

## NSF Supports Caltech Proposals

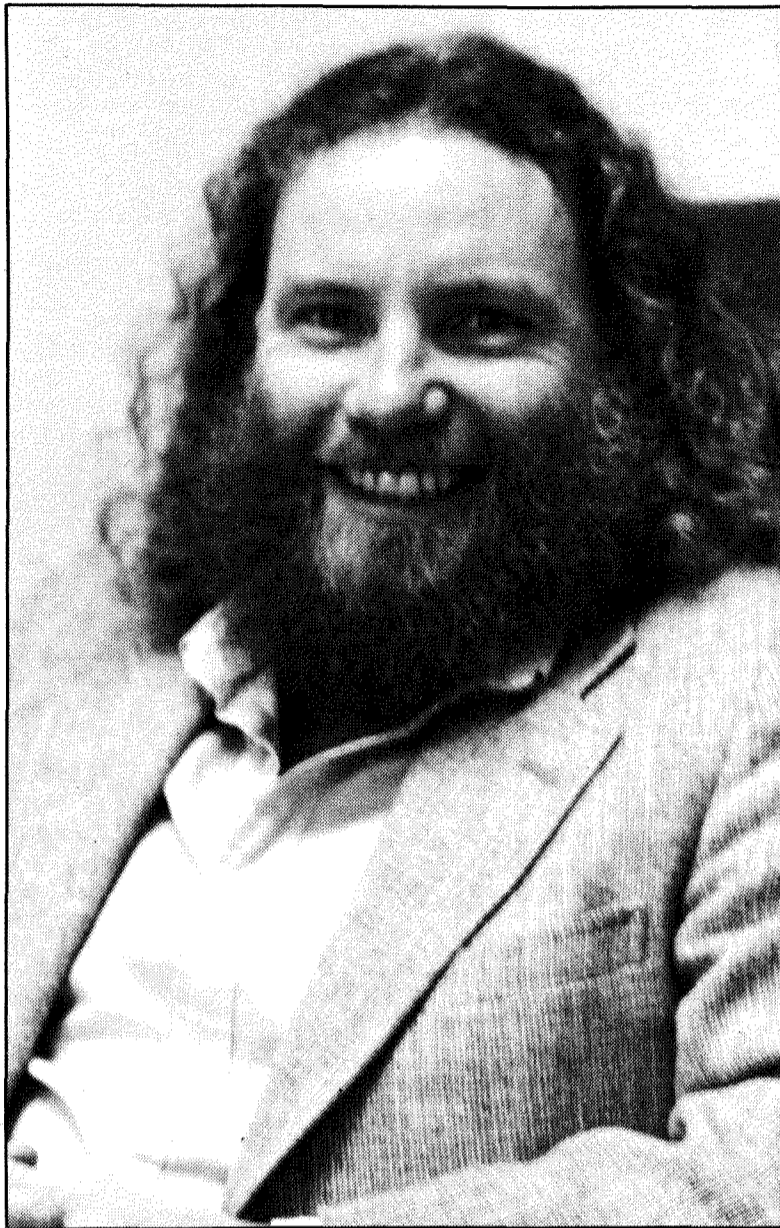
The National Science Foundation recently announced that it intends to support a proposal by Caltech for one of 11 NSF Science and Technology Centers, and will support a separate joint proposal in which Caltech will play a major role. The Center for the Development of an Integrated Protein and Nucleic Acid Biotechnology will be led by Dr. Leroy Hood, the Ethel Wilson Bowles and Robert Bowles Professor of Biology, and chairman of Caltech's Division of Biology. In addition, the NSF will support a joint proposal by Rice University and Caltech for The Center for Research on Parallel Computation. This center will be based in Houston, Texas.

"We are elated with the NSF's announcement," said Caltech president Thomas E. Everhart. "Scientists from all over the United States submitted 323 proposals for centers. Caltech is a relatively small institution, and for our faculty to be part of two of the centers selected for funding is quite a distinction."

According to the NSF, it is establishing the centers to promote basic research on complex problems that are of large scale, long duration, and that may require special facilities or collaborative relationships. Applicants were required to shape their proposals around a unifying intellectual theme, to include a strong educational component, to incorporate mechanisms for stimulating the transfer of basic research knowledge to those interested in building on it, and to establish linkages with government, industry, states, or other institutions.

The NSF intends to provide first-year funding of about \$3,050,000 for The Center for the Development of an Integrated Protein and Nucleic Acid Biotechnology. According to the NSF, the actual award will be negotiated by the NSF and the host institution through a cooperative agreement. NSF support after the first year of the five-year award is dependent on available funds and on the center's satisfactory progress. A comprehensive review after the third year will determine whether the center will be funded for an additional five years. The NSF plans to support successful centers for 11 years.

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"Wildman" Louis Wilde assumes the helm as Caltech's Master of Student Houses.

Photo by Marc Turner

## Wilde Becomes New M.O.S.H.

by Don Finnell

Rumors that the long vacant office of Master of Student Houses had been filled were confirmed recently when his identity was finally made public: Louis Lorin Wilde, Ph.D., Professor of Economics and Executive Officer for the Social Sciences, will occupy this prestigious position and the house that goes along with it.

Caltech has been without a MOSH since the mysterious departure of Conrad Mainwaring early last summer. Since then, Marda Collette has performed the MOSH's duties pending the selection of an appropriate and willing faculty member.

Professor Wilde's involvement with undergraduates until now has consisted primarily of teaching a rock climbing class, as well as serving on the UASH and Curriculum committees, not to mention his regular duties as an economics professor. He says that he likes undergraduates, though he gave no particular reasons for this.

Wilde admits he was somewhat reluctant to accept the position of MOSH, but this was due to timing, not a lack of interest. In fact, this decision to accept was made in part because he thinks it is important that the MOSH be someone willing to invest a lot of time in the job. Furthermore, since the institute is now considering making major changes in the structure of undergraduate life, it is important that the students have a vocal representative at this time, and he is somebody who's not shy about expressing his opinions. He also claims that being MOSH is "a job which is a lot more fun than it is given credit for."

"I don't have any big, sweeping agenda" Wilde says of his plans for running the office, being of the philosophy that "If it's not broke, don't fix it." He plans to spend his first year figuring out the job, learning by doing. As he sees it, the purpose of the MOSH's office is to help students perform academically, and to help them live balanced lives by providing opportunities outside of the classroom.

His long term goals consist of improving the quality of student life, primarily through playing whatever part he can in the improvement of the student houses and the recruitment of more female

students.

Professor Wilde has a wife who studies architecture at the Southern California Institute of Architecture in Santa Monica, and they are expecting their first baby early this summer. His interests include bicycling, hiking, and rock climbing, which he will continue to teach (one of the conditions he made for accepting the job). He would like to organize some Master's hikes and other such activities, and hopes his stay will be characterized by "doing things outside the Master's house as well as inside the Master's house."

Professor Wilde has already moved into the Master's house and is available. Much of his time is still occupied by his duties as Executive Officer for Social Sciences, but he will start keeping office hours next week in the early afternoon, and welcomes visitors.

## Crime Beat

Crime Beat is a new and hopefully regular feature of the California Tech in which the week's (or in this case month's) most important security incidents are reported.

