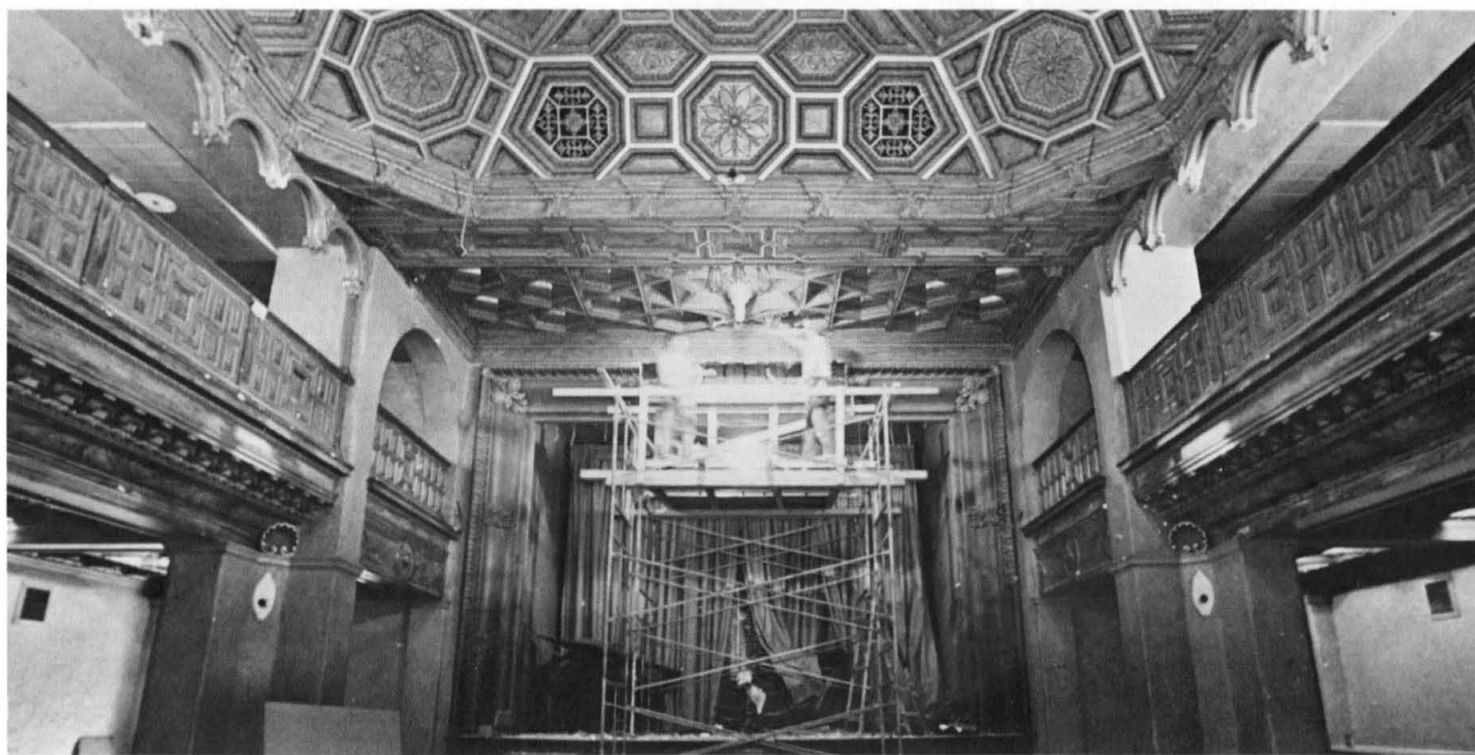


# CALTECH NEWS

VOLUME 6, NUMBER 1, FEBRUARY 1972

PUBLISHED FOR ALUMNI AND FRIENDS OF THE CALIFORNIA INSTITUTE OF TECHNOLOGY



Culbertson Hall, the fourth oldest building on campus, ends its 50-year history to make room for a new laboratory of geophysics and planetary science.

## Culbertson ends 50-year history

Culbertson Hall is gone. Once the pride of a culture-conscious Pasadena community, the little auditorium has been razed to make way for a new laboratory of geophysics and planetary science.

Culbertson was completed in 1922, the fourth building on the present Caltech campus. At that time neither the faculty nor the lay community had heard the word *geophysics*, and it is doubtful if anyone dreamed planetary science would be a reality in another 50 years.

Much of the money for Culbertson was raised by members of the old Pasadena Music and Art Association from a series of public lectures, cultural events, and extension courses in science, literature, and music. President Theodore Roosevelt

lectured at Caltech and \$3,000 resulted. Proceeds from performances by ballerina Anna Pavlova, violinist Ysaye, and other renowned figures also helped finance the auditorium.

Bertram Goodhue, a leading architect who had created a master plan for campus buildings and designed the first one—Throop Hall—was responsible for the \$80,000 500-seat auditorium. It was described on its completion as "a building of wonderful charm," and a community and college center for "assemblies, social gatherings, concerts, and exhibitions."

The building was named in honor of one of Caltech's early benefactors and trustees, James A. Culbertson, who died in 1915. Caltech is still benefiting from

the wealthy lumberman's interest through a trust fund he established and from a \$250,000 gift from his widow.

Even after Beckman Auditorium was finished in 1963, Culbertson Hall was still used frequently for events too intimate for the larger auditorium. Its excellent acoustical properties made it an ideal rehearsal spot for the glee club, its size worked well for dance classes and other group activities, and it was a Saturday night center for the popular Cinematech series. Not too long ago a graduate student, captivated by its old-fashioned cozy qualities, was married there.

