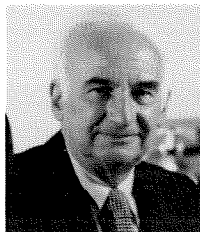
No stranger to Caltech either, Hoyle first came here in 1952, has been here off and on ever since, and will be a visiting associate here again this year. It was with Institute Professor of Physics William A. Fowler that he developed the well-known theory on the origin and evolution of the chemical elements.

Hoyle's academic home for most of his distinguished career has been Cambridge University, where he founded and became the first direc-

tor of the Institute of Theoretical Astronomy in 1967 and was Plumian Professor of Astronomy and Experimental Philosophy from 1958 to 1972. Currently he is associated with University College, Cardiff, Wales.

Hoyle was knighted in 1972 and has received the Gold Medal of the Royal Astronomical Society and the Royal Medal of the Royal Society among numerous other honors for his scholarship.

Slip Showing?



"The rapidity of technological advance — because of our inability to adjust to it, realize its benefits and

minimize its negatives — is presenting us with dilemmas and critical choices." In "Gods' Gifts or Devils' Doings?" on page 13, Simon Ramo discusses those negatives and the anti-technology attitude they have bred — and the future benefits, which make it essential for the United States to maintain its strength in science and technology. The article is the introductory chapter to Ramo's latest book, *America's Technology Slip*, which goes on in subsequent chapters to offer some solutions to the dilemmas. It is reprinted here with permission of the publishers, John Wiley and Sons.

Ramo himself has played an active role in the rapid advance of American technology. With a PhD (EE 1936) from Caltech, he contributed to a number of research fields from microwaves to missiles before co-founding Ramo-Wooldridge

Corporation in 1953. A subsequent merger with Thompson Products made the company, now known as TRW Inc., one of the world's largest technological corporations.

Although he "officially" retired in 1978, Ramo remains as director of TRW Inc. and chairman of the board of directors of The TRW-Fujitsu Company. He has been a Caltech trustee since 1964.

Mutual Interests



Paul J. Nahin is an associate professor of electrical and computer engineering at the University of

New Hampshire. He is also a Caltech alumnus with a 1963 MS in electrical engineering (sandwiched by a BS from Stanford and a PhD from UC, Irvine). Nahin has worked for Beckman Instruments, Hughes Aircraft, General Dynamics, and the Institute for Defense Analyses; and he has taught at Harvey Mudd College and George Washington University. Currently he is on leave to the electronic warfare faculty at the Naval Postgraduate School in Monterey, California.

In addition to his academic activities, Nahin is a devotee and writer of science fiction and a freelance journalist. He was in Pasadena not long ago gathering material for an article about the Caltech football team (to appear soon in *Omnis* magazine) and took a long-awaited opportunity to interview another Caltech alumnus, electrical engineer, and science fiction writer and fan. The result, "An Interview with John Pierce," is on page 22.

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