

Teaching Querelous Faculty Retroactively

by Greenie

Once again, the Teaching Quality Feedback Report is here to regurgitate the undigested gripes of revenge-hungry students complaining of everything from spoon-feeding to overstuffing.

The editors of the 1975-76 edition deserve a hearty round of applause. The Report is more readable, has a higher information content, and is better organized than ever before.

This year's Report goes beyond simple tabulation; its cultural inserts (from a description of medieval university life to whimsical quotations about science) make for pleasant browsing.

A number of courses listed have inexplicably been omitted from this year's catalog (rumor has it, however, that at least one of these, ABi 6, was cancelled due to a lack of qualified TA's).

Excellent summaries of the data are presented and some interesting trends may be gleaned from these. It appears, for instance, that frosh are not generally as trollish as tradition has it; whether this is due to sheer fabrication in the popular conception, or a change of heart on the part of the Admissions Committee is a moot point. Graduate students, however, spend significantly more time on their courses than do undergraduates; the readers may draw their own conclusions.

A glance at the departmental summaries yields some interesting facts. BEM rates most favorably or close to it in all areas, yet requires the fewest number of hours. Info. Sci. is rated the most unfavorably in all areas but grading. Biology had the lowest rate of response (35%). (Are biologists timorous, or merely apathetic...?) AMA trolls spent the most time per week and work hardest for their grades. (Frosh, take a tip from one who does: being a biologist means never having to take AMA 95.) Mathematics, of course, emerged as almost precisely (statistically speaking) J. Random Department.

Leafing through the individual course section, the reader is

struck by the extreme reluctance of most Techers to comment on how difficult it was to earn their grades. History, Geology, and Astronomy were the worst in this respect. Indeed, judging by the tiny fraction of Ay courses which garnered enough response to merit summaries, it would seem that astronomers are loathe to comment on much of anything whatsoever. (Not to reinforce a stereotype, one still does wonder about the old aphorism concerning star-gazers and mundane matters). (Note that Bi 114 and Bi 119 are switched.)

In view of the faculty's stated commitment towards accurate unitage, a distressing number of courses were painfully underunited. Among science departments, APh fared the best in this respect, followed by Biology, Chemistry, and Information Science with the lowest percentage of (tabulated) underunited courses. Physics was the worst by far, especially with respect to supposedly six unit labs. (And you wanted to take Ph 4 frosh...?) Alas, even the venerable bastion of Lit 15 averaged twice the hours it lists for (oh, well, there goes our frosh contingent of recruits.) The thumbs-down award for each deserving department (with respect to underuniting) is as follows: AMA 104 (12.3 hours for 11 listed), AM 125 (10.6 for 9), Ay (insufficient data), Bi 114 (13.4 for 9), Ch 120 (10.0 for 9), ChE 111 (12.3 for 9), EE 10 (10.8 for 6), ENV 103a (10.7 for 9), GE 121 (13.5 for 12), Lit 15 (6.0 for 3), Ph 4 (8.3 for 6). There are many other underunited courses; these are the worst. Note that the hours listed are *means*: large numbers of students spent much more time than this.

In many other courses, the average number of hours is below the listed unitage; this does not necessarily imply that the course is overunited; only a careful evaluation of the standard deviation in each case can settle this point. The purpose after all, of assigning a given number of units to a course, is not to accomodate

the mean number of hours spent, but to "overload" as few as possible of the students in the course. Unfortunately, the editors of the Report did not calculate correlations between hours spent and attitude towards the grading of a course; such information is also necessary in evaluating whether a course is overunited.

With respect both to evaluations of teaching and unitage of various courses, most courses seem to meet with student approval. It is to be hoped that those professors whose courses received low ratings and/or required excessive amounts of time will give some thought toward reorganizing and/or reuniting their courses. It would be helpful in this respect if the faculty would request suggestions from their students each term and maintain closer contact with them during the course of the term.

Perhaps surprisingly, Caltech's athletic program received generally high ratings (note the change of scale). Coach Lamb received somewhat lower ratings than the others; Mr. Ohshima somewhat higher. (Maybe we really *are* going to win a football game this year...)

The editors have been so good as to indicate the most favorably rated individual courses. They showed manifest good sense in not marking the least favorably rated; in view of the low response rate and therefore questionable sampling involved the data is not very dependable. The results tabulated in the Report are most useful as a very loose guide, and ought not to be relied upon too heavily in choosing a course schedule, particularly in cases of large standard deviations.

It would be most interesting to plot the ratings of various courses and various professors over a number of years. Such data would be useful in the continuing debate over the importance of student opinion in the eyes of the faculty.



J. Random Frosh

Haven on Earth

Tucked away amidst the ivy across the street from Downs-Lauritsen exist just about the friendliest people at Tech: the staff of the Caltech Health Center. One look at their salaries will tell you that the nurses are there because they like Techers and not for the money their masters' degrees in public health entitle them to. The Health Center helps sponsor exercise classes, diet and nutrition groups, seminars on suicide, and the Decompression Chamber during finals week. It's a good place to read the paper or a magazine, get a cup of coffee, or spend the night away from that noisy stereo freak down the hallway

(the one who insists on testing his power amps at midnight).

Oh yes, the Health Center is also a place to be when you're sick. Being a patient in the Health Center is as pleasant an experience as the staff there can make it. As you lie in your (private) room on your electric bed, the nurses wait almost hand and foot on you. Juice, jello, sherbet, the crossword puzzle from the *Times*, all just awaiting your call. One of the nurses has even been known to serve your visitors cookies and tea. Visiting hours are nearly unlimited (though the nurses do get fidgety after midnight). Lunch and dinner are still from food service, but breakfast is whipped up in the Health Center kitchen by your nurse. Mom's chicken soup couldn't be any better.

The Health Center is open continuously from 8:00 a.m. Mondays to noon Saturdays. You need no appointment to come in though it is recommended that you make one and the doctors are usually there only in the afternoons after 1:30; Dr. Ketabgian is there daily, Dr. Coleman (the gynecologist/internist) once a week. You may need an appointment to see the psychologists so as to catch them between the classes they teach and the committees they are on. To see anyone of the above or have labwork done is free or already paid for in your health

Continued on Page Five

Real News

Totem is Back

Anyone interested in being a member of the Totem (Caltech's literary-art anthology) staff should contact the editor, Mark Sturza, in Fleming.

If you have a poem, short story, photograph, drawing, or combination of the above, get it to Sturza, Chris Vestuto, Lloyd O/C, or leave it with Flora, Winnett.

Class Elections

Nominations are open for the remaining class offices of Senior Class Secretary, Senior Class Treasurer, and Junior Class Secretary. If you feel like running for office yourself this election year, sign up on Flora's door. Nominations close Friday, October 8.

Tech staff meeting Today at 1:45

in Tech office

attendance requested

Freshmen welcome

Lit 15 meets as scheduled

Parry! Riposte!

The Editorial Page

Billing Inequities

It has recently been brought to the attention of the editors of the *Tech* that current administration policy permits the Institute to increase the amount of a student's bill between the time he receives his last bill of the summer in the mail and registration day first term.

By having the August bill come out within a week of registration, the administration permits students to arrive to register, only to find that they don't currently have enough money to register. Not only can a situation like this cause some people to leave Tech, but for those who sign promissory notes or use all of their cash on hand to pay the bill, the spectre of running out of money for food or having the note come due at a time when they know they still won't have enough cash to pay it can influence their academic performance negatively. In short, even if a student can raise enough money to pay the bill, the policy still acts against his interests.

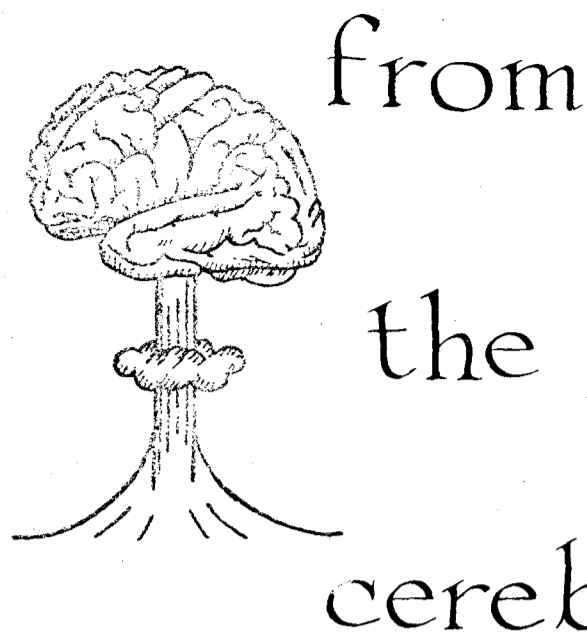
There are two ways that the Institute can rectify the problem:

1. The Institute can delay the August bill until after registration thus permitting students to register in spite of debts owed the Institute. Since it is already the custom to permit students who have incurred bills in the month of September to register without paying them off, the current policy rather flagrantly discriminates against those who do not stay at Tech during September. In the interest of equity alone, therefore, delaying the August bill is called for.

2. The Institute can expedite processing of August bills for pre-registered students, thus making it possible for them to receive notice of the actual extent of their debts prior to registration day. Unfortunately, the current billing system doesn't get bills out before mid-month and the August bill takes even longer than most.

