

Heads  
Up!

# The California Tech

It's  
Halloween

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FRIDAY 30 OCTOBER 1987

## ASCIT Presents TQFR Proposal

by Jeff Tekanic

In the past couple of weeks there have been many rumors as to the current status of the TQFR, only some of which were actually correct. As many of you already know, the TQFR has not been compiled yet and the odds are that the 1986-87 TQFR will not be published. While there is nothing set in stone which says that there will be no TQFR this year, the general opinion of the ASCIT BOD and the IHC is to forgo the project for what should be an improved format.

The TQFR has lost its ability to provide useful feedback, because in most classes, less than ten percent of the people in a particular course take the time to fill out the feedback form. Even fewer write responsible reviews of, as it is typically easier to write down a few cute of-the-cuff remarks than to actually think about and write constructive comments from which other students might gain. Also, the numerical data is too arbitrary to be of much use in determining the relative merits of a course.

For these reasons there has been no strong drive to complete a TQFR this year. Instead, the push has been to create a new format which will be beneficial to students looking for advice on what courses to take and when to take them.

Because the TQFR was not completed, a recall petition has been submitted for the removal of Devin Leonard from the office of Director of Academic Affairs. This recall vote will be held Tuesday, November 3.

The following section is the first draft of a proposal for the creation of a new student's guide to Caltech courses. This proposal has already received initial support from both the administration and the student committees (ASCIT & IHC), but should not be considered either approved or final. If anybody has any opinions on how to improve or change this proposal, please contact me at x6236.

"Proposal for a Students' Guide to Caltech Courses"

As the title should suggest, the TQFR as we know it today will cease to exist. A new name will need to be created because we do not want the new format to be associated with the old handbook. The central reasons for discontinuing the TQFR are its inability to communicate basic information about most course listings and the recent introduction of division feedback sheets.

For these reasons the new students guide will attempt to occupy a slightly different niche than the TQFR, as it will provide students with useful information about courses in the form of reviews written by students

in those courses. The reviewers will be assigned by the editors of the guide, and will typically be students serving on the feedback committees in the divisions.

The new student guide will take advantage of what we hope will be increased communication in our division student/faculty committees which are already in place. The new system will be modeled after the successful Biology Undergraduate Student Advisory Committee (BUSAC). BUSAC is composed of nine undergraduates and one faculty advisor. The nine undergrads are selected by election among all Biology majors. This committee consists of two freshmen, two sophomores, two juniors and three seniors who act as tri-chairmen. BUSAC meets once a month over lunch and discusses courses currently being offered within the option as well as Ch 41. In this way the students in these classes have the ability to give feedback more than once a term and in a more constructive way than the current ombudsmen meetings.

At the end of the term one person is assigned to write up a short review on each course offered in the option. This person is currently taking the course and typically surveys other members of the class as to their opinion of the course. Topics typically covered include, but are not limited to workload, subjects reviewed, and homework/exam policies. Also, information from the registrar such as grade and class distribution will be added. A selected portion of the 1985-1986 BUSAC report is included to illustrate. If anyone would like the unabridged report, please talk to an ASCIT BOD member or a house president. The senior tri-chairmen are left in charge of editing and compiling these reviews.

My proposal would call for increased activity on all the student/faculty committees. As a result each committee will submit a

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Unidentified Techer lies patiently, waiting to give blood, oblivious to the large needle the nurse is taking out.  
photo by Michael Keating

## Blood Drive Aids Victims

by Wackadoo

Techer's bled 180 pints of that precious bodily fluid to aid this week's American Red Cross blood drive in Winnett Student Center.

This week's blood drive at Caltech generated an average of 60 units of blood per day for the three days it was operating, which is the highest average in at least three years.

Ricketts won the blood drive competition, with 23% (17) of its members donating blood. Dabney followed with 10%, Ruddock with 8%, Lloyd with 6%, Blacker and Fleming with 4%, and Page with 1%.

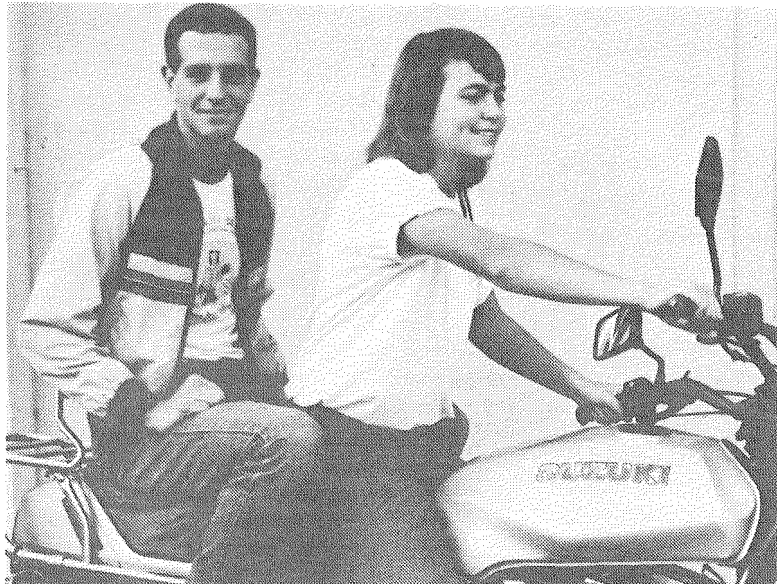
Blood collected from the donation centers is sent to a central laboratory here in L.A. where it is screened for hepatitis, AIDS, and other communicable diseases. If anything is detected, the donor is notified and the blood destroyed.

Blood which passes all of the tests is distributed to the approximately 260 blood banks (hospitals and other facilities) around Los Angeles County for use as needed.

Most of the blood is distributed as whole blood, and is used within 42 days of donation. A portion of the blood, however, is separated into its components which are used within 5-7 days of donation.

The earthquake on October 1st caused a significant decrease in the area's blood supply. Many of the facilities which were to be used as blood drive centers closed down, significantly decreasing the number of units of blood collected. (The loss has been estimated at over 700 units.)

The Red Cross, in an effort to replenish the blood supply, has boosted its phone campaign and increased the number of blood drives throughout the county.



Bibi starts off on another recruiting excursion while David prepares his sales pitch.  
photo by Michael Keating

## Participation Needed for Success

by Scratch

It is again time for the Faculty/Student Conference (hereafter referred to as the Student/Faculty Conference). BB J-N and Bruno earlier wrote a short, flippant, rah-rah article to encourage members of the Caltech community to participate. We are writing a longer, flippant, rational article about why it is a good idea to participate.

As the two co-chairs point out, many of the enjoyable reforms that exist today got started in the Student/Faculty Conference. Besides the much heralded (and needed) increase in vacation time, and the new South House Basement, complete with the new Coffeehouse (that charges tax now) and renovated Filipino Courtyard, there are many other nice things that came out of the Student/Faculty Conference:

- "Dead week" during which no finals or homeworks are due, and finals week in which no homeworks are due. Frosh should be really thankful for this as Ph 1, Ma 1, and Ch 1 finals used to be due on Monday of finals week. Frosh never really got to fully enjoy Decompression. Those in AMA 95 should get down on their knees and shout praise because the last homework is no longer due with the final.

- The new ombudsman systems in each of the Divisions is modeled on the Biology Division's BUSAC system. The ombudsman systems for the required Physics, Math, and Chemistry courses used to be a disaster. Feedback is now much better.

- The reworking of the Ph 2/Ph

12 course loads. Biology, Geology, and Literature majors found themselves doing three times more work than the Physics, Applied Physics, and Engineering majors in Ph 12. This is now fixed. No longer do you hear, "Stop you fool! Why are you taking fiz too when you can take fiz twelve, do less

work, and get a better grade?"

Even though there are these great accomplishments from the past, there are even better reasons to get involved this year. Well, four really good reasons. Caltech has a new president, provost, MOSH, AMOSH, and chairman of

continued on page 3

## Wall Street and Caltech

by Davy Lo and Sing Ung Wong

Something funny happened last Monday... Sam Walton, the boss of Walmart and the richest man in America lost more than one billion dollars. Yes, folks, one billion dollars. That's more than 3000 Vaxen would cost and about the net worth of Microsoft chief Bill Gates two weeks ago.

Monday, Oct. 19, 1987, will go down in history as the Bloody Monday. The Dow Jones Industrial Average (DJIA) fell 508 points to 1738.34, representing a record one-day decline of 22.6%. That translates into a loss of about half a trillion dollars.

People who had invested heavily in the market saw as much as 30% of their money disappear. Those buying on margin, that is, by borrowing from their brokers with their stocks as collateral, lost their shorts. The hardest hit were the ones who had bought into the market around the DJIA peak at 2722.42 on Aug. 25. News of the crash here initiated record declines in the major markets throughout the world. From London to Frankfurt

to Zurich to Tokyo and back to New York, the bears were running wild.

What does all this mean to the Caltech community? If you hold stocks, or have a few thousand dollars sitting around in the bank, you may want to know whether this is the time to buy, hold, or sell. Indirectly, a recession, following a prolonged bear market, means fewer jobs for new graduates, lower or stagnant government funding in basic research. Also, donors to non-profit organizations may be less generous. Translation - smaller and fewer donations to Caltech.

In response, the Caltech Y is sponsoring a panel discussion on the stock market, its trends and impacts. It will take place in 24 Beckman Labs 7:45 pm. Wednesday, Nov. 4 The panelists include Henry Tanner, Assistant Treasurer of Caltech; Don Cameron from Cameron, Murphy and Spangler; and Sam Hale of Hillside Associates.

As background, here is some information regarding the causes, continued on page 3

## Help Requested for SF/C

by David Bruning and Bibi Jentoft-Nilsen

We need YOU for the Student/Faculty Conference! More specifically, we need your ideas for topics for the Student/Faculty Conference (hereafter referred to as S/FC) on Monday, Nov. 2, 8:00 pm, in the MOSH's office. That's right; we're pleading with you to tell us what's wrong with Caltech, and what should be changed to make your four to ten years here more enjoyable, educational, non-stressful, happy, etc.

All the poor frosh and sophomores who didn't experience the legendary S/FC of 1986 are now wondering, "What is the S/FC all about?" Imagine Ramo Auditorium filled with students and faculty listening intently to reports on various aspects of Caltech which students and faculty feel need to be changed.

Sounds too good to be true? In fact, the S/FC has turned out to be a truly effective method for bringing about change. For example, in 1986 students clamored for a stu-

dent center, and look, we now have the South House Basement Complex, filled to the brim with student facilities.

My favorite change is one that many people haven't realized yet: the calendar revision. Up until last year we had been allotted two weeks for winter break and one week for spring break. In 1986 we clamored (we're good at clamoring) for longer vacations in order to make recuperation between terms possible. So, what happened? The calendar was revised to give us three weeks for winter break and two weeks for spring break!! Pretty awesome, huh? And the list of S/FC accomplishments goes on and on.

Now the question is: what can we do this year? Bring your ideas, enthusiasm, and food for Sammy to the MOSH's office on Monday, Nov. 2, 8:00 pm. If you have ideas and can't come, please call or write, while supplies last, to: Dave Bruning (1-53, x3976) or Bibi J-N (1-60, 578-9086).

## LETTERS

## Getting the Facts Straight

To the Editors:

I wish to respond to David Bruning's article (Oct. 23) regarding Ted Turner's talk. I did not attend the talk, so I won't attempt to defend Turner. However, Bruno makes a number of assertions in his column without citing references, as though he were merely stating common knowledge. His assertions contradict information with which I am acquainted, so perhaps he will elucidate further in a future column.

1) Bruno claimed that the Soviets have completely ignored treaties. The facts do not justify this. In the late 1970's, the anti-arms control and anti-SALT II lobby made similar allegations, prompting the creation of a government group composed of representatives of the Departments of Defense and State, the CIA, the Joint Chiefs, the National Security Council, and the Arms Control and Disarmament Agency to investigate.

They found no Soviet violations of any arms control treaties. Ambassador Robert Buchheim, the U.S. Commissioner in charge of compliance, stated that "the Commission has never yet had to deal with a case of real or apparent clear and substantial non-compliance with an existing agreement."

In 1979, former CIA Director William Colby made similar statements to the Senate Armed Services Committee. In 1982, in Congressional testimony, then-Secretary of State Alexander Haig concurred. Except for the Krasnoyarsk radar, the allegations of Soviet non-compliance are the same ones that were refuted earlier by the U.S. government, and it is the same right-wing opponents of arms control making them.

As far as the Krasnoyarsk radar is concerned, it is the first substantive allegation that the Soviets violated the letter of an arms control treaty. However, an understanding of the treaty indicates that the violation is only of the letter, and not the spirit of the treaty.

