CALTECH NEWS

VOLUME 6, NUMBER 7, OCTOBER 1972

PUBLISHED FOR ALUMNI AND FRIENDS OF THE CALIFORNIA INSTITUTE OF TECHNOLOGY

Alumni leaders aim to boost participation in 1972-73 Fund

Some 100 alumni leaders from around the nation convened at the Caltech campus on September 15 for a two-day Leadership Conference orienting them for their role in the 1972-73 Alumni Fund.

The conference officially opened with a luncheon talk entitled "How a Caltech Jock Found Polynuclear Iron and was Condemned to Academic Purgatory," a nostalgically humorous account of one alumnus' love affair with the Institute by Paul Saltman, BS '49, PhD '53, vice chancellor for academic affairs at the University of California, San Diego.

During the two days of sessions, area chairmen and Alumni Fund Council members received an inside picture of the Institute's goals and needs through a talk by President Harold Brown on Caltech's future in the coming decades; a survey of the Institute's financial status by William H. Corcoran, vice president for institute relations; and summaries of current research and changing patterns by chairmen of the Institute's six academic divisions.

Donald D. Davidson, BS '38, chairman of the Alumni Fund, explained overall goals and objectives for the campaign.

Pointing out that Caltech alumni now number more than 11,500, he said the council is placing heavy emphasis on expanding the number of alumni who have participated in past funds. A goal of $300,000 has been set for the fund, with money to be used for general operating expenses.

In the Friday afternoon session, Corcoran told the alumni leaders that the decade ahead will be one of the most difficult in the history of private education. He said several private schools already have merged with state institutions, and that others may experience a similar fate.

Heavy taxes and increasingly competitive pressures on donors are causing them to examine their giving more closely than ever before, he pointed out.

Corcoran said that, at present, 53 percent of Caltech's operating revenues stem from reimbursement for federal research agreements and approximately 30 percent from endowment and gift income, down from 40 percent in 1961.

At the Friday evening dinner in the Athenaeum, President Harold Brown told alumni that within the coming decades Caltech will be confronted increasingly with the question of how to relate its activities to the needs of society while maintaining its traditional dedication to pure research and fundamental knowledge.

"The Institute will face strong pressures for more emphasis on applied work through availability of funds and the interests of its students," Brown said. "The solution will be to do some of each—fundamental research and important work applied to the needs of society."

He added that science should anticipate society's needs—not just one year from now but 5, 10 and 20 years in the future.

Brown stressed that results of fundamental work in physics, chemistry, astronomy, and geology at Caltech 20 years ago are playing important roles in solutions of today's technical problems.

Pointing out that it is impossible to determine what current fundamental research will be essential in solving applied problems 20 years from now, he said, "We do know that the highest quality work yields such knowledge and the work underway at the Institute is of that quality."

John D. Roberts, acting chairman of the division of chemistry and chemical engineering, opened a series of talks by division chairmen with the report that his division is expanding its work in molecular dynamics, particularly how molecules react in biochemical systems.

Chemical engineering is changing, swiftly evolving into such areas as artificial kidney research, solid state catalysis, reactions in plasmas and the photochemistry of air pollution, he said.

The division's greatest need is for money to permit flexibility and expansion into new areas, he remarked, adding that "when money is tight you're under pressure to keep on doing what you've been doing."

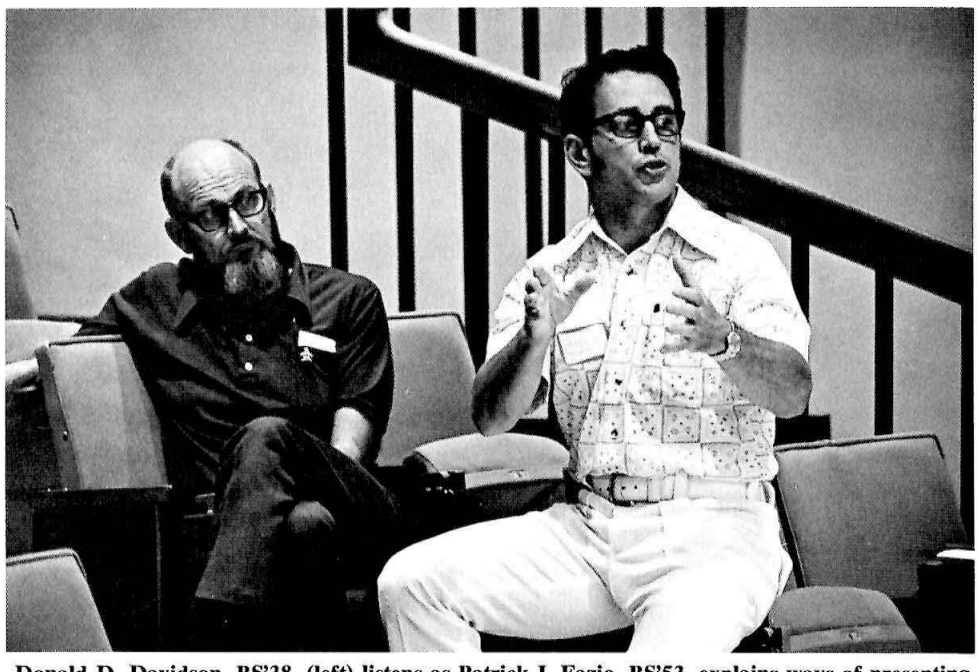
Ray D. Owen, professor of biology, speaking for division chairman Robert L. Sinsheimer, reported that biology today is experiencing the fruits of three decades of phenomenal progress in the understanding of life, and that Caltech scientists have played a vital role in this progress.