According to Harold Ginder, Manager of Caltech Security, there were five major incidents this past month, all of them thefts.

On December 7, a stereo was stolen from a car parked on San Pasqual, between Wilson and Catalina. The incident occurred between 2pm and 7pm.

Sometime between December 9 and 12, a computer worth approximately eight thousand dollars was stolen from Jorgensen.

On December 13, two leather jackets were stolen from a student's room in Lloyd House.

Sometime between December 21 and 28, a 10-speed bicycle was taken from Alley 3 in Fleming House.

On January 5, in the first major incident of the year, a bicycle was stolen from 150 S. Chester.

## Faculty Committee Suggests Changes

Several months ago, President Everhart appointed a Faculty Advisory Committee on Aims and Needs to study some of the major concerns of the Caltech community and to make suggestions regarding future plans. One issue that the committee studied was the quality of undergraduate life at Caltech. The findings of the committee are detailed in a White Paper entitled *Quality and Texture of Undergraduate Life at Caltech*.

The White Paper discusses perceived problems with the undergraduate situation at Caltech and makes several suggestions for improving it. Suggestions include changes in the curriculum as well as a restructuring of the house system.

Because the document is marked "Institute Confidential," *The Tech* has decided to print only selected excerpts from the report (see page 4). Any student who would like to read the full White Paper should see their house president or a member of the ASCIT BOD.

The paper will be presented at a full faculty meeting to be held on January 9. Because the recommendations would directly affect undergraduates, a student contingent will be allowed to participate in that segment of the meeting. So that they may accurately represent the views of the student body, please make your opinions known to a BOD member or house president.

## Coffeehouse Scandal Brews

by Brian Lemoff

A recent scandal at the Caltech Coffeehouse has led to the removal of Coffeehouse Head Manager John Woolverton and the resignation of Special Events Manager Steve Bard. The controversy is centered about former Caltech student and Coffeehouse employee Steve Lodge, who had been working at the coffeehouse on a "voluntary" basis since this summer, despite being specifically forbidden to do so by CHUG (the Coffeehouse User's Group), which oversees coffeehouse operations. Recently, according to Nancy Matthews, Student Activities Center

Coordinator, Lodge had apparently been compensating himself for work done by pocketing money from the cash register.

In addition, one of the managers participated in falsifying payroll documents so as to further compensate Lodge.

The policy established by CHUG states that the Coffeehouse will only employ people who are current Caltech students. It also prohibits non-students from working on a voluntary basis. This summer, when Lodge offered to volunteer at the Coffeehouse, both he and the managers were told that this would not be allowed.

Nevertheless, Lodge proceeded, with the knowledge and encouragement of both Bard and Woolverton, to serve customers at the Coffeehouse.

As Woolverton became more and more lax in his duties as head manager, Lodge began to assume many of the head manager's roles. Finally, in late November, it appeared that Steve Lodge had assumed the position of "Acting Head Manager". This bothered several of the Coffeehouse's shift managers, since they had been passed over for the promotion. Several of them complained to Matthews. She quickly made it known that Lodge

was not the acting Head Manager and reemphasized that Lodge was not supposed to be working at the Coffeehouse in any capacity.

On November 29, CHUG met to discuss the situation. All coffeehouse managers were invited to attend. At this meeting, it was alleged that Lodge had routinely taken ten dollars from the cash register each night that he had worked. According to Matthews, this was apparently general knowledge to some of the Coffeehouse managers, although it came as quite a surprise to most of CHUG. It was further revealed that

continued on page 3

## Nominations for ASCIT Offices Open

Nominations for ASCIT President and Treasurer will open on Wednesday, January 11. Nominations will close at 5pm on Tuesday January 17. Elections for these offices will be held on Monday, January 23, and any necessary runoffs will be held on Friday, January 27.

**Nominations for Tech Editor are open!** You only have until Tuesday, January 10 to sign up for what may very well be the most rewarding experience a Caltech undergraduate can have (given the ratio).

# letters to the editor

## Go On Leave!

To the editor:

One of the most dreaded statements that a student can make is that they are "going on leave." I've not been an undergraduate at Caltech, but a lot of my friends are. In the last two years I've seen enough people go on leave to know what it means. So, although I don't make any claim as to having "seen it all," I feel I've seen enough to make some valid commentary on "leave-taking".

A lot of people go on leave because their grades are sliding, or have hit bottom. Maybe the pressure was just too much and they needed a break, or maybe their social life wasn't going well (Social life? At Tech?! :-). Maybe they just broke up with a girl friend, or maybe they don't have a girl friend, or maybe they're being glommed to death.

Whatever the reason, the motivation for getting work done just isn't there. Going on leave seems a reasonable thing to do in cases like this. But there's a point that a lot of people overlook: GOING ON LEAVE MEANS LEAVING CALTECH. Or at least, it should. The whole idea is to take a break to get remotivated, not to take an extra summer vacation.

If you're leaving because you're not getting work done, for whatever reason, you should go out to "The Real World" [ominous bells sound here]. The Real World is this place outside of Caltech, and yes, maybe even outside of Pasadena. It's a place where the ratio isn't 7:1. A place where you can have a relationship and not fear the Tech-reality of hurting the other six or so who might be your friends. Or, from the other perspective, a place where you can go out with a guy without worrying about him thinking that you want to marry him. It's a place where you might regain your incentive to finish your degree.

It's a place where you can get a job and see what the working world is like. Maybe you'll love your work, maybe you'll hate it. But at least you'll know what not being at Caltech is like. If you get a boring enough job, say working at McDonalds, you might gain the incentive to get through Caltech (can you imagine working at

McDonalds for a living? :-). If you get a more interesting job you might find a reason for completing your education, or you might discover a reason not to. In any case, you will meet people outside of the Caltech reality. If you're lucky most of them will be human. If you're not, you'll gain a better understanding of what a wonderful place Caltech is.

The whole idea of a leave is to LEAVE. It's not to stop doing work and hang around while your friends struggle with theirs. A lot of people seem to lose track of what an AMAZING place Caltech really is. This is one of, if not the, top schools in the US (if not the world) and it is an honor and a privilege to be here. Your time here is far too valuable to waste on being unhappy (not to mention your tuition :-). So if, at some point in your life, you do go on leave, do it right. Benefit from the experience.

-John Uhley

## Ex-Editors

To the editor:

So another set of editors have come and gone. Funny, from the editors with the highest ideals and longest list of campaign promises, they should so suddenly disappear with this fuck-you-all, have-a-nice-day attitude. They walked out of here without so much as a damn about what happens next. Luckily, we seem to have a lot of other former editors who seem to want one more for old times' sake.

So they threw their little tirade about how they wouldn't use material coming out of the Public Relations Office. Instead of doing the next logical thing, covering it themselves, we got clip art boxes of facts that have little to do with us. Instead of a Caltech paper, we got a wonderful little campus edition of USA Today. And all that exciting muck-raking they promised died with their first issue. (And now that ASCIT has been cleared...)

PJS with his Inside World may have had the most disastrous (and memorable) editorial policy yet. It becomes difficult to imagine worse after each editorship; what will be next? Oh well. Judge and be judged.