The ABM treaty classifies radars in three types: ABM battle management, ABM early warning, and space-tracking. The treaty places clear limitations on the site in each nation, and thereby reduces the incentives to develop more offensive weapons. The treaty only limits early warning radars in that they are to be located on the nations' borders and directed outward to prevent them from being used as defensive battle management radars. No limits are placed on space-tracking radars.

The Reagan Administration claims that the Krasnoyarsk radar is a battle management radar, which would be a violation of the

treaty, since the Soviets already defend Moscow. The Soviets claim that it is a space-tracking radar.

Analysts such as Paul Nitze have speculated that it is really an early warning radar built inland because of the tremendous cost that would have been incurred had it been located on the Siberian coast. The radar covers mostly barren regions of Siberia and could be quickly wiped out by U.S. attack, so the Pentagon does not find it militarily significant.

The U.S. on the other hand, while constructing its radars at its borders in keeping with the treaty, has deployed radars which cover 240 degrees. This allows the radars to cover the U.S. interior which completely violates the spirit of the ABM Treaty.

Also, it has commenced construction of radars in Greenland and Great Britain which violates Article IX of the treaty forbidding construction of radars outside national territory. The U.S. has claimed that this only "upgrades" existing radars, but this is really stretching the meaning of the word. The Soviets have offered to dismantle Krasnoyarsk if we do not "upgrade" Greenland and Great Britain, an offer which Reagan has refused. The British later decided not to let us complete the radar there due to concern about violation of the ABM Treaty.

2) Regarding the U.S. naval presence in the Persian Gulf, Bruno criticized Turner's ideas on withdrawal of the fleet as pacifis-

tic, inconsistent, and anti-Reagan. I would like to point out that there are many differences of opinion on what U.S. policy should be in the Gulf.

The administration's stated policy, however, has not matched its actions. Supposedly we are there to protect the rights-of-way in the sea lanes, but Iraq has been and continues to be a more serious danger than Iran. Should there not be pressure placed on both Iraq and Iran to cease the Gulf shooting, instead of placing it on Iran only? Why are the Reagan Administration and Bruno ignoring Iraq's attacks on shipping? What support is left, then, for Bruno's criticism of Turner's accusation that the Reagan policy is politically motivated to counter the Iran-Contra arms sale fiasco?

The anti-Iran shift in U.S. behavior comes at a particularly bad moment in history, with upcoming elections in Iran and the expected demise sometime during the next term of the Ayatollah Khomeini. The more militant, anti-U.S. contenders have been strengthened.

3) Regarding travel at ten times the speed of light - 'nuff said. But this clear-cut technical error (apologies to Roddenberry and Lucas) should not, in my opinion, be used as an example to justify ridicule of Turner's more down-to-earth ideas relating to political issues which are far more complex.

Sincerely,  
Steve Eppley, Alumnus

## Nit-picking on Turner Ignores Merits of Talk

To the Editors:

You are to be commended for placing David Bruning's comments about Ted Turner's talk (Oct. 23) in the "Opinion" section.

David Bruning failed to report on a vast majority of the content of Turner's talk. Nit-picking on some technical inaccuracies should be beneath a Teacher's response to opinions of members of the lay public.

The major thrust of Turner's message had to do with the global issues we face today. Those issues (e.g. enough food, clean air, clean water, stemming the tide of over-population, funding for education and peace instead of for war) are real issues, but their resolution is not easy.

Turner did not pretend the solutions would be easy. To have pointed out obvious truths should not be misconstrued as being simplistic. Certainly, if the efforts being made to solve those global problems are not forceful enough, are not specific enough, are not widespread enough...perhaps the message really does need to be spread more widely, more often.

I heard him as a member of the public giving his opinions on problems which need attention. His audience was, by and large, composed of members of the scientific community. If subsequent Presiden-

tial Lecturers speak about efforts being made to solve these problems, Turner's talk will have been a most appropriate kick-off, hardly something to be jeered at by the campus newspaper's reporter.

Sincerely,  
Helen Z. Knudsen

## Lit 101: The Faerie Tale

To the Editors:

Respected and honourable Scribes, it is of great concern to two of your faithful perusers that you would allow one of your elite entertainment clerks to squander six dollars on a fine cinematic presentation and then help him to embarrass himself by the publication of an evaluation of said event which clearly demonstrates his ignorance regarding one of the finest literary forms: the Faerie Tale.

Mr. Haba's foremost complaint about the cinematic adaptation of this great saga, *The Princess Bride*, is the lack of emotion, especially between the Dread Pirate Roberts and his true love, Buttercup. We fear that Mr. Haba has failed to realize the potentially overwhelming consequences of exposing young children to "inspiring chemistry." (We ask the reader to please note as illustrative examples the renowned cases of the Profes-

sors of Science, Doctors Sunney Chan and Harry Gray.)

The treatment of the relationship between Buttercup and her lover, with the exception of the unprecedented description of history's most passionate kiss, recalls the classic understatement typical of this literary genre. The following passage taken from *The Sleeping Beauty in the Wood* demonstrates the proper handling of such delicate matters:

Trembling, the prince approached and knelt beside her. Some say he kissed her, but as nobody saw it, and she never told, we cannot be sure of the fact.

We find Mr. Haba aspersions against Miss Buttercup's character most surprising. In his eyes the most beautiful woman in the world is "incredibly wimpy and completely blah". Would Mr. Haba have

preferred a Buttercup who, portrayed by Sigourney Weaver, would single-handedly escort her "supposedly dashing young hero" through the perils and pitfalls of the Fire-Swamp?

We also wonder why Mr. Haba's criticism of "dismally flat dialogue" is directed only towards Buttercup's evil fiancée's speeches. Unflowered and direct utterances, characteristic of all of the story's characters, are found throughout the fairy tale genre. We quote again from perhaps the most dramatic scene in literature -- "Is that you my prince? I have waited for you very long."

Could anyone attend a showing of *The Princess Bride* and so thoroughly miss its point? Inconceivable.

We remain, Mr. C.I. Tech, among your most faithful admirers,  
Mr. Bradley A. Scott  
Miss Heidi L. Anderson

## THE CALIFORNIA TECH

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**LETTERS****OPINION****Toward a New TQFR Ma 1a Policy Provokes Thought**

To the Editors:

The election to recall Devin Leonard, the Director of Academic Affairs, will be held this Tuesday, November 3rd. We encourage you to vote for the recall of Devin for the following reasons:

1. Devin has demonstrated that he is not qualified to hold this office. His only task was to produce the TQFR. Not only did Devin fail to produce it, he attempted to pass the responsibility for his failure on to others.

There are reasons for not producing a TQFR at this late date, and there may even have been some reasons for not producing one at all, but using these reasons as excuses for irresponsibility is wrong. After-the-fact justification is not acceptable.

2. The TQFR has been declining in quality and effectiveness, and needs to be dramatically redesigned. If we want a quality job, we will need a responsible person willing to put in the planning and effort needed. Devin has proven himself unable to fulfill these requirements and should be replaced with a more capable person.

3. We are in a very unique situation at this point in the year. The TQFR will probably not be published, so the Director of Academic Affairs can devote all of his time to the design of next year's guide. Since ASCIT elections are in February, the next Director will have the responsibility of implementing the new design. There are many people who have good ideas about improving the TQFR, but do not have the time to actually compile and produce the report. Perhaps one of these people, someone more qualified than Devin, can provide the enthusiasm and effort needed for this task.

For the recall vote to succeed, 2/3 of the voters must support it. By reading the articles in the *Tech* these past two weeks, everyone should have enough information to make an informed decision. If you have questions regarding the matter, ask any house president. And please remember to voice your opinion this Tuesday.

Sincerely,  
-David Lipin

by Eric Fung

The debate rages in Math 1a. Presently, freshmen suffer through homework each week without the opportunity to collaborate. Presented with not only the difficulty of the problems, but also the type of problems (often ones that they have not encountered before), students find doing the homework to turn in sets to be outrageously impossible. Moreover, and, perhaps, more importantly, an almost inevitable poor performance on the homework means the student is in danger of not passing.

This is the situation most freshmen believe themselves to be. Hence, the instructor has heard no end to complaints directed at the current homework policy; and, in fact, he found it necessary to discuss the problem in lecture. He pointed out to the students the benefits of the present policy. Predictably, they did not accept his explanation with deference.

But the instructor did make valid points, and he shed light on the subject of non-collaboration and its merits. For example, by working alone, students get the joy of solving a problem completely on his own. The obvious rebuttal is that students hardly experience any joy in turning in half-empty pieces

of paper because most of the questions were "unsolvable."

This, however, should not be the case if students were not only to look at the homework to discuss problems (which, incidentally, are available for collaboration), but also to attempt them. Furthermore, the T.A.'s will always work them out in recitation section. Since these questions are similar in nature to ones in the homework-to-turn-in sets, then the student should have had adequate preparation to do the ones to turn in. Alone.

Another point in favor of the present system is that, because of the policy on homework, the instructor is better able to gauge progress from the homework grades.

Consider, if students were to collaborate on homework, then no one would be able to tell how well each student understood the material. Because of this, there would be greater pressure to make the exams excessively difficult in order to weed out the comprehending from the uncomprehending.

In a sense, each of these homework sets is a sort of an exam, only untimed and open book. Hopefully, the instructor will take this into account when it comes to submitting the final grades.

More important, though, is what the students learn. The point, as the instructor stated, is less to actually pass the class, and more to learn how to solve math problems in preparation for higher math (for most of us, that means Math 2). And, away from math itself, it provides an opportunity to develop the ability to approach any problem—whether that be in math, physics, or whatever. This is a skill that all people must have, and this is an opportunity to develop that skill.

The fundamentals of scientific research is problem-solving. Given a problem, and certain information, one must devise a method—an experiment—to solve that problem. A math problem poses a similar situation. In the long run, the best scientists will be the ones who devise the experiment, not the ones who follow.

Now, the instructor has proposed a method to alleviate the pressures on the students by allowing them to consult their T.A. and then to turn in the problems with which they had difficulty late. This is a happy medium between non-collaboration and collaboration. Still, students, including this writer, would do well to realize what exactly they want to get out of from these homework sets.

**Student Faculty Conf. cont'd**

from page 1

the faculty in the persons of Thomas Everhart, Barclay Kamb, Bob Oliver, Conrad Mainwaring and Sunny Chan.

President Everhart has never been to a Student/Faculty Conference and has said that the best thing he can do as a new president is to listen—here's your chance to say something.

What is there to talk about? One might try to turn the Baxter Art Gallery back into an art gallery. Complaining about the H/SS requirements is always a favorite. Undergrad/Grad relations might be fun, especially since we were informed by the previous administration at the last Student/Faculty conference that the grads and undergrads do not want to socialize. If you've got an axe to grind or even a good idea show up at BB&B's little get together.

Who should get involved? The faculty, of course. There exists a small dedicated group of faculty who always participates in these things, listens, and tries to act accordingly. Get to know them. They usually teach great classes, too. It would be especially helpful if the young new members of the faculty would take part. They could learn quite a lot about student life here and what they could do to avoid making it worse.

All undergrads should take part in some way. Frosh are especially needed. Who else is going to do the leg work?

Student/Faculty Conference '87 it's not just another time sink, it's an adventure! Where else can you say to the faculty and administration, "If we don't get more girls here I'm going to burn this place down to save us all!"

**Wall Street Crash cont'd**

from page 1

history, and future of the stock market situation. Major events in the week preceding the crash included the announcement of the August trade deficit figures and Treasury Secretary Jim Baker's statements of possible dollar devaluation. Wall Street had been expecting a much lower trade deficit. The market dropped significantly on the preceding Friday, sell orders that had been built up over the weekend exploded on Monday.

Some of the most prudent investors argued that the market was simply overpriced. Others blamed the new breed of young (read inexperienced) traders who panicked

at the first major "market downturn." But a lot of fingers were pointed at "program trading," which is massive computerized orders to buy and sell stocks and stock futures. Reacting to the same signals, they dumped hundreds of thousands of shares together, depressing prices and triggering even more sell orders.

The Chairman of the Federal Reserve, the Chairman of the Securities Exchange Commission and the chairmen of the major exchanges reacted swiftly to the turbulent events. The Fed announced cuts in interest rates, the SEC Chairman said that he was not considering closing the exchanges.

Tuesday, in order to bolster

confidence and, perhaps, to defend against possible hostile takeovers at bargain prices, large corporations, including Citicorp, Exxon, and USX, announced they would buy back their own shares. "Program trading" was "voluntarily" placed on hold. Still, tremendous backlogs were generated at the exchanges and stock brokerage houses. Anxious small investors had difficulty just to get through to their brokers, and trades were not readily confirmed, adding to their agony.