Telling the alumni, "Biology is where the action is going to be in the 1970's," Owen pointed to a dramatic rise in the number of students majoring in biology. While only one entering freshman chose biology as an option in 1968, he said there are now 15 seniors, 28 juniors, and 36 sophomore biology majors at the Institute.

Owen said the division's greatest need is for general operating money for equipment and supplies not covered through federal research contracts, and student support.

Robert A. Huttenback, chairman of the division of humanities and social sciences, said the division, through its new graduate social science program, hopes to produce a new breed of social scientists—

Continued on Page 2



Donald D. Davidson, BS'38, (left) listens as Patrick J. Fazio, BS'53, explains ways of presenting Caltech's needs to fellow alumni at a session of 1972-73 Alumni Fund Leadership Conference.

Paul Saltman, BS'49, PhD'53, speaks to alumni leaders at luncheon session in the Athenaeum.

Caltech's largest frosh class ranks among best in country

The largest freshman class ever to enroll at Caltech began a new academic year on September 26. There are 231 freshmen, or 12 more than 1970, the previous record holder.

Peter M. Miller, director of admissions, said the large enrollment resulted from an exceptional slowness on the part of accepted applicants to let the Institute know of their plans to attend. As the deadline for their acceptance approached, the Institute offered admission to several alternates and then received an unprecedented flood of last-minute acceptances from the original students.

Miller said the 1972 class continues to rank in the upper two or three percent nationally in college entrance board examinations as they have for at least the last 20 years. He pointed out that the average college board scores for entering Caltech freshmen are as high as those for any institution in the country.

Based on a perfect college board score of 800, here's how the current freshman class ranks:

Mean College Board Scores	
SAT-Verbal	670
SAT-Math	758
Physics	760
Level II Math	784
Chemistry	761
Biology	733
English	671
Mean High School Rank Score	716
Mean Predicted GPA	2.87

The Mean Predicted Grade Point Average is based on a 4.0 scale; however, 3.3 is the highest GPA ever predicted.

Miller pointed out that freshmen are selected not only on the basis of test scores and high academic performance but also on activities which point to an exceptionally strong scientific curiosity and drive.

"There are many students who earn A's easily, including A's in science and mathematics," Miller said. "When they come to Caltech they often have to work hard for the first time and they may discover they really don't like to work that hard in science or mathematics."

"If a fellow is a radio ham, or has filled his garage with chemistry experiments, or built an electronics workshop, or taught himself calculus in his spare time, then his drive and desire to study science are more likely to remain steady under Caltech's stiff academic pressures."

This year's entering class, for example, contains a student, Taras Kiceniuk, Jr., who built and set records with his own hanging glider. His father, Taras Kiceniuk, received his MS in mechanical engineering from Caltech in 1950 and is now superintendent of Palomar Observatory.

There are 26 freshmen women comprising 11 percent of the total, 3 less than the 29 women who entered last year.

Miller said the Admissions Office has not kept separate statistics on their College Board scores but that women applicants must meet the same standards as men.

"It is true that a girl applying to Caltech has a better chance for admission because fewer girls apply," Miller explained. "We received about 80 applications from girls this year, compared with about 820 applications from men."

One freshman girl, Jean Seagrave, is a second generation Techer; her father, John D. Seagrave, '46, earned his BS in electrical engineering and MS and PhD in physics from the Institute.

Annual Homecoming, Oct. 21

A record number of alumni and their families are expected for Caltech's Fifth Annual Homecoming, Saturday, October 21, in Tournament Park. A football game pitting the might of the Techers against the freshman team of Cal Lutheran at 1:30 p.m. will climax a full schedule of activities for the entire family.

Festivities for an expected 500 participants will begin at 10 a.m. with a soccer game between the Caltech varsity and Pomona's booters. Alumni water polo veterans are invited to match strength and skill with the Institute varsity in a meet at 10:30 a.m.

Caltech's band will provide spirited background music for luncheon with a concert at 12:30 p.m. Box lunches are available by advance registration for $2.50 with soft drinks and beer furnished all day for thirsty alumni and their families, courtesy of the Institute.

A clown and free balloons will help entertain children. Gymnasium facilities and the pool will be open for exercise and relaxation.

After the football game, there will be a no-host cocktail party at the Athenaeum with cartoons in the basement for children during the social hour.

All alumni planning to attend should send their reservations to the Alumni Office.

Pinky Moore-Caltech jock still winning

If there were a trophy given for the alumnus most unlikely to fill the public stereotype of a Caltech graduate, Harry Moore, Jr., BS '48, would win it hands down.

Moore, director of manufacturing services for IBM, came to Caltech in 1941, a stocky; athletic, sandy-haired, red-cheeked kid from Long Beach, who was immediately nicknamed Pinky. He had a liking for people, a hearty appetite for sports, and an aptitude for engineering but no special wish to make it his life's work.

He joined Fleming House, which was the jocks' house in those days, and immediately made the football team. He was at the gym as much as he was in classrooms, and neither of the environments nor Harry suffered from this diversion of interests.

"In those days," Moore reminisces, "you had to take four three-hour exams to get into Caltech. I think probably the reason they let me in was that they'd been getting some concern from industry about the typical Caltech grad being too technically inclined and not able to communicate with people. They were looking for some students with broader interests, and I think our class, as a result, had more individuals with interests other than purely technical ones."

