

Caltech's Wind Ensemble, directed by Bill Bing, in Friday's Noon Concert

Eleven Alumni Among Top 100

Eleven Caltech alumni are among the 100 brightest young scientists chosen by *Science Digest* in its December issue.

Six of the eleven chosen received their Ph.D.'s in physics. Of them, Steven Beckwith ('78) is now working at Cornell on protostars (young stars) and the matter surrounding them. France Cordora ('79), a project scientist at Los Alamos, is studying the most glamorous of space anomalies, white dwarves and black holes.

William Press ('73), an astrophysicist at Harvard, is postulating on theories to explain the birth of galaxies. Working at Sandia National Labs, Gordon Osbourn ('79) is involved in developing new semiconductor substrates. Douglas Osheroff ('76) does low-temperature and solid state research for Bell labs.

Receiving his doctorate at age 20, Stephan Wolfram ('80) studies the mathematical nature of complex patterns which occur in nature. He works at the Institute for Advanced Study.

Thomas Weaver ('71), the

only undergraduate alumnus, played a key role in the development of the nuclear-powered x-ray laser at Lawrence Livermore Labs.

Richard Muller (MS '57, PhD '62), who graduated in electrical engineering, is now researching the possible existence of a companion star to the sun. Sharon Long (BS '73 ISP) is currently a molecular biologist at Stanford and researches the secrets of plant genetics for agricultural purposes.

Two Ph.D.'s in chemistry were also selected. Bill Wadt ('75) works on refining methods for plutonium isotopes to be used on warhead production at Los Alamos. Mark Wrighton searches for solutions to our energy crisis by finding fossil fuel substitutes. He is a member of the faculty of the Massachusetts Institute of Technology.

The 100 scientists were selected by a panel of 60 "nominating senior scientists," one of which, Seymour Benzer, is on the Caltech faculty.

Dabney Flames

by Joe Beckenbach

Dabney House was jolted away from study and sleep last Friday morning around one o'clock by cries of 'fire' and the now well-recognized fire alarm klaxon.

The fire apparently began when a desktop candle in a Dabney room burned down completely, setting alight papers on the desk. The two occupants of the room awoke to the smell of smoke.

Dan Harrison, a sophomore in Dabney, heard the alarm

and cry of 'fire' from his seat in the house lounge. He took off for his room, grabbed a fire extinguisher, and seeing the person who had come into the courtyard calling out 'fire', ran immediately to the afflicted room. Two other upperclassmen were close on his heels with extinguishers from their own alleys. Those extinguishers were not needed; Harrison put out the fire, keeping it from spreading off the desktop. When a security officer and two firefighters arriv-

ed scant minutes later, the fire had already been snuffed out, and the room and adjoining hallways were being aired out.

The occupants of the room escaped uninjured. The desktop was burned in one place; a wooden shelf unit on the desk was charred; the contents on top of both were burned. One shelf supported by metal brackets had given way, dumping the books it contained onto the desktop and floor, damaging some. The fire scorched the wall behind the desk and caused smoke damage to little of the room's contents, mainly on shelving about the desk.

Book Of Feynman Anecdotes Is Published

Book Review

by Lily Wu

"Surely You're Joking, Mr. Feynman!" by Richard P. Feynman, as told to Ralph Leighton, edited by Edward Hutchings. W. W. Norton & Company, \$16.95.

Unfortunately, I received a copy of "Surely You're Joking, Mr. Feynman!" to read three weeks before finals. I had lots of assignments to catch up on. I knew I couldn't afford the time to read an entire book, so I figured I could probably write a decent review and select a chapter for printing by reading only 2 or 3 main chapters. Once I started, though, there was no turning back. After every chapter of comeuppance, I had to read another one, until the entire book was read.

Professor Feynman has compiled a most entertaining set of personal experiences starting from his childhood in Far Rockaway, through MIT, Princeton, Los Alamos, Cornell, and finally, on to Caltech. The book provides insight into the development of modern science and also the development of society amid this technology. In the center of the stage with the science backdrop is the story of one person's pursuit of truth and knowledge in this crazy world, while always maintaining a sense of integrity and humor.

On the face of it, it would seem unlikely that all those

An excerpt from the chapter "An Offer You Must Refuse"

Cornell had all kinds of departments that I didn't have much interest in. (That doesn't mean there was anything wrong with them; it's just that I didn't happen to have much interest in them.) There was domestic science, philosophy (the guys from this department were particularly inane), and there were the cultural things—music and so on. There were quite a few people I did enjoy talking to, of course. In the math department there was Professor Kac and Professor Feller; in chemistry, Professor Calvin; and a great guy in the zoology department, Dr. Griffin, who found out that bats navigate by making echoes. But it was hard to find enough of these guys to talk to, and there was all this other stuff which I thought was low-level baloney. And Ithaca was a small town.

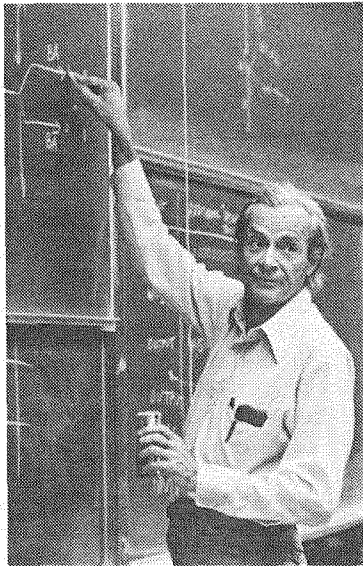
The weather wasn't really very good. One day I was driving in the car, and there came one of those quick snow flurries that you don't expect, so you're not ready for it, and you figure, "Oh, it isn't going to amount to much; I'll keep on going."

But then the snow gets deep enough that the car begins to skid a little bit, so you have to put the chains on. You get out of the car, put the chains out on the snow, and it's cold, and you're beginning to shiver. Then you roll the car back onto the chains, and you have

this problem—or we had it in those days; I don't know what there is now—that there's a hook on the inside that you have to hook first. And because the chains have to go on pretty tight, it's hard to get the hook to hook. Then you have to push this clamp down with your fingers, which by this time are nearly frozen. And because you're on the outside of the tire, and the hook is on the inside, and your hands are cold, it's very difficult to control. It keeps slipping, and it's cold, and the snow's coming down, and you're trying to push this clamp, and your hand's hurting, and the damn thing's not going down—well, I remember that *that* was the *moment* when I decided that *this is insane*; there must be a part of the world that doesn't have this problem.

I remembered the couple of times I had visited Caltech, at the invitation of Professor Bacher, who had previously been at Cornell. He was very smart when I visited. He knew me inside out, so he said, "Feynman, I have this extra car, which I'm gonna lend you. Now here's how you go to Hollywood and the Sunset Strip. Enjoy yourself."

So I drove his car every night down to the Sunset Strip—to the nightclubs and the bars and the action. It was the kind of stuff I liked from Las Vegas—pretty girls, big operators, and so on. So



Professor Feynman

Bacher knew how to get me interested in Caltech.

You know the story about the donkey who is standing exactly in the middle of two piles of hay, and doesn't go to either one, because it's balanced? Well, that's nothing. Cornell and Caltech started making me offers, and as soon as I would move, figuring that Caltech was really better, they would up their offer at Cornell; and when I thought I'd stay at Cornell, they'd up something at Caltech. So you can imagine this donkey between the two piles of hay, with the extra complication that as soon as he moves toward one, the other one gets higher. That makes it very difficult!

The argument that finally

convinced me was my sabbatical leave. I wanted to go to Brazil again, this time for ten months, and I had just earned my sabbatical leave from Cornell. I didn't want to lose that, so now I had invented a reason to come to a decision, I wrote Bacher and told him what I had decided.

Caltech wrote back: "We'll hire you immediately, and we'll give you your first year as a sabbatical year." That's the way they were acting; no matter what I decided to do, they'd screw it up. So my first year at Caltech was really spent in Brazil. I came to Caltech to teach on my second year. That's how it happened.

Now that I have been at Caltech since 1951, I've been very happy here. It's *exactly* the thing for a one-sided guy like me. There are all these people who are close to the top, who are very interested in what they are doing, and who I can talk to. So I've been very comfortable.