Although there have been no **continued on page 5**

**TQFR cont'd**

from page 1

review of the courses available to the ASCIT Director of Academic Affairs who will be responsible for compiling the final product.

The benefits of this new system will be:

1. A strong commitment to improved communication between students and faculty with the advantage of being able to make changes in a course while the course is being offered rather than after the course is completed.

2. The student review will (hopefully) contain constructive comments which will help other students decide on the relative merits of each course they want to take.

3. The new format will spread the work of the project over more people reducing the strain on the Director of Academic Affairs.

The new guide's emphasis will not be on the core requirements as the division feedback sheets and monthly committee meetings should supply the feedback necessary. Rather the guide will attempt to provide information on the less well subscribed classes, which normally got only two or three TQFR responses.

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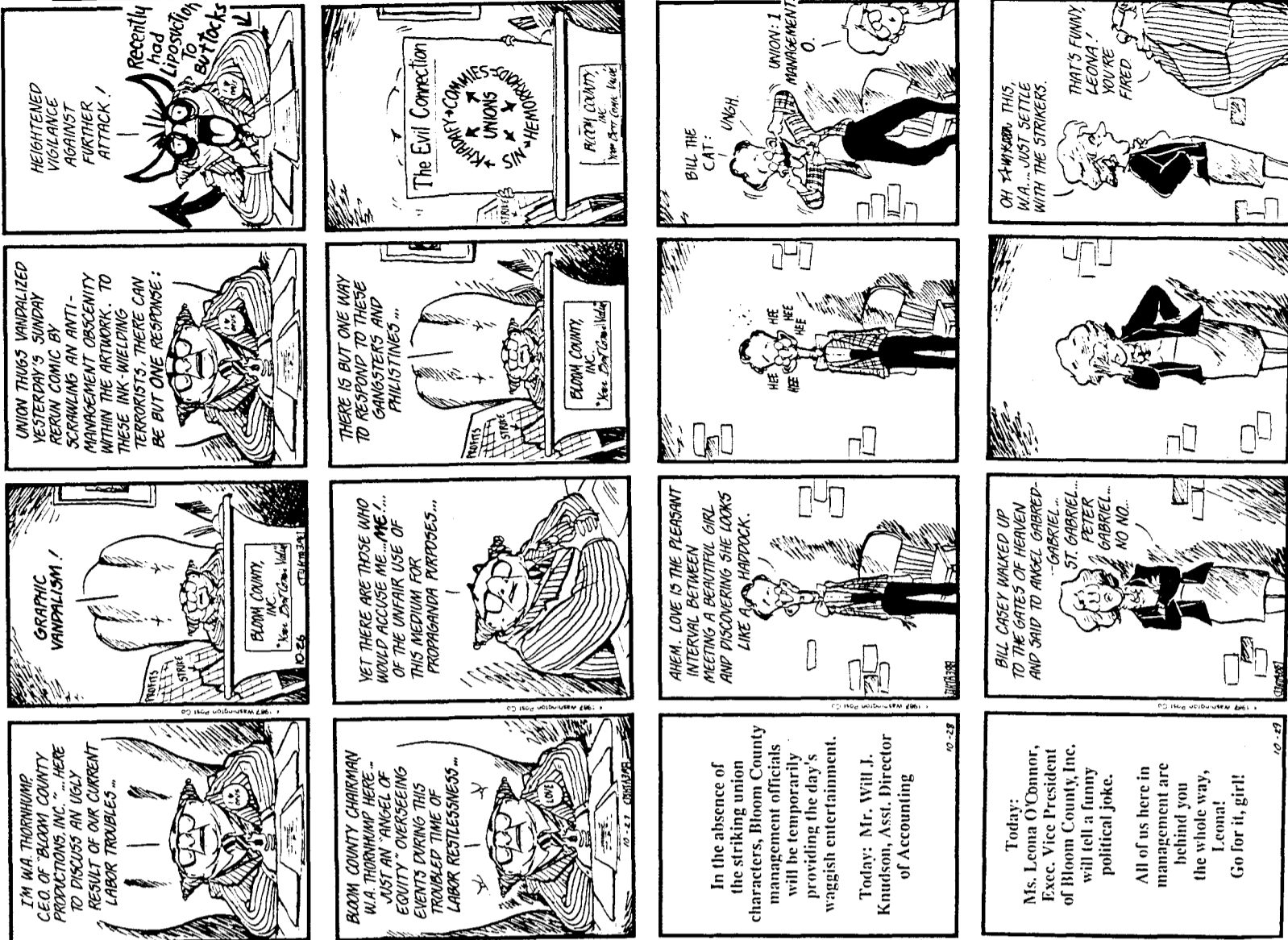
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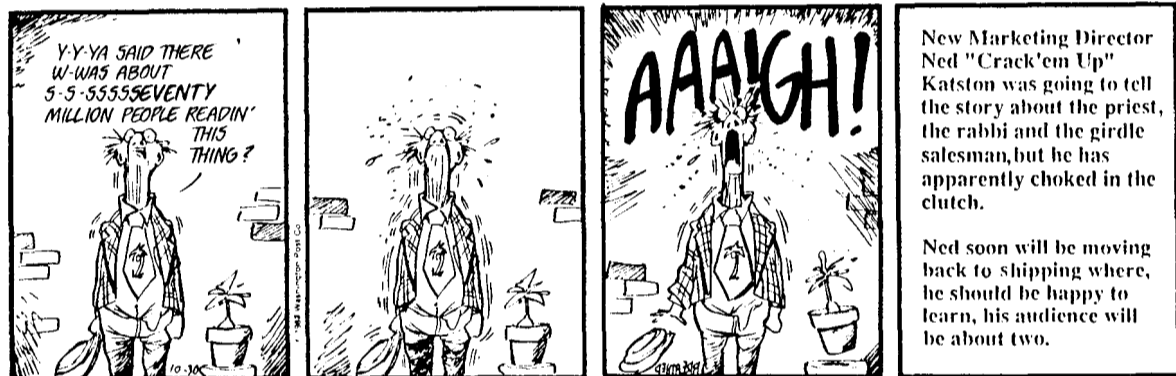
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**BLOOM COUNTY BLOOM COUNTY**



**by Berke  
by Berke Breathed  
Breathed**

**Small Cast Plays Big Arena in Henry**

by Gavin Claypool

The compact Beckman Auditorium was transformed into "the vast fields of France" last Friday by the Berkeley Shakespeare Festival's production of *Henry V*.

Having succeeded to the crown and rejected both his wild life and his friend Falstaff at the end of *Henry IV, Part 2*, Henry V went to war with France to pursue his claim of the French throne. Winning a devastating (and unforeseen by the contemptuous French) victory at Agincourt against superior numbers, he eventually won both France and the hand of the French princess.

Henry V died just two years after his marriage to Katharine, leaving the throne to his infant, Henry VI. The War of the Roses, the loss of France, and the destruction of Henry V's achievement followed.

With just 15 members, the company was pressed to cover the 32 listed roles, even after deleting some of the minor ones. James Carpenter was one of the few to miss double duty. His portrayal of the title role demonstrated plainly the earnestness of the young king.

John Sefton, as the Archbishop of Canterbury, was rigidly pompous, befitting his position. But, as the scurrilous Pistol, he carried both the comic scenes and the first half of the play. Lura Dolas was prim and demure as the French princess's attendant, but shone brightest as the narrating Chorus—the subtle changes to her make-up (blood gradually streaming down her face, and later her arm) were a colorful metaphor of the play's ravages.

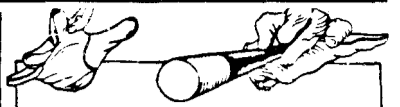
Loren Nordlund was appropriately youthful as the Boy and convincing in his soliloquies; as the French Herald, he was properly

insolent but seemed far too young for the position. Leo Downey started out in the play as the red-faced, pimply Bardolph; after his execution (and having his face wiped), he was resurrected (but recognizable) in the soldier who unknowingly challenged the disguised Henry before the triumphant battle with the French. His identity was better disguised in the final act as the mediating Duke of Burgundy.

With a growing sense of timelessness, the production was quite faithful to the text. As the play progressed, the soldiers' clothing became more and more like that of

the wars in this century. By the second half the soldiers were sitting in their encampment sharing a cigarette. The negotiating and wooing in Act V were in the finest ceremonial dress . . . and business suits.

*Henry V* may also be noted for a speech that is bracketed with two very well-known quotations: "One more unto the breach, dear friends" and "The game's afoot!" (later Sherlock Holmes's famous line). Although the banished Falstaff does not appear in the play, the death of Shakespeare's greatest comic creation is noted by Mistress Quickly and his friends Bardolph, Nym, and Pistol.



**CALTECH  
public events  
MAGIC  
MOMENTS**

**MARIA BENITEZ  
SPANISH DANCE  
COMPANY AT  
BECKMAN TONIGHT**

The Maria Benitez Spanish Dance Company returns to Beckman Auditorium tonight, Friday, October 30 at 8 P.M. Crackling displays of temperament and discipline highlight this explosive performance. CIT student rush tickets for \$6.00 and CIT faculty and staff TECHTIX—\$8.75-7.50-6.25—will go on sale today at noon at the Ticket Office.

T.A.C.I.T.'s production of David Mamet's "A Life in the Theatre" continues this weekend with performances Friday and Saturday, October 30 and 31 at 8 P.M.; and Sunday, November 1 at 2 P.M. in Ramo Auditorium. Student tickets are priced at \$4.00; regular tickets are \$6.00.

Comical experiments will be conducted in a staged laboratory when *The Alchemedians* come to Beckman Auditorium, Thursday, November 5 at 8 P.M. Bob Berky and Michael Moschen are a dazzling duo who serve up their fanciful routines of hilarious situations between man and machine. CIT student tickets are priced at \$8.75-7.50-6.25. CIT faculty and staff tickets are \$15.50-13.00-10.50. CIT student rush tickets for \$6.00 and CIT faculty and staff TECHTIX—same price as regular CIT student tickets—will go on sale Thursday, November 5 at noon at the Ticket Office.

Russian folk music and dance highlight the appearance of *Tziganka* Saturday, November 7 at 3 P.M. and 8 P.M. in Beckman Auditorium. Russian and Gypsy songs and Cossack dances are accompanied by the balalaika for true Old World entertainment. The 3 P.M. matinee is a special 50-60 minute program designed especially for children and families. Tickets to this performance are priced at \$8.00 for adults and \$5.00 for children. The full-length evening performance is priced at \$8.75-7.50-6.25 for CIT students and \$15.50-13.00-10.50 for CIT faculty and staff. CIT student rush tickets for \$6.00 and CIT faculty and staff TECHTIX—same price as CIT student tickets—go on sale Friday, November 6 at noon at the Ticket Office.

If you like chamber music, don't miss *Conrad Josias and Friends* on Sunday, November 8 at 3:30 P.M. in Dabney Lounge. Included on the program will be works by Randall Thompson, Gordon Jacob and William Bolcom. Plus, the concert is FREE!

The Caltech Ticket Office is located just north of the Beckman Auditorium parking lot. For information on all Caltech Public Events, call x4652.

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## ENTERTAINMENT

## Animation Festival Offers Laughs

By Mark Montague

As always, the Festival of Animation provides a very entertaining flick. Worldly guy that I am, though, I've seen several of these, and I wouldn't rank this one as one of the best, although I'd still say it's worth six dollars.

The main reason for my hesitancy is the inclusion of several very long, very artsy pieces, some of which were fine, but two of which were particularly slow and uninteresting.

*Rope Dance* is a somewhat minimalist short involving two stick figures, a red line (oh, excuse me, - a rope), and a square / picture frame / mirror / whatever, which is actually an interesting combination of things, but certainly

not eight minutes worth. It covers about one minutes worth of original ideas, which are driven into the ground.

A similar let-down is the new technique of using crushed paper, as seen in the Bulgarian short *Crushed World*. This seven minute piece is uninteresting, hard to follow, and certainly not funny. The technique of crushed paper, which is in the same class as claymation but certainly not in the same league, is hard to follow, lacking in character, and, from this example, one I hope will die here.

On a positive note, though, *Bolero* is the longest film included, and I found it to be very well done, and a good combination of art, humor, statement, and just

plain cool animation. It's a sequence of the evolution of Man from Coke, with amusing critters including the primordial ooze with character.

Also innovative (read as "weird") are *Hello Dad, I'm in Jail* and *Face Like a Frog*. Both of these are somewhat psychedelic, and I, with my strange sense of humor, approve fully of both, but I can also see how people could find either just too darned strange.

