

THE CALIFORNIA TECH

VOLUME XCVIII, NUMBER 11

PASADENA, CALIFORNIA

FRIDAY, 6 DECEMBER 1996

A season for singing: Caltech celebrates the holidays

BY DIPASRI GHOSH

The Caltech Men's and Women's Glee Clubs present their annual holiday concert, this year titled "A Season for Singing," Friday and Saturday, December 6 and 7, 1996 at 8 p.m. in Dabney Lounge. To top everything off, this fine concert will include free admission!

Joining the Glee Clubs will be the Caltech Chamber Singers, the Clef Hangers and special guests the Van Etten Handbell Choir. The Women's Glee Club is under the direction of Monica Hubbard; the Men's Glee Club director is Donald Caldwell; and Gregory Norton

is director of the Van Etten Handbell Choir.

This program of festive music for Hanukkah and Christmas will feature Libby Larsen's "Ringeltanze," a suite of carols which were originally 15th and 16th century instrumental dances celebrating the winter solstice, but which later had words added to them, making them carols. The audience will join in on the final carol. Early arrival is recommended since there is no standing room available. Also, a reception will follow the concert.

In honor of the twenty-fifth anniversary of the Women's Glee Club, the entire program

will highlight the work of women composers. Among those represented are Katherine K. Davis, Imogen Holst, Libby Larsen, Karen Tarlow, Gwyneth Walker, and Mary Elizabeth Caldwell.

Everyone involved has put a great deal of work into this concert. The glee club members, including undergraduate students, graduate students, and alumni, have rehearsed at least twice a week since the beginning of the term until the concert. Each glee club holds separate rehearsals once a week and a combined rehearsal every Wednesday.

Another event on the holi-



The clef hangers

day schedule is the annual Messiah Sing-A-Long, led by the Men's Glee Club on Friday, De-

ember 13 at noon in Dabney Lounge. Admission is also free to this event.

Junior takes victory in design contest

BY WREN MONTGOMERY

"That's some good nerd entertainment!" was Walt Ogburn's comment after the twelfth annual ME72 Design contest, held yesterday at Beckman Auditorium. The hall was filled with Techers cheering for their friends and housemates. Particularly prominent was the Blacker flag, as many of the Moles turned out to see if this year, for the first time ever, a Mole would win the Sprocket trophy.

Twenty-five students participated in the contest, which was a "glorified game of 'Hungry Hungry Hippo,'" according to Amy Barr. The contestants had 35 seconds to get as many golf balls of a certain color into a drain. Doesn't sound hard to you? Add one contestant out to get balls of their own, and to prevent you getting any. In addition, only limited materials are provided: masonite, plexiglas, aluminum, two electric motors, a few ball bearings, a length of shafting, some brass bearings, a few pulleys and rollers, and other miscellaneous surplus "junk."

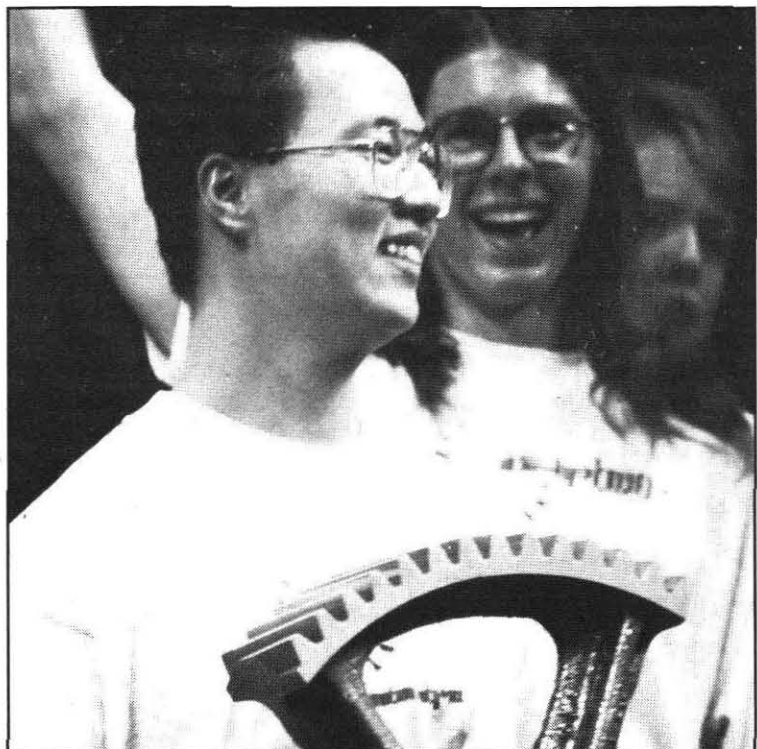


PHOTO BY CHRIS BROOKS

ME72 contest winner Eric Jan holds the sprocket trophy proudly while second place winner Seth LaForge cheers in the background.

Design solutions ranged from Erik Jan's winning shovel-like design, which simply scooped the balls over the drain until they went in, to Tad Fujioka's "bear-trap" design, which tried to rake the balls in. The double elimination tournament eventually whittled the competition down to Eric Jan from Ruddock House and Seth LaForge from Dabney House. In a tension filled finale, the

Mechanical Engineering department defended their honor against upstart CS major LaForge, best known as this year's CS 1 head TA, who advanced to the final round undefeated with his clever "wedge" design. Until the last rounds, this detachable piece of metal successfully halted opponents and LaForge was able to push

SEE ME72 ON PAGE 11

Abacadabra: holiday magic

BY PUBLIC EVENTS

Four international award-winning magicians with their own special blend of astounding surprises, dazzling prestidigitation, and rib-tickling laughs will join other world-class artists when *Holiday Magic* comes to Caltech's Beckman Auditorium this Saturday, December 7, at 8:00 p.m.

England's Martin Lewis, Israel's Amos Levkovitch, and Canada's Christopher Hart will join America's Ed Alonzo, Tom MacFarlane & Friends, and Clockwork in what is being billed as "the perfect family show."

The production will open with a special musical salute to the holidays by Tom MacFarlane & Friends. The group includes Tom



PHOTO COURTESY PUBLIC EVENTS

Ed Alonzo has starred in several Las Vegas revues.

MacFarlane, Marianna Giordano, Kimberly Allman, and Max Mendez, all veterans from opera and Broadway.

One of today's leading manipulation magicians, Amos Levkovitch and his doves have created a unique approach to magic by com-

SEE MAGIC ON PAGE 11

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LETTERS TO THE EDITOR

In a FUNC

Dear Editor,

I can't believe it. ASCIT is signing on with the FUNC. Did I miss something? Was there a vote on this issue some day when I worked through lunch? Did the editorial in the *Tech* not make it clear to the ASCIT committee what is going on here? FUNC is the enemy!

FUNC is made up of those people from your high school English class who fervently insisted that the SAT doesn't really measure anything, even though you beat them by 300 points.

At stake here is my (and your) right to be judged by the numbers.

The *U.S. News* rankings are made up of a lot of data that has strong correlations to undergraduate education: student teacher ratio, spending per student, average SAT scores, etc. The rankings are not perfect, but they are not meaningless. Rejection of college rankings is the first step toward rejection of all numerical assessment of excellence.

Do you want that, ASCIT? Do you want to be forever judged based on your smile at the interview and your delicacy with an essay question? To never have anyone see the objective calibre of your work? That is where FUNC will take you.

JACK LANGSDORF

*Be informed:
League of
Women Voters
provides election
information*

Dear Editor,

We should like to add a few words to the current discussion about whether or not a citizen, uninformed on the issues or candidates, should vote anyway, at random.

We contend that such a situation (being uninformed) is unnecessary. The League of Women Voters has been educating voters for over 75 years in the form of written materials, candidates' forums, and proposition discussions, pro and con. This year, written material was available in Millikan Library.

In addition, a monthly unit meeting is held in the Athenaeum on the third Tuesday of each month at 7:00 a.m., for breakfast and discussion. Please call Janet Jenks, x5419, for a reservation and the cost of breakfast.

For further information, please call the Pasadena Area League Office between 10:00 and 1:00 p.m. Monday through Friday at 798-0965.

ROXANA ANSON
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MindStalk

by D. R. Sullivan

There seems to be something a tad schizophrenic about the modern progressive movement, or at least parochial. I recently read an essay from *Z* magazine entitled "The Economics of Greed," putting forth many of the alleged evils of our economy. What caught my notice this time was the remark on how companies were discovering that they could get perfectly fine programmers in India and elsewhere for salaries less than \$10,000. This was presumably to be seen as a bad thing, the high tech equivalent of blue collar wage competition from Mexico or Taiwan, and is something I should be concerned about myself; but I found myself wondering what, from the modern-liberal/progressive point of view, the problem was exactly, and what the solution should be.

Our laborers are worse off for the competition, but the foreigners are much better off for having a job. Should we raise trade barriers again, to protect the right of our programmers to have \$30,000 salaries while Third World programmers starve? Yet that would seem to be the jingoist economics advocated by Buchanan populism, among others; I had thought modern liberals would affirm that all human lives had equal value;

that all had an equal right to good jobs; that if society made the rich poorer to help the truly poor, this is generally a good thing. And the fact of the matter is that the amount of money we consider to be the poverty level

*Should we raise trade
barriers again, to
protect the right of
our programmers to
have \$30,000 salaries
while Third World
programmers starve?*

is a tidy sum in much of the world. Opening our markets exposes that fact, and makes us all wealthy global citizens. The only way to escape that is to keep the barriers, withdraw from the world, keep the world from the benefits of trading with our advanced economy.

