

Midterms!

They "suck the paint off your house and..."

The California **TECH**

...give your family a permanent, orange afro!"

from Spies Like Us

Volume XCVII, Number 6

Pasadena, California

Friday, October 27, 1995

Astronaut Encourages Support of Women, Minorities in Science

by Amy Herr

It is the nature of this flower to bloom, writes Alice Walker, and bloom she has. Dr. Mae C. Jemison: Chemical Engineer, Scientist, Physician, Teacher, Astronaut, African-American Scholar, and Dancer. Dr. Jemison entered Stanford University on scholarship at age 16, where she earned a Chemical Engineering degree. From there, she continued her education at Cornell Medical College and, in 1981, graduated with a Doctorate in Medicine. Combining her keen intellect with her never-ending compassion, Dr. Jemison worked in Sierra Leone and Liberia (through the Peace Corps), Cuba, Kenya, Thailand, and Los Angeles. In the late 1980's, NASA selected her as an astronaut on a joint US-Japan mission. On September 12, 1992, aboard STS-47 on Endeavor, Dr. Jemison became NASA's first Science Mission Specialist and history's first woman of color to peer at Earth from some 200 miles above.

The Multi-Cultural task

force in combined efforts with The Women's Center, The Y, The Student Affairs Office, and The Society of Women Engineers, offered the Caltech Community an opportunity to acquaint itself with this remarkable woman on October 18th, as part of Kaleidoscope 95: United by Our Similarities, Celebrating our Differences. What did Dr. Jemison have to say to the community? Of course, we learned of her outstanding achievements and enthusiasm for science; but, more importantly, Dr. Jemison delivered a specific message about minorities and women in science. Realistically, Dr. Jemison acknowledged the common perception of any discussion about gender and ethnicity as a turn-off. Yet, she recognizes that the intellectual resources of this country are not being tapped; that is something she urges us all to change. Quoting figures given by Dr. Jemison: merely 7% of PhD's in physics go to women, while a meager 2% go to African-Americans and Hispanics, and more than 67% of women and

minorities do not continue on in careers relating to math or science.

Dr. Jemison explains these unacceptable statistics through her Zero Sum Equation analogy. This analogy explains that the

Demands for equality should not be taken to be threats, equitable distribution of opportunities can only help everyone involved.
-Dr. Mae Jemison

most scientifically privileged persons consider something added to the other side of the equation (i.e. to those underrepresented in the scientific community) as something subtracted from their side of the equation. We are more intelligent than that, Dr. Jemison urged, we must include all of our citizens, for life is much

more abundant than a zero-sum equation. Demands for equality should not be taken to be threats, equitable distribution of opportunities can only help everyone involved. Simply because a woman or other underrepresented person doesn't look or act like a stereotypical scientist, doesn't mean he/she isn't a scientist, given the chance. In fact, Dr. Jemison believes that women and minorities can bring new insight and understanding to science, partly because of their unique perspectives.

And how should minorities and women become incorporated into the scientific community? Dr. Jemison suggests a five part solution:

1. Commitment to a sound education for all children,
2. Adults behaving as they want their children to act (including having an open attitude towards change),
3. Distinctions constructed between what an image is and what a role-model

should be,

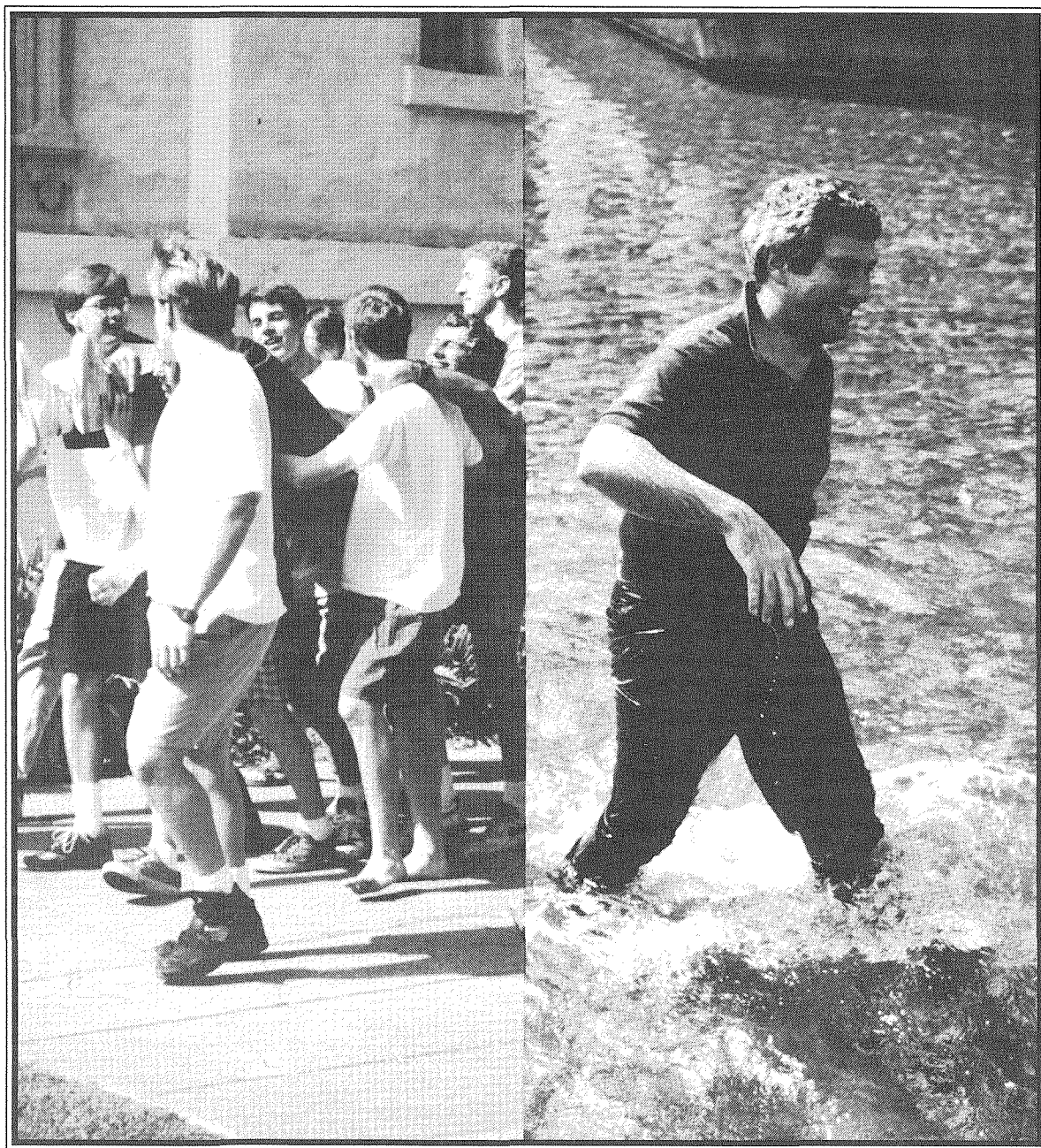
4. Acknowledgment of the dependence of the scientific community on society as a whole and of the dependence of society on science, and, finally,

5. Recognition of past failures and successes.

Dr. Jemison has no doubt that together these five points will be a step forward for our society and a move towards the de-stratification of our communities. As a result of this change, she surmises that science will harness the entire range of human potential.

