

# CALTECH NEWS

VOLUME 6, NUMBER 2, MARCH 1972

PUBLISHED FOR ALUMNI AND FRIENDS OF THE CALIFORNIA INSTITUTE OF TECHNOLOGY

## Board approves development plan

Caltech's board of trustees recognized four outstanding gifts received by the Institute recently and approved a plan for development of the sites of Throop Hall and Gates Laboratory at its January 10 meeting.

President Harold Brown paid tribute to

trustees who have made contributions and announced these important grants that will support Caltech programs in both science and the humanities:

1. A \$1 million installment of a \$2,300,000 grant from IBM, partly in support of the IBM professorship in pure

and applied mathematics and partly for general purposes.

2. A \$750,000 grant from the A. W. Mellon Foundation to support work in humanities.

3. A \$610,000 grant from the Sloan Foundation for a four-year program in behavioral biology.

4. A \$225,000 grant from the Luce Foundation to establish a five-year professorship to examine law and social change in our technological society.

The board of trustees, which had earlier decided to demolish Throop Hall and Gates Laboratory because of the damage they suffered in last year's February 9 earthquake, approved the following actions:

1. The Throop Hall site will be redeveloped and landscaped as an essential part of the east-west mall, with a stairway between the two campus levels.

2. The electrical distribution station now in Throop Hall will be deactivated and the telephone facilities now housed there will be relocated.

3. A new building, principally for administration offices, will be designed for the Gates site. Until the administration building is designed and funded, the Gates site will be landscaped.

The board considered retaining the facade of Gates Laboratory, but chose not to do so because of the restrictions it would impose on the design of a new building.

The third floor of Millikan Library will house many of the administrative offices now in Throop until a permanent administration building is available.

Brown assured the trustees that nothing would be allowed to interfere with the completion of new chemistry laboratories to replace those from the Gates Laboratory before the fall term of 1972.

The board authorized the spending of between \$1,072,000 and \$1,372,000 to meet the costs of demolition and landscaping. Funds will come from earthquake reserves, earthquake insurance proceeds, and an earthquake self-insurance provision from reserves.



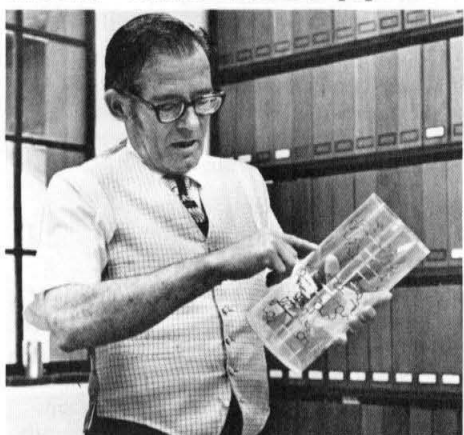
Culbertson Hall bites dust with Throop Hall and Gates Laboratory soon to follow in campus plan.

## Biology shows big increase in undergraduate enrollment

The number of freshman students selecting biology as their option has climbed sharply in the past three years and reflects the strongest increase for any major, according to figures from the Admissions Office. In 1960, only 1 out of 202 entering freshmen chose biology and this total remained at 1 as late as 1968.

But in the first quarter of 1970 the number of biology majors jumped to 10 and that figure doubled in the first quarter of 1971 for a total of 20.

Biology is a particular favorite among Caltech's female student population.



James Bonner  
...biology is relevant

physics with 195 majors and chemistry with 176 majors.

The number of freshmen who selected physics as their major rose from 36 in 1960 to 56 in 1970, and dropped to 47 in 1971. The number of chemistry majors fluctuated between 11 in 1960, 9 in 1970, and 17 in 1971.

Not only has the number of biology majors climbed, but the number of students in all fields who are taking biology courses has risen sharply. Biology 9 enrolled 93 students in the third quarter of 1970-71 and anticipates an enrollment of 130 during the third quarter of 1971-72. A particularly dramatic jump is noted in Biology 114, where enrollment rose from 14 in the 1970-71 first quarter to 54 in the first quarter of 1971-72.

James F. Bonner, professor of biology, said, "Four years ago, I started a course in cell biology that enrolled 4 students. The next year the enrollment rose to 22, the following year to 48, and last year we enrolled 103. This rise is indicative of the increase we've been observing."

Observers have offered several theories for biology's sudden upsurge in popularity.

David S. Wood, associate dean of students, believes today's students often view biology as being "where the action is" in terms of exciting new discoveries that can change the world for man.

Bonner expressed the same view. He said, "Part of the increased demand for biology stems from an urge among present day students to 'make their work relevant to life.' You can cure cancer with biology; you can use it to find ways of feeding the

Continued on page 2

## Faculty Honors

### Jerome Vinograd

Jerome Vinograd, professor of chemistry and biology, has been named the 14th recipient of the T. Duckett Jones Memorial Award by the Helen Hay Whitney Foundation in recognition of his conceptual and technical contribution to molecular biology.

