



## FOREWORD

No years have gone by as fast as those we have spent at Caltech. For all of us the year '52-'53 has been full of rich experiences. The purpose of this **Big T** is to catch in a backward glance those experiences we shared, to organize them, and to fix them sharply and permanently in photographic form.



## STAFF

Larry Starr -	-	-	-	-	-	-	Editor-in Chief	
John C. Behnke, Jr		-	-	-	-	-	Managing Editor	
Micheal Boughton	-	-	-	-	-	Phe	otography Editor	
George Moore	-		-	-	-	- 1	Activities Editor	
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Kai Kristensen	-	-	-	-	-	-	Faculty Editor	
David Workman	-	-	-	-	-	-	- Art Editor	
Robert Pechacek	-	-	-	-	-	B	usiness Manager	

Sports staff: Carl Sauer, Edwin Stofel, George Patraw, and Raymond Grieser

### Classes staff: Albert Pitton, Jim Snyder, Al Haber, James Kliegel, and Bill Barlow.

Houses staff: Gerry Vurek, Gerry Dudek, and Van Bleumel.

Photography staff: Carl Sauer, Tom Taussig, George Stranahan, Ed Bryan, Tom Bergeman, Kai Kristensen, Rodney Supple, and Byron Johnson.

Business staff: Ed Gehle, George McDonald, Bill Kelly, Walt Haenggi, and Don Barnes.

This yearbook is the result of an equal amount of work on the part of about ten people. Mike Boughton enthusiastically took over the key position of photography editor, and the division pages were handled by George Stranahan. Carl Sauer made the sports photos his pet project, and snapped the whole section single handed and expertly. Credit for the individual sections goes to the editors of them. We got fine cooperation from Roy Day of P-B Press and George Peterson of Peterson Engraving. Ed Hutchings, Editor of **Engineering and Science**, and Bob Fiedler of the C. I. T. News Bureau helped us out with some fine shots of research going on at the Institute.



IN MEMORIAM FRANKLIN THOMAS

















Lee A. DuBridge President

## DEANS



Foster Strong Dean of Freshmen



L. Winchester Jones Dean of Admissions



Paul C. Eaton Dean of Students



Earnest C. Watson Dean of Faculty



William Lacey Dean of Graduate Studies

### STUDENT

## FACULTY RELATIONS

The function of the Student-Faculty Relations Committee is mainly to act as a medium for discussion of problems and matters of concern to both students and faculty at the Institute. As such it aids in mutual understanding and cooperation in meeting the work at hand. The group, composed of ASCIT officers, Board of Control representatives, editors of the student publications, student house presidents, class presidents, and faculty members, is lead by Harvey Eagleson, who is sitting to the left at the front table. Others at the front table, from left to right are: W. Hershey, John Gee, Jim LaTourette, and Ron Ratney. In back are: John Weir, Foster Strong, D. S. Clark, H. K. Mitchell, Paul C. Eaton, Norman Davidson, Bob Lynam, Don Roberts, L. Winchester Jones, Pat Fazio, George Johnston, Tom Janssens, George Moore, W. Hertenstein, and Bill Autrey. Faculty members missing are: R. P. Sharp, E. Sechler, Hunter Mead, A. J. Haagen-Smit, G. W. Green, and John Schutz. The students not present are: Moose Henderson, Ralph Miles, John Merrill, Dick Jaffe, Chuck Benjamin, Bob Pechacek, Larry Starr, Tom Parker, Bill McCormick, J. Morgan Ogilvie, Alan Haber, Gene Muehlberger, Ken Nicholson, Sam Vodopia, Jim Adams, and Mike Lourie.



Left to right standing: G. W. Beadle, A. H. van Harreveld, Jacob Dubnoff, Henry Borsook, Ray D. Owen, Howard Teas, A. J. Haagen-Smit, Albert Tyler. Seated: H. K. Mitchell, C. A. G. Wiersma, A. H. Sturtevant, E. B. Lewis, Geoffrey Keighley, Renato Dulbecco, N. H. Horowitz.

## BIOLOGY



Renato Dulbecco Bacteriology



George W. Beadle Division Chairman



Ray D. Owen Immunology

Arthur W. Galston Plant Physiology



Anthony van Harreveld Animal Physiology



Linus Pauling, Division Chairman, explaining a protein molecule

Howard J. Lucas, Professor of Organic Chemistry demonstrating a reaction in one of his lectures.







Don M. Yost Inorganic Chemistry



Stuart J. Bates Physical Chemistry

Standing: Richard M. Badger, Harvey Itano, O. R. Wulf, J. H. Sturtevant, Robert B. Corey, Laszlo Zechmeister, William Corcoran, Walter A. Schroeder, Edward Hughes and Ernest H. Swift. Seated: William Lacey, Norman Davidson, Dan H. Campbell, Linus C. Pauling, and Howard J. Lucas.





Front: John P. Buwalda, Richard H. Jahns, Robert P. Sharp, Frank F. Grout, D. Foster Hewett, and Beno Gutenberg. Rear: Gennady W. Potapenko, James A. Noble, Charles Hewitt Dix, Charles F. Richter, Hugo Benioff, Ian Cambell, Harrison Brown, Charles E. Weaver, Lloyd C. Pray, and A. E. J. Engel.

## GEOLOGY



Harrison Brown Geochemistry



Robert Sharp, Division Chairman "The effect of the Greenland Ice Sheet..."



Front: Earnest C. Watson, Robert Walker, Robert F. Bacher, William A. Fowler, and Paul S. Epstein. Rear: Jesse W. M. DuMond, Leverett Davis, Jr., Robert Leighton, Richard P. Feynman, Foster Strong, H. P. Robertson, Robert F. Christy, William R. Smythe, Robert King, and Alexander Goetz.

## PHYSICS

Robert A. Millikan



Robert F. Bacher Division Chairman





Front: Robert P. Dilworth, H. F. Bohnenblust, Morgan Ward. Rear: Samuel Karlin, L. D. Berkovitz, T. M. Apostol, and Henry A. Dye.

## MATHEMATICS AND ASTRONOMY



Jesse L. Greenstein Astrophysics



Guido Münch, R. Minkowski, A. Deutsch, Fritz Zwicky, Fred Hoyle, Jesse L. Greenstein.



Front: L. M. Field, Royal Sorenson, Gilbert D. McCann, William H. Pickering, Richard H. MacNeal, and C. H. Pappos. Rear: J. N. Thurston, R. V. Langmuir, Francis W. Maxstadt, Charles N. Wilts.



Gilbert McCann Electrical Engineering

## ELECTRICAL ENGINEERING



Frederick C. Lindvall Engineering Division Chairman



William W. Michael

## CIVIL ENGINEERING

Caleb W. McCormick



Seated: Caleb W. McCormick, Frederick J. Converse, Vito Vanoni, William W. Michael, George W. Housner, and Jack E. McKee. Standing: Alfred C. Ingersoll, Warren Raeder.





Front: D. A. Morelli, P. Kyropulos, A. Hollander, R. L. Daugherty, D. S. Clark, H. N. Tyson. Rear: S. S. Penner, R. H. Sabersky, D. E. Hudson, F. E. Marble, W. D. Rannie, P. Duwez, F. S. Buffington.

## MECHANICAL ENGINEERING



Wilbur R. Varney "A eutectic is an intimate mechanical mixture . . . "

## APPLIED MECHANICS

S. P. Frankel, J. H. Carr, C. R. DePrima, G. W. Housner, J. H. Wayland, M. S. Plessèt.







John Scott Campbell, Dan Miller, Howell Tyson, N. W. Wilcox, and David Welch



Front: Lt. Col. Arthur Small, Major Edward J. Renth, Major Robert F. Steffy, Major Andrew J. Stolarz. Rear: Sergeant Eugene Carey, Sergeant Harold L. Waugh, Sergeant LeRoy G. Lee, Sergeant Lawrence E. Hansen, and Sergeant Harold J. Keating.

## AFROTC

Lt. Col. Arthur Small



Bull session in progress. From left to right are: Elliot, Paul, Sweezy, and Hershey.



William Huse English



H. Dan Piper English



**HUMANITIES** 

Hallett Smith, Division Chairman, and Alan Sweezy, Economics Professor.



John Weir Psychology



Seated: Roger Stanton, Robert D. Gray, William Huse, Hallett Smith, Paul Bowerman, Alfred Stern, Heinz Ellersieck. Standing: H. Dan Piper, Alan Sweezy, George R. MacMinn, Rodman Paul, J. Kent Clark, Robert D. Wayne, David C. Elliot, Beach Langston, Lester McCrery, John Weir.

Every choice for c(k) will satisfy eq. (47), but the proper selection is to be made in accordance with initial conditions. Let us suppose, then, that  $c_1 = c_2 = c_2$  now states:

$$U_0(x) = \int_{-\infty}^{\infty} c(k) e^{ikx} dk$$

and c(k) may be obtained from this by means of a Fourier transformation. In view of eq. (8-13)'

$$c(k) = \frac{1}{2\pi} \int_{-\infty}^{\infty} U_0(x') e^{-ikx'} dx'$$

so that (53) becomes

$$U(x,t) = \frac{1}{2\pi} \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} U_0(x') e^{ik(x-x') - a^2k^2t} dx' dk$$

The integration with respect to k can be performed:

$$\int_{-\infty}^{\infty} e^{-a^2 t k^2 + i(x-x')k} dk = \sqrt{\frac{\pi}{a^2 t}} e^{-(x-x')^2/4a^2 t}$$

whence

$$U(x,t) = \frac{1}{2a\sqrt{\pi t}} \int_{-\infty}^{\infty} U_0(x') e^{-(x-x')^2/4a^2t} dx'$$
(7-54)

Problems.

**a.** Prove that (54) reduces to  $U_0(x)$  for t = 0.

**b.** Show that, if  $U_0(x)$  is a step function such that

$$U_{0} = \begin{cases} 1 & \text{if} & |x| < 1\\ 0 & \text{if} & |x| > 1 \end{cases}$$
$$U = \frac{1}{2} \left\{ \phi \left( \frac{1-x}{2a\sqrt{t}} \right) + \phi \left( \frac{1+x}{2a\sqrt{t}} \right) \right\}$$

where  $\phi(x)$  is the error integral  $\frac{2}{\sqrt{\pi}} \int_0^x e^{-\xi^2} d\xi$ .

c. Show that, if

$$U_0 = \begin{cases} 1 & \text{for } x > 0 \\ 0 & \text{for } x \leq 0, \end{cases} \quad \text{then } U = \frac{1}{2} \left\{ 1 + \phi \left( \frac{x}{2a\sqrt{t}} \right) \right\}$$

Interpret the last two problems from the point of view of diffusion.

d. Suppose  $U_0$  is a "function" which is everywhere zero except at x = 0, where it tends to  $\infty$  in such a way that  $\int U_0(x)dx = 1$ . (Such a "function" was introduced by Dirac and is commonly known to physicists as a  $\delta$ -function. Strictly speaking it is no function at all.) Then, clearly,

$$U = \frac{1}{2\pi^{2}/4a^{2t}}e^{-x^{2}/4a^{2t}}$$

Discuss the temperature at any point x, and show in particular that it will rise to a maximum at  $t = x^2/2a^2$ . This fact affords a simple experimental determination of a, and hence of D and the thermal quantities.

7.15. Two-Dimensional Flow of Heat.—In polar coordinates, S is given by eq. (35) Hence

$$U = \int_{-\infty}^{\infty} c(k)dk (\sum_{m} a_m Z_m(k\rho)e^{im\varphi})e^{-a^2k^2t}$$
(7-55)

If, as we shall suppose, the temperature distribution at t = 0 is radially symmetrical, so that U does not depend on  $\varphi$ , the only value permitted to m is zero. Also, since  $Z_0$  is an even function, the integration in (55) may be taken from 0 to  $\infty$  without error. For  $Z_0$  we shall take the  $J_0$ -function, because it will at once be seen that most temperature distributions can be expressed in terms of  $J_0$  alone. Thus

$$U = \int_0^\infty c(k) J_0(k\rho) e^{-a^2 k^2 t} dk$$
 (7-56)

Let us write

$$c(k) = k g(k)$$

and suppose that  $U = U_0(\rho)$  at t = 0. It is then easy to determine g(k) formally and hence  $U(\rho,t)$ . For in accordance with (56)

$$U_0(\rho) = \int_0^\infty g(k) J_0(k\rho) k dk$$

in other words, g(k) is the Fourier-Bernet transform of  $U_0(\rho)$ . (Cf. Sec. 8.3.) Hence

$$g(k) = \int_0^{k-1}$$

When this is put back into (56) the nal i

$$U(\rho,t) = \int \int_0^\infty U_0(\rho') \sigma_0$$

**Problem.** Show that, if  $U_0(\rho)$  is concentrated at

$$U(\rho,t) = \frac{1}{2a^2t} e^{-\rho^2/4a^2t}$$

Compare this with problem (d) of Sec. 7.14. Interpret above as

7.16. Heat Flow in Three Dimensions.—In rectangular, is given as a generalization of eq. (53) (cf. eq. (36) for the form of

btained:

(7-57)

m.

tes, U

 $U_0(\rho)\rho d\rho = 1,$ 



Jim Kliegel, Athletic Manager: Ed Stofel, Secretary-Treasurer; Tom Janssens, President; Neil Stefanides, Vice-President.

## **SENIORS**



James LaTourette, Board of Control



Michael Lourie, Board of Control









Tom Janssens Neil Stefanides Ed Stofel James Kliegel Manuel J. Crespo Dabney, TBPi From La Ceiba, Honduras, where he attended Manuel Bonilla High School, Manuel, besides being a Tau Bate, has been Vice-President of the S.C.A.C.S. He is interested in teaching. Graduate work will probably take up his time for the next few years.

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John N. Delcamp John hails from Santa Cruz, Cali-fornia, and is noted for his interest in anything not connected with school. In spite of this he hopes that the Army won't want him over the summer, so that he can go to grad school next year.

James Russell Kliegel Fleming, T<sup>3</sup> As a graduate of Point Loma High School in San Diego, Jim came to Tech and spent four years on the track team, winning three letters and a numeral. His senior year he put new life into the Fleming House social program as House Social Chairman. He will go to grad school at either Michigan or Cal next year in chemical engineering.

David J. MacDonald, Jr. Dabney From Chula Vista High in Chula Vista, California, "Mac" has been Dabney's Librarian and President of the Caltech Christian Fellowship during his stay here at Tech. Next year will find him doing grad work in chemistry.

Alberto Mishaan Blacker From the land of the big bananas, Guatemala, Al is always willing to bet on almost anything, and has been active in interhouse af-fairs, having held the thankless job of game room chairman. Al plans retirement to his native country come June.

Terry Thomas Dabney An alumnus of Long Beach Wilson High from Saratoga, California, Terry has been active in both house and school activities, and has spent all his extra time play-ing poker. Terry will go to work next year on his first million, if the Army will let him.











X-ray diffraction photo of a calcite crystal

Not Pictured Norman P. Wilburn Throop Pat is an alumnus of Glendale High, and he now lives in Glen-dale. He has been active in Throop Club interhouse sports, since he prefers the soft life of an inter-house athlete to that of the aver-age Techman in the P. E. classes. During his senior year he was Treasurer of Throop Club. Next year he hopes to go to grad school if ----.



