

THE CALIFORNIA TECH



VOLUME LXXXVIII NUMBER 5 PASADENA, CALIFORNIA

FRIDAY 31 OCTOBER 1986

"We Need Money": Moles for Sale

by Josh Kurutz

Slavery was the destiny determined last Friday for about 25 members of debt-ridden Blacker House who volunteered to help their house pay for its participation in Interhouse. The moles sold were required to do anything they were told, with the qualification that it was within reason and could be fit into their eight hour term of servitude. Many moles were bought merely for cheap labor and others were for purchased more colorful purposes. Some who were sold bought others to lighten their own burdens. Such "re-rents" helped to ensure that everyone was sold.

A trend exhibited at the auction was the minuscule demand for men and the exuberant willingness to pay many times the male rates for women. While the men were bought mainly for manual labor, most of the women had more colorful tasks at hand.

Bibi Jentoft-Nilsen, for example, was bought for nearly 70 dollars by Randy Kamien to fly to Santa Cruz and spend the day with Jed Lengyel, a friend of his. Her day began by greeting a disheveled Lengyel at the airport and being escorted by him to lunch at a "world-famous" restaurant. The pair strolled on the beach and watched "studly surfers ride studly waves," and toured the UC Santa Cruz campus. Jentoft-Nilsen was "impressed by the number of red-woods and girls there." Lengyel is rumored to have decided to return to Caltech.

Others were not entirely pleased with their tasks. "I was vilely abused by Flems!" declared Irene Chen, who was rented at a rate of ten cents per pound-hour by a group of about 20 people from Fleming house. "I had to degrade myself as a serving wench... and wash dishes and listen to gossip."

Also purchased for the Fleming "Scarface" party was Blacker president Nancy Drehwing, who clearly had a different view than Chen. "I had a lot of fun! And I'd do it again to raise money for the house!" exclaimed Drehwing. Part

of being a serving wench, Drehwing found out, was that she had to concoct about 45 blenderfuls of drinks. In addition, the president and Chen dressed in "slinky black outfits," contrary to reports that they served in bikinis at the Flems' request. Drehwing was the most expensive slave sold, her price being \$110.

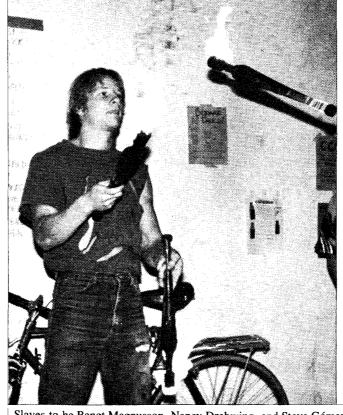
Some slaves were bought for their individual talents. Aside from those who were to repair cars, there was one who was to demonstrate his artistic ability. Bengt Magnusson was bought by Chris Brennen, whose order was for the slave to give him a work of art. Magnusson will display his pieces to Brennen, who will choose one from among them.

Rebellion was not common among the enslaved moles, but it did happen in small degrees. Viola Ng, for example, was asked to be a cheerleader for a Ruddock soccer match, but ended up not cheering. She did succumb to her owner, Biff Yamazaki, when it came to massaging him and walking on his back. "Auntie Viola," as many came to call her, told her master and a few of his friends a bedtime story. Not having anything particular in mind, she read the horoscopes in the newspaper.

Shubber Ali appeared rather unwilling to work. "He was a lazy slave," said slavemaster Dawn Meekhof. His principal task was to record compact disks from various members of the house. He also grudgingly performed menial tasks like taking the garbage out (which consisted of putting it someone else's room) and baking cookies from box mixes.

"Re-rents" were bought by slaves to help them with their own assigned tasks. Dion Hawkins, for example, was purchased by Alex Wei to assist in the demolition of a pool shed designated by Remy Sanouillet, a Ricketts R.A. The pair took axes to the wooden structure and sledgehammers to the concrete foundation underneath. Both reported that it was hard work, but

continued on page 4





Slaves-to-be Bengt Magnusson, Nancy Drehwing, and Steve Gómez (Gumby) exhibit themselves on the auction block.

Watson Lecture: What Is Our Future On Mars?

by Glenn Tesler

The 1986-1987 Watson Lecture Series opened with a presentation by Caltech Professor of Planetary Science Bruce Murray entitled "Man's Future on Mars.

Man's recent interest in Mars, began Dr. Murray, was catalyzed by the late nineteenth century scientist Percival Lowell, who built an observatory and, according to Murray, analyzed the surface of Mars in more detail than had ever been done before, or has ever been done since. The "little green men" folklore that Lowell developed and popularized continues to hold an appeal to humankind.

Lowell believed he saw signs of ancient civilizations on Mars, including huge canal systems. Other misinterpreted observations, including polar ice caps presumed to be composed of water, a 24 hour 35 minute day, and a 23.5° tilt (vs. 24.5° for Earth) led to the invalid conclusion that Mars has, or has had, life. More recent analyses of

Mars have corrected these observations and have demonstrated that no life, as we know it, can develop

The U.S. space program began with Mars as one of its primary focuses. In the 1960s it was hypothesized that, though humanlike creatures could not have developed on Mars, plants may have. This was corroborated by observations of what appeared to be Chlorophyll spectra. Thus, a primary goal of the space program was to detect life on Mars. However, the first three U.S. space probes to orbit Mars, the Mariner 4, 6, and 7, all built at JPL, returned data that indicated Mars was Moon-like, with craters 4 billion years old; had oceans existed on Mars, these would have eroded enough to disappear altogether. The atmosphere was shown to be composed primarily of carbon dioxide, as were the polar caps.

The notion that Mars was a Moon-like world was debunked with later probes, which discovered areas with dynamic atmospheric conditions, huge dust storms, and a 26-kilometer-high volcano larger than any other known in the solar system to that date. Erosion of craters, apparently due to ancient mass floods, was also discovered, as was water ice in the polar caps. Mars was neither Moon-like nor Earth-like.

The Viking probes were the first to successfully land on Mars; four Russian attempts had ended in failure. The Viking probes conducted a number of experiments to determine if microorganisms existed on Mars. Several of these experiments consisted of "feeding" samples taken from the soil with different "foods" to see if any metabolic activities resulted. The results from experiments in which types of food consumed by organisms on Earth were mixed with the soil produced results that at first appeared to confirm the existence of life, but these reactions occurred at a rate significantly higher than would be expected from a metabolic process, and were later attributed to the dissociation of the water molecules present in the organic broth upon contact with the Martian soil, which is ordinarily in a water-free environment. An

experiment in which the soil was combined with carbon dioxide, the primary constituent of the Martian atmosphere, and sunlight, produced virtually no reaction.

A device called a "Gas Chromatograph Mass Spectrometer" analyzed the chemical composition of the Martian soil and detected no traces of organic molecules, even though it had successfully detected traces of such molecules in sterile soil on Earth. Eventually it was realized that any organic molecules that were exposed to the Martian atmosphere would react with the abundant carbon dioxide and cease to exist. Thus, life as we know it cannot exist on Mars.

The failure to find life on Mars brought the U.S. space program's research into Mars to a temporary halt, but projects have been planned for the near future, and some have been proposed for the distant future. JPL plans to launch the Mars Observer in 1990; in 1991-1992, the Mars Observer will orbit the north polar region 12-13 times per day, functioning much like an earth reconnaissance satellite. Murray is one of three U.S. scientists involved in a much larger project planned by the Soviet Union to explore the tiny moon Phobos.

A Soviet project planned for the distant future would allow tests to be conducted on the Martian surface at many points ranging from the north pole to the equator. To accomplish this goal, the Soviets would require the use of a balloon designed by a French scientist and researched by SURF students. The balloon is essentially a hot air balloon with a helium balloon inside. During the daytime, the "hot air" would expand, causing the balloon to become buoyant so that it could carry its payload to a new site. At night, the "hot air" would condense, thus causing the balloon to lose buoyancy, and come to rest with its payload on the ground. The helium balloon inside would be sufficient to keep the balloon from collapsing.

Other distant projects, possibly involving cooperation between the U.S. and U.S.S.R., would involve

Writing 'Adjunct' Program to Allow Students to Practice English Skills by Dave Lomax For the past several years there final copy to turn in to the class it grown will support threat to five

has been a widespread impression among Caltech professors that the

writing skills of students here have undergone a gradual decline. To remedy this situation the Department of Humanities and Social Science's Committe on Writing, chaired by Professor Jerome McGann, proposed an adjunct writing program at the Faculty Board meeting of 9 June 1986.

The basis of this program would be a one or two unit writing lab which would be taken as an "adjunct" to another course in which the students are required to write papers of one sort or another. During this lab time a writing specialist would instruct the students in areas which specifically apply to the assignment given them.

The main benefit of this type of class, as pointed out by Professor McGann, would be that "the student will carry our assignments under supervision on every stage of the writing process." These stages would include writing rough drafts,

is intended for.

The student would also save time by writing his or her paper under supervision in the lab rather than having to grind it out alone.

The writing adjunct program seems to many to be a very good idea, and numerous students whose writing skills are not up to par may be asking "when will the program be instituted?" That, however, is something of a mystery.

When the program was proposed, the first adjunct courses were to be offered in the winter term of the current 1986-87 school year. However, though McGann stated that "enthusiasm [for the program] is high in the institution at large," the personnel needed to implement the program have not yet been hired. According to Professor John Sutherland, the hope is for the program to begin in September or October of 1987, if it is able to get through the "Institute garbagegrinder" of committees and administrators needed to approve it.

will run for three years where twelve to fourteen classes will be offered a year. Of these, nine or ten will be offered for H/SS classes and the others for other courses where some form of writing is required.

A great benefit of the program will be that incoming freshmen who do not score above 1200 on their combined English SAT and Achievement tests will be able to complete their freshman humanities requirement, unlike those of today. Students who currently have to take an ESL (English as a Second Language) or Writing course in the winter term would instead be able to enter a regular humanities course while also enrolling in the adjunct lab.

Programs similar to the one proposed here at Caltech have been very successful at other larger schools across the nation. It is hoped the system will be just as successful here when it is finally

continued on page 4

LETTERS

TQFR Quality

To the Editors:

The TQFR claims that its purpose is to "provide the faculty useful feedback on the aspects of their teaching, and to assist the students in their selections of courses." Give me a break! Most of the report is unnecessary and inappropriate. The TQFR is full of hyperbole and offensive comments that just end up pissing off the Caltech faculty. And the only reason students read the TQFR is for a laugh—it's like eyeballing a supermarket tabloid when you're waiting at the checkout stand.

The comments printed in this publication don't represent the students' opinions. The number of comments received is usually less than one-third the number of enrolled students. (And, of course, the dissatisfied people are a lot more vocal than those who are happy with their profs.) The format of the comments is the same for every course. First, there are vague tidbits of praise, like "This is a good survey course," or "This was a very good course," or maybe even something like "A very good course with a good, interesting lecturer." Wow. Then there is a wave of insults and useless criticism that follows. Essentially we're saying "Johnny, you're a good prof, but..." And then we cut our victim to pieces. The initial praise is just a formality that gets lost in all the sensational, abusive language.

Wouldn't it make more sense to put the negative comments before the recognition? Also, comments that don't bring us closer to the goals enumerated by ASCIT should be left out. The TQFR lacks integrity this year. Why is ASCIT publishing a report that builds walls between the students and the profs? We would be better off without the TQFR if it continues to libel the Caltech faculty.

-Mark Fischman

Dorm Uniformity

To the Editors:

The purpose of my October 3rd letter, which has drawn a surprising amount of response in recent issues of the California Tech, was to spawn questioning as to whether or not the summer's renovations

were a blessing or a curse. Unfortunately it turned into a debate on censorship, and spawned nothing more than a few poorly thought out editorial replies. Because those that replied to my letter missed my point, I feel that I have failed to communicate and wish to try again.

I was not here at Caltech last year to give my input. I had no idea that the renovations were to occur. Nor do I think that whether or not I gave input during the planning stage has anything to do with my opinion of the outcome. The fact is, I don't like the way Blacker and Ricketts were renovated; and even if I were responsible, my opinion would be the same. In addition, many people have commented to me that they had expressed strong opinions about the renovations that were virtually ignored. The future of Dabney's walls is an example of how this will occur again next year. How many Darbs want the walls of Dabney to be repainted? Ask the Housing Office if the walls of Dabney are going to be repainted anyway.

Many people have said to me, "You shouldn't have written that letter because many people like the changes, you know!" These keen intellectuals should be congratulated on their observational abilities. However, if everyone had agreed with me, I would not have written the letter in the first place.