-Jennifer Low

## Crime Real

To the Editor:

I would like to question the statistics that were quoted from Hal Ginder, Caltech Security Manager, in the December 2 issue of the Tech concerning crime on the Caltech campus. He states that the crime rate on campus is low, especially those crimes concerning violence. His statistics would lead one to believe that crime is not an important problem on this campus because we have lower rates than the national mean and they are on the decline from previous years. Off hand, I can think of two cases of theft, one case of assault, two cases of rape and one case of robbery which were not mentioned by Ginder. Some of these cases were not reported to Caltech Security, but if they are added to Ginder's totals the crime rate at Caltech rises dramatically.

Why does Caltech Security not know of these crimes? In the case

of rape, the crimes were reported to the Deans and therefore Ginder might not be aware of their existence. Over the summer, a person who broke into my room was charged with robbery and another person was charged with assault of Ricketts Hovse members. These cases were reported to Security and I do not know why Ginder did not speak of them.

The cases of theft have another explanation - they were never reported to Caltech Security. Caltech students have the tendency to look the other way when crimes are being committed. In the two cases I know of, the reason why the thief was not confronted was because students were afraid of possible violence.

I don't blame people for being frightened, but a call for help will bring your fellow Techers. In my case of robbery, in 10 seconds after yelling 15 people were there to help. So don't be afraid to ask

someone you do not recognize what their business is - a simple "May I help you?" will do. A thief is less likely to commit his crime if he thinks the people he is trying to rob are on the watch.

I am appalled, that in my experience, Caltech Security doesn't know it's way around the student houses and their average response time is a long 15 minutes. But this is not all of Security's fault, the Caltech administration thinks that three guards are adequate for Caltech's needs when most students would agree that they are not enough. The administration also does not seem to think that the quality of Security is a concern either. There are many stories telling of Security guards asleep on the job. The guards I know seem friendly but I just can't help but think there is a need for more, well-trained Security guards patrolling this campus.

I believe that crime at Caltech is on the rise and that both the students and the administration should take steps to protect the community from harm. I am suprised that the administration has not already done something to upgrade our Security considering their current obsessions with liability and improving student life. Are we going to have to have a fatal assault occur before this issue will be seriously considered?

-Mike McDonald

## Top 10 U.S serial killers, '78-'88

	Convicted murders	Suspected murders	States
1. Stano, Gerald Eugene	39	0	Fla., Pa., N.J.
2. Harvey, Donald	37	18	Ohio, Ky.
3. Gacy, John Wayne	33	0	Ill.
4. Creech, Thomas Eugene	26	16	Ohio, Calif., Ariz., Ore., Wash., Nev., Wyo., Mont., Idaho
5. Kearny, Patrick Wayne	21	11	Calif.
6. Kokoraleis, Andrew and Kokoraleis, Thomas	18	0	Ill.
8. Kraft, Randy Steven	21	39	Calif., Mich., Nev., Ore., Colo.
9. Hansen, Robert C.	17	0	Alaska
10. Ng, Benjamin	16	2	Wash.

Source: FBI Study of Major Wire Services

John Blanchard, Gannett News Service

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# More Caltech Funds

from page 1

The Center for the Development of an Integrated Protein and Nucleic Acid Biotechnology will be a cooperative effort by scientists from Caltech and from Caltech's Jet Propulsion Laboratory. They intend to improve upon and integrate the most advanced techniques in genetic engineering, protein chemistry, and data analysis in order to develop new technology to speed research in protein and gene regulation. Their efforts should ultimately open up new possibilities for understanding, diagnosing, and treating diseases at a molecular level. New technology will be in a form that can easily be transferred to biological scientists in academia and industry. Projects include development of a new and more sensitive method for determining how the components of DNA and protein are ordered, and new methods for analysis of biological data bases that will allow scientists

across the country to compare this sequence data on proteins and genes.

The NSF intends to provide first-year funding of \$4,100,000 for the Center for Research on Parallel Computation, which will be based at Rice University. "Originally, Caltech and Rice submitted separate proposals in the area of parallel computation, both of which made it to the finals," said Barclay Kamb, Caltech vice president and provost, and professor of geology and geophysics. "But in discussions with their counterparts at the other institution, the scientists at Rice and Caltech decided that a joint proposal even better epitomized the NSF's stated goal of enhancing linkages with other institutions. The Argonne National Laboratory and the Los Alamos National Laboratory will also be part of this center."

The director of the center will

be Professor Ken Kennedy of Rice University. Principal participants at Caltech, who will lead research groups in several major technical areas addressed by the center, will be Charles Seitz, professor of computer science (computer architecture and operating systems); Herb Keller, professor applied mathematics (algorithms and computational mathematics); and Geoffrey Fox, professor of theoretical physics and assistant provost for computing (computational science, applications, and high-level software). The Caltech component will be represented in the center administration by Dr. Keller.

The Center for Research on Parallel Computation will focus on the development of the next generation of supercomputers, which will depend on parallel processing—breaking up computations into smaller problems that can more quickly be solved by computer subsystems working in parallel. There are a number of inherent difficulties with parallel computation that work at the center will attempt to address. For one thing, the computer programs for older, single processor systems must be restructured to take advantage of parallel processing. Furthermore, parallel systems can be difficult to test and debug. The researchers will use their expertise in computer architecture, programming systems, computational mathematics, and scientific applications to make parallel-processing computers easier to use.

# More Coffeehouse

from page 1

one of the top managers (Bard or Woolverton) had falsified a payroll time sheet so that Lodge, although not officially an employee, could be paid for his work. The guilty party confessed, but explained that he was only doing what he thought was fair.

On December 8, a meeting was held between Matthews, Vice-President for Student Affairs Jim Morgan, and Student Affairs Administrator Stan Borodinsky. It was reiterated that Lodge, as with any non-student, was not to come to the Coffeehouse without a student "host". The fates of Woolverton and Bard were left up to CHUG, although Morgan will recommend that the IHC replace Bard as one of its two CHUG representatives. The following day, Bard resigned from his position at the Coffee-

house. Soon after that, CHUG met and decided to remove Woolverton from his position as Head Manager. Yesterday, CHUG again met with the managers and decided to appoint Barry Lind, a senior in Fleming, to succeed Woolverton as head manager.

The Coffeehouse User's Group consists of two students appointed by ASCIT, two appointed by the IHC, one by the GSC, and one by Student Affairs. Nancy Matthews, Stan Borodinsky, and the Coffeehouse Head Manager also sit on the committee.

One of the IHC seats and the Student Affairs seat are currently open. If you are interested in being on the Committee, please see either Nancy Matthews or Dwight Berg.