Plant physiologist examines a plant malignancy

John C. Behnke, Jr. Fleming, Honor Key A native of New Jersey, Jack came to Los Angeles to finish high school and to become inter-ested in sports cars and Baroque music. While at Tech he served as Students' Day Chairman, did work for his House and the California Tech, and helped edit the 1952 and 1953 Big T's. He is remem-bered by playgoers for omiting 6 pages of "Brother Orchid" in his haste to get to the cast party. He was noted for his queer hours. The future is obscure, but flashes of brown or blue can be seen.

# Alan Haber Fleming, Honor Key Known by a variety of nicknames, Al Haber came to Tech from In-baseball and served as Secretary, Vice-President, and President of Fleming House and as Chairman of the Interhouse Committee. He has written for Engineering and Science, Pendulum, and the Pit, and was Editor of the 1952-53 Little T. he will do grad work in plant physiology at the University of Wisconsin.

Kenneth D. Lanan Blacker, Honor Key A Santa Monica boy, Ken Lunan's life's love is the biochemistry and physiology of plants. He was ex-ceptionally active in Blacker House sports and served as a member of the Board of Directors of the Caltech Y.M.C.A. and as Sports Editor of this yearbook. He plans to do graduate work in plant physiology in the Midwest or in the East.

Larry Starr Fleming Hailing from Kansas City, Larry Starr plans a career in food tech-nology after getting a Ph.D. from M.I.T. He won a frosh letter in water polo and has played an active part in interhouse swim-ming. He was an officer of the Drama Club and feature writer for the California Tech. Although a confirmed snake, he edits this Big T.









### Thomas H. Applewhite

Thomas H. Applewhite Tom graduated from El Monte, Union High School in El Monte, California, took two years at P.C.C., and transferred to Tech as a junior. He served in the Navy from 1942 to 1945, including 30 months of destroyer escart convoy duty and sub chasing. Married, he plans to continue his studies in grad school.

Robert L. Bixler Throop Club From P.C.C., Bob was first tabbed as scientist by the Westinghouse Science Talent Search before com-ing to Tech. He considers getting married the biggest feature of his life since he started here. He plans to attend graduate school, and study organic chemistry.



Thomas Emery Fleming, T<sup>2</sup> A native of San Anselmo, Cal-ifornia and an alumnus of Tampalpais High School, Tom, an ardent mountain climber, has also spent much of his spare time play-ing varsity tennis and inter-house basketball. He has won two var-sity tennis letters. Tom plans on grad school after a hitch in the Air Force.

Richard G. Ham Dabney, TBPi A Queen Anne High alumnus from Seattle, Wash., Dick has been active in the Caltech Christian Fellowship, serving as Secretary-Treasurer and President of that organization. Tennis and volley-ball are his sports. A member of ACS, he plans to do graduate work in comparative biochemistry at Texas U.

Not Pictured Nobuyoshi Takahashi Fleming "Tak" came to Tech in 1950 from his home in Fukuoka, Japan. He spent part of his time in infamous "Alley One" of Fleming, but lives off campus now. He says he en-ioys life here very much despite the hard work. His future plans include graduate work for next year.

year.

## **CHEMISTRY**

## Walter R. Thorson IBPi From Marshall High in Los Angeles, Walt is a member of Tau Beta Pi and the ACS. His primary activity has been in the Caltech Christian fellowship. As far as chemistry is concerned, he takes to the physical side. Chess provides him with re-laxation. Grad School at Tech is his probable future.

Harry Lester Vincent From Fremont High School in Los Angeles, Harry has always been very active in Throop Club. At the moment he hopes he can get a good job, but Uncle Sam and the draft board threaten to interfere with his plans.





Robert Wood Fleming, T<sup>4</sup>, TBPi With four letters in Caltech's sport which wins instead of building character, soccer, Bob was captain of the team this year. Secretary of Tau Beta Pi last year and Vice-President this year, he has also found time to be a U.C.C. and House Chairman of the Instituters. Unless he's drafted, he will attend grad school at Berkeley next year.





Organic chemistry laboratory



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William D. Gardner Ricketts Secretary of Ricketts House and of the Interhouse Committee, Insti-tuter and Radio Club President, ASCE Treasurer, Publicity Man-ager of the Sailing Club, Student Shop member and Rally Com-mitteeman, Beavers, head Mudeo judge, and Night Editor of the California Tech, is a mighty im-pressive record by this good looking lad from Winslow, Ari-zona. Bill also lettered in frosh football. After Tech, Bill plans to try his luck at road building.

Gordon L. Gwinn From Farmington, Calif., (pop. 75), the town with the highest percent-age of Tech graduates in the nation (1.33%), comes this six year veteran of the Air Force. Gordon was a radio repairman with the Army of Occupation in Japan and Germany. After grad-uation, Gordon will probably work for the U. S. Geological Survey.

Raymond H. Greutert Blacker Already graduated from Tech once as a geologist in 1951, he is a rabid sports fan, writer for the California Tech, and a six-year man in interhouse sports. A former member of Blacker, he was its athletic manager for two years as well as class Athletic Manager and Vice-President in his earlier junior and senior years respectively. His hometown is Glendale.

Lyle N. Hoag Born at the end of the Santa Fe trail, in El Monte, Lyle was Presi-dent of his high school student body there. A member of the U. S. Army Reserve, Lyle was active in interhouse sports, and was Presi-dent of the student chapter of the ASCE. His one daughter is named Kimberly. After graduation, one year of grad school, then foreign employment.





Philip K. Bates Ricketts, T<sup>2</sup> From Boston to Santa Monica, where he went to the High School of that name, and on to Tech. Phil is the strong man of the soccer team, on which he lettered for two years. Port Captain for the Sail-ing Club, Business Manager of the California Tech, a letterman in frosh football. Next stop may be Harvard Business School.

Not Pictured George Gartner Originally from Seattle, George attended Gartield High, and PCC. He is married, and has a ten year old daughter named Georgianne. He has 2½ years experience as an Army M.P.; and is Secretary of the student chapter of the ASCE. George is interested in work out-side the country, with an eye to South America, with grad school as an added possibility.

Not Pictured Carl A. Rambow Fleming A frosh football and track man, Carl graduated from as Vegas High in New Mexico, though originally from North Muskegon, Michigan. In his senior year, Carl was editor of the ASCE publica-tion, The Spillway. After gradua-tion, Carl plans on either joining the U. S. Air Force, or continuing on in school for another year.



William A. Peterson Throop, T Bill came to C. I. T. along with fourteen others from Marshall High in L. A., and has married and become father of a boy since he got here. Bill's hobby is music and he is a member of the ASCE. He made freshman num-erals in baseball and basketball and a letter in baseball during his stay at Tech. Next year he'll be around for some more, this time doing grad work in the C. E. department.



Parker Dam field trip.

Paul E. Langdon Blacker Paul came here from Wilmette, Illinois. Blacker house could hardly do without his support in their athletic program. He was Athletic Manager of the House, and has been a member of all the inter-house teams that Blacker has put on Tournament Park. Next year he'll go to grad school either here or at Stanford.

J. Morgan Ogilvie Blacker, Honor Key, T<sup>3</sup> A native of Jacksonville, Florida, and graduate of the Bolles school there, Morgan was All-Conference for three years in water polo, with one year as team captain. In addition, President of Blacker House, Campus Guide Director, Beaver and ASCE member, YMCA board member, and Honor Key holder. Harvard grad school of business administration is next.

John Elton Pollet Dabney Hank came here from South Gate High, Made his athletic mark at Tech in cross country. For the last couple of years he has spent summers working in Alaska. Hank plans on getting into the armed services on graduation.

Jack D. Walker Ricketts, Honor Key, T<sup>a</sup> With letters in football, baseball, and track, this lad from Los Angeles has gained a reputation as an all-oround athlete. Choir-man of the Instituters, ASCE Vice President, and Sailing Club mem-ber, Jack is interested in the structural end of CE, and is con-templating a job with the Navy CEC.




Andrew C. Boush Throop A native of Toronto, Canada, Andy came to California in 1948, and graduated from Santa Bar-bara High the next year. Active in interhouse sports, he has been Vice-President and Social Chair-man of Throop Club in the '52-'53 year. It looks like either the draft or Marine Corps officer training for Andrew this summer, but eventually he would like to find his way into mining geology.

Donald O. Emerson Ricketts, T<sup>2</sup> Between expeditions with the S. California grotto of the American Speliological Society, Don found time to letter in soccer, once receiving the award for the out-standing player of the year. The team's best goalie was also Treasurer of Ricketts House, and Sports photog for the California Tech. Don is now thinking seriously of grad school in the east.

Patrick J. Fazio Throop, Honor Key, T<sup>2</sup> Vice-President of the student body and Co-captain of the football team, Honor Key holder, Beaver member, and Second Rep in his frosh year lie behind this veteran of 15 months with the Army En-gineers. Born in Los Angeles, Pathas two lovely daughters and "a darling wife, Peg" who worked his way through school. After graduation, Pat plans to work.

Kimball Lee Hamberger Ricketts Hailing from Long Beach Poly, where he lettered in bowling and gymnastics, Kim went on to letter in frosh and JV football at Tech. Social chairman of Ricketts House and winner of an honor certificate, Kim took time out in his senior year to get married. After gradua-tion, Kim plans to work for General Petroleum.

### GEOLOGY

Richard Knapp Dick is an ex-marine and a family man (two girls and one boy). Athletics at Tech were confined to a season with the track team as a broad jumper. Next year you'll be able to find him down in Peru with the Cerro de Pasco outfit.

Eugene Bruce Muehlberger Throop, Honor Key, T<sup>3</sup> A letterman in frosh football, basketball, and track, and a three year letterman in varsity football and track, Gene graduated from John Marshall High in Los Angeles. President of Throop Club, Student Faculty Relations Committeeman, and Honor Key holder, Gene is now looking forward to grad school in the mid west.

Thomas R. Slodowski Fleming A graduate of Lincoln High, in Jersey City, N. J., Tom spent one and one-half years as a para-trooper, in the 13th and 82nd airborne division. Ever anxious to be of service to his house. Tom amazed the troops with his effi-ciency as 1952 Treasurer of the Fleming House Waiter's Union. Next stop, grad school.

Robert J. Stanton Throop, TBPi After graduating from John Mar-shall High School in Los Angeles, Bob came to Tech to become a geologist and YMCA Publicity Manager and Cabinet member. He is now a Tau Bate, and he plans graduate work "in the east."









Pre-historic mammal skeleton.

Geology students examining a fault.



# GEOLOGY

Neil J. Stefanides Blacker, T<sup>3</sup> Track and Football letterman, Vice-President of his senior and frosh class, Secretary of Blacker House, Beaver treasurer, All Conference line backer '50, All Conference of-fensive end '52, and winner of the Wheaton trophy, are among the accomplishments of this grad-uate of Lane Technical High in Chicago. Neil plans on a Ph.D. in geology, with an eye on the petroleum field.







Not Pictured Swaroop Bhanj-Deo T<sup>4</sup> Swaroop came here from India where he really learned how to play soccer. A four year letterman, S. Bhanj Deo led our team on to the conference championship this year. Combining his oratory with a philosophical bent has netted him debating and speaking honors.

Not Pictured Gordon Seele Blacker, TBPi Gordon is one of the class' out-standing scholars. Maybe this is because his work is his habby. A geologist, Gordon spends his spore time climbing mountains.



John Coe Wilson This rock crusher is originally from Kansas, though home to John, is now San Gobriel. A graduate of Alhambra High, John is planning to go to grad school in the Mid West, if he can successfully avoid the clutches of Uncle Sam's Army. Eventually, John would like to go into foreign oil exploration work.

Not Pictured Ted Sheldon Ted is a prospective oil man from Santa Barbara. It's claimed that he tells directions by the location of oil fields rather than points of the compass. Ted plans to make his hobby his vocation by going to work next year for the Sea-board Petroleum Co.





Testing of the dielectric recovery of air in the high voltage lab.

### **ELECTRICAL ENGINEERING**

Charles A. Davies T<sup>3</sup> His home is either Manila, Philip-pines, or Barcelona, Spain, or wherever his parents may be. He graduated from high school while the Japanese occupied Manila. He served three years in the British Army. His interests include photo-graphy and playing in an orchestra. Golf is his sport, having lettered twice before this year. Work, marriage, and grad school seem to be his future.



Arthur Edward Britt Throop Club, T<sup>2</sup> After a distinguished prep school record, Art garnered as many bonsers at Tech. Two letters in basketball and this year's co-captain, chairman of the AIEE-IRE, Art's interests also include elec-tronics and guided missiles. He has had two years of experience in the Navy as an electronics technician. He hails from Los Angeles. Angeles.





Not Pictured Dee Swayze Dee came here in '49 after three years in the marines as a radar technician. He is an IRE member and will go to work next year, most likely at North American Aviation.

Edward Daw Throop Club, TBPi, T<sup>2</sup> Ed calls Bellflower, California his home, He is married and has a daughter nearly four years old. His military service was in the Navy as an electronics technician. Golf and interhouse sports took up some of his spare time. Ed transferred to Tech as a junior from San Francisco City College.



Les Earnest Blacker, 7<sup>3</sup> The Holy-of-Holies of the Blacker House religious hierarchy, Pope Earnest is from San Diego. His Omniscence has held the office for two years. Also among dis-tinguished accomplishments Les can count three big football let-ters he has won. The draft board is about to pull his number. He has no other future plans as yet.

## Robert A. Koster Blacker Bob Koster hails from San Diego where he went to St. Augustine High School. His interests are related to EE and electronics all the way. A distinguished member of Blacker House, he has served in the capacity of Social Chair-man and as the manager of Blacker's exclusive dancing class.

Ronald J. Hruby Born and raised in Los Angeles, and a graduate of Franklin High, Ron is a radio enthusiast. He did some experimenting with Edison cylinder records, was a member of the LA. Astronomical Society and American Rocket Society. A chess player with an avid interest in philosophy, Ron plans to con-tinue an here as a graduate student, with a future marriage in mind.

Duane Marshall T A New Yorker, and a graduate of Brooklyn Technical High School, Duane was a confirmed bicycle and motorcycle maniac, spending his summers cycling to Montreal and Quebec. A cross country let-terman and father of two, Duane also worked for the Califonnia Tech. Especially interested in com-puters, Duane will stay here another year, and then, perhaps, a trip to Europe is in order.

Ed Miller Fleming, T Ed is a Fleming athlete who knows just about all there is to know about phones that a boy shouldn't know. Ed came here from El Camino J.C., where he learned how to play the football that earned him a letter at Tech. Hopes to earn money for grad school working for North Ameri-can Aviation in guided missile development. His present home is in Artesia.

Herbert Shear IBPi Herbert did a stretch with the armed services as a radar tech-nician from 1945-1946 and 1950-1951; then he went to L. A. C. C. and transferred to the "Monas-tery" in his sophomore year. He is a member of Tau Beta Pi, AIEE, and IRE. Has a teaching assistant-ship here in EE next year.





Robert Spencer Ricketts After one year at North Georgia College, Bob entered the Air Force, and came to Tech three years later with some radio ex-perience, compliments of Uncle Sam. Staff photog for Engineering and Science, and an active mem-ber of the California Tech staff, Bob is especially interested in photography and sound recording. After graduation, Bob plans to work in the Los Angeles area.

Charles R. Tallman Throop, T<sup>3</sup> The football team will really miss Chuck, who has three letters and a numeral in the sport. Originally from Oklahama City, he now lives in Alhambra, where he graduated from Mark Keppel High. Boasts that he always wins low man bets. Undecided between grad school and work for next year.