The award of \$7,500 will be presented next November in New York at the annual meeting of Whitney postdoctoral research fellows, where Vinograd will present a talk on his work.

### Wheeler North

Wheeler North, professor of environmental science, has been chosen a Phi Beta Kappa Visiting Scholar for 1972-73. He is one of 10 scholars who will travel to 80 colleges and universities giving lectures and meeting with students during two to three day visits.

The program, sponsored by the national honorary scholastic organization, makes it possible for undergraduates to talk to outstanding scholars and artists who are also noted teachers.

### Alfred Stern

Alfred Stern, professor of philosophy emeritus, now teaching at the University of Puerto Rico, has been decorated by King Baudouin of Belgium for his services to that country before, during, and after World War II and in appreciation of his

achievements as a philosophical writer.

### Richard Feynman

Richard Feynman, Richard Chace Tolman Professor of Theoretical Physics, has been awarded the 1971 Oerstad medal for distinguished teaching by the American Association of Physics Teachers.

### Satish Dhawan

Satish Dhawan, visiting professor of aeronautics, will resume his position as director of the Indian Institute of Science in Bangalore. Dhawan has been teaching and conducting research in fluid mechanics and aeronautics since last April on a National Science Foundation senior fellowship.

Recipient of the Caltech Distinguished Alumni Award in 1969, Dhawan has established an international reputation for his research in fluid mechanics and for his contributions to the Indian aeronautics industry through the development of high speed wind tunnels.

### Jesse Beauchamp

Jesse Beauchamp, associate professor of chemistry, has been awarded a Camille and Henry Dreyfus Teacher-Scholar Grant of \$25,000. He is one of 16 young chemists to receive the grants intended to give them an opportunity to develop their potentials as teachers and scholars at an early period in their careers.



Professor George Housner answers questions of Pasadena students in televised class on earthquakes.



## Alumni profile

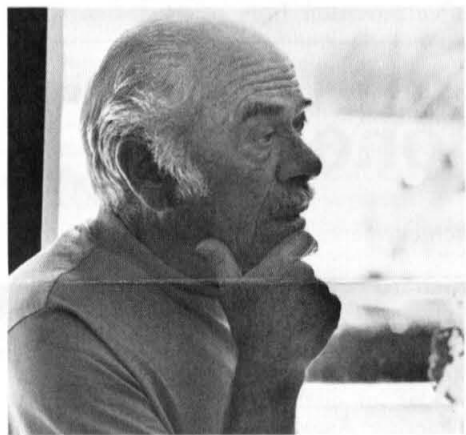
# Capra proves little guys can win

Young film directors who come to Frank Capra, BS '18, for a formula to success will go away empty-handed. The man who holds the longest unbroken string of Motion Picture Academy Awards in history looks out the window of his home on the La Quinta Country Club golf course and says, "Hell, there are no formulas."

"You have to make films that you like, not what others tell you the audiences will like. Great films have to hit people where their emotions are. You can't expect an audience to enjoy a film emotionally and think about why they are enjoying it at the same time."

"A director must trust in his own gut judgments of what is good and bad," Capra says. "Your answers must be swift and sure and you can't be cerebral about it. If you get something good, you should be able to get it right away. You smell a flower, you like it—right then. Something bright and good is instant—and it doesn't need to be sold with pomposity."

Capra demanded and got complete control over his pictures. His was the one-man, one-picture concept. He staked his reputation on every picture and came up with a string of hits, including "It Happened One Night," "Lost Horizon," "Mr. Smith Goes To Washington," and "You Can't Take It With You." His films made a major studio out of Columbia, and he became the first director to have his name listed above the title of his pictures.



...there are no formulas

A single theme seems to run through all of Capra's films: that a small man, with the courage of his convictions, can triumph over the most unwieldy government and corporate bureaucracies.

It is a Horatio Alger theme that is also the story of Capra's life from the moment he landed in Los Angeles at the age of six with his penniless Sicilian family. In the vernacular of the crap shooter, Capra has made his points the hard way.

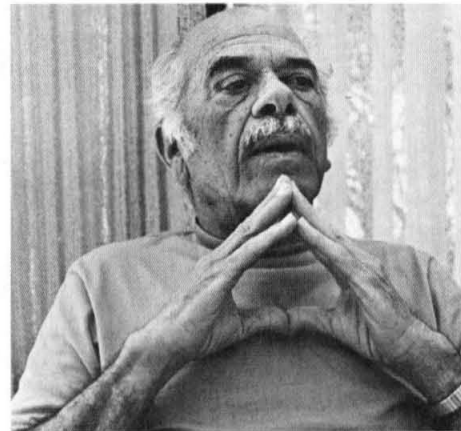
When he entered Throop Polytechnic Institute, the predecessor to Caltech, in 1915, Capra not only had to earn his own tuition, but he also had to help support his family. He did this by holding down three jobs while he went to school, including a four-hour stint with the Pasadena Power Plant that began at 3:30 a.m.