I don't get it.

It's interesting to note that at the international level, the lowering of tariffs, the freeing of trade, is always referred to as liberalization. I don't think there is an 'conservative' equivalent. Mercantilism, perhaps.

How to Stop Domestic Abuse

Imagine a man. A big, strong man. An unsophisti-

cated but emotional man. Who, for whatever reason, isn't happy. Imagine you're his wife—small, weak, and due to an unfortunate moral education possessed of a tendency to feel helpless and vulnerable. Would you rather he come home after drinking three shots of whiskey or after smoking three joints of marijuana?

I've had an intimate relative who was an alcoholic, and while they may might not have been any more productive if they had turned to marijuana, I'm pretty sure my whole family would have been better off emotionally. And physically, if they had been a violent alcoholic, a fate I avoided. I really don't get the fits our politicians throw over marijuana.

Dangerous? To society? There's the example above, and I haven't worried or even heard about stoned drivers much. Stoned rioters after a sports event?

Dangerous? To the smoker? Well, I disagree with extreme efforts to protect people from their own mistakes, but even granting that there was a legitimate interest here, I'm not sure I see the

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advertising: adv@tech.caltech.edu
ISSN 0008-1582

VOLUME XCVIII, NUMBER 11
6 DECEMBER 1996

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Published weekly except during vacation and examination periods by the Associated Students of the California Institute of Technology, Inc. The opinions expressed herein are strictly those of the authors.

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Annual subscriptions to *The California Tech* for domestic delivery are \$28 for First Class Mail, \$12 for Standard Mail.
Printed by News-Type Service, Glendale.

CONTINUED FROM PREVIOUS PAGE

argument. Smoking joints might be worse in particulates and tar than cigarette smoke, but there's no carcinogenic nicotine involved, and tobacco is still legal. As I understand it, even a heavy marijuana smoker will probably smoke fewer joints in a week than a tobacco chain smoker would in a day. The claim of brain damage seems to have been challenged by research purporting to show that marijuana tolerance is an effect of the specific cannabinoid receptor system, not brain cell toxicification. And even if not, alcohol kills off brain cells, and it is legal. And marijuana doesn't seem to be physiologically addictive the way many other drugs are. Many of which are still prescribable anyway, such as morphine.

Oh, and there's the claim of marijuana being a gateway to other hard drugs. Meaning what? Most marijuana users go on to use hard drugs? Government usage statistics belie that; the number of the former is rather larger than the number of the latter. Hard drug users used marijuana before other illegal drugs? Perhaps, but what did they really start with? Alcohol and tobacco, perhaps? Would eliminating marijuana really stop the transition? The only mechanism I can seriously imagine supports legalization: people start with alcohol and tobacco, move on to marijuana, discover that that

illegal drug is no worse than the legal drugs, and then go on. In this case I'd say move marijuana into the legal category, truly separating usable drugs from those which can only be abused.

Admittedly, that is not the only consistent possibility. The FDA already seems to be

Drugs haven't killed our inner cities; gangs fighting over the right to sell them have.

taking on tobacco. Perhaps in another decade it could be illegal, and then we'd only have alcohol left. Which catalyzes all that domestic abuse. And causes all those drunk drivers. Really, we should get rid of that, too...

But I assume I don't have any adherents at this point, because we've tried that already, back in the good old days when controlling people's bodies took a Constitutional amendment, not a bureaucratic decision. Thirteen years later, we went to all the trouble — 2/3 of Congress, 3/4 of the states, and in pretty good time too — of passing another amendment for the sole purpose of saying "Whoops. That was a mistake." We weren't the only ones, either. Norway adopted prohibition in 1919 in a popular vote with a ratio of 5:3. Seven years later, it was repealed by a similar margin. After thirteen years, Finland repealed its prohibi-

tion in 1932 with a popular majority of 70%. Apparently, those countries didn't like violent smuggling anymore than we did. Drugs have been around for longer than the war on them. Drugs haven't killed our inner cities; gangs fighting over the right to sell them have. As they might have done in the 1930's, except we ended Prohibition too soon.

One of my pet ideas is that we've put off with the War on (some but not all) Drugs for so long precisely because all illegal drugs put together aren't that big a problem. Not that many people use them, so the crime rates and corrupting effects on law enforcement aren't as great as when alcohol was illegal.

Or maybe we're just dumber now.

Mind stalk. Damien and the Mindstalk. Minds' talk. Mindstalker.

There are few pleasures in my life as sweet and pure as sinking my teeth into a new deep idea, in bringing to bay a theorem, in the give and take of an intense conversation, (And few as much work to get, especially without enough sleep.) There can be joy in wisdom, passion in celebration, and danger in reading too much Nietzsche.

Merry Yuletide, of whatever faith ye be. ("There is no fruitcake but The One Fruitcake, and It is never eaten, but passed around.")

Pasadena, 1996

The Outside World

by Myfanwy Callahan

JOHANNESBERG, SOUTH AFRICA —

A new constitution embracing equal rights for all in South Africa was approved Wednesday by the nation's highest court. It represents the final stage in the transition from apartheid politics and includes one of the broadest bills of rights in the world.

KINSHASA, ZAIRE —

For six weeks, a rebel force has been capturing cities along Zaire's eastern border. President Mobutu Sese Seko is purportedly convalescing in Europe after treatment for prostate cancer, but he was scheduled to be back in the country over a week ago. Some fear he may not return unless he has found a solution to Zaire's problems, which may be a long time in coming.

OSLO, NORWAY —

The Guatemalan Government and rebel leaders signed a "definitive cease-fire" ending an armed conflict that has per-

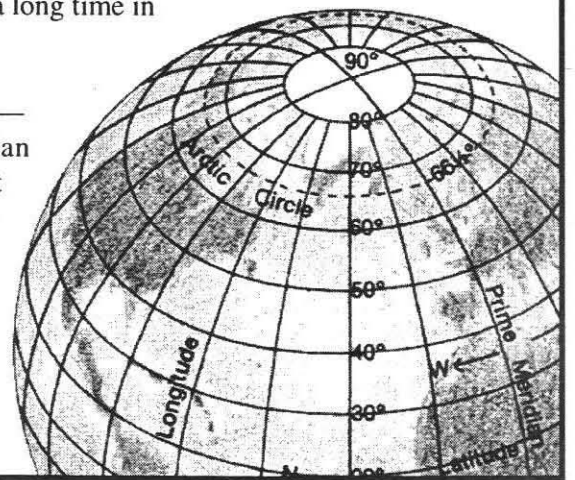
sisted for 35 years. This is the first of three pacts to be approved within the month.

PARIS, FRANCE —

An explosion in a rush-hour commuter train Tuesday night killed two people and left 70 wounded. French police along with 1800 soldiers are now patrolling airports and train stations of Paris. No terrorist group has yet claimed responsibility.

WASHINGTON, D.C. —

Military records are missing from the Pentagon for an 8-day period in which American troops may have been exposed to Iraqi chemical weapons. Other mysterious gaps exist in the military logs for other periods in the Gulf War.



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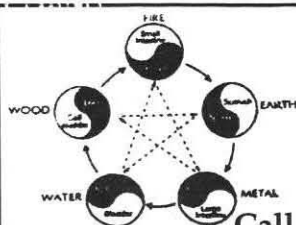
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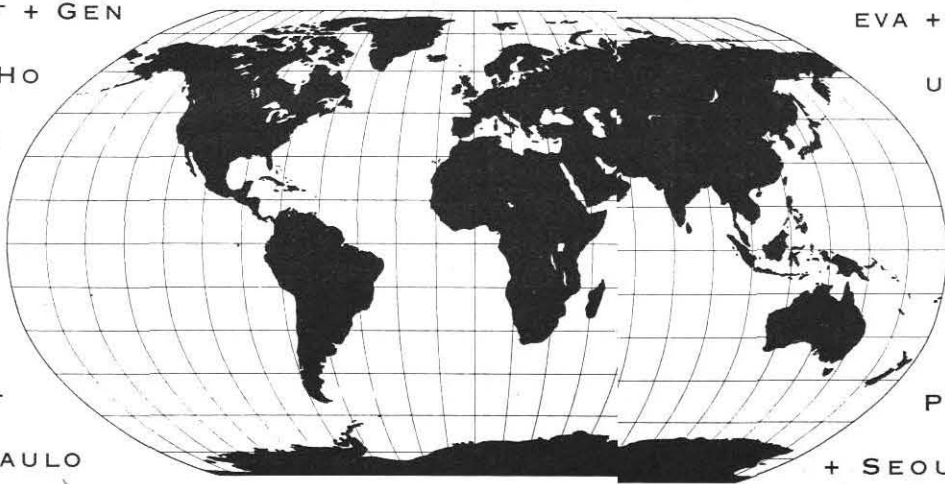
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Success & your future

by Samson Timoner

How to choose a major and find a job at Caltech

Most freshmen struggle to answer the same questions about the future. "How do I choose a major?" and "How do I find a research position?" are questions I have heard often this year. Some freshmen ask a more basic question: "Do I want to be a scientist, and if not, should I stay at Caltech?" If you are facing these questions, you are among the many who wonder what path they should take to their future. In this article, I will address some of the resources at Caltech that can help you choose that path.