Perry H. Vartanian, Jr. Blacker, TBPi, T Originally from Rochester, N. Y., now from Menlo Park, California, Perry is a three year letterman on the soccer team. Secretary of TBPi, Treasurer of Blacker House, chair-man of the IRE, Sports Editor of the Big T, and Secretary-Treasurer of the AIEE, he also holds an honor certificate. After graduation, Perry plans to go to Stanford grad school.

Leon Vickman Honor Key, Dabnev, TBPi Editor of Caltech's latest literary experiment, Pendulum, and with an active interest in creative writ-ing and movie production, Leon has stood for something new and different on campus. A member of the water polo varsity, head cheer leader and Honor Key holder, Leon graduated from Fair-fax High. Grad school here or in France, or film and TV work, are next.

Rolf D. Weglein TBPi Born in Germany, Rolf came to the U. S. in 1937. After attending High School in Los Angeles, he spent three years in the Army Air Force, two in England as a radio and radar technician. Happily married for seven years, with a 41/2 year old boy, Rolf has had six years' experience in radio and television broadcasting. Grad school is next.

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Hajimu Ogawa TBPi A left-handed mathematician, Haj calls Pasadena his home town. As proof of his provess in math, he is a member of Tau Beta Pi. Athletically he favors baseball in which he garnered a set of freshman numerals. Graduate school will claim Haj for the next few years. Dave Stevens Fleming, TBPi, T<sup>3</sup> Another left handed mathematician, Dave lettered in basketball and track, in addition to being Vice-President of his sophomore class. One of the fourteen graduates of John Marshall high who came to Tech, he is a member of TBPi. After graduation, Dave plans to continue on in grad school.

### MATHEMATICS



### **MECHANICAL ENGINEERING**

Dale Burger Ricketts Dale comes from North Hollywood. He recently got grabbed up by the Army and will not graduate with the class of '53.

John D. Gee Fleming, Honor Key, T<sup>3</sup> Folks back home in Albuquerque, New Mexica, must be very proud of John Gee. He served as Treas-urere and as President of the ASCIT, and holds two Honor Keys. A three-year letterman in foot-ball and a two-year letterman in Basketball, he found time to lend support to Tech's baseball teams. Future plans call for either work or the Air Force.

R. Dysart CoNine After a rather hectic life roving all over the country, this lad has finally settled down at Caltech and condescended to stay four years. He vehemently insists that his name be spelled "Capital C-o Capital N-i-n-e." "Dyse" grad-uated from Mark Keppel High in Alhambra and is undecided on going to grad school or working next year.

Dick Cantrell Fleming "Coon Dog," a native of Spring-dale, Arkansas, plans to stay in Los Angeles to work in the air-craft industry and in graduate school. As an avocation he flies private planes and gives sage advice to younger Fleming men about the women he has known. He has six years of naval exper-ience in the war in the Pacific and in China and Japan. Dick is a member of both SAE and ESME.

Walter Eager Ricketts Social Chairman of Ricketts House, and chairman of the Caltech stu-dent branch of the SAE, Walt hails from Butte, Montana. With a lean towards automotive styling, and an interest in tennis, skiing, and hunting, he also holds a frosh tennis letter. Walt's next stop after graduation is likely to be a reserve commission in the Air Force.

Alan M. Haire Fleming, TBPi, T<sup>a</sup> A human fish from Hollywood, Al Haire won three letters in water polo and three more in swimming. As Fleming House U.C.C. and a very active participant in House social affairs, he also managed to be a Tau Bate. He plans to con-tinue on with mechanical engineer-ing in grad school.

Rolf C. Hastrup Blacker, TBPi After two years at the University of Hawaii in his native Honolulu, Rolf decided that Caltech was the place for him. He has been a member of the Tau Beta Pi, SAE, ASME, and a pioneer in the Ski club. He is one of the local Pack-ard fans and owns two of them. Will probably go on in grad school at Tech next year.





Robert L. Easton Ricketts, TBPi Coming to Tech from the University of Chicago, Bob is the only undergrad in the houses with a bachelor's degree. Originally from Munich, Germany, he did a stint in Chicago to pick up a B.A. on the way to Tech. A ready wit at the dinner table, and a member of the ASME, Bob is looking forward to grad school. James A. Hendrickson Blacker From La Canada, California, Jim graduated from John Muir Junior College before coming to Tech to be an engineer. Married, he plans to go to grad school next year. Herbert E. Henrikson Herb graduated from S. J. Tilden High School in Brooklyn a long time ago. Since then he has worked, and been in the Navy. Now he has been married for nine years, and is the father of two boys. Herb has been in charge of the student shop training program, and given lessons in lathe, drill press and grinder work. R. Douglas Inglis Ricketts, T<sup>4</sup> A native of Santa Barbara and graduate of the Laguna Blanca school, Doug lettered in both soccer and baseball at Tech. Long to be remembered as Athletic manager of Ricketts House, and an SAE member with an exceptional amount of know-how about California's favorite means of transportation, Doug is looking forward to either industry or Uncle Sam's Air Force.

### MECHANICAL ENGINEERING

Photograph of a free surface water tunnel showing a cavitation bubble forming behind a circular disc in flowing water.







Alfred L. Johnson, Jr. Throop, T<sup>3</sup> Between his activities as a letter-man in football and track, Al seems to have found time to be-come Vice-President of his junior class and to graduate with an honor certificate. Arcadia High School and PCC mark the earlier education of this ME. Al most likely will go to grad school next year.

Gene M. Jordan, Jr. Throop Los Angeles is the hometown of this man, too; and he attended Marshall High School there. Says he is interested in product design; he has lettered in basketball and tried track and football. Gene was one of Throop Club's key men for interhouse athletics.

Kenneth R. King Dabney, TBPi Born and raised in Kansas City, Missouri, Ken says that his home town is now Phoenix, Arizona, as the result of a move of his par-ents. He was this year's Secretary in Dabney House, and has also functioned as the band manager, and a member of Tau Beta Pi.

Budd W. LeTourneau Fleming, TBPi From the rough and ready coun-try of the great Northwest, (Port-land) Budd LeTourneau holds the, title of the world's least athletic athlete. He was Managing Editor of the California Tech, Editor of the 1952 Big T, and Guide Chair-man for Students' Day. Feeling the same about the Army as he did about P.E., Budd is going to the draftproof Oak Ridge School of Reactor Technology.

### Leon C. Michaelson Dabney, Honor Key, T After graduating from Santa Ana High and daing a three year term in the Navy, Leon came to Tech and lettered in football, basket-ball, and baseball. In passing, Mrs. Michaelson's bay also picked up an Honor Key and certificate. He was sports editor of the Cali-fornia Tech and is a Beaver. Leon C. Michaelson

George H. Moore Fleming, Honor Key, TBPi A local boy who made good, George Moore graduated from P.C.C. to enter the Air Force, where he served for three years before coming to Tech. Holder of one frosh, one J.V., and one var-sity letter in track, he also played football. Having a natural affinity for money, he was ASCIT Treas-urer of his Junior Class. He will be back at Tech for grad school. He is activities editor of the '53 Big T.

Kenneth F. Nicholson Ricketts, TBPi Los Angeles born, and aeronaut-ically minded, Ken is a married man with four years in the Air Force behind him. His record at Tech includes one year on the Board of Control. Ken's future plans are grad school here, in Aero.



Gerald H. Ross As the 'Daddy of the class,' Gerry graduated from Rupert High School in Rupert, Idaho in 1936. By his own admission, "That is a long time ago;" but both the Army and the Navy intervened in this period. He was on the Board of Control for two years and has recently spent time as foreman of the Student Shop.







Sheldon Rubin Throop, TBPi A local Angeleno, Shelly, has been ASME chairman and Tau Beta Pi Treasurer in his senior year, and also was Athletic Manager of Throop Club. Like other Marshall boys he didn't let his athletics interfere with crew racing. Will be at M.E. grad school at Tech next year. year.



Tom Stockebrand Dabney More far afield than most, Tom comes from Evanston, Illinois, where, he boasts, he was light manager on all the high school plays. At Caltech, however, he concentrated in a different field holding offices of Historian, Sec-retary, and Social Chairman of Dabney House. Future plans: work, work, work.



Edwin J. Stofel Fleming, TBPi From nearby Glendale, Ed Stofel won frosh numerals in cross coun-try and swimming, and was on the water polo team for two years. He was also Secretary of Throop Club in his sophomore year and Secretary-Treasurer of his senior class. A loyal member of ASME and SAE, he will come back to Tech for grad school.

### Fuel testing engine.



### Not Pictured

Takeo Asakawa A San Diego man, Takeo grad-uated from San Diego High followed with a turn in the Army before coming here. His wife worked his way through Tech as one of Doc Pauling's secretaries.

Kenneth E. French Originally in the class of '52, Ken joined the class of '53 during this past year. He is a married vet-eran, and his high school alma mater was Hoover High in Glendale. Will go to work for Lockheed in the guided missles department next year.

Ron Helin Throop Altadena is the hometown of this lad, and he attended John Muir in Pasadena before coming here. He has been in both the SAE and the ASME, and has had a turn at both football and soccer. Counts on not being able to stay out of the Marines next year.

### MECHANICAL ENGINEERING



Pattern in a ripple tank.

Not Pictured Jean Vidal Ricketts Coming to Tech from Lycee Buffom in Paris, this debonaire Frenchman now lives in Santa Rosalia in Lower California. Jean is a mem-ber of the SAE, and Sailing Club, and enjoys gliding and skiing in addition. After graduation, Jean may go to the Monterey Institute of Technology in Mexico, and from there, perhaps to Mexico City.



Micro-flash photo of a centrifugal pump with forward curved cones operating at a slow rate.

### MECHANICAL ENGINEERING









Norman M. Schroeder Ricketts, T<sup>2</sup> Two years with the Army Engin-eers in Korea, and one in Frisco, give Norm plenty of background for a production engineer. Born in Escondido, California, Norman was Vice-President and Social Chairman of Ricketts House, with two years on the Tech football team. Industry is the next stop in Norm's future.

Clair C. Veazy Clair came to Tech from Glendale where he graduated from Glen-dale High. Although he spent a lot of time working for Ralph's Gracery Store, he was able to do some running for the track team.

Richard D. Welsh Dabney After his school work, which has included Hollywood High and a year of Chemical Engineering at USC, Dick states he intends to go to work for some large company in an essential industry. While here, he was Vice-Chairman of the ASME in his junior year. He used up spare energy running cross-country for Dabney.

Stan Wilkes Blacker Stan's home town is Burbank, and he came here after being in the Air force as a military cryptogra-pher for three years in Alaska. His activities were SAE, Pasadena Civic Chorus, Beavers, and Glee Club. He has been a Blacker House Social Chairman and UCC. Intends to atend grad school here at Tech next year.

### PHYSICS



Three of the baffling V particles whose existance was recently confirmed here at Tech. They are formed by cosmic rays hitting the nucleii of lead atoms.

### PHYSICS

R. Keith Bardin Ricketts Originally from Fresno, Keith lived in Compton through High School and two years of college. He then transferred to Tech as a junior. Keith is a violinist with a deep understanding of classical music, and appropriately, a great interest and a large amount of exper-ience in audio electronics. He was a Student Shop and Musicale member. member.

David J. Clark Blacker A product of Santa Monica with a sentimental attachment for the beach there Dave has been en-gaged in many activities on campus, among them the Insti-tuters and the Sailing Club. He has participated in interhouse volleyball and basketball, Grad-uate work either at UC or UCLA will take up his immediate future.

Charles E. Benjamin Ricketts, TBPi, Honor Key Writing his editorials on bouncing trolley cors, this lad from Evans-ton, III, gained fame as editor of the California Tech. Secretary of the Beavers, Campus Guide director, member of the orchestra, Sailing Club, and Student-Faculty Relations Committee, Chuck also boasts an Honor Key, and the first collection of streetcar signs on campus. Either an Air Force com-mission or industrial research is next. next.

Dan Brown Dabney Dan came here from Phoenix, Arizona and joined up with Dabney House for his first couple of years at Tech. Then he got married and dropped out of the house. Dan was on the freshman basketball team, and is one of the two or three men who keep the Musicale in good condition.

Donald Darms Don is a Pasadenan and an alumnus of P.C.C. He is interested in the electrical side of physics. When he graduates, he plans to enter the engineering program of the United States Air Farce. He has twice been a section leader.

# Richard C. Brown Ricketts Caltech's only senior stargazzer, Dick admits to being a physicist in disguise. Sometimes known as "the best of all possible UCC's," he could usually be found on the athletic field lending his talents to Ricketts' teams. A true sports fan, Dick also played frosh and two years of varsity basketball. Now debating between work and the Air Force, Board #3 is also clamoring for his services.

Richard Ireland Fleming Dick is a successful gamesmanship fan who specializes in Fleming-housemanship, Basketballmanship, and Being surrounded by Beauti-fulwomenmanship. Dick will prob-ably go to work next year. His home town is Los Angeles.





Earl Jacobs Blacker, TBPi Earl's stay at Tech has really been a busy one. For the past few years his afternoons have been taken up managing the swimming and water polo teams. He's been social chairman and Vice-President of Blacker, and President of Tau Beto Pi. He most likely studied in his spare time. Earl hails from Los Angeles.

Not Pictured Bill Blodgett Blacker, T Bill comes from Santa Rosa, Cali-fornia, the home of Burbank, Ripley, and other Blodgetts. Be-sides struggling through the physics option, he entertains an interest in electricity, women, and religion. He is one of Blacker's pious Cardinals. Bill's future plans include work and graduate educa-tion spiced with some fax hole work for Uncle Sam.

### Not Pictured

Not Pictured Arthur J. Stasney Art lives in nearby San Gabriel. He is known around school for his spicy wit and practical applica-tion of gamesmanship to poker. It is said that he'll do almost any-thing for a good poker game. Will most likely end up in grad school next year.

Not Pictured David S. Twining Dave comes from a Marine Corps family and hence has no home town. Before coming to Tech he graduated from the Hill School in Pottstown, Pennsylvania. Ran cross country his frosh year. When he graduates he'll become a second lieutenant in the Marines, and will do two years with them before anything else.

### Not Pictured

Not Pictured Mike Lourie Mike is a physicist with strong humanitarian leanings. He'll prob-ably go on for more schooling after graduation, but not in physics. The class has chosen him twice to uphold the honor system as one of its representatives on the Board of Control. Mike's home town is Hollywood.

Dick Jaffe Dabney Passionate promoter of Dabney's "Pahtie pahties," half of the First Piano Duet of Dabney House, head cheerleader, one of the Beavers, and co-chairman of the Y Radio Forum, Dick, with his effervescent good humor, was hijacked from the gloomy confines of MIT before his junior year. Dick's hometown is Brookline, Massachusetts.

Not Pictured William D. McCormick Ricketts President of Ricketts House, Beaver member, and Feature Editor of the California Tech, means Bill was a pretty busy man around the campus. He found enough time however, to entertain an active interest in sports cars, in addition to the usual obligations of a House President. Bill plans to go on to grad school.

Tom Janssens Throop, T<sup>3</sup> We're all very happy that Tom Janssens is the President of the class of '53 in our senior year. Tom has been president off and on since our frosh year. He started out in Fleming House, but switched to Throop Club when his folks moved in from Fontana to Pasa-dena. Tom is a Loyola High grad and is head of the Tech Newman Club. Main athletic achievement is being a three year letterman in football.

Not Pictured Walter Lee Pilant Throop Club, T<sup>2</sup> Big Walt, and this is no joke, is a massive product of San Gabriel, California. He has put his size to very good use in winning two football letters and grinding down opponents' lines. The future holds graduate work in store for him (in physics, not football) if Uncle Sam is willing.