Unless billing can be expedited it is only fair to students not residing at Tech during September for the Institute to adopt a policy of delaying the August bill for a few more days until after registration. Continued use of the present system can only be regarded as an unfair practice, verging on unfair advantage being taken of someone who has made a reasonably large investment (when opportunity cost is considered) to get back to Tech only to find that it may have been for naught.

Carl J. Lydick



from
the
cerebrum

"You mean I am supposed to evaluate a real live person with this six square inch piece of paper?"

"Well, we make it easy for you. There are five boxes there, just check one."

"How in the world can all freshmen fit into the categories of Excellent, Good, Fair, Poor, and Ratshit? And how in the world am I supposed to call anyone a Ratshit? This thing is just plain fucked."

"Well, if they don't fit into those categories, you can say minus or plus for someone, you know, like 'Good Plus,' or 'Fair Minus.' Besides, there is space for comments."

"Yeah, sure. A whole two square inches."

"Well, if you don't like it, what do you propose instead? There are 240 people to choose from out there, and we have one week...."

I'll lay it on the line. There is more than one group of people learning about rotation this week. The sophomores are learning the dirty side—and I mean the really dirty side. That conversation involved one disgusted sophomore and I'm sure there are more. I know I was disgusted when I learned the inner workings of Rotation.

If you are a freshman you may have caught wind of something called a "Rotation Meeting" that the upperclassmen disappear to in the evenings, at the "usual place", unbeknownst to you. What goes on at these meetings is a brutal, unsympathetic evaluation of your charac-

ter in terms of the house considering you. (I can only talk in detail about one house, but I know that there are similar happenings in all of them.)

It all starts with the individual upperclassmen meeting individual freshmen. After dinner and reception, these upperclassmen will fill out one of these six square inch pieces of paper labeled "Freshman Evaluation" or some such, and you will be rated in one of those five categories. At the meeting there should be a stack of such sheets for you, if you met a lot of upperclassmen, and after reading each one of them to the entire meeting, you will be given an overall rating. This will happen to you seven times.

After you have made your four house choices on Saturday, the upperclassmen will gather again to consider the entire frosh class with respect to each other. At that time, the group will consider individuals and rank them. In my house, we rank the top twenty choices and the bottom twenty choices. The rest are placed in moderate categories of "Good," "Fair," etc. Yes, we are actually saying that we would rather have this person in our house than that person, or we are saying that this person is more obnoxious than that person, and we want to avoid him at all costs. This final list is guarded carefully from freshmen and other houses, as are the rotation meetings.

Presumably, at the Grand Lottery on Sunday, the house president will make his first

twenty choices using the top twenty list in order, unless, of course, a person is chosen by another house. Thereafter choices will be made from the "Thundering Herd" until it is down to the last twenty choices the list from which the president will pick as few choices as possible.

If that doesn't disgust you then you're probably not a person I'd like to know. It is crude and brutal at the very best. It's one reason why so many upperclassmen are drunk at rotation meetings. Rotation from the upperclassman's point of view stinks to high heaven.

The only real alternative is a random selection, and there are many who favor such a system. The average upperclassman, however, likes the flavor of his or her particular house and wants to

Continued on Page Five

The CALIFORNIA Tech

Friday, October 1, 1976

Volume LXXVIII Number 2

Published weekly except during vacation and examination periods by the Associated Students of the California Institute of Technology, Incorporated. The opinions expressed in all articles are strictly those of the authors and do not necessarily reflect the views of the editors or of the corporation.

Editors in Chief

Albert L. Kellner
Carl J. Lydick

Editorial Staff

Managing Editor, Henry Fuhrman
Features Editor, Gregg Brown
Sports Editor, John Loo

Business Manager

Ken Kroll

Publications Darkroom Chairman
Dave Wheeler

Writing Staff

Flora Boyer, Gregg Brown, Judy Greengard, Chris Harcourt, Morris Jones, Tom McCabe, Sandy McCorquodale, Nick Smith, Joel Okasaki

Photographers

Joe DiGiorgio, Ray Gildner, John Loo, Dave Wheeler

Circulation Managers, Mike Frisch
Aileen Stone

The California Tech publications offices are located in Winnett Center (105-51), California Institute of Technology, Pasadena, CA 91125. Telephone: 795-6811, x2154. Printed by News-Type Service, 1506 Gardena Avenue, Glendale, CA. Represented for national advertising purposes by National Educational Advertising Services, Inc. Second Class postage paid at Pasadena, California.

Subscriptions . . . \$1.50 per term
\$4.00 per year
Life Subscription . . . \$100

THE ASCIT FRIDAY NIGHT MOVIE

The Dirty Dozen

7:30 p.m. & 9:30 p.m.
in Baxter Lecture Hall

Admission: 50¢—ASCIT members and their guests; \$1.00—anyone else

NEXT WEEK

OUR MAN FLINT

CLASSICAL RECORDS

Fine Books - Musical Gifts



Offering a wide selection of classical records

Classics Unlimited



Open 10-8, Mon-Sat (parking in rear)



548 S. Lake Ave., PASADENA 793-1392

Report to the coach immediately!



The Wells Fargo Stagecoach, that is. Because, for a dollar a month, you can have a student checking account at Wells Fargo Bank. There's no minimum balance required and you can write as many checks as you want. We'll even send you a statement every month.

The plan also has a built-in "see you in September" feature: If you don't write checks over the summer, we don't charge you, and we keep the account open until fall even

if there isn't any money in it.

Ask about our special Master Charge credit plan for sophomores, juniors, seniors and grad students. It provides extra money when you need it—a good way to build credit standing. Plus you can have overdraft protection on your checking account at no additional cost until you use it. Wells Fargo Bank. Because every college should have a good coach.

Student checking. \$1 a month. Wells Fargo Bank.

Pasadena Lake Office, 99 South Lake Avenue, Pasadena

Hewlett-Packard wrote the book on advanced pocket calculators.

And it's yours free!

Hewlett-Packard built the world's first advanced pocket calculator back in 1972. And led the way ever since.

If you're about to invest in your first pocket calculator—one that will serve you through college and beyond—you'll need all the information you can get to make a wise decision. That's why Hewlett-Packard's put together an objective, informative 24-page guide entitled, "What To Look For Before You Buy An Advanced Calculator." And it's yours—Free!

In it you will find such helpful information as: A survey of types of calculators available; Programming; Logic systems; Applications; Functions; Features; Construction; Accessories; Memory; Service and much, much more.

Get your free copy of "What To Look For Before You Buy An Advanced Calculator," at your campus bookstore or telephone **800-538-7922 (in Calif. 800-662-9862)** toll-free for the name of your nearest dealer.

HEWLETT-PACKARD PRESENTS THE FIRST FAMILY OF ADVANCED CALCULATORS.

HP-21 Scientific. New low price. \$80.00*

The HP-21 makes short work of the technical calculations even so-called "non-technical" courses require. If you need a calculator for more than simple arithmetic—this is it—especially at its new low price.

- 32 built-in functions and operations.
- Addressable memory.

- Performs all standard log and trig functions (in radians or degrees).
- Performs rectangular/polar conversion, register arithmetic and more.
- Two selectable display modes: Fixed point and scientific.
- Lowest-priced HP Scientific calculator.

HP-22 Business Management \$165.00*

The HP-22 easily handles the kinds of calculations you face in business courses today, in management tomorrow. Breeze through business math calculations. Build existing statistical data into reliable forecasts. If you're going into business administration, this is the calculator for you.

- Combines financial, mathematical and statistical capabilities.
- Performs complex time-value-of-money computations including interest rates.
- Performs rates of return and discounted cash flows for investment analysis.
- Performs extended percent calculations, accumulated interest, amortization, etc.
- Ten addressable memories.
- Full decimal display control.

HP-25C Scientific Programmable with Continuous Memory. \$200.00*

The HP-25C is our keystroke programmable. It can solve automatically the repetitive problems every science and engineering

student faces. What's more, its Continuous Memory capability lets you retain programs and data even when it's turned off.

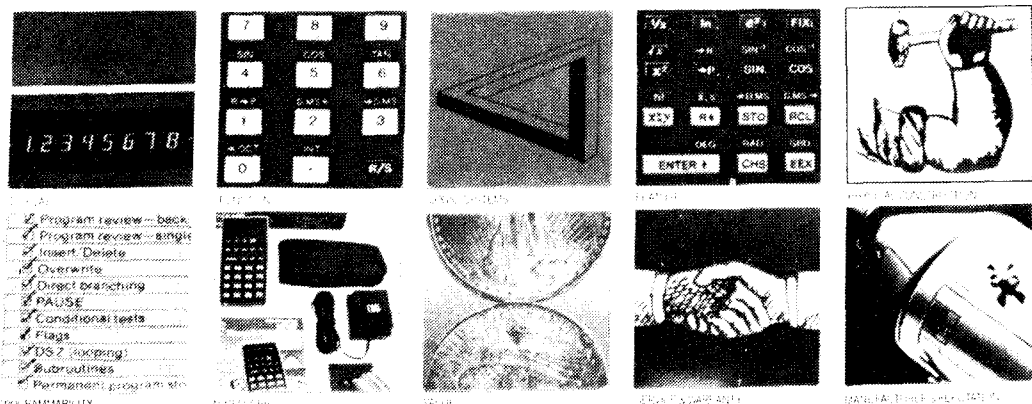
- Continuous memory capability.
- 72 built-in functions and operations.
- Keystroke programmability.
- Branching, conditional test and full editing capability.
- Eight addressable memories.
- We also offer the HP-25, (without the Continuous Memory feature) for \$145.00*.