Something must have happened to change the student body in those pre-World War II years, because Caltech started winning some football games, and in '43, Moore remembers, the team was a co-champion in the Southern California Conference.

When Moore wasn't into sports, he was into civil engineering. The person who influenced him the most in his academic work, and as an otherwise close friend and fishing crony, was William Michael. Prof. Michael was a popular teacher of civil engineering, and one proof of his warmth and availability to students is that they all refer to him as Bill.

Moore, who is an active interviewer for prospective Caltech students in the New York area, says he constantly refers to his relationship with Bill Michael to show them an aspect of Caltech that he thinks is deeply important—and singular to Caltech.

"He's a tremendous gentleman," Harry describes the now professor emeritus, "and I tell the students about him to try to indicate how the professors at Caltech try not to put you in a category. To me, Bill Michael represents what still impresses me about Caltech—the freedom students have to make their own decisions and organize things."

As it did to so many of his generation, World War II interrupted Harry's college education. By the time he joined a meteorology group in the Air Corps in the spring of '43, he was a letterman in football, golf, and basketball, and had been elected an all-Conference basketball guard.

During his service period he was stationed for a while in his home town of Long Beach, and ran into an old high school friend, Jane Stutsman, a coed at the University of Washington. By the time he came back to Caltech in 1947, he and Jane were married.

He picked up his athletic career where he had left off—football, golf, and basketball. He captained the basketball team that year, and once more became an all-Conference basketball guard. As he talks about his basketball days it is clear that this was his favorite sport—partly because of Coach Carl Shy, who was another member of the Caltech community whom Moore remembers with gratitude. In fact, the gratitude took a tangible form in 1954 when Moore gave Caltech a perpetual trophy, to be named after Shy and given yearly to the outstanding freshman basketball player.

Harry Moore, Jr., BS'48

When he graduated in 1948, Moore says he started "going around looking for a job with a company that didn't really care what sort of an engineer they got." Three companies were interviewing students, with an eye to getting some with an interest in business and a general engineering background. This was exactly what Moore realized he wanted.

"One of the companies was IBM," he says. "I'd never heard of it. As far as I knew it was the International Ballbearing Manufacturers!"

IBM was interested enough to suggest that he be interviewed by one of their engineers who was coming out from the east.

"I went to their office on Wilshire Boulevard and waited for him to come out and interview me. It was a week before he showed up, so I got very friendly with the people in the Los Angeles office in the meantime. I liked them all."

The engineer finally arrived and turned him down, but his new-found friends offered him a job in sales. He stayed there for two years before moving to Bakersfield as branch manager. In 1955 he moved east into the manufacturing and purchasing end of the business.

He is now head of IBM's corporate staff relating to the functional portions of manufacturing, such as manufacturing engineering, quality engineering, purchasing, and production control.

His belief in and appreciation for the Institute prompted him to take an active part in the Science for Mankind fund drive of five years ago. Moore, with a goal of $20,000 in his area, raised almost $60,000.

Last month Moore returned to campus for the first time in ten years to address the leaders of the new Alumni Fund to be launched this fall.

Although Moore has been highly successful in recruiting both prospects and money for Caltech, he didn't do so well in convincing his own twin sons. John opted for Princeton and is now attending the Wharton School of Business. Craig attended Johns Hopkins and Middlebury Universities and intends to be a doctor.

Caltech has nominated Moore to receive a Silver Anniversary Achievement Award from the National Collegiate Athletic Association. The awards will go to five men who excelled in athletics during their college years and have achieved notable success in their fields. If Harry should become one of the winners, his old athletic prowess will be appreciated all over again.

But in the meantime, although he's a businessman instead of a civil engineer, he is building some pretty solid bridges between alumni, students, and the Institute.

CALENDAR

Through Oct. 21, 10 a.m. to 5 p.m.; Thurs., 10 a.m. to 9 p.m. Baxter Art Gallery. *ART EXHIBIT:* Contemporary Tapestries/The Hurschler Collection.

Sunday, Oct. 8, 3:30 p.m. Beckman *COLEMAN CHAMBER CONCERT SERIES:* Guarneri Quartet in an all-Beethoven program. $5-4-3-2.50.

Sun. through Sat., Oct. 8-14, 10 a.m.-1:30 p.m.; 4 p.m.-8 p.m. Ramo. *ART EXHIBIT:* Infinite Images: A Corridor of Ever Expanding Space.

Wed., Fri., & Sat., Oct. 11, 13, & 14, 8 p.m. Beckman. *HEAVY ORGAN,* an extravaganza in mood, color, design, and Bach, featuring Virgil Fox with Revelation Lights. $6.75-5.75-4.50.

Monday, Oct. 16, 8 p.m. Beckman *EARNEST C. WATSON CALTECH LECTURE SERIES:* "Canyons of the Colorado: The Consequences of Catastrophe," Eugene Shoemaker, professor of geology, Caltech. Free.

Fri. & Sat., Oct. 20 & 21, 8 p.m. Beckman *LOS ANGELES DANCE THEATRE* will perform two ballets, "Billy the Kid" and "Walk to the Paradise Garden." $5-4-3-2.

Tues. through Sat., Oct. 24-28, 8 p.m. Ramo. *PUNTILA AND MATTI,* a play presented by Spectrum Productions. $3.