However, with the completion last year of Baxter Hall with its Ramo Auditorium, lecture hall, and exhibit areas, there was much less need for Culbertson. And so the building, which not long ago housed the exhibit of work being done on moon rocks by Caltech faculty, has been razed in favor of a laboratory where far more extensive future research into other planets will be carried on.

### Northeastern Area

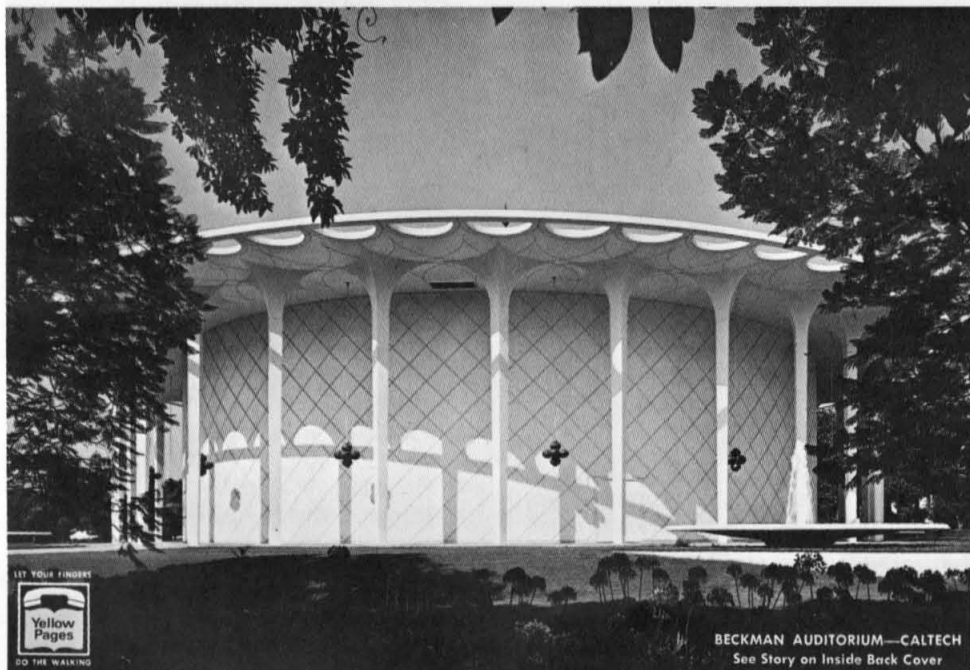
Telephone Directory

See Map on Back Cover  
for Communities Served

Area Code 213 • January 1972



Pacific Telephone



BECKMAN AUDITORIUM—CALTECH  
See Story on Inside Back Cover

### Caltech Cover

Pasadena area residents have Caltech's Beckman Auditorium on the cover of their new phone book.

## Huttenback new division leader for Humanities

Robert A. Huttenback, who has been acting chairman of the humanities and social sciences division, has been appointed to the post on a permanent basis.

"I feel very fortunate to have been asked to head the division at the start of what many of us feel will be a new and exciting era," said the new chairman.

Huttenback leads the division at a time when it is expanding and diversifying. Its strengthened social sciences area now has 17 faculty members, many of them interacting with those in other disciplines.

The new facilities of Baxter Hall have already provided an opportunity for more seminars, lectures, art exhibits, and other special events under the division aegis. Indications also point to an increasing number of short-term residencies for visiting artists, poets, writers, and musicians.

In a little over 20 years Huttenback has accrued a singular record of combined scholarly and administrative achievement at Caltech. He first came to campus as a UCLA senior, hired as a part-time soccer coach. His success as a soccer and baseball coach through his graduate student days and his popularity with the students led to an offer in 1958 to become master of student houses. He accepted only on the condition that, as a serious history scholar and an about-to-be PhD, he also join the faculty.



Robert Huttenback

By 1966 he was made a full professor, and in 1969 was appointed dean of students. Besides his professorial and administrative duties, Huttenback has attained an international reputation as an authority on British Imperial history. He has published numerous papers and four books, and has four others in various stages of development.

The new chairman will retain his office of dean of students for the time being.

## Humble, Esso present grants to Institute

Caltech received grants of \$6,000 from the Humble Oil Companies Foundation and \$8,000 from the Esso Education Foundation in December.

The Humble grant provides \$5,000 in support of the Environmental Quality Laboratory and \$1,000 for unrestricted use within the division of engineering and applied science.

Esso's contribution provides \$6,000 to support the terminal masters-degree program in chemical engineering and \$2,000 which will be used for earthquake engineering research.

Humble Oil Company executives C. M. Harrison and D. I. Bolding, who presented the grants, met with Professor Lester Lees, director of EQL, and Professor C. J. Pings, executive officer for chemical engineering, to discuss current research programs of EQL and Caltech's plans to provide training for chemical engineers to help meet industrial needs for students at the master's level.

## McLean trustee

John G. McLean, president and chief executive officer of the Continental Oil Company, has been elected to the board of trustees. He is a recipient of the Alumni Association's Distinguished Service Award.

McLean, who is an educator and author as well as an oil company executive, received his BS in astronomy and physics in 1938. He has a master's and a doctorate degree from the Harvard Business School, where he was on the faculty for 14 years. He has also done consulting work for a number of business organizations and government agencies. He has been a co-author and contributing author to more than 16 books on business and economics, and has written numerous articles for business publications.

The Caltech alumnus is on the board of directors and executive committee of the American Petroleum Institute, chairman of the National Petroleum Council's Committee on U. S. Energy Outlook, and on the Executive Advisory Committee of the National Gas Survey. He was recently named to the Emergency Advisory Committee for Natural Gas. He is also a director of several corporations and banks, and a member of the Stanford Research Institute Council.

McLean has long been actively interested in Caltech and is a member of the Institute Associates. He, his wife Patricia, and their three children live in Darien, Connecticut.