In this school of high technology it is not surprising that many people here would appreciate these modern changes. I do not dispute the fact that the plumbing and electrical work was an improvement. But other changes should remind us of movies like The Gods Must Be Crazy and The Wall and perhaps evoke a certain degree of despair that a once highly personalized place has been turned into a uniform dormitory. The housing office is also putting out its very best effort to prevent any changes by house members from occurring. In Blacker, crewmen restore everything to "original" condition, without asking, and then have the audacity to bill the house. It may be the housing office's right to do this, but Caltech housing used to allow quite a bit of freedom, and it is sad to see it gone. Since there are quite a few people who agree that the freedom of modification we used to enjoy was a good thing, one wonders who this new policy is helping anyway. Is it nothing more than a parent pleaser, as several people have suggested might be the case?

Additionally, in response to Jon Benton's letter to the editor of October 24, I feel that while he makes several valid points, his unnecessarily pompous tone acts only as an embarrassment to the Humanities and Social Sciences division at Caltech. I believe that his rude language is certainly no better a communication tool than the tool which he condemns me of using

Finally, in regard to the graphic language used in my previous letter, although I regret that so many people failed to understand the motivation for such language, I am glad that it served the purpose of drawing far more attention to the renovation issue than the issue otherwise would have attracted.

-Ron Goodman

Free Speech

To the Editors:

So far, you're doing the right thing, but the editorial of 17 October has me worried that you don't realize this fully.

First, a fear of the BOC is *not* healthy. That is not the way it's supposed to work.

Second, the paper is for the students. The administration has the *Caltech News* which is written in language which is sanitized for your protection. I'm sure it is sent to the trustees and anybody else who is even remotely likely to pump up some of the Green Fuel of Science. Significant resources of the administration are devoted to developing this old fossil fuel. Neither the students nor the *Tech* is paid by the administration to do

Finally, I don't care if this is the eighties, the student body should at least put up token resistance to their complete co-optation by the Powers That Be. The thing that amazes me is that it is students that are being useful little tools (assuming the information in Keating's letter and the editorial are right). It would appear that it was not even necessary for the administration to voice a complaint before the ASCIT BOD discussed their golden opportunity to become complete tools. As far as the Editor's discussions with the BOC president, I really, truly hope that the BOC chairman was not speaking as a BOC chairman, but merely as a student who just happened to be the BOC chairman.

I do not advocate completely unrestrained and gratuitous viciousness, libel, or even pornography for the Tech. If such a situation were even remotely possible, I might advocate it, but I fear it is an impossible dream. Last year's experiment with PG editing may have distorted the perspective of students here. In previous volumes, the Tech has been a truly revolting piece of trash without an ounce of respect for the real or imagined delicate sensibilities of anybody. The Institute survived, even prospered. You should look at the school papers of other universities, especially ones where non-technoids are allowed to roam unrestrained. Does anybody actually believe that the people who hung the "Impeach Nixon" banner were the bad guys? Has anybody ever heard of the Berkeley free speech movement?

If I was a trustee, I would stop supporting this place if I found out the students were censoring themselves so that I would think them nice little toadies and give them more money.

-Michael Wengler
Applied Physics
P.S. I got through the whole letter
without using "fuck" even once!

Bayer Addition

To the Editors:

Having attended Dr. Bayer's talk on Nicaragua, I found that last week's article didn't give a complete account of what the speaker said. It only quoted some of the speaker's more reasonable points, and therefore only quoted a fraction of what he said.

First of all, Bayer's statistics should be doubted. He didn't clearly state where all of his stats came from, and they could very well have come from the Sandinistan government. He read stats about how many people supported the Sandinista revolution, stats that probably came from the Sandinistan government! He quoted the illiteracy rate as dropping from 67 to 14 percent in four years; this would be amazing if it were true, but it's much more likely that this is a gross exaggeration by the

Sandinistas.

He quoted lists and lists of civilian casualties, but when he was asked if there was any way to check the figures, he said, "No, I didn't...That's a legitimate question—could they be fabricated figures? I doubt very much that they were. My feeling is that they're probably big underestimates."

He went on to say that his "proof" for his "feelings" was to go to a village, talk to people about casualties, then multiply that figure by some factor to arrive at the government figure. And to top that off, he said that it's better to assume disinformation on the part of the

continued on page 3

THE CALIFORNIA TECH

31 October 1986

EDITORS IN CHIEF
Jens Peter Alfke • Josh Kurutz

EDITOR IN TUCSON J. P. "Moose" Alfke

ENTERTAINMENT EDITOR• Help Wanted•

FEATURES EDITOR Amanda Heaton

PHOTO EDITOR
Joey Francis

SPORTS EDITOR
Michael Keating

CHERRY COKE & LINE EDITOR

•Help Wanted•

REPORTERS

Jim Bell • Huy Cao Steve Clinard • John Haba Jennifer Low • Gary Ludlam Glenn Tesler • Dave Lomax

PHOTOGRAPHERS
Shubber Ali • Joey Francis
Teresa Griffie • Rosemary Macedo
Chris Meisl • Glenn Tesler

Chris Meisl • Glenn Tesler
Sing Ung Wong
THE INSIDE WORLD
Blacker: Alex Wei
Dabney: Alex Gilman
Fleming: Steve McAdams

Lloyd: Keith Owens, John Wiltse, and Sho Kuwamato Page: Michael Keating Ricketts: Sam Weaver and Lisa LePome Ruddock: Betsy Andrews

BUSINESS MANAGERS
David Goldreich
Gavin Claypool

PRODUCTION & LAYOUT
Mike Klein • Gaylon Lovelace
Josh™ Susser • Nick Smith
Glenn Tesler • Mimi Zucker

THE CALIFORNIA TECH 107-51 Winnett Student Center California Institute of Technology Pasadena, California 91125

Phone: [818] 356-6154

Published weekly except during examination and vacation periods by the Associated Students of the California Institute of Technology, Inc. The opinions expressed herein are strictly those of the authors and do not necessarily reflect those of the editors.

Letters and announcements are welcome. All contributions should include the author's name and phone number and the intended date of publication. The editors reserve the right to abridge letters for expediency or for any other damn reason they feel like. So there.

Turn in copy to the *Tech* office mailbox, room 107 Winnett. The deadline for copy is Wednesday at 5pm; for announcements, Tuesday at 5pm. Late copy may not be printed unless prior arrangements have been made with the editor.

Subscription requests should be directed to the attention of the business manager. Rates are \$3.00 per term, 88.00 per annum (one year), \$100 per life (many years). Printed by News-Type Service, Glendale, California

ISSN 0008-1582



ASCIT FRIDAY NIGHT MOVIE

Tina & Michael

HAIR DESIGN

Specializing in Unisex Haircuts, Perms,

and Color

20% off to

Caltech community

Walk-ins and Appointments

991 E. Green Street Pasadena, California

Parking on

108 S. Catalina

793-2243 or 449-4436



Affred Hitchcock's

Notorious

BAXTER LECTURE HALL \$1 for ASCIT members **7:30 & 10:00 p.m.** \$1.50 for others

NEXT WEEK: Cat Ballou

PASADENA SCIENTIFIC & TECHNICAL BOOKS

Special discounts to Caltech community

We Stock Scholarly & Professional Books in:

ENGINEERING - HANDBOOKS - SCIENCES - MATH AEROSPACE - COMPUTERS - BUSINESS - CODES NURSING - PSYCHOLOGY - ARCHITECTURE - DESIGN

— We Specialize in:

FAST DELIVERY • SPECIAL ORDERS
PHONE ORDERS

M-Thur. 9-6 Fri. 9-5 Saturday 10-4



794-4499

1388 E. WASHINGTON BL. - PASADENA

PUBLICATIONS TEMPIRE
WINNETT MINISTET OF STUDENT AFFAIRS

LETTERS

from page 2

Reagan Administration rather than on the part of Sandinistan statistics!

Much of what he said was anti-America. To start off with, he ironically called Mr. Reagan "un-American" several times (once very loudly), and he supported this by saying that "if you look hard at the figures, the President doesn't represent one-third of the popular vote, if you do your calculus correctly. You don't have to be in advanced calculus to do that...he represents 26 percent of the popular vote, a minority group of people.'

I don't know where he got 26 percent, so I guess Ma 1b isn't enough calculus. Or perhaps he was simply full of Bogus Stuff.

Bayer called the President a liar, implicitly if not explicitly, many times. He frequently used the left-wing trick of equating the U.S. with the Soviet Union by referring to "commissars in the White House" and Israel as a "client state" of the U.S.

He went so far as to compare the U.S. press with the Soviet press. "My standards are pretty high...On a scale of one to ten, I would give the U.S. a five, the Soviets a three. The dictatorships probably would not make my scale." His scale is ridiculous when we think about what happens to those who express opinions that criticize the Soviet state. I can only conclude that he was perhaps using a logarithmic scale.

Bayer is probably not a Sovietstyle communist, but he is definitely sympathetic to Marxism. "You do have [in the Sandinistan government] Marxist ideology, but let's not confuse Marxism with Russian Communism...They're probably Marxist in the sense of using that as a model of analysis, and I think its a very good model of analysis. Marxist analysis fits very well in a society where very few people hold the wealth and the rest are practically proletarian...it's the only model that has any kind of coherence.'

He said that 60 percent of the Nicaraguan economy is still in private hands, as if 60 percent were a good percentage for private ownership.

Interestingly (though not informatively) he attacked U.S. capitalism as monopolistic corporate capitalism. "The only thing they do is buy each other up. They don't produce any wealth, and they don't really add to the success of our economy. That's the state we're in now, when the wealth becomes screwed...[we're] in the state now correctly called the imperialist state [where we have] to control the market of other countries."

Here again, he shows symptoms of leftism: calling the U.S. "imperialist." He's just simply wrong in many of his statements here; for example, do we control other countries' markets? Do we control, say, Japan's market?

The fact that Bayer is an educator had nothing to do with the talk. In one part of his talk he mentioned that he was angry that 103

teachers were killed; he presumably believes that they were killed by contras. "It really burns me as an educator that not one of these stories has been written up by our so-called free press." He also mentioned that 108 technicians had been killed, and since he once worked as a technician doing land reform, he was mad about that too.

And then there were miscellaneous ridiculous arguments. For example, "The Sandinistas count the contras as part of their Nicaraguan people who've been killed. That reflects the humanitarian orientation they have and their degree of benevolence." I think it's fine that they give contras the dubious honor of being death statistics, but it certainly doesn't indicate any benevolence, does it?

Finally, I'd like to say something about speakers like Dr. Bayer. They are critical of almost all U.S. actions, and they would rather err against the U.S. government than for it. They tour colleges giving these type of talks; in the Soviet Union, critics make the grand tour of Siberia. So in short, such speakers criticize the very system that gives them the right to criticize; their criticism of governments which really are oppressive isn't quite so strong, and often nonexistent. By criticizing our government so much, and not others which are far worse, he in effect apologizes for totalitarianism.

-Huy Cao Lloyd

Points Taken

To the Editors:

I would like to thank Professor John Benton for his "Response in the Classical Style" [Letters, 24 October] to my "Dabney Inside World" Column of 17 October. His

points are well taken, and were, in fact, well taken before the column was submitted.

Incidentally, it is rare to find an "Inside World" column signed with the author's true name. The true names are, however, listed every week in the masthead.

> -Alex Gilman Dabney Hovse

The Inside World

Blacker: Did you ever realize how much Eric Hassenzahl looks like Ted George?

Thanks to a sudden demand for fresh meat, we now have enough money for a pyramid or two. The Flems may have gotten Nancy, but Chris Brennan got the shirt. Our nouveau riche-ness was still evidently unequal to the purchasing power of Lloyd, which only proves that sometimes time does equal money. The six man lift was successful as usual, but what everyone wants to know is why Dion and Cliff were sheep in the thundering (showers?) herd. The head waiter would especially like an explanation, as the seven seas hangs threateningly over Kiser's head...

The score so far: The Master, 4, frosh, 0.

Did you ever realize how much Margi Pollack looks like Lisa Henderson?

← Arex Chardonnay

Dabney: Look out, Wimp Houses! The unstoppable Dabney Soccer Machine is rev-rev-revvin' up for another season of handing out shame, humiliation and utter defeat to anyone who dares cross our path. Says our brilliant organizer, Todd "God" Kaplan (who is attending Caltech on a soccer scholarship), "I can't wait to see the look on Page House's face." Leading the offense will be that man with magic feet, yes, that's right, Diego "Danny" Maradona. In center midfield, the omnipresent, omnidirectional Oscar "Soccer is my life, soccer is my wife" Duran will direct the ball with the precision that is the Guatemalan soccer tradition. Our defense, as always, shall weave an impenetrable "Net of Death," coördinated by the great Russian superstar, Paul "Great Wall of China" Rubinov and our world-class goalie, Dan "The Fly" Harrison.