The biggest problem freshmen face in choosing a field of study is that freshmen are not normally exposed to what is studied at the scientific frontiers. The freshman courses cover a very small subset of the scientific fields. Most freshmen are not introduced to neurobiology, even though this is a very exciting field in which to be working right now. Also, freshman courses barely address what scientists study; they address the techniques and concepts used by scientists. In other words, there is a lot more to chemistry than what is in Chemistry 1a. If you find Chemistry boring, this does not necessarily mean you will find being a chemist boring.

Since classes are of little use to choosing a field of study, how do you become exposed to the scientific frontiers? The answer is in the Caltech Calendar. Every week the Caltech Calendar announces what events happen at Caltech. If you want to know what chemists actually study, go to a chemistry seminar. You think you might be interested in astronomy? Go to the weekly Wednesday astronomy colloquium. Physics has a weekly Thursday colloquium that is designed to be understood by the general scientific community. If you have no idea what organic chemists study, perhaps next Wednesday's seminar would be a good start. The way to determine if you are interested in a scientific field is to go to seminars and see if you are excited by what people in that field study. I suggest going to three to five seminars a week in order to experience as many fields as possible. While this will take time out of your schedule, the payoff is more than worth the in-

vestment.

Unfortunately, when you go to a seminar, you will probably understand only a small fraction of the presentation. To remedy this problem, after the talk, approach the lecturer and ask questions. If you understood nothing about what he discussed, say so. I found that most people will take the time to explain their research until you understand it. Also, while at a seminar, talk to graduate students. Find out what they do and if they like it. Do they think the field has any future? Is there any chance of getting a job in it, or is the field saturated? If you are really interested, you can ask graduate students to show you their laboratories. They will!

The downside of seminars is that they are designed for people who are experts in the field. Luckily, there are lecture classes, such as Chem 10, Phys 10, and APh 110, that circumvent this problem. In these classes, a different professor comes each week to present his or her research on a level Caltech freshmen can understand. You do not have to sign

If you want to know what being a theoretical physicist is like, make an appointment to see a theoretical physics professor and ask him.

up for the course; just show up! Ask Professor Tombrello (Phys 10) or Nate Lewis (Chem 10) for a schedule and go to the talks that interest you. The point is not to get credit; the point is to learn which fields of science interest you. You will learn two things after attending seminars. First, you will quickly learn which fields you have no interest in. You will also find fields that are incredibly exciting to you. In my case, a couple of seminars on fundamental physics helped convince me that I did not want to become a high energy physicist as I had originally believed. A couple of amazing nanofabrication and material science seminars convinced me that solid state physics was the field I wanted to study.

Other techniques can help you choose a major. Try asking professors what they do. If you want to know what being a theo-

retical physicist is like, make an appointment to see a theoretical physics professor and ask him. Most professors are really excited about their research. If you ask the right questions, you can get a professor to talk for hours about his field.

Once you have found a field of interest, I highly recommend doing research in that field. Directly interacting with professors and learning science and engineering on the job is far more rewarding than class work. Another major advantage to doing research is that papers from your research and recommendations from the professors with whom you work are powerful tools to get you into the graduate school or the company of your choice. Finally, if you find you strongly dislike doing research, at least you found out now rather than later in your career. The end of first term is almost here. By this time, you may not have decided what field of science you like the most. Still, I highly recommend finding a research job immediately. Starting now will give you that much more time to determine which fields you do and do not have interests in.

The best way to find a research position is by networking. Talk to the professors who give the Chem 10 and Phys 10 lectures. Talk to the professors you interview. Ask them if they know anyone who hires freshmen. Often advisors are extremely helpful in these matters. Finally, each department has a booklet, usually given to pro-

spective graduate students, that describes what research each professor does. Go through it and pick out professors who do research you find interesting. Talk to upperclassmen about the professors first to find out what working for the professor is like. Choose professors carefully; in some laboratory groups you will never see the professor.

How do you convince a professor to offer you a job? The first strike in your favor is that you took the initiative to find him or her. The second strike in your favor is that you showed interest in their research. If you have work study, they pay only 25% of your salary. You are practically free! If you do not have work study and the professor has no money, offer to work for free! Experience doing research can be extremely valuable for your future. Also, if you offer to work for free, the professor will probably find a few dollars to pay you.

Once you find someone to work with, start immediately! You can get papers or books to read over winter break. Or, if you will be around during winter break, go right to work. If you like what you are doing, apply for a SURF. Think of SURF as a conduit for paying

half your summer salary. If you do not like your job, you should probably work until the end of third term just to make sure you were not scared away by the initial hurdles in starting new research. At the very least, you will learn what you do not like. Conversely, you might find you love what you are doing. By the end of your freshman year, after two terms of going to seminars, you should know what fields interest you. If the job you have is not in those fields, get another job! I did exactly this during my freshman year with very good results. I have worked in the same group for more than two years.

As a final note, some people find that research is not for them. In that case, there are many other resources at Caltech useful for other careers that I did not describe here. Keep in mind that Caltech graduates have been successful in many other fields such as the movie industry (Frank Capra) and finance (Steve Ross). Caltech is a premiere institution. I have described only a few of the huge number of valuable resources that you can use while you are here. Your job as an undergraduate is to find those resources and make the most of them while



TIPS FROM SAMSON

- Get the Caltech Calendar: available in most buildings, on the World Wide Web, by e-mail or mailbox delivery. E-mail calendar@cco to be added to the mailing list.
- Go to seminars and find out what you do and do not like.
- Find a professor and start doing research now. If you do not like the field by the end of the year, at least you found out now rather than later as a graduate student.



Dean's Corner

Thanksgiving and the naked apes

by Jean-Paul Revel

Are humans just animals, naked apes?

We like to pretend that no, it is not so. We want to believe that we are different from the other apes, the hairy kinds, in that we strive to resist going where our basest instincts push us to go...that we recognize that there is something else besides the animal in us... in other words, that being human is more than having less hair.

One of the shocking things modern biology has taught us is that our genome differs from that of the hairy apes by only 2%. That is one measure of how little we differ from animals. Pretty frightening if one considers that some of that is used to code for the extra hair.

Of course, there are other differences, as well, and so quite a bit less than the two percent must contain what is necessary to construct the special features of our brain which drive human behav-

ior. Watching the TV version of Truman Capote's "In Cold Blood", as I did recently, reading the daily papers, browsing for news on the Web or just thinking of the wars in "civilized" Europe this century, let alone elsewhere, it is hard to believe that we are more than beasts.

And yet there are many aspects of our behavior which reflect that special something which we call our humanity, rather than our beastliness. One such thing is our ability to express gratitude. It is perhaps not a qualitative difference, since it has features in common with a dog's licking of its human friend's face and an ape's grooming behavior. But hopefully it is a quantitative one.

To wit, last week we celebrated Thanksgiving, an ex-

pression of appreciation for having many of our needs fulfilled. Some of us give thanks to a deity for the turkey, corn and pumpkin. Others give thanks closer to home, to the other humans who made this possible, the Indians, and (perhaps I should say or, since the Wampanoag and their greatest chief Massasoit are not always explicitly remembered) to our families, friends, acquaintances, colleagues. It should be a short jump from there to thank all the others who make our life possible, bearable, interesting, exciting, fulfilled. Our parents and siblings, spouses, and children, pupils and teachers and classmates and schoolmates, all the women and all the men who daily work along with us. And it should be a short jump to express these thanks not only on one special day, but every day.

A corollary of our appreciation is to respect these others, not to make fun of them, or downgrade them because they are different from us. It is those differences which enrich us and re-

spect is a prime way to express our gratefulness for what they give to us. It would be nice to find that here at Caltech, where we pride ourselves in having assembled la creme de la creme of young people as our students, the 2% advantage would show itself in all its glory.

Rather than poking fun at the others, calling them yahoo babes, jocks or other epithets, painting women as sex objects rather than intellectual achievers, or seeing men only as sport-crazed brutes; or foreigners as some sort of low life, not quite apes anymore, but closer to beasts than us "civilized" people, rather than poking hurtful "fun" let's appreciate what all this diversity has to teach us. Collectively, we have very little to be proud about how we have treated Indians, Blacks, Gays and Lesbians, Latinos, Japanese, Jews and Chinese, Poles and Women, and all the other others. Let's try to remedy that by applying the 2% solution, every day, in all we do.

A bientôt

now hear this.

BY RON DOLETTE

I suddenly realized that there is officially no more new material out on the market anymore. All the creativity has been sucked dry, and musicians nowadays are merely rehashing older work from better artists. What do they say about imitation and flattery? "Heheh, it means you suck, Beavis." Well, on tap this week are a bunch of new artists who are trying to add something new and different to a well-saturated music scene.