## Alumni forum

# Remember Pearl Harbor Day?

The graduate office received this note from Garman Harbottle (BS Ch '44):

"As I dated this—Dec. 7, 1971—it struck me that 30 years ago tonight I sat on the roof of Blacker House and watched anti-aircraft searchlights and gunfire toward Long Beach!

"My dean then was L. Winchester Jones. The next morning he led out a contingent of faculty and students (armed with baseball bats and pitchforks!) to guard the wind tunnel at Guggenheim and flush saboteurs out of the steam tunnels under the campus."

A copy was sent to Dean Jones (now retired in Santa Barbara), who replied:

"Thank you for the copy of the note written by Garman Harbottle anent the events at CIT on Pearl Harbor Day, which I too recall—perhaps even more vividly.

"The Executive Council of those days met in my office on that Sunday afternoon and decided that the wind tunnel and one or two other spots on campus must have immediate protection. We called on the state guard—a replacement for the national guard which had already been called to active duty—and a company of state guard troops reached the campus about 5:00 p.m.

"I was at that time an officer in the guard and was designated as commanding officer of the company. Because all buildings could be entered from the steam tunnels, we had to post guards down there too.

"There were no accidents that night, but about 7:00 a.m. I was in the Greasy—which had kept open all night to serve coffee and sweet rolls to the off-duty men—when I heard a challenge from the sentry at the main entrance to Guggenheim, and a minute later heard him call for the corporal of the guard.

"As the corporal was inexperienced, the sergeant of the guard went with him.

When I next went out I saw a very frightened and bewildered Japanese grad student with a bayonet about two inches from his throat and the sentry saying excitedly, 'Can I shoot him now, sergeant? Can I shoot him now?!"

"The poor fellow must have been holed up somewhere where no news reached him and hadn't the slightest idea what was going on.

"Before December 7, our student body was heavily pacifist and a rather large number had been saying that if we got into the war they would use every dodge they could to keep out of it.

"On Monday morning, Dec. 8, my office was deluged with lines of students eagerly inquiring about ways and means of shortening the time for graduation or enlisting immediately. I sincerely hope no nation ever attacks us again, but if it does and there is anything left after the first hour it will put a quick stop to 'Hell no, I won't go!'"

### Who needs talent?

McDonald's (of hamburger fame) ran this ad in the *Los Angeles Times* on November 23:

PRESS ON  
NOTHING IN THE WORLD CAN TAKE THE PLACE OF PERSISTENCE. TALENT WILL NOT, NOTHING IS MORE COMMON THAN UNSUCCESSFUL MEN WITH TALENT. GENIUS WILL NOT, UNREWARDED GENIUS IS ALMOST A PROVERB. EDUCATION WILL NOT, THE WORLD IS FULL OF EDUCATED DERELICTS. PERSISTENCE AND DETERMINATION ALONE ARE OMNIPOTENT.

Standing up for those who believe persistence is not the whole ball of wax, Irving Bengelsdorf, Caltech's director of science communication, fired off this let-

ter to Fred Turner, the president of McDonald's:

"I am greatly distressed by the message contained in your advertisement that appeared in the *Los Angeles Times* today.

"May I point out to you that one million persistent men pulling back on a gigantic rubber band would not have been able to launch Apollo spaceships toward the moon. This was accomplished by men with specific educations.

"I may also add that one million persistent mathematicians laboring day and night would not have come up with the General Theory of Relativity put forth by Einstein. This incredible view of our universe was thought up by a single man of genius.

"And one million persistent non-talented artists painting from the 16th century until today would not have created the Sistine Chapel of Michelangelo. This glorious result of the human spirit also was created by a single man of talent.

"One could argue that it only takes persistence and no education, genius, or talent to sell hamburgers, french fries, and milk shakes. I personally feel that McDonald's has done a fine job. But I think even you would admit that it took persistent men of education, genius, and talent who labored in the past to provide wholesale quantities of beef, wheat, and milk now used so liberally by your corporation.

"I feel you owe the public an apology—in a similar newspaper advertisement—to point out that this world runs on persistence AND talent, genius, and education."

\* \* \*

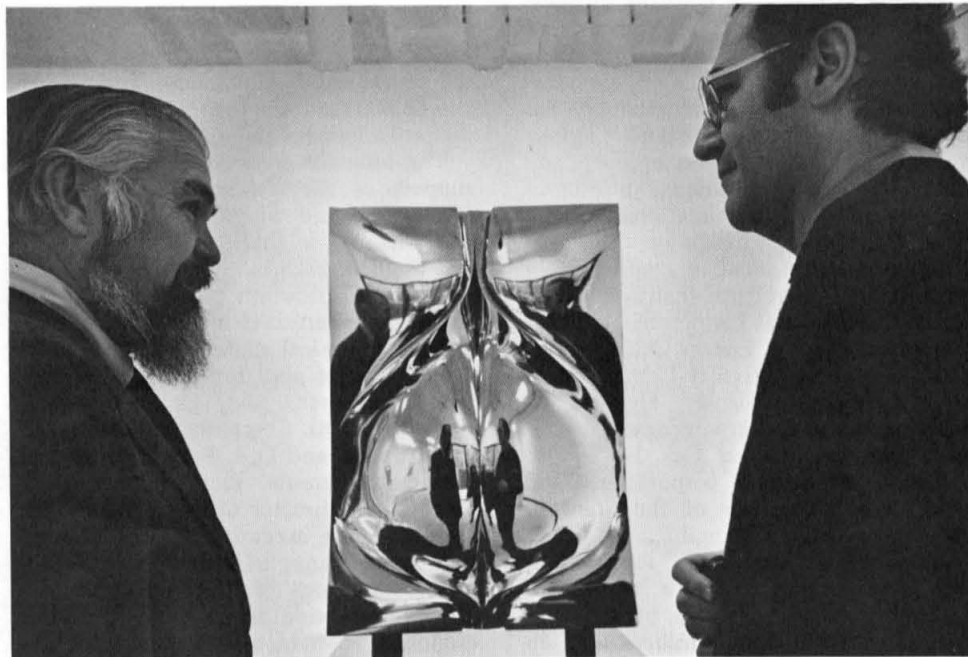
If you have any comments, recollections, or anecdotes you'd like to share with your fellow readers of Alumni Forum, just drop a line to *Caltech News*, California Institute of Technology, Pasadena 91109.

