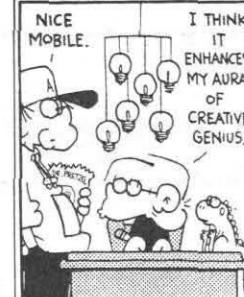
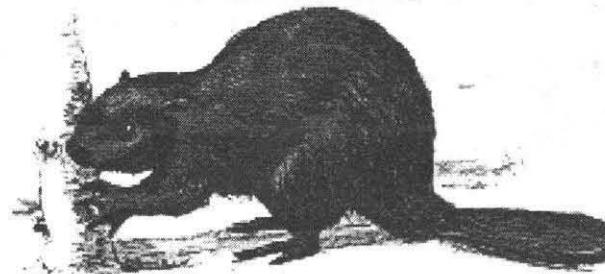




Dilbert!

see page 7



Fox Trot!

see page 7

# THE CALIFORNIA TECH

VOLUME XCVIII, NUMBER 24

PASADENA, CALIFORNIA

FRIDAY, APRIL 18, 1997

## ARC report from the Student-Faculty Conference

Dissention was rampant at the Student-Faculty Conference Tuesday April 15<sup>th</sup>, sponsored by the Academics and Research Committee. ARC identified the issues that undergraduates, graduates, and faculty felt most needed to be addressed. Three committees presented ideas covering the topics of the Purpose of an Undergraduate Education at Caltech, Student Life, and the Honor System.

The topics addressed included changing the advising system, restoring trust in the Honor System to both faculty and the students, the role of grades in the search for a graduate/medical school, the role of security and the administration during pranking, and a wide range of associated topics. The discussion became rather intense at times, and there were always contrasting views to spark debate.

There were several hotly debated topics. Some students brought up the contrast between administrative policy toward pranking and the statement of support of the pranking tradition expressed by Vice President for Student Affairs Gary Lorden, who spoke at the conference. Students also discussed

whether an accuser in a BOC trial should be informed of the outcome of the case. This was intended to facilitate trust that the system does in fact act to correct injustice, but some speakers felt that this violated the subject's

*...students brought up the contrast between administrative policy toward pranking and the statement of support of the pranking tradition expressed by Vice President for Student Affairs Gary Lorden.*

that the curriculum should support the breadth as well as depth of their interests.

Both the panelists and the audience had a multitude of ideas they felt were important and worthy of discussion.

People wanted to debate even after the allotted time had expired. After the conference ended, both faculty and students expressed their admiration of the Caltech audience's ability to define and defend the views it held.

The audience consisted of approximately 100 people per session, and contained undergraduates, graduates, faculty, and some staff. The moderators did an excellent job of channeling the discussion while allowing audience members with insightful points to present their ideas. The ideas generated by the conference will now be considered by each committee. The committees will continue to meet in order to redefine their proposals in light of this new information. They will present these ideas to the Caltech community through *Tech* articles in the upcoming weeks. Currently, they are reading through the surveys handed out during the conference.

Once these ideas have been pre-

sented, the committees and the ARC will pare them down further. We will compose a set of proposals listing specific areas that need improvement and a recommended course of action for each. The plan is to present these ideas to the appropriate administrative division and generate changes based on the input derived from the student body.

The ARC feels that it is important to hold forums that allow students and faculty to express issues of importance, but that it is of even higher priority that these ideas be acted upon to improve the quality of life at Caltech. It is an ongoing process that has only begun. I thank all of you who participated in the Student-Faculty Conference and helped it achieve its objectives. The articles describing the proposals of individual committees will be upcoming in following weeks. Please continue to be a part of instituting change, by speaking to your house ARC rep about issues you feel are important and expressing what you feel are necessary changes to the Caltech system.

## They're heeeeeeeeeeeeere!

BY KANWAR KAHLOON

The pre-frosh are here! Yes, it's that time of year when prospective Techers get their first look at the school. Don't be surprised, or alarmed, if you see a horde of happy, smiling people making their way about campus (no, third term is not almost over) with curious looks and a mouthful of questions.

Most of the pre-frosh arrived yesterday, and will be participating a variety of activities throughout the course of the weekend (a master schedule of events is on page 6). Activities include campus tours, house receptions, a Club Faire, a taste of the performing arts at Caltech, a ska concert, and the annual ASCIT pre-frosh party.

Optimism and good-humor have not been amiss amongst the pre-frosh; af-

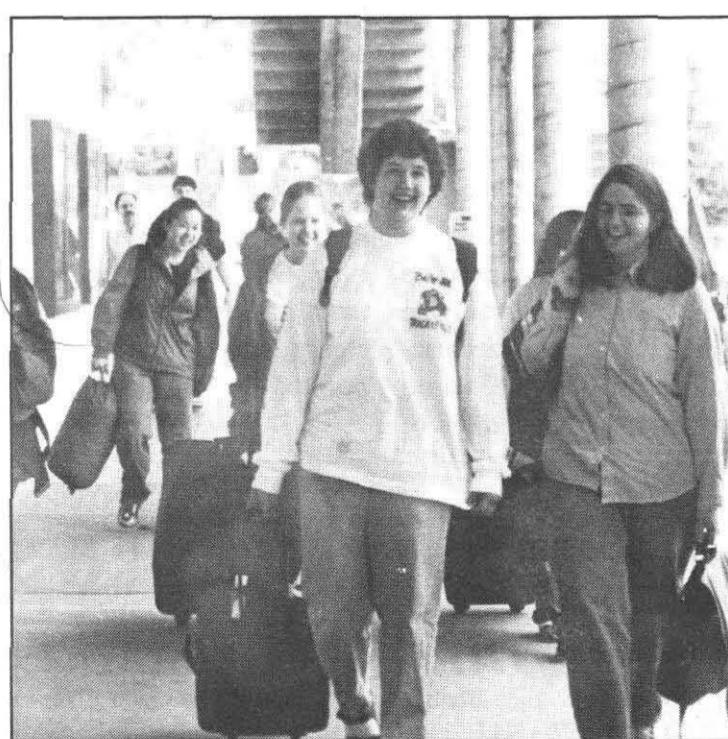


PHOTO BY WREN MONTGOMERY

*Abandon hope, all ye who enter here.*

firmed one, "All of the people have been pretty friendly and the campus is beautiful. I'm looking forward to sitting in on classes." Another pre-frosh on how he rates his budding impression of Caltech with other schools, "It's a lot friendlier, and more personal than the other schools I've visited." So don't miss out on the slew of activities on campus within the next few days. Here's to the class of 2001!

## New core a mixed blessing

BY RON DOLLETE

Caltech's new core curriculum has sparked many debates about undergraduate education at Caltech. While many feel that the new core will move students towards a wider base of sciences, others suggest that its lack of focus and increased expectations actually hurt the freshman.

Arguably, the most notable change to the core curriculum is the replacement of Chemistry 1c with Biology 1. Proponents of this change argue that biology is becoming increasingly important in contemporary science and some effort should be taken to expose students to a field that could have a major effect on all walks of science.

The addition of Bi 1, on the other hand, forced Chemistry 1b and 1c to be combined into just one term of class time, while covering the same material. This move proved to be fatal to many students, who felt lost at the rapid pace at which fundamental subjects like thermodynamics were taught.

Another change to the core curriculum was the rearrangement of topics covered in math. Probability, traditionally taken third term of one's sophomore year, is now being taught first term to freshmen. Only this year will freshmen take probability before the sophomores.

*For more information about the changes to the math core, please see the related article on page 11. -eds*

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## LETTERS TO THE EDITOR

*Consider Lasorda for next year's Commencement speaker*

Dear Editor,

Even though it may sound crazy at first, the idea of having former Dodgers manager Tommy Lasorda speak at commencement is not a bad one. Tommy is loved by baseball fans the world over for his enthusiastic personality, and has been called "baseball's ambassador." He also has a reputation as a great motivator, encouraging others to achieve beyond their abilities. The best example of this is the 1988 playoffs, when his team won the World Championship by defeating two other teams which were far superior on pa-

per. A speech by Lasorda promises to be enthusiastic, entertaining, encouraging, and perhaps even inspiring. Whether or not you think we should have him speak, the idea at least deserves consideration.

MATT TISCARENO  
UNDERGRADUATE

Please send submissions for letters to the editor to

The California Tech  
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Pasadena, CA 91125

or by electronic mail to  
[editors@tech.caltech.edu](mailto:editors@tech.caltech.edu).