# The Inside World

This week's Inside World was brought to you by:

Dabney: David Edwards  
Page: Dean Wilber

**Dabney:** Well, the Term from Purgatory is over. The Term from Hell is yet to come.... But you can still survive, Frosh, by remembering two simple facts: everything (including incest) is relative and there is no such thing as LUMOsexual. Congratulations/Flame in Peace/Welcome to Ricketts to the following people (if you're not really gone, rumors say you are, so you might as well be): Al, Paul S-M (not S&M), Ian, Gregg, Pat, Chris C., and Eric (oh, no! What are we going to do about the hot tub?). However, your vacancies will be appreciated in the Monday-night-screw-your-friends-because-the-pick-order-is-reversed roompick. All bets on the outcome should be registered with Harold "the Bookie Monster" Zatz. It's good to know someone has taken over Al's old job. With 1989 now in full swing, it's already time to look back on:

**The Shortest-Lived Dabney House New Year's Resolutions** Tracy Fu, Rus May, Danny Rintoul, Jared Bronski, and Alex Dukhovny: We resolve to stop drinking. The Dabney Waiters: We resolve to stop being surly at dinner. Earl Hubbell: I resolve not to balance spoons on my nose at dinner. Dirk Runge: I resolve not to look at pornographic material. David A. Edwards: I resolve not to get UPTIGHT about anything. Jon Hamkins: I resolve not to brag to anyone about my wonderful Christmas present, my new sweat pants. Miriam Yee: I resolve to stop beating up on Jon Hamkins during AMA 95 lectures. Trevor Placker: I resolve to stop putting anarchy signs on David's message board. Stanley Chen and Don Finnell: We resolve to stop spending every waking (or otherwise) minute together. Dave Wood: I resolve to stop finding cheap ways to meet easy women - or easy ways to meet cheap women. What do you expect me to come up with when I have only an hour to make this stuff up?

-Darbiturates

**Page:** OKAY EVERYBODY, BACK ON YOUR HEADS! So, how many of you thought something interesting was going to happen during that parade? Hah! That old fake prank trick, it gets 'em every time.

-Mr. Laughs

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By Appointment



# Excerpts From Faculty White Paper

The following are excerpts from a faculty White Paper entitled Quality and Texture of Undergraduate Life at Caltech, which will be presented at a full faculty meeting on January 9.

...Although we have not undertaken a detailed study of the problems and of possible solutions, it is clear to us that there is no shortage of imaginative ideas on how undergraduate life might be restructured and/or enhanced. Here are a few examples that have advocates on our committee...

...One proposal is that significant efforts be made to integrate graduate students and faculty into undergraduate life...

...What has been suggested is that we restructure undergraduate life around the Oxford/Cambridge/Harvard/Yale models. Although the details of how to optimize such a system for Caltech have not been considered, it should be possible to design something that would be unique and attractive. Each undergraduate house would have a group of faculty and graduate students associated with it. There would be a master for each house who lived there, plus a few other resident faculty members and graduate stu-

dents. Non-resident faculty and graduate students associated with each house would have eating privileges at the house, and would participate in and help to organize its activities. Each master would set the tone for undergraduate life in his/her house.

Such a system could work well at Caltech and could help to address perceived difficulties with undergraduate life for several reasons: (1) We have an extraordinary student/faculty ratio. Given that there are advantages to contact between students and faculty outside a classroom setting, we have the potential to provide a unique experience for our students. This would draw students and faculty together in ways that do not seem possible at present. (2) Most of the Caltech faculty lives very close to the campus, so they could participate regularly in campus-centered activities. (3) This could provide a new dimension of intellectual and social stimulation for the students and provide another forum (like the Athenaeum) for collegial interactions among the faculty. (4) The structure and tone of undergraduate life would be, to some extent, taken out of the hands of the student leaders in the houses and would become the responsibility of

the faculty. (5) If successful, this could be an aspect of undergraduate life at Caltech that could be used to attract the kind of student we want.

...We suggest that by enlarging opportunities for undergraduates to learn about their community and the role of science and technology in it and to explore how persons with technical educations can and must play increasingly large roles in public life, Caltech has a special opportunity to redefine the meaning of general education for technically oriented students. As examples, we present two programs that could help contribute toward these goals.

The undergraduate educational program could include a cluster of contemporary and historical courses—and faculty qualified to teach them—in such subjects as social, economic, and ethical issues in science and technology as well as in issues of science and public policy. These courses would find a student constituency much better equipped to take advantage of them than in other institutions because our students are better trained in scientific and technical subjects. These courses could serve a twofold purpose: to prepare Caltech undergraduates (and perhaps graduate students) better than general Humanities and Social Sciences courses alone for lives in professional science and engineering; and to produce a cadre of Caltech graduates who would be better equipped than those from most other institutions to fill positions in government, industry, and elsewhere that involve issues in science, technology and society.

A related idea is that we establish a summer internship program to place students in agencies in Washington as interns. The goal would be, perhaps in parallel with the instructional ideas presented in the preceding paragraph, to expose students to policymaking processes involving science and engineering, and to make thereby an explicit effort to train our students for leadership positions requiring scientific or technical backgrounds. Additional possibilities include a termtime internship program in the Los Angeles area and a broadening of the summer internship program to placements in locations other than Washington. Students could be placed in government, industry, and volunteer organizations to explore careers and to broaden their experience. Other small colleges in the area operate highly suc-

cessful programs of this sort; for example Pomona College, with a student population about twice our size, places over 70-100 students in internships in the Los Angeles area each semester, and has about 25 summer interns. This is a very popular program, particularly for female students. Programs of this sort are potentially attractive components of a total undergraduate experience at Caltech. They could broaden our students, satisfy the need felt by many students to get away from the campus and Pasadena from time to time during the term, and increase the visibility and outreach of Caltech and its programs in the local community and in government agencies.

...Examples of some of the other suggestions we have collected include:

The building of a centralized student center, perhaps incorporating Winnett Center and integrated with Chandler and its environs, would provide a much needed focus for non-academic student activities on campus.

The establishment of a compulsory senior thesis program, optimized for Caltech but drawing on Princeton's program as a model, could stimulate and challenge our students and draw even more of them than at present into the excitement of state-of-the-art research. This will require a substantial commitment from faculty, and funds to support student work (enhanced SURF funds?) will be needed.

There is a perceived need for the construction of new student houses with options for all-women and joint undergraduate-graduate student housing. These new houses and renovated older houses could include alternative housing styles such as suites.

There is a longstanding need for improved athletic facilities. These will help to attract well rounded students. They will also create more opportunities for students to engage in sports and physical education and fitness programs, which are nearly universally held to be essential for a balanced educational experience.

Expansion of cross-registration programs with nearby colleges and of 3-2 programs will provide access to broader subject areas and educational experiences for students who want them.

Many members of the faculty feel that there is a need for more and higher quality classroom and conference space. More widespread availability of modern

educational tools such as videotape cameras and receivers and computer-aided instruction could, if properly supported, could have major impact in the quality of instruction at Caltech.

Recruitment of women so as to reach a more healthy male/female ratio is considered by many students and faculty to be a high priority. Special scholarships and grants could help our recruitment efforts. As alluded to above, however, improved housing facilities and conditions are also thought to be very important in attracting female students.

Enhanced access and exposure to music and the arts for our students will broaden their experiences. Suggestions in this area include support for visiting artists and performers and improved facilities for rehearsal and performance by students.

## Sleep Abuse

A public service message

Sleep abuse is one of the most widespread phenomena on campus today. To help you and your loved ones be on guard against the rapid spread of sleep abuse, we have prepared the following description of the stages of sleep abuse. Remember: Even if these descriptions apply to you, do not give up hope! Trained counsellors can help you with your sleep problems.

**Experimental Sleep**  
Let's face it. All of us are human, and it is a natural urge to experiment with sleep once or twice, in reasonably low doses. No severe lasting side effects due to lasting exposure to sleep have yet been discovered, and the LD-50 in laboratory rats is about one-third their lifetime.