But is this enough? Dr. Jemison implores us to question the damage that 200 to 400 years of oppression has brought about; can that be undone by simply saying it is over, if that in itself is even possible? Beyond developing a society that grants all aspiring scientists and engineers opportunity, there remains a final hurdle. "The *only* reason I am

SEE JEMISON, P. 3



In what has become an annual tradition, Chem 1 freshmen throw Professor Nathan Lewis into the Millikan reflecting pool. Happy birthday, Nate!

Grad Students Shine in Saturday's College Bowl

by Mason A. Porter

On Saturday morning, Caltech held its first College Bowl Tournament in several years in the hopes of fielding a regional team during that competition next February. After eating bagels provided by Sam's Bagels, the morning competition began. This division was won by Damned Scurves (and a Flem), consisting of Sophomores Kiran Sheker, Geoff Smith, Brandon VandeBrake, and Tai Lam, and Junior Jamie Walls. They went undefeated in the five game competition. Other teams in the morning division were The Usual Suspects, Four Moles and a Funeral, and Free Radicals (whose team member and mascot Ben Williamson insisted they were known as The Lambada Ar-

mada).

Though some morning teams even found that it was difficult to answer questions while half asleep, those in the afternoon division had no such problems. The Herpolhodes won six games without a loss against six other teams, including the Barking Spiders and The Four Horsemen of the Apocalypse. The team consisted of graduate students Richard Mason, Daniel Gottesman, Scott Kelly, and Russel Todres.

Later in the afternoon, the Herpolhodes defeated Damned Scurves (and a Flem) in two consecutive playoff rounds to gain the intramural victory. The winners won prizes provided by Sam's Bagels, Tower Records, Starbucks Coffee, and Hamburger Hamlet.

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ENVIRONMENTAL OPINION PROVOKES READER RESPONSE

Capitalism a Fundamental right?

It greatly disturbs me to see articles such as Autumn Looijen's "Quest for Profit Destroys Environment" of October 20, 1995 in the newspaper of one of the greatest science and technology institutes in the world. In her article, Ms. Looijen claims that mankind is going to have to "be content with what we have" (meaning our standard of living), to "be prepared to accept stiffer measures," or else see our planet ruined and our race extinguished. Ms. Looijen identifies a right "not explicitly guaranteed in the Constitution... the right to make money" as "the root cause of many of our most pressing environmental problems." This right may have to be taken away, she says. She seems to imply that because it is not a right guaranteed explicitly by the Constitution, it would be legal and even proper to do so.

The Constitution is a document of principle. Its essential purpose is to guarantee us those Rights upon which our country was founded, "Life, Liberty and the pursuit of Happiness" as established by our Declaration of Independence. These are the

fundamental Rights; those listed in the Bill of Rights are some of their most important derivatives. The right to make money is one more such derivative. In desiring to take away man's right to make money, Ms. Looijen and her ideological gang really want to take away his Rights to liberty, the pursuit of happiness and, ultimately, to life. She is advocating a government which dictates to each man how he may earn money and what he may do with the money he does earn: a government which dictates some of the most crucial aspects of his life. This is not liberty. No man (not even those doing the dictating) can be truly happy under such a government. This is certainly not the life which the Founding Fathers fought to secure for us.

What truly disgusts me is the philosophical view of man and the universe implied by Ms. Looijen's projection of our future. Man is a profoundly unique being in that he possesses the faculty of reason. It is this faculty which has allowed him to progress from a brief, painful life consisting mainly of roaming from field to field, picking berries to assuage his constant hunger during moments when he is not fleeing some equally hungry beast, a life completely devoted to maintaining his physical requirements, to one in which a

minimum of effort secures his physical existence and he is free to truly live. To compose the "Jupiter" symphony or to write *Les Miserables*, to discover the code of life in DNA or the code of the universe in superstring theory, to create unimaginably powerful computers or to send men and spacecraft to explore the solar system. Ms. Looijen says it's all a big joke on man. Just as he glimpses the brilliant future he seems capable of, he finds that it was all an illusion. His technology, his method of dealing with reality, his faculty of reason, is impotent to achieve it. With reason undermined, there is no place for passion or wonder, love or ambition in her world; the fabric of it isn't strong enough to support their weight. The only future open to him is to renounce this glorious life, to deny his rational faculty when it tells him that his lot can be better, to condemn himself and future generations to stagnation. I can think of no idea more malevolent, more thoroughly nihilistic, than this.

This is the critical issue raised by Ms. Looijen's article, not the root of environmental problems, but something far more important, a metaphysical issue. (The root cause of any environmental problems is a lack of long-term planning, which is encouraged by the government

controls now in place, and the solution is not a dictatorial enviro-fascist government.) Fundamentally (if not at each moment) the universe is not the grim place Ms. Looijen implies, but is wonderfully sublime and a source of unlimited joy. Caltech is about exploring this magnificent existence, discovering what makes it tick, and exploiting it to our betterment. Caltech is about Reason. There is no place here for its spiritual antithesis.

Eric R. Westphal

Environmentalism Short-Sighted

Last week Autumn Looijen gave us a tract on profit seeking and the damage this does to the environment. As a provoking opinion it has obviously succeeded. If it was meant as a coherent and defensible statement I fear it failed quite spectacularly. The title and ends of the article strongly imply that profit-seeking itself leads to damage to the environment — not that there is any other recommendation for organizing the economy. This is reinforced by Looijen's contention that we must reduce our consumption to save the environment.

Alas, the chosen examples are wholly inadequate to making any broad philosophical point. The cars we drive are rather polluting, yes, and trash is a problem — but these are from flaws in the market systems. The cost of polluting cars is not well reflected in their price, and waste in of itself can hardly be necessarily an evil — we all produce waste, which some other lifeform considers food, and around we go. The economy simply lacks the saprophytic stage of the cycle. But if better mechanisms were in place profit seeking would drive people to be more efficient and ecologically correct. And deforestation is hardly a fair example in this country, which subsidizes public logging to an extreme degree. One might as well cite California farmers for growing rice and alfalfa in the desert when the water is politically controlled.

But while pollution of our own environment is quite short-sighted (in both time and space) certain strands of environmentalism (which Looijen may or may not be fully espousing) are just as short-sighted in a longer term way. According to our current physical understanding life itself is bad for its own environment. Energy is constant and entropy increases, so any complex dynamic system surviving in a gradient contributes to the deterioration of that gradient by its own operation. True conservation lies in not moving at all, in not living. All else is a matter of degree. Shall we huddle in a cold dark room, eking out generation after generation until the Sun gives out, or live quickly, but burning brightly and gloriously? This is a matter of choice, but the

decision between the stars and the shadows is not universally clear. Or as binary as I have presented it. So telling us to reduce our consumption independent of the efficiency of that consumption is simple dogma pushing.

I would also like to note that people tend to maximize *something* in all societies. We strive for profits and goods; others for less tangible forms of status. Financial profits do have the virtue of being visible and manipulable if one wishes to manipulate behavior.