Deadline for submissions is Monday at 5 p.m. on the week of publication.

The editors reserve the right to edit or refuse to print any letter for any reason.

## OPINIONS



BY AUSTIN COLLINS

This week's topic came as a bit of a surprise to me, as one of the more distinct American folklore characteristics fell under the knife. Well, it won't be the first idea that has both uses and abuses, so this week's topic is: **The Underdog**.

More and more recently, the knee-jerk type of support people have for the underdog is being manipulated into public support of ridiculous things. This came to me first, as so many of my unpleasant realizations do, while I read an article in the *Los Angeles Times*.

It detailed the "heroic" tale of a woman with a tragic story. Her son, for reasons unknown to any of the doctors she tried, suddenly developed autism when he was about two. We can all sympathize with such a woman . . . such tragedy is mercifully beyond the imagination of most people.

Also beyond the understanding of most was her response. With no medical training (not even a college degree), she independently concluded it was the result of her son's rubella vaccination. How she decided this is anyone's guess, but she did.

So, being the courageous woman she was, she took it upon herself to spread the word that rubella vaccinations can cause autism. But she didn't leave it at that; she turned her life into a veritable crusade against organized vaccination efforts. It was her attempt to "inform mothers of

the dangers of vaccination."

Oprah Winfrey featured the woman on her show one day, and the audience cheered loudly when this woman yelled at people to be sure not "to let the government decide what is best for your child!"

As long as there are moth-

*...every time intelligent people write someone off as a crackpot, idiots cheer for him as an underdog.*

ers like this, the government's interference is justified. An unvaccinated child is a tragedy in and of itself. Children should not pay the price for their own mothers' lack of education or judgement. Nor should other people's children be exposed to the health risk an unvaccinated child can pose.

As I read of the way thousands of women turned out to support the now national organization this woman formed, I realized that every time intelligent people write someone off as a crackpot, idiots cheer for him as an underdog.

Oh, the **courage** of that woman to stand up to the medical establishment like that! Oh, the **strength** she must have to press on after every rational person has pointed out the error of her

ways.

Give me a break. Standing up for ridiculous positions doesn't make them any less ridiculous. However, it does give them support. Some people define their lives by defiance of others, and among them are heroes and crackpots.

There is a dividing line. It is an obvious one. It is not culturally dependent, just use some common sense . . . otherwise, you might as well ask this lady about her thoughts on the origin of the universe, too. Her knowledge of infectious diseases compared to the CDC's is roughly equivalent to her knowledge of cosmology compared to Caltech's. The only difference is that your child's chances of living past twelve don't decrease if you're wrong about the existence of dark matter.

It really is that simple.

*"It just goes to show that someone can make a difference — but maybe he shouldn't."*

—Marge Simpson

*"Cyrano: So, this is your revenge?"*

*Compte de Guiche: Take it to mean I serve my King and vent my spleen."*

—Rostand

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advertising: [adv@tech.caltech.edu](mailto:adv@tech.caltech.edu)  
ISSN 0008-1582

VOLUME XCIII, NUMBER 24  
APRIL 18, 1997

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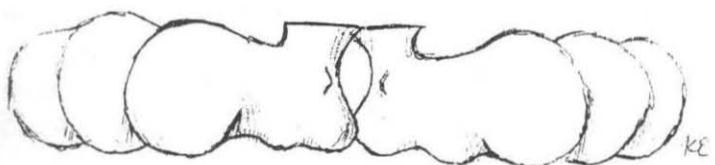
Published weekly except during vacation and examination periods by the Associated Students of the California Institute of Technology, Inc. The opinions expressed herein are strictly those of the authors.

Letters and announcements are welcome. All contributions should include the author's name and phone number and the intended date of publication. Submit copy (preferably on Macintosh 3.5" disk) to the *Tech* mailbox outside SAC room 40, or e-mail to [editors@tech.caltech.edu](mailto:editors@tech.caltech.edu). The editors reserve the right to edit and abridge all submissions for literacy, expediency, etc. All articles are the property of the authors. Authors and columnists retain all intellectual property rights. Articles received in BINHEX format will not be accepted.

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.

## Corrections for last week's issue



*Yes, the beaver has feet.*



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Sat-Sun Bargain Matinee 1:30 p.m.

**ANNA KARENINA**

# Caltech celebrates Earth Day

BY CHUCK WITHAM

To celebrate Earth Day, the Caltech Environmental Task Force has organized a number of events on the Caltech campus to take place during the weeks of April 21st through May 2nd. These events are being advertised at Caltech and in Pasadena, and all are open to the public. For updates on our plans, please check out web page at <http://www.cco.caltech.edu/~cetfers>

**Tuesday, April 22nd:**  
Winnett lawn, 12-1.

Performance by Djo-Gbe African dance troupe. Join in the sacred live drumming and transcultural dance experience led by the shamanic Dance Master of Benin, West Africa, Lazare Houetin and his tribe of world Drummers, featuring the Royal Court Drummer Desire Adomou. Connect with your true nature and release the healing rhythms of spirit and community.

dangered species in Southern California.

**Friday, April 25th:**  
Winnett Lawn and the Olive Walk, 11:30 - 2:00.

The annual Earth Day festival at Caltech features music, food, environmentally friendly products, and information on local environmental groups and issues. Alula, a reggae and African music band, will perform this year. The Whole Foods Market, Red Door Cafe and others will be serving organic foods and foods produced by environmentally friendly processes. Groups represented at the festival include the American Council for an Energy Efficient Economy, the U.S. Fish and Wildlife Service, the Pure Food Campaign and the Hemp Shak from Claremont.

**Monday, April 21st:**  
Winnett Lounge, 21-1.

**Environmental Lifestyles** - Ed Begley, Jr., well-known film and television star and spokesperson for the Eco-Home network, will speak about his philosophy and lifestyle and how they can co-exist with a place like Los Angeles.

**Thursday, April 24th:**  
Winnett Lounge, 12-1.  
**"Endangered Species Conservation in SoCal"** - Shawn Granberry of the US Fish and Wildlife Service will talk about opportunities in the Service and their conservation plans for the recently listed en-



Djo-Gbe will be performing on Winnett lawn on Tuesday, April 22.

PHOTO COURTESY CCF

**May Day  
Desserts with the  
MOSH**

**at Steele House  
355 S. Holliston**

**Thursday, May 1, 1997  
9 to 11 p.m.**

**come early!**

## The Outside World

by Myfanwy Callahan

**HONG KONG -**

Hong Kong journalists fear the loss of press freedom as Chinese journalists arrive, preparing for the final political turnover in July. Feng Xiliang, editor of China's China Daily arrived in Hong Kong this week to act as a senior editor on Hong Kong's South China Morning Post.

ing charges of corruption against Prime Minister Benjamin Netanyahu. It is alleged that Netanyahu appointed an Attorney General under pressure from one who would in return secure a plea bargain in a corruption trial.

**PRETORIA, SOUTH AFRICA -**

Nine giraffes died in a truck accident on their way to a quarantine station prior to export to China. A passing taxi caused the driver to swerve and lose control, leaving only the driver and one giraffe to survive.

**WASHINGTON, D.C. -**

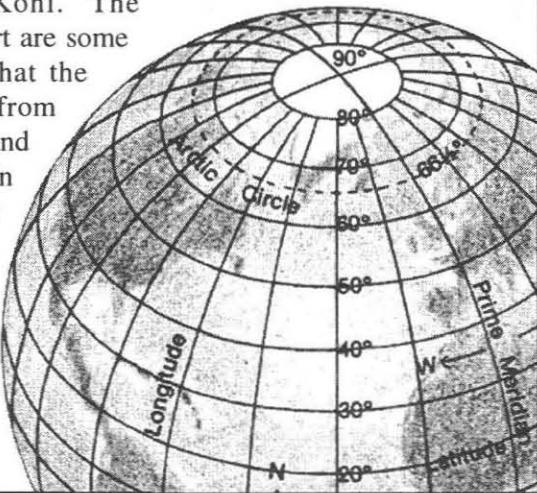
The U.S. has agreed to provide \$15 million worth of corn to North Korea to help avert famine. It is hoped that \$200 million in food aid will reach Korea soon from countries around the world.

**MOSCOW, RUSSIA -**

Boris Yeltsin brought many pieces of art which had been confiscated from the Nazis to Germany for talks with Chancellor Helmut Kohl. The documents and art are some of the plunder that the Nazis collected from all over Europe, and which ended up in Russia after WWII.