Innovative in a more reasonable way is *Travelling Light*, in which the scenes are pictures, and the animation is simply illumination of various things. I think it covers an interesting idea, and I thought it was an interesting break from the  
continued on page 9

## The Inside World

**Blacker:** What is it like to live in a destitute house? Picture Randy and Huie improvising with Seran wrap and a rubber band. Imagine Andy O'Dea and other volleyballers complaining about a bladder problem that can't be fixed. Heaven and Hell make an alley challenge out of recycling aluminum cans. Nobody even cares enough to get angry at a Scurve through a pool ball from our lounge into our courtyard without opening any doors. And in a bizarre effort to save gas, Andrew makes a Tommy's run in -9 minutes.

Honorable mention for this week's article: marshmallow wenches, Tunnel gets it up, "Fred & Anna."

For lack of something better, this weeks special feature is:

**Five Reasons Not to be a Penis** (condensed from *Forty Reasons Not to be a Penis*):

1. You have a head that can't think
2. You have an eye that can't see
3. You have two nuts hanging around you all day
4. Your best friend is a pussy, and
5. Your closest neighbor is an asshole

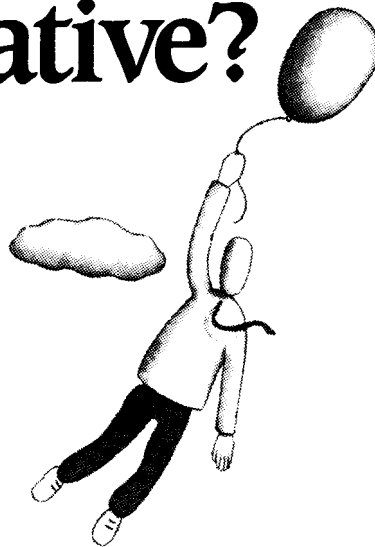
And finally, one more bitter slice of subtlety before I leave you to the Dabney Inside World<sup>®</sup>s:

Samantha, stop gglomming James, Randy, and all the other hell frosh!  
—Egad, aren't long and subtle Inside Worlds really boring?

**Dabney 1:** Patrick J. Wayne, still reporting:

He seemed excited over the phone, so I took the limo over to DabniLabs right away. I took the third DabniCorp exit off the 210, parked in the executive lot just north of the main building, nodded to the parking valet (didn't he used to be someone I knew? The name hit me: .M.I.T nellA, but I couldn't  
continued on page 7

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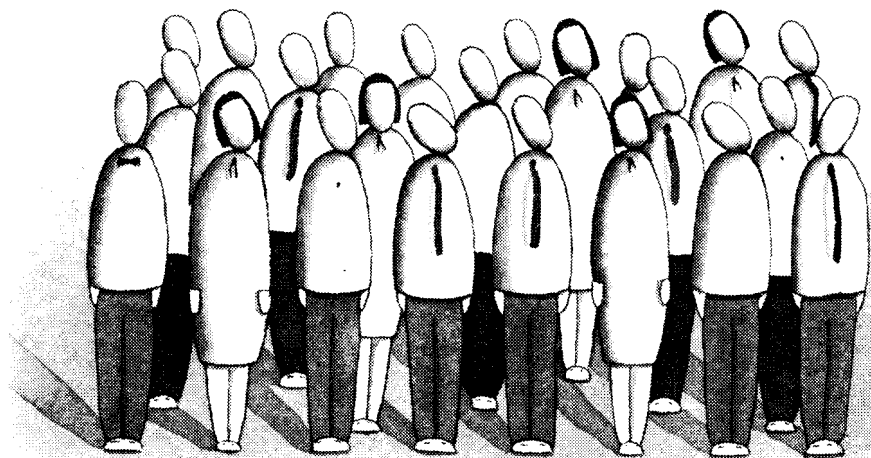
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## ON-CAMPUS INTERVIEWS November 9th



# PRINTRONIX

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Wall Street cont'd

from page 3  
reported incidents of people jumping out of their windows, the crash has already claimed its first casualty. One Miami investor, who reputedly lost anywhere from 2 million to 50 million dollars, shot his Merrill Lynch broker, the branch manager, and himself.

But the stock market crash has much greater repercussions than the Yuppie stockbroker's loss of his deposit on a BMW. It damaged confidence worldwide. The fact that many consumers feel poorer may lead to lower Christmas spending, thus hurting retailers. New high tech companies will have a much harder time going public to raise capital. The stock market index is historically the single best indicator of recessions by an average of eight months, and a recession implies fewer jobs and lower standards of living for everyone.

A spectrum of political, business, and financial leaders are calling louder than ever that the budget and trade deficits be reduced. President Reagan, who had been preoccupied with the Bork nomination and arms negotiations, finally said that something has to be done. He has agreed to sit down and talk about reducing the budget deficit, and may even consider raising taxes, something he has resisted throughout his presidency.

Where is the market headed? Everybody, his brother, and his dog has an opinion. Ms. Elaine Garzarelli of Shearson Lehman Brothers, who has emerged as the newest Wall Street wizzard for predicting an imminent collapse a week earlier, warned on Monday that the DJIA could drop to 1300 within a week.

On the other hand, a lot of investors are buying in installments, even if the market may not have bottomed out. The big institutional holders like insurance companies, pension funds, and endowments usually hold their multi-million dollar portfolios for years, since, over the long run, stock holdings outgain just about any other investment.

The best, most current source of information about the stock market remains the *Wall Street Journal*. Among business magazines, *Forbes* generally advised caution while some major business journals were cheerleading right up until the crash. The *Nightly Business Report* on PBS (channel 28), 6 pm weekdays is a nice half-hour summary of market action and interviews for those of you who refuse to read. Talk to a broker from a reputable firm, and take everything with a grain of salt.

# GNP SHOWCASE

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# Doctor Beaver Gives Medical Advice

Dear Dr. Beaver:

Twice this past year I have had episodes of nausea, stomach cramps, vomiting and diarrhea. The symptoms usually last a couple of days. I am not drinking and have not eaten at any local dives. What is this? What should I do?

—Queasey

Dear Queasey:

We are sure that you would prefer not to be spending all of your time in the "stall." There are many possible reasons for this, and the most common cause is viral gastroenteritis (inflammation of the stomach and intestines). People contract this through the oral-fecal route which means it is very contagious. Good hygiene (especially after using the restroom) is essential.

A common misconception is that eating will make you feel better when, in fact, it could have the opposite effect. The best thing to do is to suck on ice chips until the nausea subsides, then gradually add clear liquids such as apple juice, Seven-Up, tea, bouillon, popsicles, etc. for the first 24 hours. As sym-

ptoms subside increase your diet with soft, bland foods (rice, baked potato, soup, crackers—avoid all milk products [except yogurt] while diarrhea is present).

If diarrhea is more frequent than four or five times a day an anti-diarrheal preparation can be tried (Donnagel, Kaopectate—both are available over-the-counter). Rest of course is always important for a quicker recovery. If these symptoms are accompanied by a high fever, abdominal pain, or persistent vomiting please come to the Health Center for evaluation.

Dear Dr. Beaver:

I have recently become more sexually active. Everything is fantastic, but for the past two days I have had burning when I urinate and I always feel like I have to go to the bathroom. It seems to get better when I drink a lot of water but then it comes right back. Is this a sexually transmitted disease or what?

—Ms. Darb

Dear M.D.

We're sorry that you're having painful problems with your plumbing but what you are describing sounds like a urinary tract infection (UTI). UTIs are more common in females but can occur in men as well. During intercourse, bacteria is commonly introduced into the urethra, but this can be adequately combated by urinating after intercourse. The typical urinary tract infection presents itself with a rather sudden onset of burning on urinating (dysuria), urinary frequency and urgency, a foul odor to the urine and occasionally blood in the urine (hematuria).

Increasing fluid intake is a good idea but will rarely cure the problem. You also need to seek medical care, as early treatment will prevent complications such as a kidney infection (pyelonephritis). Treatment at the Health Center as well as educational material on prevention of this problem.

What's your problem? We can't believe you don't have any! Submit your questions anonymously to Dr. Beaver, Health Center 1-8.

# More Inside World

from page 5

place where I'd seen him before) and took the elevator to the 155th floor. Our Chief Engineer was waiting for me. H. Ton "Handy" Andy, a small man of about five foot thirteen, rubbing his hands together in eagerness to show me his latest breakthrough. I knew we'd all been expecting great things from this man, as he'd been given a record budget. He led me into the main lab, where we walked up the ramp and into the aircraft carrier he'd been developing. As we passed through corridors en route to the engine room, he explained his breakthrough.

"It all came to me after I read the Second Law of Thermodynamics somewhere. Whenever we exchange one form of energy for another, we lose something in the transformation, right? So the idea hit me." He opened the door marked "ENGINE ROOM" and gestured dramatically.

Inside was a small stove, apparently coal-burning. I tried not to let my expression show. But Andy was grinning. "It looks like a regular coal-burning stove, right? Watch." He led me around to the far side, where a lab assistant was shoveling pieces of green paper into the flames. "You see, we don't have to convert the money into anything. We use it for fuel directly. The ultimate in efficiency." He looked at me expectantly.

Well, what could I say? The man was a genius, of course. The only flaw in all this our inability to patent the idea. It seems the military has been using the technique since 1981.

—Full Frontal Nudity

## Dabney 2: The Search for Darien: Part III

"Do you think he's handsome?"

"Very ugly."

"No, I mean Darien. Do you think he's handsome?"

"Can't you judge for yourself?"

"But how can I? How many times have I seen a man? A real man. All I've seen is you - meaning no insult to you, Paul. Yes, I think he is handsome."

Some may envy me,  
But I pay a price to be from human emotions free.  
Perhaps in me, you see your destiny.

—D. G. Lefkowitz

Just as the search for Darien was beginning to look like a lost cause, the following phone conversation took place:

Operator: Collect call from Darien to Jerome, will you accept the charges?

Jerome: Well, uh, yes.

Darien: Hi Jerome, I'M IN JAIL. I'M IN JAIL, Jerome. Hi Jerome, I'M IN JAIL. I'M IN JAIL. Tell Oscar, I'M IN JAIL. I'M IN JAIL, Jerome. If my mother calls, tell her I'M IN JAIL. Put my mail in the JAIL box, because I'M IN JAIL. I'M IN JAIL, Jerome, and I LIKE IT! —click...

Enough said.

—Putz

## Fleming: The Fleming House SureFire Guide to Picking Up Women.

In my continuing endeavor to make the Fleming House Inside World an integral and useful part of your lives, I have come up with the following guide. Naturally all women are not the same, so any one technique will not work on all of them. Therefore, the guide has been divided into sections for each house.

Dabney: Walk up to the girl and say, "Got Aids?" If she says no ask, "Wanna Boink?" (Note: Those members of Dabney with Aids may wish to ask, "Wanna Boink?" if she says yes.)

Lloyd: Walk up to the girl and say, "Beep Beep?" If she says, "Beep," ask, "Beep Beep?"

Ruddock: Invite the girl into your room to look at your "stereo."

Ricketts: Why would you want to?

Blacker: "Wanna see my cucumber farm?"

page: Don't bother. If they were worth it they would have transferred to Fleming.

Fleming: If you're Frank Vasquez, even the Dabney line will work. If not, present your posterior in a prominent display to said female. If she gooses you, goose back. In some houses this is known as foreplay. In Fleming, this is known as "Hello."

Was Amezcua really dragged around by Frank Vasquez in his nitro-burning Funny Daihatsu, or is this just a vicious rumor? Congratulations, Damage, on winning the J.D. treasure hunt. Brian is a Toad.

Play rehearsal Sunday Noon. Learn your lines. Bring Power Tools.

Halloween Party Saturday. Invite the womenfolk. It's at the old Coffee-House. Wear a costume. Maybe we can get Damage to take off his mask for once. Williamson is going as a Pakistani. A hyperactive Pakistani. Fecathalon was on Wednesday but I wrote this on Tuesday so I don't know who won, so you'll have to wait till next week.

—NeanderFlem

Lloyd: Lloyd Inside World, under new ownership, offers this matching game, which will provide many fundamental truths if properly completed. Get out your pencils! Entries may be submitted to L1222, for a chance at a prize of minimal material value.