And lastly... Looijen concludes that "We must be prepared to accept stiffer measures, including taking away that cherished right to make money. After all, the alternative is taking away the future of our race." If someone is attacking your immediate livelihood through theft or pollution you have a generally (I sweep aside hordes of cultural exceptions) acknowledged right to save yourself. But if you feel someone is "consuming too much" you should think very carefully about what measure of violence you are willing to use to make her comply with your vision of how life should live.

Damien R. Sullivan


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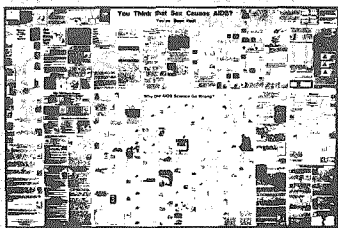
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Caltech 40-58 SAC, Pasadena, CA 91125
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COPY EDITOR Shay Chinn	PHOTOGRAPHER Maria Huang
LAYOUT EDITORS Autumn Looijen Samantha Gizerian	STAFF WRITERS Stephen Van Hooser Mason Porter Myfanwy Callahan Maria Huang
MISCELLANEOUS EDITORS Mason Porter Stephen Van Hooser Hideo Nomo	FEATURE WRITERS Adam Villani Terry Moran Joe Trela
EVENTS AND NOTICES Terry Moran	CONTRIBUTORS Laura Brady David Relyea Donna Ebenstein
BUSINESS MANAGER Francisco Gutierrez	ADVISOR Hall Daily
CIRCULATION Sander Granat	

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Jemison:

CONTINUED FROM PAGE 1

here today is because of affirmative action." Dr. Jemison assures us, "I was very talented, but unless somebody (i.e. Stanford) made the positive step of trying to include more people, I would not be where I am." Thus, Dr. Jemison is a true example not only of what one can make of life, regardless of obstacles; but, an example of what can happen when institutions and people in positions of power take the attitude that different types of people can bring different important insights to the scientific world. Sure, Dr. Jemison agrees, we must do things for ourselves. "... but, you can dig a hole for someone so deep that they can't get out. You can put someone in a position they cannot escape from. You walk by them in that hole screaming for help and you have the responsibility to help — just as those in the hole have the responsibility to try and get out.

Ignore it and you are guilty, whether it was your fault they were put in the hole or not."

In coming to Caltech, Dr. Jemison brought the objective of enlightening us as to the position of minorities and women in science because it is a problem. She conjectured some basic solutions to the zero-sum equation analogy — an equation which perpetuates fear towards diversification. These solutions could remove present partitions in the scientific community, with regards to who receives certain educational opportunities. In addition to those solutions, she asserts that we must each be armed with understanding, whether a student, scientist, professor, or parent. This understanding develops what Dr. Jemison feels is most important to our scientific and national communities — that is, a responsibility of tolerance.

IHC Minutes 12 October 1995

Present: Tom (chair), Laura (Secretary), Bill (Da), Brian (Fl), Nestor (Ll), Mike (Pa), Art (Ri), Adil (Ru)

People show up at 12:15 p.m. I leave at 12:45 p.m. Meeting begins about 1:00pm. Minutes this week by Tom with embellishment by Laura. Yeah. We passed the shoot the moon clause for interhouse sports. Art made the motion, which states that if a house loses every game of every sport all year long without forfeiting, they can challenge the house with the most trophy points for the trophy in any major at the end of the year. The challenging house must bring beer. Tom passed out fliers for people to go to a taping of a TV show and get paid for it. Barbara Green wants to make sure that when student affairs people come to lunch in the houses, someone is there to greet them and sit with them. She'll give the president some notice when they will be coming. She said there were mixed results last year, and since they will be thinking about bringing faculty in the future, she'd like to make sure there are no bad experiences. Bring Tom your Ath lists. He wants to have a copy of the Ath lists so if someone wants to check them while the gym is closed they can, and also to check for duplicate names.

IHC Minutes 19 October 1995

Present: Tom, Laura, Bill, Nestor, Adil, Vogel, Art, Leonard Sung (Lloyd Ath Man)

Pumpkin Drop: Each house agrees to give Dabney \$50 for the drop this year, and they expect to get money from ASCIT (probably \$50) as well. Meetings won't be in SAC 64 until the furniture is removed from there. Check the door for meeting locations though SAC 25 and Clubroom A (room 13) are likely choices. Art ask that house refrain from Rfing the Ricketts Pot because it is falling apart. Just remember: "Don't mess with the pot." An Addendum to the "shoot the moon" clause is proposed and voted in 5-0-0. It states that if the team which is going to "shoot the moon" has another team forfeit against them then it doesn't count as a win for the purposes of shooting the moon. Nestor wants screws from Page. Lloyd voices complaint about Ricketts' reffing of the Da/Ll game, claiming that the slide rule was not called. Everyone decides that the reffing was probably equally bad for the whole game and that nothing needs to be done about it. Finding competent refs is discussed and we agree that the general rule of providing one ref from each playing team is an alternative in the case of bad reffing, when agreed on by both playing teams. Disco order: This weekend, Page vs. Fleming in Ultimate Frisbee. Lloyd challenges the winner. That's All Folks

Respectfully submitted

Laura Brady, IHC Secretary

Benedetti Reviews CDs

Steely Dan-*Alive in America*

There's nothing in these 11 flawless performances to make you think that they were recorded live-no weird arrangements, silly covers, or crowded singalongs. And while this perfectionism is the ideal backdrop for solo upon not-perfect solo, I miss Jerome Aniton.