First up is a dance track album called *Ultimate House NRG*. Basically, it's a bunch of cool dance songs spun together by Steve Masters, a popular Los Ange-

les DJ and MTV personality. There are your basic dance staples here like "Boom Boom Boom" and "Magic Carpet Ride," as well as my alley-dancing favorite, "A Mover La Colita." Now, of course this album has no new material whatsoever, so it really doesn't count toward my earlier statement. But it's still an awesome dance party album.

Next, there's an EP release called *Raygun* by the Matthew Good Band. Okay, when I hear this band's name, I really can't help but think Dave Matthews Band, but they've got the modern rock style of the Gin Blossoms. It's actually pretty good, but seeing it easily slips into Y107's "stuck-on-repeat" lineup. It's got all the elements of every song that's already being played. Nothing new, even for a small five song EP.

The next two CD's I'm clumping together because they're so pathetically similar to each other that I can almost write one review for both. The first is called *Bleed Your Cedar* by Elysian Fields, and the other is *Slow to Burn* by Vanessa Daou. Now, just by looking at Daou's album cover, it's obvious that her cosmopolitan appearance is to make up for a lackluster album. Maybe she should

be a model instead of a musician. But then, glancing at these photos some more, that might not be a good idea, either.

With enough acidity aside, the two albums both sound like they're stuck in some sort of dream-like, wispy, slow-time state where Vanessa Daou and the Elysian Fields' lead singer, Jennifer Charles, maintain such a high range of voice that it's very sedating and trance-like. Not really melancholy, it just feels as if time slowed down enough to give their careers a chance.

Both albums sound as if they're sighing, and both attempt to develop a very hot, very sexy sound. However, Daou's music lacks a sultry bass groove to make it really sound sexy (and all the songs sound the same). Elysian Fields, on the other hand, has enough of a hard edge to make it a tolerable album. The band supports Jennifer Charles well and might even accomplish the sexy sound that Vanessa Daou failed to achieve.

The final CD I'm reviewing is perhaps the most original. It's entitled *Cine'ma* by a new band called Speedball



Baby. It is a highly energetic album, and gives an impression of spoken word punk. Lyrically the album is very poetic and cynical and all in all highly entertaining. One report hails them as "fusing the primordial slurrp of rockabilly with broken homegrown hybrid of gospel testimony and punk mayhem, the group cut a swath through the rotting cane fields of the contemporary music scene."

You can listen to that, or you can just trust me.



book review book worm.

by Daisy James

- ***** A Wonderful Work of Art
- **** Slightly imperfect
- *** Pretty darn good
- ** Decent
- * Bad
- * Birdcage liner

them another. For instance, why not give that special lady a Medically Accurate Model of 1 Pound of Fat? Or, for him, how about a Chin Firmer or a pair of Figure Forming Briefs? All of the merchandise featured is stuff you can actually buy, though I will say that

Dave Barry's Gift Guide to End All Gift Guides

By Dave Barry

The idea behind the title of this book is that once you buy people the gifts it recommends, you never will have to get

most grocery stores don't seem to carry pig brains in milk gravy. All this and more, described in Barry's inimitable style. If you want to live to celebrate another Christmas, I would suggest just giving the book (although I do know a few people who would swoon over the Flame Jet Weeder.)

A Holiday for Murder

By Agatha Christie

Also published as *Murder for Christmas* and *Hercule Poirot's Christmas*, this is a classic English country house murder. That it manages to be both unpredictable and true to form is a tribute to Christie's skill.

A wealthy and sadistic old man has invited his entire family to his home for Christmas, with the intention of playing with their emotions for his own amusement. He is brutally murdered, and everyone has a motive, but no one has an alibi. Enter Hercule Poirot, who happened to be staying with a policeman friend in the neighborhood. Not exactly a sweet and happy Christmas story, but nice for whiling away the hours when you really should be taking a final.

tells more about the Magi. I have included this because, no matter how much the advertisers exaggerate minor holidays or create new ones, this is the Christmas season, and it might be a good idea to find out what it's all about. The first chapter gives a bit of background and Mary's story; even with that, it is less than two pages long and is worth taking a look at.

Rest You Merry

By Charlotte MacLeod

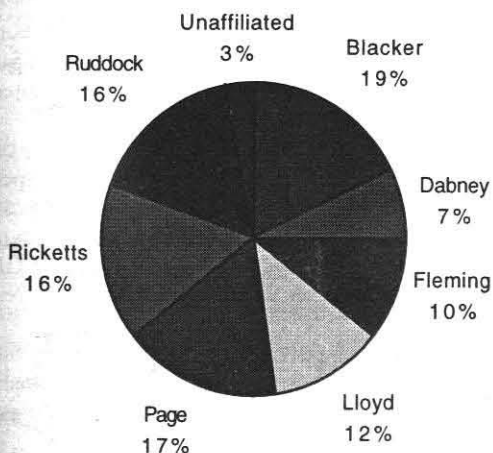
This is the first of the Peter Shandy books, set at Balaclava College in rural Massachusetts. Christmas is the time of the annual illumination of the Crescent, the cul-de-sac where many faculty members live. All of the residents traditionally cover their houses with lights and decorations with which to attract tourists to raise money for the school. All except Prof. Shandy, who reacts perversely to the nagging and will not put up a single bulb. However, this particular year he snaps, hugely overdoes his decorations, and heads out on Christmas Eve. On his return, he finds that Santa has brought him a corpse. A very fun book which diminishes in charm only slightly in rereading.

Luke 2:1-20

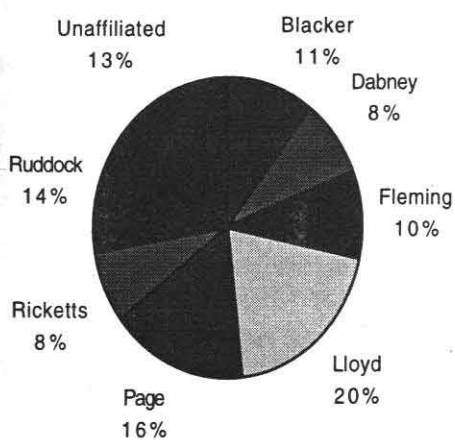
By Luke

It didn't seem quite appropriate to give this a star rating, but I would say that Luke gives the best account of the Nativity of the Gospels, though Matthew

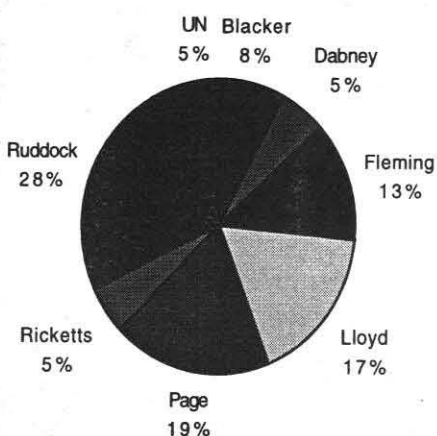
Biology — A Very Fine Major



E&AS — Caltech's Most Popular Major



EE — Second Most Popular Major



Reduced Shakespeare Company gave a lively, hilarious interpretation of the Bible

BY WREN MONTGOMERY AND RYAN COX

"Were there computers in the Garden of Eden? Well, Eve had her Apple." Jokes of this genre provided the backbone of the Reduced Shakespeare Company's "The Bible: The Complete Word of God (Abridged)" which appeared at Beckman Auditorium Saturday, November 23. The Reduced Shakespeare Company consists of three very talented guys, Adam Long, Reed Martin, and Austin Tichenor. The performance was lively and hilarious. The energetic performance involved singing and dancing, acrobatics, and plenty of interaction with the audience. Little previous knowledge of the Bible was necessary, although a little went a long way. In fact, some ignorance was assumed: the song explaining the differences between Elijah and Elisha, Joseph and Joseph, as well as all the Johns, was aimed at the Biblically ignorant. The three troopers bounced through 66 books of the Bible in about 2 hours. No subject was too sacred to take a pot-shot at. Adam and Eve, Noah's ark, even the Book of Job were discussed and dissected in the most entertaining way possible. From



The Reduced Shakespeare Company

Genesis (which included a handy flowchart to minimize "begats" distributed to the audience) to Revelations (staged as a Broadway extravaganza), the Bible was explained in the most popular phrases and allusions of pop culture. There was even a Madonna and child joke. As always, the fellows (who have previously taken on Shakespeare, Wagner's Ring cycle and U.S. History) generated as much entertainment from the audience as from the subject matter. The inevitable late-comers were duly reprimanded, with water and shaving cream. A fair number of Caltech students in attendance were brought onstage to appear as the pigs, ducks and trout on

Noah's ark. The Reduced Shakespeare Company is gone now. But, unlike Halley's comet, they will return in less than 67 years. If you really can't wait a year, their next performance will be in Miami, Florida, over winter break. But be warned, as what the program says is true: "This show is a high-speed, roller-coaster type condensation of the entire Bible and is not intended for people with heart ailments, back problems, theology degrees, inner-ear disorders, and/or people inclined to motion sickness. The Reduced Shakespeare Company cannot be held responsible for expectant mothers."

PHOTO BY CAROL PRAIT



Liberian Social Justice Foundation Inc.