Thursday, Oct. 26, 8 p.m. Beckman *GUY LOMBARDO* and his Royal Canadians. $6.75-5.75-4.50-3.50.

Friday, Oct. 27, 8 p.m. Beckman *ARMCHAIR ADVENTURES:* "Magnificent Austria," with John Roberts. $3-2.50.

Saturday, Oct. 28, 8 p.m. Beckman *GARY GRAFFMAN,* acclaimed pianist. $6-5-4-3.

Monday, Oct. 30, 8 p.m. Beckman *EARNEST C. WATSON CALTECH LECTURE SERIES:* "The Mystery of Maize: An Interdisciplinary Saga," Dr. George W. Beadle, member, Board of Trustees, Caltech. Free.

Tuesday, Oct. 31, 8 p.m. Beckman *TUESDAY NIGHT AT THE SILENT MOVIES:* "The Unholy Three" with Lon Chaney, and "Variety" with Emil Jannings. Chauncey Haines at the organ. $2.50.

CALTECH NEWS

Vol. 6, No. 7 October 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 editors: Winifred Kennedy, Janet Lansburgh, Kathleen Marcum, and Kay Walker.

Photographer: Don Ivers.

Alumni hear division chairmen

Continued from Page 1

men and women who will enter policy-forming positions and help shape the future of the social sciences in the coming decade.

He said the division's greatest need is for funds to use at its discretion, adding that at present the division has almost no such funds available.

Francis H. Clauser, chairman of the division of engineering and applied science, pointed out an increased emphasis in his division on both environmental and biomedical engineering research.

Clauser said the San Fernando Valley earthquake focused attention on the need for a center for the collection and assimilation of data on major natural cataclysms, leading to the formation of a Center for Research on Natural Disasters at Caltech.

Salting his discussion with references to neutrinos, bosons, and up, down and strange quarks, Robert B. Leighton, chairman of the division of physics, mathematics and astronomy, told alumni that the number of physics majors continues to top those in other divisions and is holding firm at its ratio for past decades.

Leighton said the division's work in astrophysics has expanded substantially in line with increased knowledge about the fundamental properties and organization of the cosmos and a growing interest in how elements are produced. He added that Caltech has moved strongly into the field of radio astronomy and continues to be a leader in cosmic ray research.

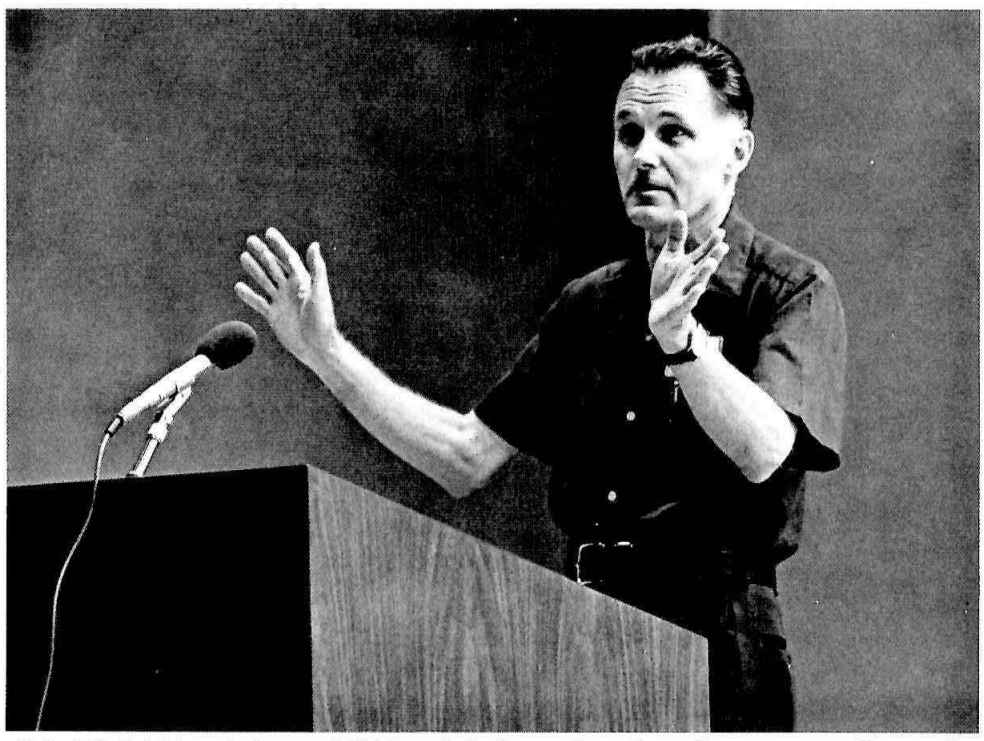
The division's greatest need is for discretionary funds to launch new projects or take advantage of unforeseen research opportunities, he said.

W. Barclay Kamb, chairman of the division of geological and planetary sciences, told alumni that long-term studies on the mechanics of earthquakes are a major activity in his division. Among major research areas, he mentioned the use of an electron microprobe for chemical analyses of matter, a technique applied heavily in measuring the radiometric age of lunar rocks; the isotopic analysis of ice to obtain data on the earth's climatic history; and studies of geological activity in the earth's interior.

As areas into which the division plans expansion, he cited the mechanics of rock deformation and failure as they relate to earthquakes; a study of man's impact on the earth's chemical systems through the emerging science of environmental geochemistry; and a geologically oriented study of natural resources.