HP-27 Scientific/Plus \$200.00*

The HP-27 is for the science or engineering student—whose course work extends into business administration. The reason: It features every pre-programmed scientific function we've ever offered, plus comprehensive stat and financial functions. That's why we've dubbed it our Scientific/Plus.

- 28 pre-programmed exponential, log and trig functions, 15 statistical functions, 10 financial functions—53 in all.
- 10 addressable memories—20 memories in all.
- 6 selective clearing options give you flexible use of memories.
- Fixed decimal, scientific or engineering display formats.

What to look for before you buy an advanced calculator.



HEWLETT  PACKARD

Sales and service from 172 offices in 65 countries.
Dept. 658G, 19310 Pruneridge Avenue, Cupertino, CA 95014.



With one week down and a mere twenty-nine to go, your sensibilities should be in desperate need of anesthesia. If the traditional chemical techniques are not within your means, perhaps comic relief will help.

I offer this suggestion because George Carlin will be appearing at the Music Center Pavillion this Sunday evening. Carlin's brand of comedy is absurd enough to restore your resolve to study for a few days, at least.

If comedy isn't quite what you had in mind, there are many other possibilities this weekend. The Australian folksinger, Rolf Harris, who wrote *Tie Me Kangaroo Down, Sport* and was singing *Sun Arise* long before Alice Cooper got it, is at the Troubadour through Sunday. There are two shows a night; there are no advance sales or reservations, and tickets are

\$4.00—with a two drink minimum.

If an entertaining and family-type festival is more your style, the famous Pumpkin Festival in Chatsworth opens tomorrow, and will run Saturdays and Sundays in October from 10:00 a.m. until 6:00 p.m. For the mild tariff of \$3.50 you can be regaled for eight hours with bluegrass, ragtime, bellydancers, circus acts, exotic foods, craft booths, and games of all descriptions.

The offering this weekend in Beckman is tonight's American Folk Ballet. Tickets are available, and as today is the day of the event, the "rush-ticket" policy is in effect, allowing you to buy any ticket in the house for \$2.00. For this paltry sum (not even enough for a reproduction Turnbull) you can watch Burch Mann's troupe present the dance and music indigenous to these

fifty states. If you're reading this before noon, you can catch a preview of this show at the Caltech Y noon concert in Winnett Plaza—otherwise, there's tonight.

As for rock concerts, with a discussion of two shows, I can give you a fair idea (I hope) of the Los Angeles situation. Last Sunday, two Grateful Dead concerts were announced for October 14 and 15 at the Shrine Auditorium. By Tuesday, the only available seats were at the rear of the balcony, some of the poorest of 6500 seats. Better seats are either in the fists of happy Dead-heads or crossing the palms of professional brokers (translate:scalpers) probably for fifteen to twenty-five dollars each—and the face value of these tickets is \$7.50. Brokers, for all their resources, still have to buy their tickets from legitimate sources such as the box office or Ticketron, and therefore have no better chance to get excellent seats than you. The key is to move *fast*. Now the next concert which will go on sale is Neil Young at the Forum in Inglewood on November fourth. Tickets almost always go on sale Monday mornings, so watch the newspaper and don't procrastinate. Until next week, I wish you a happy diversion.

—Chris Harcourt

Rotation

Continued from Page Two

keep it that way. Unfortunately, such a system could not maintain the house personalities.

There was a time, back when there were only four houses, when rotation lasted four weeks, and the freshmen actually moved into all four houses before choosing and being chosen. This is totally far-fetched now, and it wasn't that easy then.

The only good thing about rotation is that it lasts a week, and only a week. At the end of that week, all traces of rotation and freshman evaluations disappear. The upperclassmen quickly forget how they ranked the

freshmen in that last meeting and no mention will ever be made of it. The frosh become, at that time, house members, and no member of a house is going to be treated with any more or less privilege than any other member of a house. If a freshman wishes to change houses, he may make application to the house at the end of a term.

The key, then, freshmen, is to meet upperclassmen in large numbers. It's the only way to insure a fair consideration at those deserts of civility, the rotation meetings. Otherwise, just have fun and forget about it in four or five days.

Health Center

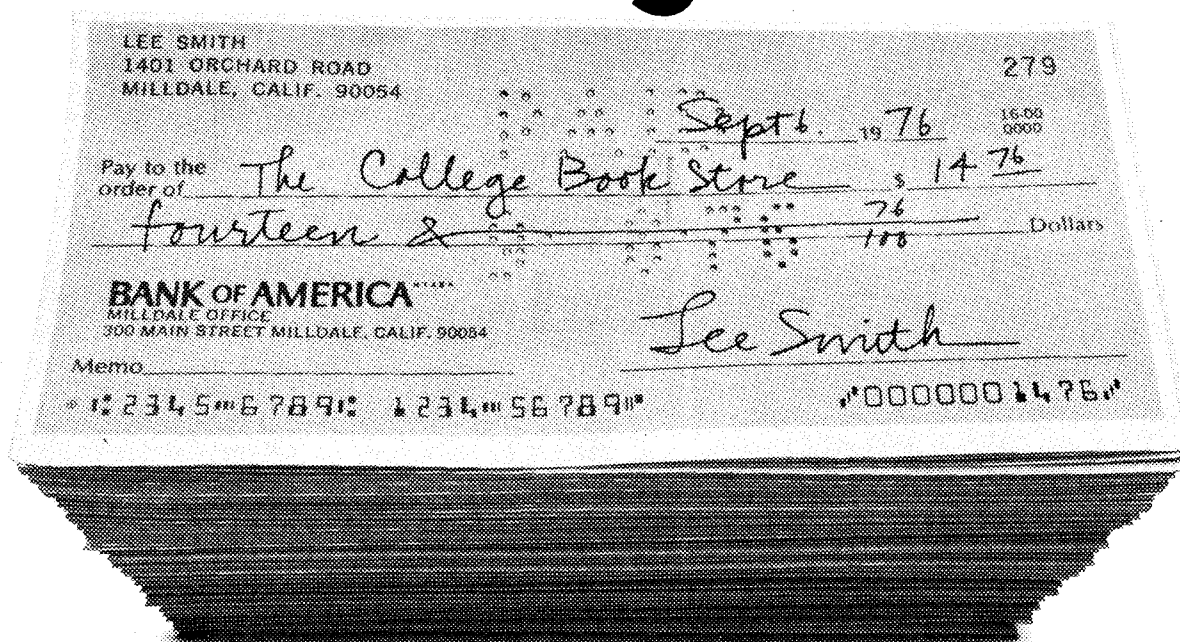
cont. from page one
fee. Medications are available at cost.

This year, each student house is to have an on-campus health rep as part of a Student Health Advisory Board. If you have complaints, compliments, or questions, he is immediately

available to try to help. He is responsible for communicating changes or special reactions, attitudes, and needs to the Health Center.

The people in the Health Center are always happy to see you. Drop over while you're healthy for a visit.

The College Plan.®



12 months of checking for the price of 9.

The College Plan gives you a lot of bank. You get unlimited checkwriting all year long. But you only pay for nine months.

There's no minimum balance required. You get our monthly Timesaver® Statement. And at many offices near major college campuses you get Student Representatives to help solve your banking problems.

You pay just \$1 a month for the nine-month school year. And there's no service charge at all for June, July, August, or for any month a balance of \$300 or more is maintained.

During the summer it's absolutely free. Write all the checks you want. Your account stays open through the summer, even with a zero balance, saving you the trouble of having to close it in June and reopen it in the fall.