P.O. Box 31438 • Cincinnati, OH 45231

Tel: (513) 931-1872

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Dear Prospective Member:

Liberia should have a special place in the conscience of the United States of America. Its impetus to become a nation came from the United States. For 149 years, it was a stalwart ally of the United States. Yet for the past years, as a civil war has taken almost 200,000 lives, displaced more than two-thirds of the population and destroyed its infrastructure, the United States has treated this great tragedy as a regional problem.

Liberia has a unique historical and cultural link to the United States. Settled by African Americans, many of them former slaves, in the early decades of the 19th century, Liberia became a republic in 1847. The United States influence on Liberia is reflected in the African nation's constitution, the star and stripes of its red, white and blue flag, the structure of government, the names of its cities, its schools' curriculum, its official language and the remarkable degree of good will its citizens feel toward America. Through all the major conflicts of the 20th century, Liberians have been among the most dependable allies of the United States. In both World Wars, Liberia declared war on the enemies of the United States and offered vital air bases, ports, and natural resources to support the United States military. During the Cold War, Liberia voted with the United States on every significant resolution at the United Nations, it hosted facilities for electronic monitoring and became the largest base for United States intelligence-gathering in Africa.

Yet when Liberia's security was most at risk because of civil conflict the United States government deferred to ECOWAS, an under-funded regional organization composed of some of the world's poorest nations. Half of the \$10 million earmarked by the United States to support a peacekeeping force had not been committed by April 1996. Meanwhile, the cost to the United States of responding to the humanitarian crisis since 1990 has been emergency relief assistance valued at over \$445 million, over \$66 million provided in the past year alone, more than eight times the amount committed to peacekeeping.

In the absence of a viable security plan, the torrent of refugees continues to undermine Liberia's relations with its immediate neighbors. Though the United States has implored those nations to admit Liberian refugees, its own record of Liberian admissions decries the long relationship with that nation.

The approach to achieving peace in Liberia has revolved around the ECOWAS process for six years. This process has, in turn, been dependent on a core group of ECOWAS nations with the will and very limited resources to engage in diplomacy or to commit forces for peacekeeping. Fourteen peace agreements have been largely brokered without the United States and other international parties, such as the United Nations or OAU, present with ECOWAS as working partners at the negotiating table. The result of these agreements and the resources, and leverage, necessary for successful implementation, this failure to produce a concerted approach to all aspects of the peace process, from mediation to negotiation and implementation, produced the tragic results that we have witnessed in Liberia.

On August 17 the Economic Community of West African States (ECOWAS) concluded meetings that provide a new timetable for the peace process. Starting August 20, the warring factions are to observe a cease-fire, dismantle checkpoints and withdraw from zones of combat. The peacekeeping force, expanding from 8500 to 18000 troops, is to deploy throughout Liberia in November. Demobilization is to be completed by January 31, Elections are to be held on May 31 with a turnover to an elected government on June 15. The revised plan calls for sanctions against members of the warring factions that obstruct the peace process. Sanctions include restrictions on travel, freeze on economic activities, exclusion from electoral process and war crime charges.

Now the United States has another opportunity to assert its international leadership at a critical juncture to ensure that the success of the new peace process. This leadership will not lead to an involvement of United States troops. It does mean that the United States must heighten its diplomatic efforts to help coordinate the process of peace and gather the funding that is necessary for effective peacekeeping and demobilization in Liberia.

The United States should take the necessary steps to ensure that its commitment of \$30 million to support the ECOMOG peacekeeping force is obligated before the end of the fiscal year 1996. While the United States pledge of \$30 million is a step in the right direction it will not alone enable a doubling of ECOMOG to the 18,000 troops necessary for deployment by November. It is vital that the United States provide additional funds to make up this shortfall or take the lead to obtain significant pledges from other donor countries.

A top priority of the United States should be the implementation of a serious program for demobilizing Liberia's combatants. Regretfully, no additional funding has been pledged by the United States to improve what was an inadequately funded and designed demobilization plan. In fact, some of the funds allocated in early 1996 for reintegration of Liberia's 60,000 combatants have been diverted elsewhere. The United States should take the lead in designing a comprehensive demobilization program. This program will not involve United States troops, but should include the resources for every stage of demobilization from encampment to training and counseling of combatants. A contribution of \$20 million (non-food related) from the United States will provide the resources necessary to initiate a well-conceived demobilization program and encourage future contributions from other international donors.

President Clinton and the United States Congress must make Liberia a priority on our foreign relations agenda in Africa. United States leadership is critical if the key elements are to be achieved on schedule under the new peace plan. This leadership will not lead to an involvement of United States troops. It does mean that the United States through its Special Envoy must heighten its diplomatic efforts to coordinate the implementation of the peace process and gather the additional resources necessary for effective peacekeeping and demobilization.

The United States should strengthen the response of the international community to the needs of the peace process. The foundation for a new international approach to the peace process already exists with the International Contact Group for Liberia, the group of donor countries that have pledged support to the peace process. The concept behind the ICGL should be expanded to a tightly coordinated partnership that includes the United States, ECOWAS, and the United Nations. This high level of cooperation will ensure that scarce resources are effectively utilized.

The outbreak of fighting in Monrovia in April-May of 1996 was the latest in a series of clashes in Liberia's intractable war. During the past nearly seven years, the war has produced shocking humanitarian conditions for Liberian civilians. The most recent fighting exacerbated even further these conditions. Humanitarian assistance organizations have been unable to deliver food and other emergency services because of the fighting in Monrovia. Their resources looted by gangs of combatants and the safety of their relief workers threatened, these organizations closed or dramatically reduced their operations in Liberia.

As a result of the civil war in Liberia, an estimated 800,000 Liberians are internally displaced; another 800,000 are refugees in neighboring countries that are among the poorest in the world. Approximately 50% of the population in Monrovia, upwards of 350,000 persons, were forced to flee their homes due to the April-May fighting and another 3,000 died. During June-July some 3,300 new cases of cholera were reported in Monrovia and a July survey found malnutrition rates for children in displaced shelters have increased up to 25%.

Now that the dust of the Civil War in Liberia is settling down, an era of a NEW LIBERIA is at hand. Whether anyone likes it or not, a leadership is bound to emerge, supposedly to shoulder the national responsibilities of politics and administration and to ensure the continued survival of the Liberian people and culture.

That such leadership will be genuine and committed is a matter that you as Liberians and friends of Liberia can decide, or at least influence. But choosing national leadership is a serious and difficult business. In Liberia, bombed-out homes and shops are painful reminders of what happens when leaders are chosen unwisely. We cannot allow this to happen again. This is why the Liberian Social Justice Foundation is campaigning for PEACE, SECURITY, SOCIAL, ECONOMIC, EDUCATIONAL AND POLITICAL JUSTICE IN LIBERIA.

The Liberian Social Justice Foundation has carefully examined the administrative and operational policies of both the past and present administration in Liberia, and in our candid opinion, much more needs to be done to help Liberia go in the direction she needs to go. We as Liberians must try to have a positive influence on the selection of the national programs and the corresponding leadership which will inevitably affect our lives and the lives of our people for many years to come.

My fellow Liberians and Friends of Liberia, the Liberian Social Justice Foundation has embarked on a mission to ensure that PEACE, UNITY, SECURITY, FREEDOM AND SOCIAL JUSTICE prevail in Liberia. This is an awesome responsibility that can only occur if we cooperate as a team. History will judge us not by what we say, but by what we do. With God and the determined mind, there is nothing we cannot achieve for our Liberian Society. It is in this light that I urge you to support and contribute to the Liberian Social Justice Foundation's programs.

Liberia, the African nation established in the 1800s by freed American slaves, has been torn by civil war since 1989. What does the Liberian Civil War mean to Americans in terms of health care, humanitarian relief, stability throughout Africa and the continuation of missionary work? If you share in the dream of peace in Liberia, a country founded upon American ideals, you are invited to become more informed by writing to the LIBERIAN SOCIAL JUSTICE FOUNDATION, POST OFFICE BOX 31438, CINCINNATI, OHIO 45231. (513) 931-1872.

I am writing to introduce you to the Liberian Social Justice Foundation, Inc., a broad-based social nonprofit organization. The mission of the LSJFI is two-fold: we are dedicated to restoring a just and stable society in Liberia, and to improving the quality of life for all Liberians, both at home and abroad.

On behalf of our members, I appeal to you for financial assistance in support of LSJFI activities. An application for membership is included which contains a breakdown of membership fees. Please know that any amount you can contribute will be helpful to us. Your support of the Foundation, and your awareness of its concerns is deeply appreciated. Should you have any questions or suggestions, please feel free to write us or call. Thank you for your time, your contribution, and your generosity. Checks and money orders should be made payable to the Liberian Social Justice Foundation, Inc.

Best regards,

Edwin G.K. Zoedua
Executive Director/Chairman

EGKZ/rnlm

Faces of hunger in Liberia

Liberian children await arrival of a food convoy in Tubmanburg, 50 miles north of Monrovia. The city was cut off for months by fighting. People surrounded the trucks Wednesday; when bags of wheat were opened, they grabbed handfuls and ate it uncooked. **World/A8**



Does the U.S. need campaign finance reform?