David E. Knapp Ricketts A Texan at heart, this lad from El Paso has been active in inter-house sports and on the Upper Class Committee. Before Tech, Dave went to El Paso High, and after graduation he will go to grad school here or at the Univer-sity of Rochester. Or perhaps he'll try his hand in the Air Force.





Jim LaTourette Dabney, TBPi, Honor Key, T<sup>a</sup> Jim is a local boy from Los Angeles who really made good. While maintaining a high GPA he has held the following offices: Dabney House President, ASCIT Secretary, Class President, ASCIT Class Representative on the Board of Control. He has a frosh foot-ball numeral and letters in track and cross country. Will go to grad school in the East next year.

Douglas McLean Doug is one physicist who plans to enter the profession of teaching physics to unsuspecting young students. His four years at Tech have been distinctive as the first stretch of such a length of time in which he has been able to stay in one place. Doug lives in Pasadena.

Electronic lab.

### PHYSICS

Gilbert B. Peppin Ricketts Six years of commercial electronics experience, 28 months in the USMS, and 18 months in the USAAF, are things of the past to Gil. Married in July of 1951, this boy from Los Angeles enjoys tinkering with audio equipment and firearms. Grad school at Har-vard or Stanford seems to be next.

Oliver R. Price One of the "old men" of the class of 1953, he has served in the Navy os a pilot and has been working his way through school heading the design department of a local contractor. He is respon-sible for designing over 160 fine houses. He has also worked as a civil engineer for the city of Pasadena. Married, he expects his seven year old son to help him in graduate work.

# Morris A. Robkin Fleming, TBPi A local character from Hollywood, Morris Robkin majored in physics and bridge in the Fleming lounge. A member of the frosh and var-sity track teams, he could often be seen lending his talents in interhouse sports. "Undecided ba-tween the merits of money and grad work, Morris will either get a job or go to grad school.

Irwin M. Rubenstein Another Pasadena resident, a very active member of the YMCA, he has served as its publicity man-ager and treasurer. He has also been a debater and Secretary-Treasurer of the Caltech debating group. He is interested in develop-mental research in engineering fields and plans to go on in related graduate work.











200" Hale Telescope Mount Wilson and Palomar photo. Carl G. Sauer, Jr. Blacker, T<sup>2</sup> From Salinas, Carl is a physicist, but he has decided leanings to-ward astronomy. One of Blacker's waiters, manager of inter-house baseball and softball, he also is a member of Ed Preisler's famous nine, winning one baseball letter and trying for two. Army, grad-uate school, or work await Carl next year. Carl has done the sports photography for this year's Big T.

Howard Alan Shugart Ricketts, TBPi A graduate of Herbert Hoover High in Glendale, Howard is an active member of the Southern California grotto of the National Speleological Society. His spare time not occupied by cave crawl-ing is taken up by mountain climbing. With an eye toward teaching and research, Howard will go on for a Ph.D.

Bruce L. Scott Dabney, TBPi Bruce came here from South Gate High, but he now lives in Sepulveda. For sports he can claim being athletic manager of Dabney. House and holding a J.V. and frosh letter in basketball. He helped with ASCIT government as a member of the election com-mittee. Plans grad school.

Robert LeRoy Smith El Monte, California is his home-town. His interest in physics tends to lean toward the field of elec-tronics. He is a ham and was President of the Caltech Radio Club. He won honorable mention in the Westinghouse Science Talent Search. His future is undecided.











Donald Philip Snowden TBPi Don comes from Sherman Oaks, California. He went to Harvard School before coming to Tech to distinguish himself in physics. He is a member of Tau Beta Pi. Don plans to go on to graduate work in physics, planning to continue his studies at Caltech, preferably.

George S. Stranchan Fleming From Perrysburg, Ohio, George Stranchan came to Tech by way of Hotchkiss School in Connecticut. One of the most versatile seniors, he is an ardent mountain climber, skier, and photographer. Many of his pictures appeared in such leading publications as the Cali-fornia Tech, the Big T, and Engineering and Science. He also helped form the backbone of many of Fleming's interhouse teams. He plans to do graduate work in physics.

### Nicholas Szabo

Nicholas Szabo Dabney Nick lists Buenos Aires as his home town, but he is originally from Hungary and he spends most of his time these days staying in the U.S.A. Nick is an avid volley-ball and tennis player. He is also a Musicale member.

Dabney

Ronald H. Willens Fleming, T<sup>2</sup> A Chicagoan, Ron Willens, won frosh numerals in both football and baseball. As a second base-man, he won two more varsity letters in baseball. Never lacking self-confidence, his contagious laugh more often than not bright-ened the halls of Fleming House and the turf at Tournament Park. At present he is trying to decide which grad school to honor with his prescence.



### PHYSICS





Spectrograph.

John Winslow T<sup>3</sup> John lives in Altadena, California, and came to Tech after prepping at John Muir Junior College. He has lettered three years on Ed Preisler's diamond crew, emerging as the only pitcher for the '53 squad. John plans to do graduate work in physics.



Jim Wyman Ricketts, Honor Key Vice-President of Ricketts House, Commodore and organizer of the Sailing Club, numerals in swimming and water polo, and Honor Key holder, this native of San Pedro is also a mountain climber and amateur astronomer. After graduation, it looks like Jim's next stop will be grad school.



Gene Kaiser, Athletic Manager Don Hook, Vice-President John Lloyd, President Fred Garrison, Secretary-Treasurer

### JUNIORS

Don Hook

John Lloyd







John Merrill, President

### SOPHOMORES

Don Hanvey, Secretary-Treasurer



Jim Lewis, Vice-President

Don Roberts, Board of Control





Elected class officers: Lyman Fretwell, Board of Control; Fritz Benning, Treasurer; Tom Parker, President; Paul Lindfors, Vice-President, in front. In back: Bill Purves, Secretary; Jim Ball, Athletic Manager; Carl Marquis, Board of Control.





First term class officers: Dave King, President; Fritz Benning, Secretary: Fritz Trapnell, Vice-President; Phil Conley, Athletic Manager; Barry Raleigh, Treasurer.



Dr. DuBridge at Frosh Camp

### FRESHMEN



Moose gives a talk at Frosh Camp







Pat Fazio Vice President



George Johnston Secretary



George Moore Treasurer



S. W. Autrey Publicity Manager





John Gee President

### ASCIT

### **BOARD OF DIRECTORS**

Lee Henderson Athletic Manager



Bob Lynam First Representative



Ralph Miles Second Representative



John Merrill Rally Commissioner





President elect Henderson being sworn in by Johnston

### **NEW OFFICERS**



Standing: Trapnell, Johnston, Van Hoven, Profet, Adams, Kaiser, Merrill, Johnson; Seated: Henderson



Pat Fazio, Chairman

### BOARD OF CONTROL

The Board of Control is the student group responsible for maintaining the school's most cherished tradition, the Honor System. The Board is composed of two members from each of the four undergraduate classes plus the ASCIT President, Vice-President, and Secretary. The Vice-President is the chairman of this group.

These eleven men hear all cases of suspected violations, and in the event of a finding of guilty recommend appropriate punishment. Besides hearing suspected violations, the Board must introduce and explain the Honor System to all new students.

The eleven men on this Board hold most responsible positions in the ASCIT government. It naturally follows that they are among the most responsible students at Tech. This year's Board has done a fine job of maintaining the Honor System at the high level set by the past Boards.

As chairman I would like to thank each of the members for his efforts during the past year. It is a pleasure to have been a member of this Board.

Many thanks to the past Board of Control and congratulations to the new Board.

Sincerely, Pat Fazio

Standing: Lourie, Roberts, Helgesson, Marquis, Pixton; Seated: Vodopia, Johnston, Fazio, Gee, LaTourette



### ELECTION COMMITTEE

Bruce Scott, Hugh Taylor, Paul Concus, John Howell, and Terry Thomas





ASCIT PUBLICITY

Bill Autrey

### RALLY COMMITTEE

Martin Bainbridge, Frank Dryden, Bill Gardner, and John Merrill





Don Handen Dick Jaffe Bob Lynam

### YELL LEADERS

### SONG LEADERS

Barbara Light Laurie Weston Bob Lynam Sue Clark Seated: Cheryle Fazio

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Bob Pechacek, Busines, Manager 5.



provo





Ronald Ratney, Editor-in-Chief

### THE CALIFORNIA TECH

On top of the world George Johnston, Circulation Manager, and in thenether depths Chuck Benjamin,







Sports editors: Patrow, Turcotte, and Wall

Editorial staff: Kristensen, Managing; Concus, News; Ratney, Chief; Beuf, Feature




Al Haber, Editor



## LITTLE T

# PENDULUM





Editors: Bill Barlow, Mike Boughton, Leon Vickman, Walt Lee



Honor Point Committee: Lyman, Fazio, Miles

#### HONOR KEYS

Bill Autrey Al Haber

Pat Fazio Lee Henderson

John Gee George Johnston

Ed Gehle

Ken Lunan

George Moore Jack Walker

Bob Lynam

John Merrill

Morgan Ogilvie













Lynn Abbott Bill Autrey Charles Benjamin Gary Boyd Paul Concus

Manuel Crespo Jim Crosby Mark Czerczewski Edward Daw Bill Dibble

Robert Easton Ronald Fuchs Alan Haire Richard Ham Rolf Hastrup

Earl Jacobs George Johnston Kenneth King James LaTourrette Budd LeTourneau

John Lloyd Jerry Mitchell George Moore Kenneth Nicholson Hajimu Ogawa

Willard Richards Benji Rosen Sheldon Rubin Morris Robkin Bruce Scott

Herbert Shear Howard Shugart Donald Snowden Robert Stanton David Stevens





Ed Stofel Hugh Taylor Walt Thorson Donald Turcotte Perry Vartanian

Leon Vickman John Wall Rolf Weglein Robert Wood

#### TAU BETA PI



Tau Beta Pi Officers: Perry Vartanian Earl Jacobs Alan Haire Rolf Hastrup Bob Wood Sheldon Rubin



#### BEAVERS

Campus guides

Back row: McCormick, Johnston, Benjamin, Stockebrand, Watkins, Kidder, LaTourrette, Jaffe, Wilkes, Prof. Varney. Middle row: Michaelsen, Autrey, Janssens, Lynam, Gee, Henderson, Billings, Bryan. Front row: Haber, Dr. Jahns, Dr. Paul, Merrill.





Back row: Dick Johnson, Lyman Fretwell, Hunt Small, Dick Van De Houten, John Weisner, Jerry Crocker, Bill Kelly, Luke Bagdonovitch, Phil Conley, Takeshi Sato, Tom Bergeman, Garry Boyd. Front row: Jim Higgins, Ev Gramer, Ken Deveney, Jim Koontz, Louis Kilchenman, John Bailey, Jim Lloyd, Jack Walker, John Lloyd.

# INSTITUTERS

The Instituters were reorganized this year under the leadership of Jack Walker with the assistance of a representative from each of the houses. This group also made up the executive committee which provided the leadership of the organization. The Instituters is designed to fill a need existing on campus for a group which is able and willing to be of service to the Institute and student body. Its purpose

is to provide able students who have expressed an active interest in Tech for the many varied tasks which crop up continuously in the activities of the school. Membership is open to any student interested in serving the ASCIT, and is beneficial in two ways, in that it acquaints the student with more of the aspects and

functioning of the Institute and at the same time accomplishes a useful purpose. Helping with the preparations and dismantling for such events as ASCIT dances, providing help at track meets, and making posters were a few of the activities of the Instituters for the year.



Group at Y meeting: Art Kami, Ken Lunan, Al Joncich, Van Walkley, Myron Szold, Frank Dryden, Henry Stair, Paul Cramer, Tom Bergeman, Kai Kristensen, Al Helgesson, Bill Purves, Darrel Fleischman, Ray Orbach.

THE

CALTECH YMCA



YMCA officers for 1952-53: Ken Lunan, vice-president; Kai Kristensen, secretary; Frank Dryden, president; Al Helgesson, national representative; missing are Irwin Rubenstein, treasurer; and Bob Stanton, publicity manager.



Bull session after Y meeting



Camp Seeley, fall of '52

This year's program of activities sponsored by the Caltech YMCA was successfully planned and carried out largely by the executive committee which included Frank Dryden, president; Ken Lunan, vice president; Kai Kristensen, secretary; Irwin Rubenstein, treasurer; Al Helgesson, national representative; and Bob Stanton, publicity manager.

The Y Residence, home of Executive Secretary Wes Hershey, was a great pleasure and benefit to the Y as meetings, and evening discussion and film groups were regularly held there.

A kick off conference at the Laguna Beach home of Stan Johnson started the year's program which included frosh and graduate luncheon clubs, men's and women's relations lectures, and politics. Some civil rights programs and an undergraduate luncheon series on world religions as well as other special groups developed to round out the year's program. Of course the highlight for about nineteen members was the week long conference at Asilomar held during the Christmas vacation. The loan fund, book exchange, and other services were continued actively and the finance drive reached its mark, indicating the success of the program in meeting the varied needs and interests of Techmen.

Next year's program will continue under the guidance of Al Helgesson, newly elected president; Van Walkley, vice president; Paul Cramer, secretary; Dave Clark, treasurer; Dick Lawrence, national representative; Tom Bergeman, publicity manager; and Ray Orbach, Asilomar planning committee representative.





#### BAND





## ORCHESTRA





Back row: Les Earnest, Louis Kilchenman, Dick Pratt, Stan Wilkes, Loral Decker, Howard Berg, Ken Lunan, Dave Manning, Jerry Royce, Dave Hallman, Ken Deveney. Front row: Olaf Frodsham, Walt Whirry, Dick Jaffe, George Baker, Jan Arps, Fritz Trapnell, Tom Parker, Paul Lindfors, Tom Noonan, Bill Bensemma, Ron Cochran.

#### GLEE CLUB

#### GEOLOGY CLUB

Back row: Robert Castle, Bill Muehlberger, Wayne Burnham, Berdine Rogers, John Rucknick, Pat Fazio, Carel Otte, Robert Alexander, Douglas Campbell, Don Norris, Tom Slodowski, Allen Sanford, Terry Spencer. Middle row: John Howell, John Kuo, Fred Barker, Shigeji Suyehiro, George Shore, George Rigsby, John Rogers, Mark Meier, Leon Silver, Lawrence Crain, Ted Sheldon, Oreste Lombardi, Richard Knapp. Front row: John Wilson, Gene Muehlberger, Henry Sturtevant, Don Emerson, Kim Hamberger, Andy Boush, Clarence Allen, Pierre St. Amand, Richard Dondanville, Robert Olson, Robert Stanton, Gordon Seele, Robert Hunt, Donald Potter, John Welsh.





Mark Czerczewski, Glen Crabbs, Jim Townsend, Gus Shulman, Will Richards, Dave MacDonald, Jerry Mitchell, Al Mishaan

#### AIEE

Standing: Chuck Davies, Bob Koster, Ed Miller, Ed Davis, Larry Brown, Les Earnest, Perry Vartanian. Kneeling: Art Britt, President, Tom Cooper, Bud Powell, Bill Pilkington.



ACS



Back row: Gartner, Pollet, Rambow, Greutert, Langdon. Middle row: Hoag, Joyce, Miller, Cramer, Morden, Kaiser, Gwinn, Lundbye, Dryden. Front row: Peterson, Bates, Walker, Gardner, Ogilvie.