- |                           |   |
|---------------------------|---|
| Lev                       | is nature's densest vegetable.                    |
| Earl                      | loved that rascal Puff.                           |
| Outside of Wayne, Ruddock | has amazing hair.                                 |
| Elvis                     | means owner of 100 wives and 1000 head of cattle. |
| The potato                | is a low-budget Kirby Puckett.                    |
| Without Z-man, Fleming    | likes the word "faggot."                          |
| Little Jackie Prater      | is the self-proclaimed "Bandit of Love."          |
| Paul Socolow              | has left the building.                            |
| My life                   | has made me an enemy of civilization.             |
| Hubie Brooks              | is the evil witch-goddess of Ph 3.                |
| Radiation                 | is Peter Ying's only friend.                      |
| America                   | is a battlefield.                                 |
| Bunda                     | has no depth.                                     |
| Nicole                    | has been a poor attempt to emulate the Man.       |
| Jeitner                   | lacks soul as well as sophistication.             |
| Grothe                    | is philosophically bankrupt.                      |

Congratulations to Andre, our newest social member. Lloyd battles Ruddock in softball this Sunday at 2 PM in defense of the Discobolus trophy. Be there! Standing on the shoulders of giants,

—The King of Spin and Dark Foot.

continued on page 8

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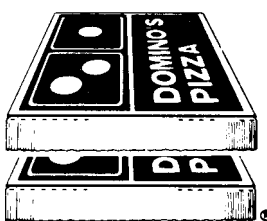
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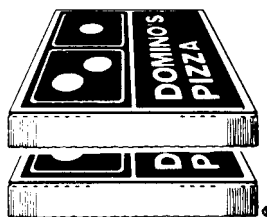
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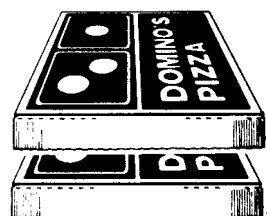
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# More Inside World

from page 7

**Page:** ...you are receiving this transmission as an Inside World. This signal is being beamed directly into your subconscious. You cannot detect it in a conscious state because of neural interference. This message is being sent to you in order that you may prevent events which have not yet come to pass in your time. This transmission originates in the year one-nine-... Huh? What? I must have dozed off. But wait! I see...the future? Drunken skinheads riding a conveyor belt between walls covered with... rotting vegetation? A voice cries out in the night, "Where are my shoes? Where are my shoes?" A band of lust-crazed pleasure seekers gang-tackle the scantily-clad white-grease-covered object of their affection. The odor of perspiration fills the air as the ever-growing cult of compu-worshippers, their eyes glazed from hours of scanning raster graphics, struggle to save the universe from the evil Klingon menace. Music is playing, and people are dancing, but...I can't tell. Is it live, or is it a Hindu playing his CD's? A group of men, loaded down with trays of vile, putrid, disgusting...you mean we have to eat that?...they're being beaten...or whipped...but those are...Oh, God. A huge, dark shape looms in the doorway...an immense, gargantuan mound of flesh...it gives off a low evil chuckle... "heh, heh, heh..." "Heh, heh, heh. Just like eating pussy, eh? Heh, heh." Hey, where'd that cat go. OH, GOD! WE'VE GOT TO FIND THAT CAT...Oh, God...I keep having these horrible nightmares. I don't know how much more of this I can take.

—Excerpted from *The Necronomicomic (a book of evil things, and things of Hell)*, compiled by Kumar, a slightly demented kind of guy.

**Ricketts:** Hottentots. This paragraph is over at Jed's request.

We would like to thank Andrew for his complimentary manner upon reading this Inside World. It isn't every day that we're called "brilliant."

Joltin' Jed suffered a major setback in his basketball career. A three year old bedroom injury came back to haunt Jed on Sunday. The doctor has him on 12 year old scotch and 19 year old women (or maybe that's the other way around). Jed is taking his treatment like a man - lying down.

Segregation is alive and well in Ricketts Hovse. Just take a look at the Oriental Women's Table (OWT). Their leader, Diana, no relation to the Amazon princess, about 5'5", 110 lbs., straight black hair (no surprise there), strange Louisiana accent, no discernible marks other than the tattoo of Texas, faster than a rolling O, stronger than silent E, able to leap capital T in a single bound, IT'S ... never mind. Anywho, there is one shining light of hope, Paul Lee, the great guardian of civil rights has been valiantly trying to break down the racial and sexual barriers (well, one out of two) that separate the OWT from the rest of Ricketts (wannabee, wannabee). We would like to help him in any way possible.

The juniors and seniors had a brakedrum ringing at Saxy and Kimi's wedding on Saturday. There won't be a pile because none of the frosh or sophomores were invited. We wish the Merritts (make that Workmen) all of the best. Now ain't that sweet.

The Big Maroon Machine rolls on. Although we suffered a minor setback against Lloyd on Sunday, we are still tied with Fleming in Discobolous points. Thanks Alex.

Other Naughty Bits: Something nice about Charles. The denizens of Up Your have recently been complaining about Alex's frequent and noisy use of the raunch library: he sings during orgasm. The **Nasty Rumours About Sul-Lin** department starts next week, be here. Why isn't Jerry in the Inside World anymore? Just for Lloyd: Lisa L. and Chuckles have been very happy lately, as Steven Sobelman, hovse Peeping Tom, can well attest. Mark Lyttle received a heartfelt brick from Shroom on Tuesday. Be careful with it, look how the last three owners turned out.

—The Lil' Cook-Man and the Great Neck Strangler

**Ruddock:** Hello. We are the Soccer Injured Reserve and the Sex Slave Wanna Be. Today's opener is "Phone Conversations Heard in Ruddock," c/o Robby: Mike D: "But Rosie, I haven't seen you for two days in a row!"

Cathy: "Eddieeee! Why can't you spend Christmas with meee?"

Amy: "Oh hi, Ed! Did you decide to go to the volleyball game? You did? Well, I'll see you about 11 then." Aside - "Jamal and Marty, be quiet in there!"

Seth: "Yeah, Mom, I've got clean clothes to wear. And the food's, um, yucky. Yeah, well, you can eat it. Oh, and if any girls call for me, give them my number here, OK? Well, I don't know what girls! Just girls, OK Mom?"

Joe used his special talents to create a Special Olympics for all the special people in Ruddock last Sunday. By the way, Joe's being especially cute these days, almost as cute as Mike Song, wouldn't you say? The especially special studs of Trojan Alley won convincingly, despite the heroic efforts of Jamal (Mr. \$1.99) for Alley 5.

Interhouse this year will feature the Hard Rudd Cafe, Pasadena, with the usual live band, bar, food, and special atmosphere. Best of luck to Grand Dragon Betsy and all her Iguanas.

Future Buddock [sic] events include the Halloween Party with Blacker (Yeah!) and Fleming (Oh well!) at the old Coffeehouse on S. Holliston. Don't miss the god-awful band, Hammersmith, in an encore performance from last year's Ruddock Interhouse. Be there in costume or be Warren Emery, the man so scary he doesn't need a costume to scare the three-year olds. In addition, prepare for the up-and-coming marathon softball weekend, with Dabney for Interhouse on Saturday and Lloyd for Gumbobolus on Sunday. Finally, don't miss the return of the "Guess the Frosh Girls" Contest coming to an Alley 4 near you. Guest artists include Wayne "Picasso" Lukens, Craig "Monet" Prouse, Cameron "Andy Warhol" Campbell, Tom "Da Vinci" Lenosky, and bonus pornographer Jamal "Art Fag" Mohd. Yusof. Grand Prize is a date with all four frosh women. Watch Room 227 for official rules; enter early and often; artists and residents of Room 218 are ineligible for the Grand Prize.

Rumor of the week: Everett and Bill are neck and neck, but watch out for dark horse Duppy.

If you were unable to donate at the blood drive this week and are still interested in donating, the Red Cross asks that you visit their donation center in the Vons shopping center at the corner of California Blvd. and Pasadena Ave. Their hours are as follows: MWTh12:30-7:30, F11:30-6:30, and the second and last Saturday of every month from 9:00-1:30. The phone number is 799-0842 ext. 50. Appointments are encouraged but not required.

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# SPORTS

## Twin Winning Seasons for Harriers

by Runner Velife

The last dual cross-country meet for the 1987 season was on October 24 at Crafton Hills, Redland's home course. And what a course to finish off the season! Nestled high on what appeared to be a dirt-bike haven, the course displayed treacherous hills. The only consolation to the steep upward grades was the beautifully scenic view that could be clearly seen from the top.

The view was not the only impressive result of the meet. For the first time in the history of Caltech, the women's cross-country team had a winning season! What's more is that the men also had a winning season! Both teams finished with ten wins and eight losses. There was much rejoicing...

With the awesome score of 18 to 45, the Caltech men's team crushed LaVerne College. Also losing to the victorious Beavers 27-32 was Redlands, on their own course no less! However, Claremont defeated the Caltech men 17-46. That's O.K., guys, we still had a winning season. What more can you ask for?

Pushing his running potential to the limit, John Gehring finished an incredible race first for Caltech. Fourth overall, John ran 29:12. Again second for Caltech was Wayne Lukens with 30:38, an amazing time for a course of such difficult caliber.

Coming in next for Caltech was a pack of four fightin' Beavers. John Haba, Joe Shiang, Scott Kister, and Mark Lyttle, in that order, formed the wall of Techers that finished one after the other with no one between them.

Could there have been some strategy in this menacing gang to prove how together our team really was? Maybe, because Ed Naranjo, Chris Campo, and Ray Hu turned over a repeat performance, crossing the finish with places seven through nine for the team. Together, all seven men finished within one minute and twenty seconds! Yes, the course did appear to be Tech-dominated for a moment there.

The Caltech women's team won over LaVerne (15-50) and Redlands (15-50), both be forfeit, while losing to Claremont (50-15).

In the lead for Caltech was Bibi Jentoft-Nilsen, at 23:39. Although

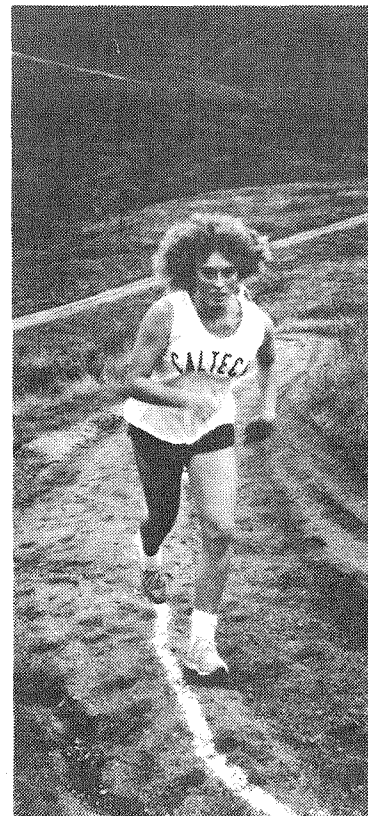
she finished eleventh overall, Bibi ran a fantastic time!

After Bibi, the Beaverettes decided to team up together like the guys. Liz Warner, Margi Pollack, Sue Schima, and Betina Pavri, respectively, came in places two through five for Caltech. With no one finishing between them, these girls crossed the line within one minute and eight seconds of each other!

Following our first five Caltech runners was Cheryl Thurman, a Redlands runner who only two weeks ago beat Bibi! Either she's losing her touch or we're gaining ours because we put five runners in front of her! You're doing something right, girls!

Racing sixth for Caltech was Carmen Shepard, steaming over

continued on page 10



Liz Warner, at the Redlands cross country course last Saturday, came in second place for the Beavers.

## Football

Aram Kaloustian, number 11 for the Beavers, scrambles from a LaVerne defender in Caltech's 14-7 loss on Monday.

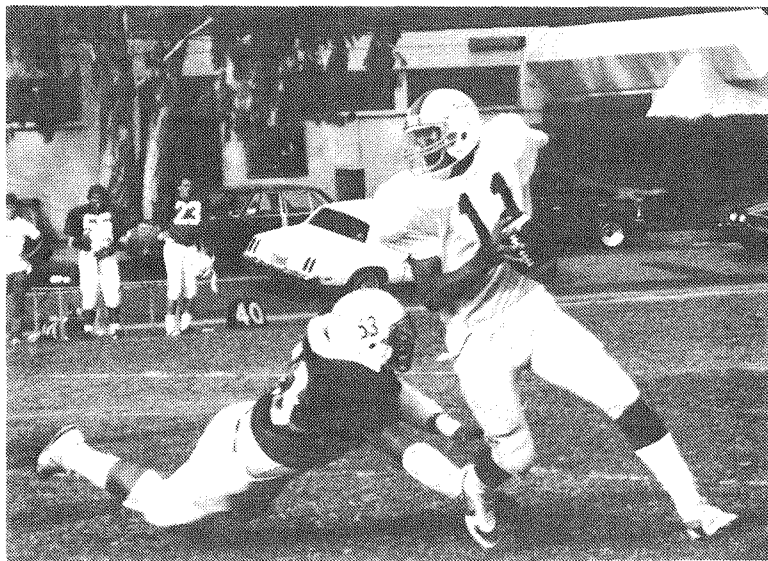


photo by Theresa M. Griffee

1988

### Howard Hughes Medical Institute Doctoral Fellowships in Biological Sciences

Howard Hughes Medical Institute will award 60 Doctoral Fellowships in an international competition administered by the National Research Council. The Institute welcomes all qualified applicants and strongly encourages members of minority groups and women to apply.