YES

BY JOHN HATFIELD

Not too long ago, Clinton's integrity was called into question (again) by donations to his campaign and the Democratic Party by a certain Indonesian businessman. This is part of a larger problem that the financing of campaigns has grown to a multibillion dollar industry, with money being paid for "access."

In general, money does not buy a vote on any one bill. However, it does buy precious time with the elected party for the donor to explain his or her view on the subject to be voted on. Thus, if it is an issue that does not really affect the members of a congressman's district, he might be tempted to garner most of his information about the bill from his meetings with the people who helped to elect him. This, on a large scale, leads to tight votes being swayed by the special interests.

The U.S. government should fund all candidates for nationwide office whose names will appear on the ballot.

Unsurprisingly, today's system allows almost unlimited money to be "given" by a donor. Although there are many complex, and at first glance, restrictive laws, regarding the amount of money that can be given to candidates, there are many, many holes. The main hole is this: although there are tight restrictions on how much money may be given to a candidate, there are no restrictions on how much money may be given to a political party or on advertising done by the group itself. Thus the AFL-CIO can effectly give millions of dollars to the Democratic campaigns, as they did this year. Who thinks union issues will not be one of the top items for Democrats in the Congress this year?

Mr. Stevens has suggested to let the voters see through this deception, simply allow anyone to give as much as they want to to any party or candidate. He believes further that this is the best system since if people disapprove of a candidate's method of procuring funds, they will not vote for him. There are two problems with this argument, however.

First, people generally vote for the candidate they know, so the support and name recognition acquired by the money

will almost certainly weigh out any negative effects associated with the donor (Clinton's funding scandal did not hurt him at all.)

The second is that people do not care enough to research the funding of their opponent. This idea is also false as people do not now bother to find this sort of information out, nor will they in the future. It would take a lot of hard work that most people will not and should not have to do.

I propose the other extreme. Simply have the government fund all candidates for nationwide office whose name will appear on the ballot, and allow no private funding at all, in any form. This is a simpler solution. The voters do not need to worry about where the funding comes from and the current congressmen, no longer paranoid about procuring funds for the next elction, will only have to worry about the people they represent.

There are two main objections to such a plan. One, the government paying the money is a drain on taxpayers. However, the government has over a one trillion dollar budget. Funding the congressional races and even the presidential one is little more than a drop in the bucket. The second question is who gets the money. Obviously, the Republican and Democratic candidates, as well as any other candidate whose name appears on the ballot, which generally involves showing more than 3-5% of the vote will be captured by the candidate. This will lead to a nice side-effect since the two main third parties, the Libertarians and Ross Perot's party, will have a chance to be on an equal playing field with the overly well-funded Democrats and Republicans.

In sum, the best chance in campaign finance reform is to eliminate private funding completely and have the government fund the campaigns completely. If this is done, for the first time in a long time the represenatives' minds will be centered on what they should have been centered on all along: the wishes, concerns, and needs of their constituents.



NO

BY NEIL STEVENS

In Washington, as the two parties dance around, some things never change. Every two years, there is high, hopeful talk that the issues will be dealt with. The focus this time is on campaign financing.

Nobody believes the current system is right, but the talk in Washington boils down to this: How can the federal government intervene to best regulate campaign money? Well, since the current system is so flawed, I propose that we eliminate it. Regulation always leaves loopholes open to abuse, so we should give up!

Ultimately, funding changes nothing about a candidate, so this "issue" is unnecessary. What can money buy? Advertising. Millions of dollars do not change the issues, the candidates, or the voters. Money does not buy a seat

in the debates, or a spot on the ballot. So, a careful voter, checking on the candidates, and making a well-informed decision, should not be affected by campaign finance at all. So what if the prime time airwaves are full of sound bites? Hearing "Perot for President" a hundred times will not change anyone's mind.

Why, then, fear finance? Recently the Democratic Party has been examined for receiving money from foreign sources. Some people take this opportunity to ask, "Why do we let them take non-American money?" I ask, "Why did they take the money?" If foreign money (and supposed influence) is detrimental, taking such money would seem to make the party unpopular. Instead, the great fear seems to be that the money will help them win, and therefore, allow foreign influence of the government. Well, since everyone knows the Democrats received money from foreigners, if the people still support them, so be it. To ignore the support of the voters is to assume that the American voters are stupid.

That is the key issue. How do the voters decide? Is it a matter of flashy ads, name-calling, and empty promises? Or is the campaign an exchange of ideas? Money is only critical in the former. If decisions are made based on the ideas, then we need not bother regulating campaign finance. But, if electioneering is the basis of modern voting, then PACs and soft money are the least of our troubles.

Millions of dollars do not change the issues, the candidates, or the voters.

Working together means you can _____



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Women's basketball records first victory

BY AMANDA SCHAFFER

The Caltech women's basketball team beat Life Bible College Wednesday night to give the Caltech women's basketball program its first victory in intercollegiate play. The 53-50 victory boosted the team's record to 1-5 and improved the outlook for the rest of the season. Playing tough, competitive basketball, the team has been improving steadily since its season opener against Christian Heritage. Through the first six games, three players have established them-

selves as leaders for the team: freshman Erika Swanson, playing forward and center; junior guard Lori Hsu; and junior Irene Wong, also a guard.

The team has two games left before winter break: a December 6 home contest against Bethany and a December 7 road trip to Occidental. Coach Michelle Kerzie is worried that the lack of competitions throughout December may be a setback, but says the team should be able to put it back together and be competitive in January.



Erika Swanson takes a free throw for Caltech.

Swimmers start strong vs. Whittier

BY AMANDA SCHAFFER

Caltech's men swam to an easy victory against an incomplete Whittier team, while the women started off strong, but couldn't stave off a comeback by the Poets.

The men pulled off a lopsided 185-8 win, made possible because most of the Whittier team was unavailable due to the NCAA water polo tournament. In the diving competition, Mike Fisher defeated Tech teammates Phil Rodriguez and Radoslaw

Osada for the victory. Swimmers Mike Grebeck and Jim Pierce led the effort in the pool, with Grebeck winning the 50 and 100 yard sprints and Pierce taking the 1000 freestyle, 200 IM, and 100 backstroke events.

The women's team led Whittier 51-42 halfway through the competition, thanks to several excellent performances. Liz Callagan won both the 1- and 3-meter diving events, and Jen Holland won the 200 yard freestyle for the Beavers. Phyllis Chen won an exciting 200 IM, coming back to regain her early lead and take a four yard victory after a Whittier swimmer pulled even during the 3rd leg of the race. Despite good swims by Audrey Lee and Keri Ryan, the Beavers fell to the Poets 108-77.

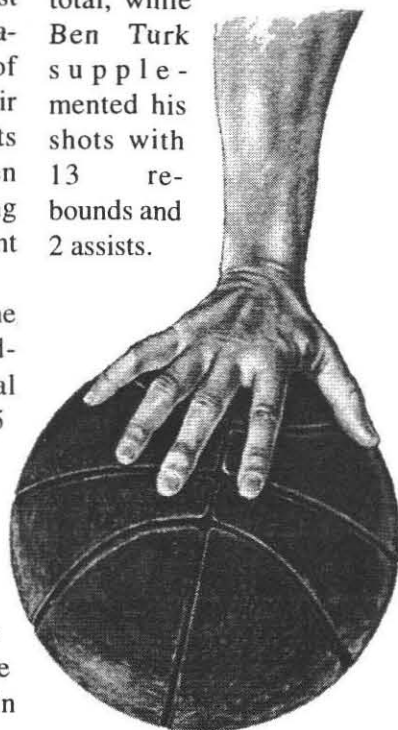
Men's basketball team routs Life College

BY AMANDA SCHAFFER

The men's basketball team came away from last weekend's Hi-Tech Tournament with a 79-57 rout of Life College, boosting their record to 1-2. Josh Moats scored 29 points and Ben Turk had 25, both securing spots on the All-Tournament team.

The Beavers opened the tournament with a hard-fought, 70-63 loss to Cal Christian led by Turk (25 points, 16 rebounds), Moats (22 points, 7 rebounds, 4 assists), and Mike Kuhlen (14 points, 5 rebounds, 3 assists). The loss put the team in the consolation playoffs, where they beat Life to finish in

third place. Josh Moats contributed 5 rebounds and 3 assists in addition to his point total, while Ben Turk supplemented his shots with 13 rebounds and 2 assists.



The Caltech Women's Center will be hosting a weight-training program in January. If you are interested in attending the weight-training program, send a short note to kschulweis@starbase1.caltech.edu. If you'd like to get all the Women's Center's invitations in a timely manner, include your e-mail address in the message and ask to receive their announcement.

CLASSIFIED ADS

HOUSE-SITTING—

LOOKING FOR APARTMENT OR HOUSE in need of sitting. Parents of faculty member visiting Pasadena from England during January or February '97. Please call x4030.

JOB OPPORTUNITIES—

ALASKA EMPLOYMENT—Students needed! Fishing industry. Earn up to \$3,000-6,000+ per month. Room and board! Transportation! Male or female. No experience necessary. Call (206) 971-3510 ext A59551.