Caspar Brotzman and F.M. Einheit-*Merry Christmas*

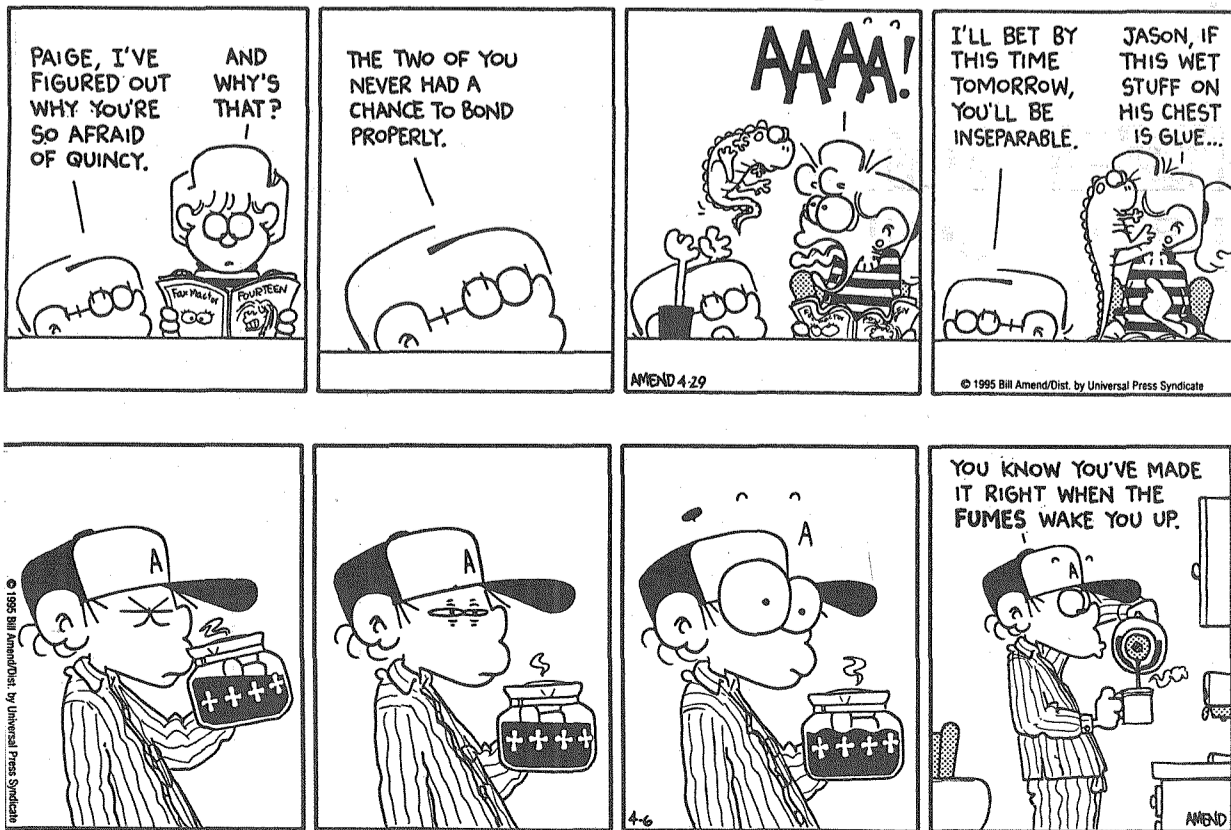
Einheit (on hammer and drill) and Brotzman (on over-amped guitar) run for 55 minutes. After a couple of listens I still can't tell whether these are elaborately constructed songs or thrown-together noodling. And if you like this sort of thing, it shouldn't matter.

Avery Committee:

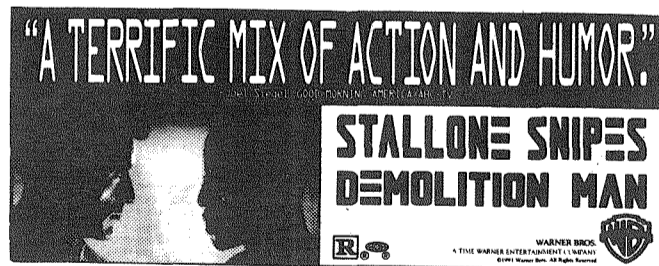
The Avery committee to make recommendations about Avery House to Gary Lordon, Vice President of Student Affairs, consists of myself (David Wales), Kim West, Myfanwy Callahan, Diana King, Marsha Maxwell, Nestor Ocampc, Maria Satterwhite, JeanneWilson. If you have any comments or suggestions about Avery as we hold open meetings, please contact any of us. Our emails are dbw@cco, kwest@starbase1, myfanwy@ugcs, king@cco, marmax@cco, no@cco, mariafs@cco, jeanne@ugcs.

FOX TROT

by Bill Amend



FRIDAY NIGHT ASCIT MOVIE



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Sat-Sun Bargain Matinee 1:45 p.m.

Official ASCIT Minutes

Y NEWS

by Donna Ebenstein

HALLOWEEN is coming!!!

I know it's the middle of midterms, but the Y has come up with a way to enjoy Halloween and decompress a little during exam time. There will be brownies, cake, and cookies to eat, as well as movies to watch, in the Y Lounge from 8 p.m. until Midnight on Tuesday, October 31. So stop by, grab a snack, and relax for awhile. Then, at midnight, you can go and watch the pumpkin drop from Millikan library. So come to the Y on Halloween.

For a slightly more commonplace event, Evyn Charles and the Remarkables will be providing this week's noon concert in front of Winnett Center. So bring your lunch out to the Olive Walk and enjoy some good music and fresh air.

Good luck with midterms and have a great Halloween!

There: Jon, James, Dave, Tom, Greg, Laura, Melissa, Darth, Andrew Huntington, and Alex Lin.

Not There: Kanna and Ken

Meeting officially begins at 10:04 PM. Ricketts House requests multihouse funding for Oktoberfest in November with Fleming. Kanna will give Ricketts a check eventually. The Shotokan Karate Club asks for about \$150-200 in funding to feed/house Shotokan specialists and to pay for some of the niceties associated with progression from one belt to the next. We decide to hold off funding them until Kanna tells us how much we have left in our budget.

Alex asks for about \$100-150 in funding for the CCSA/KSA party held on Saturday. They originally showed up to get funding at the meeting the BOD cancelled; thus, they're not coming to us to ask for money after the event. We decide to hold off funding until ditto.

Jon and Tom talk about the athletic teams' monopoly on the ASCIT Van (I thought you needed 3 to get a monopoly). Jon and Tom and other members of the BOD express the desire to see the Athletic department purchase their own van. We'll ask Grace to discuss this with the Athletic department; Jon might also discuss this with Sharyn Slavin. In the interim, we suggest to Laura that the van signout should have some restrictions placed upon it to prevent such a monopoly. Someone suggests letting people sign out the van only up to a week in advance. I think we should put booby traps in the van similar to those in MacGyver - if the team can disarm the trap in time, they can take it out. Otherwise, they die horrible grizzly deaths.

Jon reads off a brainstormed list of ideas to help offset the \$9000 that ASCIT Movies spends every year. Renting movies and hooking up a VCR and goat sacrifice are not listed, but hey, Jon then reads off a lists of ideas to fix the federal budget and do away with all crime and war. Greg asks Jon to clarify the suggestions before sending them out to Peter Manca. Maybe goat sacrifice is still feasible. Imagine this - you've just bought a ticket, you're settled into your seat with your coke or candy, the lights go out, and all of the sudden, hey, the projector breaks. Before the movies team has a chance to announce a short 20 minute delay while they get the second one running, somebody throws a goat (a small goat) (a DWARF goat) (or maybe just a dwarf) in front of the screen and GIVES IT AN AMA 95 PROBLEM SET! It is generally agreed that the Movies Team should write a letter to the Tech explaining their financial predicament and their requirement to raise ticket prices, shortly followed by an actual raise in ticket prices.

Jon has chosen 4 people (Alison Slep, Dave Bacon, Stephanie Haussman, and Steven Bennett) as well as two alternates (Adam Viilani and Neil Jones) to be upon the Core Curriculum Council. The Faculty Board also asked Jon if it was a good idea to get Caltech to set up a voucher system with the Pasadena Cab Co. SO THAT Techers stranded in Pasadena could hail a cab to take them back to Tech instead of walking back and getting mugged. James argues that everybody should be mugged once as part of the L.A. experience. The faculty are also complaining about the speeds of bicyclists on campus and they may have security enforce bicycle speed laws on campus if the problem persists.

(I can't wait to see this. I want pictures.)

Melissa will send the letter for requests for the UROH to Graphic Arts. Graphic Arts will then mail the letter to everyone on the faculty, all Post-Docs, all grad students, and most of France. AH! VIVE LA FRANCE!

Laura will run live wires through Graphic Arts in an attempt to get them to input copy account numbers faster than they've been doing it.