#### Eligibility:

Applicants may be citizens or nationals of the United States or foreign nationals. Awards will be made for research-based doctoral programs in cell biology and regulation, immunology, genetics, neuroscience, and structural biology. Applicants must not have completed, including the current term, more than 24 semester hours, 36 quarter hours, or equivalent, of graduate study. Individuals who are pursuing or who hold the M.D., D.A.M., or D.D.S. degree and want to work toward a Ph.D. or Sc.D. in the biological sciences are exempt from the foregoing restriction. Foreign nationals for whom English is not the primary language must submit scores from the Test of English as a Foreign Language (TOEFL).

#### Stipend & Allowances:

The fellowships will be for three years, renewable for two additional years at the Institute's option. Each award includes an annual stipend of \$12,300 (for 12-month tenures) to the Fellow, and an annual cost-of-education allowance of \$10,700 in lieu of all tuition and fees.

#### Deadlines:

Deadline for Preliminary Applications is November 13, 1987. Awards will be announced in March 1988. Awardees must begin fellowships by Fall 1988.

#### For Information:

Call (202) 334-2872 or write:  
Hughes Doctoral Fellowships  
The Fellowship Office  
National Research Council  
2101 Constitution Avenue  
Washington, D.C. 20418

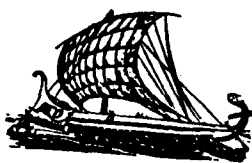
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**Animation cont'd**

from page 5  
more normal types of animation with characters and such.

*Oh, Dad* and *Sunnyside Up* are both presented in very interesting settings, and with interesting tricks to the background. *Sunnyside Up* is a good short about a castaway on

a desert island, but to say more would spoil the effect. *Oh, Dad* is a very political piece which I found very entertaining, good, and well presented, but with a little too much concentration on portraying the issues than in developing characters and such.

There are a lot more films of computer animation in this year's Festival, as well, which I enjoyed

a lot, but I am quite partial to whizzy computer graphics. There is a computer graphics "Tribute" (read as "sampler") with a lot of three second cuts from good sequences, which is neat but not terribly memorable, as well as several full shorts. These include what I consider to be the best computer animations: Pixar's *Luxo Jr.* and *Red's Dream*, and Disney's *Oilspot*

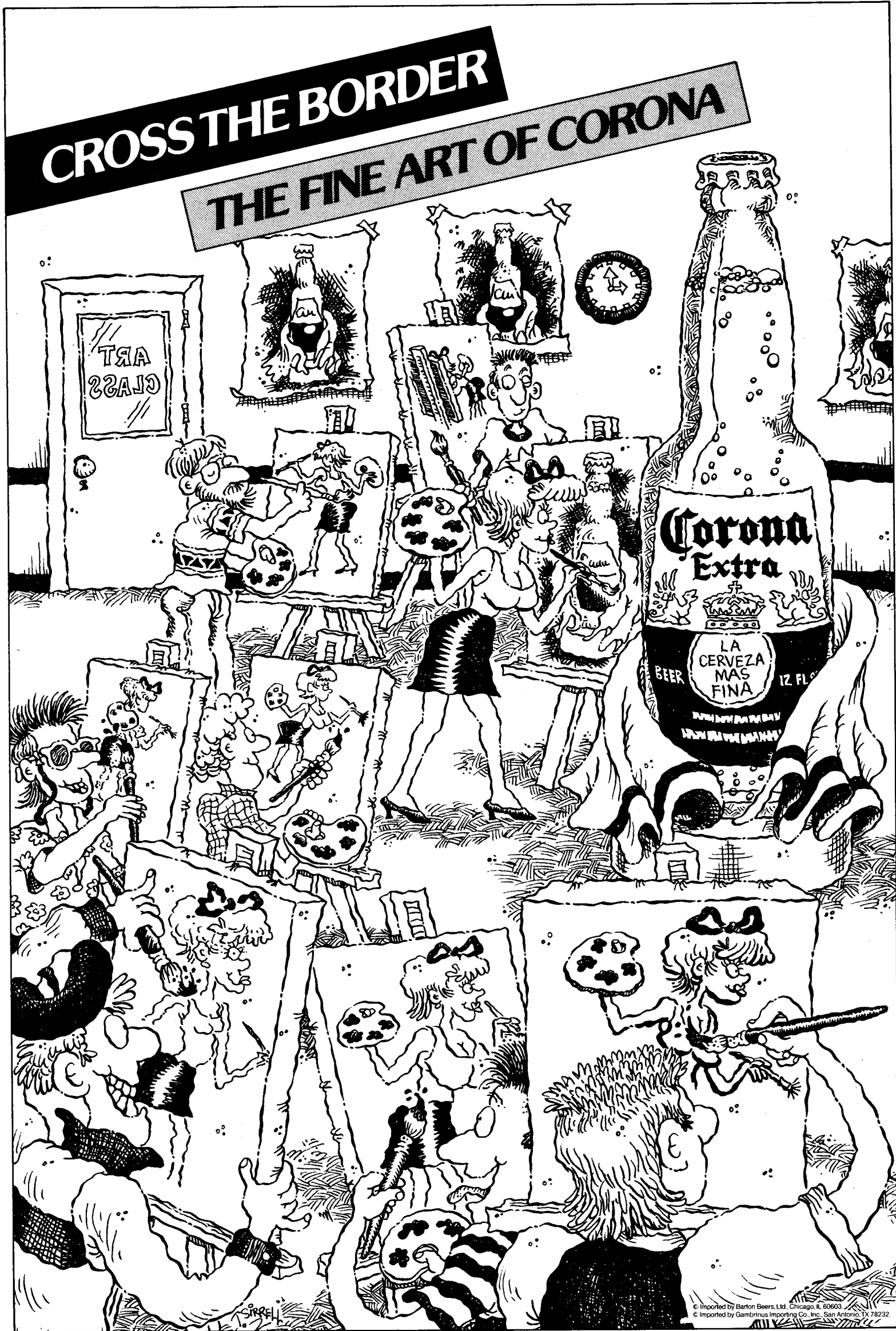
and *Lipstick*.

The former two are just plain cool, and the latter is so well done that it's hard to pick out as computer graphics rather than just plain good animation. I think that this is one of the rare examples of a case where state of the art computer graphics has been used by actual animators rather than computer scientists, and this shows through

brilliantly.

The crowning feature of the show, as you may expect, comes in the traditional animation, which includes *George and Rosemary*, *A Story*, *Your Face*, *Somewhere in the Arctic*, *The Beat*, and *Snookles*, of which I will only say that they are all very well done, very worthwhile, and tremendously funny.

The only remaining shows are at 7 and 9:30 on Halloween, at PCC's Sexson Auditorium on the Colorado side of PCC. If you go in costume, it's a dollar off, too... what a deal!



## TACIT Opens: Rave Review

by Susan Schima  
and Tylis Chang

Opening night for *A Life in the Theater*, TACIT's first production of the year, was nothing short of remarkable. The play by David Mamet combines realism with a touch of reality and is well worth watching.

The production follows the careers of two actors, portrayed by Al Hibbs and David Stevens. In a world seldom seen by most people, the audience watches the interaction of the actors, Robert and John, both on and off stage.

Robert, played by Hibbs, is the vintage thespian who imparts his wisdom on other people. In contrast, John, portrayed by Stevens, is the young upstart just breaking into the New York theater scene.

In the beginning of the play, John is dominated by Robert's legendary reputation. Robert's *faire de connaissance* overshadows John's naivete. In the first scene, John throws a piece of paper on the ground. Robert picks up the paper and places it in the trash can. With this action, the audience realizes that the stage belongs to Robert.

As the play develops, John slowly matures into an accomplished actor. This is mirrored by Robert's decline as a prominent actor. John's confidence increases with each successive performance; whereas, Robert's wanes as his insecurity grows. Towards the end of the play, Robert becomes reliant on John. In the last scene, John picks up after Robert's mess, symbolizing that the stage now belongs to John.

The play is clearly designed for the New York crowd. Considering the basically non-theatrical audience which TACIT attracts, this play may not have been the most appropriate choice for Caltech. Many of the inside jokes are aimed at viewers familiar to the New York acting scene. And only a regular theatergoer would be familiar with the skits within the performance. As a result, much of the impact of the play may be lost upon the audience.

Nevertheless, the actual performance is well executed. Hibbs and Stevens portray their characters with great skill. The technical crew provide fine support for this difficult play. In particular, Shirley Marneus deserves much credit for her exceptional directing.

One interesting aspect of the play is that the audience's vantage point shifts between the normal stage view and a backstage view. This theatrical device allows the playgoer to gain a fuller appreciation of the contrast between reality and the stage.

Performances are this Friday and Saturday at 8:00 pm and Sunday at 2:00 pm in the Ramo Auditorium. General admission is \$6.00. Student admission is a mere \$4.00. "A Life in the Theatre" is a play worthy of recognition.

## SPORTS

## Booters Show Panache Against Touring Team

by Sucker for Soccer

Soccer is the greatest game ever invented by man (although some hockey and water-polo players might have something to say about that!). It is a graceful game of involving strength, skill and tactics. [...and a game that isn't?? -Ed.]

At Caltech, there are a group of men who play this superlative game with the deftness and panache of Pele and Diego Maradona (Hand of God not included). You've probably seen them at work and at play (two of the same things) on your way to tennis or cross-country. The varsity and junior varsity each play against other schools with only one objective in mind: TO WIN.

Sadly, this is not always the case. Facing them are some of the best teams around in the L.A. area and since the general emphasis at Caltech is academic excellence as opposed to building the perfect athlete (a goal which is pursued with more vigor by our counterparts elsewhere), the chances of winning are, to say the least not as good as we would wish them to be. Still, the teams give out as good as they get, surprising most of their opponents with their tenacity and all-around gutsy determination.

The varsity team is where most

of the serious action and most of the skillful players can be found. Their record this season is 3-1-4 in terms of wins-draws-losses. In midfield and amongst the forwards, James Ibbetson, John Josephson, Flavio Noca and Konstantin Othmer set new limits in skill and style. In addition to them, are Tom Tetzlaff, Eric Hassenzahl, Doug Roberts and Jeff Flint.

In the back is Michael Keating, marshalling a very creditable defense and a lethal off-side trap to pounce on any unsuspecting attacker in the opposing team, ably supported by fullbacks Bill Foster, Gary Eastvedt, Kleber Camacho and Ben Funk. Keeping goals is Sam Weaver, standing in for the injured Van Eric Stein, and doing quite a commendable job at it too.

Last Monday, on the 26th, the Caltech varsity played host to Macalester College on Caltech's own home ground. Macalester is one of the nation's top ranked team in soccer and were currently touring the nation. The match played was a closely fought one with both teams rarely giving more than an inch.

Caltech was the first to score with a well-struck header by Josephson in the first half. From

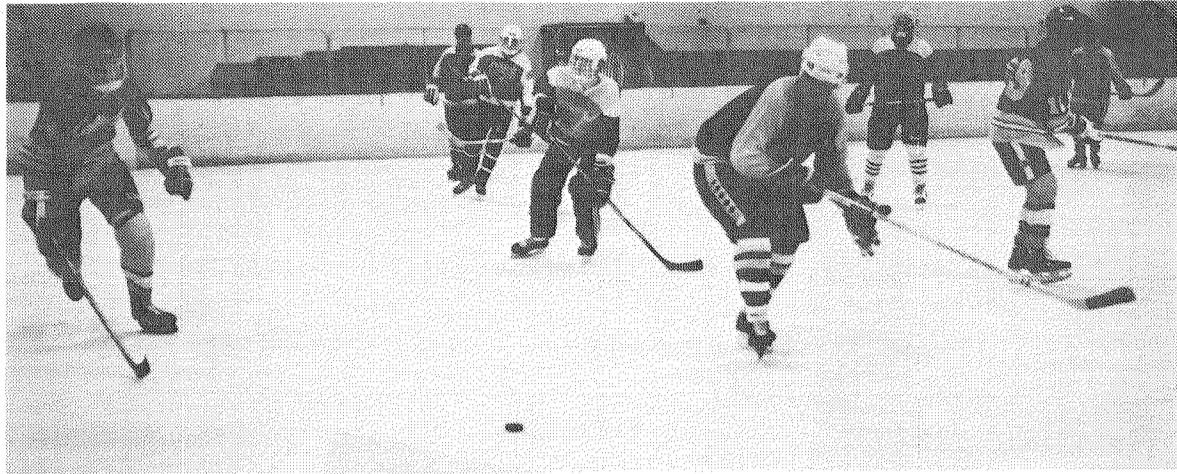


photo by Michael Keating

Skaters start season against a local hockey team. The Beavers were unable to beat the Maroons Wednesday night at the Pasadena Ice Center. The final score was 12-8.

then on, the pressure increased, Macalester pouring forward in search of an equalizer and Caltech continuing their search for goals to wrap the match up. There were good chances created but there were no more goals in the first half.