But one day, when I hadn't been at Caltech very long, we had a bad attack of smog. It was worse than that it is now—at least your eyes smarted much more. I was standing on a corner, and my eyes were watering, and I thought to myself, "This is crazy! This is absolutely INSANE! It was all right back at Cornell. I'm getting out of here."

continued on page 3

the gadfly

An examination of student life at Caltech

A Matter of Time

by Lily Wu

Among the score of columns that I have written under the banner of "An examination of student life at Caltech," the one topic which has persistently been suggested to me, and equally persistently rejected by me is the women's issue. The superficial reason has been that it is often seen as not very credible when a woman writes about women's issues. That may seem like a strange idea, but somehow, I have always gotten the impression that society identifies articles on the topic written by men as being more rational and reasonable. Therefore, the possibility, and likely the probability, that I would be writing to a pre-biased audience dissuaded me.

The second and more valid reason has been the nature of my opinion on the issue. Most people who know me would assume that I would be a very enthusiastic proponent of women's rights and women's lib and the whole feminist movement. They are correct to the extent that I am ardently in support of equal rights and since women typically suffer from the short end of unequal imbalances, I am therefore, by implication, ardently in support of women's equality movements. However, what complicates my views are the often blatant examples of reverse discrimination which are currently used to correct old discrimination problems. The cases of attempts to assert women's rights at the expense of men's rights happens most often in technology. My dilemma is therefore, that while I approve of equality movements, I disapprove of the methods that are used. It is difficult to object to current efforts while still expressing a hope that efforts will be made.

Before going any further, let me first define what the "issue" is. In most challenging fields of study (not secretarial or factory related), women have had to deal with hiring discriminations in both industry and academia. Some areas were extreme enough that they did not hire women at all, and if they did, the women were often faced with unfavorable work conditions, such as lower pay for comparable duties, non-promotions, discriminatory attitudes from co-workers, and even harrassment. The result of decades of this discrimination has been that the percentage of female employees is especially low in professional positions.

Caltech, unfortunately, was in the category of not hiring women at all for anything more than secretaries. No female students were accepted or even considered and the thought of a female faculty member was laughable 25 years ago. Things have gotten better though. Caltech has begun to recodnize the inequity of the situation and is making active efforts to correct it in all the academic levels. (A cynic would probably point out here that Caltech recognizes it solely because of peer pressure - most other major colleges have far better female-male ratios from student level on up - and government pressure which is exerted heavily by affirmative action laws.)

In some ways, the situation has improved in a funny way. The undergraduate women's admissions policies have always unsettled me. The concept of the pre-frosh women's weekend is a clear case of reverse discrimination. In the name of equal rights and opportunities, there can be no justification for offering to pay one-way visiting expenses for female and not male acceptees. I have also always suspected that a female applicant is given some advantage over her equivalent male applicant in the Institute's desperation to make the ratio more presentable. That is a suspicion, though, that all Institute officials would have to hotly deny regardless of the truth of the matter.

Edges like those exist for females in industry too. Many engineering companies are very eager to make their ratios more presentable as well. I have often felt that I had a hiring edge over my equally well-trained male peers, and even some who are a bit better trained because I am female. Some of the larger com-

continued on page 4

letters

Futher BOC Issue Arise

To the Editor:

This letter is in response to that of B. Tiemann in your issue of 11-30-84. As the BOC representative of Ricketts House at that time I was aware of the alleged violation that he refers to and was present when the then Chairman of the BOC, E. Sutton, was informed of it. I am of the opinion that the case should have been brought before a quorum of the BOC so that a fair decision could have been made in the light of the accrued evidence. That was never to transpire and I was later to learn that Sutton had decided to drop the case without consulting the entire BOC. While I am not at liberty to divulge any details, I feel that Sutton's investigation left much to be desired.

There is the argument that the Chairman cannot be expected to bring each and every putative violation that is brought to him/her to the attention of the BOC. This, however, is conducive to a miscarriage of justice as exemplified by the case in question. The argument against the reopening of this case does not hold water. Article VII, Sec. 3(f) of the ASCIT by-laws ("No decision of a previous Board shall be revoked unless the Board is convinced that new evidence or changed conditions change the status of the original case or upon recommendation of the Deans.") cannot be invoked in its defence as the decision to drop the case was made *not* by the Board (which would have required a three-fourths majority of a quorum of the Board, according to Art. VII, Sec. 3(a)) but

rather by a single individual, viz. the Chairman. The rest of the Board cannot be held culpable for the actions (or lack thereof) of a single member.

The issue brought up by Tiemann is but symptomatic of a deeper malaise, viz. the pathetic vagueness in which the ASCIT by-laws decreeing the actions of the BOC are couched. This problem is further compounded by the secrecy under which the BOC conducts most of its proceedings. One also suspects that at least some of the current procedures of the BOC are the result of spontaneous generation, with the undergraduate student body at large neither consulted on nor informed of subtle but cumulative changes. To illustrate, the BOC recently decided that the consensus of the Chairman, the Secretary and one other member (usually the House Rep. of the accused) would be needed to drop a case after preliminary investigations; whereas previously, that of the former two was sufficient.

The time is ripe for an in-depth study of these by-laws and the possible incorporation of extant BOC procedures into them. Amendments to these by-laws can then be made as and when the circumstances deem it necessary and with the prior approval of the undergraduate community. These suggestions are motivated not by a lack of trust in the BOC, but rather by the thought that members of the BOC need to be guided by more than their instincts in the *laissez-faire* they now possess. Good intentions alone will not suffice. If anything, improvements to the BOC by-laws are facilitated when one has a clearer understanding of

what one is trying to change. Another advantage of this effort is that undergraduates will be more cognizant of the judicial processes that govern their lives here at Caltech. As Kafka wrote, "the Law... should be accessible to every man and at all times."

-Lawrence Anthony

A Defense

To the Editor:

In Mr. Tiemann's letter (11/30) there is one major error which should be corrected. He implied that Eliza Sutton (former BOC Chairman) did nothing about the case that he reported to her. In fact she and the BOC Secretary conducted an investigation and then the case was dropped. After I became the BOC Chairman, Mr. Tiemann reported the same case. Since Mr. Tiemann reported no new evidence, I did not feel justified in reopening the case. The ASCIT by-laws actually prohibit such an action. Article VII Section 3(f) states "No decision of a previous Board shall be revoked unless the Board is convinced that new evidence or changed conditions change the status of the original case or upon recommendation of the Deans." -Fred A. Ferrante
BOC Chairman

THE CALIFORNIA TECH

Volume 86 Number 11
Friday, DECEMBER 6, 1984

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. Included with all contributions should be the author's name and phone number and the intended date of publication. The editors reserve the right to abridge letters, so please keep them concise.

Turn in copy to the Tech office mailbox, room 107 Winnett. The deadline for copy is Wednesday evening at dinner time (Tuesday evening for announcements). Late copy may not be printed unless previous arrangements have been made with the editors.

Editor in Chief Chris Meisl
Entertainment Editor ... Matt Rowe
Columns/Features Editor .. Lily Wu
Sports Editor Santosh Krishnan
Announcements Editor John Beahan
Photo Editor Min Su Yun
Reporters Mike Chwe, Behzad Sadeghi, Lily Wu, John Beahan, Julian West, Irene Replogle.
Photographers Ron Gidseg, Lawrence Anthony
The Inside World Bob Bolender (Ricketts), Jim Bell (Blacker), Joel Seeley (Dabney), Ravi Subramanian (Lloyd), Chris Mihos (Rud-dock), Warren Goda (Page), Ed Zanelli (Fleming)
Production John Beahan, Nick Smith, Lily Wu.

Business Manager ... Karla Peterson
Circulation Gavin Claypool
Paul Gillespie

The offices of the California Tech are located in Winnett Center on the Caltech campus.
Editor: Room 107 356-6154
Business Manager: Room 107 356-6154
Production: Room 115 356-6153
The California Tech, 107-51
Caltech, Pasadena, CA 91125
Printed by News-Type Service, Glendale, California.
Subscriptions should be directed to the attention of the circulation manager.
\$6.00 per year (three terms)
\$100.00 per life ISSN 0008-1382

The Caltech Y Fly-by

Friday... December 7

Michael Jackson: The Y has (had?) tickets for the Jacksons' concert tonight. Transportation leaves at 5 p.m.; there may still be some left.

Sign up for Philharmonic trips today (why wait?)

Sign up for the Ski Trip: see below.

L.A. Actors Theater: The Y has tickets for the matinees on December 8 and 15; sign up today.

Saturday... December 8 and

Sunday... December 9

DECOMPRESSION: Winnett Lounge, 8 p.m. to midnight. Food, fun, films, etc. Special thanks to the Caltech Service League.