## Alumni enjoy Rose Parade



Here's one of the colorful floats that passed by the stand of Caltech alumni during the Rose Bowl

## Art exhibit in Baxter



Artist Aldo Casanova (right) shows his sculptures to Prof. David Smith in Baxter Art Gallery.

## CALENDAR

Through February 17 Baxter Hall  
ART EXHIBITS: Sculpture by ALDO CASANOVA; turn-of-the-century lithograph posters from the collection of MR. and MRS. ROBERT P. MEYERHOF; drawings and paintings by JAMES STEEL SMITH.

Wed. & Thurs., Feb. 2 & 3, 8 p.m. Ramo Universal's MUSEUM WITHOUT WALLS, new series of 11 films on art. "Picasso: War, Peace and Love" and "Goya" will open the series. \$2.50; students, \$2.

Fri. & Sat., Feb. 4 & 5, 8:30 p.m. Beckman. CARLOS MONTOYA, flamenco guitarist. \$6-5-4-3.

Sunday, Feb. 6, 8:15 p.m. Dabney Lounge SYLVIA GREENFIELD (flute), and WALTER KENNAN (piano) will perform music by Hindemith, Dahl, Varese, Messiaen, Brahms, and Schubert in the third DABNEY LOUNGE CHAMBER MUSIC CONCERT. Free.

Tuesday, Feb. 8, 8:30 p.m. Beckman TORU TAKEMITSU, Japanese composer, noted for his unusual concepts of sound in orchestral, chamber and film music, will present second program in ENCOUNTERS Series. \$2.50; students, \$2.

Friday, Feb. 11, 8:30 p.m. Beckman VIENNA CHOIR BOYS in a program of sacred, secular, and folk songs and an operetta. \$6.50-5.50-4.50-3.50.

Saturday, Feb. 12, 11 a.m. and 2 p.m. Beckman. CHILDREN'S SECOND ANNUAL SERIES: Selections from the Second International Children's Film Festival, LA County Museum of Art, summer 1970. \$1.25; adults, \$1.75.

Snuday, Feb. 13, 3:30 p.m. Beckman WARSAW QUINTET will perform Faure's Quintet Op. 89; Schumann's Quintet in E flat major, Op. 44; and Bacewicz' Quintet (1952). \$5-4-3-2.

Monday, Feb. 14, 8:30 p.m. Beckman SPEAKING MACHINES FROM BELLOWS TO COMPUTERS, by JOHN R. PIERCE, professor of engineering, Caltech. Free.

Wed. & Thurs., Feb. 16 & 17, 8 p.m. Ramo. Universal's MUSEUM WITHOUT WALLS art film series. \$2.50; \$2.

Wed. & Thurs., Feb. 23 & 24, 8 p.m. Ramo. Universal's MUSEUM WITHOUT WALLS art film series. \$2.50; \$2.

Friday, Feb. 25, 8:30 p.m. Beckman ARMCHAIR ADVENTURES: THE ROCKIES, with DON COOPER. Third in a series of personally narrated documentaries. \$2.50.

Saturday, Feb. 26, 8:30 p.m. Beckman SHIRLEY VERRETT and MARY COSTA in their first joint recital of songs and arias. \$6.50-5.50-4.50-3.50.

Sunday, Feb. 27, 8:30 p.m. Dabney Lounge. IL TRIO NOVELLO will play works by Bach, Dahl, and Ravel in the fourth DABNEY LOUNGE CHAMBER MUSIC CONCERT. Free.

Monday, Feb. 28, 8:30 p.m. Beckman HARNESSING THE SUN—NEW PROSPECTS FOR LARGE SCALE SOLAR ENERGY APPLICATION, JEROME WEINGART, senior research fellow, EQL. Caltech Lecture Series. Free.

Wed. & Thurs., March 2 & 3, 8 p.m. Ramo. Universal's MUSEUM WITHOUT WALLS art film series. \$2.50; students, \$2.

Saturday, March 4, 8:30 p.m. Beckman The incomparable Greek folk singer, NANA MOUSKOURI, and her quartet of music makers, the Athenians. \$6.50-5.50-4.50.

Sunday, March 5, 8:15 p.m. Dabney Lounge. Fifth concert in the DABNEY LOUNGE CHAMBER MUSIC CONCERT series will be choral music from the Middle Ages. Free.

## CALTECH NEWS

Vol. 6, No. 1 February 1972

Issued nine times a year (Oct., Nov., Dec., Feb., Mar., Apr., May, June and July) and published by the California Institute of Technology and the Alumni Association, 1201 East California Blvd., Pasadena, California 91109.

Second class postage paid at Pasadena, California.

### EDITORIAL STAFF

Executive editor: William K. Cassell  
Associate editor: Janet Lansburgh  
Photographer: Floyd Clark

## New placement director

William F. Nash, Jr., is now the director of placements. He assumed the office January 1 on the return of Donald S. Clark to full-time duties as professor of materials science after 37 years as placement head. Nash has been acting as Clark's assistant.