At the Saturday afternoon session, Harry J. Moore, Jr., BS '48, director of manufacturing services for the IBM Corp., Armonk, N.Y., and Patrick J. Fazio, BS '53, vice president of McCulloch Oil Corporation of California, explained ways of presenting Caltech's needs to fellow alumni. At a concluding dinner Leon Silver, professor of geology, discussed his research with moon rocks and the training of astronauts.

Caltech's annual Alumni Fund, which traces its history back to the late 1940's, was merged for a five-year period with the Science for Mankind Development Program in 1967. Since that program officially concludes in November, the Alumni Fund is returning as a separate entity.



Robert B. Leighton, chairman of division of physics, mathematics and astronomy, outlines needs.

Sports Scene

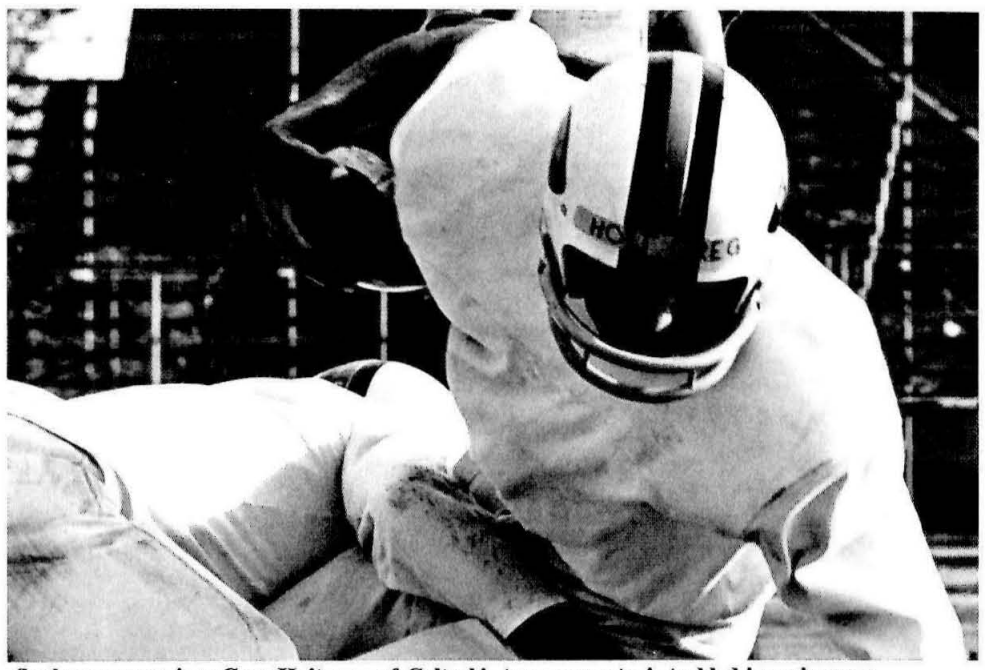
Hope springs eternal for Techers

"Everyone gets to play" will again be the theme of Caltech's 1972-73 intercollegiate sports program that gets into high gear this month in football, soccer, water polo, and cross country.

Athletic director Warren Emery has scheduled competition in all these sports at a level that will give Caltech athletes a chance to succeed.

"We try to tailor our program to fit the interests and capabilities of the students who want to participate," Emery said. "Of course, our students want to win as much as anyone else. It's just that they have their own set of priorities—studies always come first."

Emery said many alumni have told him that sports provided them with some of their best memories of Caltech, and he wants to continue that tradition. "We try to give every student a chance to compete in some sport," he said. "We figure every student who takes the time to come out and practice is a winner, regardless of the game scores."



Sophomore receiver Greg Hoit, one of Caltech's top prospects, is tackled in scrimmage.

FOOTBALL

With less than 30 prospects turning out for practice, other football coaches might get discouraged, but Caltech's Tom Gutman has learned to be resourceful.

"We ended up last year with 23 on the team, and I think we'll do better than that this year when all the freshmen come out," Gutman said. "Quality will have to be developed, but I think we'll surprise some people."

Last year Gutman's gridders surprised the whole Caltech community by winning two games, including a 27-0 win over La Verne's JV that snapped a losing streak dating back to 1968 and a last-minute 16-13 homecoming victory over the UC Riverside Frosh.

Gutman has eight returnees including last year's backfield of seniors Bob Bales at quarterback, John Morton at fullback, Steve Bisset at halfback, and John Ellis at tight end. Sophomores Greg Hoit and Jack Stemple will be back as receivers and are expected to get some competition from an outstanding freshman prospect, Mark Huescher.

Haywood Robinson, a returning junior with little football experience, is developing into a potential running threat, and senior John Rogers will again double as soccer team captain and star place kicker for the football team. "Rogers is the best kicker we've ever had," Gutman said.

Starters in the line will include sophomore Jim Moore at center, freshman Art Davis and sophomore Bill Sharman at guards, and junior Frank Hobbs and sophomore Bruce Harrow at the tackle slots. All will be counted on to go both ways on offense and defense.

Gutman expects the Cal Lutheran Frosh to be the toughest team on this year's schedule, but believes Caltech has a chance to pull off a victory in the homecoming game. Incidentally, the Cal Lutheran varsity was a pre-season pick as the top team among small college teams this year.

Before the homecoming game this month, the gridders travel to meet the Claremont-Mudd JV on Oct. 6 and will entertain the La Verne JV at home on Oct. 13 at 2 p.m.