ASCE

#### ASME

Back row: Henrikson, Nicholson, Veazey, Stofel, Morelli. Middle row: Michaelsen, Stockebrand, Helin, Johnson, LeTourneau, Haire, King, Gee. Front row: Ross, Hyde, Jordan, CoNine, Hendrickson, Rubin, Moore.





Back row: Cantrell, Holladay, Parkill, Haigler. Middle row: Brown, Healy, Moule, Chuck Davies, Dresser, Griswold, Pitton, Pratt, Manley, Jali, Sundt, Biles, Nesman, Lee, Herzog, Eiselen, Goldman, Cochran. Front row: Allen, Adams, Barnes, Benning, Hastrup, Stofel.

SAE Officers: Standing: Al Goldman, Jim Adams, Ed Stofel, Don Barnes. Seated: Walt Eager, George Moore, Rolf Hastrup.



#### SAE





Al Helgesson, Jerry Pixton, Phil Ferrell, Gary Gayron, Phil Miller, Eugene Dryden.

#### RADIO CLUB

#### STUDENT SHOP





Standing: Whitaker, Cramer, Wall, Tambling, Bireland, Profet, Knapp, Myers, Peters, Arps, Pinkerton, Moore, Manley, Pitton, Gardner, Seated: Ratney, Workman, Peyton, Griswold, Ogden, Herzog, Brown, Benjamin, Bates, Jali, Walker.



## SAILING CLUB





Standing: Howard Berg, Martin Roth, Tom Bergeman, Miles Nesman, Jim Short, Bob Ryle, Bill Dibble, Ray Orbach, Kim Malville, John Young, Bill Lindley, Myron Black. Seated: Jim Enright, Gary Boyd, Al Joncich, Leon Keer, Dr. McCrery, Ray Price.

#### DEBATE

During the 1952-53 season, Caltech debaters and speakers exceeded all previous Tech records, both from number of participants and quality of participation. A total of 25 students took part in the program which consisted of 12 intercollegiate speech affairs including tournaments at Denver, Colorado; Santa Barbara, UCLA, and Kalamazoo, Michigan. Following are some of the records made by Techmen in competition with the best talent from such schools as Stanford, USC, UCLA, Pepperdine and others:

1. Eight medals for no losses in men's debate at the Los Angeles City College fall term tournament —a record twice as good as made by any other school at the tournament. Medal winners were Jim Enright, Kim Malville, Miles Nesman, Ray Orbach, Jim Short, Tom Bergeman, Martin Roth, and Bob Ryle.

2. Six certificates for special distinction in Discussion and Oral Interpretation at the Santa Barbara fall Speech Events tournament. Winners were Jim Short (two certificates), Bill Lindley, Bob Ryle, Jim Enright, and Martin Roth.

3. Third place certificates in After Dinner Speaking at Western Speech Association tournament at Denver. Bob Ryle and Martin Roth.

4. Winner, first place cup, oral interpretation, UCLA Speech Events, Martin Roth.

5. Winner, second place cup, Men's After Dinner Speaking, Long Beach City College Tournament. Jim Enright.

6. Winner, first place cup, men's lower division

debate, Caltech Championship Tournament. Bob Ryle and Martin Roth.

7. Winner, certificate of special distinction, third place, debate, Caltech Championship Tournament. Ray Price, Jim Enright, Tom Bergeman, and Jim Short.

8. Demonstration debate, Students Day, Caltech vs. UCLA. Bob Ryle and Martin Roth.

9. Radio and TV debate with West Point. Martin Roth and Bob Ryle.

 Debate, Discussion, and Extempore Speaking, Pi Kappa Delta national convention at Kalamazco, Michigan. Second in Discussion, Third in Extempore. Bob Ryle and Martin Roth.

11. Occidental College Tournament of Peers. Debate, Bob Ryle and Martin Roth. Oral reading, Bill Dibble.

12. Claremont College Invitational Tournament. Debate, Bob Ryle and Martin Roth. Discussion, Howard Berg and John Young, Jim Short and Myron Black.



Walt Thorson, Malcolm Scharer, John Kuo, Dick Michie, Tom Noonan, Al Kraus, Bob Jaffray, Tom Lovejoy, Terry Feistel, Dave MacDonald, Don Handen, Dave Stephens, Don Barnes, Bob Shacklett, John Ribbens, Bob Kofahl, Dick Ham, Bob Graf.

#### Caltech Christian Fellowship

#### Newman Club

Standing: Ron Dexter, Jim Higgins, Dick Jali, John Rogers, George Johnston, Bob Koster. Seated: Sid Bellinger, Jerry Van Hoven, Tom Janssens, Dick Martter, Marco Negrete.











## AFROTC



#### Caltech Alumni Association

Your Alumni Association takes pride in making the first contribution to the Institute from the Alumni Fund for a swimming pool and locker rooms. We are proud because we are making it possible for hundreds of Tech alumni to provide a meaningful measure of support to CIT and because this first achievement of the Fund is one which bears so immediately and directly on student life and activities. The Alumni Fund will continue and will, it is hoped, provide for many future contributions of equal or greater importance.

Officers and Directors of the Caltech Alumni Association 1952-53: George B. Holmes '38, Treasurer; John Gee '53, ASCIT President; Allen Ray, '35; Kenneth F. Russell '29; Gerald P. Foster '40; John E. Sherborne '34, President; Donald S. Clark '29, Secretary; Richard W. Stenzel '21; Fred H. Felberg '42; Francis M. Greenhalgh '41; Hallan N. Marsh '22; Kenneth E. Kingman '29.







Students' Day Committee: George Moore, John Kidder, Jack Behnke, Budd LeTourneau, Prof. Varney.

## STUDENTS' DAY





I'm stuck, call a plumber.



Wall Flower











#### **ASCIT Costume Ball**

First Rep Lynam conducted a poll via the California Tech early second term to determine what was desired for a dance for the term. The returned ballots, though few in number, showed two predominant ideas: a costume ball or a western hill billy stomp. Fearing a stuffed ballot box, the first idea was chosen.

The Altadena Country Club, Barney Sorkel's orchestra, and some abstract decorations combined to give the crazily costumed couples a lively evening of dancing and fun.

This dance was the first ASCIT costume dance in about five years. Dr. Elliot and Major Stolarz with the assistance of their wives observed the grand march as if watching troops from a reviewing stand in order to pick the prize costumes. Finally after narrowing the parade to six or seven couples. Tom Stockebrand and Joan Abrahms were chosen as winners of the costume contest. These pictures show the variety and originality of some of the costumes.







#### MUDEO

With determination and fear of insolvency, the sophomores set out to master the frosh in that annual contest of agility carried out in some 3,000 cubic feet of mud. The example of the two-time-loser class of '53 inspired the Sophs to victory. The 5-2 score included wins in the sack race, horse and rider contest, and the tire spree. The frosh came up, literally, on top in the tug o' war and wheelbarrow race.

The score was 3-2 for the Sophs at the beginning of the tire spree. The judges decision was much disputed. Each side had five tires and a battle mud-royal was being waged for the remaining one. Illegal tactics by the frosh was in part responsible for the disputed decision.

Both victor and vanquished enjoyed the Frosh-Soph dance at the expense of the Frosh. The dance was held early in April in Dabney Hall with the fine music of Marshall Cram. The decorations are best described as exhibits from a crazy art gallery.



Although admitting it was one of the most important cases of his career. Officer Newton remained as cool as the proverbial cucumber throughout the whole ordeal. Here he is shown with a valuable piece of evidence which the culprits thoughtlessly left behind.

#### THE CASE OF THE JOBBED JET

OR

#### WHERE IS MY F-84?



This year, Caltech students again proved themselves superior in an exciting new field. The boy wonders from this noble Pasadena Institution pulled off a job that made the Brink's robbery of a few years back look like the clumsy work of a few bungling amateurs.

Never before had the pocket of the United States Air Force been so successfully picked. The men in the red suits behind the Iron Curtain could spend thousands of dollars and hundreds of hours training men to do a job which took a group of Techmen, armed only with their imagination and considerable intestinal fortitude, only a few hours and 1100 dollars to do. The cost might have been even lower except for a slight choke on the part of the trailer-hitch crew which was immediately remedied with equipment graciously loaned to the artists by B and G.

The time required for the grab might have been lessened considerably also had it not been for the alertness and righteousness of our student body president. For this one commendably intervened and attempted to put a halt to the mischievous activity. His efforts were not in vain, for it was nearly two hours before the culprits returned and lifted their prize from under the nose of the snoozing prexy.

But the villains were unable to clear the final obstacle in their clever snatch. They could find no place to hide the loot, for, even without its wings, an F-84 is no small watch charm. So our heroes turned Robin Hood and decided to make a gift of their capture. The obvious benefactor for such benevolence was Col. Small, head of the local fly-boy detachment.

Depositing the trophy in the colonel's front yard, the vandals scampered back to their hide-outs and left the colonel with the difficult assignment of explaining to his children that the fighter was not a toy which he had brought them.

Everyone had a good healthy guffaw over the whole thing except the FBI, which apparently frowns on such activities. But with the aid of the faithful faculty, J. Edgar's henchmen were kept at bay and were unable to send a single criminal to the gallows.



#### CHARITIES DRIVE

Under the leadership of ASCIT Vice-President Pat Fazio, the Combined Charities Drive was a grand success. The participating charities were WSSF, American Heart Association, and the Pasadena Community Chest.

With the incentive of a prize for the winning house the collectors really worked hard, turning in a total of \$3150, which was several hundred dollars more than any of the past four years.

Dabney House collectors fired themselves and beat the other houses and Throop Club by some fifty dollars in total collections.

The grand prize to Dabney House was a formal dinner served by prominent members of the faculty. The dinner in early March was an event unparalleled in recent years in the student houses. With the superb service, tender, sizzling steaks, simulated champagne, and soft dinner music, the members of Dabney enjoyed a "dinner fit for Kings."





# houses



Blacker officers, standing: Helgesson, Walkley, Bensema, Koster, Langdon, Gauss, Earnest. Seated: Jacobs, Ogilvie, Vartanian



#### **BLACKER**

Blacker House started off an eventful year by applying all its efforts to the task of wooing and winning the best possible group of freshmen, after studying the lengthy legal protocol governing this now near-banned ritual. With frosh rotation over, attention turned to water fights, banned in Blacker as well as the other houses. This new Interhouse Committee decree was neatly sidestepped by observing it to the letter if not in spirit, by conveying the hapless victims to the water instead of the reverse, as heretofore has been the practice. It will be a hopeless day when water is forbidden not only in the alleys and rooms, but in the showers, also.

This diversion was soon dropped when the proximity of the Interhouse Dance was realized; all individuals abandoned their liquidity preference and buckled down to the work involved in converting Social Slavedrivers Koster's and Walkley's grandiose plans into apparently concrete reality. The numberless visitors that memorable evening were indeed awed by the wonderful transformation that had been worked on Blacker lounge and its environs. Upon entering the court, they were struck by the sight of a mammoth golden mosque, gleaming in the light

#### BLACKER

of many torches, and appropriately mirrored in a reflecting pool stretching the length of the court. Crossing the court they gazed at the fleet of magic carpets patrolling the perfumed air. The lounge itself had an intensely exotic air about it, supplied in part by the eyesoothing sight of a troupe of lithe dancing girls.

Scattered abundantly throughout the year were theater parties, snow parties, and barn dances. Notable highlights were the Superstition Dance, the Catalina Cruise, and the Associates' Tea. The year ended up with a formal dance held in honor of Carel Otte, Resident Associate of Blacker for the past five years.

In the field of sports three Blacker men won recognition on All-Conference teams; Neil Stefanides and John Goetten in football and Morgan Ogilvie in water polo. Under the joint leadership of Ed Gauss and Paul Langdon, co-Athletic Managers, Blacker teams took first place honors in both tennis and basketball in Interhouse Trophy competition. At last tally Blacker was headed for a strong third place in the Trophy race. The Discobolis Challenge Trophy started off the year resting upon the Blacker mantel, but has since wandered elsewhere.

House President Morgan Ogilvie guided the House along its course and helped solve such problems as who found Joe's slide rule that was last seen floating down the alley on the crest of a tsunami? He was ably assisted in the solution of these and other perplexing problems by Vice-President Earl Jacobs, who was also in charge of the Associates Program. On occasion Earl was heard to tell notoriously execrable jokes such as "I'm Smith of the F.B.I."

Under the direction of Bob Koster and Van Walkley, the social program, which has been





John Abbott Harold Almond

> David Clark John Converse James Crosby

John Ames Jan Arps

> Charles Davies Franklin Dryden Les Earnest

Frederic Benning William Bensema

Francesco Beuf Myron Black

> James Enright Donald Evans Darrell Fleischman

Donald Borad

Allen Brady Otto Cardinale

> Joseph Gibbs James Girard John Goetten

John Carney William Chapple

> Harold Goldenberg Edward Gauss Raymond Greutert





















Charles Bodeen

enumerated, shone. Perry Vartanian was the typical old miser with the House treasure chest, and, as a result, Blacker ended the year with a surplus running in three figures. The proceedings of the House meetings and Executive Committee meetings were faithfully recorded by Secretary Al Helgesson. Bill Bensema put new life into the library by building a wonderful file cabinet and bountifully stocking it. with those very nice and helpful old exams. Later in the year the cabinet was moved to the House library, which now has a whole collection of files and reference books, and also the lowest level of noise in the House.

Les Earnest, Pope Necrophilus the First, did such a good job of ruining House morals that a new House church sprang up, under the inspired leadership of "The New Moses" and "Frair Tit" Earl Jacobs and Neil Stefanides respectively. This antagonism of sects persisted until the House elections, whereupon both joined forces to administer the traditional baptism - by - shower to all newly elected officers.

The addition of a monstrous new television set to the lounge furniture accounted for its perpetual disarrangement. This new form of amusement, combined with such events as the disappearance of the Door to the Vatican, its subsequent reappearance in the YMCA lost and found, and Alex Ozeroff's continuous goofing-off helped keep Blacker men in good spirits.

Within the House were innovated several new types of alarm systems to awake the troops for the day's weary grind. Early in the morning on exam days, one could hear Lunan's "Ride of the Valkyries" blasting forth at twenty watts power.

Bill Bensema developed a rather effective war cry for use in conjunction with his terrible new

#### **BLACKER**





Stanley Grotch Paul Harrison Rolf Hastrup David Hein

Alan Helgesson Richard Holst Donald Hook Earl Jacobs

Rowland Johnson Francis Joyce Arthur Kamii Robert Kasold





**BLACKER** 

















Robert Koster Paul Langdon Richard Lawrence Peter Lauritzen

Walter Lee Paul Lindfors Kenneth Lunan J. McKim Malville

Duane Marshall Alberto Mishaan Curtis Michel Ralph Miles

Jerry Mitchell Ray Newburn Albert Nichols Stanley Ogden



Morgan Ogilvie Walter Parker John Peyton Alan Poisner Gordon Reiter Irwin Rubenstein

Carl Sauer Leon Shameson James Short Samuel Sims Richard Smith William Spence

Neil Stefanides William Sundblad Robert Tambling Frederick T-apnell Perry Vartanian James Wade

Van Walkley Walter Whirry Roger Wileman Stanley Wilkes John Young

orange-slinger, which he steadfastly guarantees has a range of two hundred yards.

Stan Wilkes, Neil Stefanides, and Al Nichols found certain high school beauties, and found them irresistible. A correlation between this and Stef's half-hearted week-end meal counts was obvious. Don Hook topped all other achievements along this line by his inauguration of his own personalized maid service.