Wednesday... December 12

Philharmonic trip: The program consists of works by Tchaikovsky, Stravinsky, and Beethoven.

Sunday... December 16 through

Saturday... December 22

Ski Trip: Sign up early! \$90 includes housing, food, and transportation (but not lift tickets) for five days of skiing.

Friday... December 21

Philharmonic trip: An all-Mahler concert.

Watch for a Stranded Students Holiday Party banner.

For more information, contact the Caltech Y at 356-6163, or just drop by.

THE ASCIT MOVIE

TONIGHT at 7:30 and 10:00

The Pink Panther Strikes Again

In Baxter Lecture Hall

50¢ ASCIT members

\$1 all others

letters

"Surely You're Joking..." Is True

Column Is Scoreless

To the Editor:

When the article "Score with Santosh" first came out, we thought it was a pretty good idea—a handicapper for each week's NFL games that would be fun to read. However, as the column goes on, it becomes clear that the author has absolutely no concept of intelligent sportswriting. It seems that Krishnan has some sort of personal prejudice towards the Seattle Seahawks and any other team that would challenge the L.A. Raiders for the AFC Championship. His comments show a poor understanding of the NFL. He accuses Seattle and Miami of poor sportsmanship when in actuality they are two of the finest-coached teams in the entire league. In last week's column, Krishnan writes of Seattle "This rough-hewn and dishonest team, as well as their fans, should be exterminated." It appears that Krishnan is using his column as some sort of vehicle to express his biases in a very unprofessional and petty manner.

A good handicapping column is a pleasure to read, and even a poor column is at least entertaining, but this column just shows the author's unfounded and incorrect prejudices. His record is only a poor 40-43, which shows that his picks are mediocre at best. (Isn't it funny that he manages an 11-3 record on the week that he doesn't publish his picks?)

The column was a good idea but unfortunately the author lacks the professionalism to handicap professional football (or probably any sport for that matter). It's getting a little tiring reading this trash each week.

—Chris Mihos,
Mark Lewis, Jim Helgren,
Brian Tsai, [23 others]

from page 1

So I called up Cornell, and asked them if they thought it was possible for me to come back. They said, "Sure! We'll set it up and call you back tomorrow."

The next day, I had the greatest luck in making a decision. God must have set it up to help me decide. I was walking to my office, and a guy came running up to me and said, "Hey Feynman! Did you hear what happened? Baade found that there are *two* different populations of stars! All the measurements we had been making of the distances to the galaxies had been based on Cepheid variables of *one* type, but there's *another* type, so the universe is twice, or three, or even four times as old as we thought!"

I knew the problem. In those days, the earth appeared to be older than the universe. The earth was four and a half billion, and the universe was only a couple, or three billion years old. It was a great puzzle. And this discovery resolved all that: The universe was now demonstrably older than was previously thought. And I got this information right away—the guy came running up to me to tell me this.

I didn't even make it across the campus to get to my office, when *another* guy came up—Matt Meselson, a biologist who had minored in physics. (I had been on his committee for his Ph.D.) He had built the first of what they call a density gradient centrifuge—it could measure the density of molecules. He said, "Look at the results of the experiment I've been doing!"

He had proved that when a bacterium makes a new one, there's a whole molecule, intact, which is passed from one bacterium to another—a molecule we now know as DNA. You see, we always think of everything dividing, dividing. So we think

everything in the bacterium divides and gives half of it to the new bacterium. But that's impossible: Somewhere, the smallest molecule that contains genetic information *can't* divide in half; it has to make a *copy* of itself, and send one copy to the new bacterium, and keep one copy for the old one.

...That was tremendously exciting, and very important—it was a fundamental discovery. And I realized, as I finally got to my office, that this was where I've got to be. Where people from all different fields would tell me stuff, and it was all exciting. It was exactly what I wanted, really.

change your mind. I did that once when I was a student at MIT. I got sick and tired of having to decide what kind of dessert I was going to have at the restaurant, so I decided it would *always* be chocolate ice cream, and never worried about it again—I had the solution to *that* problem. Anyway, I decided it would always be Caltech.

One time someone tried to change my mind about Caltech. Fermi had just died a short time before, and the faculty at Chicago were looking for someone to take his place. Two people from Chicago came out and asked to visit me at my home—I didn't

decided not to decide any more; I'm staying at Caltech for good." So I didn't let them tell me the salary they were offering.

About a month later I was at a meeting, and Leona Marshall came over and said, "It's funny you didn't accept our offer at Chicago. We were so disappointed, and we couldn't understand how you could turn down such a terrific offer."

"It was easy," I said, "because I never let them tell me what the offer was."

A week later I got a letter from her. I opened it, and the first sentence said, "The salary they were offering was ———", a *tremendous* amount of money, three or four times what I was making. Staggering! Her letter con-

continued on page 4

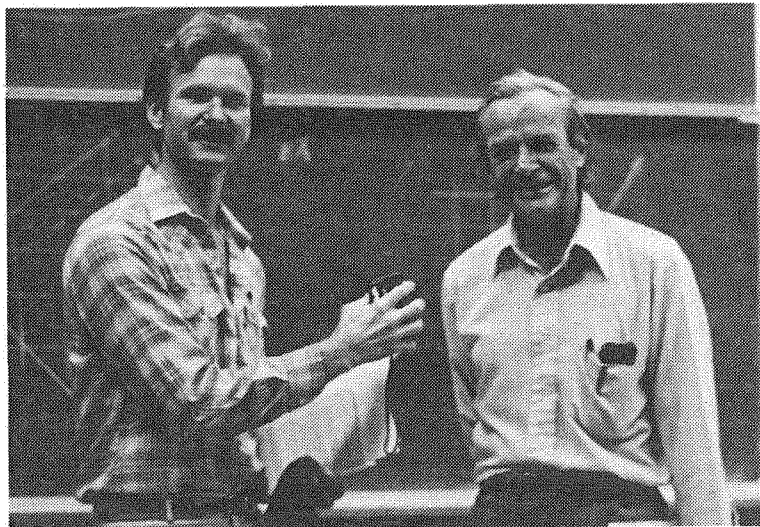


photo by Min Su Yun

Feynman With Leighton, the co-author

So when Cornell called a little later, and said they were setting everything up, and it was nearly ready, I said, "I'm sorry, I've changed my mind again." But I decided then *never* to decide again. Nothing—absolutely nothing—would ever change my mind again.

When you're young, you have all these things to worry about—should you go there, what about your mother. And you worry, and try to decide, but then something else comes up. It's much easier to just plain *decide*. Never mind—*nothing* is going to

know what it was about. They began telling me all the good reasons why I ought to go to Chicago: I could do this, I could do that, they had great people there, I had the opportunity to do all kinds of wonderful things. I didn't ask them how much they would pay, and they kept hinting that they would tell me if I asked. Finally, they asked me if I wanted to know the salary. "Oh, no!" I said "I've already decided to stay at Caltech. My wife Mary Lou is in the other room, and if she hears how much the salary is, we'll get into an argument. Besides, I've

Feynman Delights

from page 1

events could have happened to just one person, but when Feynman tells it to you (in the full glory of his New York accent written out at times), nothing is unreasonable. Within just a few chapters, one learns and begins to expect adventures, ideas and reactions which are out of the ordinary from this technicolor personality.

This book would be particularly appealing to Caltech students. For us, who strive for the level of excellence in science research associated with the characters in this book, Prof. Feynman has always been a bit of a legend. As I read this book, the legend gradually became a real person. His character is down to earth and his advices and hopes are human. "S.Y.J.M.F.!" is definitely enjoyable and worthwhile to read, but wait until after the term is over.

Buy Caltech Cards
and save 20%

CALTECH'S

Buy Caltech Cards
and save 20%

BURGER CONTINENTAL

TO ALL CALTECH STUDENTS AND FACULTY:

Have your **BREAKFAST** with us 6:30-11:00. Ham, bacon, or sausage, 3 eggs, country potatoes, and zucchini bread for only \$1.99 with Caltech ID, Monday thru Friday.

SPECIALTIES: SHISH-KABOB, SHAORMA, SOUVLAKI-STEAK
HOMEMADE PASTRIES: BAKLAVA, BURMA, AND NAPOLEONS

good food at reasonable prices refills on soft drinks at all times
seconds on salad bar

For the Entire Month of December
A free root beer float to all Freshmen, and Sophomores

Faculty, Grad Students, Attend!