Greg mentions the upcoming Halloween Party in the SAC courtyard. It should cost less than \$1500. ASCIT has to pay for 1 security guard to stop bicyclists from speeding through the party.

Tom's cold is back. Say hi to Tom and then stand back. The IHC meets Tuesdays at 9.

Dave is going to rewrite the election bylaws with Dave Derkits (who wrote most of the bylaws we currently have). Dave also wants to put something in the Tech explaining the purpose, design and underlying motives of ASCIT.

James says it's been a BAD BOC week.

GAVIN (who mysteriously materialized into the room) has no Tech Editor salary information for us yet. He'll give it to us next week.

The truth is out there.

Due Repa
ASCIT Secretary

Physics 11 - Second Hurdle (1996)

Imagine the following scene: small rocks of a variety of sizes and shapes sit on a bed of fine sand. Every day more fine sand falls from above. There are two possibilities: the rocks are gradually buried; however, if there are some insects present who are constantly moving about, crawling over and jostling the rocks, and disturbing the fresh sand in search of food, the rocks may not be buried as easily.

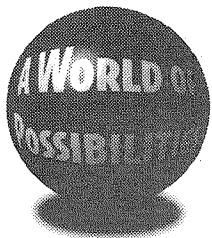
In the second situation, which rocks will "float"? We want quantitative answers.

NOTE: This actually happens. Sedimentology is definitely affected by "bioturbation".

Rules: Clearly state all assumptions made. You may use any reference you like, but you cannot collaborate. The use of computers, etc. is OK. The hurdles are due by Monday November 20-by 5 p.m. in 201 Sloan Annex.

(You do not have to be enrolled in Physics 10 to try for a place in Physics 11, nor did you have to attempt the first hurdle. Physics 11 is open to freshman only.)

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by Tom M...
 by Tom M...

Hallow's eve

Halloween is basically a sick type of Holiday, and Los Angeles a sick type of city, which additively gives an even sicker appeal to a holiday which celebrates death, decomposition, fright, and gore. But don't think that the real celebration happens anywhere close to Pasadena: Halloween is by far best celebrated in Hollywood and Downtown. I'll start from the tame and progress downward: There still may be tickets for **Knott's Scary Farm's Halloween Haunt** or Magic Mountain's version of the same. I found these pretty cool, as well as pretty expensive: almost all rides are still working, but more-over many temporary ones are set up. Although much of the show is as one expects, some of the side-shows created for Halloween are pretty awesome, and I don't actually believe you could go and not get frightened at least once. Even if you are Sean Mauch.

I'm betting that the biggest freak show is going to be the **Halloween Costume Party** along Santa Monica Boulevard in West Hollywood where over 90,000 people are expected to show up, dance, and party. "Food and psychics are available." It'll all be occurring between La Cienega and Robertson on the boulevard.

Cacophony Society's Devil's Night also sounds to be a fright. "A mechanical freak show" is the description for the main show, which is accompanied by Woodpussy's "haunted whorehouse", which promises to include moving parts, as well as "Shockcinema" and other fine treats. It'll all be inside The Clubhouse downtown off of Santa Fe Avenue.

Topping the list is this one: "The Art Deco Society of Los Angeles has dug up something special for Halloween:" their 11th annual Hollywood Cemetery Walking Tour. The tour will be held on Saturday between 10 and 11:30 a.m., starting at 6000 Santa Monica Boulevard.

ASCIT will also be throwing a **Halloween Costume Bash**, tomorrow, Saturday the 28th, from 9 p.m. Costumes are a necessary for this one, unless you're a mole.

Around Town

This Sunday, October 29th, the genius of **Ray Bradbury**, author of Fahrenheit 451 and Martian Chronicles (like you didn't know!), will be showing up at Vroman's (695 E. Colorado) for his third annual Halloween visit to sign books and other paraphernalia. My suggestion: try to get him to sign a copy of Dianetics.

They'll be a "second best" (not including the original actors and actresses, less party, and a lot less money than the other sold-out Pantages show) playing of the **Rocky Horror Picture Show** on its twentieth anniversary at the Rialto Theater at midnight, Saturday, October 28th.

But you could miss all this and still not be any different. If you want to be really cool, you'll

go to hear **Kurt Vonnegut**, author of Slaughterhouse Five, Player Piano, and Cat's Cradle (if you don't know these, then you really really should make something of yourself and go and read them. Ya, skip your mid-terms, read Vonnegut. He'd want it that way), give a talk at USC entitled "How to Get a Job Like Mine." Vonnegut is even better in person than in his books, but be prepared to be offended, put down, and inspired all at the same time.

News of the Weird-ish

I recognize well that it is not the way of the average Techer to let a good Halloween by without at least a near run-in with the law enforcement, but this Halloween I would advise that you do your best to be careful to avoid the black and white auspices: the Pasadena Police have just been equipped with a new

weapon—the "bean gun". Pasadena Police have received four hours of training for proper use of their new shotguns loaded with non-lethal, though pain inflicting, bean bags. Now, the word "beaners" has a whole new meaning.

Concerts

Yes, you did it. You missed the final Boingo tour. Now, the next time you get to hear from Elfman he'll be producing the scores for Disney shows with cute little birds that talk and know somehow to be unusually cynical or sickeningly happy. No more perverting the youth, no more liking little girls, or Dead Men's parties. Just Twiddle-dee and Twiddle-dum as Disney takes over Corporate America and Elfman makes monkey's sing about the facts of life. It's come to this.

But, yes, there is life after

Boingo, and while I wallow in the misery that is the end, you can still go to a lot of other concerts. Just not Boingo. In fact, I say we have a calendar section just to mourn the passing of Boingo, and not disgrace their dissolution with any other suggestions. With Boingo gone, there will be no more concerts with suggesting!

Tickets for Babes in Toyland with Season to Risk and Mount Shasta for their concert at the Hollywood Grand on December 7th at 8 p.m. went on sale yesterday. You might still be able to squeeze out tickets to Björk for November 1st at the Paladium, Juliana Hatfield at The Wisky on the 28th, Belly and Catherine Wheel at the Mayan on November 9th, and My Life with the Thrill Kill Kult with Eve's Plum on October 27th at Hollywood Grand.

Theater

Two pretty cool shows are coming through: Arthur Miller's Death of a Salesman directed by Jules Aaron will be showing at the Ventura Court Theatre Alliance; The Actors Co-op put on the hoopla with their production of Guys and Dolls which opens on November 10th at the Crossley Terrace Theatre. This production is directed by Alan Johnson and produced by Ann Gagen and Phil Lattin (don't think I actually know who they are, but maybe you do...), and will be showing through December; tickets begin at \$17 for general admission. There's also an ongoing performance of The Grapes of Wrath that has been well acclaimed at the Attic theater in Hollywood.