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Larraine Segil

Author, Business Consultant,
and Entrepreneur

Friday, December 13
12:00 PM
Winnett Lounge
Free Lunch Included

Ms. Segil, cofounder of the Lared Group, a business consulting firm, and author of **Intelligent Business Alliances: How to Profit Using Today's Most Important Strategic Tool**, will be speaking on how she's reinvented her career several times, moving from practicing law to founding four entrepreneurial businesses to consulting for companies worldwide, including teaching several times a year at Caltech's Industrial Relations Center.

This event is cosponsored by the Organization for Women at Caltech, the Women's Center, Avery House, and the Caltech Management Association.

Copies of Segil's book will be available for purchase, courtesy of the Bookstore.

Please RSVP to Betsy Woodford, ext. 6240, or betsy_woodford@starbase1.caltech.edu



LIBRARY SERVICES DURING MOVE TO THE SHERMAN FAIRCHILD LIBRARY

- Moving crews will be working in Millikan and the Branch Libraries from **Monday, December 9** through **Friday, December 20**.
- Some floors in Millikan may be closed temporarily while the movers are working. Notices will be posted by the elevators.
- After December 8, information materials in the engineering branch libraries will not be accessible but may be requested.
- Document Delivery and Interlibrary Loan services will be available as usual. Requests for engineering materials may be delayed somewhat during the move.
- The Sherman Fairchild Library will open on **January 2, 1997**.

MAGIC: Award-winning prestidigitation this Saturday at 8:00

Continued from page 1
 bining original music with an extremely high degree of skill and showmanship.

Martin Lewis has presented his comedy magic in over 20 countries. He succeeds his father, Eric Lewis, as one of England's most popular comedy magicians. His fascinating Japanese bamboo routine is considered a classic in the world of magic.

Through special arrangement with Caesar's Magical Empire in Las Vegas where he is currently starring, Chris-

topher Hart, a two-time finalist as "Magic Entertainer of the Year," will offer his amazing award-winning presentation. It was Hart's right hand that recently appeared as "Thing" in the two "Addams Family" films.

Clockwork, one of the East Coast's hottest and funniest juggling teams, will also appear, as will master comedy illusionist Ed Alonzo. Alonzo has starred in several Las Vegas revues and recently returned from a six-month engagement at a new riverboat in Biloxi, Mississippi.

ME 72: Wedge against the machine

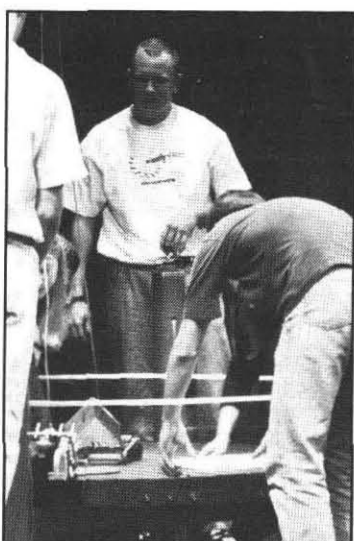


PHOTO BY CHRIS BROOKS

Continued from page 1
 golf balls into the grate unimpeded.

Dave Zito, also of Dabney, won the "Divine Intervention" award for being saved by technical difficulties twice and beating the placebo (the Grad Turkey entry, to ensure an even number of contestants.) once, causing him to advance to the final rounds. While no machines imploded or exploded, there were a few technical mis-

haps. Jonathan Aldrich was disqualified when his vehicle was improperly connected to the power source.

The contest was designed by Professor Erik Antonsson to provide a real-world engineering atmosphere. Students learn about the design of new things and the solution of open-ended, ill-defined problems. It has been featured on CNN and "Scientific American Frontiers."

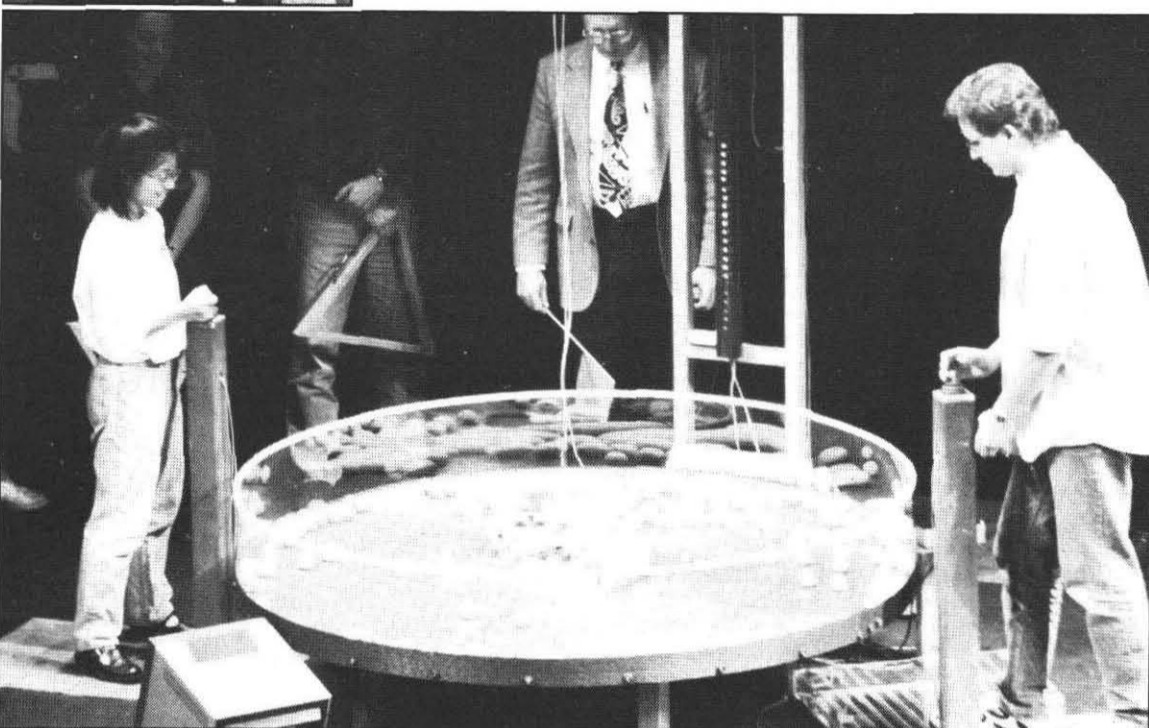


PHOTO BY CHRIS BROOKS

Scenes from the competition.

HOLIDAY MAGIC

When: Saturday, December 7, 8:00 p.m.
Where: Beckman Auditorium
Cost: \$5.00 Caltech students
 \$10.00 Caltech/JPL Community
 \$25.00/\$22.00/\$19.00 General

For more information, contact the Caltech Ticket Office at (818)395-4652 or tickets@caltech.edu, or visit <http://www.caltech.edu/~tickets/>.

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Best Buy

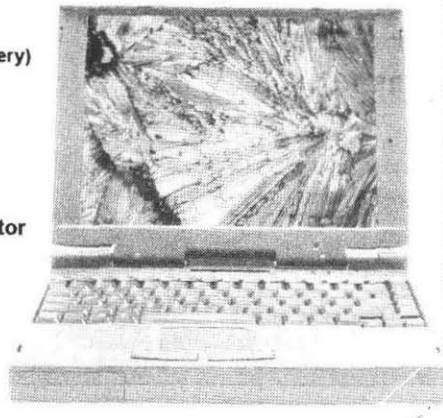
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Events

✧ This week's **ASCIT movie** will be *Four Rooms*, showing at 7:30pm and 10pm in Baxter Lecture Hall. Admission is \$2 for members, \$2.50 for non-members.

✧ **Auditions** for the TACIT winter play, "Dog's Hamlet, Cahoot's Macbeth" by Tom Stoppard, will be held in Ramo Auditorium Friday the 6th at 7pm, Saturday the 7th, and Sunday the 8th at 2pm. Prospective cast, crew and staff from all parts of the Caltech community are welcome. For more details look at <http://www.cco.caltech.edu/~tacit/TacitAuditions.html> or contact Maneesh Sahani at maneesh@caltech.edu or (818) 793-2879.

✧ The **Caltech choral music program** present its annual holiday concert "A Season for Singing" on December 6 & 7 at 8:00 p.m. in the Dabney Lounge. Performing ensembles include the Men's Glee Club and Chamber Singers (Don Caldwell, Conductor); Women's Glee Club and Clef Hangers (Monica Hubbard, conductor); and special guests, the Van Etten Handbell Choir (Gregory Norton, Director). The concert includes festive holiday music for Christmas and Hanukkah, featuring music by women composers in honor of the Women's Glee Club 25th anniversary season. Early arrival is recommended since there will be no standing room available. A reception will follow the free concert. For further information please call the Caltech Office of Public Events at (818)395-4652.

✧ Author of *Intelligent Business Alliances: How to Profit Using Today's Most Important Strategic Tool*, co-founder of the Lared Group, and entrepreneur **Lorraine Segil** will be speaking on how she's reinvented her career several times, moving from practicing law to founding four entrepreneurial businesses to consulting for companies worldwide, including teaching several times a year at Caltech's Industrial Relations Center on **Friday, December 13th, at noon** in the Winnett Lounge. This event is cosponsored by the Organization for Women at Caltech, and the Women's Center. To reserve space and a free lunch, please contact Betsy Woodford at ext. 6240 or betsy_woodford@starbase1.caltech.edu.