So watch out, you pretenders. If you know what's good for you, you'll have those cleats bronzed today. Take heed! We do not wish to bring grief to our fellow students, but when it comes to soccer, mercy is out of the question.

-Hank "Hank" Grunteas

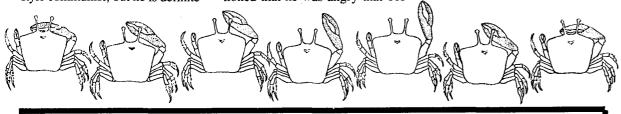
Fleming: Once again this year, Fleming is well on its way to capturing the Interhouse trophy, with a convincing sweep of softball. It's not that the other houses didn't really have a chance, it's just that the bonecrushing Vermie's butt-slide was just irresistably devastating. Hopefully the field will recover for soccer, which begins in a couple of weeks. And you thought the butt-slide was devastating in softball...

Speaking of Interhouse, it looks as if things are going fairly smoothly so far. In fact, somebody mentioned just the other day that he might have actually seen somebody working on the courtyard not too long ago. Hard to believe. Be ready for a gargantuan effort beginning this weekend... That means you upperclassmen (frosh too).

Well, we trundled over to visit those anarchous creodontes across the Olive Walk last Tuesday's eve and found the boys a'cowering in their rooms as usual, so we went looking for some less limp shower fodder. In all, the Moles actually put up a show. Amazing.
Ultimate for anybody interested. Court of Man. Sunday. 2:00рм.

–Al Fansome

continued on page 4





IBM XT CLONE \$889

LEADING EDGE MOD

PRICE INCLUDES: 2 Floppies, Monochrome Monitor 640K RAM, MS-DOS 3.2, GW Basic יים יום ה

LEADING COUR MODEL D	
2 Floppies	\$1090
1 Floppy 20MB	
1 Floppy 30MB	\$1595
PRICE INCLUDES:	
512K RAM, Monochrome Monitor,	
MS-DOS 3.1, Basic, Word Processor	

IBM AT CompatibleCALL 8MHz CPU Speed IBM XT 286 Compatible CALL 8MHz CPU Speed Toshiba P321 . \$469.00 Leading Edge 1200B 2400B \$279.00

PC SYSTEM DESIGN CORPORATION

Open Monday-Saturday, 10 a.m.-6 p.m. (Open Sunday, 1-5 p.m. in Pasadena only)

BEVERLY HILLS: 276 S. La Cienega (213) 659-9886 PASADENA: 455 N. Lake (818) 792-1391



BUY YOUR CALTECH CARD AND SAVE

We feature:

- CHICKEN TAVOUK KEBAB
- ALWAYS 10% OFF WITH YOUR CALTECH ID
- Fresh Seafood Specials
- GOURMET GIANT HAMBURGERS
- PROUD PROVIDERS OF CALTECH'S FOOD SERVICES
- Daily Specials on the Board
- Refills on Soft Drinks and Salad Bar

all at reasonable and affordable prices

all include French fries or rice pilaf, infinite salad, peta bread and butter

FOR THE ENTIRE MONTH OF NOVEMBER

A free root beer float to all Juniors, Seniors, and Grad Students

FACULTY, GRAD STUDENTS, ATTEND! MONDAYS & TUESDAYS ARE BEER DAYS. HALF PRICE ON BEER.

535 SOUTH LAKE AVENUE 1/2 BLOCK NORTH OF CALIFORNIA

SELF-SERVICE

kinko's copies

Open 24 Hours **SEVEN DAYS A WEEK** visit our new location!

Kinko's Glendale

441 N. Brand Blvd. Glendale (818) 500-1811

> **NOW OPEN!** (but not 24 hours)

Copies beyond belief from state-of-the-art Xerox copiers for great-looking flyers, newsletters, brochures, theses, reports, and resumes.

Print quality and incredible speed at prices that will astound you!

kinko's

827 E. Colorado Blvd. Pasadena (818) 793-6336

The Outside World

The Outside World was an independent publication of STRIVE, the Society To Reduce International Violence on Earth. It attempted to bring compact world news in historical context to the members of the Caltech community. It was published weekly during the second and third term of the 1985-86 school year.

From this week on, the Outside World will be a part of the California Tech. We welcome any informed contributions from readers. If you're interested in becoming a regular writer, please contact Hasok Chang at mail-code 1-59, phone 792-2659.

The current writers for the Outside World are (in alphabetical order): HUY CAO.....Europe and U.S.S.R. HASOK CHANG......Central America, Arms Control

and the Pacific region Maneesh Jain......Asia excluding Middle and Near East PARESH MURTHY......Middle and Near East, North Africa Kevin Nelson......Sub-Saharan Africa, South America Any opinions expressed herein are strictly those of the authors and do not necessarily reflect the views of the editors.

Paraguay, Authoritarian Holdout in Movement Toward Democracy in Latin America

by Kevin Nelson

Over the past eight years, most of the nations of Latir America have gone from authoritarian military rule to the rule of elected, civilian governments. In all of mainland, Spanish-speaking America, only two of the old authoritarian regimes now remain: in Chile and Paraguay. While political events in Chile have recently been receiving substantial press coverage in the U.S., most Americans have heard very little about the much more stable situation in Paraguay. This relatively small, homogenous country of around three million people, which is in southern South America between Argentina and Brazil, has been led since 1954 by General Alfredo Stroessner. Under Stroessner, opposition parties have been banned or placed under

various restrictions, a number of dissidents have been jailed, and frequent "states of siege" have been declared which legally give Stroessner a variety of dictatorial powers. Periodic elections have been held, however, in which at times opposition candidates have been elected to municipal office and the national legislature; but some of the government's opponents accuse it of using tactics such as turning away voters from the polls in areas where the opposition's strength was concentrated. For now, the Paraguayan government appears firmly entrenched in power, but, if Latin American history is any guide, there is ground for concern that Stroessner's continued autocratic rule could cause Paraguay to develop into another area of political conflict.

"This Is What Happens When You Start To Franchise Foreign Policy"

Eugene Hasenfus, the captured crew member of the C-123 cargo plane shot down in Nicaragua, will be tried by the Sandinistas soon. U.S. officials have denied any government involvement and attributed the rebel-supply operation to a private group headed by retired Gen. John Singlaub; Singlaub denied his involvement, and the testimony by Hasenfus himself suggests CIA involvement.

Hasenfus claimed that the contra-supply flights have been coordinated by two Cuban-American CIA agents, Max Gomez and Ramon Medina, from Aguacate, a U.S.-refurbished Honduran air base, and Ilopango, Salvadoran air base used by U.S. advisors. (see map) William Cooper, who piloted the plane and died in the crash, had recorded 10 supply runs into

More Inside World

from page 3

Lloyd: We couldn't think of jack to write this week, so we went wandering the halls asking people "What do you hate most about Lloyd?" Here goes.

Doug Chang: Lev Nayvelt:

Frank Kim:

Keith, John and Sho.

Stupefied silence. I don't know...I'm in Page.

Jong Kim: Tren Huang: When people fall asleep on the toilet.

Rick Berge: It's pretty dry here.

Charles Patwell: People complain too much. Ravi Subramanian: Haba's Run-DMC shirt.

Khanh Ngyuen: Our girls. Brett Bush: Khanh's hair. Jean Tang: Nebwaska.

Chris Nolle: People don't wear red shirts as much as

they should.

Too sophisticated and trendy. Rob Jarecki: Oren Bergman: The TV's too small.

People who hate Heads On Torsos. Tom Rathjen:

We're next to Page House. Phil Lee: Carol Choy: Pope lives across from me.

Garret Choi: People who wimp out. Anh-Tuan Le: I don't want my toes cut off! Those ornamentals...they're Keith Miyake: everywhere!

Chris Cheung:

Bassem and Lev yelling "Fuck You" in the middle of the night.

We won Discobolus Soccer against Blacker last week, and we play Page in football on Sunday. PARTY TONIGHT!!!! at Dabney Gardens...Drink of the week is Bud from the fridge. The hell with it. Courage.

-Jethro, Skeeter and Enos

Nicaragua with Hasenfus and 18 others to and within Honduras. The records were found in the plane's wreckage. Also retrieved were Salvadoran Air Force cards identifying Hasenfus and copilot Wallace Blaine Sawyer (also killed) as U.S. "advisors".

Meanwhile, the long-debated \$100-million contra aid awaits final congressional approval, but at the present there is little sign that the Hasenfus affair will alter the decision. The contras are planning to step up their offensive, encouraged by the new aid package and the lifting of the two-year congressional prohibition banning the CIA from participating in the management of the war. According to Alfonso Robelo, one of the 3 directors of the United Nicaraguan Opposition, guerrillas will train on U.S. soil; Costa Rica, El Salvador, and Honduras objected to the use of their territory for the training of the contras. The rebels consider 1989, when President Reagan's term will expire, as the deadline for the overthrow of the Sandinista government.

(Source: Newsweek, Los ANGELES TIMES, NEW YORK

Threat to Philippine President Aquino

by Maneesh Jain

In Manila, more than 20,000 anti-communist demonstrators burned huge red flags bearing hammers and sickles as Philippines Defense Minister Ponce Enrile urged the people to fight the Communists, declaring that the two recent bombings in Manila were part of a new Communist campaign of terrorism. Alongside, Enrile continued to attack the government of President Corazon Aquino for "lack of direction" and inefficien-

Until a few weeks ago, President Aquino could have looked forward to the future with confidence. The success of her visit to the U.S., where she fully exploited her charisma, was short-lived. On her return to the Philippines, the situation took a downward plunge. Her agreements with the Communist insurgents broke down at the last moment, when the army arrested Rodolfo Salas, one of the guerrillas' top leaders, causing Aquino serious embarrassment.

The arrest was no doubt prompted by Enrile, an outspoken critic of the talks. Though Enrile asserted that he was "not engaging in politics" but upholding democracy, many critics believe that he is merely using the Communist threat as an instrument against Aquino. Enrile's weekend rallies followed a widening rift between Aquino and her powerful Defense Minister-who helped bring her to power in the Churchbacked military revolt in February -which threatened to weaken or destroy the nations ruling coalition formed when deposed President Ferdinand Marcos fled into exile.

It was also patent that Enrile had acquired new supportersseveral thousand in the crowd at the rally were Marcos loyalists. Amid stimulating signs of "Vigilantes Support Rambo Enrile Against Communism," he stressed that the Communist insurgents could be put down only with greater stability and loyalty in the Aquino government. He added that the military was strongly behind him, raising fears that he was expressing veiled threats that he could stage another coup like the one that ousted Marcos.

from page 1

they felt well treated by their master, who supplied plenty of food and drinks to satisfy their demands.

The sale was auctioneered by Bernie Santarsiero, to whom Drehwing expressed many thanks. Santarsiero and his orange shirt were sold to Brennen at the end of the night. The \$780 raised by the auction was needed by Blacker to pay for its Interhouse. The house had been run into debt "because of ridiculous housing office charges,' according to treasurer Dave Whitman. Many of the bills are being contested and many others will not get paid. Still, much or all of the money raised by the sale will be spent on Interhouse.

Mars

from page 1

sending probes to Mars to collect and bring to Earth samples of different materials.

A manned mission to Mars is not likely to occur until the first quarter of the 21st century, in part because the technology required for people to remain healthy in space for the 2-3 years duration of a round trip to Mars has not been fully developed. Although Mars is the most habitable of the planets in the solar system other than Earth, it is not likely that a human population will be established on Mars on a large scale, as, according to Murray, central Antarctica and central Greenland are paradises compared to Mars.

Dr. Murray, an MIT graduate, has been a professor since 1968, was Director of JPL from 1976 to 1982, and participated in the closeup imaging of Mars, Venus, and Mercury during the 1960s and '70s.

WANT TO KNOW MORE ABOUT THE EMERGING SEMI-CUSTOM INDUSTRY AND ITS TECHNOLO

LSI Logic Corporation, the leading supplier of high performance CMOS gate arrays and semi-custom integrated circuits will be on campus to talk about our industry, our products, and our software simulation and computer modeling systems. The best in the industry.

THURSDAY, NOVEMBER 6 WINNETTE STUDENT LOUNGE, 7:30 PM

Pizza will be served.

If you are an Electrical Engineering or Computer Science major, we'd

Will Naylor, CAD Engineering Supervisor, LSI Logic Corporation. 1982 Cal Tech Graduate.

Bill Chapman, CAD Engineer, ISI Logic Corporation. 1983 Cal Tech Graduate.

Patty Peters, College Relations Manager, LSI Logic Corporation.