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Icy Beavers Victorious in Fresno

by Bob and Doug MacKenzie

Tired of wearing those paper grocery bags over your head to Caltech intercollegiate athletic events? Searching for an excuse to pick up the phone and talk a little trash to that friend at a UC school? Well, look no further than the Pasadena Ice Skating Center, where the undefeated Caltech Ice Hockey Team makes it's home. This year's squad, characterized by an exquisite balance of athletic skill and physical domination, has assembled an astounding +19 goal differential (an awesome 25 for, a paltry 6 against) en route to a 3-0 record against divisional opponents Cal State Fresno, UC Davis, and the University of Santa Clara. Now that you know what's causing that electric buzz in the campus air, let's run down the season to date, while introducing you to some of the personalities that constitute this finely-tuned icebound juggernaut.

Domination does not come without sacrifice, and as such, the core of the team could be found in the gym on a daily basis throughout the summer months, at least when they weren't out on the softball field winning the GSC A-League Championship or drinking beer at a wide variety of locations. Intense training sessions, designed by former Caltech player and current nationally-ranked speed-skater Haj Sano, honed a sharp edge on the squad's physical conditioning before the biscuit (slang for puck, for the uninitiated) and skates ever made their appearance. Two weeks before the season, the team took to the ice, with the mantle being passed from Haj to our player-coach, the

former Czech National Team superstar Pavel Svitek. Pavel, a household name in the Czech Republic, while dispensing some of the wily guile (i.e., stickwork) that got him suspended for 10 games last year, gently, yet firmly, molded the still-pliable collection of talented individuals into a living, breathing unit. On the eve of the first game, each member of the lineup knew their function, however large or small, in this machine, and mentally steeled themselves for the genesis of the '95-'96 season.

The season opened on the morning of October 15th, at the Pasadena rink, with a visit from the Santa Clara squad. At the pregame captains' meeting, after viewing the military-like precision of the Beaver warm-up drills, the Santa Clara captain was heard to mutter under his breath, "[Shoot], we're screwed..." After 5 minutes of the first period, it was evident to everyone in attendance that a truer prophecy was never spoken; the final score was 15-1 Beavers. Obviously inspired by their shiny new white home uniforms, the second line of Hathen McCormack and Max Lyutikov, on either side of center Mike Slessor, accounted for 8 goals in this match. Unfortunately, they also yielded the lone Santa Clara goal, thus earning the nickname "The Maginot Line" for their questionable defensive effort. This line is a product of Pavel's insight into assembling the available talent: McCormack, a transfer from perennial NCAA Division I contender R.P.I., brings an unpredictable element to the unparalleled stickhandling skills of Lyutikov, a Russian by birth, and the Gretzky-like passing talent of Canadian import Slessor.

The third line of GSC guru Daniel Maskit and new addition Ben Liau, boosted by the addition of Svitek, added 6 tallies to the good guys' side of the ledger. The usually-productive first line of Bob "How's the wife/baby/dog?" Lane, 102-pound Steve "Your skin is so soft" Chase, and Mark "Bulldog" Stewart was, for the most part, held in check. We'd have to wait for the next weekend's road trip to see this group explode.

And explode they did: facing the adversity of a 10:30 p.m. start time in a chilly, distant Fresno rink, and lacking key contributors Lyutikov and Jon Hodowany, our boys responded with a truly majestic effort. One might even say that this team thrives on adversity. The Beavers were outmanned by UC Davis 15 players to 9 and were further hindered by referees seemingly bent on a Caltech defeat; yet through gritty defensive play and wisely-conservative transition-game strategy these icebound warriors secured a hard-fought 4-2 victory. In both this victory and Saturday night's 6-3 romp over a much-improved Santa Clara unit, stingy defenders Biff "Not This Way" Yamazaki, Chris "Have a Seat" Claypool, David "The Dutch Touch" Vernooy, and Marty "Guys and Dolls" Ross were key to the Beavers' supremacy. Throughout both games, the Caltech players showed a remarkable degree of selflessness and team unity. Typical of the Beavers' valor were the hard-nosed performances by Slessor and Vernooy. Slessor, after suffering a separated shoulder in the first period of the Davis game, ignored unimaginable pain in playing out, essentially one-armed, both that game

and the next while Vernooy went into the weekend with badly infected foot blisters which, despite nearly preventing him from walking, clearly could not have affected his skating.

But defense was not the only story, for desire also shined brightly in the eyes of goalies Franklin Monzon (Friday) and Rico Attanasio (Saturday) who consistently rejected irreverent opposing attacks on their net—often by resorting to acrobatic, near-prescient maneuvering to get the job done. Likewise, the Beaver offense was always ready to answer an opposing threat with a quick goal by either the magician Svitek or any of the other greedy Caltech goal-mongers. The "Svitek Express" accounted for 4 goals and 2 assists on the weekend. His

effort along with strong performances by Ross (2 and 3) and Lane (1 and 4), and timely offensive contributions from Slessor, Claypool, Vernooy, Stewart, Chase, and even Monzon (who switched gears and skated out on Saturday) were the blows that violently, yet with insuperable finesse, laid the opposition to rest. Up next for the Beavers are games with CSU Fresno at home on Sunday Oct. 29 and away on Nov. 10, followed by CSU Long Beach at home Nov. 12, and another meeting with Davis at home on Nov. 18. Riding a wave of confidence three victories tall, one can only imagine the incredible edge-of-your-seat action that our hometown heroes will provide in their upcoming bouts.

VCR Plus+ and Beyond

by Jessica Chang

The Entrepreneur Club is proud to welcome alumnus Dr. Daniel Kwoh, founder and Senior VP of Gemstar Development Corp. Dr. Kwoh graduated in physics from Princeton in 1970, and earned his Ph.D. degree at Caltech under Professor David Goodstein. He went on to do research at TRW in various areas, including microwave backscattering from water waves, streak x-ray study in a high explosive test, and laboratory cloud chamber study of nuclear winter. In 1986 Dr. Kwoh co-founded Gemstar with Henry Yuen (Caltech Ph.D., Applied Mathematics) and together they invented the famous VCR Plus+ two years later. Subsequently, Dr. Kwoh and Dr. Yuen were named the Best Entrepreneurs of 1990 by Business Week Magazine. VCR Plus+ has now been incorporated into all major name brands of VCR's around the world. Based on the success of VCR Plus+ and the imminent launch of new products, Gemstar recently completed its IPO. Please join us at 5 p.m. in 102 Steele on Thursday November 2, where Dr. Kwoh will give a brief review of Gemstar's history as well as a preview of what is to come. All interested individuals are welcome and refreshments will be served. For more info please contact jessica@cco.

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If you're a CS, ECE, or EE graduate looking for a challenge, sign up to interview with us at the Career Center and e-mail your resume to recruit@gordian.com.

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Activity Center, Room 25

Interviews:
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*The **Interhouse Committee Meetings** will be held biweekly from now on, adding a second date on every Tuesday at 9pm. The next meeting will be held right around haunting hour on the 31st.

*Information and applications for **1994 Summer Work-Study** are available in the Financial Aid Office (MSC 12-63) now. If

you are interested in Summer Work-Study, please submit the required application as soon as possible, but no later than **June 1, 1994**. The entire financial aid application must be complete by June 1st to be considered. If awarded, the work-study funding will begin with the July 4th payroll period.