In rain and shine, Capra rode a second-hand, belt-driven motorcycle every day to Pasadena from his family's small lemon grove in Sierra Madre. Usually it was dark when he made the trip coming and going on the winding dirt road.

Capra had to win the freshman scholarship prize of \$250 in order to pay his tuition for the next year. In a style that marked his later success in Hollywood, he came through when the chips were

down and finished at the top of his class.

When his father died two years later in an accident at the ranch, Capra again found himself against a financial wall. This time school officials loaned him enough money to pay his tuition until graduation.



...universities should use film

Immediately enlisting in the army after receiving his BS degree in 1918, Capra found no jobs waiting for young chemical engineers when he returned from the service. Spurning a \$20,000 offer to make a still for a gang of bootleggers, he got the idea that he could make films.

During his ensuing roundabout path into the infant film industry, in which he rose from a \$35-a-week gag writer for Mack Sennett to Hollywood's most successful director, Capra never lost touch with the institution that became Caltech.

Capra often thought of coming back to work for a PhD. He also credits his scientific education for his success in making the transition from silent to talking films. "Everybody in Hollywood was scared to death of sound," he says, "but I knew all about sound waves from freshman physics."

He also continued friendly relationships with Caltech's Robert Millikan, astronomer Edwin Hubble, and English professor Clinton Judy, the man he credits with awakening his interest in literature.

Capra vividly remembers the first time he gave a speech at Caltech during the thirties. "I really got caught with my pants down. I had no idea I was supposed to give a prepared speech. I figured I was just going to talk to a small faculty group. But when I arrived I found the place packed. Everyone had turned out en masse."

"Hubble and Judy came to my rescue," Capra recalls. "They kept me from running away. Then Dr. Millikan said to me, 'You get up there and say whatever you came to say. No Caltech man is going to run away from a situation. You know that.'"

Capra says he will continue that speech when he returns to Caltech on April 17 to give the Monday night lecture at Beckman Auditorium. He plans to show some scenes from his films and tell the story behind their making.

Through the years, Capra has made a number of contributions to Caltech faculty and students. He is a member of The Associates and serves on the visiting committee for the Division of Humanities

and Social Sciences. He also supports a program for student film making at Caltech.

Capra believes universities should make far better use of film than they are now, both in teaching and in keeping a record of their activities. "Institutions like Caltech aren't doing their duty unless they record the history of their research on film," he says. "So few people read what scientists write."

Since his best-selling autobiography, *The Name Above The Title*, was published last year, Capra has received invitations from more than a dozen colleges and universities to talk to students about film making.

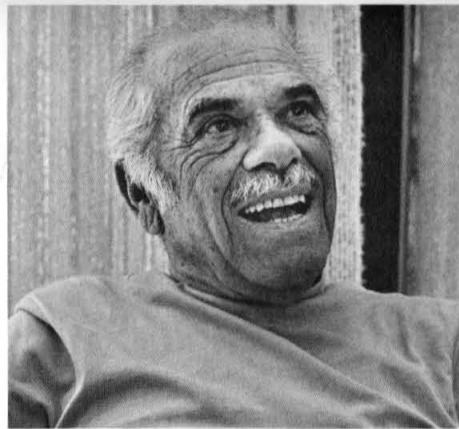
"Students today find values in the films I made that are rather amazing to me," he says. "There's this great wave of interest in all films, particularly in the older films. And even grammar school kids are making films now."

It disturbs Capra that films have never received the cultural recognition in America that they have in other countries.

"In almost every other country in the world, film is the center of culture, and not a pariah the way it is here," he points out. "Other countries subsidize films because they acknowledge the importance of this medium. They know the value of film in conveying ideas. They want to keep out American films and make their own."

Capra made his last film, "Pocketful of Miracles," in 1961. Since then many people have asked how he could simply retire to his ranch at Fallbrook and more recently to La Quinta.

"People don't understand why I can make films but am not doing it," he says. "The answer is because I've made them. I've made them as well as I can, and I don't think I could improve on the kinds of films I made, so it's time to move on."



...life is very special

Now Capra takes time to look up at the stars in the desert night. Thinking about the discussions he used to have with Hubble on the possibility of life on other planets, he says, "If life is found, how exciting that will be. But if the results are negative, and we never find any other life out there, it will mean that life on earth is very special."

About a Sicilian immigrant's son who climbed to the top of the film world by making his points the hard way, there is no doubt. Frank Capra's life, indeed, has been very special.

## Students switch to biology

Continued from page 1

world's teeming millions; you can use it to solve problems of air and water pollution. Biology is relevant to man and his needs, and this is very important to the freshman who enters Caltech today."

As delighted with the increase in biology majors as his division is, Bonner points out that it has created a problem in terms of where to house the additional students.

"We have no lab designed to house more than 12," he said. "To solve the problem in the immediate future, we plan to rebuild existing undergraduate labs into facilities that will accommodate 30. On a long-range basis, we hope for a new teaching facility."

Elwyn Loh, a graduate student who changed his major from physics to biology during his senior year, explained the reasons for his switch.