**JERUSALEM, ISRAEL -**

Police officers have recommended bring-



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\*\*\*

To check out the announcements of opportunity, either visit our web site at <http://www.cco.caltech.edu/~tide/> or stop by the TIDE Office.

**tide**

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# n o w hear this.

BY RON DOLLETT

## *Eclectica.*

Okay, this week it's a little eclectic. Okay, really eclectic. There's the London Symphony Orchestra, Squirrel Nut Zippers, Violet Burning, and a little Ashley McIsaac for good measure. Classical translations, swingin' big band, Irish, and that 90's catchword alternative: there's a little something for everybody (or it might turn out to be nothing for anybody).

Fortress

*First off: Fortress.*  
In this album, the London Symphony Orchestra performs the music of Sting. This CD is phenomenal, even if you're not a big Sting fan. It covers music from his days with The Police (particularly exceptional renditions include "Synchronicity" and, of course, "Every Breath You Take") as well as his solo career. Unfortunately, it doesn't include *Ten Summoner's Tales* or *Mercury Falling*, but other solo highlights included

phony Orchestra, Darryl Way, said, "My aim had been to take the material contained within the songs and paint a symphonic picture of the thoughts and emotions expressed within them." Even Sting's politically minded songs (i.e. "They Dance Alone" and "Russians") lose none of their potency in the classical translation, despite their reliance on lyrics for their complete message. Also works great as background music as you're

**ar  
n i s .**

DOLLETE

on this CD are "Why Should I Cry For You" and "King of Pain" and many more.

The string and brass sections capture the essence of Sting's music beautifully and transform them from their pop format into classical. The conductor of the London Sym-

*My aim had been to take the material contained within the songs and int a symphonic picture of the thoughts and emotions expressed within them."*

phony Orchestra, Darryl Way, said, "My aim had been to take the material contained within the songs and paint a symphonic picture of the thoughts and emotions expressed within them." Even Sting's politically minded songs (i.e. "They Dance Alone" and "Russians") lose none of their potency in the classical translation, despite their reliance on lyrics for their complete message. Also works great as background music as you're

**Squirrel Nut Zippers**

Next on tap are the Squirrel Nut Zippers from Chapel Hill, North Carolina. Their album *Hot* is an amazing retro experience that swings with a 1920s and 30's sort of jazz groove. They've got a very impressive sound instrumentally, with Jim Mathus on trombone, Ken Mosher and Tom Maxwell on sax, and Je Widenhouse on trumpet. In addition, they boast Katherine Whalen, one of the group's founding members, whose high yet sultry voice accentuates an already hip sound. Round things out with Don Raleigh and Chris Philips in the rhythm section, and the result is a swing and jazz jambalaya sandwich.

Mm . . . sounds tasty.

Well, almost. Yes, there are really cool songs on the album like "Get My Own Thing Now" and the call-and-response musings on "Put A Little Love On It," but unless you're really into the big band sound, the CD would probably get annoying. If you're the unfortunate roommate of someone

who happens to listen to a CD just for the trumpets, though, you're probably proverbially screwed. *Hot* is hip, but it requires a certain taste. Some songs like the calypso jam "Hell" are instantly accessible (it's received a lot of airplay from KROQ), but the sound does get repetitive. You can visualize this album, though, if you're into listening to samm groove trumpets and trombones, but its simplicity, it doesn't have

working in your room.

## Squirrel Nut Zippers

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much else to offer. So there are noteworthy songs on this enhanced CD (it comes with more music and videos if viewed through a CD-ROM), but it isn't entirely digestible. So much for jambalaya. **TTT**

## **Violet Burning**

Violet Burning, on their self-titled album, don't really sound like anything new and different. With any luck, one

*Hot is hip, but it requires a certain aste. Some songs like the calypso jam “Hell” are instantly accessible, but the sound does get repetitive.*

could compare to a mellow version of Faith No More, but nothing really differentiates them from an already saturated music scene. You know my viewpoint on this: something else please. Oh, well, I suppose I'll give them a shot.

The lead song off the album sounds like Nine Inch Nails with a lot of guitars. It ain't that great and probably shouldn't have been the lead track, but then again I didn't produce the album. The other songs are semi-respectable. "Blind" sounds very haunting, while "Arabic Tremolo Radio" even has a hint of the Beatles thrown in vocal-wise. Really, though, nothing exceptional. ☺☺

## Ashley MacIsaac

Now, finally, imagine this mix: rock and fiddles. Well, it might not be truly original, but

the traditional Irish sounds of **Ashley MacIsaac** are highly infectious. His album (yes, his) *hi, how are you today?* mixes many genres from stepdance to ballad.

"MacDougall's Pride" really stands out in my mind, even though it's very separate from the rest of the album. MacIsaac's fiddle is accentuated by the string quartet Quartetto Gelato for a truly mesmerizing and nostalgic experience. "Spoonboy" (sorry, Soundgarden) also includes some spoonplaying accompaniment.

The entire album has a very rustic feel that's either very infectious or very annoying, depending on who decided to put this in the CD player. Songs like "Sleepy Maggie" and "Sophia Pipes" can cross

“Sepia Pipes” can cross over that modern barrier and has received airplay on local radio stations, proving that Gaelic vocals (care of Mary Jane Lamond) and bagpipes are mainstream material, especially when fused with hard-edged guitars like on the track, “Hills of Glenorchy.” Honestly, though, the “barnyard” sound of “Spoonboy” and “The Devil In The Kitchen” are essential to the wholeness of the album, but disrupt the flow of the CD. Those two aside, though, *hi* is an awesome romp through tradition and tempo. The characteristic quick notes are recognizable even on the piano as MacIsaac plays on the electrifying song “Wing-Stock.” This CD is the bomb.

after ten years which she does not remember, to find her village destroyed and everyone dead. When the book begins she has left to find her brother, whom she believes to still be alive. Most of the action takes place in a city called Tai-Tastigon, where she is waylaid on her trip. The rest of the plot is too complicated to detail here, suffice it to say that a lot of things happen and many of them involve fighting. The title refers to the fact that

*God Stalk*  
by P.C. Hodgell

I was surprised at how engaging I found this book, since science fiction isn't really my "thing". It's confusing at first, and a bit difficult to get into, but once it has caught your attention it holds it very well. Stylistically I admit that it is a little lacking. Hodgell uses a few too many adjectives and the action can get so confusing that I was only able to piece together what happened by reading on. It is not great literature, but then I don't think that it was meant to be. The story is about a young woman named Jane who returns home

*The Three Coffins*  
by John Dickson Carr  
?

My apologies to Mark Tilford, who lent me this book to be reviewed. I wrote a review for it last week but the disk has since been eaten by my desk. I liked the book

# Dean's Corner

*it all or not, that is the question*

by Jean-Paul Revel

way we all are. We are busy doing our thing, be it doing homework or organizing the people who write the homework etc . . . our thing. So, being so much in the dark about so many things, I am always surprised to discover from outside sources what is happening on campus.

An example is the business of the bet that John Preskill and Kip Thorne had with Steve Hawking. I guess because this was in the form of a bet it caught the attention of the national press. I understand that there is now a second bet, Hawking having lost the first.

The antics of these dignified scientists! Are they not supposed to be serious people? You know,

somber, mirthless, discussing incomprehensible things, while mumbling facing the blackboard . . . or at least with a white coat, perhaps a spotted rumpled coat, a disheveled mien and a foreign accent. But here we have pretty ordinary people (sorry, but even though you are great, you are, well, people), even Hawking himself who is extraordinary in his ability to remain in touch and human in spite of his most difficult circumstances.

So why did I have to read the *Los Angeles Times* and *Science* magazine to find out about this fun, unexpected way of dealing with problems? Why is it that I had to read about the work from J. Seinfeld's group in last week's *Science* magazine? Or to find out that Fred Shair at one point measured how smog

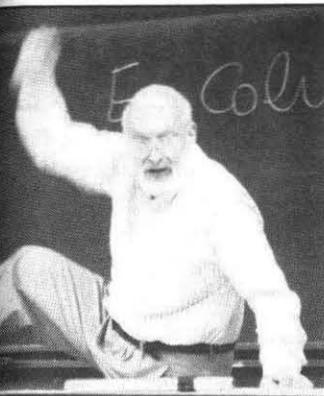
flows through the valley by detecting patterns of dispersion of SF<sub>6</sub> and that Tony Tombrello looked at radon in underground aquifers in the basin. Did any of you know that? (Actually I didn't either, but I just found out . . . and so I am one up, no?) Why is the Chronicle of Higher Education fascinated by Fraser (Scott) and few of the students here seem to have as yet discovered what he does or that his wife, Marianne has just taken up a position at Caltech? It is not that often that both wife and husband have professorial appointments in the same institution.