He received his BS, MS, and PhD degrees in mechanical engineering from Caltech. After earning his doctorate in 1942, he was a member of the faculty as instructor in physical metallurgy until he joined the Naval Ordnance Test Station in Pasadena in 1945 as director of metallurgy.

Nash joined C F Braun and Co in 1947 and was affiliated with it until his retirement as vice president in 1969. He joined the placement office in August, 1970.

## AEC appoints Gould to direct research

Roy Gould, professor of electrical engineering and physics, has been appointed director of the Atomic Energy Commission's newly established division of controlled thermonuclear research. He has been on leave from the campus since April, 1970, serving as assistant director for controlled thermonuclear research in the AEC's division of physical research.

In his new job Gould will direct research efforts being conducted at the Lawrence Livermore, Los Alamos, and Oak Ridge laboratories. He will also direct AEC-supported fusion research in several private industrial laboratories and at a number of universities around the country.

Gould received his BS degree with honors in electrical engineering from Caltech in 1949, and his PhD *summa cum laude* in physics in 1956. He was elected to the National Academy of Engineering last April in recognition of his basic contributions to microwave electronics and plasma physics. His research in plasma physics has added significantly to work being done toward harnessing nuclear fusion energy.



## Student Views

# Army life was unreal

Ed Schroeder, BS '70

It was June 1970, and my graduating class was leaving Caltech. Many were going to graduate school, some had found jobs (there were still jobs in those days), some were just off to nowhere in particular. Me? Good old Goldfish Bowl No. 60 was going into the Army. They took away my books and gave me a knapsack. They took away my slide rule and gave me a rifle. They took away my Tech hours and gave me Army hours. They would have taken my brain and given me an Army imitation if I'd let them. (Sign I saw posted in one Army unit: "If the Army wanted you to have any common sense, it would have issued it to you along with the rest of your Army gear.") Caltech offers one sort of educational opportunity; the Army offers quite a different sort. I learned a lot in the Army, although probably not what the Army wanted me to learn.

## Drill Sergeants

When you enter the Army, I found, you meet one of God's creations, the Drill Sergeant. Drill Sergeants are charming individuals, generally possessed of all the amiability of Godzilla and the subtlety of the San Francisco earthquake. These Stone-Age refugees are assigned to take all of the soft, weak, long-haired Hippie-Pinkos who come into the Army and make them tough, disciplined, combat-hardened killers ("What's the spirit of the bayonet?—Kill!!!). Fortunately, they decided that I wasn't very promising material for such a transformation.

My particular Drill Sergeant, Sergeant Stirling, was 6'5" tall and looked like a chicken when he ran. The rest of the time he looked like a buzzard. One of his pastimes, on the rifle range, was to kick people who weren't firing their rifle when they were supposed to be firing it. This seemed rather useless to me, since the normal reason for a rifle not firing was that it was jammed (M-16s jam a lot), and I never saw what good kicking somebody was supposed to do under the circumstances.

Drill Sergeants didn't listen to us very much. There was a communications gap. My best language is English. I'm not sure what Drill Sergeants speak, but if any students of linguistics want to study communication reduced to a minimum (if not beyond), I can tell them where to look. I wish I could give you an example, but unfortunately most Drill Sergeant noises are not reproducible in written English, and the translations are all rated "X."

Basic Training is designed to break down all individualism and self-assertion in the new soldiers and, while their resistance is down, instill in them a new value system based on discipline and unquestioning adherence to the military system. Fortunately, the Army is no more efficient at this than at anything else, so the treatment doesn't "take" as often as they'd like. Of course, the Army has its own way of looking at this process. As one of my Basic Training Lieutenants told us, "You may have heard that the Army doesn't treat you as individuals.

That's not true. The Army recognizes that each of you is an individual. You each have your own number."

After two months, Basic Training's Theater of the Absurd comes to an end. I then spent 30 weeks in Fun City—El Paso, Texas—learning Vietnamese. The Army, after transferring me from one class to another during the first week, never again knew where I was. That wasn't really very much trouble; all it did was lose my clothing records, confuse my medical shot records, and cause my pay vouchers to go to the wrong place for seven months. (Actually, that was nothing: my father was left off his Basic rolls entirely, and never did take it. He hid in the Orderly Room and was never caught. As a result, later he was made a riflery instructor when he'd never fired a rifle in his life. But that's another story.)

Then I had nine weeks of interrogator training at Fort Hood—well, nine weeks minus a few days, when I wasn't allowed to go to class because somebody somewhere was holding up my security clearance. The clearance had already been awarded, but somebody at Fort Hood didn't like something about it. Since the clearance consisted of merely checking the FBI files on me, if any, I couldn't really see what the problem was. I could have given them a few reasons for distrusting me, but I wasn't talking. Eventually I was reinstalled in class as casually as I was removed from it, although to the best of my knowledge the clearance was never straightened out. (That will doubtless come as a surprise to the Military Intelligence unit I was with in Vietnam.)

## Vietnam

Then there was my tour in Vietnam. Draftees' views of Vietnam have been succinctly summed up in the phrase, "We are the unwilling, led by the unfit, doing the unnecessary for the ungrateful." My own experiences there amply bore out the first three of those points, although I see no reason why anyone should be grateful for what we were doing. (Embarrassed at asking us to do it, yes.)

When I arrived in Vietnam, the Army, duly noting my 11 months of training as a linguist-interrogator, made me a clerk. This was nice, although it would have been nicer if I'd known anything about being a clerk. Fortunately, I could type, a skill I hadn't learned in the Army. Just call me ex-PFC Wintergreen. I soon concluded that for all the useful activity it was conducting in Vietnam, the U. S. Army could be replaced by Rip Van Winkle and Sisyphus and the physics would be conserved.