"If you go into physics, you spend years digesting the work of previous decades," Loh said. "These facts form a kind of ritual you have to learn. Today, physics is in a period of consolidation. Physicists are working out the details of basic discoveries that were made in the 1930's."

"But biology is in an expansive stage. You're exposed at the undergraduate level to exciting problems that people are working on now. A lot of the literature you study is contemporary. You get involved much earlier in real research, and it's much more exciting."

## CALENDAR

- Through April 14 Baxter Art Gallery  
ART EXHIBIT: "Surrealism is Alive and Well in the West."
- Saturday, March 4, 8:30 p.m. Beckman  
NANA MOUSKOURI, the incomparable Greek folk singer, and her quartet of music makers, the Athenians.  
\$6.50-5.50-4.50.
- Sunday, March 5, 3:30 p.m. Beckman  
NANA MOUSKOURI. Repeat of Saturday program.
- Sunday, March 5, 8:15 p.m. Dabney  
Lounge. CHAMBER MUSIC CONCERT: A program of choral music from the Middle Ages. Free.
- Wednesday, March 8, 8:30 p.m. Beckman  
ENCOUNTERS SERIES. Hungarian composer, Gyorgy Ligeti, premieres new work, "Ten Pieces for Wind Quintet."  
\$3.50; students, \$2.
- Friday, March 10, 8:30 p.m. Beckman  
ARMCHAIR ADVENTURES: "Polynesia," with Stanton Waterman. \$2.50
- Saturday, March 11, 8:30 p.m. Beckman  
OSCAR GHIGLIA, world-renowned guitarist. \$5-4-3.
- Sunday, March 12, 2 p.m. & 7 p.m. Ramo  
MARIA CALLAS movie, "Medea," directed by Pier Paolo Pasolini. \$2.50.
- Monday, March 13, 8:30 p.m. Beckman  
CALTECH LECTURE SERIES: "Racism and Imperialism in the British Overseas," Robert Huttenback, chairman of the division of humanities and social sciences, Caltech. Free.
- Saturday, March 18, 11 a.m. & 2 p.m. Beckman.  
CHILDREN'S SERIES: "The Snow Queen," Hans Christian Andersen classic presented by the Heiken Puppets. \$1.25; adults, \$1.75.
- Sunday, March 19, 3:30 p.m. Beckman  
COLEMAN CHAMBER CONCERT SERIES: Tokyo Quartet will play Quartet in B flat major, K 589 by Mozart; Quartet by Miyoshi; and Quartet No. 9 in F minor, Opus 95 by Beethoven. \$5-4-3-2.50.
- Saturday, April 1, 8:30 p.m. Beckman  
THE YOUNG AMERICANS, popular group of young singer-performers. \$6-5-4.
- Monday, April 3, 8:30 p.m. Beckman  
CALTECH LECTURE SERIES: "The Non-Military Effects of Herbicides in Vietnam," Matthew S. Meselson, professor of biology, Harvard University. Free.

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Photographer: Floyd Clark

### Placement Assistance To Caltech Alumni

The Caltech Placement Service may be of assistance to you in one of the following ways:  
(1) Help you when you become unemployed or need to change employment.  
(2) Inform you of possible opportunities from time to time.

This service is provided to alumni by the Institute. A fee or charge is not involved. If you wish to avail yourself of this service, fill in and mail the following form to:

Caltech Placement Service  
California Institute of Technology  
Pasadena, California 91109

Please send me: (Check one)

- ☐ An application for placement assistance  
☐ A form indicating a desire to keep watch of opportunities although I am not contemplating a change.

Name .....

Degree(s) ..... Year(s) .....

Address .....

.....

### Alumni!

Plan now to attend  
the 35th annual

ALUMNI SEMINAR DAY

SATURDAY, MAY 13



## Campus poll

## Muskie tops McGovern

Democratic candidates outpolled Republicans by almost two to one among students, faculty, and employees in a mock election sponsored by the Caltech Y.

A total of 719 faculty, graduate and undergraduate students, and staff voted in a dual primary and final mock election on a ballot distributed through the campus mail and to student houses. A tally according to party registration showed 315 Democratic, 180 Republican, and 224 Independent voters participating.

In the race for the Democratic nomination, Senator Edmund Muskie edged Senator George McGovern by a margin of 144 to 124.

President Richard Nixon was the overwhelming choice among Republicans with 170 votes to 40 for Paul McCloskey and 14 for John Ashbrook.

In the Democratic column, Congress-

woman Shirley Chisholm drew 42 votes while other candidates and their totals included John Lindsay, 29; Henry Jackson, 29; Eugene McCarthy, 24; Hubert Humphrey, 19; George Wallace, 7; Samuel Yorty, 4; Vance Hartke, 3; and Wilbur Mills, 2. Sixty-eight voters expressed no preference in the primary.

