

The Month at Caltech

New Chairman

R. Stanton Avery has been elected chairman of Caltech's Board of Trustees. He succeeds Arnold O. Beckman, who becomes chairman emeritus and a life trustee.

Mr. Avery, who has been a trustee since 1971, is founder and chief executive officer of Avery Products Corporation. He started the company in 1932, three years after he graduated from Pomona College, and it has become the world's leading producer of self-adhesive products.

A leader in southern California academic and cultural affairs, Mr. Avery is chairman of the Board of Trustees of the Huntington Library and Art Gallery, and a member of the boards of the Performing Arts Council of the Los Angeles Music Center and of the Los Angeles County Museum of Art. From 1965 to 1973 he served as chairman of the Board of Fellows of the Claremont Colleges.

Caltech Loves Albert

Watch a man laying a new cement sidewalk. Watch how skillfully he smooths the fresh, wet cement. Watch what happens to the smooth, new cement as soon as the workman departs. Somebody finds it absolutely necessary to record on it, for posterity, the fact of his existence, such as:

FRANK ALBANESE

or the state of his emotions:

FRANKIE LOVES ANGELA

or even a four-letter Anglo-Saxon exhortation:

(EXPLETIVE DELETED)

This is the way it goes, almost anywhere in the world. But not—as so often happens—at Caltech. For a few short

weeks (before it was destroyed during the renovation of the Throop Hall site), a pristine strip of new sidewalk at the southeast corner of Dabney Hall bore a single inscription:



—which, Frank Albanese would be surprised to learn, is Einstein's tensor equation for gravity.

It's for Keeps

The history of the Institute is in safe hands—Judith R. Goodstein's. She has been Caltech's archivist since 1968.

Judy came to Caltech, looking for a teaching job, after she got her PhD in the history of science from the University of Washington in 1968. Though there wasn't any opening in that field, the Institute was looking for an archivist—a position that had been created because Caltech, after a long period of litigation with the Air Force, had finally been awarded custody of the voluminous Theodore von Karman papers.

When Judy took over, the only collections in the archives, aside from the von Karman papers, were those of two of Caltech's founders—George Ellery Hale and Robert A. Millikan. There are 30 collections in the archives today, housed along with Judy and her assistant, Ruth Gordon, in the basement of Millikan Library. ("Collection," incidentally, includes everything from notebooks and committee reports to personal and professional correspondence, scientific journals, and pre-prints.)

The archives now house the papers of Earnest C. Watson, Richard P. Feynman (including his high school

notebooks), Max Delbrück, and Edward C. Barrett. Barrett served as secretary (and later also as treasurer and comptroller) of the Institute from 1911 to 1952, and his papers offer a challenge to cryptographers. For many years, Barrett compiled detailed information about the workings and activities of the Institute for eventual use in a history of Caltech. But all the notes are in a shorthand devised by Ned Barrett himself—and, unfortunately, no one has even come close to breaking his code.

E. T. Bell, one of Caltech's great mathematicians, destroyed all his scientific material before he died. (This is not at all uncommon, according to Judy—for reasons ranging from privacy to modesty.) The only papers he kept were his correspondence with editors of science fiction magazines, for whom he wrote regularly under the pen name of John Taine.

When Judy Goodstein got wind of the fact that all of this correspondence was still extant, she wrote at once to Bell's widow—unaware of the fact that she had died many years before. The letter was passed on to the banker who was in the midst of settling the estate of a deceased student of Bell's who had been working on a biography of Bell for the National Academy of Sciences. The student's house on Seventeen-Mile-Drive in Carmel was about to be auctioned off, together with all its contents. Since the bank felt that the science-fiction papers were of no particular value for estate purposes, the Caltech archives got a real windfall.

The archives now contain about 300,000 documents and a growing collection of tapes, including those of the original lectures of R. P. Feynman, which were transcribed and edited into the famous *Lectures on Physics*. The tapes of the Monday evening Watson Lectures given in Beckman Auditorium are also preserved there.