All of this disheveled set of thoughts is brought to mind by a discussion I just had with members of the Tech Editorial board. It was pleasure to have a chance to talk to them in a group, but I came out rather puzzled by the fact that there is potentially so much to report which would be of interest to us as a community and so little that is being done about it. If more students were occasionally to contribute

to the *Tech* and if Pros were to write once in a while, the editors of the paper would have such a plethora of material! They could behave as real editors then with a big pair of scissors . . . Ah, but it is never going to happen, people just don't have the time and interest to do something positive. So much time is occupied by complaining about what might be, that there is no time for anything else.

Here we are assembled on our kapuka, a small hummock of territory surrounded by a sea of destructive lava (believe it or not, kapukas were recently discussed at a Faculty Board Meeting, because . . . well, never mind). In Hawaii that is the setting for the making of new species of fruit flies, which become separated from each other after a fateful volcanic eruption and lava flows, when they had been part originally of the same population. They are of great interest to Biologists because they are a natural setting for experiments

SEE DEAN ON PAGE 8



So what is new? Do you know what happened last week?

I am always amazed at how little I know about what is happening in the world or at home. To have a view about the world I listen to the BBC to find out that there is trouble in New Guinea or the Reunion or wherever. Myfanwy makes a valiant effort to bring us all up to date about the world, I know. But if I find it hard to follow what's happening in the world, it seems even harder to discover what's happening at Caltech.

Besides blaming the *Tech* for that, I must admit that it may have to do with me personally, as well as something with the

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NOT VALID WITH OTHER OFFERS. COUPON EXPIRES MAY 15, 1997.

A very special page for those among us for the first time...

## Through the P.R. looking glass

BY RON DOLETTE

Hey Prefrosh! How're you doing? I bet you're already sick of everybody asking you the same old questions. If you're like a lot of other good seniors (or juniors — you're not the only prodigy now), then you're probably visiting a lot of other schools. The same old shit like "Where're you from?" and "What's your major?" is probably being regurgitated in your general direction. Well I'm going to give you one piece of advice — fookahlthatshyte.

I'm here to give you the single best reason to come to Caltech versus Some Hippy Institute of Technology. Look around yourself, and you'll see the rest of the world. You'll see people from all sorts of places, backgrounds, you'll see walking unwritten autobiographies, food and drink carried by a breathing vessel of angst, and hope, and creativity. Math and Chem majors and all the Bi's in between (you know what I mean. They're all fine orientations.) are what make this school. It's an institute of diversity where the small size means that you won't be lost in the shuffle. You don't have to be one of the sheep. Look around yourself again. There's a certain amount of glitz and glamour that surrounds this special weekend of weekends. Try and look through the magic shows and frisbee games. There's something seriously dynamic about this place, and you know what?

I'd like to see it filled with a bunch of dynamic people who can stand up and give a damn. I love Tech and I

wouldn't trade this experience for anything in life, even those strawberry donuts from Donut Man. I mean, think abou this for a second— do you want to spend the next 4 years living life like a bar code? To be honest, that's what it's like at UCLA.

So here's my advice (I'm glad you've learned to swim through all the ranting propaganda. That's an important skill to learn. Even more important than quantum mechanics.). You've got to learn the power of the individual. And most importantly, learn the importance of *your* individual. Don't think this is a nice feel good self help type paragraph. Fuck you, this a kick in the ass. I don't give a flying fuck what you do with your talent. After all, you can only be what you allow yourself to become. But there are more important questions in life than, "Where are you from?"



"Oh, but it does look scary in there!"

## Four comet chasers gather to dazzle the public

BY JOSEPH TRELA

Beckman Auditorium was packed to the gunwales. Ramo Auditorium groaned under the weight of more people than you'd find in a dozen Hum lectures. Even Shaft, the private dick who's down with *allll* the groovy chicks, had to vacate Baxter Hall along with the rest of the ASCIT Movie crew in deference to the four astronomers of note who were soon to arrive.

With Comet Hale-Bopp still emblazoned on the western sky, and Hyakutake and Shoemaker-Levy 9 fresh in the public memory, public curiosity about these tenuous visitors from the outer solar system has been at an all-time high. So it seemed likely that "Comet Chasers Night", a free ticketed event sponsored by the Jet Propulsion Laboratory and Caltech Public Relations, would summon a decent crowd to Beckman Auditorium last Friday. In addition, two of the guests of honor would be Alan Hale and Thomas Bopp themselves, the co-discoverers of the "Comet of the Decade" (that is still visible in the northwest sky after dusk) and definite draws to the public. But in fact,

the crowd soared past "decent", through "respectable" and "big", and out into the ethereal realms of "quite large indeed" - so large that many latecomers could not be seated in Beckman and had to watch the showcase discussion on closed-circuit TV at Ramo and Baxter.

Although the unofficial focus of the event was on Comet Hale-Bopp, JPL took the opportunity to promote two of its upcoming missions at kiosks that flanked the entrance to Beckman. The booth to the left of the doors described STARDUST, a Discovery-class mission that will be launched from a Delta rocket in 1999. Using aerogel technology (a silica-based solid only a few times denser than air), the spacecraft will loop around the sun twice (collecting interstellar dust particles as it goes), come as close as 150 kilometers to the nucleus of Comet Wild-2 in 2004 to take dust samples, and return those samples to Earth in 2006. The second booth described the Galileo Europa Mission, a proposed two-year extension to the Jupiter orbiter's nominal mission which will end in November. It would concentrate on surveying Europa

(which may have an ocean of liquid water under its icy surface that could harbor life) to help plan future missions to the smallest of the Galilean moons. Then, it would devote itself to exploring the dangerous environs of the volcanic moon Io until its fuel supply ran out or its circuitry was fried by Jupiter's devastating radiation belts.

Before the official 9:00 PM start of the panel discussion, members of a JPL amateur astronomy club set up several large telescopes west of the Beckman Institute to allow guests to view the comet - as it turned out, the line of burgeoning stargazers soon stretched to the fringes of Moore Laboratory. Also, both Dr. Hale and Mr. Bopp graciously endured the cool weather to autograph hats, photographs, shirts and other comet paraphernalia, much of which had just been purchased at a convenient nearby concessionary stand.

After everyone was finally seated, Comet Chasers Night began with some remarks on upcoming cometary missions by Dr. Ed Stone, the director of JPL, and a presentation on historical comets and humanity's

## Prefrosh Schedule

Friday, April 18th

8:30-9:30am	Breakfast with Professors
9:45-11am	General Session
11am-5pm	Attend Classes
	Meet with Faculty
11:30am-1pm	Lunch
1-3pm	Athletics Open House
2-3pm	Research at Caltech/SURF
3-4:30pm	Club Fair and Ice Cream
4-7pm	International Day

*Bring your International Day Visa*

5:30pm	Dinner-Rotate Houses
7-9pm	Performing Arts at Caltech
8pm	Magician at Page House
9pm	Ska Concert

Capture the Flag and BBQ  
Techno Extreme Driven  
Foursquare at Ricketts

Chandler Dining Hall  
Baxter Lecture Hall  
see Class Schedule  
see Professor Info.  
Student Houses  
Braun Athletic Center, 2nd floor  
102 Steele Lab.  
Outside Winne  
Olive Walk

Student Houses  
Dabney Hall  
Page House  
Dabney House  
Lloyd House  
Ricketts House

Saturday, April 19

8:30-9:30am	Breakfast
9am-2pm	Financial Aid Office Open
10am-12noon	Campus Laboratory Tours
	or Jet Propulsion Laboratory (JPL) Tour

*Board the bus at 10am sharp at the corner of San Pasqual and Holliston. the bus will return to campus by 12 noon*