Mondays and Tuesdays are Beer Days. Half price on beer.

B. C.: On Lake Avenue
½ Block North of California



The Inside World

Blacker: And now for something completely different. Ah, the sweet, bitter end approacheth. The Big Black Machine has earned a well-deserved Holiday Vacation. Yes, the coffee generation is upon us and the death squads still run rampant in Cannes, Pub, Upper P, Vatican, and sometimes Tunnel. Meanwhile, somewhere not far from Braun, darkness and sudden violence become the catch phrases in someone's cold, heartless game of sabotage. To the victor belong the bulbs.

On a related note, has anyone heard from Naomi lately? I think the last chance for ransom is the 18th.

Know a bad joke? Mail it to: President 1-60.

Know a worse joke? Mail it to: Head Waiter 1-60.

Looks like that wraps it up. Don't forget about bowling with the Flemms on the morning of the 25th. Be there early. Way to go social team (yeah, even you Hawes).

Accroches-toi a ton rêve,
Accroches-toi a ton rêve,
Quand tu vois ton bateau partir,
Quand tu sents — ton coeur se briser,
Accroches-toi a ton rêve.

(translation):

Girls on film,
Girls on film.

—Rhode scholar...

Page: Congratulations to the freshman class of Page House. Their superior numbers enabled them to win the Second Annual Beer Drink-Off. Coming in second place were the juniors, who, despite lack of athletes put up a strong effort. The sophomores came in last.

Just when you thought that headache would go away, here comes beerball! This Saturday at 2:00 p.m., we'll be matching mugs and mitts with Physical Plant. We'll be having a barbecue also. So bring your glove, mug, and appetite and prepare to have some fun.

Finally, congratulations to the many fine swimmers. —Cyndi LePage

Treat That Acne

by Miki Goodwin

Acne news: If you are acne prone it is a good idea to use a clean wash cloth every time you wash your face. (A warm, damp cloth provides a perfect medium for bacteria to thrive on.) A not-so-expensive idea would be to cut up an old towel and use a fresh piece daily. Alternatively some disposable cleaning sponges may be easier and are available at most pharmacies.

Health and Fitness: Regular exercise can make you feel less tired even after an exhausting day of work or study.

Moreover, it is the lack of exercise and not the passage of time that hurries the aging process, according to the American Medical Association. Regular exercise can help in prevention of several medical conditions including obesity, depression, coronary artery disease, hypertension and osteoporosis. Neurostimulants in the brain can be triggered by exercise and help memory, mind wandering and even ease mood swings. If you have not already, you may think about an exercise routine. It may make a big difference to your life.

Women's Issue Dilemma

from page 2

panies, most notably AT&T Bell Labs, have special hiring programs available only for women, such as an OYOC (One Year On Campus) where Bell pays salary and tuition for an employee to go to school full-time. That program is open only to women and if I were a man, I'd sue Bell for reverse discrimination. (Bell was sued for discrimination 4 years ago). Affirmative action programs now guarantee that a certain number of openings will be held for women and minorities before they even reviewed the prospective applicants for qualifications. A few engineering graduate schools have even offered to waive my application fee in recognition of the fact that my kind HAD been discriminated against some time ago.

The point is, no opportunities should ever be barred for any sex or racial reasons, but by the same token, no opportunities should be created for those reasons either. Faculty positions are still rare because some men in power still have problems with the concept of intelligent and capable women, but that is becoming more of a social attitude problem rather than a system problem. The system with its laws and rules are easy

to change, the attitudes are not. With ingrained social issues like this one, it is often the case that you simply have to wait for the younger and more liberal-minded generations to grow up and for the older generations to leave. That takes time and is a long, slow process, but it is happening.

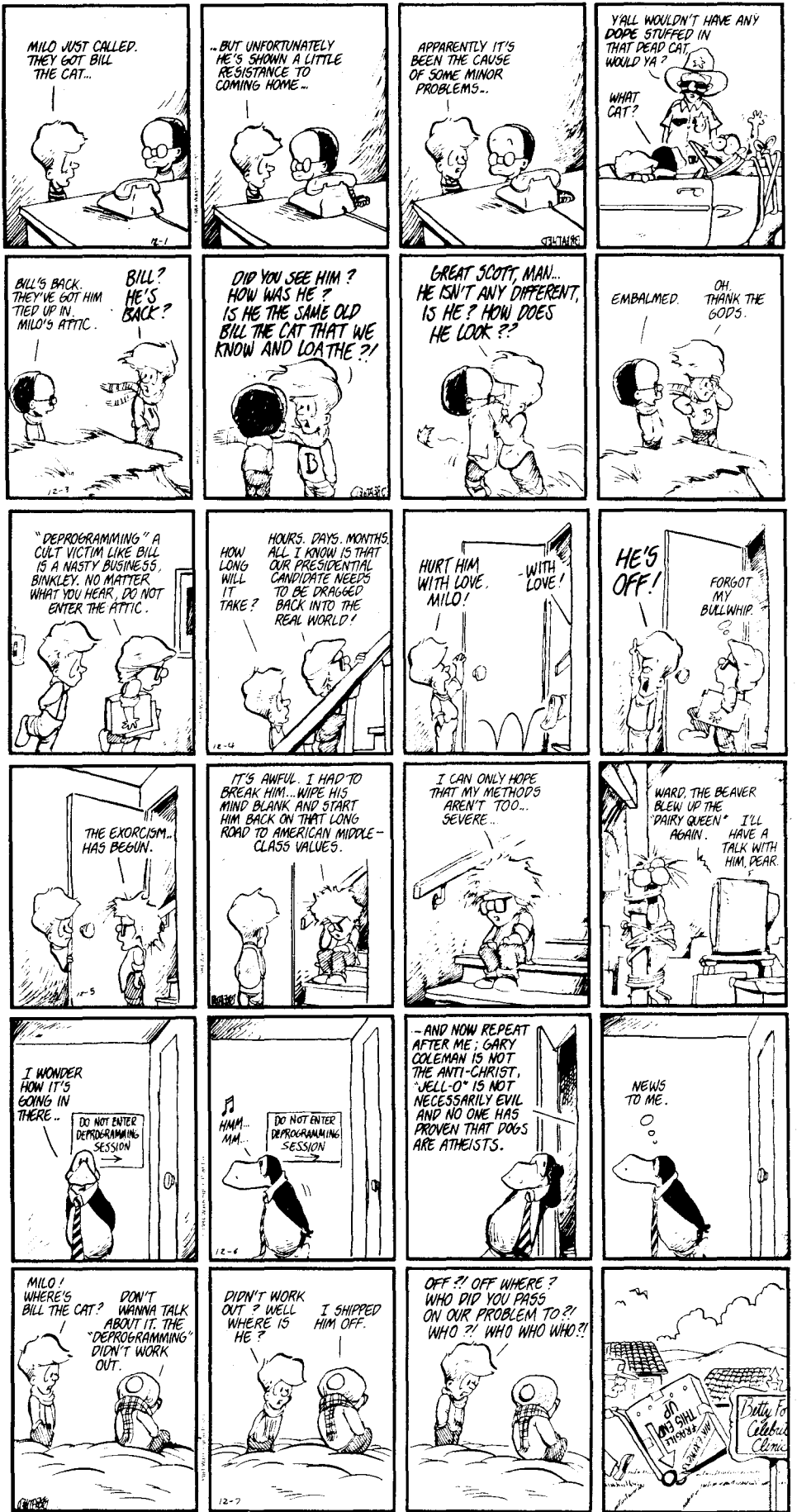
To try and force that evolution of attitudes might even be detrimental; and so much has been gained already. Therefore, with no stand to take or side to hark, I am content to simply be patient and wait for the changing of the guard.

from page 3

tinued, "I told you the salary before you could read any further. Maybe now you want to reconsider, because they've told me the position is still open, and we'd very much like to have you."

So I wrote them back a letter that said, "After reading the salary, I've decided that I must refuse. The reason I have to refuse a salary like that is I would be able to do what I've always wanted to do—get a wonderful mistress, put her up

BLOOM COUNTY by Berke Breathed



Sponsored by the Caltech Y

Please send me _____ copies of "SURELY YOU'RE JOKING, MR. FEYNMAN" at \$16.95 per copy, post paid. I enclose _____ check
 _____ money order for \$ _____
 (New York and California residents please add sales tax.)