**Social Sleep**  
The social sleeper normally sleeps for a while with friends after parties, but does not sleep as a matter of daily routine. Social sleeping is not dangerous in and of itself, but it does tend to lead to the long downward spiral of sleep addiction.

**Recreational Sleep**  
Recreational sleep is the first sign of the hardcore sleeper. Recreational sleepers often claim to sleep out of a purported sense of well being after one "wakes up" from a sleep trip, but as soon as you notice that someone is sleeping instead of behaving in a productive manner such as flicking, it is time to act. Otherwise, they will have started an almost irreversible decline into...

**Sleep Addiction**  
The sleep addict is one of the most pitiful of creatures. If he can not get enough hours of sleep in a night to support his addiction, he suffers from a wide range of withdrawal symptoms, ranging from tiredness to lethargy to severe performance impairment (i.e. faceplanting). One of the greatest dangers at this point is that empirical evidence seems to indicate that the children of sleep addicts are addicts themselves, innocent victims of their mothers' habits. Some sleep substitutes, such as caffeine, have been tried in an attempt to ease the problems of withdrawal, as well as to avoid the price on society that the contraband South American sleep trade generates, but they have been largely unsuccessful in controlling the spread of the sleep addiction epidemic. JUST SAY NO TO SLEEP!

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Apple Computer has a corporate commitment to the principle of diversity. In that spirit, we welcome applications from all individuals including women, minorities, and disabled individuals. ©1989 Apple Computer, Inc. Apple and the Apple logo are registered trademarks of Apple Computer, Inc.



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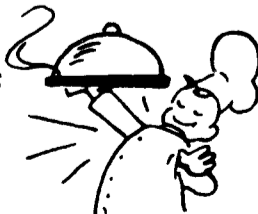
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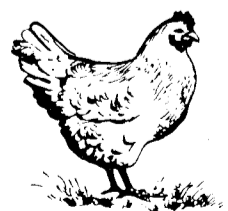
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## ENTERTAINMENT

## Puh-leeeeeze Eddie

by David Cole

What? You haven't seen *Roger Rabbit* yet? If you're tired of hearing that, then this first Saturday of the term was created especially for you. Not only are you a social out-cast in the first place, but you missed the finest motion picture product of 1988. Well, start the new year off on the right foot - go to Baxter lecture hall this Saturday to see *Who Framed Roger Rabbit?* It's on at 2:00, 7:00, and 10:00 PM and costs \$1.50 to get in no matter who you are. No ID required. Courtesy of Cinematech productions.

*Who Framed Roger Rabbit?* is surely a landmark film by which 1988 will be fondly remembered. It is a seamless blend of live action footage and animation. It is a timeless story set in a time when Los Angeles skies are blue instead of brown, people take the trolley instead of hopping into their cars, and cartoon characters actually exist in real life. Of course, everyone knows that cartoon characters are imaginary nowadays.

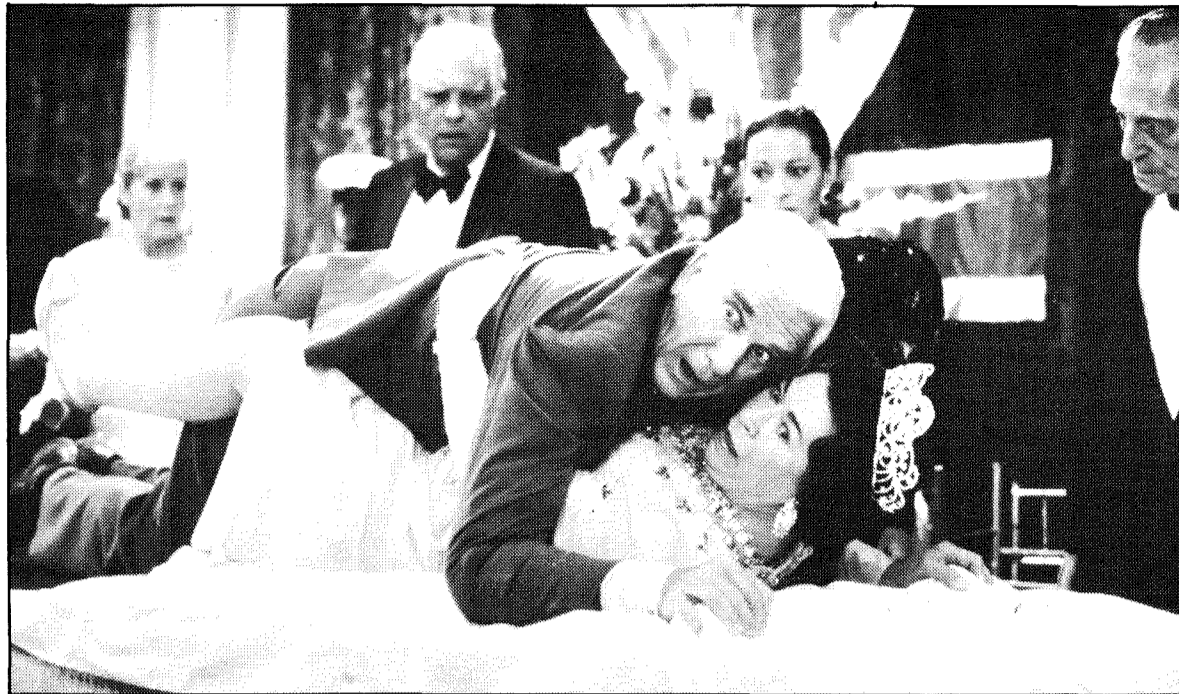
After I first saw this movie, I was enchanted. I practically rolled out of the theater laughing, half expecting a cartoon elephant to fall on my head as I exited. *Roger Rabbit* is a finely crafted movie that deserves every bit of applause it has received.

The production is the result of an "historic collaboration: [the Walt Disney Co. and Steven Spielberg's Amblin Entertainment]...The cinematic hybrid cost Disney an estimated \$45 million."

The film was directed by Robert Zemeckis, who also directed the box office smashers *Back to the Future* and *Romancing the Stone*. It stars Bob Hoskins as Eddie Valiant, the pickled detective who helps(?) *Roger Rabbit*, star of *Maroon Cartoons*, and Christopher Lloyd as Judge Doom, purveyor of justice in and around Toontown.

Roger's wife, Jessica Rabbit, is definitely a surprise the first time you meet her. But then you get used to her, don't worry. The speaking voice of the sultry Jessica is that of Kathleen Turner; Spielberg's wife, Amy Irving, is Jessica's singing voice. Also joining the cast are all the Disney and Warner Brothers cartoons you can imagine. With all these talents involved with the production of *Roger Rabbit*, it's no wonder this movie was the top box office grosser of the year.

Additional information about this movie can be found in the cover story of the June 27th (1988) issue of *Newsweek*. If, after you've seen the movie, you are as enchanted as I was, I strongly recommend a trip to the 5th floor of Millikan to read the article. The prospects for a sequel are mixed. Both Zemeckis and Spielberg would prefer, rightfully so, to leave it as a once-in-a-lifetime classic. Sequel or no sequel, *Roger Rabbit* is the must-see movie of 1988. And now that it's 1989, those of you who have not seen it have a golden opportunity this Saturday. Don't miss it!