CROSS COUNTRY

Coach Bert LaBrucherie will have four veterans to lead his cross country team in its schedule of six dual meets climaxed by the conference championship on November 4.

The returnees include sophomores Greg Griffin, Scott Mathews, and Ralph Terry and junior Al Kleinsasser. Griffin was the top competitor on last year's team, and Kleinsasser is a two-year letterman in cross country who holds the school records in the 880 and mile runs.

Sophomores Erik Horsley and Tom Herman will be competing for the first time this year along with freshmen Terry Savage and Jack Bason. Horsley has looked impressive in pre-season workouts. Savage is another top prospect and Bacon, although slowed down by an injury, is expected to be ready for the season.

La Brucherie expects his harriers to improve their record of last year when they finished sixth in the conference with a dual meet record of 1 and 6 and a sixth in the conference meet.

After meeting Occidental, La Verne, and Pomona, Caltech will have its first home meet on Oct. 20 at 4 p.m. against Whittier and will also host Redlands here on Oct. 27, starting at 4 p.m.

SOCCER

A group of six seniors, including Charles Young, Jay Munyer, John Rogers, Jan Waluk, David Evans, and Eduardo Orces, forms the core of Caltech's soccer team which Coach Don Cameron hopes will get off to a winning start this year.

As mentioned before, Rogers is not only the captain of the soccer team but also does the place kicking for the gridders, which may take some quick changing of uniforms.

Cameron's booters are home this month on Oct. 7 for a meeting with Claremont-Mudd at 10 a.m. and another home game against Redlands, Oct. 11 at 3 p.m. After traveling to Occidental and Biola, the booters will play Pomona in a homecoming game here starting at 10 a.m. They also have a 10 a.m. date here with La Verne on Oct. 28.

WATER POLO

Although half of last year's starters have graduated, Coach Lawlor Reck thinks this year's water polo squad has a real chance for the conference title. Senior Jim Jakway and sophomore Russ Desiderio are expected to be the big guns for Caltech with support from juniors Virgil Shields, Steve Bitondo and Bob Kieckhefer.

The top frosh prospects so far are Howard Bubb, Jim Rowson, and Dave Clark.

The tankers have 10 swimming dates this month including a home match with Pierce College on Oct. 4, the UC Riverside tourney, Oct. 6-7, followed by home matches with PCC on Oct. 11 and Cal State L.A. on Oct. 14. After traveling to Claremont-Mudd on Oct. 18, Reck's squad returns to its home pool for a meeting with Pomona on Oct. 20 and the big homecoming match with the alumni team starting at 10:30 a.m., Oct. 21. The last date of the month will be Oct. 28 at Redlands University.

ALUMNI EVENTS

October 13

San Joaquin-Mojave Chapter meeting. Bill Lee's Bamboo Chopsticks, 1203 18th Street, Bakersfield. Social hour, 7:30 p.m.; dinner, 8 p.m. Speaker—Mahlon F. Easterling, research associate with Caltech's Environmental Quality Laboratory, offering a behind-the-scenes look at research on environmental problems.

October 20

Twenty-fifth reunion of the Class of 1947. Campus tour, 4 p.m.; no-host social hour, the Athenaeum Bar, 6 p.m.; dinner, the Athenaeum, 7 p.m. An informal program featuring ad lib recollections by class members and remarks by Eugene M. Shoemaker, BS '47 Ge, MS '48 Ge: "Caltech 25 Years Ago and Today."

October 21

Homecoming. Water polo, soccer, football, band music and entertainment for the children. Tournament Park, all day, beginning at 10 a.m. and concluding with a social hour, the Athenaeum Bar.

November 11

San Diego Chapter meeting. The Catamaran Hotel. Social hour, 6:30 p.m.; dinner, 7:30 p.m. Speaker—Mahlon F. Easterling, Caltech's Environmental Quality Laboratory.

December 4

Alumni Dinner—Earnest C. Watson Caltech Lecture Series. No-host cocktail hour followed by dinner at the Athenaeum. Speaker—A. J. Haagen-Smit, professor of bio-organic chemistry, emeritus, "The Sins of Waste."

January 1

Alumni Rose Parade special. Breakfast, the Athenaeum, followed by parade viewing, a social hour at the Institute, and bus transportation to the Rose Bowl.

Caltech community welcomes new faculty

Caltech welcomed the following new members to its faculty this summer:

Alfred Tissières, visiting professor of biology, from the University of Geneva; John H. Schwarz, research associate in theoretical physics, from Princeton University; Robert C. Y. Koh, research associate in environmental engineering science, from Tetra Tech, a consulting firm.

Per Brinch-Hansen, associate professor of computer science, from Carnegie-Mellon University; David J. Winter, visiting associate professor of mathematics, from the University of Michigan.

Benjamin D. Zablocki, senior research fellow in sociology from the University of California, Berkeley; and Michael G. Hauser, senior research fellow in physics, from Princeton.

Mihailo D. Trifunac, assistant professor of applied science, from the Lamont-Doherty Geological Observatory, Columbia University; Michael W. Werner, assistant professor of physics, from the University of California, Berkeley; Morris Fiorina, assistant professor of political science, from the University of Rochester.

The new members bring the Institute's teaching faculty to a total of 280, its research faculty to a total of 299, with 61 in miscellaneous categories.

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 .....

.....

PERSONALS

1924
LYALL A. PARDEE, recently retired city engineer of Los Angeles has been engaged as a special consultant and appointed a vice president of Koebig & Koebig, Inc., Los Angeles.