Name _____
 Address _____
 City, State, Zip _____


Please address your order to:
 W. W. Norton & Company, Inc.
 500 Fifth Avenue
 New York, New York 10110
 Dept. IKA

An Offer To Refuse

in an apartment, buy her nice things....With the salary you have offered, I could actually do that, and I know what would happen to me. I'd worry about her, what she's doing; I'd get into arguments when I come home, and so on. All this bother would make me uncomfortable and unhappy. I wouldn't be able to do physics well, and it would be a big mess! What I've always wanted to do would be bad for me, so I've decided that I can't accept your offer."

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
NEXT TO THE ACADEMY THEATRE
PARKING IN REAR

entertainment

Adolf Is
A Hit

by Astrid Golomb

*The Portage to San Cristobal
of A.H.*
Odyssey Theatre

What would happen if Hitler had survived the bunker and was found alive today? The answer as presented in *The Portage to San Cristobal of A.H.* is a riveting nightmare.

Christopher Hampton's adaptation of George Steiner's book of the same title, the second in a three play series entitled "Nazi Mind" at the Odyssey Theatre, is an episodic journey through the Brazilian jungle with the aged Fuhrer and a secret unit of crack Israeli commandos who are physically as well as sartorially fatigued (it has taken them 30 years to find him).

From time to time comfortable ruling-class Europeans discuss the likelihood that Hitler is still alive, and what their government is likely to do about it if he is. These discussions take place variously during a croquet match, an interrogation, and while getting dressed after a romp in bed with a mistress—a Russian spy no doubt. Less comfortable South Americans argue about how best to exploit the situation, and news reporters manipulate and manufacture the story. These glimpses of "civilization" are scattered between scenes of the soldiers accompanying their prisoner. The dialogue between a resigned old soldier and an impulsive young one about what would

be appropriate punishment for A.H. after so many years is especially amusing. This back and forth transition between scenes is perhaps better suited to books and film than to a play. The director has attempted to minimize the disruption caused by these abrupt changes by leaving the soldiers asleep.

The stage set by John Stone is sparse and mostly black. The lighting (Dawn Hollingsworth) is misty and vague. Not only the soldiers, but other characters too spend a great deal of time on stage asleep, sometimes in delirium. Half the cast play multiple parts; a few actors say almost nothing for much of the play, but move slowly, ritualistically, or in other ways that contribute to the dreaminess of the production. Nevertheless, ignoring its somnambulism, this is a play of ideas. It is well researched, interesting and audacious. At the end Hitler, played with haunting felicity by Philip Baker Hall, speaks for himself. The dottering old man finds words, and something of the compelling present that made him one of the most charismatic rulers of all time.

Steiner, the author, is an intellectual and a Jew. Born in Paris of Austrian parents in 1929, he is obsessed with the Holocaust—an historical event to which he was so close, and yet in which he took no direct part. The concluding diatribe he has written for Hitler is eloquent and attempts to be objective, but many excuses do not build a convincing defense. Thanks to an insistent and powerful presentation of that speech, we begin to understand the phenomenon that was Hitler and, perhaps, also the fact that he was not the only megalomaniacal world leader to cause pandemic misery, just one of the most recent.

Movie Review

by John Fourkas

Comfort and Joy
Directed by Bill Forsyth
Beverly Cineplex;
Monica, Santa Monica

It's the holiday season in Glasgow. Alan "Dicky" Bird, a well-known disc jockey, has just bought a cone from a Mr. Bunny ice cream van. As he walks away from the truck, two hooded men jump out of a car and proceed to bash in the windows of the ice cream van. The vendors attempt to fend off their assailants by squirting raspberry sauce at them. As the vandals are about to escape, one of them recognizes "Dicky" and stops long enough to ask for an autograph.

If all of this seems a bit bizarre, well—it is. It comes from *Comfort and Joy*, the latest offering of Scottish writer/director Bill Forsyth, the man who brought us the wonderful films *Gregory's Girl*, *Local Hero*, and *That Sinking Feeling*. Perhaps the most

noticeable feature of Forsyth's previous ventures is his delightfully dry and subtle sense of humor, and in this respect *Comfort and Joy* is no exception. The film chronicles a few days in the unlucky Bird's holiday season. Bird's kleptomaniac girlfriend leaves him without warning ("The time just didn't seem right to tell you") and takes with her most of the furnishings of his apartment. After the ice cream truck attack, Alan asks his boss if he can do a serious documentary, for which he is finally sent to a psychiatrist. Meanwhile, Alan has gotten stuck in the middle of an ice cream war between Mr. McCool and Mr. Bunny (formerly Mr. Softy—"But not any more!").

I often find that a Bill Forsyth film is funnier upon reflection than while it is actually running, probably because all of his movies really do concern serious subjects (generally depression in Scotland). This is perhaps the only fault of *Comfort and Joy*.

Forsyth's previous films have not been entirely concerned with adults, which allowed the viewer to take everything a little bit less seriously (as a "coming of age" type of problem rather than anything "truly" important). In *Comfort and Joy* we are faced with senseless violence between adults, and we really cannot ignore this violence while we are taking in the subtle ironies of the film. It is only afterwards that we fully appreciate the ice cream truck which rolls along playing a little xylophone melody with a high-pitched voice periodically saying "Hello folks!" Indeed, this is probably as Forsyth intends. Alan Bird does not realize the humor of his situation until the end of the movie, as we often do not realize the humor in our own crises until much later. With this thought in mind, *Comfort and Joy* is well worth watching.

Comfort and Joy is showing at the Beverly Cineplex in the Beverly Center (213-652-7760) and at the Monica in Santa Monica (213-394-9741).

ASCIT

By-Laws Changes Proposed

The ASCIT EXCOMM and Board of Directors have approved the following three proposed ASCIT Bylaws amendments, which will be put to student vote on Monday, January 14 1985.

Amendment 1. Prohibition of campaigning in the polling place. This amendment is meant to make elections more fair by prohibiting any form of vote coercion during the actual voting process through segregating the polling place from the campaign.

Amendment 2. Staggering of ASCIT officer selections. This amendment provides for two separate elections for ASCIT officers, the first for the President and Treasurer and the latter for all other officials.

Under the current system, after elections, the new BOD is installed and the old BOD retires without ever interacting with their successors. By electing the President and Treasurer early, they will have a month-long opportunity to work with and learn from their experienced counterparts. It is felt that this will provide ASCIT with much-needed continuity for ongoing or long-term BOD projects, and smoother administrative transitions.

Proposed Changes

Amendment 1: Article VIII, Section 3. (addition) There shall be no campaigning or campaign materials present in a room where polling takes place during any election.

Amendment 2: Article VII, Section 1. Nominations for the offices of President and Treasurer shall open at 8:00

am the second Wednesday of second term, and shall close at 5:00 pm the following Tuesday.

Nominations for all other elected officers shall open at 8:00 am on the fourth Wednesday of second term, and shall close at 5:00 pm the following Tuesday.

For a nomination to be valid, the nominee must be a current ASCIT member. All nominations must be given in writing to the secretary and must be signed by the nominee. Prior to the election *The California Tech* shall publish a complete list of nominated candidates and any statements they wish to make.

Section 2. All nominated candidates shall be listed on a ballot and voted upon at elections to occur the Monday immediately following the closing of nominations for that office. A final election, if necessary, shall occur on Friday of the same week.

Section 10. (replace first sentence.) All officers shall be installed at the second Board of Directors meeting following the election of the non-Treasurer/President officers.

2010
FREE POSTER

IN THE
YEAR 2010.
THE REST OF
THE COPYING
WORLD WILL BE
OFFERING THE
SERVICES YOU CAN
GET TODAY AT KINKO'S

**FUTURE
COPIES**

Copies beyond belief from copiers that give you lines, solids, half-tones in perfect reproduction for great looking flyers, newsletters, brochures and reports. Fantastic speed, and incredible service at a price from the past... Only at Kinko's.

"2010" MOVIE POSTER FREE. JUST FOR VISITING KINKO'S. HURRY! BECAUSE SUPPLIES ARE LIMITED, WE CAN OFFER ONLY ONE POSTER PER CUSTOMER.

Get your copy while they last
at Kinko's

827 E. Colorado Bl.
Pasadena, CA 91101
(818) 793-6336

kinko's

Open early, open late, open weekends... The Futurecopy Place.



Serving Caltech &
JPL since 1938

Pasadena's only complete source of
ART, DRAFTING, CHART-MAKING,
and LAYOUT supplies.