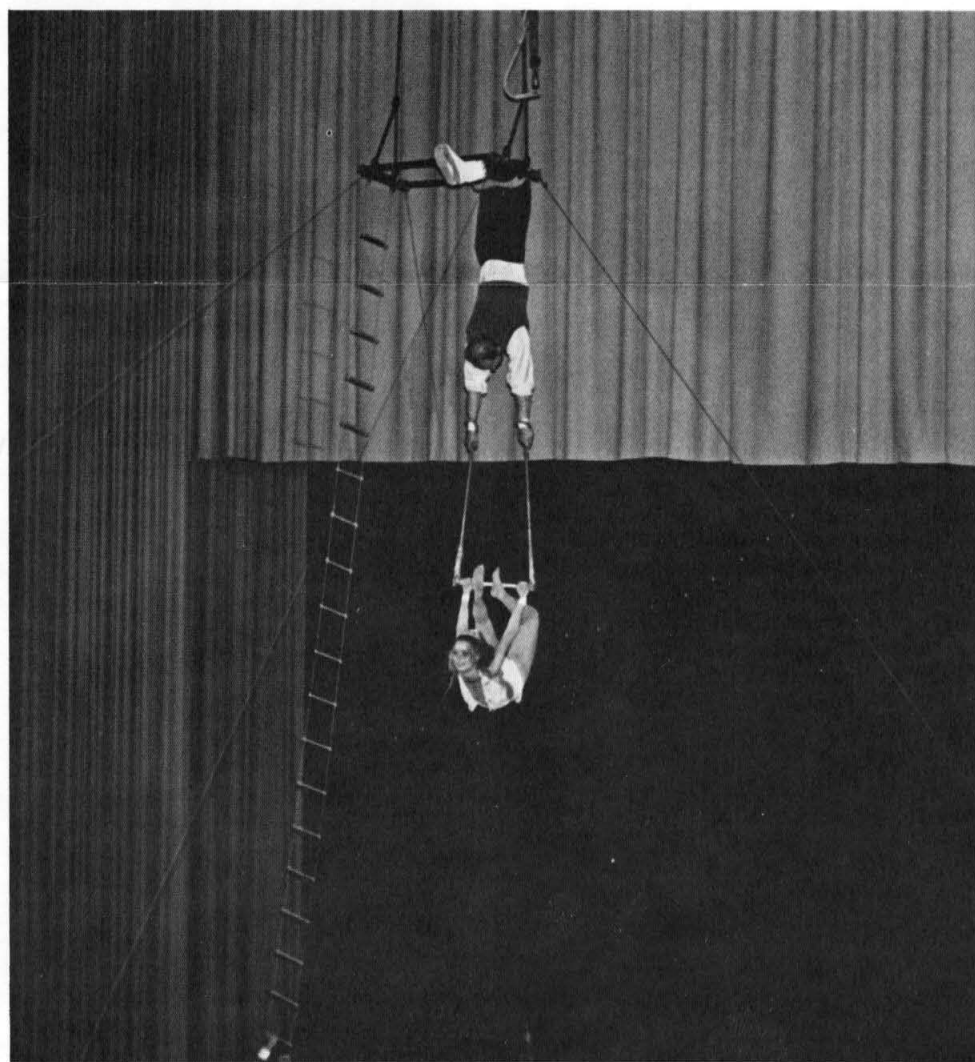
Meanwhile, the Army, having paid me for part of July, took that pay back in August because I hadn't received all of it, and I still haven't received any of it. (It doesn't make sense to me, either, but that's the way it was.)

Now I'm back at Caltech and all that's left are the memories and the G. I. Benefits, which form approximately a zero-sum game. Let somebody else make the World Safe for the Army; I've done my time.



## Circus comes to Caltech

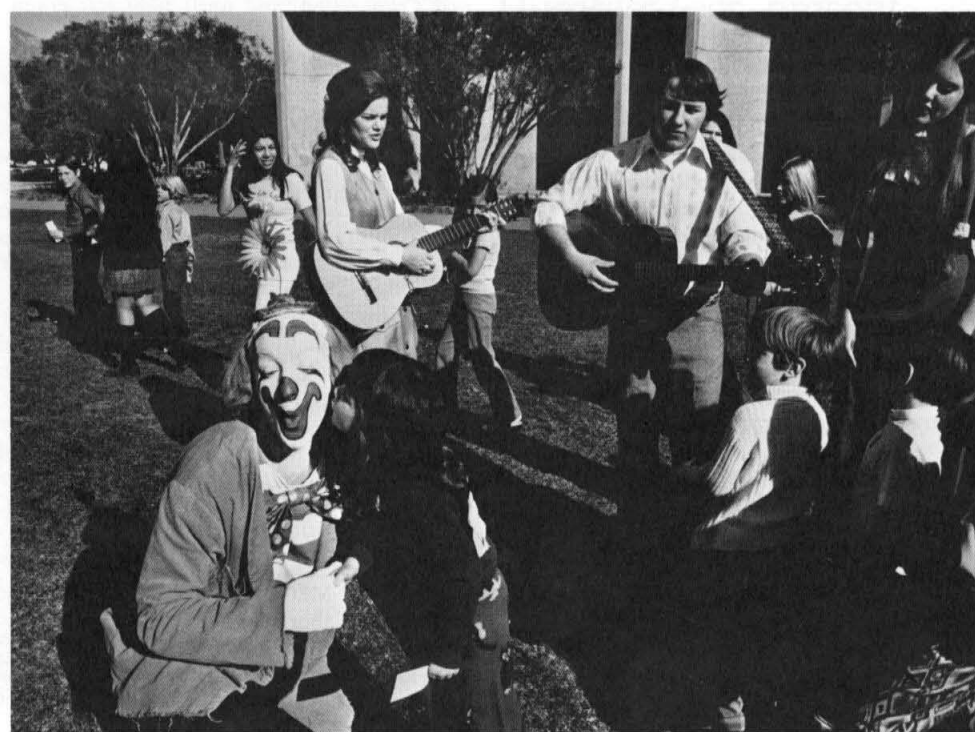
It was circus time at Caltech for one magical Saturday afternoon last month. Beckman Auditorium, transformed into the Big Top, resounded with the gleeful shouts of hundreds of youngsters who packed the house for three performances of Alfie the elephant, Joey the clown, the beautiful lady on the flying trapeze, and a host of other acts—all accompanied by the rousing circus music of the Caltech Band. Produced by Tom Lehman, the circus was the first in a series of five Saturday afternoon children's programs to be held at Caltech this year.