Lt. Frank Drebin (played by Leslie Nielsen) gets friendly with his cleaning lady (played by Queen Elizabeth II) in *The Naked Gun*.

Photo Courtesy of Paramount Pictures

## Failed TV Series Turns Hit Movie

**The Naked Gun: From the Files of Police Squad!**

Directed by David Zucker  
Written by Jerry Zucker, Jim Abrahams, David Zucker, and Pat Proft.

Starring: Leslie Nielsen, Priscilla Presley, and Ricardo Montalban.

by Chris Raymond

If you liked the *Airplane!* movies the time has come to rejoice. The wild and crazy guys who brought you these productions have collaborated once again to resurrect their short-lived television program

*Police Squad!* as a frenetically paced, hysterically funny movie.

The movie stars Leslie Nielsen as Lt. Frank Drebin, Priscilla Presley as his girlfriend Jane Spencer, and Ricardo Montalban as Vincent Ludwig, a wealthy and respected Los Angeles businessman who enjoys moonlighting as a hired killer. The movie also includes such talents as George Kennedy, O. J. Simpson, and Nancy Marchand, and includes guest appearances by "Weird Al" Yankovic, John Houseman, and Idi Amin, among others.

The movie's plot ostensibly in-

volves a plan to assassinate Queen Elizabeth (see photo) during a state visit to Los Angeles, but this is really just a vehicle to hold together the movie's nonstop series of sight gags and slapstick. The verbal humor is great and consists mostly of broad double-entendres and groaningly obvious puns. Some of the jokes are telegraphed pretty heavily; for example, while searching Ludwig's office for evidence of the tycoon's shady dealings, Drebin opens a desk drawer and shouts "Bingo!" just before the camera

**continued on page 7**

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# Club Tech Vacation

by Andrew Hsu

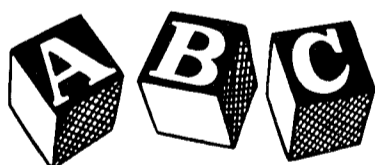
Bored? Well there is never a need to look any further than your very own campus for the finest in entertainment. While Caltech may not be first on anyone's list of exciting things to do, most people would be surprised at what the campus actually offers.

Let's start with the Office of Public Events. The Caltech community receives special discounts on tickets to most Caltech events. On advance sales to events, Caltech students receive 50% off; the Caltech faculty and staff discount is \$2.00 off. Student rush tickets for \$6.00 and TECHTIX, or half price tickets, are available beginning at noon the day of an event at the Caltech ticket office.

Speaking of the Caltech ticket office, this office also serves as a Ticketron outlet so that people can get tickets to events all over L.A. Other sources of amusement can be found at the Caltech Y offices. For starters, the Y sponsors many on-campus activities such as dinner/discussions at the Ath, noon concerts, chamber music, movie nights, and much more. In addition, the Y subsidizes many cultural events that occur in the greater Los Angeles area. This includes movies, L.A. Philharmonic concerts, and drama. Check at the Y for the latest information. If you enjoy watching movies, many places will be showing them this term at little or no cost.

ASCIT™ offers the weekly ASCIT movie on Friday nights, while Cinematech shows classic movies on Saturday nights. Both are shown in Baxter Lecture Hall. In addition, Prof. Rosenstone invites the campus to screen films that he shows for his H131 (History Through Film) class.

I'm sure that there are many more things that happen on campus that I haven't had a chance mention because I could only write an eight-inch article. If you have any, please let me know. Next week, space permitting, some ideas for entertainment around Pasadena.



## More Gun

from page 6

cuts to the bingo card that he found. Much of the verbal humor is more subtle, and the viewer must constantly follow the dialogue to catch all of the jokes and the hints about upcoming gags.

This movie has something for just about everyone. There is steamy romance (but both Drebin and his girlfriend practice "safe sex"- with full body condoms!), a world-wide alliance of evil, lots of baseball (with Drebin attempting to impersonate both an umpire and the opera star who sings the national anthem) and even a slightly skewed music video. If you like this brand of humor, *The Naked Gun* is a must see.

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# sports

## Techers bid into North American Bridge Finals

by Craig Volden

"In a par tournament, it is not your results that count, but whether or not you bid and play correctly." Following this single rule, a Caltech foursome showed their Bridge skills with results that do count - victory in the Western Conference of North America and a trip to Reno Nevada, to compete in the North American Bridge Finals.

In early November, Bill Cross, Sam Dinkin, Kenny Horneman, and Dave Sonneborn competed with other Techers in the Campus Tournament, part of the contest sponsored by the American Contract Bridge League. These four were able to make the most correct plays, scoring 212 out of 400 points.

The Caltech score was then compared with those of other schools, which played the same predetermined hands. The Techers

were surprised when notified that they had the highest score in the western third of the United States and Canada. "U.C.L.A usually wins from our conference. Apparently, they didn't have an eligible team," despite the fact that the only eligibility requirement is that each team member be under twenty-five years old.

The continent is divided into five conferences, with one team attending the finals from each conference and one team at large, based on the scores of the remain-

ing colleges. Dinkin projected Harvard's score at about 380. "But," he added, "since we qualified, we've held regular practices on Mondays and Wednesdays, and [we] play all the time." The foursome also has been competing in local tournaments and is rapidly improving.

The structure of the Tournament, to be held in Reno in mid-March, is round robin, with each pair of players competing against those of each of the other five schools. According to the official rules, at that point, "two of the six

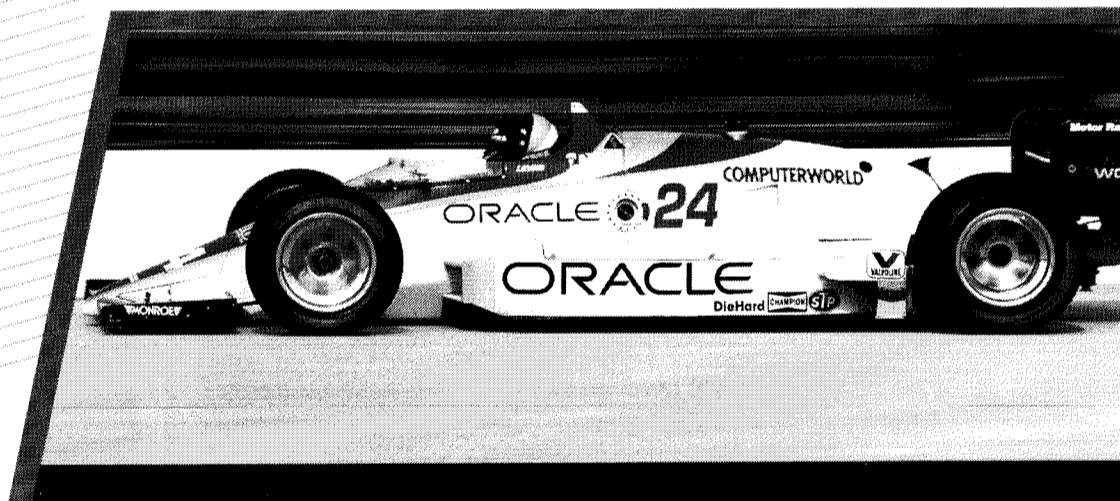
teams will be eliminated. The remaining four schools will be paired in two head-to-head matches, based on qualifying scores in the round robin. The winners of the two semifinal matches will play for the championship.