Now open Thursday evenings until 9.



PAS GRAPHICS
1292 East Colorado Blvd., Pasadena CA 91106
(213) 681-0615 Caltech Student Discount (818) 793-4-ART

entertainment

Buckaroo Reviews

A Weekly Column by Matt Rowe

Don't Toss This Away

Lone Justice
The Palomino
December 1st and 8th

Lone Justice is a Los Angeles band that has been playing shows at clubs from the Palace to the Palomino for the past three years or so. About a year ago, a nice man from Geffen Records had them sign a piece of paper and sent them to New York to make a record, so they haven't been playing much in the area recently. With the album almost ready for release, however, the band is getting ready to tour, and they need to get up to speed. Which is why they played two shows at the Palomino last Saturday, and why they're playing two more tomorrow.

If you're familiar with the Palomino's style of music, then you've probably guessed Lone Justice's style of music. If they must be classified, Lone Justice is a country band—but that's like calling Caltech "just a school in Pasadena." How many country bands would play Talking Heads' "Heaven" and Jimi Hendrix's "Foxy Lady" for an encore? To the best of my knowledge, the answer is one. Lone Justice's brand of country encompasses Motown, gospel, Lou-Reed-style rock 'n' roll, psychedelic music, and even the new-wave eclecticism of Talking Heads.

Leading Lone Justice on its musical adventures is singer and songwriter Maria McKee. The show begins with a slow, sparse rendition of the Velvet Underground's "Beginning to See the Light," and it is immediately obvious that McKee has been endowed with a truly phenomenal voice. With just the right amount of country twang to make it authentic but still bearable, she leads her band through Motown-styled pop ("Wait Till We Get Home"), country blues ("Don't Toss Us Away"), and more conventional rock ("East of Eden"). Her voice is authoritative, but convincingly passionate; two songs in particular are enough to make you cry.

Now, of course, the rest of Lone Justice is top quality, too. Tom Petty's keyboardist, Benmont Tench, joins them on stage and on the album, though he is not an "official" member; the lead guitarist (Maria McKee plays rhythm), the bassist, and the drummer—I don't know their names—are all first-class musicians. The sound that emerges is far higher in quality than one might expect from a "new" band, even one that has recorded its first album. Other musicians agree: Ron Wood (of the Rolling Stones) and Bob Dylan have stopped in to help in the

studio. Lone Justice is a band of professionals, and a Lone Justice concert is well worth the time and money spent, even during finals.

The Palomino is at 6907 Lankershim in North Hollywood, phone (818) 764-9010. Lone Justice will be playing at 8 and 11 pm Saturday; tickets are \$8 at the door or \$10 at all Ticketmaster locations (May Co. and Music Plus). The Palomino has no age limit. See you there.

Movie Review

Starman Lights Up Screen

by George Karas

Starman
Directed by John Carpenter
Opens December 14th

Last Saturday night, theaters throughout the Southland showed a special preview of John Carpenter's *Starman*, scheduled for release next Friday.

The film, which is basically a sci-fi love story, opens as Voyager II is intercepted by an alien ship: The Voyager series, as most probably know, contained gold records of "The Sounds of Earth," an open invitation for anyone in the neighborhood to come and visit. That is exactly what the

Starman does. After being shot down by the Air Force, he finds the house of a young woman named Jenny and takes the form of her recently-killed husband (Jeff Bridges).

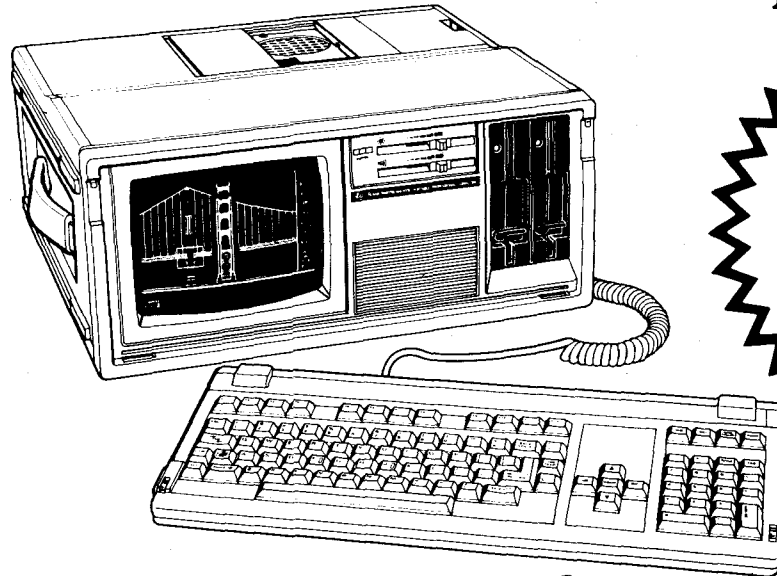
What follows is a cross-country race to reach the aliens' rendezvous point (appropriately enough, Crater National Monument), before the evil government forces can find and dissect him. In addition, we have the radical young SETI (Search for Extra-Terrestrial Intelligence) agent, trying to stop the government. All in all, the plot is rather predictable and vaguely

reminiscent of *E.T.*

But for all its predictability, the film is pleasantly entertaining. Jeff Bridges' portrayal of the *Starman* is wonderful, as he tries to learn the intricacies of human life and love. There are also some very touching scenes, as Jenny learns to deal with the fact that the *Starman* is not, in fact, her husband. She must also deal with her growing love for him.

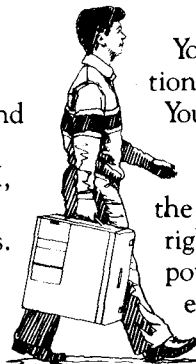
The film is funny and tender, without being overly pedantic. If you don't feel like waiting in line for 4 hours to see *Dune* next Friday, go see *Starman* instead.

Students. Faculty. Staff. Now get big savings on Texas Instruments Portable Professional Computer.



Save From
\$1300.00
to
\$1870.00

The TI Portable Professional Computer is every bit as powerful as the desktop TI Professional Computer—ideal for college and on into your career. It's identical to it in every way except size: 128K bytes of RAM, expandable to 768K. Five expansion slots. Room for one or two floppy diskette drives. Or move all the way up to a 10 megabyte Winchester hard disk.



You get the superior keyboard. High resolution graphics. Greater expansion flexibility. You gain: In portability. In convenience. You can lock it in your closet when you go out. Take it home on semester break. Take it to the lab if you need to. Or have it all the time right on your desk. You won't find this much power and value anywhere at such an economical price.

We are among the very few selected to participate in this unprecedented Texas Instruments promotion. For a limited time only we can sell TI Portable Professional Computers at unbelievably low prices. Bring your I.D. Offer limited to students, faculty, and staff of this campus.

MEMORY SIZE	FLOPPY DRIVES	COLOR MONITOR		MONOCHROME MONITOR	
		SUG. RETAIL	SPECIAL PRICE	SUG. RETAIL	SPECIAL PRICE
128K	ONE	\$2,895	\$1,345	\$2,295	\$995
128K	TWO	\$3,295	\$1,495	\$2,695	\$1,175
256K	TWO	\$3,465	\$1,595	\$2,865	\$1,295

Don't wait. Supplies are limited. Offer ends December 14, 1984.

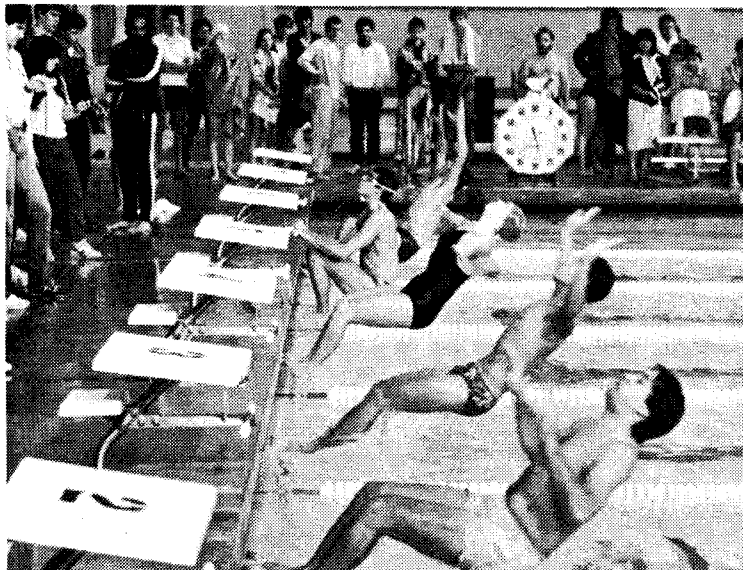
Come in and see them now at

WEATHERFORD
Computer Systems Group

1020 So. Arroyo Parkway • Pasadena, CA • (213) 682-3641

TEXAS
INSTRUMENTS
COMPUTING PRODUCTS
AUTHORIZED
SALES

sports



Backstrokers get wet

—photo by Ron Gidassg

Early Start In V-Ball Tourney

by Busy Sue

Where were you Sunday morning at 7:45 am? I'll bet you were asleep. If you were, you missed the first terminal (that means that there's one per term) triples volleyball tournament. Some people think that volleyball at 8:00 in the morning is crazy. If you think that, you're wrong.