If you are unable to attend and would like to find out more about a future with LSI Logic, we will be recruiting on campus Friday, November 7. For more information, please contact your placement office.

LSI LOGIC CORPORATION

It's only Logical.

Equal Opportunity Employer

1986 5

FEATURES

Working Together: Director and Students Run Y

by Amanda Heaton

What's the Y? Although everyone knows about the Caltech Y's obvious activities and services, from hiking trips to beach parties to the Friday noon concerts, few students know about the Y's actual structure or its history.

Julie Bolster, the Interim Acting Director of the Y, organizes activities and supervises the student government, the ExComm.

"I've been the Administrative Assistant of the Caltech Y for the past three years," she said. "I keep all the books and all the financial records. And the Administrative Assistant job, which I'm still responsible for, is all the paper and the administrative work.

"The way that the Y works, all of the programs that are planned are planned by the students-they make all the decisions, decide what speakers to have, etc. Our job is to assist and offer suggestions—to kind of stay on top of it and to help when necessary."

The group that makes these decisions is the ExComm, twelve to eighteen students who choose to give their time in exchange for power. Each ExComm member serves from the beginning of third term one year to the end of second term the next, when the current members elect members for the following year. Students can also at any time show an interest in becoming ExComm members by attending meetings and applying for membership.

"Being on the ExComm of the Caltech Y is one of the best courses a student can take," Chris Meisl, president of the ExComm, said. "In

the process of learning how to do programs, you learn how to work with a group, how to find a program and sell it to the others, so the ExComm will fund it, how to talk to secretaries all over the country or to have dinner with important people. It's sort of a generalized course in dealing with people."

The Y sponsors many programs with its 25 to 30 thousand dollar budget. The budget comes from an endowment (begun by Millikan), the United Way, the Friends of the Caltech Y, a support group, the Institute, and private donations.

"They spend the money on the Y programs," Meisl said. "The programs include bringing speakers to campus, bringing workshops to campus, sponsoring the Friday noon concerts, running ski/backpacking/sailing trips, selling discount tickets to practically everything in LA, and, of course, Decompression™. We get more participation in that than in anything else. We also co-sponsor (ie, fund) events with other groups, just like ASCIT.

"The Y's just a service group on campus; we have loans, or a place to lie down if you're tired. Most importantly, we pick up freshmen from the Hilton and bring them back to Caltech; that's an important service and we have trouble getting recognition for that."

Although the Caltech Y involves itself with almost all aspects of campus life, it evolved out of a much more limited organization; the local branch of the YMCA.

"The Y has its origin as the Young Men's Christian Association—it's sort of a para-

religious organization," Huston Horn, the previous director of the Y, said. "In its beginnings at Caltech, back in 1916 or so, the Y was 90% religious; they did things like the Caltech Christian Fellowship does now. And they also played, going on hiking trips, etc. Gradually the focus on specific religion waned, and the border programs waxed, so that finally, about 15 years ago, the Board of Directors decided to dissolve the formal relationship with the national YM-CA on the grounds that their responsibilities were so broad that it was limiting to be affiliated with a "Christian Association."

Nevertheless, under Horn and his predecessors, the Y did retain some emphasis on religion.

"Both I and my predecessor were ordained ministers," Horn said. "Then his predecessor, Wes Hershey, who served for over 30 years, graduated from divinity school, although he never actually was ordained."

Horn had hoped to be able to put his religious training to use at the Y, but found that other tasks consumed more of his time.

"What I liked most about the job was what there was less of than I had hoped—personal contact with the students on a more than superficial level, when we actually got together and shared things that were important to us. There was less of that than I had hoped for and looked for, so the thing I liked most, I did least. And the thing I liked least, the administrative work, I did most.

"The history of the Y, the director's role in particular, has chang-

ed. Before, students would come in to talk to the directors; that was a significant part of my predecessors' jobs in recent years. But the Health Center, when it became acknowledged that psychiatric services were an important part of their services, took over that part of our job."

Despite this change in responsibility, the Y director did still interact with the students of the ExComm.

"The ExComm and the Director together propose and dispose of ideas," Horn said. "And the ExComms change each year, because the students change, so the relationship is always changing. To be the Director of the Caltech Y is an art, not a science."

Horn left the Y on June 15 to return to writing, the career he followed until 1965, when he went to Seminary.

"I came to Caltech in '82 and was there for 4½ years. It was my conclusion, though, after that length of time, that I was not spending enough time doing the things I'm best at doing. I wasn't interacting with people enough and I wasn't writing.

"Now, I'm putting a roof on my house, and I have been putting a roof on my house since July 1st. I would like to write some in the field of history—popular history, I'm not a historian. I'd like to write some magazine articles and maybe a book or two. But saying that you want to write a book and actually writing it are completely different things. I haven't yet joined the project."

Upon Horn's retirement, a search committee began soliciting applications for a new director, and has now narrowed the field of candidates down to five. Meanwhile, Julie Bolster has served as Interim

Director.

"There was confusion as to what was going on and who was in charge, so the Board named me Interim Acting Director," Bolster said. "We're interviewing for a new director right now and hopefully by the first of the year there will be a new director. I think the potential candidates seem very well qualified and will do an excellent job. And the students, the ExComm, are taking an active role in selecting the new director."

Although Bolster has the background to fill the director's office, she did not apply for the job.

"I seriously considered applying and decided not to," she said. "I'm not sure that this is where I want to be 17 or 18 years from now. I love my work, and I love working with the students, but my background is in public affairs. I still have a twelve year old at home and two kids in college, and that's my true love. Where I'd really like to be is in politics-behind the scenes, not up front. But that's a 24-hour-per-day job, and I don't have the time right now."

Horn hopes that the new Director will retain the Y's emphasis on religious issues.

"I still believe that the Y ought to keep its interest in religious issues because there's no one else on campus interested in religion," Horn said. "And I think that a university, any university in the United States, without religion is faulted."

Whatever the future of the Y, however, it will retain its power and responsibility.

"There is nothing on the campus that has the potential for doing as much good for the students as the Caltech Y," Horn said. "There are some who might disagree, but I think it's true."

Kahl Starts Gay and Lesbian Discussion Group

by Michael Mouse

I rediscovered something very basic about myself this week. I discovered that I need to talk to other gay people. I also discovered that I was not alone in having this need. I came to this not-too-surprising realization at the Gay and Lesbian Discussion Group that Dr. Bruce Kahl has recently organized.

I realize that some of the heterosexual readers of the *Tech* may not understand why gays and lesbians need to talk to other gays and lesbians. I would ask those readers, many of whom are scientists, to consider their own need to talk to other scientists rather than talking exclusively to, say, business executives. I would probably go just as crazy if I could never talk to another scientist as if I were never able to talk to another gay person.

Well, now that I know that I need to talk to people who are like me in a way different from the way most of my friends are like me, what do I do? Caltech has an amazingly low percentage of gays, or at least of "out of the closet" gays. Of the undergraduates, maybe 2-3 percent are out. Compared to the expected average of 10-15 percent, this is miserable company.

As Director of Counseling Services, Dr. Kahl recognized that there is a need for gays and lesbians at Caltech to be able to talk to each other. CLAGS didn't really fill this need, as CLAGS meetings tend to focus more on business and social/political concerns, and not everyone has the courage to go to a CLAGS meeting (or the strength to sit through one).

I was a little wary of the idea of yet another gay discussion

group. As an under-twenty-oneyear-old I frequented a lot of the gay youth rap groups in Hollywood. These raps were a great way to meet gay people and talk to them, but after a few months the ever-recycled topics became unbearably boring. It seemed like every other week we got to talk about coming out again.

I was very pleased to find that the Gay and Lesbian Discussion Group was unlike any other rap I had been to. For one thing, there were lesbians there. I really like lesbians. Of the fourteen who attended, half were women (and half were men). Also, Kahl enforced a structure on the discussion that prevented it from becoming a one-upping free-for-all.

The GALDG met for the first time on Tuesday at 7:30 p.m. I was unfashionably early, but I wasn't the first to arrive at the lounge of the Young Health Center. Donuts and juice had been provided, and there were enough comfortable chairs for everybody. There were a few undergraduates present, more graduate students and some staff members, but no faculty. Some of the people I already knew from CLAGS, some I knew but hadn't know were gay, and some I had never met before.

I chatted with a few friends I hadn't seen in a while until Kahl was ready to start the discussion. He began by telling us why he had organized the group. The GALDG was created not just for gays and lesbians (and bisexuals too!), but for their friends, relatives, coworkers and others who just happen to be interested for whatever reason. He said he felt the group was needed for reasons similar to those I described above. He asked

that we respect the privacy of others in the group by not talking about who was at the meeting to those who weren't.

We started the discussion part of the discussion with introductions. Each of us told the others who we were and what we did at Caltech.

I had a bad moment when Kahl announced that the topic for the

evening was "coming out". The coming out rap has been done to death several times over, and I myself have been to over a dozen raps on this subject. But coming out is an appropriate place to begin, and it turned out to be a good choice.

Kahl gave us some rules to provide a structure for the discussion. The structure we used is often called the "consciousness raising" process. The rules are pretty simple:

① Speak in the first person from your own experiences. ② Talk for as long as you need to. ③ Don't interrupt. ④ Don't comment on what others say unless it directly relates to you.

It may seem at first that these rules would preclude any kind of continued on page 6

WE LET OTHER PEOPLE DO OUR TALKING.



NORTHROP IS A TECHNOLOGICAL POWERHOUSE





NORTHROP IS FIRST FOR INNOVATIVENESS

J.



NORTHROP. ONE OF THE 100 BEST COMPANIES TO WORK FOR IN AMERICA

"

The 100 Best Companies to Work For In America; Levering, Moskowitz and Katz.

ON CAMPUS

November 7

Check with your Placement Office about signing up.

Discussion

from page 5

valuable discussion, but they are actually a good structure to work in. Having no time limit meant I wasn't rushed, but could explore what I was really trying to say. I was surprised to find how much I had to say when I knew that people were really listening. And knowing that I couldn't comment on what the speaker was saying allowed me to devote all my attention to listening, rather than thinking of what to say in response.

Perhaps the most surprising thing about the evening was that I wasn't bored to tears at a coming out rap. Everyone I listened to had something interesting to say, and though everyone spoke at length (up to twenty minutes for some) it was all completely captivating. For two hours I got to listen to people (mostly strangers) share very personal parts of their lives with me, and have people listen to things about me that I thought no one would care about.

Each of us who spoke told the others about our own "coming out", the process of discovering, exploring and coming to terms with our homosexuality. Discovering that one is gay in a mostly straight and somewhat homophobic world can be painful and confusing, and coming out can take a long time. Some of us have it easier-all it takes is someone to show us the way. But whether coming out is hard or easy, we all need support from those who have shared that experience. Coming out is hardest when it's into a vacuum.

Part of coming out is letting others know about it. Telling one's parents is typically a big hurdle in the coming out process. Everyone who spoke had something to say about that, even if it was just "forget about parents, I'm busy enough trying to deal with this myself!'

If there is one thing I had to point to as something valuable I learned at the rap, it is that coming out is a continual process. I tend to think of myself as "out", and don't think much about what coming out there is left for me to do. I'm mostly out here at school, but not really at work. My parents think it's just great that I can bring my boyfriend home for Thanksgiving, but if my grandmother ever found out she would either drop dead or disown me on the spot. And notice that I am writing this article pseudonymously.

Because of the format of the discussion, only seven of us got to speak. This was not a bad thing. Those who didn't get to speak will get a chance next time we meet, and they, too, will get plenty of time. We decided that since we have so much to talk about, our next meeting should be in two weeks rather than one month.

The last thing we did was talk about what we wanted for topics for future discussions. Subjects being considered are homosexuality and religion, relationships, and sex. Kahl assured that the consciousness raising format would not be used for all of the discussions.

Tuesday's meeting was very gratifying for me. I would like to thank all those who listened to me. and also those who let me listen. I would also like to thank Bruce Kahl for conceiving of and organizing these meetings.

If you are thinking of coming to the Gay and Lesbian Discussion Group, I strongly urge you to attend. Meetings are on sporadic Tuesday evenings starting at 7:30 p.m. in the Young Health Center Lounge. The next meeting is on 11 November. For more information contact Dr. Bruce Kahl at extension 6393.

ENTERTAINMENT

Twisting the Rope - Frustrating

by Nick Smith Twisting the Rope by R. A. McAvoy

Most of this book is great. That is one of the most frustrating things to find out about a book, especially when the remaining fraction is bad.

Twisting the Rope, in addition to being the name of the novel, is the English translation of a wellknown Gaelic tune. It refers to an old custom of young lovers forming a rope out of grasses. In this case, it's also basis of a fantasy/murder mystery that involves ropes at every twist.