"The third level of this competition is governed by the World Bridge Federation and is scheduled to be played in Nottingham, England. The team winning the North American Final ... will represent North America, the ACBL, and its school." Hopefully, that school will be Caltech.

## WEEKLY SPORTS CALENDAR

Day	Date	Time	Sport	Opponent	Location
Fri.	1-6	8:30 pm	Basketball	Pacific Christian	Pacific Christian
Fri.	1-6	All Day	Swimming	U.C. Irvine Invitational	U.C. Irvine
Sat.	1-7	All Day	Swimming	U.C. Irvine Invitational	U.C. Irvine
Sat.	1-7	7:30 pm	Basketball	Loma Linda University	Caltech
Wed.	1-11	7:30 pm	Basketball	Loma Linda University	Loma Linda University
Sat.	1-14	11:00 am	Swimming	Pomona-Pitzer & Oxy	Caltech

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We are recruiting for opportunities in Marketing, Consulting, Development, Finance, International, and other areas within Oracle. On-campus interviews will be held on Thursday, January 12, 1989. For more information please contact your Placement Office. If you're unable to meet with us, please call or write:

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# what goes on the back page

Submit announcements for *What Goes On The Back Page* on forms available outside the *Tech* office (SAC room 40A) and in the copy/mail room (SAC room 37), or use a plain piece of paper. Send announcements to 40-58, or put them in the IN box outside the *Tech* office. Indicate the date(s) the announcement must run. Announcements for the current issue *must* be received by 5 pm Tuesday and should be shorter than 75 words. Announcements will be published as space becomes available and will be chosen according to size and interest to the Caltech community. Announcements for commercial events unrelated to Caltech will not be published.

## More Engineering Money

Equal Opportunities Publications, Inc. offers two non-renewable \$500 scholarships to honor outstanding women, minority, or handicapped students pursuing careers in Engineering. For information contact the Financial Aid Office.

## National Roofing Bucks

The National Roofing Foundation offers a \$4000 scholarship for full-time students enrolled in architecture, engineering, or other curricula related to the roofing industry. Applications and information are available from Aimee Anderson, Scholarship Coordinator, National Roofing Foundation, One O'Hare Centre, 6250 River Road, Rosemont, IL 60018.

## Arizona Honors Academy

The Arizona Honors Academy will offer a three-week seminar for exceptional undergraduates this summer, providing opportunities to discuss important world issues with writers, sovietologists, national security officers, historians, physicists, and arms negotiators. Deadline: 15 January 1989. For information contact the Financial Aid Office.

## SAMPE International Awards

The Society for the Advancement of Material and Process Engineering will provide 27-\$1000 awards in international competition in April. Students in their freshman, sophomore or junior year may apply. Applicants must be recommended by the department head or scholastic advisor. Deadline: 1 February 1989. For information contact the Financial Aid Office.

## Korean-American Scholarships

The Korean American Scholarship Foundation has 14 \$1,000 scholarships to aid full-time college students of Korean heritage, including graduates and undergraduates. The deadline for applications is January 31, 1989. For more information, contact the Financial Aid Office, 515 S. Wilson.

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## Planetary Society Scholarships

The Planetary Society is offering five \$1,000 awards to students majoring in engineering and science. Awards will be made on the basis of scholastic achievement, a commitment to a career in planetary related science, and a written essay on a relevant topic. The deadline for completed applications is 15 April 1989. Mail-in cards for further information are available in the Financial Aid Office, 12-63 (515 S. Wilson, 2nd floor).

## Big 10 Graduate Fellowships

The Committee on Institutional Cooperation (the athletic Big 10 plus the U. of Chicago) is offering fellowships designed to increase the representation of American Indians, Black Americans, Mexican-Americans and Puerto Ricans among Ph.D. recipients in the basic social science disciplines. Each award provides full tuition for the academic year plus an annual stipend of \$9,000. Interested minority applicants should contact: CIC Minorities Fellowships Program, Kirkwood Hall 111, Indiana University, Bloomington Indiana 47405. The application deadline is 6 January 1989.

## NRC Research Associateships

The National Research Council has Resident, Cooperative and Postdoctoral Research Associateship programs for research in the sciences and engineering to be conducted on behalf of 30 federal agencies or research institutions, whose 115 participating research laboratories are located throughout the United States. The programs provide opportunities for Ph.D. scientists and engineers of unusual promise and ability to perform research on problems largely of their own choosing yet compatible with the research interests of the supporting laboratory.

Approximately 450 new full-time Associateships will be awarded on a competitive basis in 1989. Awards are made for one or two years, renewable to a maximum of three years; senior applicants who have held the doctorate at least five years may request shorter tenure. Annual stipends for recent Ph.D.'s for the 1989 program year will vary from \$27,150 to \$35,000, and will be appropriately higher for senior Associates.

Applications must be postmarked no later than 15 January 1989 (15 December for NASA) for the first competition, 15 April and 15 August for the later competitions. Information and applications may be obtained from: The Associateship Programs (GR430A-D1), Office of Scientific and Engineering Personnel, National Research Council, 2101 Constitution Ave. N.W., Washington, D.C. 20418.

## Research Seminar

The U.S. Department of Energy has announced a research program open to juniors and seniors interested in biomedicine, chemistry, materials science, engineering, reactor physics, atomic physics, nuclear physics, high-energy physics, environmental science, geoscience, mathematics, computer science, energy systems, waste technology, nuclear medicine, and automated inspection/measurement systems. The program provides a stipend, housing and travel reimbursement for a variety of activities including hands-on research, seminars, academic courses and advanced instrumentation training. Applicants must be U.S. citizens or permanent residents and must have GPAs of 3.0 or better. For further information, stop by the Deans' Office. Applications are due by March 15, 1989.

## College Women's Club \$\$

The College Women's Club of Pasadena is offering \$2000 scholarships for 1989-90. Applicants must be in either their sophomore or junior year. Applications must be received in the Financial Aid Office by Jan. 31, 1989. For more information, contact Financial Aid at 515 S. Wilson.

## Coors Memorial Scholarships

Adolph Coors Company is sponsoring \$500,000 in scholarships to sons and daughters of American veterans this year.

To be eligible, applicants must be 22 years of age or younger as of March 15, 1989, and already be enrolled full-time in an accredited four-year institution of higher education in the United States, or an accredited two-year program leading to a four-year undergraduate degree. Additionally, they must have a cumulative GPA of 3.0 and be the son or daughter of one of the following: an Honorably Discharged American veteran, Active Duty military, Guard or Reserve military (minimum six years or called to Active Duty), or American service person Killed in Action, Missing in Action or who has Died in the Line of Duty. Contact the Financial Aid Office or any major veterans organization for applications.

## 1989 Markey Fellowships

The Mount Desert Island Biological Laboratory announces the 1989 Markey Fellowship Program. Applicants are invited from investigators in the biological and biomedical sciences for summer research at the MDI Biological Laboratory. Using vertebrate and invertebrate fauna from the Gulf of Maine, Laboratory researchers pursue diverse interests including the comparative physiology of the kidney, cell membrane transport, the mechanisms of cell division, and cellular and molecular aspects of environmental toxicology.