In the field of campus politics several Blacker men were elected to ASCIT offices. Jim Crosby was elected co-Editor of the **California Tech**, and Fritz Trapnell Second Representative. A Blacker machine was swept into power in the YMCA administration—Al Helgesson as President, Van Walkley as Vice-President, and Dick Lawrence as National Representative. In the Freshman Class Tom Parker was chosen President, Paul Lindfors Vice-President, and Fritz Benning, Treasurer.

Near the end of the second term, the House elected Frank Dryden, Vice-President; Chek Beuf and George Epstein, Social Chairmen; Jerry Mitchell, Treasurer; Joe Gibbs, Secretary; Al Poisner, Librarian, and Jim Enright, Pope.

Neil Stefanides crowned his glorious years at Tech by finally managing to beat out fifteen rivals for the highly prized title of HHA.


Dabney House officers, seated: Billings, LaTourette, Stockebrand; standing: Scott, Richards, King, Ellett, MacDonald







#### DABNEY

The Dabney social calendar for the year was, after a slow start, off with a roar with the coming of the Interhouse Dance. Dabneyites, always to be taken literally, labored long and hard to make sure there would be many a boom and roar during the evening,—emanating from a large "volcano" situated in the courtyard, powered by butane, which let forth with a belch worthy of a Flemingite at dinner every 43.1 seconds. Planned on a theme of "Chaos," the Interhouse decorations included such things as squeaking prehistoric monsters, whose features, other than their monotonously blinking eyes, radiating all colors of the spectrum, could not be distinguished save in the intermittent flash of the volcano.

One of the many caves had a repeating echo, and another a pond completely equipped with exotic fish. Dominating the dance floor, the darkness of which has never before or since been equalled in Dabney, was a dimly flourescent pterodactyl. Among those who were caught with their **Savoirefaire** down in the darkness by an unwelcome photographer with a flash camera was Perdigao, whose appearance, forever impressed upon the photographic plate, will be henceforth used by the National Bureau of Standards as the standard of outof-it-ness.

Highlighted by the ubiquitous and ever-successful Gesellschaften-Gessellschaften, (nee Pahty-Pahty) beach parties, and barn dances, all executed in a style as unique as their director, Tom Stockebrand, the remainder of the social program provided many outstanding and memorable events such as the Kenyon exchange and the annual Snow Party at the Ski Hut. Stocky's Dabney Almanac, published quarterly, and written with all the thoroughness of







Michael Anderson George Baker Don Barnes

Robert Bradford Charles Brokaw

Ed Bryan

Frank Capra



DABNEY

Kyle Bayes

Howard Berg John Billings





David Clark Paul Concus Manuel Crespo Loral Decker Everett Eiselen





Lewis Ellmore Terrell Feistel Charles Finley

Robert Gillingham Jay Glasel





William Fletcher Gerald Freeman Alfred Gale

Richard Ham Forrest Hanvey Handbuch der normalen und pathologischen Physiologie, provided Darbs with a comprehensive compilation of all information regarding social affairs, including the phases of the moon and a schedule of the Friday evening demonstration lectures, all in a format reminiscent of the Daily News.

Led by veteran coaches Bruce Scott and Hugh Taylor, the Dabney elephant rambled over all comers during first term competition in Interhouse sports to roll up a fourteen point lead over the next aspirant to the Interhouse Sports Award. Dabney teams suffered only one loss all term, which was a basketball game lost by one (1) point. Ray Weymann's pitching sparked a baseball team which allowed not a single opposing player to cross home plate all season.

This lead was increased during second term, which was notable because of the hilarious undefeated softball team, which played somewhat like the Harlem Globe Trotters, Schmid's unique and infallible pitching entertaining all but hapless opponents, and unbeatable fielding of the team winning all games easily.

A highlight of the year was a steak dinner served by prominent members of the faculty in keeping with the theme of "gracious living" as a reward for the House's soliciting the largest total of money for the ASCIT Combined Charities Drive. This dinner was truly with all the trimmings, among the trimmings being music furnished by a trio consisting of Porfessors Erdelyi and Duwez on the strings and John Scott Campbell at the piano. Dinner itself was served by a waiters' corps consisting of Deans Eaton





Edward Hershberger Neil Huntley Dick Jaffray





Robert Jetter Theodore Johnson Arne Kalm Robert Kausen Ralph Kehle

Milton Kimmel David King Kenneth King James LaTourrette Hugh Leney



and Strong, Professors George Beadle, Peter Kyropoulos, Linus Pauling, Robert Sharp, W. R. Varney, and John Weir, all smartly attired in tuxedos. Head Waiter Professor Richard Feynman was ably and pleasantly assisted by Miss Betsy Swift. Members of less fortunate houses stood by with jaws agape and saliva dripping as the steaks, done to order, were borne to the nonchalant Darbs, who were sure to make certain that every protocol of formal service, including fingerbowls, was carried out by their famous waiters.

After the pseudo-champagne had been served and it was time for the good-natured faculty to eat, the tables were turned, and the excellent cuisine received by the troops was returned in kind, to the accompaniment of impromptu music and Barnes' hillbilly bass.

When freshman Berg and Schulze became a bit more obnoxious than the neighboring sophs could handle, the Dabney cell of the Ku Klux Klan paid them a visit one night, complete with the burning of a cross on their doorstep, but some sophs were similarly visited by members of an unknown rival cell shortly, so the fued goes on and on.

Bob Pechacek returned one evening, and was not too surprised to find his bed missing, but even he was a bit nonplussed to discover his bed suspended high in space by none-too-substantial ropes. Bob was seen later inquiring for an extra sleeping bag.

Pope Bob Deverill was the most surprising and most-mourned loss the House has suffered in many years. Far be it from Tau Bate Bob to leave Tech for the usual reasons; he left because an irresistable desire possessed him—that being to "Join the Navy and See the World."

Under the able leadership of Jim LaTourette, President; J. T. Billings, Executive Vice-President; Tom Stockebrand, Social Vice-President; Norm Ellett, Treasurer; Ken King, Secretary; Bruce Scott and Hugh Taylor, co-Athletic Managers; Dave MacDonald, Librarian; Will Richards, Historian; and Bob Deverill, Pope, the House enjoyed a satisfying and successful year, as was shown by Dabney's keeping four or five of the nine interhouse trophies on its mantel throughout the year.





#### DABNEY





Robert Lundgren David MacDonald George Madsen Robert Mandl John Merrill

Peter Mohr Robert Morrell Miles Nesman Hunter Paalman Reid Parmerter

Robert Pechacek Jerry Pixton Thomas Plambeck John Pollet William Purves

Willard Richards Richard Schmid Bruce Scott Donald Seldeen Henry Stair

David Stephens Thomas Stockebrand Myron Szold Nicholas Szabo Thomas Taussig

Hugh Taylor Terry Thomas Leon Vickman Richard Wagenseller Frank Wallace





Fleming Officers: Haber, Kliegel, Handen, Kidder, Moody, Chambers, Hodges, and Campbell





As the overly-optimistic authorities threw open the doors to Fleming in September the troops poured through with great enthusiasm and promptly converted the summer-sterilized halls into the usual homey, if confused, domain. A great influx of spirited frosh aided the seasoned veterans in getting the always abundant espirit-de-house up to an alltime high. Newly-elected House officers hastily began the task of diverting this abundance of energy into useful channels, and Fleming was thus propelled into the Fall term. House Prexy Haber was to be seen as the calm eye of many a storm. suavely coining just the right phrase for many a complex occurrence. Jawn Kidder fell into the party line nobly, escorting Fleming's brave and distinguished guests to the head table with polished Bostonian manners.

The guest list boasted a wide variety of dignitaries, including Richard Feynman, seen ably defending his last shred of reason against the Fleming Inquisition until the late hours, and Randy Moore, a Fleming stalwart from another day, who, when pressed for a few words, wisely counseled the troops to beware of the treachery of draft boards. Perry Butler, night ring-master at Fisher's, dropped in occasionally to partake of the Student House board, thus reminding himself how good he had it, and to pick up a little after-dinner change from the house poker sharks.

House social whip Jim Kliegel launched the eager legions into a mad whirl of exchanges, parading the lovelies of the surrounding high schools before the starry-eyed heroes. When Big Jim laid down the law in his noontime announcements, the hoarse whisper. "Sex tonight!" flashed through the alleys with great rapidity. Ably assisted by co-workers Smith, Boughton, Profet, Collins, and 99.44 per cent of the rest of the House, Kliegel treated hordes of awe-struck visitors to the most inspired Interhouse Dance in years, converting lounge, vestibule, and dining-room into an icy "Palace of Pleasure" which easily outdistanced Coleridge in fabulous, exotic, romantically inspired decorations. Low tunnels led the myriad through solid walls of real ice into a central cavern complete with stalactites, stalagmites, revolving banks of colored lights, a live orchestra, and a completely mirrored wall which doubled the apparent size, if not the capacity, of this den of sensuality. Numberless yards of Reynolds Aluminum Foil served the purposes of the inspired creators, and the dissipated troopers gazed in wonder for two subsequent days as two tons of ice melted and gurgled down the courtyard drain.

Following this peak of frenzied effort and indulgence things settled into a mild roar as co-constables Moore (for right) and Profet (for might) valiantly attempted to subdue importunate and violent outbursts of House spirit in the dining room.

Knowing a time-bomb when they saw one, the House banished last year's infamous Alley One Goon Squad to the remotness of Alley Three, where Dabney would be exposed to them. Unremitting warfare has ensued. If one tired of watching Norvell's henchmen pounding ''Patient Ed'' Gehle's



#### FLEMING





William Barlow Jack Behnke

William Berg Marvin Bienstock

Van Bluemel

Richard Cantrell William Chambers

> Fred Garrison John Gee

Bern Folkman Horace Furumoto

Gerald Dudek Thomas Emery

Eugene Epstein Earl Evleth

James Collins Philip Conley

Edward Gehle David Gildersleeve

Paul Cramer Ben Cummings

> Lennart Gille Alfred Goldman

William Davis Ronald Dettling

> David Graham Richard Hodges















#### **FLEMING**

head against the wall, they could always glance out a window framed in jagged splinters of glass to see House Mountain Climber Emery rappelling down the walls like a fly.

From the very first, Fleming's interhouse teams, having just regained the coveted Interhouse Sports Trophy after the first loss in eighteen years, were determined not to choke again, and Athletic Managers Hodges and Campbell fielded Big Red juggernauts in first term basketball, baseball, and cross-country. The most thrilling baseball finale in recent years saw Fleming and Dabney come to grips in a scoreless tie which resulted in the two unbeaten teams sharing first-place honors in this sport. In second term softball, the Phlegms made up in House support what they lacked in ability, and even "Long Dick" Cantrell was observed to be out on the field to urge the athletes on.

In the improbable event that House spirit was even in danger of lagging, there were always those two rival (and armed) camps, the Waiter's Union and Anti-Waiter's Union Union. The former autocratic organization scored a victory over the liberal minded latter by seducing Anti-Head-Waiter Rosen into its ranks, but Profet not reluctantly leaped forward to restore the dynamic balance.

The waiters could rise to the occasion when least needed, however, when House Mother Bulman was moved to admonish the House on its unsavory appearance in the dining room. They appeared with tuxedos beneath their waiter's coats, led by Head Slinger "Dirty Bob" Lynam, resplendent in white tie and tails. He received every expression of sympathy from the feeding troops. The Anti-Waiters had their Ace-in-hole, however,—the personage of Stranahan appeared in a clean suit.

Not going unnoticed was the occasion of House Purist Moore's secret date. The finger of suspicion points to underhanded tactics employed by Le-Tourneau and Supple.

Fleming was well represented among the successful ASCIT candidates in the March elections, placing Jerry Van Hoven. in the office of Treasurer, Bob Profet in that of First Representative, Rod Supple as Editor of the **Big T**, and Ed Gehle and George Mac-Donald as co-Business Managers of the **Big T**. No sooner had the victory drinking been sopped up (then mopped up), than the House elections came to the fore.

Don Handen emerged as Fleming's new President, and Jim Pinkerton out-promised his rival to grab the job of Vice-President. Social plannings were entrusted to Air Wick Ward, while Bill Barlow composed his way into the office of Secretary. Horace Furumoto took over the custodianship of the House's gold and stationery from gone-on-tohigher-things Handen. Benji Rosen and Ray Grieser slipped into the co-office of Athletic Managers by enthralling the troops with an immortal campaign performance, and Jerry Vurek was sentenced to serve as House Librarian.

As Fleming men looked back over the year, they could recount their accomplishments and recall a roaring good time.







Alan Haber Alan Haire George Moore Ernst Ophuls

Robert Herzog

Richard Ireland







Don Handen John Harding

Rex Peters

James Pinkerton





## **FLEMING**



Kenneth Kastella John Kidder



John Lilley









James Koontz Ronald Korsak



Harold Kramer Budd LeTourneau



Thomas Kirkpatrick

James Kliegel





.





Stephen Mager Richard Manley Edward Miller





John Rogers Benji Rosen







Robert Profet







Barry Raleigh

Lawrence Starr

David Stevens

Robert Smith James Snyder



## **FLEMING**

Edwin Stofel George Stranahan





Paul Wang Larry Whitlow



Newman Wade







Gerald Van Hoven Gerald Vurek

Ronald Willens Raymond Williams Robert Wood





Ricketts officers, standing: Wyman, Bates, Tyson, and Marinkovitch. Seated: Inglis, McCormick, and Emerson.

# RICKETTS





The Ricketts and Afghanistan Pacific Electric Railroad, which conveniently parallels U.S. 66 for exactly twenty-seven-point-two miles, presented its stockholders with its annual dividend of fun, flirting, flunking, and forgetting. At the throttle of the Rowdy Express for the past year was lead-handed Willie McGork, who was ably assisted in the running of this milk-can by Vice-President "Cannonball Jim" Wyman, Secretary "Casey Jones" Bates, Treasurer "Narrow Gauge Don" Emerson, Athletic Manager "Hot Steam" Inglis, and co-Social Chairman "Green Light" Tyson and "Red Light" Marinkovitch.

Feeding the hungry fireboxes of the R & APE locomotives was the stupendous victory in the ASCIT elections in February, which saw four Ricketts men placed on the new Board of Directors of the ASCIT. In addition many Ricketts men hold responsible positions, (and peon positions) on the **Big T** and **California Tech**, in debate, the YMCA, Instituters, and other organizations. New ASCIT President "Moose" Henderson and Vice-President George Johnston exemplify the type of outstanding individual which the Ricketts atmosphere is able to develop in full.

In journeying back through the R & APE express we find the club car packed with suitable entertainment for everyone. At one end of the car the setting is Catalina, with a buxom bevy of beautiful blondes bathing in the brine while ready and rowdy Rickettsmen rapaciously rush to the rescue of the rapidly receding Rotgut.