Twisting the Rope is a sequel to Tea With the Black Dragon, a wonderful novel that involved a former classical musician, a couple of Silicon Valley computer wizards, and an elderly oriental fellow who is also, the reader learns, an imperial Chinese dragon in his spare time. Tea won all sorts of awards for the author, and is one of the few things that can get Zen buffs and computer hackers into the same conversation. McAvoy also wrote a good non-related book called The Book of Kells, a crossover fantasy involving modern times and ancient Ireland. Thus, Twisting the Rope has good ancestry going

The book starts out with a con-

cert tour of a band playing traditional Irish folk music, with an occasional modern twist. Martha, the lady musician from *Tea*, is there, as is Mayland Long (the dragon). The rest of the band (Mayland is the manager) ranges from a traditional piper to a misplaced southern belle harpist, and the potential for conflict is great. Then, one of the band is apparently murdered, and under bizarre circumstances, and the story turns into a murder mystery, with bits of fantasy interwoven. The whole thing builds and builds, bringing the reader ever more tightly into the plot and the characters...and then it dies. The author cheated on the murder mystery, and the reader knows it. That's the worst thing a mystery writer can do. In this case, I don't think the reader can really figure out the mystery, because key bits of information aren't revealed until after the mystery is really solved. Oh well.

I highly recommend Tea With the Black Dragon and The Book of Kells, but Twisting the Rope is only for those with a high tolerance for frustrating endings.

On another note, there is a science fiction and fantasy convention this weekend over at the Pasadena Hilton. It's called Fantasy Faire, and is a long-established small convention that's comfortable and fun. If you have time to go over, the convention features films, panel discussions, a sales room of good SF stuff, and some interesting entertainment. It starts Friday afternoon, and runs through Saturday and Sunday. I don't have the prices for at-the-door memberships, but it's a few dollars for a single day, more for the whole weekend.

On Thanksgiving weekend, there is a somewhat larger SF convention at the Pasadena Hilton, one called LOSCON. This one is more expensive, but has more things to do, and usually features more wellknown authors. More information on that one next week.

Hey, there's a movie theater in walking distance of Tech again! The Academy Theater is open, on Colorado a block west of Wilson. The manager's plan is to have a

double feature on each of the six screens in the newly-remodeled theater. So far, in the two weeks it has been open, movies shown have ranged from Howard the Duck to Karate Kid II. There has been a fair sprinkling of SF on the schedule so far, including some of the summer movies you may have missed. It seems to feature secondrun films, and low-budget first-run films. The ticket price is \$1 for matinees, \$2 at night, which is cheap enough to give ASCIT a run for its money.



COMES TO BECKMAN

Anna Russell satirizes opera like no one else! In her final Pasadena appearance before retiring, Ms. Russell will perform Saturday, November 1 at 8 p.m. in Beckman Auditorium

Described as the "world's funniest woman," Russell is the prima donna of parody, an offbeat phenomenon who eludes conventional description. She combines in one statuesque person Brunnhilde's presence and Mime's mockery. Don't miss this last chance to see her special rendition of Wagner's 'The Ring of Nibelung' and you'll never hear a more enjoyable version of 'The Ride of the Valkyrie.' CIT student tickets to Anna Russell are priced at \$11.25-10.00-8.75. Rush tickets go on sale the day of the show for \$6.00 each. CIT faculty and staff tickets for Anna Russell are priced at \$20.50-18.00-15.50 for advance sales and 'Techtix' - half price tickets (\$11.25-10.00-8.75) will be available on Friday from noon to 4:30 p.m. by visiting the ticket office just north of Beckman Auditorium. (Limit 2 discount tickets per CIT

Please note that this show may sell out and that Techtix and Rush tickets are subject to availability.

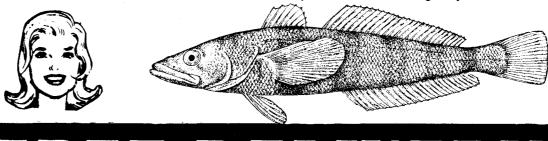
Tonight, the Youth Goodwill Mission of the Republic of China will bring a taste of Chinese culture to Beckman Auditorium at 8 p.m. Tickets are \$5.00. Sponsored by the Caltech Chinese Student Association.

Astronaut Sally Ride has been scheduled in a special lecture sponsored by Sigma Xi for Thursday, November 6 at 8 p.m. in Beckman Auditorium. Tickets are priced at \$2.00; students \$1.00.

Next weekend you won't want to miss the return of 'The Stan Waterman Show,' a program of underwater adventure films, Saturday, November 8 at 7:30 p.m. in Beckman Auditorium. Co-sponsored by the Kelpers, Caltech's scuba diving club, these short films cover topics from diving around Cayman to handicapped divers and the majestic right whales. Tickets to 'The Stan Waterman Show' are priced at \$8.50; students \$7.00.

Also next weekend you can hear music of the Walden Trio in a free Dabney Lounge Chamber Music Concert, Sunday, November 9 at 3:30 p.m. Richard Rehwald, bass, Darryl Denning, guitar, and George Alwan, flute, perform works by Bach, Haydn, Debussy, Villa-Lobos, Jobin, and Joplin.

For further information about the exciting Public Events scheduled this season, call campus ext. 4652.



FREE DELIVERY



Happy Hour

Monday and Tuesday

Beer on draft and wine

½ price

Free refills on softdrinks

CALL 792-5984 **524 S. LAKE AVE. PASADENA** Just north of California

ALL YOU CAN EAT SPAGHETTI AND GARLIC BREAD \$2.99

DISCOUNT WITH STUDENT ID

any 16" pizza

\$1.00 off any 12" ONE COUPON PER PIZZA.

COUPON EXPIRES 11-13-86

FREE 6-Pack Soda

with minimum **\$8.00** order

NOT VALID WITH ANY OTHER COUPON OFFER. ONE COUPON PER PIZZA

COUPON EXPIRES 11-13-86

any 16" pizza

minimum of 3 toppings NOT VALID ON ANY SPECIALS OR WITH ANY OTHER COUPON OFFER.

ONE COUPON PER PIZZA. COUPON EXPIRES 11-13-86

Bloom County









by Berke Breathed





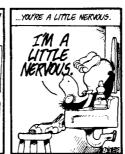














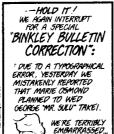
























SHOWCASE





HELLO AGAIN...

LAST WEEKS SALE WAS A BIG SUCCESS FOR ALL WHO PARTICIPATED. THOSE WHO MISSED IT, I'M SURE YOU'RE HEARING ABOUT IT DAILY! IF YOU'RE NOT ALREADY AWARE OF THIS FACT YOU WILL BE GET GREAT DISCOUNT PRICES EVERY DAY AT GNP ON ALL AUDIO, VIDEO, COMPUTER EQUIPMENT. STANDARD DISCOUNT IS 20% ON EVERY MODEL OF GNP LOUDSPEAKERS. OTHER GEAR IS 10% OFF (OR MORE EACH WEEK WE WILL SOMETIMES!). TRY TO HIGHLIGHT A NEW PRODUCT IF POSSIBLE . . . OFFER SPECIAL PRICING FOR THAT WEEK ONLY. WEEKS SPECIAL IS LEFT OVER FROM LAST WEEK'S SALE.

NAD 5355 DISK PLAYER \$288.00 OR DENON DCD-1000 CD PLYR SAME PRICE

WE STILL HAVE A FEW USED AND DEMO PIECES OF EQUIPMENT LEFT BUT AVAILABILITY IS EXTREMELY SLIM.

UNTIL NEXT WEEK...





Pumpkin Drop -The History Revealed

by Jennifer Low

Once again frozen squash will drop from great heights. Time to verify g, the acceleration of gravity. TIME TO OBSERVE THE GREAT BLUE FLASH. Yes, All Hallows' Eve has come to Caltech.

Tonight at midnight this venerated celebration commences. Two 10 pound pumpkins frozen for half a dozen hours in liquid nitrogen will be dropped from the top of Millikan library about five minutes apart -- "multiple projectiles," as Andrew Huntington describes it.

Huntington and Dan Harrison will be carrying out this Dabney House tradition that is "decades" old, according to Harrison. "The official part is to look for the blue flash, as far as I'm concerned," states Harrison.

In past years the blue flash or apparent lack of it has been the main concern. The flash of light is supposed to occur upon impact. The flash is rumored to be similar to chewing "Wint-O-Green" Lifesavers in front of a mirror in the dark.

No one has seen the blue flash in the last three years. Harrison and

Huntington think it is because the pumpkins have not been frozen long enough. Today the pumpkins will be frozen at least four times as long as in previous years. "If we don't get a blue flash this time, I seriously don't think a blue flash occurs," adds Harrison.

The pumpkin drop is subsidized "by Dabney House and certain responsible authorities," says Harrison. The pumpkin, frozen at 77 K in liquid nitrogen, resembles coarse ceramic before the drop, and shatters like glass upon the pavement below. Huntington wonders what B&G thinks of the pumpkin shards around campus afterwards.

Says Tim Allen, Dabney House president, "It's highly overrated but it's good fun. I shouldn't watch, but I do it every year, anyway." What else is there to do at midnight on Halloween?

But the obsession seems to be on the blue flash, since, as Harrison says, "I trust the g's have been worked out accurately already."

"I think the chances this year are better than other years and no one wants to see it more than us," adds Huntington. Just remember, no flash photography.

More Inside World

from page 4

Page: Hi Ho Hi Ho its of to the beach we go. Fun, fun, fun in the land of sun was not to be found. Rather we took a BEACH TRIP TO HELL! Next time we'll take two vans. Beck doubted the law of inertia - but Newton reigns supreme. F≅MA, just ask Felix.

Mega, Mets, Monster TV. We can take it back now. Maybe we'll keep it to watch adult vidios. Make biguns' bigger. Fleming would get one too, but how big can you make two inches look, Ed?

Silly frosh, where's the bell, really? Gee, Lloydees, not having Pro-Football around has led to pockets full of quarters.

Red Snow happens Sunday nite, or when ever Beck drives in the winter.

After the picnic at 1:00 py, we play I loyd in a discapelous

After the picnic at 1:00 pm, we play Lloyd in a discobolous football challange, on Sunday. The Lloydees have about as much chance as Felix.

KKAL is kleen. It could become a TV room, a lounge, or a Felix memorial. Donuts nite was last nite. Himmelstien 2, Frosh 0. This beer sucks Bob. More Schaefer. Power to the people. Wayne will have probably broken something by today. Build Interhouse, Frosh. More Schaefer. Lower Arlington drinks Schaefer. Larry drink's Bob's beer. "I wonder whats across the street? I guess I'll go look..."

Screeeee-fwoomp-eeech!

-Terrance Andrew Brown!

Ricketts: Happy Halloween. This evening you can go (in costume) to the Frame House to trick-or-treat on your way to the BYOB party at Richard's...or you can go to Phoenix. Oh yeah, don't forget TWBM.

Speaking of midterms, here's the mid-term frosh report: High speed winds in Snerk, primarily out of the füssball room. There have been a number of troll sightings in Snatch, but reliable sources say that most of the frosh in question are bridge players, not Bridge dwellers.

Aye, me hearties, we've got a theme for Interhouse with two whole weeks to spare. It'll never happen again, so this is a year to remember. I'd suggest you build it, but that would be folly, so never mind.

We had an interesting visit from the Big Red Washing Machine, which piddled on the carpet, causing a flood which almost drowned all the members of Crud. (At least that's the way *I* heard the story.)

Tune in next week for reports of the ongoing lunchtime balancing contests, who won the pile, and how many pizzas it takes to survive midterms. Avast, ye Scurvey Scum!

-Shithead #1 and Giggles

WHAT GOES

Excellent Juniors?

For the second year in a row, Time magazine is initiating a nationwide search for 100 college juniors who excel in academics and extra-curricular activities. Called the TIME College Achievement Awards, the selections are a recognition of the nation's most outstanding college students.

Twenty winners will receive awards of \$2,500 each and their achievements will be showcased in a special promotional section of the April 6, 1987 campus edition of Time. Eighty merit finalists will receive \$250 each and honorable mention in the section. All 100 winners will be given first consideration for internships with Time, Inc. and other major participating corporations.

The 1986 Time College Achievement applications will be reviewed by a panel of regional judges under the auspices of Time magazine. In addition to academic excellence, the judges will consider exceptional achievement outside the classroom in such categories as community service, student government, journalism, entrepreneurship, visual arts, athletics, and the performing arts.

To qualify for the Awards, student candidates must be juniors enrolled full time in an accredited four-year American college or university. The deadline for the completed application is December 31, 1986. Winners and finalists will be notified by mail on or before March 31, 1986.