In the second half, Macalester again came forward in their quest for goals but were for the most part frustrated in their attempts by the fullbacks' off-side traps. But, with the pressure being so great and the Techers being forced on the defensive for the better part of the half, the equalizer was not far away. It finally came after a frantic scramble outside the goal-mouth. The second for Macalester came soon afterwards. In both cases, the

Techers were unlucky not to have cleared the ball.

But, if the opposition thought that there would be any easing of the pace after gaining the lead, they were sadly mistaken. The Techers started to get out of their own half and attack the goal more in search of an equalizer. Through the combined skill of the forwards, with the inspired running of Flavio Noca deserving mention, four very good chances were created which went begging for goals.

The referee, on one occasion,

controversially disallowed a goal which would have tied the match. Despite all their efforts, the Techers were forced to concede the game 1-2, but not without having rattled Macalester and robbed them of their confidence in facing a supposedly "weak" team from Pasadena!

In the late breaking news Caltech defeated Redlands there with a score of 3-2. The winning goals were score by Jeff Flint, Flavio Noca, and Michael Keating.

## Polo Players Drop Two Matches

by Skip Schotte

The past week has witnessed two totally opposite water polo games for the Caltech Battlin' Beavers. Last Saturday, Caltech played Claremont-Mudd, ranked 12th in the nation, and lost 22-3. On Wednesday, the Beavers played Whittier in a very exciting 13-12 sudden-death overtime loss.

The Claremont game was feared by coach and players alike. Over the last three years, six games, Caltech has been outscored by an average of 25-3 per game. This game did not appear to warrant any hopes either. In a game dominated by the All-American and All-Conference players on the Claremont team, the Beavers were totally overwhelmed.

But on a happier note...

Wednesday's game could very well have been the first of the two game battle for third place in the conference. Whittier had already beaten Occidental, and the Beavers should beat Oxy when they play next Wednesday and the following Saturday.

The game started out, and stayed a relatively low-scoring affair. The Whittier squad worked their way to a 5-2 lead in the second quarter, but Caltech battled back to a 5-4 halftime score.

The Beavers immediately started off the third period by tying the score at 5-5. At the end of the third however, the Whittier team had eked out an 8-6 lead. The Beavers had their work cut out for them in the fourth. The Beavers went to this task with reckless abandon and eventually took a 9-8 lead with a minute to go in the game.

After Whittier tied the game with :20 to go, Caltech called a timeout to develop their last shot strategy. As regulation time expired, the Whittier goalie blocked the last shot, sending the game into two three-minute overtime periods.

The Beavers rose to the challenge and jumped to an 11-9

lead after the first overtime. Spirits were running high among the fans and the players. Caltech then scored again to take a commanding 12-9 lead with 2:16 to go in the second overtime. But alas, it was not to be. Whittier scored with 1:20 to go and then again with :39 to go, making the score 12-11 with about the amount of a shot clock left in the game. Caltech brought the ball down, and was actually at a 6-5 advantage as Whittier was cherry-picking. With :14 left, a Caltech player walked the ball towards the cage, furiously faking shot after shot. The Whittier goalie was high above the water line consistently expecting the shot, which was taken with :10 left. The goalie calmly reached the ball, threw it to his own player, who scored the tying goal. Now it was time for sudden death.

In this sudden death period, both teams missed many shots, while both goalies blocked any shots on the cage. However, with :25 to go in the first sudden death period, a Whittier player launched

a hole shot that narrowly eluded the goalie's hands, ending the game, 13-12.

This week, the Caltech team plays Redlands in the Redlands Roman Bathhouse on Saturday afternoon. The team then travels to Occidental on Wednesday in what should be an exciting matchup. If you have the time, come along and cheer the team to victory.

## Cross Country

from page 8

the finish line in a beautiful display of running finesse. Coming in behind Carmen was Ami Choksi, Selena Forman, and Dee Morrison.

Well, runners, that's it! The season is virtually over. Now all we have left is Conference on Halloween of all days. After that is Regionals, and who knows, maybe even Nationals! Let's be realistic—with a winning season for both the men and women, nothings looks too good for us. Congratulations!



photo by Theresa M. Grime

Caltech midfielder John Josephson shields the soccer ball from his Macalester College opponent (14) as James Ibbetson (10) looks on.

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# SCHOLARSHIPS

from page 12

## CIC Minorities Fellowships

The CIC Minorities Fellowship Program, sponsored by 11 Midwestern universities, will award about 40 fellowships to members of underrepresented minority groups seeking PhD degrees in social sciences, humanities, sciences, mathematics or engineering. Each CIC Minorities Fellowship provides support for four to five academic years depending on field of study. For 1988-89, each award will pay full tuition plus a stipend of at least \$8,000. Fellowships can be used at any CIC university [the list seems to be the Big 10 plus the U. of Chicago]. American Indians, Black Americans, Mexican-Americans and Puerto Ricans are eligible for fellowships in all fields. Asian-Americans are eligible for fellowships in the humanities. Application deadline is January 8, 1988. Apply as early as possible. For more information, call toll free (800) 457-4420, or write to: CIC Minorities Fellowships Program, Kirkwood Hall 111, Indiana University, Bloomington, IN 47405.

## EOP Scholarships

Undergraduate students planning to pursue a career in engineering or computer sciences are encouraged to apply for the 1988 Equal Opportunity Publications Scholarship Program. One \$500 non-renewable scholarship will be awarded in each of seven different categories. For more information, come by the Career Development Center, 08 Parsons-Gates.

## Student Heart Research

The American Heart Association is offering an undergraduate research training program to encourage and introduce gifted students from all disciplines to consider careers in cardiovascular research. In the program, students are assigned to leading research laboratories in California for a ten-week period during the summer to work under the direct supervision of experienced scientists. Each student will receive a grant of \$1,500 for this period.

Interested students should request application from the following address by December 15:

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A.H.A., California Affiliate  
805 Burlway Road  
Burlingame, CA 94010-1795  
or phone (415) 342-5522.

## Living In A Material World?

The Society for the Advancement of Material and Process Engineering (SAMPE) is awarding 19 \$1,000 scholarships to college students pursuing courses leading to a career in Material and Process Engineering. Consideration is given to scholastic average, specific courses of study, academic awards and honors received, technical and other work experience and the student's communicated objectives in Materials and Processing technology. Competition starts October, 1987, and judging takes place in February and March, 1988, with awards being announced in April, 1988. Applications and details are available in the Financial Aid Office, 12-63 (515 S. Wilson, 2nd floor).

## DOE Research Appointments

The U.S. Department of Energy (DOE) finances research appointments in science and engineering that are administered by NORCUS, the Northwest College and University Association for Science. Participants in the program are placed with DOE contractors in Richland, Washington. Students or faculty interested in appointments outside the Richland area are requested to indicate the site of interest. Appointments are available for summer and during the academic year.

The program provides an introduction to science and technology and an opportunity to observe research methods while working under the guidance of experienced scientists and engineers. Candidates should have completed their sophomore year by the time they expect to participate in the program, have an above-average academic record, and possess potential for a career in engineering, mathematics, or the sciences. Most appointments are during the summer and last ten weeks. A stipend and travel allowance are included.

Completed applications must be received by December 1 to be considered for a summer appointment. Applicants normally are notified in late January whether they have been accepted. United States citizenship is required and applicants must be from U.S. educational institutions. For applications and information, write to:

The Northwest College and University Association for Science  
Tri-Cities University Center  
100 Sprout Road  
Richland, WA 99352

## Attention Swedes!

The Swedish Club of Los Angeles is offering scholarships for 87-88 for \$500 to \$1000. To apply you must be a student residing in Southern California, must be of verifiable Swedish descent, have strong academic qualifications, be a citizen or permanent resident of the United States, and show financial need. Deadline is November 6, 1987. Send your resume to R.W. Jackson, 1250 E. Walnut St., Suite 210, Pasadena, CA 91106, or call (818) 795-1098 for more information.

## Work Study & On-Campus Jobs

Students who are on College Work Study and those who are looking for work on campus are invited to visit us at the Career Development Center at 8 Parsons-Gates. There are lots of new listings every day. If you would like to do private tutoring, you can also sign up at the Center.

## HHMI Doctoral Fellowships

The Howard Hughes Medical Institute (HHMI) is offering 60 doctoral fellowships in biological sciences. The Hughes Doctoral Fellowships will be made to those who have demonstrated superior scholarship and show greatest promise for future achievement in biomedical research. Eligible students are college seniors and first-year graduate students, or others who have completed a limited amount of graduate work. For further information please contact the Financial Aid Office, 12-63 (515 S. Wilson, 2nd floor).

## Planetary Science 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 April 15, 1988. Mail in cards for further information are available in the Financial Aid Office, 12-63 (515 S. Wilson, 2nd floor).

## Minority Fellowships

The National Consortium for Graduate Degree for Minorities in Engineering, Inc., (GEM) is accepting applications for its 1988 Fellowship competition which will provide one-hundred and thirty (130) awards to minority students in engineering.

Designed for members of ethnic groups that are underrepresented in engineering, the program's goal is to increase the pool of minority students who receive master's degrees annually in engineering. Persons applying for the program must be American Indian, Black American, Mexican American, or Puerto Rican, and must be citizens of the United States. At the time of application, the minimum academic requirement for the student is enrollment in the junior year of undergraduate study in one of the engineering disciplines. Those presently in their senior year or recently graduated are also encouraged to apply.

As a GEM fellow, each participant must be free to work during the summer as an intern for a member employer and must complete the academic work for the master's degree at one of the member universities. In all, there are 52 member employers and 52 member universities.

Each fellowship pays tuition, fees, and a stipend of \$5,000 per academic year, as well as provides summer employment with a sponsoring member employer. The total value of the award is anywhere between \$20,000 and \$30,000 and depends upon which member university the Fellow elects to attend.

Applicants must be received by December 1, 1987. Awards will be announced February 1, 1988. Information on the program, as well as application materials, may be obtained from:

GEM Program  
P.O. Box 537  
Notre Dame, IN 46556

## Materialists Take Note

The Society for the Advancement of Material and Process Engineering (SAMPE) is accepting papers to be presented at the organization's second International Metals and Metals Processing Conference. The theme of the three-day conference is "Space Age Metals and Technology."

Completed papers must be submitted by April 1, 1988. Unpublished papers and papers not previously presented at SAMPE conferences are eligible for submission. Single-page, preliminary abstracts must be submitted by January 1, 1988, to Dr. Sam Froes, program chairman, AFWAL/MLLS Wright Patterson AFB, Ohio, 45433. All abstracts and papers must include the author's name, affiliation, business address and telephone number. Authors will be notified of acceptance.

For additional information about SAMPE, please contact Ray Cull, conference deputy chairman, (517) 496-4992, or Marge Smith, business director, at P.O. Box 2459, Covina, CA 91722, (818) 331-0616.

## Work-Study At The Red Door

Work-Study jobs paying \$6.00 per hour are available at the Red Door Cafe (2nd floor of Winnett, around the corner from The Y). Available shifts are 2-6 pm, Monday-Friday, 12-5 pm Saturdays, and possible evenings from 8-12. The Monday shift may be lengthened to 2-7 pm. Requirements are: a liking for people and the ability to ask for help without embarrassment. Flexibility and a sense of humor are musts. Apply at the Red Door, or call x6158.