Halfway through the car the lights have been dimmed in deference to an Interhouse Dance moon, and the remains of a stairway up to the Vista-Dome are covered with cobwebs and tarantulas, while eager young scientists paw the books in the library in the fond hope of finding the combination which will gain them admittance to the "Palace of Darkness." Picking up a crushed Dixie Cup, we detect the dregs of the hottest cider ever to escape the









James Adams David Allen William Autrey Russell Bardin

Philip Bates Robert Battaya Gilbert Beebower Sidney Bellinger

Charles Benjamin Thomas Bergeman Robert Biles Philip Birkeland

Louis Bogdanovic Ashton Brown Richard Brown Ross Brown

## RICKETTS

David Cantor Daniel Chilton Chin-Kuang Chow William Creighton

Jerry Crocker Kenneth Deveney John Dresser Charlton Dunn

Walter Eager Robert Easton Donald Emerson Lyman Fretwell





Harvey Frey William Gardner Everett Gramer James Griswold Walter Haenggi

Kim Hamberger Charles Helslev Lee Henderson James Higgins Douglas Inglis

Richard Jali Byron Johnson Richard Johnson George Johnston Marion Joncich

Bruce Kaiser William Kelley David Knapp John Lansingh Peter Lehman

James Lewis Vince Marinkovich Ted Matthes Paul McHorney Marco Negrete

Richard Pratt Ronald Ratney Donald Roberts Frank Schroeter Bernard Schweitzer

Lawrence Schwartz Robert Sharp Howard Shugart Robert Simpson Thomas Slanger



Hunt Small Robert Spencer Neal Sundt



David Tansey Thomas Trilling Jeffrey Tucker

> Richard Van de Houten Samuel Vodopia







Jack Walker



John Wall

Gene Walters Ronald Wann

# RICKETTS







Tetsuo Yamane

James Wyman

Robert Wynn

George Yankura

Maurice Whitaker David Workman

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notice of either the Deans or the revenooers, it probably being I. W. Ricagetts, bottled in blond. Stumbling over an old leg and cringing at the meanings of Larry Brown's last remarks, we run into Ashton Brown, cut neatly in two. Horrified, we tenderly pick up the parts, consoling ourselves with the old saying that "half an Ash is better than none."

By the light of our luminous watch dials, we see, in the rear of the car, the annual psuedo-Frenchierthan French Apache Mating Dance, complete with hot and dripping steam pipes overhead, and we can smell the Parisian sewer's stench. This year we are especially honored by the appearance of members of Les Polices Francaises, who managed to subdue an over-exuberant Ross Brown by hitting him over the head with one of last year's leftover bread sticks. The prescence of numerous badly clad queens caused linguists to mutter, under their highly inflammable breaths, "Quelle babe!"

Back in the baggage car, bare-chested hairy Rickettsmen, led by "Sewer Pipe" Sundt, drown out the noise of the ricketty locomotive with the gurgling of beer and cheers of victory, with the Acme Trophy, like the Holy Grail, once more returned to its rightful shrine upon the Ricketts mantel.

In the dining car, two sundaes with every pile of curried lamb was the rule, as athletic teams came through with satisfactory regularity. Even the derelict Discobolus Trophy came to rest for a while on the mantlepiece as our "Better than Boo-Boo's" football team clobbered Dabney's. And of course the Interalley Trophy was still vibrating to and from Crud Alley with simple harmonic motion.

Hanging underneath the rods of the R & APE express was as usual a large party of Rickettsia, and the valiant efforts of Resident Associate Bill "It's Intuitively Obvious" Karzas kept most of them from falling off by the wayside. As usual the blue slip casualties were outnumbered by the new Ricketts Tau Bates. Carnivores of the opposite sex made off with their share of the weaker men of the House, with "Peanuts" Hamberger leaving the hallowed halls for a new roommate in December, and executives Inglis and Bates well on the way to the Elysian fields of connubial bliss.

Now back in the caboose we find such trivia as battered heads, brakedrums, and eardrums (shattered by Bob Ryle's laugh).

A few men went R, but most went APE at the sight of the gleaming grounded F-84, sitting alone and forlorn in front of the Greasy. Naturally, the inevitable occured, as everyone has no doubt read of in publications other than the **Big T**.

At the end of the line, the rowdy express picked up its new crew, consisting mostly of reformed politicians. Heading the crew is Ricketts' old man, "Wild Bill" Autrey, as Prexy, with his fireman, President in charge of Vice, "Honest Sam" Vodopia. The crew: "Kalispell Kid" Schroeter and "Palm Springs Panic" Crocker as co-Social Veeps, "Fingers" Wynn as Treasurer, "Black Vince" (formerly "Red Light") Marinkovitch as Secretary, and a Hawaiian hood named Griswold as Athletic Manager.

With this short breather, brother, the R & APE goes on.









Throop Club officers: Lloyd, Rubin, Wilburn, Boush, and Muehlberger.



# THROOP CLUB





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Arlen Bell Robert Bixler Andrew Boush Rudolph Borchard

Gary Boyd Arthur Britt Robert Chapkiss Clair Veazey Neal Cosand Marcos Czerczewski

Donald Darms Ben Davis John Day William Dibble Eugene Dryden

Dysart CoNine Patrick Fazio Philip Fishberg Jerrold Gallagher Joseph Graetch Daniel Griffin

James Hendrickson Thomas Janssens Gene Jordon Eugene Kaiser Richard Knapp Kenneth Laws

John Lloyd Roland Miller Manuel Morden John Moser Eugene Muehlberger Carl Nelson

Gilbert Peppin William Peterson Walter Pilant Charles Sargent Gerald Pressman

Providing opportunities for off-campus men to participate in all phases of extra-curricular activity, considered by most members to be the most important phase of life at Tech, Throop Club's year, like Bacchus' cup, was filled to the brim and overflowing.

Noon time finds the Club performing one of its most important functions, that of providing a congenial and comfortable place in which to eat one's home-prepared lunch and catch up on the latest dirt and Neo-Techian philosophy.

Around the Club anytime one finds the usual games of bridge, ping-pong, and even chess being played with great gusto. Poker, for many years the virtual trademark of Throop Club, has slowly been declining in popularity, and has given way in a large measure to gin rummy in the face of shrinking pocketbooks, most of the lush G.I. Bill men having gone on to further attainments. The Club's Treasurer, Pat Wilburn, officially deplores this trend because it means he must buy playing cards for two-man gin rummy games rather than the more card-economical seven man poker fiestas.

Of course there are many "Just Plain Bull" sessions going on at any time, and there are usually a few of the troopers to be found escaping the world's worries for an hour, blissfully snoring away amid the din. On the warmer days of spring the more athletic faction of the Club will be found noisily practicing volleyball on the adjacent court. And, of course, on Thursdays, EVERYONE in Throop reads the **California Tech.** 

Social activities, guided at first by the weathered and experienced hand of Phil Fishberg, and later by the weathered and experienced hand of Andy Boush, both of whom were familiar with all the byways and alleys of pleasure, included such frolics as barn dances at Mountain Oaks, rustic hay rides held in peripatetic haystacks, and bowling parties. There were also examples of a new, yet already traditional institution unique to Throop Club-an invention of necessity to finish off beer left over from barn dances-the now famous "Forthehelluvit" Parties, known to the more effete members of the Club as Parties for the Hell of It. When lack of snow put an end to skiing expeditions, there were beach parties, which substituted sand for snow, all other factors being equal.

Naturally the Interhouse Dance was one of the well-remembered highlights of the year, with all members helping to build Carlsbad Caverns within the clubhouse, in which the Throop playboys danced dates in and among stalagmites and stalactites in a blackness blacker than Blacker at its blackest.

Other events of interest included the annual Ricketts-Throop Valentine Formal dance, and numerous exchange dances to assist the frosh and other timid souls in getting dates to share the other festivities.

The intellectuals of the Club, pulling themselves from their usual snaking habits momentarily, managed to snatch the Discobolis Trophy for Throop by clobbering opponents on the gridiron. Sheldon Rubin was an excellent Athletic Manager, although winning teams were few. However the spirit was





there, and many eager frosh were given good experience that will assist them in future contests. One bright spot was the winning of the Interhouse Track Meet by Throop Club. This affair was paced by John Lloyd, who copped several "firsts."

The elections of last year brought to power a well-known party machine of old high-school buddies. Gene Muehlberger was elected President of Throop Club, and Andy Boush Vice-President. Other officers chosen then were Pat Wilburn, Phil Fishberg, Sheldon Rubin, and John Lloyd, as Treasurer, Social Chairman, Athletic Manager, and Secretary, respectively.

The "Big Mule" started his regime in good taste by appointing Bill Mackin as Lounge Chairman. Unfortunately both Mackin and Social Chairman Fishberg executed their duties with such time-consuming diligence that they were forced to give up their curricular activities at Tech at the end of the Fall term. In Mackin's stead were appointed a trio of conscientious frosh: Maltz, Carey, and Gold, while Fishberg's social responsibilities were sloughed off onto the already overburdened Andy Boush.



Robert Smith Robert Stanton Henry Sturtevant

Takeshi Sato Charles Tallman David Tansey

James Townsend Harry Vincent Earl Winter

### THROOP CLUB

In the recent elections the Club appointed John Lloyd as President, Manny Morden as Vice-President, and Steve Arneson as Treasurer. The Social Chairmanship fell to Kene Kaiser, Carl Marquis fell into the Athletic driver's seat, and John Andelin was saddled with the job of Secretary.

Steve Arneson, an in-and-out member and officer of the Club, was finally reinstated to the Club after wandering in and out cf the Student Houses. He is now fully repentant, and expects to stick firmly to his status as a true Throoper.

The history of Throop Club is one that tells of a steady expansion, save for a period during the war when its activities were completely suspended. Formed in 1935 from the members of the Off-Campus Club," which was in turn formed in 1932 coincident with the abolition of fraternities and the establishment of the Student Houses, the Club has always tried to be the instrument for integration of the off-campus students with the extra-curricular life of the Campus, both competitive and social, and to be a hell of a good place to be. If as seniors, we are able to get B and G to fix our broken windows, the last obstacle to our progress, we will feel we have done a good job.





Ronald Fuchs Gordon Gwinn George Wada

John Healy Herbert Henrikson John Honsaker

Ronald Hruby Thomas Lovejoy William Lapson Charles McKinnon Douglas McLean

Paul Messinger Leon Michaelson Richard Millard Kenneth Nicholson Richard Nielsen Thomas Noonan

Hajimu Ogawa Robert Phelan Oliver Price

Richard Read Gerald Ross Norman Schroeder Herbert Shear Thomas Slodowski Donald Snowden



Nicholas Stillwell Joseph Swindt Nobuyoshi Takahashi

Walter Thorson Richard Webber Rolf Weglein

### **OFF CAMPUS**

Carel Otte, William Karzas, John Weir, Norman Bulman, John Waugh



## **RESIDENT ASSOCIATES**

## STUDENT HOUSE STAFF



Back Row: Mrs. Southworth, Mrs. Lang, Mrs. Simmons Front Row: Miss Yurich, Mrs. Hale







Harold Z. Musselman



James H. Nerrie

# ATHLETIC



Mrs. Kerns



Bert LaBrucherie

衝

OFFICE



Miss McGee



Edward T. Preisler



Bert La Brucherie, Head Coach

On December 2, at the Fall Sports Banquet, Neil Stefanides was awarded the Wheaton Trophy for the greatest personal influence on his teammates and good all-round sportsmanship. He also was awarded an All-Conference plaque along with his teammates, tackle Gene Muehlberger and guard John Goetten.

Although this year's team was small (only thirty members), it never lost its extraordinary fight and drive. The team was never held scoreless and the Beavers often outplayed their opponents in yards gained rushing, first downs and passes completed. Playing top notch ball, the boys did everything but gather points.

## FOOTBALL



Redlands	35	Caltech	12
Pomona	19	Caltech	14
Arizona	20	Caltech	7
La Verne	21	Caltech	20
Whittier	45	Caltech	6
Occidental	22	Caltech	12
Cal Poly	19	Caltech	18



Standing: Coach Pete Mehringer, Dick Nielsen, Les Earnest, John Kidder, Chalon Carnahan, John Goetten, Lynn Abbott, Dick Hodges, Clarence Miller, Ed Gehle, Ray Grieser, Coach Bert La Brucherie,

Middle: Manager John Wall, Walt Pilant, George McDonald, Bob Christian, Walt Menetrey, Dick Manley, Gene Muehlberger, Bob Wynn, Chuck Tallman, Al Johnson, Eric Ward,

Sitting: Manager Dave Clark, Neil (Stainless) Stefanides, Tom Janssens, Bob Profet, Hugh Taylor, Loral Decker, Bruce Kaiser, Jack Walker, Pat Fazio, Lee (Moose) Henderson, John Gee.

The season opened on October 6 in the Rose Bowl with the Redlands game. Even though the Beavers outgained and outpassed the Redlands Bulldogs they were unable to repeat last year's win, and the score ended 35-12. Techmen tallies were by fullback Ed Gehle and halfback Jack Walker. The highlight of the game came when tackle Chuck Tallman, playing heads up ball, grabbed a fumble in mid-air and raced 27 yards before he was downed. A spirited Tech team plowed into the Pomona Sagehens in the Rose Bowl on October 10. But spirit alone couldn't make points, at least for the Beavers. Spirit did do everything else, however, although the boys went down by a score of 19-14 after outdowning and outgaining the Pomona team. Early in the game an intercepted pass and a 63 yard off-tackle smash put the Sagehens 12 points ahead. Just before the half a new T-slot man, Eric Ward, passed 37 yards to Stefanides for a Tech rally. Each team scored once in the second half, Ed Gehle plunging through for us.



Gene Muehlberger, tackle



Neil Stefanides, end

ALL CONFERENCE



John Goetten, guard





Les Earnest, Jack Walker, John Kidder

Tech, as usual, was keyed up for their "big game," with a highly rated Occidental eleven. Spirit was high and every Beaver was in good shape after a two week rest. Patterson field was a sea of mud when both teams left the gridironthe score was 22-12 and it was a heartbreaking loss for the Beavers. On the kickoff Tiger Kurilich ran all the way for 6 and it looked like this would be a romp. But the Beaver defense settled down and held the Tigers at bay—a few times within their own 15 yard line. The Beaver offense then started rolling and climaxed an 80 yard drive with a Gehle plunge (patent pending) from the I yard line. The second half opened with a 67 yard Tech march ending with a 13 yard TD, Ward to Stefanides. Then Lady Luck shone-but not for the eager Beavers. Oxy recovered a fumble deep in Tech territory, scored, passed, scored again, and fieldgoaled for the final tally. All around, it was one of the the best games of the season.

Chalon Carnahan

Ray Grieser

Clarence Miller

Walt Menetrey

Dick Manley

Techmen traveled to Flagstaff for their third game, with Arizona State College. The fumble jinx plagued the team, and the final gun tolled a 20-7 defeat for the Beavers. Lone Tech TD was scored on halfback Al Johnson's pass to end Neil Stefanides. Gehle's kick for the PAT was good. Long run of the night was Pat Fazio's initial kickoff return to the Lumberjack's 17 yard line. A good time was had by all at the Grand Canyon stop-off.



Bob Christian

Al Johnson



Bruce Kaiser







Under the guiding hands of coach Ed Preisler and assistant coach Ivan Meers, the Frosh gridders compiled one of the best records of recent years winning two games and losing one. The lone loss came in the first game of the season as Tech's green freshmen faced an Oxy team blessed by experience of two previous tussles. Led by Captain Phil Conley, and with a lot of hustle and fighting spirit, the team battered a good Pomona outfit in the next two games.

With the two platoon system used almost exclusively throughout the season it was difficult to pick out individual stars. Irwin Maltz, Jim Snyder and Van Bluemel were standouts on defense, while the big guns on offense were Conley, Art Takido, Jim Okada, and Chuck Lehman. The fine team spirit and hard-driving brand of winning football played by this year's Frosh team are going to make it hard on Tech's opponents in the years to come.