Winnett Student Center  
Dabney House  
Parsons-Gates  
Steele House

11am-4pm	Bookstore Open
Noon-sunset	Tie-Dye Party
Noon-1pm	Picnic Lunch
2-3pm	Women in Science/Women at Caltech
4-5pm	Diversity at Caltech
5:30-7pm	All-campus BBQ
7-8pm	Diamond Smuggling and Music
7:30pm	Free Movies and Popcorn
8-10pm	Ruddock Greens
10pm-???	ASCIT Party
11:45 pm	Blacker Midnight Ultimate

*Meet in Blacker lounge at 11:45pm*

Sunday, April 20th

Morning	Depart for Home! <i>Be sure to check the LAX bus schedule!!</i> Hot Chocolate will be served.
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Olive Walk

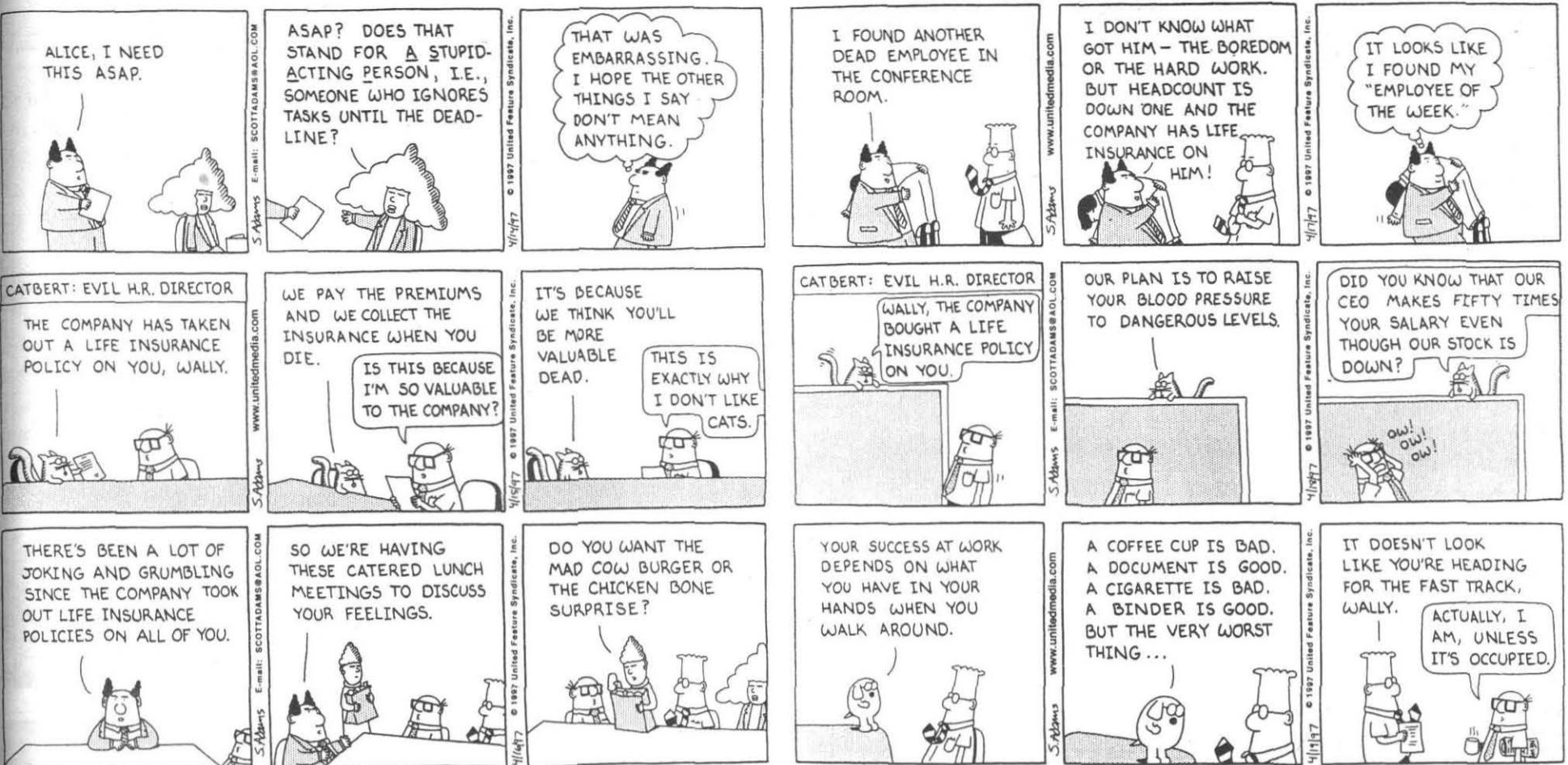
view concluded, the showpiece panel discussion began. It was moderated by David Levy, co-discoverer of Comet Shoemaker-Levy 9 that crashed into Jupiter in 1994, and currently tied for third place on the all-time discovery list with at least partial credit for 21 comets and a asteroid. The panel members were Hale, Bopp and Dr. Don Yeomans, a specialist in orbital calculations who over his career has predicted Comet Halley's point of first visibility in 1982, the positions of asteroids Gaspra and Ida for Galileo's flybys, and the impact points of S-L 9 on Jupiter's surface. The panel members answered questions taken from Dr. Levy, the audience and some that had been collected from the Internet earlier.

Dr. Levy started things off by described comet-watching as "the world's slowest sport". He then asked both Hale and Bopp about how they discovered their comets. Both men had taken advantage of a rare break in the southwestern summer "monsoon season" to observe, neither one was actively comet-hunting at the time, and both spotted the comet near the globular cluster