In final election balloting, Nixon was defeated by Democrats Muskie, McGovern, Humphrey, and Lindsay, winning only over Henry Jackson. Voters in the final election balloting picked their favorite candidate in each of 10 combinations. Candidates and number of votes in each combination were as follows:

Nixon (218)	Nixon (252)
Muskie (452)	McGovern (404)
Wallace (23)	Wallace (24)
No Choice (26)	No Choice (39)

Nixon (285)	Nixon (316)
Humphrey (356)	Jackson (266)
Wallace (25)	Wallace (26)
No Choice (53)	No Choice (111)

Nixon (249)	Nixon (255)
Humphrey (250)	Lindsay (283)
Wallace (23)	Wallace (31)
Chisholm (169)	Chisholm (123)
No Choice (28)	No Choice (27)

Nixon (214)	McCloskey (352)
Muskie (348)	Jackson (214)
Wallace (21)	Wallace (45)
Lindsay (127)	No Choice (108)
No Choice (19)	

Nixon (209)	Ashbrook (58)
Muskie (343)	Jackson (256)
Wallace (18)	Wallace (38)
Nader (121)	Chisholm (235)
No Choice (28)	No Choice (132)

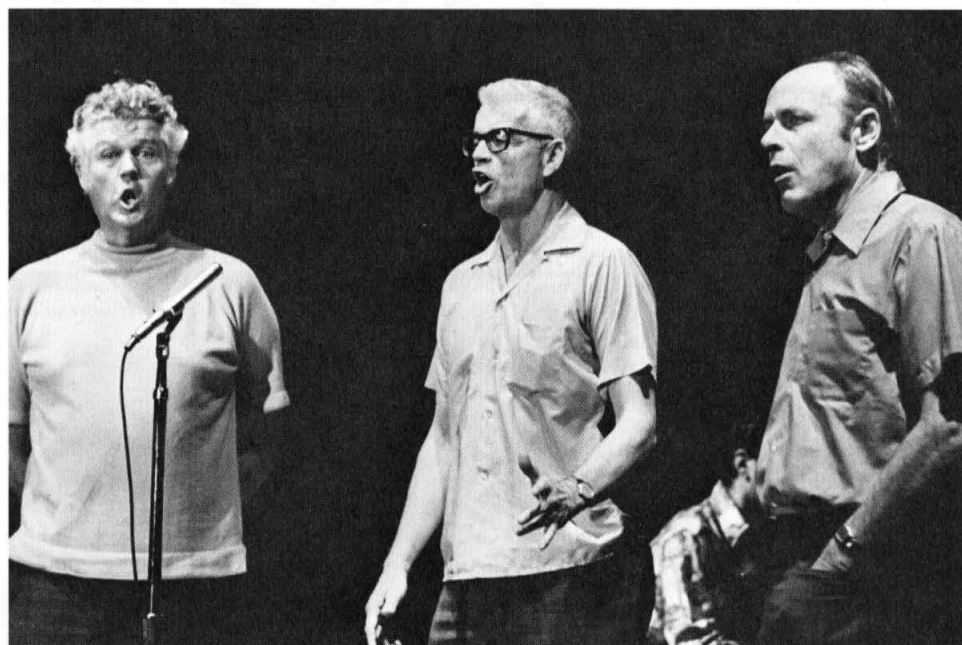
## San Diego alumni host Glee Club on March 24

For the second time in its four-year history, the San Diego Alumni Chapter will host the Caltech Glee Club at a dinner meeting on March 24.

The meeting, to be held at the Town and Country Hotel in Mission Valley, will begin with cocktails at 6:30 p.m., followed by dinner at 7:30 p.m. and the Glee Club concert. Husbands, wives, children and other guests of alumni are welcome.

Reservations for the San Diego Alumni dinner meeting, at \$6.00 each, can be made by contacting Dave Groce at JRB Associates, Box 1393, La Jolla, 92037.

## Interhouse Sing



Entertaining audience at annual Interhouse Sing are (above, from left) Professors Robert Oliver, J. Kent Clark, and David Wood, while the chorus from Ruddock House (below) walked off with top honors in the competition among houses at Ramo Auditorium.



## Alumni board nominates candidates

The Board of Directors of the Alumni Association met as a nominating committee on January 25, 1972, in accordance with Section 5.01 of the bylaws. Five vacancies on the board, in addition to the positions of president, vice president, secretary, and treasurer, are to be filled. The present members of the board, with the years in which their terms expire, are:

Clifford C. Burton '40, 1972  
Stuart M. Butler, Jr., '48, 1974  
Spicer V. Conant '64, 1974  
William A. Freed '50, 1972  
Raymond L. Heacock '52, 1973  
Earl C. Hefner '51, 1972  
William C. House '40, 1973  
P. Douglas Josephson '65, 1974  
Wayne MacRostie '42, 1972  
Wayne T. McMurray '45, 1974  
Reuben B. Moulton '57, 1973  
Hubert M. O'Haver '29, 1973  
Cornelius J. Pings '51, 1973  
Warren G. Schlenger '44, 1972  
George E. Solomon '50, 1973  
Arthur O. Spaulding '49, 1974  
Stanley T. Wolfberg '38, 1974