You get more. You get overdraft protection and Student BankAmericard®, if you qualify. We offer educa-

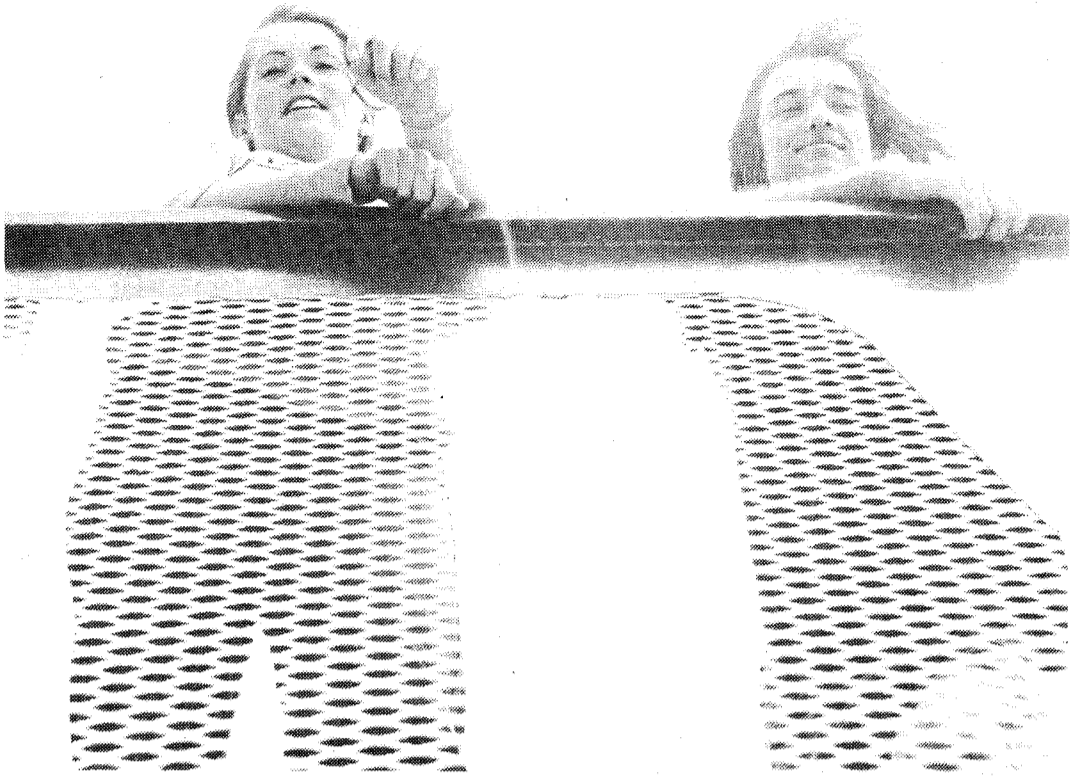
tional loans and many different savings plans to choose from. And we serve you with more than twice as many offices as any other California bank. So if you move, your account can move with you, to a new office that's more convenient. We also offer several free booklets including helpful information on saving money, establishing credit, and finding a job after graduation.

The College Plan Checking Account is what you want. Why not stop by and find out more about it. And let \$1 a month buy all the bank you need.

Depend on us.
More California college students do.

BANK OF AMERICA 

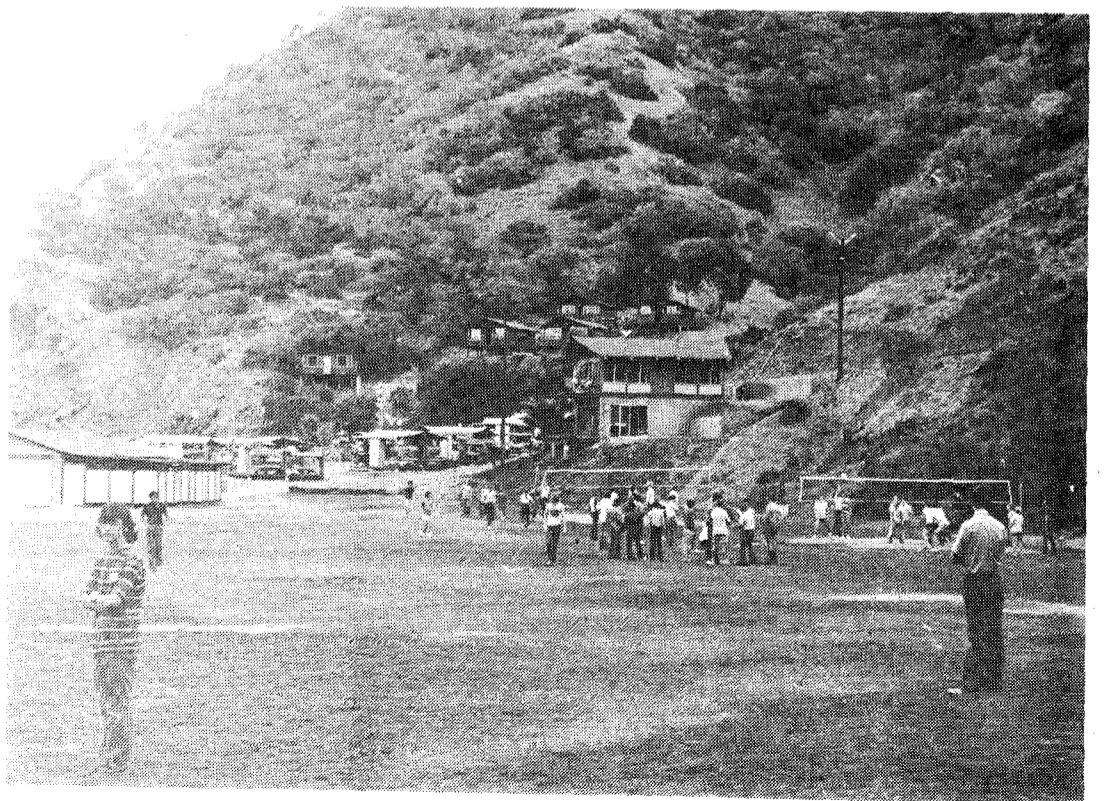
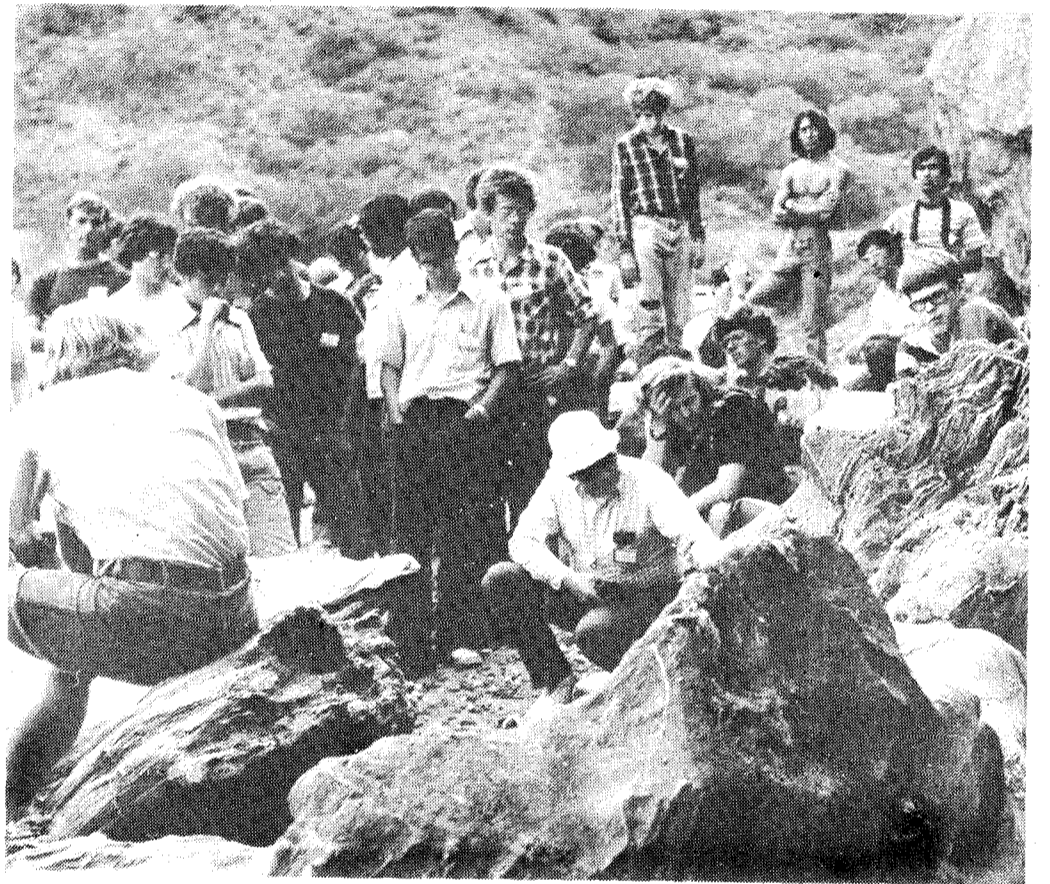
Bank of America N.T. & S.A. • Member FDIC