This triples tournament was organized and run by Chad Edwards. He overslept, but once he showed up, he did a great job. He set up teams on Sunday morning, and managed to make them pretty even, although he didn't know a lot of the people there.

Thirty-six people showed up to play. Seven other people showed up intending to play, but they fell asleep. They were ugly anyway. First, we played a kind of weird Round Robin to determine which teams would go to playoffs. Then the top four teams faced off for that over-tough competition.

J. Friedson, Elias Krisias, and Bob Morton were the first place team. Sorry if I did or do mess up how you names are spelled: I have this little piece of compuscratch with unreadable engineering handwriting on it. D. Sams, Kevin Maher, and Dan Rudy were the second place team. L. Lippard, Andy Matsuda, and J. Tanner were third. And Chris Lindstrom, Rod Morrison, and B. Wong were fourth. I was told in advance that the prizes would be beach chairs, but no, Chad claimed that beach chairs were unavailable in the winter. Instead, the first place team got dinner at BC and Haagen-Daz, and the second place team got just ice cream. The team with the worst standing got a warm six-pack of Hamm's beer. They were too embarrassed to take it, even though everyone insisted. I think Jeff Stern finally ended up with it, because he's the only person in the whole world who likes that stuff. (Gee Chad, what an inspired idea!)

Anyway, everyone had a pretty exhausting but fun time. Next term, if you're not doing anything on Volleyball Sunday, check it out. Doesn't everyone need another beach chair?

Score With Santosh

by Santosh Krishnan

Last week's record:

W-L: 8-6

against spread: 8-6

cumulative:

W-L: 60-36

against spread 48-49

AFC

L.A. Raiders (10-4) at Detroit (4-9-1) [Monday Night]

The Raiders rolled over Miami despite several bad calls against them. The personal foul call against Lester Hayes was one of the worst of this year, equalling the fumble called on Denver that gave Seattle a most undeserved win. Don Shula's presence on the Rules Committee no doubt influenced these calls. Against Detroit, the Raiders will not have to put up with this nonsense, and their brilliant offense coupled with an unrelenting defense will return with a win.

Prediction: Raiders by 6.

Seattle (12-2) at Kansas City (6-8)

Kansas City upset Denver in a close game last week. Seattle squeaked by Detroit in classic Seattle fashion (cf. last week's column). At K. C., Seattle will not have their "fans".

Prediction: K. C. by 2, [upset of the week].

Miami (12-2) at Indianapolis (4-10)

Miami's ineptness and poor coaching were evident in several instances in last week's game. For example: Fullton Walker lateraled a punt reception back into the field of play as he was being pushed out of bounds. Clayton, wide receiver, fumbled en route to an apparent touchdown. Finally, Miami special team was unable to cover a brilliant Raider on-side kick. Against Indy, these faults will not matter and Miami will win.

Prediction: Miami by 12

San Diego (7-7) at Denver (11-3)

Prediction: Denver by 6

Cleveland (4-10) at Pittsburgh (7-7)

Prediction: Pittsburgh by 2

Buffalo (2-12) at NY Jets (6-8) [Saturday]

Prediction: Jets by 5

NFC

NY Giants (9-5) at St. Louis (8-6)

One of two key NFC games this week. The Giants have won three in a row, and St. Louis has come out of a long slump. Should be a good game to watch.

Prediction: Giants by 2

Washington (9-5) at Dallas (9-5)

Dallas is mediocre, and the Skins are hurting. This is the second key NFC East game this week. The home crowd might make the difference.

Prediction: Dallas by 2

Minnesota (2-12) at San Francisco (13-1) [Saturday]

Prediction: San Francisco by 9

Green Bay (6-8) at Chicago (9-5)

Chicago was disappointing last week, and Green Bay is a team better than its record indicates. At home, however, the Bears will not drop their second in a row.

Prediction: Chicago by 3

Atlanta (3-11) at Tampa Bay (4-10)

Prediction: Tampa Bay by 6

Interconference

Houston (3-1) at L. A. Rams (9-5)

Against Houston, the Rams will have one more chance to secure a play-off berth. While the game will be dull, Dickerson may break O. J. Simpson's single-season rushing record.

Prediction: Rams by 6

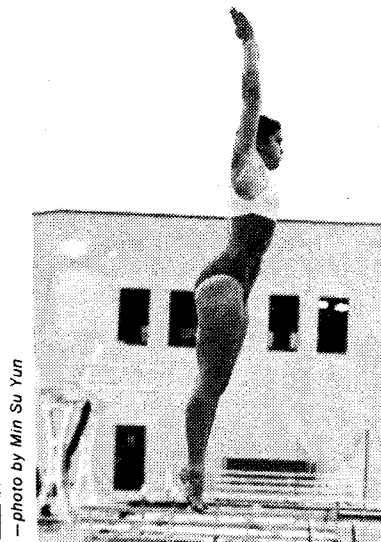
Cincinnati (6-8) at New Orleans (6-8)

Cincinnati still has a chance to win the hapless AFC central division. A game to avoid.

Prediction: Cincinnati by 4

New England (8-6) at Philadelphia (5-8-1)

Prediction: Patriots by 6



Heidi dives for Ruddock

—photo by Min Su Yur

MONKS PIZZA
FREE DELIVERY
304-9234



HOURS
Sun-Thr 11:00-1:00 AM
Fri-Sat 11:00-2:00 AM

\$2 OFF
ANY
MONKS
SPECIAL



304-9234
(Limited Delivery Area)
(1 COUPON PER PIZZA)
Expires Dec 31, 1984

LUNCH
SPECIAL
2 FREE
PEPSIS
WITH ANY
MONKS
PIZZA

ORDERED BETWEEN
11 AM & 4 PM
(Limited Delivery Area)
(1 COUPON PER PIZZA)
Expires Dec 31, 1984

\$1 OFF
ANY
MONKS
PIZZA



304-9234
(Limited Delivery Area)
(1 COUPON PER PIZZA)
Expires Dec 31, 1984

\$2 OFF
ANY LG.
2 ITEM
PIZZA



304-9234
(Limited Delivery Area)
(1 COUPON PER PIZZA)
Expires Dec 31, 1984



TELEPHONES

RECONDITIONED PHONES
orig. phone company issue
(Western Electric, ITT).
Each includes brand-new
25-foot modular cord.

Touch-Tone Desk \$20
Touch-Tone Trimline \$25
20% off with Caltech ID

DARCELL ELECTRONICS
427 E. Woodbury at Los Robles
Altadena 797-7580
Open 10-6, Mon-Sat

JOHN W. CHU DMD
MODERN DENTISTRY

Member of:

American Dental Association
California Dental Service
Caltech Alumni Association

1016 Fair Oaks Ave.
South Pasadena, CA 91030
818-799-0852

Hours by appointment.



LITTLE KING

Sandwich Deli
1443 E. Colorado Blvd.
(Colorado at Hill)

Introducing the
Royal Meal

only \$1.99 plus tax
with this coupon

(Any regular size hero, medium
drink and your choice of potato
salad, macaroni salad, or bak-
ed beans)

Now through 2/10/85

announcements

Material for the announcement section of the California Tech must be submitted typed on or with the Announcement Form available at the Tech office by the Tuesday before the Friday of publication.

CLASSIFIED

FOR SALE—

FOR SALE: 1981 Plymouth Reliant, 2.2 liter, original owner, excellent condition, 4-door, auto., stereo-Cass, \$3500 o.b.o. Campus x6489, or 796-4928.