After the historical over-

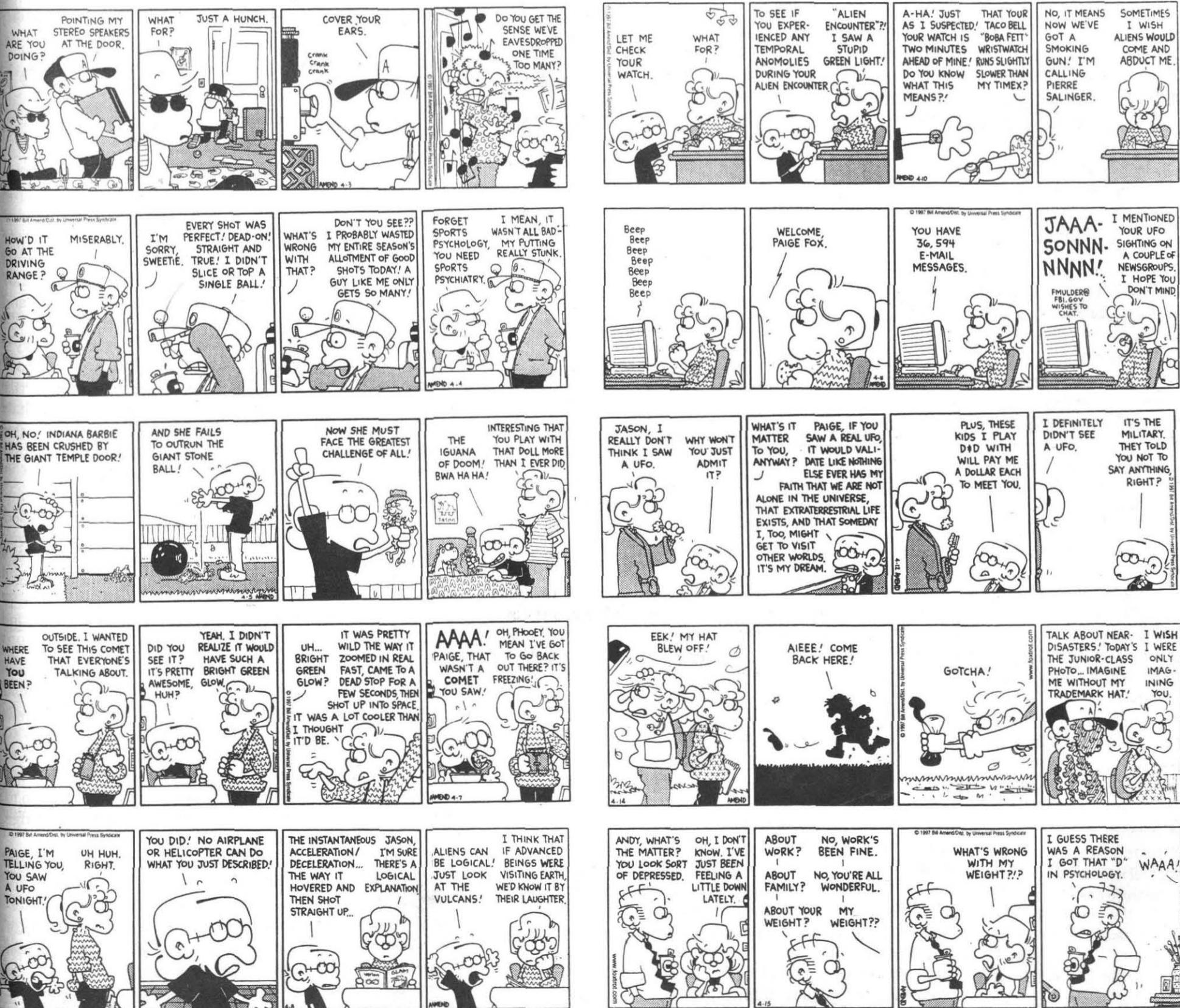
SEE COMET CHASERS ON PAGE 8

## DILBERT ® by Scott Adams



## FOXTROT

by Bill Amend



# Life after Tech: you don't have to be a scientist

BY ERIK STREED

Caltech is a small, highly focused institute of technology. Most of the people who graduate from Caltech go into science or engineering related careers in industry or academia. It is more than a little unusual for a Caltech graduate to go on to become a successful opera singer. That's why we at *The California Tech* thought that it would be interesting to talk with Dean Elzinga (Caltech '89), about how he went from a being a Tech math major to a globe-trotting opera singer. Dean Elzinga joined Thomas Oberjet (Caltech '63), Debbie Cree Smith and the Men's Glee Club for their production of the opera-oratorio *Oedipus Rex* by Igor Stravinsky.

Dean was drawn to

## DEAN: Where is the news?

CONTINUED FROM PAGE 5

in how new species arise.

On our Caltech kapuka, a group of high powered Profs and students, presumably all scientists or scientists-in-the-making (in my mind, people who are interested in finding out about their and other worlds and how they tick) are assembled, and even though we are a small green island (Dabney et. al. gardens) in a sea of lava (asphalt on Wilson, Hill, California and Del Mar) we don't even know what is really happening in our little community.

For example: did you know that Ditch Day is Tomorrow? (That's what they told me when I asked, but could it possibly be on a Saturday, over prefrosh weekend?)

Did you know about the role of Caltech in the development of the New Biology? (Read Judson Freeman's *The Eighth Day of Creation*, a terrific factual yarn.)

Did you know that . . . Of course you know that, but you are the only one who does.

How about telling the rest of us?

A bientôt, I'll have something to tell you about next week, I feel it in my fingers, itching to be expressed . . .

*Revel*

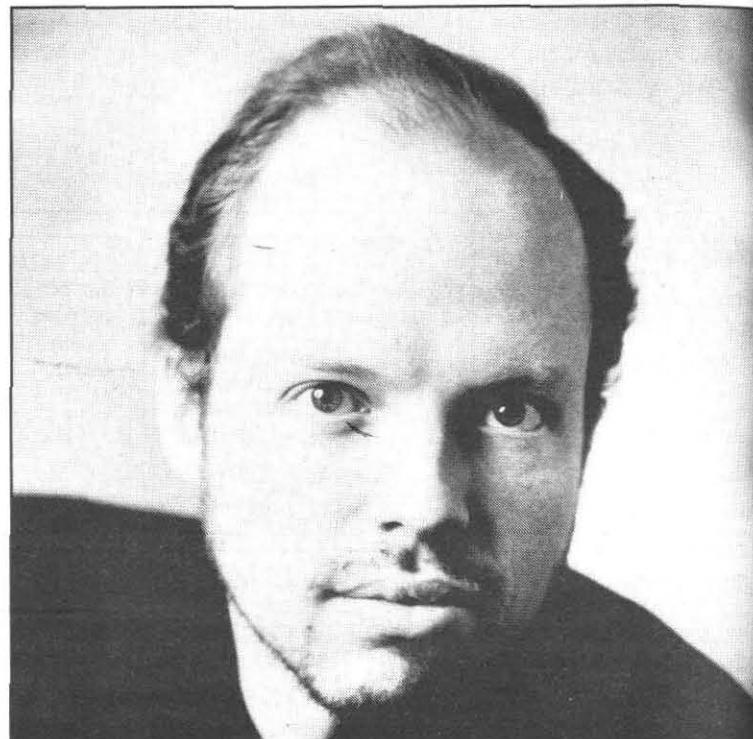
Caltech though his interests in physics, math and astronomy and enrolled at the age of 17. Advanced placement out of several freshman classes along

more carefully. Still active in student life, he continued doing vocal performance, mainly with the Chamber Singers. He was also a member-at-large of the Board of Control, where he felt he acted as a "moderating influence" in their proceedings. Dean won the Paul Studenski travel award and used it to go to Germany to talk with people there about music. As a math major during his senior year, Dean Elzinga knew that he had some talent and a lot of interest

in music. After making it to the finalist stage, he was denied a Watson fellowship.

Elzinga graduated from Caltech in 1989 and went to graduate school in math at UCLA specializing in mathematical logic, which he had first studied here at Caltech. While at UCLA he became involved in the opera workshop. In his fourth year at UCLA he began attending the USC opera workshop. When he had completed his fourth year of graduate school at UCLA he dropped out and took a day job as a technical writer for Inference Corp. to allow him greater flexibility and more time for music. After another year at the USC opera workshop, in the summer of '94, he became an apprentice at the Glimmerglass Opera in Cooperstown, NY. On elec-

tion day in the fall of 1994, Dean returned from his leave of absence at Inference Corp. only to be laid off. However, at this time he was getting many full time singing offers, so he set out for New York with the money he had saved.



Dean Elzinga

PHOTO COURTESY PUBLIC RELATIONS

tion day in the fall of 1994, Dean returned from his leave of absence at Inference Corp. only to be laid off. However, at this time he was getting many full time singing offers, so he set out for New York with the money he had saved.

In New York Dean auditioned for several agents and finally obtained one. His agent got him an audition at

the famed New York Metropolitan Opera and afterwards he was hired. During this last season Dean sung primarily supporting roles at the Met. From his exposure at the Met., Dean got his first international offer and his first lead role. Dean Elzinga took the job and has sung most of this current season with the prestigious Vienna Volksoper in Austria.

## COMET CHASERS: Hale and Bopp

CONTINUED FROM PAGE 6

M70 in Sagittarius. However, Mr. Bopp was unfamiliar with the procedure for reporting a new comet, and he had to make several attempts via AT&T and Western Union to call the Harvard Smithsonian Astrophysical Observatory to get a confirmation. In addition, he made the unexpected admission that he does not actually own a telescope and was looking through a friend's at the time.

Dr. Yeomans was then asked about reports that Hale-Bopp had "shifted" to a new orbit and the warning time available if a comet was on a collision course with Earth. He explained that these "shifts" were actually refinements made to a calculated orbit due to new observational data. He also complained semi-seriously that he had received hate-mail from people who believed he was part of a scientific conspiracy to hide "the truth" about Hale-Bopp - a "truth", he added, that is readily visible to anyone with a telescope and a clear sky. On a more serious note, he added that while long-period comets were much less likely to hit Earth than members of the various near-earth asteroid groups, if Hale-Bopp was in fact on a collision course there would have been only 3 months'

The Comet Chasers Night proved to be a great success for JPL, Caltech and all those interested in the popularization of science. It seems that we should all keep praying for comets, so long as they don't get too close to our little blue planet.

## The conservatives are coming!

BY PETER PLAVCHAN  
AND NEIL STEVENS

The Republicans have arrived! On April 10, the Caltech College Republicans assembled for their inaugural meeting. Led by founders Dan Velez and Tak Cheung, Chairman and Vice-Chairman respectively, the CCR ratified its constitution, elected officers, and charted its course for the future.

Its ambitions are diverse, including non-partisan as well as Republican activities. In addition to the obligatory grass-roots campaigning and voter registration drives, the CCR plans to help the city at large by participating in the Habitat for Humanity. The CCR will sponsor political talks given by community leaders. The club also plans to have fun, with a trip to the Richard M.

Nixon library planned for this term, and future visits to the Reagan library and Dodger games in the works.

Said CCR treasurer William Sharp on the new club, "With the lack of political awareness so prevalent here at Caltech, this club will serve a necessary role in spreading ideas and encouraging thought on the issues that face us today, whether or not people are actually inclined to vote Republican."