Applications are available at the Deans' Office or by calling 1-800-523-5948.

CIC Fellowships

The Committee on Institutional Cooperation Minorities Fellowship Program is offering 40 fellowships to members of underrepresented minority groups seeking PhD degrees in a wide variety of fields in the areas of Social Sciences, Humanities, Sciences. Mathematics and Engineering. The member universities are the midwestern Big 10 plus the University of Chicago. (If you don't know who's in the Big 10, find a sports section-this is football season).

CIC Minorities Fellowship is for four academic years. For 1987-88, each award will pay full tuition plus a stipend of at least \$7,000. The eligibility is kind of complicated, so contact them as early as possible. Application deadline is January 7, 1987. Write: CIC Minorities Fellowships Program, Kirkwood Hall 111, Indiana University, Bloomington, IN 47405, or call toll free (between 6 am and 1 pm Pacific time) (800) 457-4420.

Med Scholarships Too!

the Army Health Profession Agency is offering 350 scholarships to students planning to attend medical school. To qualify you must be a full-time student, a U.S. citizen, and under the age of 35 when you enter medical school. Students who accept the scholarship will become members of the Army Reserve and required to attend 45 days of Active Duty Training per year they are in the program. The scholarship pays 100% tuition, books and fees, and provides a monthly stipend. There is no obligation attached to submitting an application. Deadline is December 1 for 1-4 year scholarships. To apply write to:

U.S. Army Health Professional

Support Agency

1600 N. Broadway, Suite 300 Santa Ana, CA 92706-3954 or call collect (714)836-2355. Additional information is available in the Financial Aid Office at, you guessed it, 515 S. Wilson.

Chicano Scholarships

The National Chicano Council for Higher Education is offering 20 fellowships to juniors who are interested in pursuing a doctorate and academic career in a sciencerelated field. Each fellow is sponsored for 3 years. Sponsorship amounts vary. Applicants must be Hispanic citizens of the U.S. for further information call (714) 856-6463 or write: Dr. Eloy Rodriguez, Director, NCCHE Science Fellowship Program, International Chicano Studies Program, School of Biological Sciences, TR56, University of California, Irvine, CA 92717. Application Deadline is two weeks from today, November 15, 1986.

Swedish Scholarships

Scholarships for \$500-\$1000 are available for 1986 from the Swedish Club of Los Angeles. Qualified applicants must be fulltime university students living in Southern California, of verifiable Swedish descent, strong academic qualifications, economic need, and be U.S. citizens or permanent residents. To apply, send your résumé to:

R. W. Jackson 1250 E. Walnut St., Suite 210 Pasadena, CA 91106 Deadline is November 14, 1986.

SWE Scholarship

Women majoring in engineering are eligible to apply for the 1987-88 Society of Women Engineers Scholarship. Applicants must have an overall grade average of 3.5 or better. Scholarship amounts vary from \$250 to \$2,500. Applications are available from the Financial Aid Office, 12-63. Deadline is February 1, 1987.

SAM/PE Money

Engineering, physics, chemistry, and metallurgy students studying materials and processes are eligible to apply for the Society for the Advancement of Material/Process Engineering \$1000 scholarship for 1987. Applicants must be full-time undergraduate students. Application forms and information are available in the Financial Aid Office, 515 S. Wilson. Deadline is February 1, 1987.

Naval Scholarship

The American Society of Naval ENgineers is offering a \$1,750 scholarship for 1987-88. TO apply you must be a full-time student in your junior or senior year, a U.S. citizen, interested in a career in Naval Engineering. Information available from the Financial Aid Office, 12-63. All application material must be received at ASNE Headquarters by 15 February,

... And EE Scholarships

The Northrop Corporation has established a \$3,000 scholarship at Caltech for the 1986-87 academic year. The scholarship is open to juniors in Electrical Engineering with at least a 3.3 GPA and a career interest in the defense aerospace/electronics industry. The applicant must be a U.S. citizen, a resident in geographic proximity to the Northrop facility and must not be a concurrent recipient of another company's scholarship.

Applications are available in the Financial Aid Office at 515 S. Wilson. The deadline is 4:00pm TODAY, Friday, October 31.

(If you are receiving needbased financial assistance, receipt of this scholarship could lower your "self-help" aid by as much as \$1,750.)

Truman Scholarship

Sophomores interested in a career in government are eligible to apply for the 1987 Harry S Truman Scholarship. Each scholarship covers eligible expenses of tuition, fees, books, and room and board, to a maximum of \$6,500 annually. To qualify you must be nominated. To apply for nomination you must be a full-time student, have at least a B average and be in the upper ¼ of your class, be a U.S. citizen or U.S. national, and have selected a major related to public service.

Applications are available in the Financial Aid Office, 515 S. Wilson, and must be returned to the office no later than November 14, 1986.

Research Associateships

The National Research Council announces the 1987 Resident, Cooperative, and Postdoctoral Research Associateship Programs for research in the sciences and engineering to be conducted in behalf of 26 federal agencies or research institutions, whose laboratories are located throughout

Awards are made for one or two years; senior applicants who have held the doctorate at least five years may request shorter tenure. Stipends for the 1987 program will begin at \$26,350 a year for recent Ph.D.s and be appropriately higher for senior Associates. A stipend supplement of approximately \$5,000 may be available to regular (not senior) awardees holding recognized doctoral degrees in those disciplines wherein the number of degrees conferred by U.S. graduate schools is significantly below the current demand.

Applications to the National Research Council must be postmarked no later than January 15, 1987 (December 15, 1986 for NASA), April 15 and August 15, 1987. Initial awards will be an-

nounced in March and April (July and November for the two later competitions) followed by awards to alternates later.

Information on specific research opportunities and federal laboratories, as well as application materials, may be obtained from: the Associateship Programs, Office of Scientific and Engineering Personnel, JH 608-D1, National Research Council, 2101 Constitution Ave., N.W., Washington, D.C. 20418. Phone (202) 334-2760.

GEM Fellowships

The National Consortium for Graduate Degrees for Minorities in Engineering, Inc. (GEM) is accepting applications for its fellowship program which will provide 125 fellowships to minority students in engineering for 1987. Application is open to those falling into the groupings of American Indian, Black American, Mexican American or Puerto Rican, who are U.S. citizens. At the time of application, the minimum academic requirement for the student is enrollment in the junior year of undergraduate study in one of the engineering disciplines. Those presently in their senior year or recently graduated are also encouraged to apply.

Each fellowship participant must work as an intern for a member employer in the program and must complete the academic work for the master's degree at one of the member universities. There are 50 member employers and 50 member universities in the program at this time. The fellowship includes a stipend of \$5,000 per academic year plus a salary for summer internship as well as free

Applications must be received by December 1, 1986. Awards will be announced by February 1, 1987. Information and applications may be obtained from: GEM, P.O. Box 537, Notre Dame, IN 46556.

Bok Fellowship For Ph.D.s

Recent or almost Ph.D.s take note: a fellowship is being offered in Astronomy and Astrophysics at Steward Observatory, University of Arizona. The designated fellow will receive a stipend of \$24,000 per year, commencing in September, 1987, and the designation is normally for a two-year period of research. There is also a small research fund, as well as a small transportation allowance. Applicants should submit a brief resume of proposed research as well as a personal resume and references. For more information, contact: Director's Office, Bok Fellowship Committee, Steward Observatory, University of Arizona, Tucson, AZ 85721.

Wise Internships

WISE, Washington Internships for Students of Engineering, is looking for a few good third-year engineering students. Students will study the roles of engineers at government hearings, as staff members of legislative and regulatory bodies, as lobbyists, as members of corporate staffs interacting with governmental agencies, and as representatives of professional engineering societies, standards setting organizations, or public interest groups.

In addition, each student will complete a project that will document a specific engineering-public policy issue, address topics of concern to the participating societies, and/or form the basis for technical papers and case studies to be disseminated by the sponsoring societies. There is a stipend and a travel allowance.

For application forms, write to:

American Society for Engineering Education

Eleven Dupont Circle Washington, D.C. 20036. Application Deadline, December 31, 1986.



SATURDAY AND SUNDAY SUPER WEEKEND SPECIALS

ALL YOU CAN EAT PIZZA \$3.99 ALL YOU CAN EAT SPAGHETTI.. \$3.19

SATELLITE SPORTS TELEVISION

- WORLD SERIES GAMES
 USC UCLA FOOTBALL
 - RAMS RAIDERS KINGS LAKERS •
 - BOXING ALL YOUR FAVORITE SPORTS •

584-5700 To Go Orders Free Delivery

1443 E. Colorado Blvd., (at Hill Ave.) across from PCC OPEN DAILY 10 AM to 10 PM FRI./SAT. TILL MID-NITE

VALUABLE COUPON \$2.00

OFF ANY 16" LARGE PIZZA

VALUABLE COUPON

OFF ANY 12"MEDIUM PIZZA

SPORTS

Booting Beavers

By Joe Pele

The Caltech Beavers split a pair of matches this week to take their league record to 4-5-1. The Beavers defeated Redlands 1-0 last Saturday and lost to Claremont-Mudd-Scripps Wednesday. The score against the Claremont Stags was 5-0.

Against Redlands, the Beaver defence played a shoddy first half, allowing Redlands several shots on goal. The Caltech players were fortunate that the Redlands men could not capitalize on the mis-cues.

Also in the half, John Josephson scored the only goal that Caltech would need for the day. Freshman James Ibbetson took the ball past three Redlands defenders and dribbled to the end line. He played the ball back sharply to Josephson, who netted the ball. The Redlands defence, being drawn out to Ibbetson, had few

men left to cover Josephson.

At the half-time break the Beaver backs pledged that they "will give nothing away" to their opponents. They held true to their word and gave goal-keeper Van Eric Stien his his third shut-out of the season.

Claremont

The Beavers travelled to the new, extra-wide Harvey—Mudd field Wednesday to play the Claremont-Mudd Stags. The entire past week has been especially smoggy in Southern California, and Wednesday was the worst day of the week for air quality. The Claremont side are rated the number-one team in the conference.

The game was held scoreless by the Beavers for the first forty minutes. But then the combination of the smog monster, a large pitch, and the ever-running Stags drained the Beavers of their fuel. Caltech Bounced

gave up two goals to Claremont in

the final five minutes of the first

half.
Though both teams breathed the same air that day, the stags would not choke as soon as the Beavers. In the second half Claremont put in three more goals to Caltech's none. The final score stood at 5-0.

The Beavers travel to Pomona this afternoon to take on the Pomona Sage Hens at 2:30 pm. Caltech tied Pomona in their previous contest this year. And tomorrow they will travel to the Saugus-Newhall area to play The Masters College (formerly L.A. Baptist). This is the only match against The Masters this year.

Next week the Beavers close their league season with a match at home against the Whittier Poets. Caltech lost a close game against the Poets at the Whittier field earlier this year.

Soccer Party Wednesday

This Wednesday, Caltech will host the Whittier Poets in the final Beaver home game of the season. At this point the Beavers are 6-5-1 in over-all play this season.

To celebrate the Beavers' successful year, ASCIT is sponsoring refreshments for the match. All Caltech soccer fans and refreshment-lovers are invited to the match to root the Booting Beavers on to a winning league record for the year.

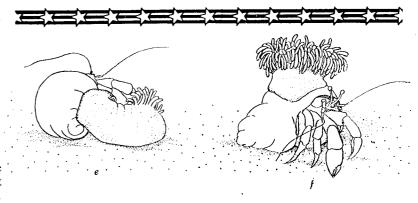


Figure 5.4 Acquisition of an anemone by Dardanus arrosor. [After Brock, Arch. Entwicklungsmech. Organ., 112 (1927), 204-238.]

If you know your buns, you could put them on this baby.

Win a Honda Elite[™] 150 Deluxe[®] Scooter from In-N-Out Burger.

Introducing the absolute easiest quiz you'll take all year. And the only one that gives you a chance to win a totally cool, *red* Honda Elite 150 Deluxe Scooter for getting the right answer.

So, think hard. How many sesame seeds on an In-N-Out Double-Double bun?

If you don't know, feel free to cheat. (Cramming is allowed at any In-N-Out Burger location.) Just put your answer on the entry form below (or print all the info on a plain piece of paper) and drop it off at any

In-N-Out Burger before midnight, November 17.

You can enter as often as you like but there's just one prize per person. And you don't even have to buy anything, although your stomach will be very happy if you do. Then, on Friday, November 21, we'll draw 6 winning entries from among all the entries with the right answer to our question. And those 6 incredibly lucky college types will be cruising through the In-N-Out Drive-Thru on their very own red Honda Elite 150 Deluxe Scooter. Outrageousness!