HELP WANTED—

WANTED: Driver part-time. Must have own pickup or good-sized car. \$3.50 to start, 22¢ per mile. 8 a.m. to approx. 11:30 a.m. or noon. Call Margie 791-0401.

NEED CASH? Earn \$500+ each school year, part-time (flexible) hours each week placing and filling posters on campus. Serious workers only; we give recommendations. 1-800-243-6679.

TUTOR WANTED: Need instruction on Apple II + statistical software. I do not have computer. Leave message for Tom 796-2247.

WORK YOUR OWN HOURS. Earn extra money. Call Cathy Estrada at (818) 449-3244.

HELP WANTED: Z80 Machine language programming—software and hardware. Contact Joe Vu 794-2411 after 5 PM.

HOUSING—

FOR RENT: Security Condo at "Cordova East" 2 blks Caltech. Partly furnished studio-2 parking. Pool. No pets/minors. Very nice. 357-8831 ext 365 (D) 356-6331 (D) 792-9053 (E).

APARTMENT OFFERED Quiet apt. offered to share in exchange for helping an active paralyzed teacher. 1 block west of Caltech w/ own bedroom and bath. Ideal for person who spends most evenings working at home. Reliable, friendly person sought, prefer grad student, non-smoker. Inquire at 449-8928.

GENERAL—

IS IT TRUE you can buy jeeps for \$44 through the U.S. government? Get the facts today! Call 1-312-742-1142 Ext. 9718-A.

INSURANCE WAR! Will beat any price, or don't want your business! Sports cars, multi-tickets, good driver disc. Request "Caltech Plan." (213) or (818) 880-4407/4361

WANTED—

Wanted: Apple II plus computer. Call Betty at 356-4133.

If you would like to place an ad in the classified section of the California Tech please send your ad along with your name, address, and telephone number to: The Tech, 107-51 Caltech, Pasadena CA 91125. Ads must be received by Tuesday before desired publication. Ads cost \$.40/line with a \$2.00 min. and prepayment is required.

Loneliness

"Dealing With Loneliness" will be the topic of the next O.W.C. noontime. Dr. Anne Panofsky, a clinical psychologist and musician, will examine and discuss the experience of aloneness both within a creative context and then with practical suggestions for dealing with loneliness. All members of the Caltech community are invited to attend the brown-bagger on Monday, December 10th, 12 noon in Winnett Lounge. For more information, contact Manya Jianino, x6364.

Christmas Potluck

Are you doing anything for Christmas eve? If not, and you're interested in a potluck dinner, see you at the organizational meeting on Monday the 17th in the Ricketts R.A. suite at 7 pm, or if you can't make it that day, phone to Michèle: x6479. Everyone is welcome.

Domestic Violence

The group against domestic violence is having its last meeting of the year this Saturday. All members and interested persons are invited. For more information, contact Jay Hollander, x6180.

Attn: UG Women

There will be an Undergrad Women's Group meeting on Friday, Dec. 7 at noon in the Y Lounge. The meeting will be for lunch, conversation, support, and female company, with probable discussion topics: exams, pressure relaxation, and relationships. All women are welcome, and bring a female friend if you wish. Questions should be referred to Felice B. at x6171.

Santa Rudd?

Undergrads, Grads, Faculty, and Family are all invited to a Christmas/Hanukkah/Winter Solstice/Saturnalia [sic] party TONIGHT, December 7th, in the Ruddock House Lounge, from 8:00 to 11:00 pm. Santa will be there (bring a camera), and there will be eggnog, singing, and knick-knacks for the kids. Have you been nice this year?

YMCA Basketball

The Foothill Family YMCA, 2750 New York Dr., Pasadena is preparing for its "Y-Winner's" Youth Basketball league. Children in grades one through nine are invited to join. Clinics will be held Dec. 15 and Jan. 5, with league play set for Jan. 19 through Mar. 16. All clinics and games will be at the YMCA gym. For more information, call (818)-798-0862.

New Class

There will be a new Literature class taught second term, 1985. It will be Lit 180 Special Topics in Literature: Hawthorne and James. Taught by Ron Bush it will be an in-depth critical reading of these two authors. It will be available for advanced humanities credit. There will be an Organizational Meeting Wednesday, January 9 at 2:30.

OVERSEAS EMPLOYMENT

WORLD-SIDE OPPORTUNITIES FOR MEN AND WOMEN! JAPAN - EUROPE - AFRICA - AUSTRALIA - THE SOUTH PACIFIC - SOUTH AMERICA - THE FAR EAST. EXCELLENT BENEFITS. HIGHER SALARIES AND WAGES! FREE TRANSPORTATION! GENEROUS VACATIONS!

More than 300,000 Americans — not including members of the armed services — are now living overseas. These people are engaged in nearly every possible activity...construction, engineering, sales, transportation, secretarial work, accounting, manufacturing, oil refining, teaching, nursing, government, etc.-etc. And many are earning \$2,000 to \$5,000 per month...or more!

To allow you the opportunity to apply for overseas employment, we have researched and compiled a new and exciting directory on overseas employment. Here is just a sample of what our **International Employment Directory** covers.

(1). Our **International Employment Directory** lists dozens of cruise ship companies, both on the east and west coast. You will be told what type of positions the cruise ship companies hire, such as deck hands, restaurant help, cooks, bartenders, just to name a few. You will also receive several Employment Application Forms that you may send directly to the companies you would like to work for.

(2). Firms and organizations employing all types of personnel in Australia,

Japan, Africa, The South Pacific, The Far East, South America...nearly every part of the free world!

(3). Companies and Government agencies employing personnel in nearly every occupation, from the unskilled laborer to the college trained professional man or woman.

(4). Firms and organizations engaged in foreign construction projects, manufacturing, mining, oil refining, engineering, sales, services, teaching, etc., etc.

(5). How and where to apply for overseas Government jobs.

(6). Information about summer jobs.

(7). You will receive our **Employment Opportunity Digest**...jam-packed with information about current job opportunities. Special sections features news of overseas construction projects, executive positions and teaching opportunities.

90 Day Money Back Guarantee

Our **International Employment Directory** is sent to you with this guarantee. If for any reason you do not obtain overseas employment or you are not satisfied with the job offers...simply return our **Directory** within 90 days and we'll refund your money promptly...no questions asked.

Amnesty Int'l

The Pasadena chapter of Amnesty International, the world-wide human rights organization, meets on Dec. 12 at 8:00 pm in the Y Lounge, Winnet. New members welcome. For information call Jean-Francois Haas, x4481, 798-8538.

It's TQFR Time

Now that finals are coming up soon, it is TQFR time. Here's your chance to praise and/or criticize the courses which you are taking. You should have received TQFR Course Evaluation Forms in the mail by now. Please fill these out, before you forget, and send them in. Additional comments about courses are appreciated; please use the back of the forms.

S
A
M

Slacks
Suits
Skirts
Shirts

ALTERATIONS
RESTYLING
TAILORING
INVISIBLE REWEAVING
TEL. (818) 449-8634
DAYS & EVENINGS
159 S. Allen Apt. 106 Pasadena

TINA & MICHAEL HAIR DESIGN

For Men and Women

Haircuts, Perms, Color
Manicures, Pedicures

20% Off to Caltech community

By Appointment Only
Tuesday through Saturday

991 E. Green St., Pasadena CA
Parking on 108 S. Catalina
793-2243 or 449-4436

DISCOUNT AIRFARES

Puerta Vallarta	\$97 ea	Acapulco	\$125 ea
Mexico City	\$189 ea	Guadalajara	\$171 ea
Cancun	\$195 ea	Mazatlan	\$86 ea
San Jose	\$58 ea	Reno	\$58 ea
Las Vegas	\$43 ea	Tucson	\$54 ea

Also—Red Onion gift certificates at discount!

(818) 242-7988

(818) 242-7989

ORDER FORM

International Employment Directory
131 Elma Dr. Dept. T21
Centralia, WA 98531

Please send me a copy of your **International Employment Directory**. I understand that I may use this information for 90 days and if I am not satisfied with the results, I may return your Directory for an immediate refund. On that basis I'm enclosing \$20.00 cash... check... or money order... for your **Directory**.

NAME _____ please print

ADDRESS _____ APT # _____

CITY _____ STATE _____ ZIP _____

International Employment Directory 1984

Caltech 107-51

PASADENA, CALIFORNIA 91125

The California Tech is published weekly except during examination and vacation periods by the Associated Students of the California Institute of Technology, Inc., Winnett Center, Caltech (107-51), Pasadena, California 91125.