The following individuals have been nominated for the terms beginning at the close of the annual meeting in June 1972:

President—Arthur O. Spaulding BS49Ge, MS58Ge 1 year  
Vice President—Stuart M. Butler, Jr., BS48CE 1 year  
Secretary—Hubert M. O'Haver BS29ME 1 year  
Treasurer—Raymond L. Heacock BS52EE, MS53EE 1 year  
Director—Charles E. Auerbach MS47ChE, Che48 1 year  
Director—William J. Carroll BS48CE, MS49CE 3 years  
Director—James L. Higgins BS56EE 3 years  
Director—Richard C. Nielsen BS66Engrg, MS67ME, PhD71ME 3 years  
Director—Fred A. Wheeler BS29ME 3 years

Section 5.01 of the bylaws provides that the membership may make additional nominations for directors or officers by petition signed by at least fifty regular members in good standing, provided that the petition is received by the secretary not later than April 15. In accordance with Section 5.02 of the bylaws, if further nominations are not received by April 15, the secretary casts the unanimous vote of all

regular members of the Association for the election of the candidates nominated by the board. Otherwise, a letter ballot is required.

Statements about those nominated for directors are presented below.

—Raymond L. Heacock, secretary



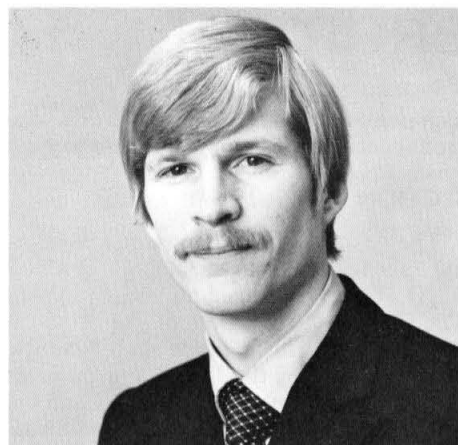
William Carroll

William J. Carroll received his BS in civil engineering in 1948 and his MS in civil engineering in 1949. After graduation he joined James M. Montgomery, Consulting Engineers Inc., in Pasadena and now is president of the company. He has served on the Seminar Program Committee, was assistant general chairman of the 34th Annual Seminar, and is general chairman of this year's seminar. Carroll is a member of the Alumni Association and president of the Southern California Consulting Engineers' Association.



James Higgins

James L. Higgins received his BS in electrical engineering in 1956 and joined the Transducer Division of Consolidated Electrodynamics Corporation (now Bell & Howell) as an applications engineer immediately after graduation. In 1958, he joined Endeveco Corporation in Pasadena and now is marketing manager for Engine Monitoring. A life member of the Alumni Association, he has been a member of several Alumni Seminar Day committees.



Richard Nielsen

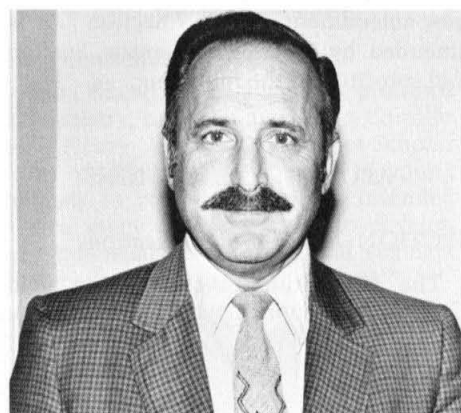
Richard C. Nielsen received his BS in engineering in 1966, MS in mechanical engineering in 1967, and PhD in mechanical engineering in 1971. As a graduate student, he was part of an organizing committee for the founding of the Graduate Student Council. His two and a half years as a member of the council included a year as chairman. After graduation he joined an industrial furnace manufacturing company, J. T. Thorpe Inc., as a design engineer. Nielsen has served as a member of the Alumni Association Homecoming Committee. He is currently vice president of the Gnome Club.

Fred A. Wheeler was graduated in 1929 with a BS in mechanical engineering. He received training in engineering and sales from Westinghouse and spent several years as a public and private corporate accountant. In 1939 he transferred from the Army Engineer Reserve to the Naval Reserve and remained an active reserve officer for 29 years. In 1946 he joined Norris Industries of Los Angeles and spent 25 years as an engineer and administrator



Fred Wheeler

involved with the mass production of formed metal products. He retired in 1971. Wheeler is a life member of the Alumni Association.



Charles Auerbach

Charles E. Auerbach received his BS in chemistry from the University of California in 1942. After spending four years in the Armed Services and being discharged with the rank of major, he enrolled at Caltech in 1946. He received a MS in chemical engineering in 1947 and a chemical engineer's degree in 1948. As a student, he was president of Fleming House and a resident associate of Ricketts and Dabney. Auerbach joined Standard Oil Co. of California in 1948 as a design engineer. Subsequent assignments led to his present position as assistant manager for oils planning in the Manufacturing Department in San Francisco. He currently is president of the San Francisco Chapter of the Alumni Association.