Deluxe Scooter!

*Maximum load capacity 330 lbs. Always wear a helmet and eye protection.

ENTER AT THESE LOCATIONS
ANAHEIM COSTA
600 S. Brookhurst 594 W.
At Orange At Ana

ARCADIA 420 N. Santa Anita Ave. At Colorado Blvd.

AZUSA 324 S. Azusa Ave. South of 210 Frwy.

BALDWIN PARK 13766 Francisquito At San Bernardino Frwy

BUENA PARK 7926 Valley View At LaPalma

CAMARILLO 1316 Ventura Blvd. At the Carmen Offramp

CORONA 114 Serfas Club Dr. Off 91 Frwy. TIONS: COSTA MESA 594 W. 19th St. At Anaheim St. COVINA

1371 Grand Ave. At Arrow Hwy. DIAMOND BAR 21133 Golden Springs Rd. Pomona Frwy. & Brea Canyon Cutoff

FONTANA
9855 Sierra Ave.
Off San Bernardino Frwy.
GARDEN GROVE
9032 Trask Ave.
Garden Grove Frwy. &

Magnolia HACIENDA HEIGHTS 14620 E. Gale Pomona Frwy. & 7th St. HESPERIA 13704 Main Street

Off 15 Frwy.

LAGUNA NIGUEL 28782 Camino Capistrano At Avery Parkway

LA HABRA 2030 E. Lambert Rd. Corner of Palm

LAKEWOOD 5820 N. Bellflower At South Street

LA PUENTE 15259 E. Amar Rd. 1 blk. W. of Hacienda

LA VERNE 2098 Foothill Blvd. Corner of "D" St.

NORTH HOLLYWOOD 5864 Lankershim Btwn. Oxnard & Burbank

NORTHRIDGE 9858 Balboa Blvd. At Lassen NORWALK 14330 Pioneer Blvd. South of Rosecrans

ONTARIO 1891 E. "G" St. Vineyard at 10 Frwy.

ONTARIO 2235 Mountain Ave. Off Pomona Frwy.

PANORAMA CITY 13651 Roscoe Blvd. East of Woodman

PASADENA 2114 E. Foothill Blvd. West of Craig

PEDLEY 6634 Clay St. At Van Buren

PLACENTIA 825 W. Chapman At Placentia Blvd POMONA 1851 Indian Hill At San Bernardino Frwy.

POMONA 2505 S. Gary Ave. Next to Corona Expressway

RANCHO CUCAMONGA 8955 Foothill Blvd. At Vineyard

ROSEMEAD 4242 N. Rosemead Blvd. At Mission

SAN BERNARDINO 1944 S. Tippecanoe Off San Bernardino Frwy. SAN BERNARDINO

190 "H" Street
At 2nd Street & 215 Frwy.
SANTA ANA
815 North Bristol
North of Civic Center Dr.

SAN FERNANDO 11455 Laurel Canyon Blvd. Golden St. Frwy. & San Fernando Mission Rd.

TEMPLE CITY 10601 E. Lower Azusa Rd. Btwn. Santa Anita & Baldwin

TORRANCE 730 W. Carson Carson Offramp

TUJUNGA 6225 Foothill Blvd. At Lowell St.

WEST COVINA 15610 San Bernardino Rd At Orange WESTMINSTER

6292 Westminster Blvd. At Willow WOODLAND HILLS 19920 Ventura Blvd.

East of Winnetka

There are _____ sesame seeds on an In-N-Out Double-Double® bun.

Name (please print)

Address

City State

Zip Phone
Must be a licensed driver over 18 to win.
Decision of the judges is final.

Win your very own red Honda Elite™150

SPORTS

Beavers Beat Leopards In Final Minutes

-Broncos Next Victims

by Mike Lupica

In the waning minutes of the fourth quarter, the Caltech Battlin' Beavers football team scored the only touchdown of the game in a stunning defeat of the University of La Verne Leopards here last Monday. It was the first game of their inter-collegiate schedule which continues against the Cal-Poly Broncos here tommorrow.

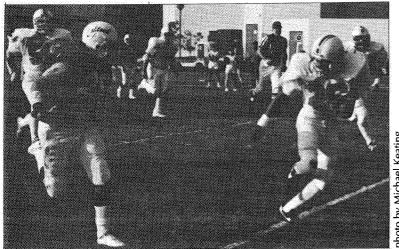
Coming off a big shut-out win on the road against the Rio Hondo Leadership Academy on 18 October, the Beavers went into the Monday afternoon game with confidence. When the Caltech offense ran into trouble in the early minutes of the first quarter against the tough LaVerne team, the emphasis of the game shifted to defense.

In this aspect of the game, the tenacious Beaver squad really ex-

cels. At one point in the second quarter, the Beavers stuffed a Leopard drive inside their own ten yard line with a fumble recovery to keep the game scoreless.

As always, the team counted on their veteran defensive ends Daren Casey and Steve Roskowski, and their confident secondary including Don "Dr. Doom" Thomas (SS) and Larry Meeks (DB) to keep the talented LaVerne quaterback scoreless. Though standing some six-and-a-half feet tall, the enemy QB suffered in the face of this defensive onslaught, which included the awesome sack debut of defensive tackle Bill "Bonecrusher" Blye.

"If they don't score, they can't win!", was the motto as the battered Beavers headed for the locker room at half-time locked in a



The Beavers' full back zips the football up field for a 17-yard gain in the second quarter against La Verne.



Caltech tailback Vince Riley rounds the corner to head uptield against the La Verne Leos in Monday afternoon's match. The Beavers defeated La Verne in the final minutes of the game by a score of 7-0. Riley will return to action Saturday.

scoreless tie. But they would have to score themselves if they were to extend their string of victories to seventeen.

To the capacity crowd of 74 fans, the third and fourth quaters looked much like the first half. With just two minutes remaining on the clock, the Beavers most ambitious drive of the day stalled on the 40 yard line.

All eyes were on Dave Brinza (DT/OT/K) as the Beavers attempted a 47 yard field goal in what appeared to be their last chance to gain a victory. The attempt fell short and the Leopards recovered. They began carefully, attempting to move the ball up field against the enraged defense.

It is the very lesson of the game of football, distilled to its most

elemental form, that one must never say die. When the tackling dummies are behind you with the wind-sprints yet to come, when your face-mask fills with sod under the weight of your opponent, when you've fought it out in the trenches for nearly an hour only to have sweet victory snatched from your grasp, you must never give up.

With 1:46 to go in the game, in the true spirit of the gridiron hero, Caltech Defensive Back James Storms pulled down an enemy pass for an interception of destiny. The Caltech offense would not be denied this time, and three plays later tailback Vince Riley plunged in for the only touchdown of the game.

With this victory, the Caltech Football Team's record stands at

4-0. With nearly half their season over, the Beavers face their toughest opponent of the year tommorow when the Cal-Poly Broncos come to Caltech for a 1:00 pm kickoff. This game is always the most challenging of the season, both emotionally and physically.

The Bronco team is drawn from an enormous pool of Cal-Poly students, and looks for the opportunity to dominate their smaller opponents. With just four days of rest and practice since their Monday game, the Caltech team must stay up for the challenge. The attendence of the Caltech community would be greatly appreciated as the Beavers attempt to maintain their reputation for excellence in both atheletics and academics.

Runners Set Personal Bests

by Speed Demon

Last Saturday the men and women harriers of Caltech traveled to Pomona-Pitzer's campus to take on the Claremont-Mudd-Scripps Stags and Pomona-Pitzer's Sage Hens. It sort of makes you feel naked without a hyphen in your name, but we persevered despite a few goose bumps on our bods.

Seriously now, both men's and women's teams have been making tremendous progress of late. Earlier in the season we could have mailed in the scores against these two teams and saved ourselves the effort of competing. But a funny thing happened on the way to the upcoming Conference Championships as our teams became increasingly competitive with each passing week.

The men's race went off first, and the Orange Crush hung back while Pomona and Claremont killed each other off. Whose idea was that anyway?

As the race progressed, Caltech began to take charge during the

second half of this five-miler. According to the latest statistics compiled by Coach Jim O'Brien, 20 of our 23 men ran their best times of the season. He was quick to note that he fully expected this result, since Pomona's course is the flattest we encounter all season.

The Times

Despite losing to both teams, we managed to slip three runners into both Pomona's and Claremont's top seven. With John Gehring leading the charge (as usual) in 27:12, and Alex Athanasopoulos and Mike Jensen streaking in with times of 28:52 and 28:53 respectively, we had the competition shaking in their Nikes (Converses?).

Also turning in good perfor-

mances for the Beavers were John Beck (30:05), Ray Hu (30:19), Darin Acosta (30:46) and Jeff Willis (30:48). Chuck Lee was given the day off to rest his aching shins and start getting psyched for the conference.

The Women

Our women's team nearly pulled off the upset of the season in losing to Pomona-Pitzer 28-27. So close! While Claremont totally dominated the race, we were slugging it out with Pomona.

Clea Bures was running only her second race of the season and through some type of Houdini training she's maintained a highly competitive fitness level. Finishing seventh overall with a time of 22:30, she came in behind Pomona's first runner.

After Pomona-Pitzer's second and third competitors were in, a

swarm of Caltech Beaverettes charged to the finish line. How many are in a swarm, you ask? Four, this time. Vicki Lane (24:00), Christina Garden (25:03), Margi Pollack (25:10) and Bibi Jentoft-Nilsen (25:12) each ran her best time of the season in a fantastic team effort. Jarita, we missed you!

Carmen Shepard (26:45), Ami Choksi (28:30), Dee Morrison (28:40) and Miriam Yee (31:47) all raced very effectively, as well as our top five runners.

This was a breakthrough race for our women's team, as seven of our nine runners raced to their best times of the season. It was at this particular race that the team realized they could be competitive if only they could be prepared mentally and then go after success. Let's hope they can carry this feeling through to the SCIAC championships this weekend!

WEEKLY SPORTS CALENDAR

WEEKEI SI OKIS CALEINDAKK					/ % # %
Day	Date	Time	Sport	Opponent	Location
Fri.	10-31	2:30 pm	Soccer	Pomona-Pitzer	Pomona-Pitzer
Fri.	10-31	5:00 pm	Women's Volleyball	Whittier JV	Whittier
Sat.	11-1	9:30 am	Cross Country	SCIAC Championship	La Mirada Park
Sat.	11-1	10:00 am	Water Polo	Whittier	Whittier
Sat.	11-1	11:00 am	Soccer	The Masters College	The Masters College
Sat.	11-1	1:00 pm	Fencing	Cal State Long Beach	Occidental
Sat.	11-1	1:30 pm	Football	Orange County Cowboys	Caltech
Sat.	11-1	2:00 pm	Women's Volleyball	Clare-Mudd-Scripps JV	Caltech
od Wed.	11-5	2:30 pm	Soccer	Whittier	Caltech
⊸ Wed.	11-5	4:00 pm	Water Polo	Redlands	Caltech
Wed.	11-5	9:45 pm	Hockey	Cal State Northridge	Pasadena Ice Rink
	11.6	7.20	14/	Chairt Callana	Chain Callera
合 Thu.	11-6	7:30 pm	Women's Volleyball	Christ College	Christ College
og Sat.	11-8	10:00 am	Water Polo	SCIAC Western Division	Caltech
ີ Sat.	11-8	11:00 am	Soccer	Christ College	Christ College
Sat.	11-8	1:00 pm	Fencing	San Diego State	UCLA
Sat.	11-8	1:30 pm	Football	San Fernando Valley Lancers	Antelope Valley Col.



Clea Bures returned to action last week for the Caltech Beavers cross country team. Bures, recovering from a fracture, had been out of action for three weeks prior to the meet at Pomona.

FINALLY A FREE FLIGHT PLAN JUST FOR STUDENTS. YOU WON'T GET A BREAK LIKE THIS ONCE YOU'RE OUT IN THE REAL WORLD.

INTRODUCING COLLEGIATE FLIGHTBANK, FROM CONTINENTAL AND NEW YORK AIR.

If you're a full-time student at an accredited college or university you can join our Collegiate FlightBank.™ You'll receive a membership card and number that will allow you to get 10% off Continental and New York Air's already low fares. In addition, you'll get a one-time certificate good for \$25 off any domestic roundtrip flight. Plus, you'll be able to earn trips to places like Florida, Denver, Los Angeles, even London and the South Pacific. Because every time you fly you'll earn mileage towards a free trip. And if you sign up now you'll also receive 3 free issues of BusinessWeek Careers magazine.



This Porsche 924 can be yours if you are the national referral champion.

SIGN UP YOUR FRIENDS AND EARN A PORSCHE.