Frosh Camp '76

Photo Credit

Al Kellner



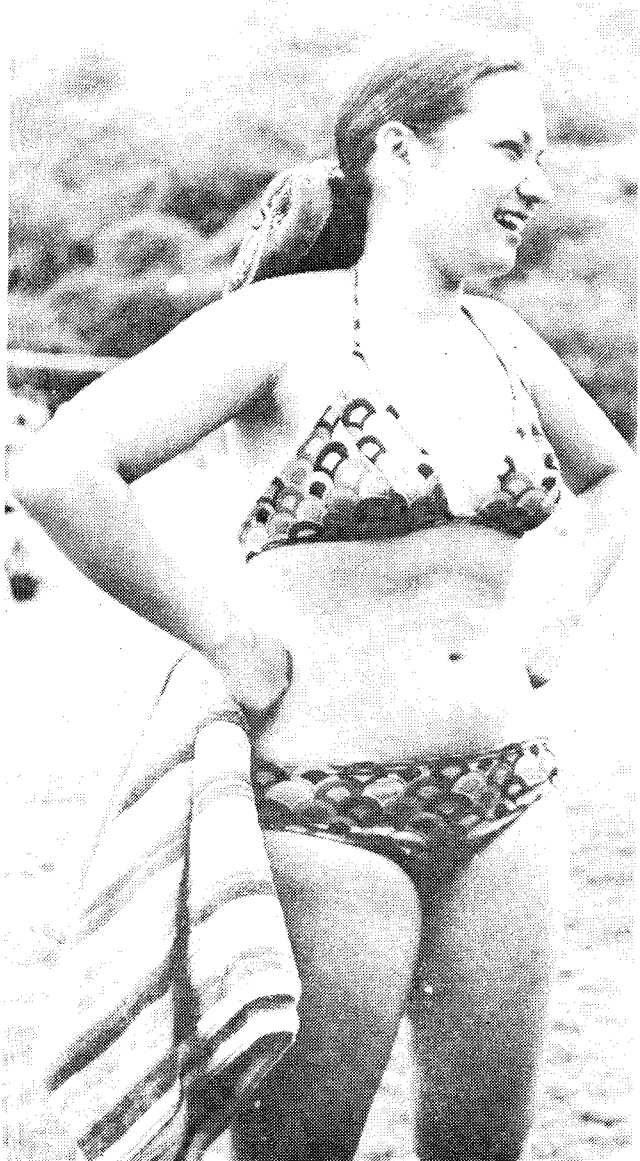
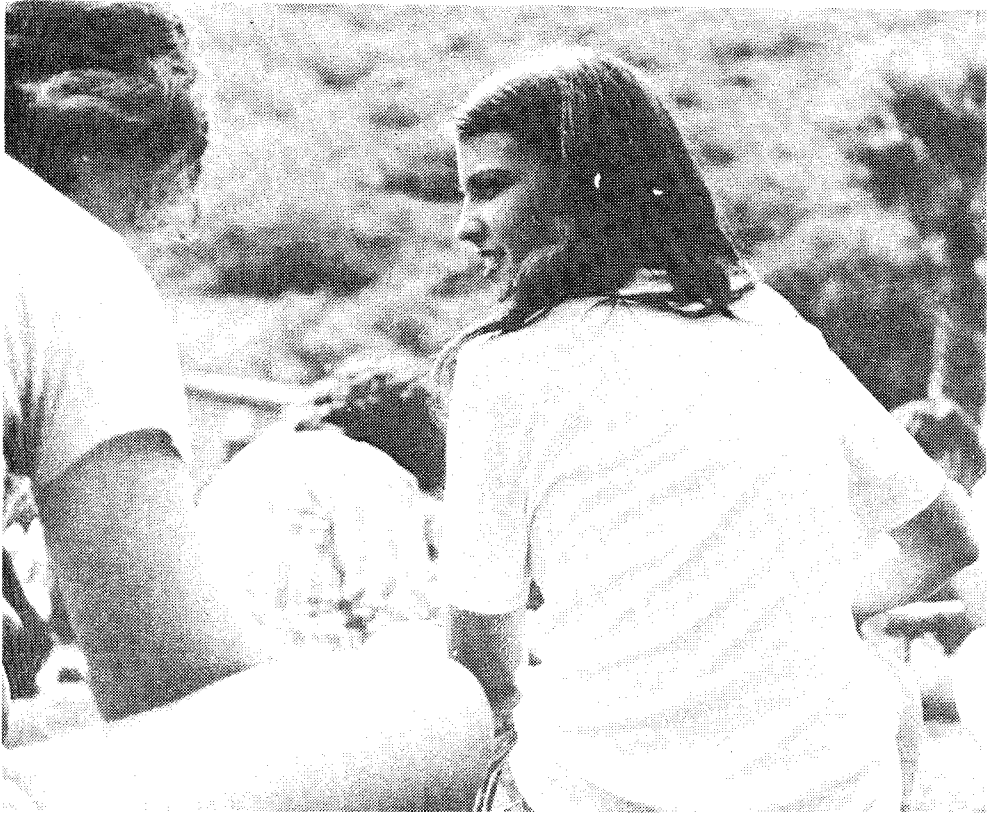
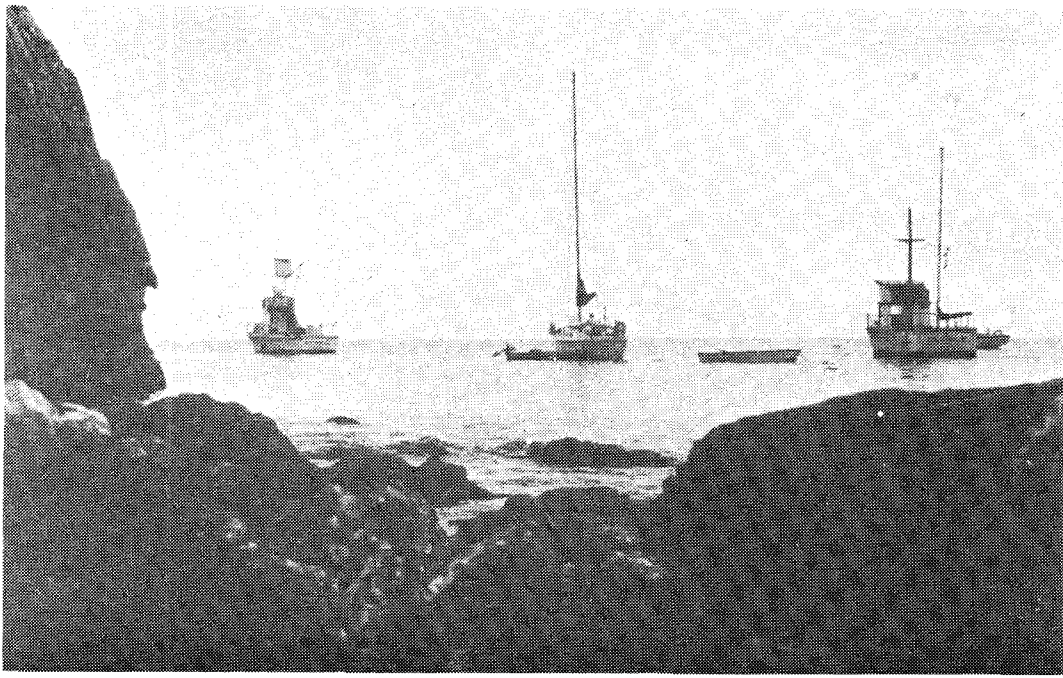
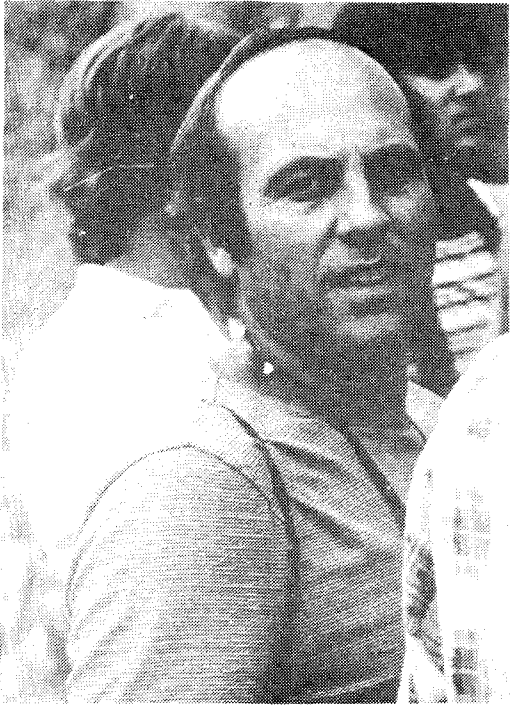




Photo Credit John Loo

Caltech's Burger Continental

**Invites all freshmen to enjoy a baklava and
seniors to have a complimentary glass of wine.**

(Must be 21 or over)