For more information about the Caltech College Republicans, send email to Dan Velez via [danvelez@cco.caltech.edu](mailto:danvelez@cco.caltech.edu). The club is open to the entire Caltech community and you need not be a registered Republican to join. Look for flyers posted around campus for meeting dates, times, and locations.

# A.S.C.I.T.

## Minutes

APRIL 14, 1997

Meeting opened 10:37 p.m.  
BoD members present:  
Kohl Gill, Maria Satterwhite,  
Adrienne Bourque, John Lin,  
Kiran Shekar, Baldeep Sadhal.  
Guests present: Wes Salzillo,  
Mic Westcoat.

Wes Salzillo says that CCF will have its usual ice cream social this Friday, and requests \$150 funds for this special event. He is also requesting \$75 for a Y and CCF square dance.

Mike Westover enters. Baldeep Sadhal reports that the budget is nearing completion and will be mailed after the meeting.

Kiran reports the news regarding the van situation, clearing up all misconceptions and ex-

plaining the current situation, will be released soon. An article will be written in the *Tech* to explain the new van situation in the coming weeks.

Terry Moran and Heidi Eldenburg enter.

Terry reports that the *Tech* team is underpaid for the quality of the work being produced. He recommends that payment be done by flat (a four-page sheet). He is requesting \$150 per flat. He feels that this pay-

ment per flat will encourage a larger *Tech*. He also proposes that some sort of a rate-limiting scheme be instituted. Heidi agrees that editors are underpaid and that the *Tech* can afford the changes. Maria requests that Terry present a written compensation schedule at the next meeting.

John Lin, in a fit of coughing, leaves the ASCIT office.

Interviews for the Tech Business Manager will be held at the next BoD meeting.

Andrew Strauss enters.

A redesigning of the *Tech* and *Big T* offices will occur, with partitioning of individual tasks into different rooms. Space will be available for permanent archives. Kiran Shekar leaves the building.

Adrienne has met with the

ASCIT social team and representatives of house social teams about the Prefrosh Party. A DJ has been hired. The theme for the party will be "spring." Adrienne also proposes that part of her budget be used to purchase serving dishes.

Mike reports that there was an ARC meeting last Tuesday.

Baldeep reports that he changed the date on the ASCIT webpage.

Maria reports that third term BoC Talks are coming up. Your friendly local BoC Rep will contact you.

Kohl reports that it has been requested that ASCIT make a showing at the Prefrosh Club Fair. Maria says she won't be able to make it because she has to talk to "fat,

rich alumni." Student Affairs has offered to purchase a new monitor, and the consensus of the BoD is that the monitor ought to be purchased. The Faculty Board has proposed that the list of colleges participating in the 3/2 program be expanded to include historically black colleges and universities and historically female colleges and universities.

Mic Westcoat leaves.

John Lin enters.

Meeting closed at 11:40 p.m.

Meeting opened at 11:46 p.m.

The Board approved \$75 for the CCF Ice Cream Social, and \$75 for Y-CCF Square Dance Party.

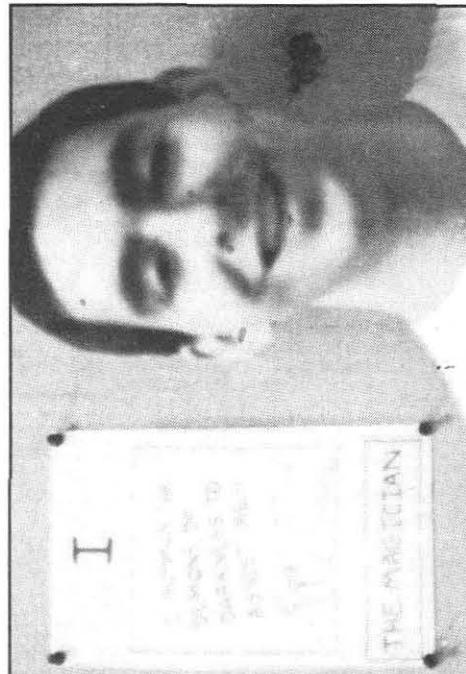
Meeting adjourned at 11:47 p.m.

# ✓ ASCIT Election 1997 ✓

## ASCIT SECRETARY

Mic

Westcoat



the web page, to hoard all of the official documents, etc.

In short, I want to be the best ASCIT Secretary possible. Period. I've been lurking around in the ASCIT background (as the intrepid Election Chair™) for a year now, and I'm ready for the big time: a seat on the BoD and power over all living things. =)

I'll even be a Secretary whose door is (almost) always open. Although that's not quite as nice as a Treasurer whose drawer is always open, well, drawer, door, what's the difference? But anyway, I want to hear your voices too. After all, they don't give the Secretary a BoD vote for nothing.

Finally, just to be sure, I've summoned the demons of darkness to assist me. =)

Mike

Astle



There is a reason that Optimus Prime is the leader of the Autobots. Sure, he had the matrix of leadership and all that jazz, but the matter goes much deeper than that. Some of the Autobots may have been powerful vehicles of whatever design. Sure race cars, fire trucks, and even dinosaurs can be fearsome in their own right but none of them matches the awesome mechanical power of a Mack truck. Optimus Prime is that truck. Step in his way and he'll knock you aside with 18 wheels of pure 100% FDA approved butt-kicking brawn. Mess with the man and you're opening up a whole trailer full of whoop-ass. Optimus Prime takes no crap off of anybody. Any goon, hoser, or evil-doer that steps up is getting the ganking of what is to become an extremely short lifetime. I want to be the Optimus Prime of ASCIT secretaries. I want to translate the raw destructive power of the greatest of all Transformers™ into an unstoppable secretarial juggernaut. I will attack the duties of secretary with the same vigor that Optimus does when tearing into evil Decepticon slime. I will take minutes, file papers, organize meetings, and gather information with the power and precision of the mightiest cartoon hero of all time. If I have to destroy campus buildings with my fists, crush recalcitrant students under my deadly wheels, or neutralize administrators with a laser blast to the skull, so be it. Just as Optimus maims and kills in the name of good, I will do so in the name of ASCIT.

It is true that I'm not actually a giant transforming robot wielding a plasma

rifle, but I won't exactly be fighting powerful Decepticons here either. The ASCIT minutes are significantly less fearsome than Megatron or any of his evil minions (even Starscream). Face-melting energy weapons and paper cuts don't really equate. That doesn't mean that I'll back down from the level of performance you would expect from Optimus Prime. If I have to staple two things together, I won't use just one staple in a nonchalant manner. I'll use no fewer than three staples on those pages, burning my last energon cube to bind them together for eternity while yelling heroic encouragement to my comrades. That stapler will be lucky to survive my onslaught. I know where the ASCIT adding machine is, and I won't be afraid to use it. Telephones and computers will be my plasma rifles. The strength of Optimus Prime will allow me to smash any task just like a Mack truck into a Yugo.

That's the ASCIT secretary I want to be.

## Tennis beats wind, wins 6-3

BY AMANDA SCHAFER

Caltech's women's tennis team competes at the SCIAC tennis tournament this weekend at California Lutheran University. The team enters the tournament in fifth place, and is scheduled to open against fourth-ranked Occidental College Friday morning in the first round.