1931
ABRAHAM J. GRAFMAN is currently chief engineer, advanced development, for the Israel Aircraft Industries and is involved in the field of advanced composites.

RAY F. LABORY retired from Union Oil Company of California, Los Angeles, where he had been an automotive transportation engineer for the last two years. He is active in the firm of L-R Associates as a transportation consultant.

1934
RICHARD T. PARKER retired in 1971 after 30 years as senior scientist-engineer at Douglas Aircraft Company, Long Beach division. He is now chairman of the Rolls Royce Owners' Club of southern California.

1937
MARTIN H. WEBSTER, formerly a president of the Beverly Hills Bar Association and a partner in the firm of Webster & Creamer, is currently serving as a member of the board of trustees of the Los Angeles County Bar Association and of the board of directors of the Los Angeles County Bar Association.


Pardee '24


Parker '34

1938
LUPTON A. WILKINSON is presently vice president, operations, McDonnell Douglas Astronautics Company, Huntington Beach. He was formerly production manager at McDonnell Douglas Astronautics Company in St. Louis.

1941
JAMES R. GARRETT, MS'52, is now a professor of mathematics at Lenoir Rhyne College, Hickory, N.C. He was formerly manager of Diagnostics and Test Systems, RCA, Riverton, N.J.

CLIFFORD A. TRUESDELL, MS'42, professor of rational mechanics at Johns Hopkins University, has been elected a foreign member of the Accademia Nazionale dei Lincei in Rome.

1942
ADRIAN MAYER, M.D., is now a lecturer in anesthesia at UCLA and an anesthesiologist at Harbor Hospital in Torrance, Calif. He was formerly an anesthesiologist at Peninsula Hospital, Burlingame, Calif.

CARL H. SAVIT, MS'43, senior vice president, technology, for Western Geophysical in Houston, has been appointed chairman of the committee on seismology of the division of earth sciences, National Academy of Sciences National Research Council.

FRANK W. WOOD, former regional manager in purchasing for Mobil Oil Company in Los Angeles, is now purchasing coordinator for that company in Dallas.

1943
CHARLES D. WAGNER, PhD, is now a research chemist for Shell Development Company, Bellaire, Texas.

1945
JOHN S. JACKSON was program chairman of the 1972 Carnahan Conference on Electronic Prosthetics held at the University of Kentucky, September 21 and 22, where he is associate professor of electrical engineering.

R. F. SCHMOKER, former area sales manager, Industrial Products Division, Dresser Industries, Houston, is currently central regional manager for this company in the same division, Franklin Park, Ill.

1946
ROBERT A. GOLDING is a supervisor of Shell Development Company in Houston. He was formerly a supervisor of Shell Chemical Company in New York.

THOMAS F. WELDON, MS, AE'47, is a consultant with the Boeing Company in Paris.

1947
FRED E. ROSELL, JR., MS, is a project engineer for radioisotope power generators, Naval Nuclear Power Unit, Ft. Belvoir, Va. He was formerly general manager of Robertson and Associates, Los Angeles.

CALHOUN W. SUMRALL, MS, has been named director of engineering and manufacturing at Philco-Ford Corporation's Western Development Laboratories Division in Palo Alto.

1949
ORSON L. MITCHELL has retired after 31 years of service from the position of head of the Materials Engineering Laboratory, Mare Island Naval Shipyard, Vallejo, Calif.

1952
VICTOR GATES is department chief of Western Electric Company in Cavalier, N. Dak.

WILLIAM J. RIHN was recently named school board president for the city of San Gabriel. He was elected to the board in 1969.

1953
R. P. HELIN was recently promoted to the position of chief engineer, Measurement Systems Division, Statham Instruments, Oxnard, Calif.

1955
ROBERT O. GOSE, MS, has been named a vice president of TRW Industrial Operations. In addition, he becomes director of Instrumentation and Control Operations and will continue as acting director of Program Development and Management.


Sumrall '47


Gose '55

1956
ARNE KALM, MS'57, has joined Hollywood Turf Club as vice president, corporate development.

JACK L. KERREBROCK, PhD'56, professor at MIT, is currently director of the Space Propulsion Laboratory and the Gas Turbine Laboratory there.

1957
W. FARRELL EDWARDS, MS, PhD'60, is now director of general education at Utah State University. He was formerly chairman of the physics department.

HARUO OZURO, MS, has left the United States for Tokyo, Japan, to assume the position of professor of aerospace science, Tokai University, Tokyo.

C. ALLEN WORTLEY, MS, was cited as the 1972 Professional Engineer in Private Practice at the Fall Conference of the Wisconsin Society of Professional Engineers.

1958
NORMAN T. ELLET has been promoted to director, information services, Baxter Laboratories, Morton Grove, Ill. He previously served as manager, management services.

1959
M. F. GILLIS, MS, has been named research and development manager of the medical sciences section at Battelle-Northwest's Richland laboratories. Before joining Battelle in 1966, he was in private veterinary practice.

HARVEY J. MEYER, MS, has recently joined the exploration staff of Amoco Production Company in its Denver office.

ROBERT M. SCHMIDT, MS, received his PhD in engineering mechanics in August from the department of aeronautics and astronautics at the University of Washington.


Wortley '57


Gillis '59

1960
THOMAS K. BJORKLUND is now senior geological engineer for Shell Oil Company, New Orleans. He was formerly a geological engineer for Shell Oil Company in Los Angeles.