**20% discount on all purchases made
with Caltech Discount card.**

Offer continues throughout October

Specialties

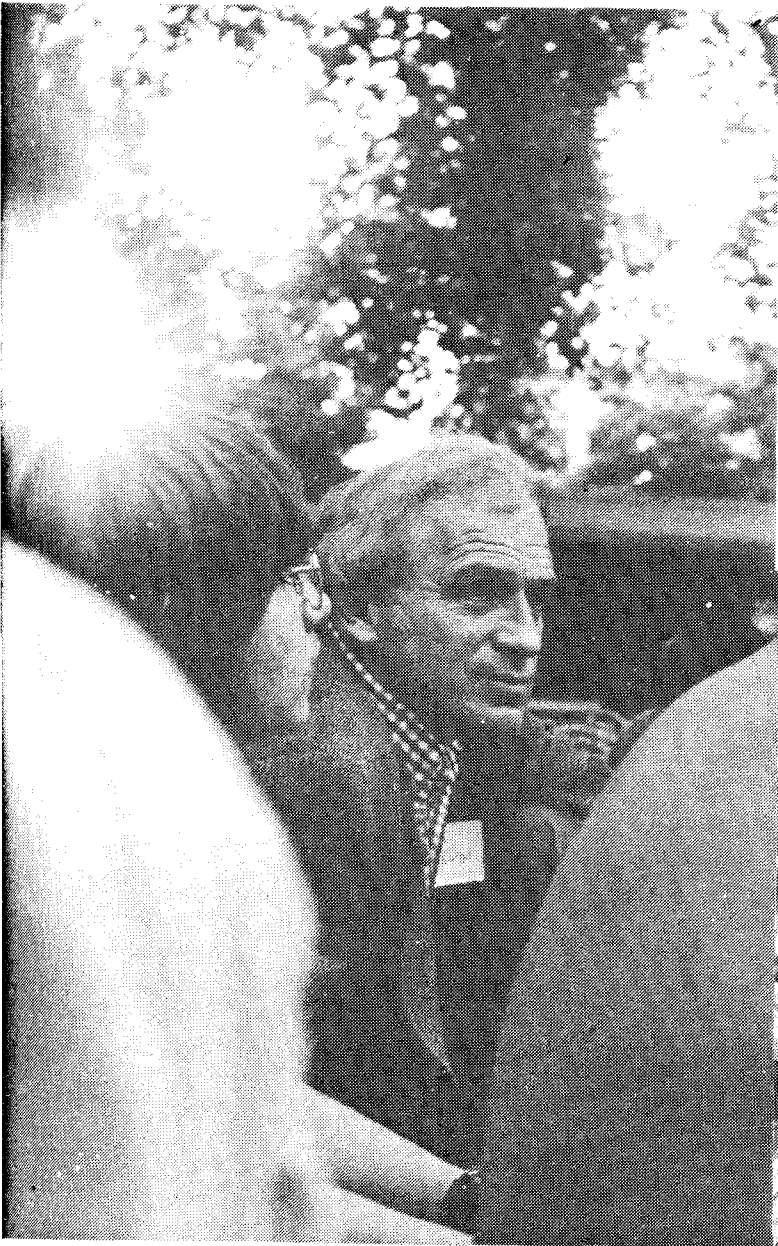
Shaorma, Souvlaki—steak delicacies
Falafel—vegetable burger with delicious sauce wrapped in bible bread
Baklava, Bourma—Armenian pastry desserts

Special served every night: Usually steak or prime rib, rice pilaf, salad, vegetable, and refills on soft drinks and milk, all for \$2.25 or less.

BURGER CONTINENTAL

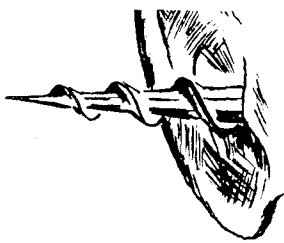
LOCATED ON LAKE ½ BLOCK NORTH OF CALIFORNIA

792-6634

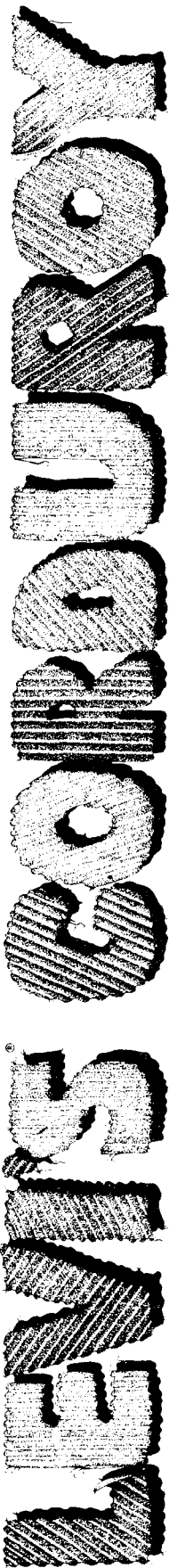


Frosh Party

Photo Credit
Al Kellner



© The Gap 1976



The biggest selection
anywhere. In the most
colors and sizes. We've
got it. All in one place.
Ours. Fall into the Gap
today.



LAKE AT CALIFORNIA,
PASADENA
ATLANTIC SQUARE,
MONTEREY PARK



THE CALIFORNIA TECH
TO: 105-51



Udo Teschke
(213) 792-1403

OSCO Optician &
Watchmaker

Fashion
Eyewear

Prescriptions Filled
Waiting Repair Service

Watch &
Clock Repair

465 E. Union St. - Suite 100 - Pasadena, Ca. 91101



Jai Bu Du Cafe Noir

The second-floor flat I live in is so close to the road that the gutters overhang the center-stripe. Between the walls of the building and the center-stripe there runs a transmission line one never notices when looking out the window as such a spectacular view of the Strasbourg Oil Works fills the entire horizon. But after running around the Place Kelber in pouring rain for five hours and purchasing a radio from a washing machine and stereo establishment, the transmission line became very obvious.

Plugging my new ITT-Tiny Automatic into the wall socket (Electricity was installed by the Gestapo when they occupied the building in 1941.), I thought it would be a trivial matter to locate a good FM station. Woe to he who embarks so unwittingly on the European airwaves! After first discovering that the only

regular English newscasts are on the American Forces Network German. German stations have the obnoxious habit of giving traffic reports every half-hour, and I do mean every half-hour straight through the entire day. I sometimes wonder just how many people are out driving on autobahn Munchen at three in the morning.

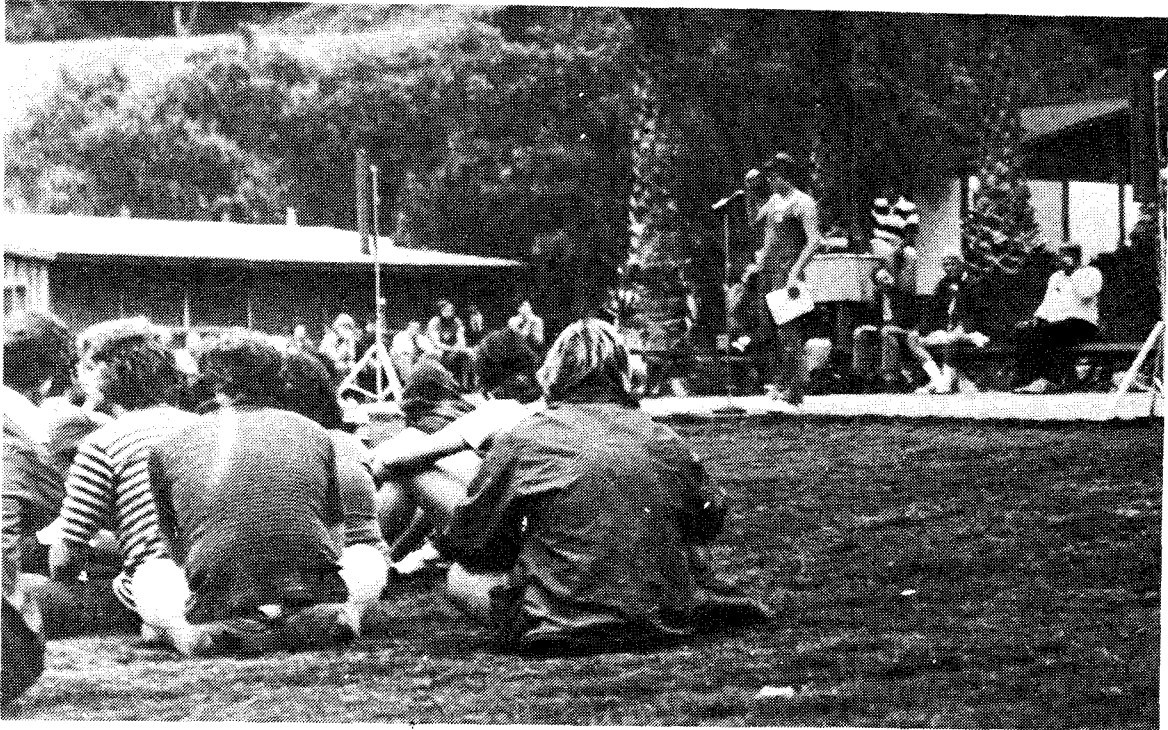
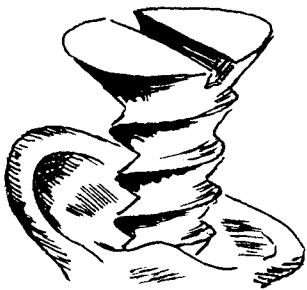
The BBC is so British that it depresses one to listen to it. The minute precision with which the British Isles are covered defies common sense. (e.g., two Italian chaps were fined £50 each for trying to smuggle a mutt ashore from a rowboat last week.) They also love to fill the air with educational programs about early British agriculture ("For the benefit of the members of our audience who can't actually see these implements, I'll attempt a verbal description . . .") and the difficulty of being properly

British in the Dark Ages. Another high time is had on Sundays, when they tell you this and that paper has a story on that and this without ever telling one the contents of the story.

The AM band is so jammed at night that one has simply to touch the dial to irrevocably lose the tuned-in broadcast. Night sky does provide neat diversions with distant stations. Radio Libya at full tilt will serve to pry loose whatever small grasp one has on reality in the wee hours of the morning. Particularly when one is adrift on a miasma of Arabic announcements, key words such as Coca-Cola serve as an oasis for poor unilingual English ears.