But what's more, for the 10 students on every campus who enroll the most active student flyers from their college there are some great rewards: 1 free trip wherever Continental or New York Air flies in the mainland U.S., Mexico or Canada.

Or the grand prize, for the number one student referral champion in the nation: a Porsche and one year of unlimited coach air travel.

And how do you get to be the referral champion? Just sign up as many friends as possible, and make sure your membership number is on their application. In order to be eligible for any prize you and your referrals must sign up before 12/31/86 and each referral must fly 3 segments on Continental or New York Air before 6/15/87. And you'll not only get credit for the enrollment, you'll also get 500 bonus miles.

So cut the coupon, and send it in now. Be sure to include your current full time student ID number. That way it'll only cost you \$10 for one year (\$15 after 12/31/86) and \$40 for four years (\$60 after 12/31/86). Your membership kit, including referral forms, will arrive in 3 to 4 weeks. If you have a credit card, you can call us at 1-800-255-4321 and enroll even faster.

Now more than ever it pays to stay in school.

	Date of Birth	
College	Address	
	Zip	
Permanent Address	Zip	
Full time student ID#	Year of Graduation	
	Enclosed PLEASE DON'T SEND CASH Visa □ MasterCard □ Diner's Club	
Account Number	Expiration Date	
Signature X	Lord Address and A	
	JNDER THE AGE OF 18: The undersigned is the paren	
Collegiate FlightBank program.	amed hereon, and I consent to his/her participation in the	
Collegiate FlightBank program.	ank	



WHAT GOES ON

Announcements for What Goes On must be submitted on an announcement form (available outside 107 Winnett) or on a plain piece of paper. Please indicate the date(s) you want the announcement to run. Send announcements to 107-51, or put them in the mail slot in the door of 107 Winnett.

Announcements must be received by the Tuesday prior to publication.

Coffeehouse Closed

The Caltech Coffeehouse will be closed Friday night (tonight), so that the managers and waiters can go out and party. Happy Halloween!

QUE At Noon Concert

Whew...the week is finally over-almost-and all the spooks and goblins, not to mention witches and warlocks, are planning to create yet another memorable All Hallows' Eve. But why wait 'til tonight? Wisen up! Come to the Y's Noon Concert - today on the quad. Who's playing, some naively ask, as if the name really mattered. As if a quality ensemble were not always selected for performance! Well today it does matter. Today at noon we hear yet another awesome group, the QUE, line up and blow us away with their new, upbeat vibes. So dare to bring your lunch and listen to a great Y sound production! NOW!

LSI Logic Pizza Party

...in Winnett Lounge, Thursday, 6 November, from 7:30 to 9:00pm. There will be a slide presentation. Students and faculty of CS and EE are invited to join us.

CLASSIFIED

REAL ESTATE-

FIRST TIME BUYERS, STUDENTS, INVESTORS Spacious, bright, very private 1 BR condominium, beautifully decorated in TODAY'S colors. \$74,500. Also available, spacious studio with large balcony allowing indoor-outdoor living Beautiful muted beige decor. \$51,900 Both conveniently near South Lake Ave., shops, Caltech, and freeways. Favorable, easy financing available. The William Wilson Company. Rob Weise. (818) 794-7114. Residence (818) 797-0060. 1340 East Altadena Drive, Altadena, California 91001.

FOR SALE BY OWNER 2112 San Pasqual 3 Bedrooms 21/2 baths, dining room w/french doors, breakfast room, roomy laundry room, attached garage w/opener, circular drive, outdoor dining patio, security system. (818) 796-1069 (213) 377-3427.

SERVICES -

INSURANCE WAR! We'll beat anyone's prices or don't want your business. Sports cars, multiple tickets, good-driver discounts. Request "Caltech Plan." (818) 992-6966 or (213) 873-3303.

GENERAL -

ELECT ED ZSCHAU! Reelect Gov. Deukmejian! Republican volunteers needed to get out the vote. Saturday Nov. 1 through Tuesday Nov. 4 from 10 AM to 9 PM at 120 S. Lake Ave., Pasadena. Tel- (818)

LOST & FOUND-

LOST: Men's Rolex watch; reward. Call Tylis at 356-9387

FOUND: Oingo Boingo concert T-shirt. Contact Eric Hassenzahl, rm. 15 Blacker

CALTECH BOOKSTORE-

1987 DECORATIVE CALENDARS ARE NOW HERE. Shop now for the best selection. Sierra Club, Shuttle, Einstein, Teddy Bear, over 50 other beautiful full color calendars

RATES.....\$2.50 for first 25 words;10¢ for each additional word. Send written ad with payment to 107-51. No charge for on-campus lost & found

Noon Update Wednesday

As the week wears on, I'll look forward to breaking the monotony of boredom with a Wednesday noon update. This week (that's 5 November) Professor Pierre Harvey thrills us all with new, shattering breakthroughs by inspired Caltech faculty and their colleagues in the realm of Micro Raman Spectroscopy.

Mildly curions? Fascinated? Or even thrilled to the utmost?? You (yes, I mean you) are most cordially invited to attend this one of many Wednesday Noon Updates, sponsored by the Y and held in Winnett Clubroom 1 at - yes, you guessed it-12:00 noon. See ya there-if you dare...

Y Spaghetti Night

For a limited time only, you can elude tonight's Board Attack of fried chicken and BBQ beef ribs, and flake off on Thursday's work-simultaneously! Yes, that's right. You too can experience the ultimate in today's entertainment at the Y's Wednesday Spaghetti Western Night. This special Event blends the best Spaghetti Westerns with a gargantuan Spaghetti Feed. And what's more, it's all free! So just come on down to Winnett Student Center and enjoy.

What's a "spaghetti Western," some (foolishly) insist on asking. If you just can't stand the vacuum of ignorance, ask the person standing next to you. They'll undoubtedly know!

CCF/Y Squaredance CCF and the Y are cosponsoring a Square Dance tomorrow, Saturday, 1 November. The festivities begin at 8:00pm and last until 10:30. Beginners should come and learn all the right moves. Refreshments will be provided, so grab your partner or come find a partner tomorrow at Dabney Hall. See ya all there!

Sam Custom Tailor

49 NORTH ALTADENA DRIVE PASADENA (818) 793-2582

> **ALTERATIONS** RESTYLING TAILORING INVISIBLE REWEAVING

Special rates for Caltech/JPL community

College Fiction Contest

Playboy magazine is now accepting entries to its annual College Fiction Contest, open to all registered college undergraduate and graduate students. The writing competition offers a cash prize of \$3,000 and publication of the winning short story in the October, 1987 issue of *Playboy* magazine.

Entry deadline is January 1, 1987, and full rules are available in the October issue of Playboy, and may also have been sent to the Humanities office (there is some doubt at this writing).

IBM Information Day

... Wednesday, 12 November, from 11:00am to 5:00pm in Winnett Lounge. Representatives will discuss plans concerning employment opportunities. Students majoring in EE, CS, ME, Chem. Eng., or Physics are invited to join us. Please being three copies of your resume/transcript if you are interested in summer and full-time employment.

Huntington Poetry Reading Poet Laurence Lieberman will

read his own work at the Huntington Library, Thursday, 20 November, at 2:00pm.

Lieberman is a Professor of English at the University of Illinois and Poetry Editor at the University of Illinois Press. His book The Mural of Wakeful Sleep won this years NEA creative writing fellowship. His recent poems have appeared in American Poetry Review, Sewanee, Hudson, Kenvon, Partisan Review, The Nation, and *The New Yorker*. The reading will be in the Overseers Room of the Enterance Pavilion. Latecomers will not be admitted.

Road Hockey

The Caltech Canadian Club is starting its 1986-87 road hockey season. We play on Saturday mornings at 9AM in the parking lot north of Watson. If you would like to play, come on out! We have spare sticks. Non-Canadians welcome too. For more info, call Malcolm Butler, x4666.

ACADEMY BARBER SHOP

27 No. Catalina, Pasadena Open Tues.-Sat., 8 A.M.-5 P.M. 449-1681

GOLDEN

PARIAN TRAVEL

Caltech Officially Approved

Most courteous, economical and efficient service for your official and personal travel needs. Free service to you.

For an introductory offer a complimentary \$50.00 worth of fine dining checks will be offered with the purchase of min. \$100.00 travel tickets (one per family).

(818) 577-8200

468 S. Sierra Madre Boulevard, Pasadena

THE HAIR CUTTERS

HIS AND HERS OPEN EVENINGS



449-6967 449-1022

\$3.00 discount for Caltech students with this ad

1009 E. COLORADO • PASADENA

PARKING IN REAR

Want to Play a Round?

This is your chance to win a free trip to St. Louis! On 18 November, at 7:00pm in Winnett Lounge the Caltech Bridge Club will hold a tournament to select two pairs to send to St. Louis. This tournament, and the St. Louis competition, are part of a nationwide Intercollegiate Bridge Competition.

So, if you play bridge, set aside 18 November to play a round! Watch next week's Tech for more information, or call Jeffrey Pugh (x4544, 793-0814).

Intel Presentation

Representatives from Intel Corporation will give a presentation this Monday, 3 November, from 7:00 to 9:00pm in the Salvatori Room, 365 S. Mudd. Intel is a leading developer and manufacturer of microelectronic components and systems. They will be reviewing their technology and philosophy along with challenging career opportunities in Engineering. Refreshments will be served after the presentation.

SF & Fantasy Art Show

The 12th Annual Science Fiction and Fantasy Art Show and Competition will be held 6-9 November at the City Shopping Center, West Orange, beginning at noon. The fine arts exhibit is sponsored by the West Coast Comics Club (WCCC). A highlight of the event will be the awards night, scheduled Saturday, 8 Nov., at 5PM. Forrest J. Ackerman, author, agent, editor and science fiction collector, will be presenting the awards in the amateurs, masters, professional and sequential art categories. Ackerman will also present the Forrest J. Ackerman Award to the best amateur artist.

Judges for the event include nationally known astronomical artist Don Dixon; Rick Sternbach, SF illustrator, Hugo winner and designer of Disney's "Black Hole"; and Rick Hoberg, animation director at Marvel Productions. Hoberg is creator of Eternity Smith and has handled artwork for Batman and All Star Squadron.

The exhibit is open to the public. For further information about entries, please call (714) 639-0089.

Indian Movies Saturdays

Video movies from countries in the Indian Subcontinent will be shown in the Y Lounge (second floor of Winnett Center) every other Saturday starting November 8, 1986. The movies will start at 8:00pm. Some movies may have English subtitles. The movies are open to everyone and are free. Questions to Deven Kalra, x6790.

Ath Halloween Party!

Come and join the fun at the Athenaeum Rathskeller's Third Annual Halloween Party. Costumes are a must since all costumes are eligible to win prizes and free treats. There will be Dracula Punch, special beer prices from 9-11pm, Tostada and Pasta bar from 6-9pm, and lots of music and dancing!!! Come join the fun.

Members and guests only please. [No undergrad riff-raff

\$120,000!

For all you aspiring investment bankers out there, now's your chance to get some hands-on experience in buying and selling stocks by joining the Caltech Student Investment Fund (SIF). The SIF is a portfolio of stocks, bonds and cash presently worth about \$120,000 which is managed by Caltech (undergrad and grad) students. Investment policies and decisions are completely under the control of the student board, which meets on a weekly basis to discuss current investments and long-range strategies. The only prerequisite for participation in the SIF is interest: anyone wanting to learn more should contact Wesley Boudville, Chairman (x4873) or Alex Becker, Vice-Chairman (449-2565).

Straighten Those Knees!

Walkers Club of Los Angeles holds a Racewalking Clinic at the Caltech Track every Thursday evening at 6 pm. Walkers at all levels are welcome. Racewalking is good aerobic exercise that is not hard on your joints, it's fun, and it doesn't look funny.

And for those who really want to spectate (or better yet, to participate), the Rockport Grand Walk, featuring the American, Mexican and Canadian racewalking teams, will take place tomorrow, Saturday, November 1 at the Rose Bowl. Lest you should be intimidated, the Grand Walk also includes a 5K "All Comers" race and a 5K Fitness Walk.

If you want to compete, want to learn how to walk all over again, or are merely curious, come out some Thursday or call (818) 577-2264 for more information, or contact Kate Hutton at 252-21 (x6959).

Folk Volunteers?

The Caltech Folk Music Society is looking for volunteers to help set up for concerts, move chairs, transport equipment, etc. In return for your help, you will get free admission to our concerts. If interested, call Rex Mayreis at 793-8775 or write to the Folk

continued on page 8

CALTECH

PASADENA, CA 91125

The California Tech is published weekly except during examination and vacation periods by Associated Students of the California Institute of Technology, Inc.