PAUL M. WEICHSEL, PhD, is associate professor of mathematics at the University of Illinois. He writes, "I have just returned to the U.S. after spending two years in Israel. I spent '70-'71 as a sabbatical visitor at the Hebrew University of Jerusalem and '71-'72 as a visiting professor at Tel Aviv University where I taught a full schedule—in Hebrew—hair-raising but very satisfying."

1961
JAMES M. KALLIS, MS, has joined Hughes Aircraft Company, Culver City, Calif., as a member of the technical staff in the laser division.

ROBERT F. POE, MS'64, a former graduate student at UCSD, is now a research associate at the Institute for Theoretical Physics, State University of New York.

PAUL W. PURDOM, JR., MS'62, is an associate professor of computer science at Indiana University. He was formerly a member of the technical staff at Bell Telephone Laboratories, Naperville, Ill.

1962
ROBERT GERSHMAN is currently serving as group engineer for McDonnell Douglas Astronautics Company, Huntington Beach.

C. R. HADEN, MS, is director of the School of Electrical Engineering, University of Oklahoma. He was formerly an associate professor of electrical engineering at Texas A&M.

1963
STEPHEN L. LOWE is a graduate student in chemistry at the University of Oregon. He was formerly a laboratory officer with the United States Air Force.

1964
GEORGE R. CANNON, JR., formerly staff programmer for IBM, Atlantic City, N.J., is now staff programmer for IBM federal systems division at Vandenberg AFB.

ROBERT R. MEYER, formerly a mathematician for Shell Development Company, Emeryville, Calif., is now a mathematician for that company in Houston.

1965
LEWIS MARTIN FRAAS received his PhD in electrical engineering in June, 1971, from USC.

MANUEL A. HUERTA is an assistant professor of physics at the University of Miami. The past two years he has been an associate research scientist at Courant Institute of Mathematical Sciences, New York University.

JAMES R. KERCHER is a presidential intern, environmental sciences division, Atomic Energy Commission, Oak Ridge National Laboratories, Tenn.

1966
GARY L. BORNZIN received a PhD in physics from the University of California at Berkeley.

PHILIP L. COLEMAN is currently a research associate at Rice University's department of space science, Houston. He was formerly a graduate student at the University of Washington.

Obituaries

1931
CHARLES E. KIRCHER, JR., MS'33, on August 22 in Mt. Carmel Mercy Hospital, Detroit. He is survived by his wife Nancy; three sons, Chris, Charles III, and Conrad; three daughters, Josie, Julie, and Faith, and one grandchild. Kircher was a project manager on the Manhattan Project which developed the atomic bomb during World War II, and retired in 1970 as assistant director of research for the Detrex Chemical Industries.

EDWARD H. UECKE, on April 26, 1972. He was director of corporate development engineering for Capitol Industries, Hollywood.

1937
JAY B. VAN DER WERFF, MS'38, on May 25. He is survived by his wife Helen, and sons Gregory, BS'71, and Carlos Wheeler. He had been chief project engineer at General Sprinkler Company at Fresno, Calif.

1940
ERWIN BAUMGARTEN, on April 3, of a heart attack. Survivors include his wife Dorothy, son Richard K., and brother Dr. Erwin Baumgarten. He had been a senior scientist at the Center for Naval Analysis, Arlington, Va.

1950
A. BRECK PARKER, on July 29. A consulting geologist, he is survived by his wife Ethel; two daughters, Kirtly and Rosalind; and two sons, Steven and Samuel, all of Denver.

1960
JOHN H. MUNSON, on June 21, in Menlo Park, Calif. He was a physicist at Stanford Research Institute.

1963
WILLIAM L. HENDRY, MS, of Los Alamos, N.M., was killed in an accident in Yellowstone Park on July 31.

John T. Bowen '42

John T. Bowen died on August 5, 1972, in New York City after a short illness.

Jack, a member of the class of '42, received all of his undergraduate and graduate education at Caltech and took his PhD degree in 1949. Jack was a highly talented engineer in the broadest sense of that term, fully recognizing the technical as well as managerial responsibilities of the work. He planned his professional development with care so that he could familiarize himself with the functioning of large as well as small industrial corporations. He was most successful in his endeavors and his ability was widely recognized. His career culminated in his appointment as Vice President of Engineering and Research for the worldwide operations of AMF, Inc., New York, the position which he held at the time of his death. Jack had many close personal friends among the Caltech faculty and he was a regular and most welcome visitor to the campus.

His many friends deplore his untimely passing and extend their sincere sympathies to his wife, Martha.

Rolf Sabersky '42

Dino A. Morelli

Dino A. Morelli, 56, Caltech professor of engineering design, inventor and developer of precision instruments, died Sept. 12 at the Huntington Memorial Hospital in Pasadena.

A member of the Caltech faculty 24 years, Morelli taught machine and engineering design, developed instruments and pumps and for a time designed children's furniture. He served as a consultant to several firms.

Born in Queensland, Australia, Morelli was graduated and obtained a master's degree in engineering from the University of Queensland. He obtained an MS and a PhD from Caltech. He was a member of the American Society of Mechanical Engineers and Sigma Xi.

He taught at the University of Queensland and owned a sheet metal firm and instrument-making company in Queensland before coming to Caltech.

Morelli is survived by his widow, Veronica; two children, Mrs. Gary Lepper, Concord, California, and Mark, a student at the University of Toronto, Canada; and a grandchild, Meghan Lepper, 2.