What recommendations follow from all this? Saarbrucken and Stuttgart broadcast some of the best radio in Europe and the Canadian Forces Network is not far behind. Once one realizes

Continued on Page Eleven



1	2	3	4	5	6	7	8	9	10		11	12	13	14
15											16			
17											18			
19					20					21				
22						23				24				25
26			27		28				29			30		
31				32			33				34			
			35			36		37						
38	39	40					41		42			43	44	45
46				47				48			49			
50			51			52						53		
	54				55				56		57			
58						59				60				
61						62								
63						64								

© Edward Julius, 1976 Collegiate CW76-32

ACROSS

- 1 Lower back

11 Highest point

15 Fear of Heights

16 Discomfort

17 Circus performer (pl.)

18 Mass. — of Tech.

19 Part of wedding ceremony (pl.)

20 German city

22 — Scully

23 Never: Ger.

24 Type of soup

26 Sweetsop

28 Man's name

30 John or Jane

31 Medicinal substances

33 One named after another

35 Rests

37 Italian coin

38 Hugh Hefner bunny

42 Hard worker

46 Poetic term

47 Advertisements (slang)

49 Alaskan city
- 50 Florida resort city

52 Play on words

53 Fuel

54 1965 baseball MVP

57 Famous ship

58 —-Japanese War

59 Fiendish

61 Oklahoman city

62 Expect

63 Moslem potentates

64 Abstainer
- 13 Recognized incorrectly

14 Common suffix

21 Bullfighter

25 Born

27 Eastern group of colleges (abbr.)

28 "Such — for the course"

29 Leaves out

32 Argentine plains

34 Spahn's teammate

36 Part of an intersection

38 Go to —

39 Going away

40 Region of Asia Minor

41 Try to equal or surpass

43 Sound

44 Come forth

45 Secondhand dealer

48 12½ cents

51 Urges

55 Malay law

56 Brazilian heron

57 Palm drink

58 Body of water

60 Ignited

DOWN

- 1 Aids to digestion
- 2 Sourness
- 3 Crosby, e.g.
- 4 Swoboda and Hunt
- 5 Make a choice
- 6 If — a hammer
- 7 Arthur Miller family
- 8 Spanish or Portuguese
- 9 U. S. Military decoration
- 10 Peggy —
- 11 Relating to bees
- 12 G. B. Shaw play

HUMANITIES ANNOUNCEMENT

The Humanities Division takes pleasure in announcing the visit this fall of Peter Kahn, Professor of Art History at Cornell. Professor Kahn will be Visiting Andrew Mellon Professor of Art History, and will teach a course called:

TRANSFORMATIONS: things, words and images. Theory and practice of representing world and text in visual imagery with the intention to illustrate, decorate, symbolize, express and re-structure space and narrative.

The course will consist of both instruction and practice, and is open to all members of the Caltech community-students, faculty, staff and spouses.

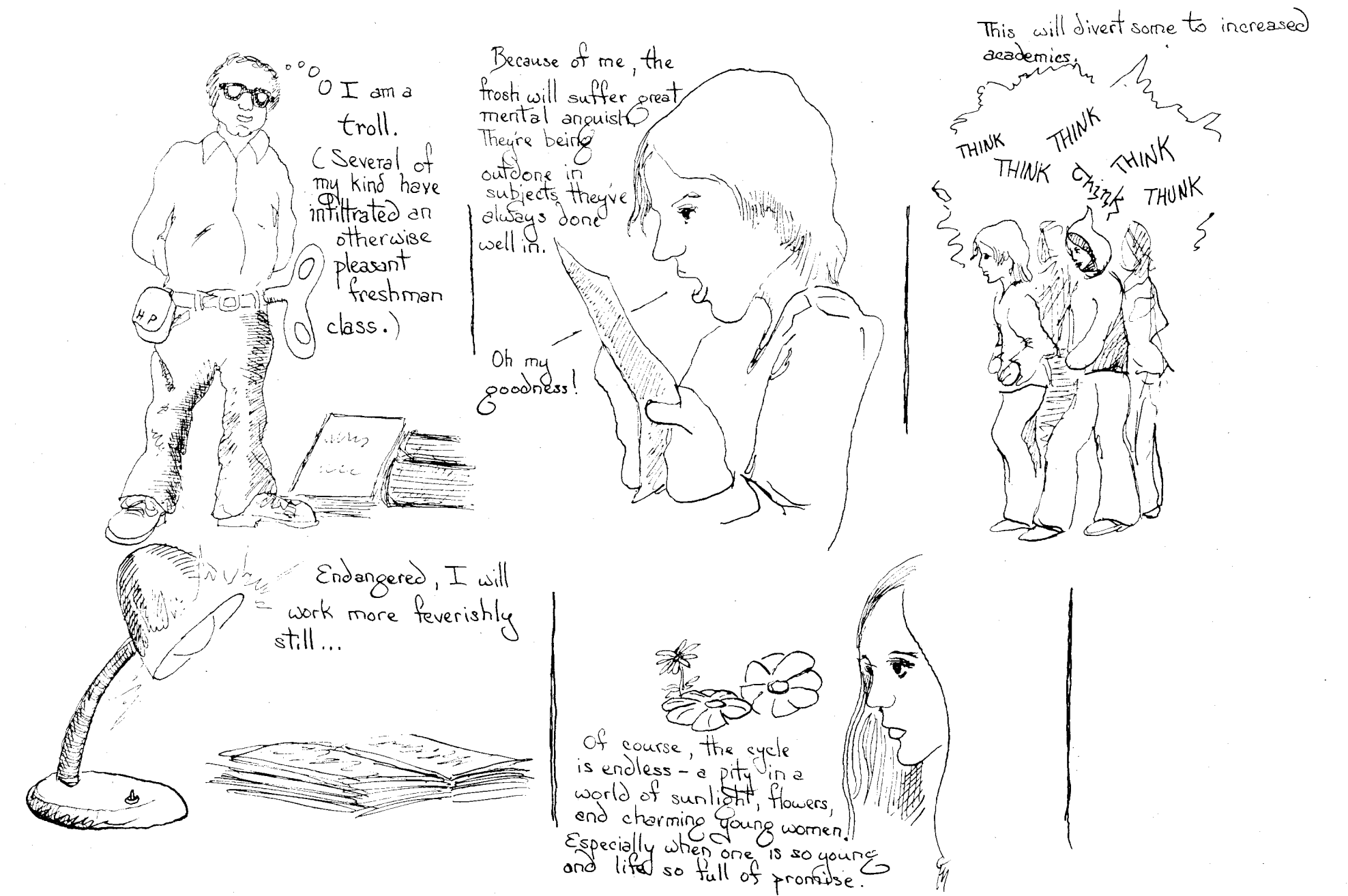
Convoy P. Q. 17 Revised

The Caltech Gamers are having a battle between some German raiders and the British cruisers covering Convoy P. Q. 17. The battle will begin on Saturday, October second in Dabney Hall Lounge. All are welcome and no previous experience with miniatures is needed.

Shop Signup

There will be a meeting of old members of the Student Shop who wish to renew membership this Saturday (tomorrow) at 1:00 p.m. Prospective members whose last names begin with A-M will meet Sunday at 1:00; N-Z will meet Sunday at 2:00. People who cannot make the appropriate meeting should contact Doug Carlson at 578-1672.

- ☐ I'd like to see more crossword puzzles in the Tech
- ☐ I never want to see any more crossword puzzles in the Tech
- ☐ I don't care whether the Tech runs crossword puzzles



Black Coffee

Continued from Page Ten

that CFN is run by Canadian from Frankfurt and the Canadian Forces Network from Lehr, further work evinced that French stations play only French music and refuse with a passion anything with non-French lyrics.

Germany, on the other hand, is covered with American bases and the German stations play American disco all the time coupled with American songs performed in German. You haven't heard anything until you've heard C.W. McCall in ethnics, one can tolerate the DJ's, with names such as Zeke Man, and settle down to Tanya Tucker and Buck Owens on *Mapleleaf Ranch-house*. The Sunday night music is excellent as long as one blocks out the fact that they are individually identified requests from the terminal disease wards in the base medical center.

After a week I thought I had heard it all, what with Radio Prague playing *White Rabbit* and *Disco Duck* rocketing into the hit parade, but one last twist opened my mind to ever new possibilities. Walking into one particularly high-gear party, I settled down with a chick and a bottle, listening half-heartedly to the radio. And there on Radio Luxembourg, the Big L, wedged between a KTEL record ad and the top 30 in the United Kingdom, came that ever so sweet sound. *I was drawn by the Sirens of Titan*....