## En garde, you guys



Undergraduate fencers (from left) Debra Mielke, Ann Clemmens, Janet Wainwright, Mary Beth Olgivie, and Marie Beall are the first women to represent Caltech in intercollegiate competition.





# PERSONALS

## 1928

W. MORTON JACOBS, chairman of the board and chief executive officer of the Southern California Gas Co., has been elected president of the Los Angeles Area Chamber of Commerce. Jacobs is president of the Caltech Associates.

## 1929

MORRIS MUSKAT, PhD, who retired last May after a 42-year career with Gulf Oil Corporation, was honored on November 15 by the American Petroleum Institute for his years of service to the Institute and to the industry as a member and chairman of the committee on reserves and productive capacity. Muskat joined Gulf in 1929 as a physicist and was technical advisor-executive for the corporation at the time of his retirement.

## 1931

W. FRED ARNDT is now on a leave of absence from JPL to NASA headquarters in Washington where he is working on the staff of the Director of Earth Observation Programs in the office of the associate administrator for applications. He is concerned with planning for the National Earth Resources Survey Program.

## 1932

PATRICK B. LYONS retired in November after 3½ years spent as general manager of Oklahoma City's Western Electric plant. He has served on the Oklahoma City Chamber of Commerce, Frontiers of Science Foundation, and the Oklahoma Art Center. Lyons and his wife have moved to Florida.

## 1935

RICHARD H. JAHNS, PhD '43, professor of geology and dean of the School of Earth Science at Stanford University, was elected a trustee of the California Academy of Sciences on October 6. He is president of the Geological Society of America and, since 1965, has been involved in NASA's Astronaut Training Program with emphasis on lunar exploration.

## 1936

SIMON RAMO, PhD, vice chairman of the board and chairman of the executive committee of TRW, Inc., and a member of Caltech's board of trustees, was honored on December 16 by USC's School of Business Administration at its 10th annual Awards Luncheon, when he received USC's Award for Outstanding Achievement in Business Management. Ramo, who pioneered in the field of microwaves, is the founder of a number of organizations including Ramo-Wooldridge Corporation which merged with Thompson Products in 1958.

## 1937

NASH MILLER, MS, research manager for United Geophysical Corporation, has returned to Pasadena after spending several years in Punta Arenas, Chile. He joined United after graduation and has worked in the British West Indies, Venezuela, Canada,

Libya, Brazil, Chile, and many states of the U.S.

## 1938

JOHN L. MERRIAM, professor of agricultural engineering at California State Polytechnic College, San Luis Obispo, spent last summer in Thailand training Peace Corps volunteers about soil conservation and irrigation in preparation for their work with the land development department.

LUPTON A. WILKINSON has recently become vice president of operations for McDonnell Douglas Astronautics Company with offices in Huntington Beach, Calif. Prior to this appointment, he was with McDonnell Aircraft Company in St. Louis, Mo., as director of manufacturing.

## 1940

CLIFFORD C. BURTON, member of the Alumni board of directors and the Associates of Caltech, has been elected president of C F Braun & Co. He was formerly vice president.

## 1941

HORTON STEVER, PhD, has been named by President Nixon as director of the National Science Foundation. He is president of Carnegie-Mellon University and was formerly on the faculty at MIT in aeronautical engineering and space technology, particularly for guided missiles.



Elko, '45



Kirk, '58

## 1945

EDWARD R. ELKO, former vice president for operations for McDonnell Douglas Astronautics Company in Huntington Beach, has been named president of Aerojet Ordnance and Manufacturing Company, one of the operating companies of Aerojet-General Corporation in Downey, Calif.

## 1946

RICHARD H. DAVIES, research engineer in electronic research at JPL, is currently on leave of absence until the 1972-73 academic year to work for Lockheed Missiles and Space Company in Sunnyvale, Calif.

ROBERT E. STEPHENSON, MS, has been appointed associate dean of the College of Engineering at the University of Utah. Prior to the appointment he has been teaching in the university's department of electrical engineering since 1952.

## 1947

FRANK BOWERMAN, MS '48, has been named chairman of USC's department of civil engineering. He joined the USC faculty in 1970 as director of environmental engineering, was previously assistant to the vice president of development for Aerojet-General Corporation, and until 1969 was group vice president of Zurn Corporation.

HERMAN KAHN, MS, is a member of a five-man commission nominated by Governor Nelson Rockefeller to investigate the administration of New York City. Kahn is director of the Hudson Institute at Harmon-on-Hudson, N.Y.

## 1948

CHARLES C. B. MOODY has joined Textstream Corporation as vice president of marketing. Moody, who graduated from Caltech in mechanical engineering, was a staff consultant to Hydrill Company before taking his new position. Textstream manufactures pumps, valves, and steam generating equipment used in the worldwide oil and gas producing and chemical processing industries.

## 1950

ROBERT V. MEGHREBLIAN, PhD '53, former deputy laboratory director for technical division at JPL, has joined Cabot Corporation as director of technology. Meghreblian has served as a member of the board of directors of Caltech's Alumni Association

since 1968 and served as both alumni secretary and treasurer.