The Month at Caltech . . . continued

Judy has also been collecting more general information such as old accounting ledgers of the Institute, which she found in a warehouse, and some division records. The biology division's papers from 1928 until 1957 include the minutes of all biology division faculty meetings and even the names of undergraduate advisors. These papers were compiled for the most part while George Beadle was division chairman. Comparable documents from astronomy have also been promised, and these will be greatly augmented by the papers of Jesse L. Greenstein, Lee A. DuBridge Professor of Astrophysics, who has agreed to start transmitting some of his material to the archives in the fall.

The most recent acquisition is the collected papers of physicists Charles C. Lauritsen and Thomas Lauritsen, which were given to the Institute by the Lauritsen family.

Another recent acquisition of special interest is the scientific and personal correspondence of the mathematician Tullio Levi-Civita, who maintained a correspondence between the years 1896 and 1941 with more than 900 people throughout the world, including many Caltech scientists. About 4,000 letters, postcards, reports, and miscellaneous documents were written during that time, and Judy has just completed the enormous task of cataloging them. Because of this work, she was invited by the Accademia Nazionale dei Lincei (Italy's national academy) to take part in the 100th birthday celebration for Levi-Civita in Rome last winter.

The Caltech archives is one of the very few anywhere to be devoted exclusively to science, and it is the first of its kind on the West Coast. Scientific historians from all over the country consult its collections. "And we get a lot of calls," says Judy, "from Harvard, Johns Hopkins, the Smithsonian, and UC Berkeley." Freelance writers also



Judy Goodstein

use the collections, and the Institute administration uses archival materials for determining names, dates, details of publications, and personnel information. CBS's "60 Minutes" news program on the Chinese Nuclear Development program came to the archives for information on Hsue-Shen Tsien—a student of Von Karman's, and now director of the nuclear development program to the People's Republic of China. One of the most obscure requests, Judy recalls, was from a student doing research on the group of row houses in Chicago where Robert Millikan once lived.

What would she like to have for the archives more than anything else in the world? Judy's eyes take on a far-away expression, and then she smiles. "The Linus Pauling papers," she says.

—Joy Hays

In Memoriam

John G. McLean

John G. McLean, a member of the Board of Trustees since 1971, died May 20 in Greenwich, Connecticut. He was 56.

Mr. McLean, who was chairman and chief executive officer of Continental Oil Company, graduated from Caltech in 1938 with a BS in applied physics, and was recipient of the Institute's Distinguished Alumni Award in 1970. He received his master's and doctor's degrees from Harvard Business School and served on its faculty for 14 years before joining Continental in 1954.

Herbert G. Nash

Herbert G. Nash died in Pasadena on May 10 at the age of 79. At the time of his retirement in 1964, he had served Caltech longer than any administrative nonacademic employee—42 years.

Bert Nash was a native of London, England. In 1922 he came to the Institute from Winnipeg, Canada, as chief accountant. He was made assistant secretary of the Board of Trustees in 1935, and in 1952 he became its secretary. At the time of his retirement he was also assistant secretary and assistant treasurer of The Associates. Mr. Nash served as a member of several key administrative committees, and he administered the insurance programs for the Institute and JPL. He is survived by his wife, Josephine, and three children.

Jeanne Augé

Jeanne Augé died on May 30 after a long illness. She came to the Institute in 1935 to be an assistant to the graduate dean, Richard Tolman, and for the next 30 years she worked with a succession of them, including Roscoe Dickinson, William Houston, William Lacey, Sterling Emerson, and H. F. Bohnenblust.

By the time of her retirement in 1966, Mrs. Augé had earned the gratitude of a multitude of graduate students, as she helped them to adjust to their new environment. After leaving the campus, she continued an active interest in Caltech affairs, and she never failed to attend Commencement—taking pride in

noting "her" Caltech-PhD faculty members in the procession and after the exercises congratulating the new degree holders.

In 1972 she moved to Kentucky to be near her son Roger. She is survived by him, four grandchildren, and three great grandchildren.

NAS Addenda

Last month *E&S* reported on the election of faculty members Roy Gould and Leon Silver to membership in the National Academy of Sciences. Now, we add the names of six alumni who received the same honor: Horace W. Davenport (BS '35, PhD '39), Dan L. Lindsley Jr. (PhD '52), Allen E. Puckett (PhD '49), William R. Sears (PhD '38), Howard M. Temin (PhD '60), and John S. Waugh (PhD '53).