### FROSH FOOTBALL

Standing: Coach Ed Preisler, Dave King, Dan Brannies, John Myers, Phil Conley, John Hickey, Tom Parker, Paul Lindfors, Cecil Raleigh, Van Bluemel, Collis Holladay, Coach Ivan Meers. Middle: Larry Whitlow, Jim Snyder, Irwin Maltz, Chuck Finley, Pete Lehman, Art Takido, John Carey, Alex Ozeroff, Herb Dubb, Bruce Rickborn. Sitting: Dick Small, Bob Chapkiss, Ed Gold, John Markiewicz, Jim Okada, Kay Hoke, Steve Nathanson.





Lt. Col. Art Small, Coach

Standing: Ed Daw, George Patraw, Chuck Davies, Bruce Watkins Kneeling: Paul Farley, Don Turcotte

### GOLF

Colonel Small and the Tech golf team appear to be heading toward another successful season. At this writing the team has traveled to Stanford to participate in the Northern California Intercollegiate Tournament and come out very well. Both Oxy and Pomona are highly rated in the SCIC, but Tech is the dark horse favorite. Don Turcotte and Paul Farley play first and second men. Seniors Ed Daw and Chuck Davies are third and fourth while Eric Ward, Bruce Watkins, and George Patraw alternate at fifth and sixth. Top coming attractions include a match with UCLA, the Southern California Tourney, and the SCIC tourney.

Ed Daw, Don Turcotte, Paul Farley, Chuck Davies





Standing: Bob Smith, Gunther Perdigao, Jim Wyman, Blake Wallace, Al Haire, Ed Stofel, Don Barnes, John Bush, Ron Cochran, Norm Ellett, Coach Don Garman. Kneeling: Manager Earl Jacobs, Morgan Ogilvie.

Water polo was handicapped by injuries of several men including last year's star Al Haire. However, Coach Garman's men racked up a good record. Morgan Ogilvie was captain and leading scorer. John Bush, Norm Ellet, Ed Bryan, Bob Lynam, Frank Wallace, Jim Wyman, and Bob Smith were regular starters, while Gunther Perdigao, Ron Cochran, and Ed Stofel supplied depth and spirit. The frosh showed a lot of prom-

ise and won frequently. They were led by Bill Sundblad, Bill Davis and Arlen Bell.

## WATER POLO



Santa Monica I	5	Caltech	4
Santa Monica JC	15	Caltech	3
Pomona	3	Caltech	6
L.A. State	11	Caltech	4
Los Angeles CC	9	Caltech	0
Occidental	14	Caltech	1
El Camino	18	Caltech	I
Compton	6	Çaltech	0
Fullerton JC	9	Caltech	3
Pomona	3	Caltech	2



Standing: Manager Earl Jacobs, Bill Sundblad, Bill Davis, Rick Holst, Coach Don Garman. Sitting: Dick Van de Houten, Jim Ball, Ron Dettling, Fritz Trapnell.

# FROSH WATER POLO




Dewey Marshall, Stan Manatt, Coach Bill Pilkington, John Ames, Jim LaTourette, Leigh Gardner, Dave Crowther, Paul Cramer, Bob Mandle, George Patraw, Van Walkley, Manager Woody Cardinale.



# **CROSS COUNTRY**



Cross country coach Bill Pilkington came up with a harrier squad that was always in the running among the top teams on the Coast. The team was a little late rounding into shape, but when it did Tech showed its heels to many a school. Speedy Jim La-Tourrette was elected captain; he was the only senior on the team. The sophomores were the foundation of the team with Leigh Gardner, Dave Crawther, and Van Walkley. Van and Leigh divided up the leading scorer honors. The juniors were always in there pitching with John Ames, George Patraw, and Paul Cramer as consistent runners. The Tech harriers had a 2-1 conference record, and copped third in the conference meet held at Mt. San Antonio.



Hopes for a continued good season in varsity cross country next year were bolstered by a fine freshman team. Sometimes outrunning the varsity, the frosh were led by captain Don Lewis. The fiveman team included Fred Witteborn, Loren Linstrom, Mike Anderson and Tom Plambeck.

#### Frosh Record:

Occidental	21	Caltech	38		
Caltech	26	Pomona	29		
Conference m	neet:				
I-Occidenta	I, 2—	Whittier, 3	—Caltech,		
4—Pomona,	5—Re	dlands (no	team).		



# FROSH CROSS COUNTRY

#### Tech record: Occidental 15 Caltech 48 Caltech 20 Redlands 41 Caltech 23 Pomona 37 Caltech 25 Nazarene 39 Caltech 15 Cal Poly 50 Conference:

I—Whittier, 2—Occidental, 3—Caltech, 4—Pomona, 5—Redlands.



Fred Witteborn, Tom Plambeck, Mike Anderson, Loren Linstrom, Don Lewis



Standing: Coach Huttenback, Sedat Sedengecti, Walt Haenggi, Dan Brown, Perry Vartanian, Marty Bainbridge, Don Emerson, Swaroop Bhanj Deo, Dave Trilling, Don Hook, Rene Gutierrez, Manager Frank Dryden, Coach Roy Jones. Middle: Curt Schultz, Ernie Ophuls, John Peyton, Phil Bates, Al Helgesson, Doug Inglis, Bobby Wood, Mel Smith, Harold Hunt, Moe Lerner. Sitting: Ken Lunan, Darrell Flieschman, John Weisner, Ron Helin,

# SOCCER

Caltech's soccer team again proved itself to be the winningest at Tech. Mentor Huttenback ("We don't build character; we win games!") kept the Southern California soccer trophy at Tech with his 5-1 record. UCLA put up the toughest competition when Tech split two with them. Outstanding trophy winners, Don Emerson, Bob Wood, and Swaroop Bhanj Deo, led the team to its victories. Rene Gutierrez, Doug Inglis and Bob Wood were consistent scorers while Moe Lerner, Ernie Ophuls and Phil Bates held down the enemy. Consistent supporters were Harold Hunt, Sedat Sedengecti, Perry Vartanian, John Peyton and Mel Smith. The manager was Frank Dryden.

Caltech	4	Thatcher	2		
Caltech	3	Pomona	2		
Caltech	9	Midland	2		
Caltech	3	San Louis Obispo	2		
Caltech	2	UCLA			
UCLA	3	Caltech			











Art Britt, Fred Anson

Coach Carl Shy

# BASKETBALL

Standing: Managers Bill Berg, and Dave Clark, Bill Chambers, Jim Tyler, Fred Anson, Dick Smith, Howard Shanks, Coach Carl Shy. Middle: Chin-Kuang Chow, Dave Stevens, John Gee, Gerry Van Hoven. Sitting: Dick Ireland, Rol Moody, George Madsen, Art Britt.







Jim Tyler, Bill Chambers, Dave Stevens

Caltech came up with one of the best basketball teams seen around here in many a year in the 1952-53 season. Coach Shy's boys took second place in the torrid SCIC hoop scramble by beating such "unbeatables" as Oxy and Redlands. A number of records were set by Tech in their campaign: total points both teams Nazarene vs Caltech (197), total points by Tech—LaVerne vs Caltech (98), individual score Fred Anson vs Redlands (32). This year Fred could not quite equal his conference scoring record of 22 points per game but did average 21 points.

Fred Anson, Vesper Trophy winner and high scorer, led the Shymen in their campaign. Co-captains Art Britt and Dave Stevens and the other two seniors Dick Ireland and John Gee provided experience and ability. Juniors Anson, Howard Shanks, Dick Smith, and Bruce Watkins were always in their fighting. Sophomores Jim Tyler, Bill Chambers, Rol Moody, and George Madsen gave a lot of spirit and drive. Anson was elected to first team all-conference center while Chambers made second team forward.

Next year Coach Shy hopes for a conference championship and the only obstacle seems to be this year's champion Whittier, which will also have a lot of power next year. The potent frosh squad should also provide a lot of scoring punch.

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Nazarene	93	Caltech
Caltech	74	Cal Poly
Whittier	64	Caltech
Caltech	44	Chapman
Caltech	48	Pomona
Caltech	98	La Verne
Caltech	77	Chapman
Whittier	59	Caltech
Caltech	62	Pomona
Caltech	84	La Verne
Caltech	64	Cal Poly
Redlands	57	Caltech
Caltech	51	Occidental
Whittier	64	Caltech
Caltech	63	L.B. State
Natatens	108	Caltech
Caltech	68	Pomona
Caltech	87	Chapman
L.A. State	75	Caltech
Caltech	70	Occidental
Caltech	83	Redlands
* Overtime		

Dick Smith

Dick Ireland

Rol Moody











George Madsen

Howard Shanks

Jerry Van Hoven

Chin-Kuang Chow, John Gee





Standing: Manager Collis Holladay, Darrell Fleischman, Tom Parker, Fred Peters, Phil Conley, Jim Ball, Coach Ed Preisler, Manager Sig Porter. Kneeling: Paul Lindfors, Jim Koontz, Bill Shedd, Gene Nelson.

# FROSH BASKETBALL

Ed Preisler's frosh casaba team was a very erratic one. Sometimes it looked the class of Southern California and at other times it looked hopelessly mired in the cellar of the SCIC. The final results showed a 4-10 record for the season. The leading scorer was Phil Conley who scored over 30 points several times during the year. Two other hot hoopsters were Parker and Koontz. Rounding out the squad were Lindfors, Shedd, Peters, Chilton, Bogdanovic, Nelson, and Ball.



Caltech	82	La Verne	44
Caltech	84	Chapman	61
Whittier	82	Caltech	70
Pomona	63	Caltech	51
La Verne	66	Caltech	56
Redlands	61	Caltech	39
Caltech	74	Cal Baptist	58
Oxy	66	Caltech	57
Whittier	98	Caltech	72
Nazarene	78	Caltech	64
Pomona	73	Caltech	60
Caltech	92	CBS	89
Оху	78	Caltech	64
Redlands	66	Caltech	59



Coach Ed Preisler

Bill Peterson













Jack Walker



Carl Sauer

Bill Autrey



Don Hook



George Madsen



Standing: Coach Ed Preisler, Bill Autrey, Bob Pechacek, John Winslow, Don Hook, Howard Shanks, Ron Willens, Doug Inglis, Manager Al Pitton. Sitting: Bill Peterson, Morgan Ogilvie, Carl Sauer, Ken Lunan, Jack Walker, George Madsen.

# BASEBALL

Suffering from graduation losses, especially in the infield, the baseball team comes up with a hard-fighting but inexperienced team. Five returning lettermen make up the core of the squad including outfielders Bill Autrey and Carl Sauer, third baseman Jack Walker, second baseman Ron Willens, and pitcher John Winslow. Showing a lot of promise are Inglis, catcher; Madsen, short; Pechacek, first, and Hook, outfield. Ed Preisler hopes for a winning season and is working hard to produce one.



Ron Willens, Bob Pechacek



Coach Ed Preisler

BASEBALL



Ken Lunan

Loon Michaelson





Howard Shanks

John Gee



Coach Bob ("We don't build character; we win games!") Huttenback's Frosh baseballers should have a winning season this year. The mainstay is a brilliant battery composed of pitchers Ray Weymann and Jim Snyder and catcher Phil Conley, aided by Koontz at third, Nelson at short, Cowan at second, Laws at first, and Holladay in the outfield. With the return of Frosh baseball Ed Preisler can expect some experienced varsity men next season to offset the loss of this year's seniors.

Coach Bob Huttenback

# FROSH BASEBALL

Standing: Coach Bob Huttenback, Ray Weymann, Collis Holladay, Phil Conley, Jim Koontz, Ken Laws. Kneeling: Dave Tansey, Gene Nelson, Jim Snyder, Herb Dubb, Dan Chilton.





Dewey Marshall

# TRACK

The 1953 track opened with Oxy as powerful as ever and Tech with balance but lacking in depth. Redlands has been beaten and Pomona may also fall to the cinder men. High point man appears to be Jim Tyler who will broad and high jump, hurl the discus and run a leg in the relay. Top weight men are old standbys Dick Hodges in the javelin and Gene Kaiser in the shot. Sprinters Bruce Munn and John Lloyd are in good form and should take many ribbons. Middle distance men Rod Supple and Leigh Gardner are rounding into form and iron lungers Van Walkley and Dave Crawther go at the mile and two mile. Hurdlers Jim Kliegel and Keith Campbell will be lending a lot of tough competition.

The freshmen trackmen sport a number of top men in different events. Jim Lloyd in the pole vault, Don Lewis in the middle distance, Ernst Ophuls in the dashes, and Phil Conley in the javelin. Phil set a new frosh record of 169' in the javelin during the Oxy meet.

Walt Pilant, Dick Hodges, Jim Tyler











Earl Evleth Bruce Kaiser

Paul Cramer



Loral Decker, Ray Grieser, Sammy Sims

# TRACK

#### Bert La Brucherie, Coach







Don Taylor, Bruce Munn, Rod Supple, Jim Kliegel

# TRACK

Standing: Manage: John Li'ley, John Lloyd, Don Taylor, Jim Kliegel, Walt Menetrey, George Moore, Jim Tyler, Paul Cramer, Dick Hodges, Gene Kaiser, Manager John Rogers. Sitting: Walt Pilant, Keith Campbell, Earl Evleth, Rod Supple, Loral Decker, Sammy Sims, Ray Grieser, Van Walkley, Leigh Gardner.







Standing: Bob Kausen, Fred Peters, Van Bluemel, Phil Conley, Ernie Ophuls, John Myers. Sitting: Jim Lloyd, Loren Linstrom, Don Lewis, Chuck Lehman, Barry Raleigh.

# FROSH TRACK

Dave Crowther

Van Walkley

Leigh Gardner

Jim Tyler, John Lloyd





Standing: Jim Wyman, Gunther Perdigao, Don Roberts, Blake Wallace, Bob Smith, Morgan Ogilvie. Kneeling: Al Haire, Norm Ellett, Manager Earl Jacobs.

Coach Don Garman's bath tub boys from Tech lack the strength they had in the past years but still expect to place third in the Conference Meet, ahead of Redlands and Whittier. Pomona looks as if it will keep the championship won last year after a long Oxy domination.

The potent free style department shows returning lettermen Al Haire, Gunther Perdigao, Frank Wallace, and Jim Wyman pushing one another for faster times. Don Roberts and Ed Bryan will battle it out in the backstroke, while Don Barnes in diving and Norm Ellett in the breaststroke will be working for their share of points.

## SWIMMING





Manager Earl Jacobs, Coach Don Garman, Manager Ron Cochran

# FROSH SWIMMING

Although the Frosh swimmers are low in quantity they have a lot to show in quality with such outstanding performers as Jim Ball, sprints; Bill Davis, breaststroke; and Bill Sundblad, distance. These three have outshone the Varsity swimmers in the first few meets and are expected to place high in the Conference Meet.

Jim Ball, Bill Sundblad, Bill Davis, Dick Johnson, Sam Phillips, Ralph Kehle





Bob Hanvey, Tom Emery, Eric Ward, Coach John Lamb, Rol Moody, Al Yano, Don Borad, Don Schmid

## **TENNIS**

John Lamb's netmen are back for another battle in one of the toughest tennis leagues in the country. With Whittier and Redlands still dominating the SCIC Tech is not a favorite but should be able to overcome Oxy and Pomona. A heavy schedule is on tap and Lamb's men will get quite a workout. With Palmer Smith gone Eric Ward will take over the first man duties and will probably team up with Tom Emery as first doubles. Alva Yano, Rol Moody, Gil Beebower, Dick Schmid, and Phil Potter will round out the squad.

Al Yano, Eric Ward, Don Borad





Coach John Lamb, Jim Ball, Don Evans, Al Poisner, Mark Goldberg, Scott Davidson, Gene Barnes

# FROSH TENNIS



Bob Hanvey, Rol Moody, Tom Emery

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