## 1951

ROBERT F. CONNELLY, former president of Decontamination, Inc., of San Gabriel, Calif., joined the International Department of the Wynn Oil Company, in Azusa, Calif., last January. Since then he has done extensive traveling, and since October has been living in Tokyo where he is working as Wynn's industrial distributor for Japan.

## 1955

JAMES L. ADAMS, past Caltech student body president, is now professor of mechanical engineering at Stanford University. His course in engineering design for graduate students emphasizes innovation and problem-solving, and his students have designed a device to help teach braille, a computer controlled manipulator arm, a garbage grinding device which turns refuse into building material, and a traffic stopping recreation vehicle.

## 1957

JOHN O. STEVENS has retired from teaching psychology at Diablo Valley College to run his own publishing business, Real People Press. He recently wrote the book *Awareness: Exploring, Experimenting, Experiencing*, and is working toward setting up a small experimental community based on these principles.

## 1958

RICHARD M. KIRK has been elected vice president of Memorex Corporation where he is responsible for administration in the Information Media Group. He was formerly with Varian Associated.

## 1961

JEAN-DOMINIQUE HEYL, MS, manager of engineering for the French plant of Eli Lilly and Company of Indianapolis, recently moved to Lilly international headquarters in London as staff associate for production and facilities planning for continental Europe and the Middle East.

## 1962

CARL W. HAMILTON, assistant professor of quantitative business analysis at USC, is one of six faculty members honored last November for excellence in teaching. Awards, with an honorarium of \$2,000, are made from nominations by graduating students. Hamilton, who earned his MS from UCLA and his PhD from MIT, develops and teaches courses in management science.

## 1967

JAMES R. IPSEY, MS, PhD '69, has left the department of astronomy at the University of Washington in Seattle to join the Laboratory for Astrophysics and Space Research at the Enrico Fermi Institute of the University of Chicago.

## 1968

EDWARD J. GROTH III has received his PhD from Princeton University in the field of physics.

CHRISTOPHER A. PARR, PhD, was appointed assistant professor of chemistry at the University of Texas at Dallas on September 1. He moved there from a two-year postdoctoral fellowship at the University of Toronto, and prior to that, was a postdoctoral fellow at UC Irvine for a year.

## Obituaries

### 1918

GENE B. HEYWOOD on September 18 in Cave Creek, Ariz. The former Caltech Alumni Association president (1923-24) was employed with Dean Witter & Co. for 18 years until his retirement as a part-time consultant in 1968. A graduate of Caltech in civil engineering, Heywood was also a former director of Control Data Corporation and for 40 years served as director of the McGraw-Edison Company and Jennings-Heywood Oil Syndicate. He is survived by his wife Cecile and his daughter Nancy Heywood.

### 1926

CHARLES H. BIDWELL on December 2 in Albuquerque, N.M. He was employed by

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Vice President	Dudley E. Bennett '47 4124 Zephyr Way, Sacramento, Calif. 95821
Secretary-Treasurer	Harris K. Mauzy '30 2551 Carson Way, Sacramento, Calif. 95821
Meetings:	University Club, 1319 "K" St. Luncheon first Friday of each month at noon. Visiting alumni cordially invited—no reservation.
SAN DIEGO CHAPTER	
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Vice President	Thomas M. Menzies '65 801 Cotton, Menlo Park, Calif. 94025
Secretary-Treasurer	Robert T. Jenkins '65 1191 Yorkshire Ct., Cupertino, Calif. 95014
Meetings:	Engineers' Club, 16th floor, Hong Kong Bank Bldg., San Francisco. Informal luncheons every Thursday at 11:45 A.M. Contact Mr. Sigworth, 894-2918, on Thursday morning for reservations.
SAN JOAQUIN-MOJAVE CHAPTER	
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Secretary-Treasurer	William F. Edmondson '52 1831 Truxton, Bakersfield, Calif. 93306
WASHINGTON, D.C., CHAPTER	
President	Willard M. Hanger '43 4720 Sedgwick St., N.W., Washington, D.C. 20016
Vice President	Bernard B. Watson '35 Research Analysis Corporation, McLean, Va. 22101
Secretary-Treasurer	John T. Cookson Jr. '66 1225 Noyes Drive, Silver Spring, Md. 20910

Sandia Corporation, a subsidiary of Bell Telephone Laboratories, until his retirement four years ago. Bidwell also was a consultant for the Atomic Energy Commission and was a founder of the Albuquerque Tennis Club. He leaves a wife, Laura, one son, one daughter, three sisters, and two grandchildren.

### 1942

ALAN E. BELL on June 23, 1970. Bell received his MD degree from Johns Hopkins University in 1945 and was an ophthalmologist in Pensacola, Fla., at the time of his death.

### 1944

GUY B. COPELAND, MS, on November 12, 1969. A graduate of Tennessee Polytechnic Institute, he did his graduate work at Caltech in meteorology and was employed as a partner of the Livingston Motor Company in Livingston, Tenn.

### 1951

JOHN M. HEYGOOD, MS, on November 16 of coronary thrombosis in West Covina, Calif. A 1947 graduate of the University of Illinois, Heygood worked for the Continental Oil Company and Aerojet-General Corporation before becoming a senior process engineer with the Ralph M. Parsons Company in Los Angeles. He leaves his wife.

### 1960

HERBERT S. GLICK, PhD, on August 4 of leukemia in Denver, Colo. Glick received both his BS and MS degree from Cornell University before coming to the Institute to do post-graduate work in physics. He had been a member of the University of Denver's department of mechanical science since 1969.

## Placement Assistance To Caltech Alumni

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