# PERSONALS

## 1925

**WILLIAM F. AGGELER**, named professor of French, emeritus, at UC Santa Barbara two years ago, has continued his study in comparative literature, particularly the works related to the 19th century French poet and essayist, Baudelaire. His latest is a book, *Baudelaire Judged by Spanish Critics, 1857-1957*, recently published by the University of Georgia Press, that reviews the writings of Spanish critics judging Baudelaire works unknown in Spain until the last two decades of the 19th century.

**LINUS PAULING**, PhD, Caltech professor of chemistry, emeritus, and former chairman of the Caltech division of chemistry and chemical engineering, is one of three winners of the Phi Beta Kappa Book Awards for his *Vitamin C and the Common Cold*, published by W. H. Freeman. Pauling, who holds two Nobel Prizes (Chemistry, 1954, and Peace, 1962) is professor of chemistry at Stanford University and is currently conducting research on the molecular basis of disease, including mental illness.

## 1926

**THEODORE C. COLEMAN**, recently retired president and chief executive officer of Coleman Engineering Company, Inc., has been appointed city manager of South Pasadena.

## 1927

**ALAN E. CAPON**, general manager of the public service department of the City of Burbank, received the Burbank Citizen of the Year Award for 1971 from the Burbank Board of Realtors at its 50th anniversary installation banquet.

## 1930

**WARREN ARNQUIST**, PhD, retired last spring after ten years of service with the Advanced Research Laboratories of McDonnell Douglas Corporation and became a research associate in the department of astronomy at UCLA. This affiliation has given him an opportunity to continue his interests in solar physics and to plan for his sixth total solar eclipse expedition next year. Arnquist, who was made a member of the International Astronomical Union in 1970, writes that he hopes to make photometric observations of the corona with his party of six astronomers from a site on the Gaspé Peninsula in Eastern Canada on July 10, 1972, and in the following June, from northern Africa.

## 1936

**W. E. "WALLY" SWANSON** has just assumed his new duties as director of construction and operations of the Rancho San Diego Development Company of San Diego. He has been director of the Construction Industry Liaison in Chicago. With this move, he turns over the presidency of the Chicago Area Chapter to **HOWARD E. JESSEN**, BS '46, who has been serving as vice-president.



Swanson '36



Mitchell '46

## 1940

**HAROLD S. MICKLEY**, MS '41, has been named executive vice president in charge of all technical functions of the Stauffer Chemical Company. He will oversee the research, engineering, environmental control, patent, licensing and safety and loss control functions of the company.

## 1941

**FRANKLIN S. HARRIS JR.**, PhD, has moved from southern California to Old Dominion University in Norfolk, Va., where he has a joint appointment as senior scientist in the department of chemistry and Institute of Oceanography. He is also working on atmospheric optics problems for NASA Langley Research Center.

## 1945

**JEROME HARRINGTON**, MS '47, has been promoted from general product manager for Micro Switch, a division of Honeywell, Inc., to the position of director of engineering. Harrington joined Micro Switch as a field sales engineer in New York City in 1950.

**ERNEST B. WRIGHT**, PhD, has been elected a trustee of Hartwick College in Oneonta, N.Y. A professor of physiology at the University of Florida College of Medicine since 1956, he resigned in 1969 to engage in scientific research and writing. He is a charter member of the American Biophysics Society

and a member of the American Physiology Society.

## 1946

**CHARLES C. HOFFMAN**, MS, AE, '46, until July of 1971 engineer and supervisor in the Reactor Systems Division, Lockheed Nuclear Products, Marietta, Georgia, writes that he is now teaching physics and chemistry at the May River Academy, Bluffton, South Carolina.

**DR. FERN WOOD MITCHELL**, MS, PhD '48, has been appointed as director of research for the Marine International Corporation, Newark, New Jersey, a diversified seafood producing company.

## 1947

**STEPHEN F. MORAN**, an engineer with the Naval Undersea Research and Development Center, recently solved a technical problem that has stumped Navy experts for years, according to the *San Diego Tribune*. He has developed a submarine torpedo velocity and acceleration measuring device.

## 1949

**CHARLES W. ALLEN**, MS, after 16 years of foreign assignments in Europe, South America, and Asia, has returned to Los Angeles to manage the personal oil and gas interests of John C. Tyler, co-chairman of the Board of Farmers Insurance Group.

## 1950

**BRUCE ROBINSON**, after 21 years as a petroleum geologist, has begun a new career in real estate with the Bakersfield Investment & Realty Company.

## 1952

**GERALD D. FASMAN**, PhD, has been appointed to the Rosenfield Chair in Biochemistry in the Department of Biochemistry at Brandeis University.

## 1953

**WILLIAM A. PETERSON**, MS '54, until recently manager of the Fort Lauderdale office of James M. Montgomery, Consulting Engineers, Inc., has been elected vice president of the pollution control consulting firm.

## 1957

**DANIEL R. MACK**, MS '58, has received his PhD from USC in electrical engineering.

## 1961

**GARRET M. IHLER**, previously a research fellow at Harvard University's medical school, is now assistant professor of molecular biology at the University of Pittsburgh Medical School. He writes that he married Karen Ippen in May 1970.