From the Counseling Center

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Mints

✧ denotes a new announcement.

ily, coping with a homophobic culture, and being GLB at Caltech? Want somewhere just to make new friends? You are invited to the **Gay/Lesbian/Bisexual Support Group**, which meets on the first and third Tuesdays of each month from 7:30pm till 10:00pm 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 discusses a particular relevant topic and then moves on to the general discussion. Refreshments are served. If you would like more information, please call x8331.

Fellowships and Scholarships

✧ All graduate and undergraduate students are invited to enter the **Hyundai 50th Anniversary University and College Student Essay Contest** on one of the following subjects: the Information Society and Humanity; Family and Human Relations in the 21st Century; The Industrial Structure and Occupations of the Future; The Corporation's Roles as a Global Citizen; Sustaining Economic Growth and the Environment in Developing Nations; or Women's Roles in the 21st Century. To enter, complete and submit the online registration form found at <http://www.hyundai.net/contest/welcome.html>. Entries should be written on one of the six themes listed above and be 15 to 20 A4- or letter-size pages in length, double-spaced, in MS-Word or HWP file format. A 2-page essay abstract should also be included. Application deadline will be **February 28th, 1997**.

From the Dean's Office, 102 Parsons-Gates.

✧ Caltech students interested in a career-related to environmental public policy and Native American and Alaska Native students interested in careers related to health care and tribal public policy are invited to apply to be named a Morris K. Udall Scholar. Established by Congress in 1992 to honor Congressman Morris K. Udall and his legacy of public service, the Morris K. Udall Scholarship and Excellence in National Environmental Policy Foundation operates an educational scholarship program designed to provide opportunities for outstanding U.S. students with excellent academic records and demonstrated interest in, and potential for, careers in the fields of environmental public policy, health care, and tribal public policy. All applicants must be a current sophomore or junior pursuing a bachelor's degree on a full-time basis, have an average of at least a B or the equivalent, be a U.S. citizen, U.S. national, or resident alien, have a demonstrated interest in a career in environmental public policy or be a Native American or an Alaska Native and have demonstrated interest in a career in health care or public policy. If you are interested, please contact the Dean of Students Office, 102 Parsons-Gates, for an application. Deadline for receipt of nomination materials to the foundation is March 3, 1997.

✧ The Dean of Students Office is accepting proposals for the Monticello Foundation Internship and the Robert and Delpha Noland Summer Internships. Three to five Caltech undergraduate women will be given an opportunity to participate in research projects outside of the Caltech community for ten weeks during the summer. Each student will receive a

\$3,500.00 stipend. Applicants are required to identify the projects in which they wish to participate. All arrangements with the principal researcher will be the responsibility of the student. There are no restrictions as to where the research can be done, except that it must be outside the Caltech-JPL community. Other universities, commercial labs, or any industrial facility in which the student can arrange to conduct or participate in a research project can be the site for the experience. Each student will be asked to submit a short synopsis of her report to the Deans' Office at the end of the summer. If you are interested, please identify a sponsor for your experience at a research facility for a ten-week period. In a short essay, describe your project, and submit it to the Deans' Office in Room 102, Parsons-Gates along with two faculty recommendations. The Deans would like to know for whom you would be working, where, and if possible some specifics concerning your proposed research topic. Proposals must be received by Monday, March 3, 1997.

From the Fellowships Advising and Resources Office, extension 2150, e-mail lauren_stolper@starbase1.caltech.edu.

The **American Association of University Women** offers a number of fellowships to women who are U.S. citizens or permanent residents, including one year post-doctoral fellowships and special dissertation fellowships. The international fellowship is awarded to women who are not citizens of the U.S. or permanent residents who are engaged in full-time grade or post-graduate study in the U.S. A poster with a tear-off card that allows you to send for an application is posted on our main bulletin board.

Applications for the **Whitaker Foundation Graduate Fellowships** will be accepted from seniors and first year graduate students who plan or are studying for a Ph.D. in biomedical engineering or other engineering discipline with a concentration in biomedical engineering until **December 11th**. Applicants must be U.S. citizens or permanent residents. The application is available on the Internet as a text file and as a portable document file (.pdf) at the foundations Web site: <http://bme.www.ecn.purdue.edu/bme/whitaker>

The **Department of Defense National Defense Student Education Grants** are now available to all seniors and first year graduate students; the Fellowships Advising and Resources office will receive applications by next week. The application will also be available from the Web within the next week or so at <http://www.battelle.org/ndseg/ndseg.html>. The NDSEG supports work in almost all fields of science and engineering. The NDSEG provides three years of support for graduate study. No military service or sponsorship of the Department of Defense is required of applicants. This year's application deadline is **January 15th**.

From the Financial Aid Office, 515 S. Wilson, second floor:

The **College Women's Club of Pasadena Scholarship Foundation** is beginning its scholarship selection for the 1997-98 academic year. To be eligible to apply you must be a woman who is a U.S. Citizen, a sophomore or higher, and have a minimum 3.0 G.P.A. Applications are available

from the Financial Aid Office, and must be returned to the Financial Aid Office by **February 7th, 1997**.

✧ The **Korean American Scholarship Foundation** is offering more than 40 scholarships of \$1,000 or higher to full-time students of Korean American heritage enrolled in at least their second year of undergraduate or graduate school. For an application form, write to: Scholarship Committee, KASF Western Region, P.O. Box 486, Pacific Palisades, CA 90272. Applications and supporting documents are due **February 8th, 1997**.

The **Chinese-American Educational Foundation** announces its scholarship program for students of Chinese descent. Eligible students are graduate students or undergraduates who are juniors or seniors, and who will be enrolled full-time in Fall of 1997. Eligible students must also be U.S. Citizens or permanent residents. There are two \$1500 scholarships available for graduate students and seven \$1000 scholarships available for undergraduate students. The deadline to submit applications is **March 31st, 1997**.

The **American Electroplaters and Surface Finishers Society** is offering scholarships to undergraduate juniors and seniors and graduate students who are interested in careers in the electroplating and surface finishing industry. Undergraduates must be full-time and must be majoring in metallurgy, metallurgical engineering, materials science or engineering, chemistry, chemical engineering, or environmental engineering. Applications must be submitted by **April 15th, 1997**.

Applications are now being accepted for the **1997-98 National Academy for Nuclear Training scholarships**. Scholarships are \$2,500 each and will be awarded to eligible students majoring in nuclear engineering, power generation health physics, or chemical, electrical, or mechanical engineering with nuclear or power options. Applicants must be U.S. Citizens, have minimum 3.0 GPAs, and be full-time sophomores, juniors, or seniors in 1997-98. Preference will be given to students demonstrating specific preparation for employment in the U.S. nuclear power industry. Applications must be postmarked no later than **February 1st, 1997**.

The **American Society of Naval Engineers** is offering \$2,000 scholarships for academic year 1997-98 to students who are interested in naval engineering. Applicants must be U.S. Citizens, must demonstrate a genuine interest in a career in naval engineer-

ing, and must be applying for either their last year as an undergraduate or for one year of graduate study (doctoral candidates not eligible). The deadline to submit applications is **February 15th, 1996**.

✧ The **American Chemical Society** is sponsoring a scholarship program for qualified applicants who want to enter the fields of chemistry, biochemistry, chemical engineering, or other chemically related fields such as environmental science, materials science, or toxicology. To be eligible to apply, candidates must be African American, Hispanic/Latino, American Indian, or Alaskan Native, and must be U.S. Citizens or permanent residents. Applicants must also be full-time freshmen, sophomores, or juniors, majoring in one of the above fields, and must demonstrate financial need. The deadline to submit applications and supporting documents is **February 28th, 1997**.

The **Jewish Family and Children's Services** is pleased to announce the continued availability of financial support for Jewish individuals and their families. JFCS provides hundreds of students loans, grants, and scholarships to Jewish students. Individuals may apply for up to \$5,000. Special scholarships are available for study in Israel. To be eligible, students must have financial need, have at least a 3.0 GPA, and be residents of San Francisco, the Peninsula, Marin or Sonoma counties, or the Bay Area. There are no deadlines—applications are accepted throughout the year and are available in the Financial Aid Office.

The **Elie Wiesel Foundation for Humanity** announces the 1997 Essay Contest for the Elie Wiesel Prize in Ethics. The essay contest is open to full-time juniors and seniors. First prize is \$5,000, second prize is \$2,500, and third prize is \$1,500. Essays must be accompanied by a completed entry form. To obtain an entry form, send a self-addressed, stamped envelope to: The Elie Wiesel Foundation for Humanity, 1177 Avenue of the Americas, 36th Floor, New York, NY 10036. Essay entries must be postmarked by **January 17th, 1997**. For more information about the contest, come to the Financial Aid Office.

Women who are full-time juniors in 1996-97 are invited to participate in **GLAMOUR Magazine's 1997 Top Ten College Women Competition**. This competition recognizes exceptional achievements; the vision, determination and academic excellence of female college juniors from across the country. Winners will receive \$1,000, the opportunity to meet with top professionals in their fields, and national recognition in *GLAMOUR*'s October 1997 issue. Applications are due **January 31st, 1997**.

THE CALIFORNIA **TECH**

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