S	A	C	R	O	I	L	I	A	C	A	C	M	E	
A	C	R	O	P	H	O	B	I	A	P	A	I	N	
L	I	O	N	T	A	M	E	R	S	I	N	S	T	
I	D	O	S	D	A	R	M	S	T	A	D	T		
V	I	N		N	I	E		O	N	I	O	N		
A	T	E	S	I	S	A	D	O	R	D	O	E		
S	Y	R	U	P	S	N	A	M	E	S	A	K	E	
			N	A	P	S	L	I	R	A				
P	L	A	Y	M	A	T	E	T	O	I	L	E	R	
O	E	R	P	R	O	M	O	S	N	O	M	E		
T	A	M	P	A	P	U	N			G	A	S		
V	E	R	S	A	L	L	E	S	N	I	N	A		
S	I	N	O		D	I	A	B	O	L	I	C	A	L
E	N	I	D		A	N	T	I	C	I	P	A	T	E
A	G	A	S		T	E	E	T	O	T	A	L	E	R

Arden

Suedes & Apparel

SPECIALIZING IN LEATHER & SUEDE APPAREL

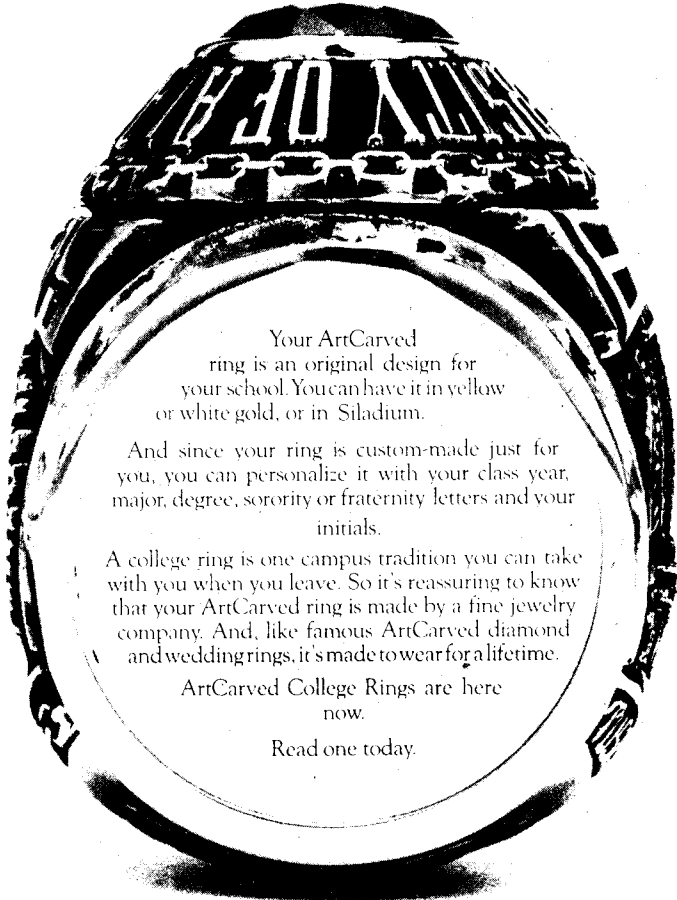
WE CARRY A COMPLETE STOCK OF BOOKBAGS, BRIEFCASES, TRAVELING ACCESSORIES, AND GIFT ITEMS.

Expert Cleaning and Repairing of Leather Goods

BANKAMERICARD 796-5964 MASTERCHARGE

UNION PLAZA BANK BUILDING IN BEVERLY ENTERPRISE BLDG. 251 S. LAKE (SUITE 105) PASADENA

The Story of Caltech - nobody tells it like ArtCarved.



Your ArtCarved ring is an original design for your school. You can have it in yellow or white gold, or in Siladium.

And since your ring is custom-made just for you, you can personalize it with your class year, major, degree, sorority or fraternity letters and your initials.

A college ring is one campus tradition you can take with you when you leave. So it's reassuring to know that your ArtCarved ring is made by a fine jewelry company. And, like famous ArtCarved diamond and wedding rings, it's made to wear for a lifetime.

ArtCarved College Rings are here now.

Read one today.

THE CALTECH BOOKSTORE

RING DAY

OCTOBER 5, 1976

10 a.m. to 3 p.m.

In the Bookstore

That's when the ArtCarved representative will be here to help you select your custom-made college jewelry. It's also the day you can charge your ArtCarved college jewelry on Master Charge or BankAmericard.

SAVE \$5 when you pay in full.

College Jewelry by **ARTCARVED**

World-famous for diamond and wedding rings

Beavers Win 5-2

by Joel Okasaki

The Caltech Beavers scored 5 goals to Occidental's 2 to take this league opener. The win raises their season total to 3-0-1, for an undefeated record.

Things looked tough for Tech early in the game. One of the Oxy inside forwards dribbled the ball near the goal line around Tech's goalie and fullback to curve his shot into an open net.

Caltech tied the score on a penalty shot by Jim Hickey. The penalty shot came when an Oxy fullback caught what appeared to be a clear header into the Oxy goal by Tech's Suwat Thaniyavarn.

Minutes later, Caltech forward Anthony Sneed broke free at midfield with the ball and placed a clean shot into the net. Tech led 2-1 going into the half.

After halftime, Tech managed to add two more goals. One was a hard Jim Hickey shot to the right side of the net. The other resulted from a scramble in front

of the Oxy goal after a corner kick. Mansour Sabeti tapped in the ball to make the score 4-1.

Oxy's second goal came with 15 minutes left to go in the second half. Tech's final goal came in an impressive corner kick by freshman Ed Chan. Chan put a perfect curve on the ball, to soar the ball into the Oxy goal without a single player touching it. The final score: 5-2 Tech.

Tech is currently undefeated in soccer. The high point of the preseason was a 2-2 tie with East Los Angeles City College. E.L.A.C.C. had beaten Tech twice in previous encounters, and led Tech 1-0 with less than 1 minute to go in the first half, when Anthony Sneed drove in the tying goal. E.L.A.C.C. scored soon after the start of the second half. The game came to an exciting end when Ed Chan drove in a goal with about 45 seconds left in the half to make the score 2-2.

Briefs

Haaiee!
Hooahaa!

The first regular Karate practice of the year will be held on Monday, October 4, at 3:00 p.m. in the gymnasium. Interested persons are invited to attend the practice whether or not they are officially registered (those who wish may register after class). For information contact Doug Dekker at 793-8472.

Burch's
Ballet

Burch Mann's American Folk Ballet comes to Tech this weekend with two free performances, and one for which admission is charged. The freebies are a Y-sponsored performance on the quad at noon today and a "Special Program for Young People" tomorrow morning at 11:00. Eight o'clock tonight the Ballet will be performing at Beckman for \$3.50 to \$6.50. (Student rush tickets may be available for the unbelievable price of \$2.00.)

The CALIFORNIA Tech Sports



Cross Country

by Tom McCabe

Last Saturday, the Cross Country team won two out of three times in its first league meet of the year by easily defeating Whittier and LaVerne Colleges, and losing a hard and close race to Claremont-Harvey Mudd.

Caltech runners managed to hold the lead over most of the five-mile course, with senior Steve Kellogg, frosh Bret van Steenwyk, and soph Rob Bourret running first, second, and third, respectively. It wasn't until the last mile, when the course came down from the hills and flattened out, that the Claremont runners began to move forward. Even then the race wasn't decided until the last two hundred yards, when a Claremont runner moved to the front from fifth place to finish four seconds ahead of Van Steenwyk, who finished first for Tech. The race was so close that the sixth place runner was only nine

seconds behind the second-place runner (which, after five miles, is pretty close!). Claremont finally ended up beating Tech by three points.

Claremont, which is the Caltech team's biggest rival, will now finish third in the league with Caltech in fourth place, unless Tech can beat them in the league finals. This would not be a surprising development, since the most impressive thing about last week's race was the way Tech's fourth and fifth runners, frosh Eugene Loh and soph Erik Sirri, had moved over two minutes closer to the lead runners than in the week before. As coach Leroy Neal put it, "this kind of continued improvement will put us back in contention with Claremont in the finals at Redlands in November. We can beat Claremont."

Meanwhile, the team has a non-league meet on Saturday morning at 10:00 at Arroyo Canyon against Cal Lutheran and L.I.F.E.



Photo Credit J. Loo

News Briefs News Briefs News Briefs News Briefs

No
Food

will be served by Saga this Sunday, so the Caltech Christian Fellowship is providing a late lunch at its annual Unpicnic. Everyone is invited to join with them for singing, games, and getting to meet one another (without the pressure of rotation).

Come to Tournament Park (just east of the football field, the entrance to the park is at the south end of the athletic parking lot) at 2:00 p.m. this Sunday for free food and fun.

Guitar
Classes

Caltech will offer classical and flamenco guitar classes with guitarist, Darryl Denning, beginning October 5. There is no charge for Caltech students and staff. Classes will be held each Tuesday in Fleming Basement Music Room. The Beginning section will meet from 4:30 to 5:30 p.m. and the Intermediate section from 5:30 to 6:30 p.m. For further information, call 650-1692.

Register to
Vote

Voter registration ends Monday for the general election. If you miss registration now, you will still have the option of registering later (if you're a new California resident), but only to vote for President and Vice-President. So if you want to vote for local officials and issues, register at the Y office upstairs in Winnett today or Monday.



Photo Credit
R. Cildner

Second Class Postage paid at Pasadena, California. The California Tech is published weekly except during examination and vacation periods by the Associated Students of the California Institute of Technology, Inc., Winnett Center, Caltech 105-51, Pasadena, CA 91125.

THRU OCT. 3 DIRECT FROM AUSTRALIA
THAT "TIE ME KANGAROO DOWN" MAN!
ROLF HARRIS

&
MIRABAI

OCT. 5-7 JOHNNY RODRIGUEZ

DOUG WESTON'S World Famous

Troubadour

COCKTAILS · DINNERS · HOOT MONDAYS · NO AGE LIMIT

9081 SANTA MONICA BLVD., L.A. 276-6168

CLASSIFIED ADS

FOR SALE: 23 channel CB transceiver with mount, mobile antenna and power supply. \$125 Mark Silvia Ruddock 205 449-9886