Preference is given to applicants several years beyond the completion of the doctorate demonstrating evidence of an independent research program and are still in relatively early phases of research careers. The Fellowships include laboratory space, housing, supplies and equipment, and other allowances. Applications and instructions for the preparation of proposals may be obtained by contacting the Laboratory at: Mount Desert Island Biological Lab P.O. Box 35 Salsbury Cove, ME 04672 or phone (207) 288-3605. Deadline for applications is 9 January.

## Be In The Top Ten

Caltech juniors are invited to participate in *GLAMOUR* magazine's 1989 All New Top Ten College Women Competition. This, the 23rd annual competition, will select the winners on the basis of solid records of achievement in academic studies and/or extra-curricular activities on campus or in the community. The competition is broken down into the areas of: Creative Arts, Communications, Science and Technology, Health, Public Service, Government and Politics, International Relations, Business and Economics, Entrepreneurship, and Sports. One outstanding woman in each category will win the big prize of \$2,500 and an appearance in the October, 1989 issue of *GLAMOUR*.

## Need A Club Mailbox?

Club mailboxes may be obtained from Nancy Matthews (SAC room 50) or Milly Pena (SAC room 38) between 1:30-3 pm, Monday through Friday.

## Women's Glee Club Retreat

The Women's Glee Club will be holding its Winter Retreat tonight and Saturday, January 6 and 7, at Altadena Town and Country Club. Women's Glee Club members, and any women interested in joining the Glee Club second term, should meet in the Athenaeum parking lot at 6:45 pm Friday night to carpool to the club. For further information about the retreat or the Women's Glee Club, call Ami Choksi, President, at 356-9136, or Monica Hubbard, Director, at 356-6260.

## Caltech SEDS Meeting

Caltech SEDS will be meeting on Tuesday, January 10 at 7:30 pm in Rm. 15 (Clubroom B) of the SAC. We will be showing a film on the U.S. Viking mission to Mars to commemorate the arrival later this month of the Soviet Phobos mission to the Red Planet. Refreshments will be served.

## Yet Another Totem Poll for Art

Attention writers, poets, and artists! The second *Totem* in as many years will appear this spring and will contain a diverse, if not complete collection of Techer-expressed wisdom and imagination. Address submissions to 116-58. For information contact Sam Dinkin (1-59 or x3828), or Erik Russell (Annex #5, 1-59, x6188). Copies of previous issues of the *Totem* are available.

## Science Made Comprehensible

James F. Blinn, co-director of the *MATHEMATICS!* project at Caltech and one of the world's top computer animators, will deliver a Watson Lecture on Wednesday, January 11. Dr. Blinn's topic will be "Making Science Understandable." Dr. Blinn, well-known for his Voyager planetary flyby simulations, also collaborated with the academic team that produced *The Mechanical Universe*, the award-winning physics course for television also developed at Caltech. The lecture is free and open to the public, at 8 pm in Beckman Auditorium.

## Guitar Classes at Caltech

Guitar classes for 2nd term will meet on Tuesdays, starting January 10th in Rm. 1, SAC, as follows:

Beginning class, 4:30-5:30 pm  
Intermediate class, 3:30-4:30 pm  
Advanced Class, 5:30-6:30 pm

Classes are free to Caltech students (and other members of the Caltech community, space permitting). Undergraduates can receive 2 units of credit if they choose. Classical and Flamenco repertoires will be explored but the techniques transfer to other styles of guitar. The Beginning class includes a jazz and folk chord system. Private instruction on any level can be arranged. The instructor, classical guitarist Darryl Denning, has an international recording, performance and teaching background and can be reached at (213) 465-0881.

## Leadership America

The International Leadership Center is seeking applicants for Leadership America, a summer program which includes one week in North Carolina, one week in the Rocky Mountains and three weeks in Dallas, Texas. It also includes a four-week internship in business, government, or community service followed by a closing session in Washington, D.C.

Students incur few expenses in Leadership America, since most costs are underwritten by corporate sponsors.

To be eligible for selection to Leadership America, a student must be currently enrolled in a four year (or more) undergraduate program and have completed the junior year of this program by June 9, 1989. The primary criterion for selection is that the student have an "outstanding potential for leadership." Selection will begin in February, 1989, and invitations will be extended in mid-March.

For additional information about Leadership America, contact the Deans' Office, 102 Parsons-Gates, x6351. Applications for this program must be returned to the Deans' Office no later than Jan. 30, 1989.

## New Humanities Course

Doug Flammig is offering Hum 7a: American Society and Politics: Modernization and Social Change, 1720-1920, Tuesday 2-4 and Thursday at 3. Sign up in Registrar's Office.

## Art Center Courses

Students interested in enrolling in courses at the Art Center College of Design in Pasadena can receive exchange credits at Caltech. There is a wide selection of courses, including introductory courses in drawing, painting, graphic design, product and transportation design, and computer graphics. Daytime and evening schedules are available. Tuition payment is waived, but students are responsible for any special fees. The Art Center registration deadline is January 13th. Check with the Deans' Office or Susan Davis in 221 Baxter for a schedule and course descriptions.

## Career Development Tidbits

The City of New York is sponsoring the Mayor's Corps of Engineers, offering 75 outstanding engineering students who have completed their junior year of college the opportunity to work on some of the most exciting engineering projects currently underway in New York City. Deadline for applications is February 15, 1989.

IBM Latin America is seeking candidates to fill the positions of Marketing Representative and/or Systems Engineer to work in selected Latin American countries. (Openings are for citizens of Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela).

SPIE's OE/LASE '89 International Conference and Exhibition on Optics, Electro-Optics, and Laser Applications in Science and Engineering is looking for an Audio Visual Assistant for the dates of January 14-20.

Sandia National Laboratories sponsors the "One Year on Campus" Masters Degree Program. The program provides an opportunity for highly competitive minority bachelor-level individuals to continue their education for a masters degree. Candidates normally work at Sandia for several months to become familiar with the laboratories' environment before beginning the program.

Operation Crossroads is sponsoring a cross-cultural exchange project in Africa and the Caribbean.

Mulliman & Robertson, Consulting Actuaries, has a need for part-time employees with general mathematical skills to work about 10-12 hours per week during the school year. They would like to employ someone in his or her sophomore year with the expectation of continued employment on a part-time basis through graduation. The company is located on South Lake Ave.

Stop by the Career Development Center, 08 Parsons-Gates, for more information.

## Glue Yourself to China

The Durfee Foundation has invited Caltech faculty, staff, students and recent alumni (within the past seven years) to participate in The American/Chinese Adventure Capital Program. The Foundation is inviting proposals from people who "wish to cement a special personal relationship with China" and asks that projects not be associated with professional goals. Projects should be in the range of \$2,000 to \$15,000 and take no longer than one year to complete. Further information about how to apply may be obtained from Caltech's Office of Foundation Relations, x6882. Applications are being accepted until January 15, 1989.

## International Engineering

The University of Illinois at Urbana-Champaign sponsors the International Programs in Engineering. This is an exciting opportunity for engineering students to gain valuable international experience in the Pacific Rim programs of China and Australia and the Latin American program in Brazil. The China and Brazil programs will be held in Summer, 1989. The Australia program begins in the fall of 1989. Stop by the Career Development Center, 08 Parsons-Gates, for more information.



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