*Interested in biology? Want to

meet some famous biologists? Want a cool summer job in biology? Then come to the organizational meeting for the newly-proposed **Biology Club**, and vent your spleen. This meeting will allow all aspiring biology students to give input into what the club can do for them. All students are invited, so bring your ideas (and your lunch) to the Ruddock Main Lounge (near the dining room)

on Halloween, Tuesday, Oct. 31st at noon. If you have any suggestions or would like to participate in the club in the future, please send email to rosh@cco or to ani@cco.

Wei-Hwa say: All students interested in taking the **Putnam** are invited to attend practice sessions for the Putnam competition! Please send your opinions

on good times and places for weekly meetings to putnam@ugcs.

The Caltech Bookstore is currently holding its third annual **Giant Pumpkin Raffle** (and *man* is a beauty). Raffle tickets are given to any one purchasing \$2 or more from the bookstore; the drawing will be held today, October 27th at 12 noon at the bookstore.

Deadlines for Submission to The Tech

Regular/Semi-Regular Columns — 5 P.M. Wed.
Articles, News Submissions — 5 P.M. Wednesday
Art/Photo Submissions — 5 P.M. Thursday

Letters to the Editor — 5 P.M. Monday
Events and Notices — 5 P.M. Tuesday
Unsolicited Articles — 5 P.M. Tuesday


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Announcements

Events

*The Y presents the Saturday Night Alternative Movie **White**, part of the trilogy exploring the Modern Symbolism of the colors red, blue, and white, on Saturday, October 21st at 10pm in the Beckman Lecture Hall.

*The Caltech Folk Music Society will present the talents of the Brown Sisters and George Cavanaugh in concert at 8pm on Saturday, October 28th, at Dabney Hall on the Caltech Campus. They will be playing songs from their upcoming fourth album *West of Home*, which will be released this month. Tickets are \$10 for general admission at the door and in advance, \$4 for children and other Caltech students.

*Robert O'Rourke will be presenting a Noon-time Briefing by JPL Management for the Caltech Management Association called "Putting the Public Back in Public Relations on this Monday, October 30th at noon in 180-101. Assistant Vice President for Public Relations at Caltech, Mr. O'Rourke is responsible for Caltech's publications (except for the student-run *little t* and the student-run *Big T*), periodicals (except for the student-run *Tech*), and media relations, and also oversees the Institutes Office of Public Events.

*The Sigma Xi Scientific Research Society is pleased to announce their **Town Meeting On Science And Technology** on November 1st at 10 am. This Videoconference, which will originate in the North Carolina Triangle Park area and be transferred via two-way video to the audience at Caltech's Beckman Institute Auditorium, will feature Dr. Neal Lane, Director National Science Foundation, who will discuss with a studio panel, Sigma Xi members, and other distinguished guests the "Current Issues in Scientific Research."

*The next movie that will be shown in the German Film Series (which will emphasize Swiss films this year) is *Die Schweizermacher* ("The Swissmakers") (1978). Showing on Wednesday, November 1st in Baxter Lecture Hall at 7:30pm, this film features English subtitles and is presented free of charge. For more information, please call x3610.

*Dr. Gregg Herken, the Chair of Space History at the Smithsonian National Air and Space Museum, will be giving a *Science, Ethics, and Public Policy Seminar* entitled "The Human Radiation Experiments: Science, State, and Medical Ethics in Historical Perspective." The talk will be held this Thursday, November 2nd in the Judy Library at 4pm and is open to the public.



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*Pulitzer prize winning sci-fi comedian David Mamet will be performing *Revenge of the Space Pandas* and *Binky Rudich and the Two-Speed Clock* on Friday, November 3rd at 8:00 pm; Saturday, November 4th at 8:00 pm and at 12:00am; Friday, November 10th at 8:00 pm; and at Saturday, November 11th at 8:00 pm and at 12:00am! General admission tickets are only \$8, \$5 for students. Tickets available at the Caltech Ticket Office or at all Ticketmaster Ticket Centers. Call x4652 for more information.

Ken Armstrong will host an Armchair Adventure travel film entitled *"Darwin's Patagonia"* today, October 27th, in the Beckman Auditorium at 8 pm. Admission starts at \$7.00.

Opera a la Carte will be presenting their performance of *The Magic of Gilbert and Sullivan* in the Beckman Auditorium at 8pm on Saturday, November 4th. The show will feature fully costumed musical numbers from shows such as *The Mikado* and *The Pirates of Penzance*. Tickets range from \$22 to \$28, with a \$2 student discount.

Guitarist **Paul Galbraith** will be performing a Paco A. Lagerstrom Chamber Music Concert from 3:30 pm on Sunday, November 5th in Dabney Lounge. Admission is free.

The **Caltech-Occidental Band** will be holding a concert directed by William Bing with guest conductor Frank Ticheli, Professor of Music at USC on Saturday, November 11th, at 8 pm in the Beckman Auditorium. Admission is free.

From the Counseling Center

The Counseling Center is offering a **Women's Therapy Group For Graduate Students** to begin in the fall term. The group is designed as an expansion of the women's group offered last year which provided an opportunity for women to examine a range of personal and professional issues in a confidential setting. Through the group discussion, women will be able to examine their patterns relating to others, their family and intimate relationships, and challenges they experience in achieving success. Another important goal of the group process will be to facilitate a sense of closeness and connection within the group. Each group member needs to meet with the group leaders for a pre-group interview. If you would like more information or to schedule a pre-group interview, please contact the Counseling Center at x8331 today at the latest. The group will be offered on Tuesdays at the Counseling Center and will begin in November.

Are you looking for help in dealing with procrastination? Five weeks are yet left in the Counseling Center's **Procrastination Group** for graduate and undergraduate students; the next meeting in the series is scheduled to be held this next Tuesday, October 31st between 3:15 and 4:45 pm in the Health Center Lounge. The group will provide an opportunity to discuss procrastination difficulties, to examine the psychological issues which may contribute to procrastination, and to learn ways to begin to overcome procrastination. Kevin Austin, Ph.D., Director of the Student Counseling Service, will lead the group with staff member Jamil Ali, M.A. For more information call Virginia at x8331 to arrange to meet one of the group leaders prior to beginning the group. This meeting is required

♦ denotes a new announcement.

in order to attend the group. So don't procrastinate, call today!

Looking for a safe and supportive place to discuss issues such as coming out, being out, dealing with family, coping with a homophobic culture, and being GLB at Caltech? Want somewhere just to make new friends? We invite you to the **Gay, Lesbian, & Bisexual Support Group** every first and third Tuesdays of every month from 7:30 to 10:00 pm in the Health Center lounge. This is a confidential meeting, and attending does not imply anything about a person's sexual orientation—only that he or she is willing to be supportive in this setting. The group usually discuss a particular topic relevant to the group that week and then move on to announcements and general discussion. Refreshments will be served. If you would like more information, please call 395-8331.

The Women's Center and the Counseling Center are co-sponsoring a confidential **Assertion Training Group** for both graduate and undergraduate women. The group will focus on developing assertion skills to be used in professional settings. Goals of the group will include: developing a conceptual understanding of aggressive, non-assertive, and assertive behavior; practicing specific behavioral skills (eye contact, voice projection, body language); strengthening cognitive skills including gaining an understanding of rights and appropriate behavior; and problem solving specific difficult situations. Jan Aura, Ph.D. and an intern from the Counseling Center will co-facilitate the group which will be held for the next five weeks at the Women's Center on Mondays from 12:00-1:00 pm. If you would like more information or you would like to sign up for the group, please contact the Counseling Center at (818) 395-8331.

