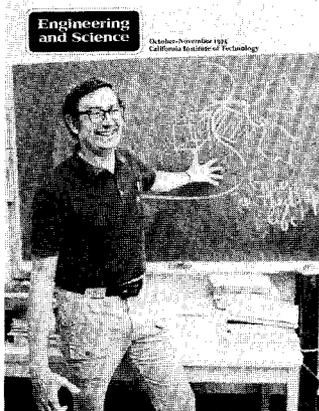
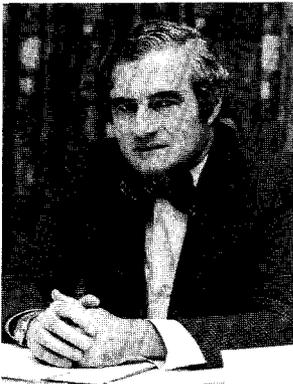


In This Issue



Gray Matters

On the cover—Harry B. Gray, professor of chemistry, who has just been appointed William R. Kenan, Jr. Professor at Caltech. Gray received another honor from the Institute last spring when Caltech's graduating seniors asked that he deliver their commencement address—which he did. Because we are running this high-spirited talk, "The Chemistry of Caltech," in this issue (page 7), we must regretfully put off until later an account of Dr. Gray's new theory of life, so prominently displayed on this month's cover.



Humanism and Science

Robert L. Sinsheimer, who has been professor of biophysics at Caltech since 1957 and chairman of the biology division since 1968, is much in demand as a speaker. He first gave "Humanism and Science" (page 10) as a talk at California State University, Northridge, on April 10, and *E&S* leaped at the chance to put his words in print.

As usual, Dr. Sinsheimer's text makes a thoughtful and stimulating article. Also as usual, the erudite Dr. Sinsheimer's vocabulary sent us at least once to the dictionary—as on page 26, for example. For those readers who share our problem we hereby provide a definition of *entelechy* as "an immanent agency held by some vitalists to regulate or direct the vital processes of an organism." It is pronounced *en-tell-a-kee*.



Joint Account

Poul Anderson, the well-known science fiction writer, reports on the launch of Apollo-Soyuz for *E&S* in "Thoughts at Liftoff" on pages 14-17, with photographs by Alan Stein, '71.

Alan, who was a professional photographer even as a Caltech undergraduate, covered the launch of Apollo 17 for *E&S* in December 1972. For the July 1975 launch of the last Apollo of all, which carried three astronauts into space to shake hands with two Soviet cosmonauts, Alan was accompanied by his good friend Poul Anderson — to our great benefit.

Born in the U.S. of Scandinavian parents, Anderson grew up mostly in Texas, then on a Minnesota farm. He majored in physics at the University of Minnesota, graduated with honors in 1948, and went to work as a free-lance writer. Though he's published more than 50 books and several hundred shorter pieces on a galaxy of topics, he is best known for his science fiction.

It is no surprise to learn that he's a member (and ex-president) of the Science Fiction Writers of America—though it is one to discover that he is also a member of the Mystery Writers of America and of the Baker Street Irregulars. But who could even have imagined that both Poul and his wife are active in the Society for Creative Anachronism, where he has won a knighthood for prowess in medieval combat.

Loyal Opposition

Gilbert W. Fitzhugh was graduated magna cum laude from Princeton in 1930 and spent his entire business career with the Metropolitan Life Insurance Company, becoming its president in 1963, chairman and chief executive officer in 1966. He retired in 1974, having also devoted much time in those more than 40 years to serving in a wide variety of professional and civic capacities—including the presidency of New York Chamber of Commerce, and memberships on a presidential panel to investigate the internal organization of the Pentagon and a New



York State panel to develop new policies for dealing with social problems.

Mr. Fitzhugh, who now lives in Rancho Santa Fe, California, has been a Caltech trustee since 1973. His article on page 18, "Inflation—A Monetary or a Fiscal Problem?"—is a reply to the *E&S* article (February-March 1975) by Alan R. Sweezy, professor of economics, "Keynesian Economics and Inflation."

Double Entry

Caltech has a pair of biologists to whom "going home" means a 7,600-mile plane or boat trip across the Pacific to Australia. So maybe a 6,000-mile trip in the U.S. is just a jaunt to John and Rona Pettigrew.

John, assistant professor of biology, was born in Wagga Wagga, New South Wales. He got his BSc, MSc, and MD from the University of Sydney. Rona, research fellow in biology, got her BSc and PhD from the University of New South Wales.

John has already described his research on how mammals perceive their environment, in *E&S* (January 1974). In *this* issue he reports on an extraordinary odyssey that he and Rona made several years ago when John was doing a postdoctoral stint at UC Berkeley, just before coming to Caltech in 1973. He also exposes a hitherto unrevealed aspect of the Pettigrews' lives—motorcycling (page 20).



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