

Random Walk

Scientific Recognition



The prestigious New York Academy of Science recently held its 164th annual meeting, and one item on the agenda was presentation of its Presidential Medal to Marvin Goldberger, president of Caltech. A certificate of citation and a cash award of \$1,500 in recognition of outstanding accomplishments in the cause of science went along with the medal.

Goldberger is a theoretical physicist. He is best known for his work on the theory and application of dispersion relations to problems of weak and strong interactions. He is the author of some 150 papers on such subjects as nuclear physics, plasma physics, theory in intensity correlations, reactions among elementary particles at high energies, S-matrix theory, and quantum field theory.

Stamp Act

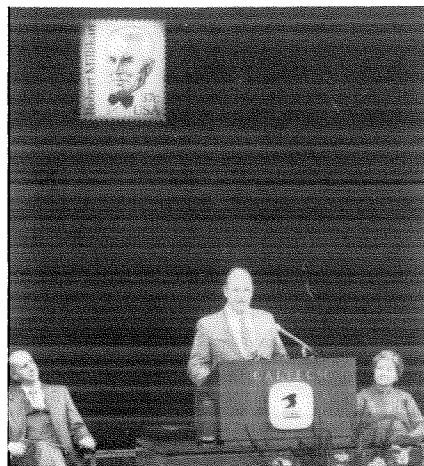
The Caltech community has long recognized the distinction of Robert A. Millikan — as a Nobel prizewinning scientist, an administrator, and a diligent laborer in behalf of many national and civic causes. And his secretary for the last three years of his life, Helen Holloway, has been pointing these facts out to the Stamp Advisory Committee of the U.S. Government Printing Office ever since 1954. Her persistence finally paid off, and on January 26 at a ceremony in Beckman Auditorium the newest stamp in the Great American Series was officially presented to the American public. For 37 cents you can now buy a blue stamp adorned with an engraving of Millikan's face, and, at least for a while, you may use it to send two ounces of first class mail.

Research Detour

If you think that some problems in science are too far-out to be addressed by a dedicated Caltech alumnus, you don't know James Gould (BS '70), who is an associate professor of biology at Princeton. Not long ago he made a slight deviation from his normal research patterns, and a report of the outcome of the detour is reproduced at the left from a recent issue of the *Princeton Alumni Weekly*.

Still to Come

Three of the 1982 winter/spring series of Watson Lectures are still ahead. On March 31, Thomas Ahrens, professor of geophysics, will speak on the "Death of Dinosaurs." William Corcoran, Institute Professor of Chemical Engineering, talks on April 14. His title is "Heart to Heart — Design and Performance of Artificial Heart Valves." The series winds up on April 28 with Leroy Hood, the Ethel Wilson Bowles and Robert Bowles Professor of Biology, speaking on "Genetic Engineering and Medicine of the Future."



Participants in the First Day of Issue Ceremony in honor of the Robert Millikan stamp included Millikan's grandson Dr. Michael Millikan. On either side are F. X. Biglin, senior assistant postmaster general, and Kathryn Wilson, Pasadena postmaster.

Homing Nonsense

A REPORT by British zoologist Robin Baker that people, like pigeons, have homing instincts prompted some American scientists to test his theory. Princeton biology professor James Gould, well-known for his discovery of magnetite in bees and pigeons, which could account for their ability to home, duplicated Baker's experiment using tighter controls.

Students were blindfolded, put on buses with foil-covered windows (to prevent them from sensing the direction of the sun), and taken for rides into the countryside. At different stops they were asked to indicate the direction of home. The results did not support Baker's findings. "If humans have the ability to tell where they are," remarked Gould, "it's certainly not the case with Princeton students." Nor was it the case with Cornell students or those at the State University of New York at Albany who participated in similar experiments.

Baker was puzzled and offered to come to the States to help out with the experiment. So last spring at Princeton a homing showdown was held. Taking part were experts on pigeon navigation, the discoverer of bat sonar, the originator of statistical methods to analyze orientation research, and the Amazing Randi, a magician who is both an expert and skeptic on the subject of extrasensory perception.

Baker joined the field of 20 test subjects. Having once observed that though Princeton students may know where they are going, they seem to have no idea where they are, Gould decided to include some recruits from the Lawrenceville School. The volunteers were draped in black velour hoods, herded onto the specially prepared buses, and driven away. The results did not change. If the students did poorly, so did the bus drivers, who managed to get lost in spite of having detailed maps and compasses.

Though Baker remains undaunted in his conviction that humans have a magnetic homing sense, most of the participants would agree with Randi, who suggested they might do better by relying on Chinese fortune cookies.