NAS has also tapped William A. Fowler, Institute Professor of Physics, for a three-year term on its 17-member governing council. John R. Pierce, professor of engineering, has just completed a stint as a councilor.

And George Hammond, former Arthur Amos Noyes Professor of Chemistry and chairman of the Division of Chemistry and Chemical Engineering at Caltech, has been elected NAS foreign secretary for a four-year term. He succeeds Harrison Brown, professor of geochemistry and of science and government, who has held that position since 1962.

More Faculty Honors

Clarence R. Allen, professor of geology and geophysics, has been elected to the American Academy of Arts and Sciences.

Harrison Schmitt (BS '57), astronaut and Sherman Fairchild Distinguished Scholar at Caltech, has been appointed assistant administrator for energy programs in the National Aeronautics and Space Administration headquarters in Washington, D.C.

John D. Roberts, Institute Professor of Chemistry; and Roger W. Sperry, Hixon Professor of Psychobiology, have been elected to membership in the American Philosophical Society. □

Letters

Chuck Bures

EDITOR:

Charles Bures is no longer here.

At a time and place where success is measured in units of dollars and politically manipulatable awards, true giants may come and go unnoticed by the scientific lot.

I first met Professor Bures in '65 when I attended his Psychology classes; I am still a student of his, still learning from his example.

When I first enrolled in his class, it was out of a desire to maintain my sanity and humanity in a small world of largely unidimensional pseudoscientists who composed the "mutual admiration society of Pasadena." It became immediately apparent that I had met a Master, in the true Oriental sense.

Professor Bures had a more analytic mind than most of the self-proclaimed analytic types who thrived there. More than that, he had realized that the linear one-at-a-time approach of conventional science was a self-imposed blindfold; real-life problems don't behave in a linear one-at-a-time fashion, and it takes a unique ability to perceive them in their complexity. Professor Bures had that ability.

He understood life and what makes it worthwhile. He was quick-witted, and careful at the same time to be compassionate. Given the usual choice between prolific publications for their own sake and teaching Caltech's youth, he chose the latter. And I am forever thankful to him for that.

MICHAEL A. CALOYANNIDES
(BS '67, MS '68, PhD '72)

No Glee

EDITOR:

I am writing to you about a feature that appeared in the May 1974 issue of *Engineering and Science* magazine, namely "An Outburst of Music." As the official student representative of the Men's Glee Club I have a few complaints about this feature.

First, it is supposedly a "smorgasbord of musical activities." However, I think it could have been more representative and inclusive. No pictures of the Madrigal Singers, Varsity Quartet, or Men's Glee Club appeared, although these groups are as active as any others on campus and form a "main course" of the smorgasbord. The Men's Glee Club is mentioned and the reader is referred back to a previous issue. However, the article referred to (*E&S*—October 1973) was about vocal instruction, not the Men's Glee Club, Madrigals, or Quartet. True, it gave us coverage, but the issue here is representation not coverage. I am wondering what sort of impression readers, specifically alumni, will get when they see "An Outburst of Music." Will they think we have ceased being a vital force while we still in actuality have the largest student involvement of any club on campus?

Secondly, I take issue with the statement that the Women's Glee Club and the Chamber Singers are "moving in" on the Men's organizations. This is somewhat illogical, since the men in the Chamber Singers are from the Men's Glee Club. Also, it is simply not true. Our groups work in cooperation, not in competition. I would like to know just what prompted that statement to be written.

Finally, the pictures seem to imply a larger numerical contribution by women. While this may be true on a percentage basis, it is certainly not accurate as far as actual figures go, and not to the extent presented in the article.

It seems obvious that no attempt was made to present a reasonable representation of musical activities with regard to effort, time, or numbers involved. If there was a reason for this I would like to know why. But I believe it presents an inaccurate picture to your readers and this is unfortunate.

Sincerely,
JEFF ERIKSEN
President
Men's Glee Club

P. S. By the way, the reference was wrong—it was November 1973!

Right: We were wrong. The three-page picture story on the Glee Club ran in our November-December 1973 issue.