## 1966

**LOUIS NEWMAN**, who did his undergraduate work in Caltech's chemistry department, has recently completed his studies at Northwestern University for a PhD in chemistry, and has accepted a position with Instru-Med Associates, Inc., in Los Angeles.

**JOHN P. WALTER** is now assistant professor of physics at Brandeis University. Walter received his PhD from UC Berkeley in the field of solid state physics. He recently married Mary Louise Horney.

## 1967

**MARTIN D. COOPER** has completed his PhD work in physics at the University of Maryland and is now a research associate in the Nuclear Physics Laboratory at the University of Washington.

## 1969

**DONALD L. ANEY** is now an instructor with HAC (Hi-Level Training Group), Hughes Aircraft Systems International, Hachenberg-Kaserne, West Germany.

**DANIEL E. NEMZER** is a commissioned officer in the U.S. Public Health Service, stationed near Rockville, Md., as are **JEFF GROVE**, '69, **DOUG REECE**, '69, MS '70, and **PHILIP RUST**, '69. Dan is a programmer for the National Clearinghouse for Smoking and Health. He writes: "After a serious MS program at Ohio State University, I am again active in musical shows and plan to write a sequel to 'The Castle,' ASCIT's 1968 musical. Provided, of course, that **MIKE GARET**, '69, has enough time at MIT to write the music."

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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.

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Research Analysis Corporation, McLean, Va. 22101  
**Secretary-Treasurer** John T. Cookson Jr. '66  
1225 Noyes Drive, Silver Spring, Md. 20910

**JAMES A. WOODHEAD** graduated at Shepard AFB, Tex., from the technical training course for U.S. Air Force radiology specialists. Airman Woodhead, who learned to operate radiographic equipment used in fluoroscopic examinations, is assigned to Olmsted Airport, Pa., for duty with the 193rd Tactical Dispensary.

## Obituaries

### 1932

**CARL F. LIND** on November 28. He was district manager of the Asphalt Institute in Los Angeles. He is survived by his wife, Evelyn.

### 1938

**WILLIAM S. ALTHOUSE** on January 1, in St. Jude Hospital, Fullerton, after a lengthy illness. He is survived by his wife, Eleanor, a daughter, two sons, and two grandchildren.

### 1943

**PHILLIP E. WILCOX**, on November 2, after a long illness. A professor of biochemistry at the University of Washington, he was known for his work in protein chemistry research. He is survived by his wife, two sons, his father, and a brother.

### 1962

**BERNARD FORAN**, MS, on January 9. He received BSc degrees from the Royal Technical College and London University and was employed at AiResearch Manufacturing Company in Los Angeles. He is survived by his wife Audrey, son Sean, his mother, three brothers, and three sisters.

## Bylaws Amendment

The Board of Directors of the Alumni Association at its January 25, 1972, meeting adopted the following amendment to the Association's bylaws. In accordance with Article 9 Section 11.01, notice is hereby given to the membership of the new amendment. Article 7 Section 7.03 is amended by deleting the entire Section and substituting the following:

### ARTICLE VII ALUMNI PUBLICATIONS

#### SECTION 7.01 Major Publications

The Association in conjunction with Caltech will publish two major publications:

- (1) **ENGINEERING AND SCIENCE**, a magazine, and
- (2) **CALTECH NEWS**, a newspaper

#### SECTION 7.02 Distribution of Publications

**ENGINEERING AND SCIENCE** magazine shall be provided to all members of the Association. It shall also be available by subscription to students and other members of the Caltech community. In addition, Caltech or the Association may, at their discretion, distribute free copies or subscriptions in order to help serve Caltech's best interests.

**CALTECH NEWS** shall be provided without charge to all Caltech alumni, regardless of whether or not they are members of the Association. It shall also be distributed to other members of the Cal-

tech community free of charge at the discretion of Caltech or the Association.

#### SECTION 7.03 Publishing Agent

The Association will appoint a publishing agent to publish **ENGINEERING AND SCIENCE** magazine and the **CALTECH NEWS** on behalf of the Association. The publishing agent shall have the power to appoint the Editor and Business Manager, provide other personnel and operating facilities, and establish the annual budget for the publications.

#### SECTION 7.04 Finances

The Board of Directors shall review the financial operations of both publications annually and determine the Association's level of support. The Association intends to contribute to the support of Alumni publications and delegates to the Institute the distribution of its support.

#### SECTION 7.05 Editorial and Managerial Coordination

Editorial and managerial responsibility for **ENGINEERING AND SCIENCE** and the **CALTECH NEWS** shall rest fundamentally with the publishing agent. However, it shall be the responsibility of the Association's Board of Directors and Officers to assure that close cooperation occurs between the Association's staff and the Institute's staff in order that the best interests of both Caltech and the Association are served by both publications. If necessary, problems shall be resolved by discussions between the President of the Association and Caltech's Vice President for Institute Relations.