Competitions

Disc Makers is giving a chance in a lifetime for unsigned bands to get signed! The **Disc Makers' 1995 Los Angeles Unsigned Band World Series** is open to all unsigned Southern Californian bands. The six finalist of this competition will be given the chance to perform for music industry's leaders at the Troubadour on November 30th, while the top band will be given the chance to record their album to be mastered, manufacturing, and promoted as a major-label-quality CD (a prize valued at \$10,000). The contest is open to all Southern California bands that submit either a demo or CD by **November 9th**, along with a \$15.00 cover charge to: Disc Makers' 1995 Los Angeles Unsigned Band World Series, 213 W. Alameda, Suite 101, Burbank, CA 91502.

Fellowships and Scholarships

For further information on the following announcements please contact the Office of International Programs, MSC 0-54, extension 6330:

*One-year cultural exchange programs in technical fields are now available to students through the **Congress-Bundestag Youth Exchange Program for Young Professionals and Agriculturists**. This program offers American participants the chance to learn about Germany first-hand through a combination of intensive language study, professional or technical schooling, and practical work experience. Applications can be requested directly from the CDS International by phone or mail at CDS International, Inc., 330 Seventh Avenue, New York, NY, 10001-5010, (212) 760-

1400. The application deadline for the 1996-97 program is **December 15, 1995**.

For further information on the following announcements please contact the Fellowships Advising and Resources Office at either x2150 or lauren_stolper@starbase1.caltech.edu:

*Applicants can now apply to the NSF completely on-line at URL <http://www.nsf.gov/a10/A10PrepNewAppl.htm>. Remember the electronic transmission and postmark deadline are the same as for mailed applications: **November 6th, 1995**.

*The applications for the **DOD National Defense Student Education Grants** will be available within the next two weeks. When they arrive a notice will be sent to the Houses and placed in the *Tech*. Any student applying for the NSF should consider applying for the DOD as the grants are similar in their qualifications. Note: only U.S. citizens and nationals may apply to the DOD.

*The **National Security Education Programs** seeks to equip American citizens with an understanding of the less commonly taught languages and cultures to allow them to become more integrally involved in global issues in their field as professionals. Through the NSEP Undergraduate Scholarships for Study Abroad, students can study in any country except the following: U.S., Canada, New Zealand, Australia, and Western Europe. Freshmen, sophomores, juniors, and seniors may apply. Freshmen and sophomores can apply for summer, semester, or full year programs. Juniors and seniors are only eligible for semester or full year programs. Seniors may only apply for the program provided they will not graduate from the program before or during their term of study. Students interested in applying for the program should request an application from Lauren Stolper, Fellowships Advisor, by November 13th to allow sufficient time to complete the application and devise a plan of study. Completed applications are due by **November 30**, turned in to Lauren Stolper.

For further information on the following announcements please stop by the Deans' Office at 102 Parsons-Gates:

Applications are available in the Deans' Office, 102 Parsons-Gates for the **Churchill Scholarship Program**. The one-year graduate study award is available to graduating seniors and graduate students. It includes full tuition, \$6,000 living allowance for a full-year program, and a \$500 travel allowance. At current exchange rates, the value of a Churchill Scholarship is approximately \$20,000. Churchill College is a predominately engineering and science-oriented college at Cambridge University. Applicants must be U.S. citizens between the ages of 19 and 26. The deadline to submit a complete application to the Deans' Office is **November 13th, 1995**. Caltech can nominate two candidates to the Churchill Foundation.

The **Harry S. Truman Scholarship Foundation** awards scholarships to juniors who have outstanding leadership potential and intend to pursue careers in public service. If interested, please stop by the Deans' Office. The deadline for receipt of nominations for this scholarship is **December 1st, 1995**.

From the Financial Aid Office:

Applications and/or information on the following and additional undergraduate scholarships are available at the Financial Aid Office at 515 S. Wilson, second floor. All qualified students are encouraged to apply.

The **Kamehameha Schools Bernice Pauahi Bishop Estate** announces its **Native Hawaiian Higher Education Program Scholarships**. Applicants must be of Hawaiian ancestry, be enrolled in an undergraduate or graduate program, have a cumulative GPA of 3.0 for undergraduates and 3.5 for graduates, must demonstrate financial need, and must have a service project to implement in a Hawaiian community. Completed applications are due no later than **Wednesday, November 1, 1995**. To receive an application, call 1 (800) 842-

4682, ext. 8216.

Asian & Pacific Americans in Higher Education (APAHE) is offering four \$500 non-renewable scholarships for the 1996-97 academic year. Applicants must be California residents attending at least half-time in Fall of 1996 and must have a minimum 3.5 GPA. Applicants must also have undergone special circumstances or unusual hardships, must have a need for financial assistance to complete their educational goals, and must have a community involvement or do volunteer work with Asian and Pacific American populations. To apply, complete an application and statement of candidacy and submit it to the Caltech Financial Aid Office no later than **November 24, 1995**.

The **California Irrigation Institute (CII)** announces a \$500 scholarship award for junior and senior undergraduates majoring in an irrigation or water-related field of study. Applicants must have a minimum 3.0 GPA, must provide two recommendations from professors in the area of soil, water, irrigation, or other agricultural-related fields of study, and must not have previously received the award. Applicants must also write a 500-word essay on a subject dealing with water management and/or irrigation and must be willing to attend the annual CII meeting (all expenses paid). Applications are due **November 25, 1995**. For an application or more information, come to the Financial Aid Office.

The **California Park and Recreation Society Aging Services and Activities Section** announces its scholarship competition. Undergraduates and graduates may apply for the \$250 awards. Applicants need to be full-time students in the areas of recreation, leisure studies, or in an aging-related field. Applicants also must have GPAs of 3.0 or above and must have financial need. The deadline to submit applications is **November 30, 1995**.

The **American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc.** is offering nonrenewable scholarships in the amount of \$2,500 to full-time engineering students in the final two years of undergraduate study. Students must have a GPA of 3.25 or above and must be involved in the fields of heating, ventilation, air conditioning, or refrigeration, or in related areas including indoor air quality, energy conservation, human comfort, or HVAC system design, operation, or maintenance. Applications are available at the Financial Aid Office, and are due **December 15, 1995**.

The **Elie Wiesel Foundation for Humanity** is sponsoring its annual essay contest for full-time undergraduate juniors and seniors. Students are challenged to examine and analyze urgent ethical issues in essays of 3,000-4,000 words. First prize is \$5,000, second prize is \$2,500, and third prize is \$1,500. Essays must be postmarked by **January 12, 1996**. For essay guidelines and additional information, visit the Financial Aid Office.

GLAMOUR Magazine announces its **1996 Top Ten College Women Competition**. Women who are currently full-time juniors are invited to submit applications to receive one of ten awards consisting of a cash prize of \$1,000, the opportunity to meet with top professionals in your field, and national recognition in **GLAMOUR's** October 1996 issue. Applications are available in the Financial Aid Office and must be completed and postmarked no later than **January 31, 1996**.

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