# Now that you've gotten into Cal Tech, IBM can help you get more out of it.


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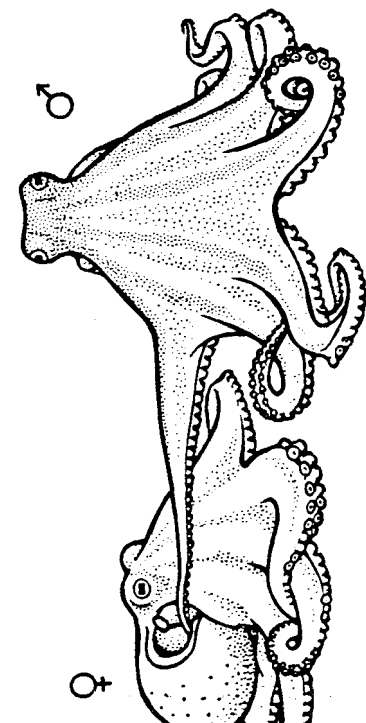
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WHAT GOES ON

Announcements for *What Goes On* should be submitted on an announcement form available in the SAC copy/mail room (Room 37) or on a plain piece of paper. Please indicate the date(s) you want the announcement to run. Send announcements to 25-58, or put them under the door of Room 40A of the SAC. Announcements must be received by the Tuesday prior to publication.

**Songs of Rural Havoc?**

Yes, indeed. Songs of rural havoc, love and even murder (those mainstays of English traditional music) will be vocalized in a particularly powerful and harmonically complex fashion. Martin Carthy and the Waterasons, veritable legends of the English folk music scene, will be performing at Caltech in our own Dabney Hall on Friday Nov. 6 at 8:00 pm. Student tickets for this Caltech Folk Music Society event will be available at the door for only \$5.00, thanks to the Caltech Y and the Graduate Student Council.

**Panic In The Streets**

*The War of the Worlds*, perhaps the most famous radio show ever broadcast, will be presented by KNX (1070 AM) on Halloween night, Saturday, October 31 from 9:00 to 10:00 pm.

The radio classic, starring Orson Welles and the Mercury Theater of the Air, caused widespread panic among listeners when it was broadcast 40 years ago, Halloween Eve, on the CBS Radio Network.

**TACIT's "A Life In The Theatre"**

Theatre Arts proudly presents its first production of David Mamet's "A Life in the Theatre." Starring David Stevens and Al Hibbs, it is a tale of life both in front of and behind the footlights. Performances are Oct. 30, and 31 at 8 pm and Nov. 1 at 2 pm. Get your tickets now at the Caltech Ticket Office or at the door.

**Philharmonic Tickets**

The Caltech Y has tickets to two performances of the Los Angeles Philharmonic. October 30th's performance includes Harbison's "Diotima," Prokofiev's Piano Concerto #4, and Strauss's "Also Sprach Zarathustra". November 13th will include Stucky's "Dream Waltzes," Bloch's "Schelemo," and Rachmaninov's Symphony #2. Andre Previn conducts both evenings. Tickets and sign-ups in the Caltech Y, 2nd floor of Winnett. The number of tickets is limited, and each ticket costs \$3. Sign up soon or you won't get to go.

**Better Than Chem 1**

On Thursday, Nov. 5, the Caltech Chemistry Department is sponsoring High School Chemistry Day (complete with chemical magic, posters, tours of campus chemistry labs and an inspirational talk by Harry Gray). Any members of the Caltech community interested in being a part of this event are encouraged to call Erica Harvey at x6538.

**Gay/Lesbian Discussion Group**

The Gay and Lesbian Discussion Group will not meet weekly. The meetings have been re-scheduled to meet the first Thursday and third Tuesday of each month. The next meeting will be held Thursday, November 5 from 7:30 pm to 9:45 pm at the Young Health Center Lounge. All members of the Caltech Community are welcome. Refreshments are provided. For further information please contact Bruce Kahl, x6393.

**Heidelberg Chamber Orchestra**

The Heidelberg Chamber Orchestra will present a concert at 8 pm tonight, October 30th in the Forum Lecture Hall at PCC. The program will include works by Mozart, Bach, Vivaldi and Telemann. Tickets are available at the door.

**Pasadena Symphony Concert**

The Caltech Y has tickets to the October 31 performance of the Pasadena Symphony for \$3.00. The concert will be at 8:30 pm, and will feature the Overture to Weber's "Oberon," Bartok's "Concerto for Two Pianos, Percussion and Orchestra" and Beethoven's "Symphony No. 3 in E flat, Op. 55, 'Eroica'." Unfortunately, the Caltech Y didn't happen to mention where the concert will take place, so you'll have to ask them when you buy your tickets.

**Attention Pre-Med Students**

Diane L. Gottheil, Ph.D., Coordinator of University of Illinois Medical School M.D./Ph.D. program will be at the Caltech Health Center at 5:15 pm on November 2, 1987 to discuss her program. Please come!

**Room and Board Charges**

First term board charges, housing room adjustments, and Athenaeum waiter meal credits for students on board will appear on the November student account statement. Additionally, students living in the On-Campus Undergraduate Houses will be charged a \$10.00 fee as part of the House Financial Reserves for damage control.

Questions concerning room and board charges should be directed to Jeanine Conneally in the Housing Office (x6174).

**New Telephone System**

On October 31st (yes, tomorrow), a new long-distance telephone system will go into effect campus-wide. In order to place direct-dial long-distance calls evenings, weekends and holidays, all undergrads will need a personal access code. If you have not already received your own personal access code, fill out the request form you will shortly be receiving in the campus mail, and return it in person to the Telephone Office, Room #124 of Dabney Hall.

**67 Rooms Left**

There are 67 rooms left open for student use in the south basement, including art, music, study halls and meeting rooms. Room #33 is being set aside for gamers and will have cupboards installed for storing gaming materials. Gamers are encouraged to use this room for random gaming, rather than spread out through all the study halls and meeting rooms at once. Nancy Matthews, Student Activities Coordinator, wants suggestions for basement uses and improvements. This deluge of SAC ideas should fall on Nancy's office at 64-58 SAC, or x2935.

**Fast Pitch Softball League**

Fast-pitch softball team forming to compete in the Pasadena city league. Registration in December, season begins in January. Practice ought to begin in November! Cost is \$250 per team (about \$20 per player). Interested players (and sponsors?) please contact Steve Eppley at 577-0365.

**Bother Tom**

*The Totem* is once again hunting for pieces of fiction, poetry, and other creative works that are not derogatory to reinforced concrete. The editor, Tom Tromeo, promises authors everlasting, world-wide fame, a chance at the Nobel prize in literature, and maybe even some toast (unbuttered). If you would like to aid Tom in his literary pursuits, bother him at 1-59 (Ricketts).

**Caltech Road Hockey Club**

The road hockey season is underway. New players are always welcome. Games are held every Saturday beginning at 9:30 am in the parking lot north of Beckman Auditorium. Contact Sheldon Green (796-3813) or Jeff Hall (796-9232) for details.

**S.E.D.S. Meeting**

Caltech S.E.D.S. will be meeting on Tuesday, November 3rd at 7:30 pm in Clubroom B (Room 15) of the Student Activities Center. We will be showing the mission highlights of Spacelab 2 and a short film on the Galileo mission to Jupiter. As always, we will be discussing the most recent developments in the space program, and refreshments will be served.

**Chess Club**

Don't be misled by the *little t*; we are meeting in Clubroom A, which is in the basement under Fleming House. The time is still Monday at 7:30 pm. Come on by and take out your frustrations on someone else's king. For more information contact Matt at 356-9208.

**Ivy Bibles**

Hey freshmen! Inter-Varsity Christian Fellowship at Caltech is holding Bible Studies just for you. The studies will cover I John this term. Studies are one hour per week, and their purpose is to strengthen freshmen in the Word and to provide a support group for them. Frosh studies will be held:

Thursdays, 8-9PM, room 229 Ruddock  
Fridays, 8-9PM, room 114 Ruddock  
Sundays, 2-3PM, room 301 Thomas

If you are interested in a Bible study, or if you have any questions, please contact Larry Trout or Mel Senft in Ruddock 114, or Scot Wolfe in Ruddock 229.

**Reach New Heights**

Join the Caltech Flying Club and learn to fly. Check our rates and compare. You'll find that now is the time to learn. For more information on the Flying Club or about a demo ride, contact Jay Ebersoll, x6182, or Jim Kaufman, x3807.

**Advance Your Swordplay Skills**

The Caltech Medieval/Renaissance Society is holding fighting practice on Sundays at 2pm on the lawn outside Winnett Student Center. Would you like to learn the techniques of medieval armored combat? Come join us! For more information, call Leif (213) 644-7566, or Amy (818) 794-2612.



**Low Calorie Scholarships**

College students can win thousands of dollars in scholarship money by creating a healthful recipe that uses Sweet 'N Low and can be prepared without a conventional kitchen.

The "Sweet 'N Low Grade 'A' Recipe Contest" features a grand prize of \$5,000, first prize of \$2,000 and second prize of \$1,000.

The recipes must be suitable for preparation in a residence-hall room using only small appliances such as a toaster oven, blender, wok, compact microwave or small refrigerator. They will be judged on the basis of healthfulness, taste, originality, ease of preparation and appearance.

Entry forms are available by sending a self-addressed stamped envelope by December 15, 1987 to: Sweet 'N Low Entry Form, P.O. Box 1901, New York, NY 10116. Entries must be postmarked by December 31, 1987 and received by January 10, 1988.



**Maid O' Cotton?**

Time is running out for young women who want an opportunity to be the 1988 Maid of Cotton! Deadline for submitting applications to the National Cotton Council is Monday, November 9. The 50th Maid of Cotton selection is scheduled for Dec. 26-28 in Dallas.

As goodwill ambassador for the U.S. cotton industry, the new Maid will travel across the country and around the world. She will speak to civic groups, take part in charity events, and participate in fashion shows throughout the Cotton Belt. She also will call on government leaders and in countries she will visit on her overseas tour.

The 1988 Maid will receive a \$10,000 educational award made possible by a grant to The Cotton Foundation from Ciba-Geigy Corporation. Application forms are available at National Cotton Council headquarters, P.O. Box 12285, Memphis, Tenn. 38182. The telephone number to call for more information is (901) 274-9030.

**Goddard Scholarships**

Applications are being accepted for the Dr. Robert Goddard Scholarship for 1988-89. The award is for \$7500. Applicants must be U.S. citizens in at least their junior year. Apply by letter to the National Space Club/Goddard Scholarship, 655 15th Street N.W., Suite 300, Washington, D.C. 20005. With your letter include your transcript, letters of recommendation from faculty, accomplishments demonstrating personal qualities, scholarship plans, and proven past research in space related science and engineering. **Deadline is January 15, 1988.** Some additional information is available in the Financial Aid Office, 12-63.

**Zonta/Earhart Fellowship**

Women majoring in aerospace related science or engineering fields are encouraged to apply for the 1988-89 Zonta Amelia Earhart Fellowship. The grants are for \$6,000. Qualifications are a bachelor's degree, qualifying for graduate school, and a superior academic record. Applications and recommendations must be postmarked by **December 31, 1987.** For applications and further information contact: Zonta International, 557 W. Randolph St., Chicago, IL 60606.

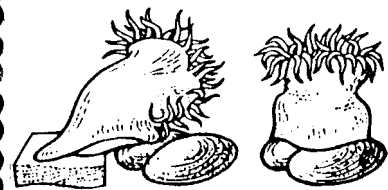
**Hispanic Scholarships**

The National Chicano Council on Higher Education is accepting applications for their Science Fellowship Program. Hispanic and Chicano students in at least their junior year are encouraged to apply. Exceptional sophomores may also apply. If selected, sophomores and juniors receive \$400 and seniors \$500. Additional funds are available for graduate studies. Deadline is November 16, 1987. Applications and further information are available in the Financial Aid Office, 12-63 (515 S. Wilson).

**U.S.D.O.E.E.R.P.**

The U.S. Department of Energy has opportunities available for juniors and seniors in their Science and Engineering Research Semester program. Activities include hands-on research, seminars, academic courses, and advanced instrumentation training. See the poster on the bulletin board in the SAC (at the Orange Walk entrance) for more information.

continued on page 11



**Rag Time**  
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University students as sperm donors by California's largest sperm bank. Earn \$70-105/week. (213) 553-3270. California Cryobank, Inc., 2080 Century Park East #306, Los Angeles

**MANUSCRIPT PROJECT**--ASCII Files need TROFF or TEX experts with PC to edit, add some math. John List, ext. 4402.

**FOR RENT-**

**ROOM FOR RENT** Room in large, quiet Altadena area, full house privileges, female only, \$250 per month, split utilities, no drinking or smoking please. Call Irene (818) 797-5745 Daytime or leave message after the signal will reply.

**PERSONAL-**

**POSTDOC WOMAN** would like to meet single Caltech men 32-42 for coffee, lunch, and friendship. Box 84244, LA, CA 90073.

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