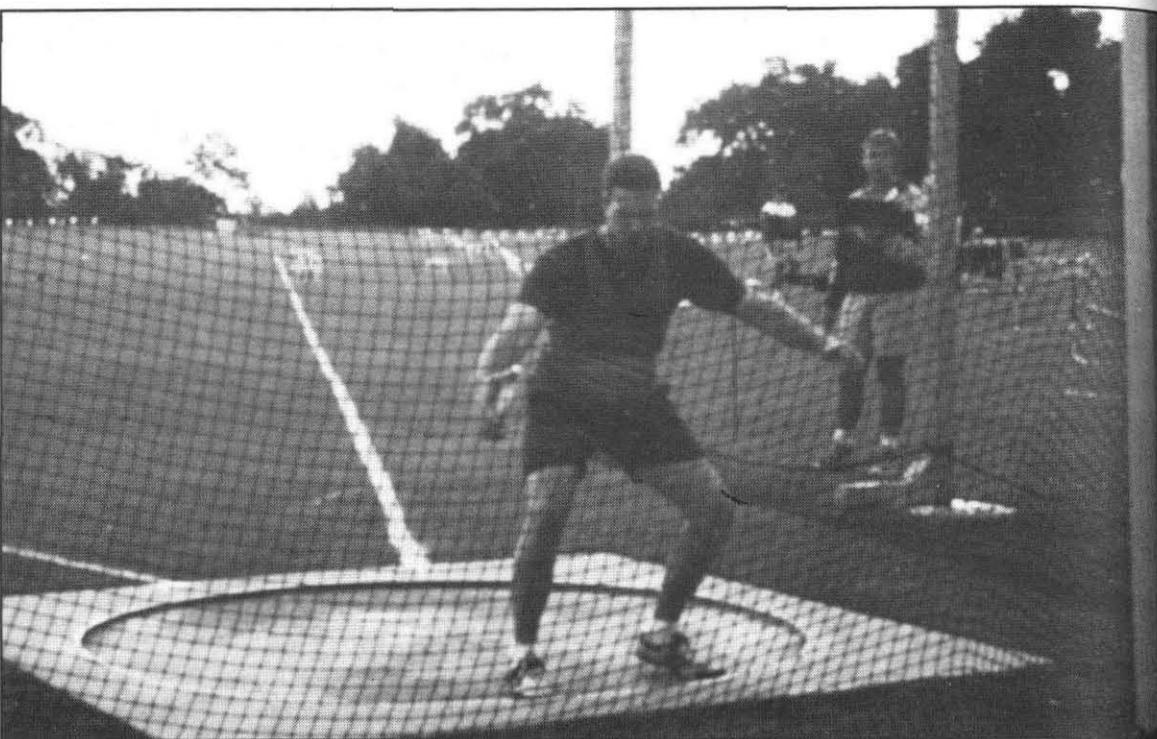
The team is confident that they can beat Occidental in the tournament, despite a disappointing 7-2 loss at the hands of the Tigers last Saturday. Alexis Johnson won her #1 singles match, and Johnson teamed with Amy Chang-Chien to win at #2 doubles, both in two sets. The Beavers also played some tough three-set matches, but were unable to get the wins needed for a team victory.

On April 9, however, the Techers showed just how tough they are, coming away from a match with Cal State Dominguez Hills with a 6-3 victory despite a strong wind that made serving and judging the ball's position very difficult.

They played a 3-6 format, coming away from the doubles matches with a 2-1 lead. At #1 doubles, Lena Petrovic and Natsuko Kagawa won 8-5. Irene Wong returned from an injury to play in her first match of the season, paired up with Amanda Schaffer to win 8-3 at #3 doubles. In singles play, Kagawa, at number two, won in three sets, 1-6, 6-0, 6-2. Amy Chang-Chien (#3) won 6-4, 6-1, and Audrey Lee (#4) won easily, 6-1, 6-0. Wong also played singles and came away with a 6-1, 5-7, 6-2 win.

After spring break, the Lady Techers eased back into the season with an alumni match on April 5. It was a day of fun doubles for everyone involved. Since only three of the alums could make it, Coach Nelson recruited some others to help even it out. The Alums that made it included Fiona Lo ('92), Jill Bush ('94), and Monica Silva Sharman ('95). They were joined by Denise Gabaldon, Kenny Ritchie, and Bryce Engelbrecht ('96); and a good time was had by all.

## Beavers make a run for it



Karl Thulin winds up for the discus.

BY CALTECH SPORTS DEPT

Cailin Henderson met a provisional qualifying mark for the NCAA in the 3,000 meters with a lifetime personal best at the Stanford Invitational March 22. Her time was 10:12"21, which was 20 seconds faster than her previous personal best. Dan Kleiman,

who also competed at the Stanford Invitational, ran his first 10,000 meters on a track and had an exciting race. He ran a 31:59, putting him at the top of the field.

On March 29, Caltech took seven athletes to the 1st Annual Reel Invitational at Claremont.

Coming off a great week at Stanford, Henderson and Kleiman concentrated on their speed work by competing in the 1,500 and 800. In the 1,500, Henderson finished second with a time of 4:49 and Kleiman finished third with a time of 4:09. In the 800, Henderson finished fourth in 2:30 and Kleiman came in second with a time of 2:02. Brian Barris and Troy Lee also competed in the 800 with times of 2:04 and 2:30, respectively. Lee also ran the 1,500, having a great race with a time of 5:17. Tim Yarnall competed in his first competition of the year in pole vault with a clearance of 10' even, just missing 10'6".

In the sprints, Kejian Wu had a great meet. He had personal bests in both the 100 and 200 with times of 11.88 and 24.16, respectively. In the throwing events, senior Karl Thulin put the shot with a mark of 40'7" and a season best of 122'6" in the discus.

The Beavers had 4 entries in the 1,500. Greg Detweiler was the first Tech to cross the finish line in a time of 4:43.70. Close behind him was Harmesh Lad (4:43.74). Bill Hiestand finished in 4:48 and Troy Lee ran it in 5:12. In the 5,000, Kleiman finished 1st in a time of 16:07, forty seconds before the 2nd place finisher. Lad also ran the 5,000 and crossed the finish line in 18:56. Brian Barris lead the

lead over the 2nd place finisher, Cailin came in first in the 1,500 with a time of 4:58.8. She finished the 800 in a time of 2:30.1 which put her in third place.

Caltech Men's Track fielded its first 4 x 100 relay team of the season.

Chris Kurtz lead the team off and handed off to Tim Yarnall. Yarnall handed off to Evan Reed, who passed the baton to Kejian Wu. Wu crossed the finish line in a time

of 46.65. Kurtz, Reed, and Wu also competed in the 100 and 200. In the 100, Kurtz had a personal best of 11.89. Wu and Reed ran an 11.98 and 12.3, respectively. In the throwing events, Karl Thulin threw the discus 113'9" and put the shot 39'10". In the Steeplechase, senior Chris Cary finished in 11:54.5.

The Beavers had 4 entries in the 1,500. Greg Detweiler was the first Tech to cross the finish line in a time of 4:43.70. Close behind him was Harmesh Lad (4:43.74). Bill Hiestand finished in 4:48 and Troy Lee ran it in 5:12. In the 5,000, Kleiman finished 1st in a time of 16:07, forty seconds before the 2nd place finisher. Lad also ran the 5,000 and crossed the finish line in 18:56. Brian Barris lead the

*In the 5,000  
meters,  
Kleiman  
finished 1st in  
a time of  
16:07, forty  
seconds*

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# The new mathematics core curriculum: a TA's perspective

BY MASON A. PORTER

Though Caltech's new mathematics core covers largely the same material as the old one, both the order and the amount of attention given to each subject has been revamped. Some subjects, such as elementary calculus of one variable, are being covered in less detail, while others, including probability and statistics, are being presented in greater depth.

As you probably know, this is the first year of Caltech's new core curriculum. The mathematics core was revamped perhaps more than that of any other department's. It was compressed from six to five terms, and many of the subjects in it were consolidated.

Previously, Math 1a covered basic calculus, Math 1b covered differential equations and complex numbers, Ma 1c covered sequences and series, Math 2a covered linear algebra, Math 2b covered vector calculus, and Math 2c covered probability (and whatever was left over from vector calculus that was not covered the previous term).

Math 1a covered calculus during the first five weeks, assuming a slightly more advanced mathematical background than the course did previously. The text for these five weeks consisted of notes (to be revised somewhat for next year) prepared by Dr. Barry Simon.

The second half of the term covered probability, and a consensus was reached that there was too much material crammed into those five weeks. The textbook was

**Probability** by Jim Pitman.

Students in Math 0.9 spent ten weeks on calculus first term, and will have to take probability in some other manner. This can be done through Math 1d (if one can bear my lecturing) or through a summer "course" similar to the old Math 2b. The more intrepid among the frosh can attempt one term of Math 112, AMa 153, or AMa/Ma 144 in order to fulfill that requirement.

The new Math 1b corresponds roughly to the old Math 1c, especially for freshman taking the analytical track. That track used *Tommy I*, while the practical track used *Calculus II* by Marsden and Weinstein, a book the math department is now attempting to replace. Most of us who tried to teach from it last term felt that it was too elementary to be a good textbook for Math 1b.

Math 1c contains some of the old Math 2a and some of the old Math 2b. The new Math 2a will finish off linear algebra and have five weeks of statistics.

Perhaps the biggest change in the new math core is in probability and statistics. Due in large part to requests from people outside the math department, probability has been transplanted from the last subject covered by the math core to one of the first. It is far from ideal to split courses as is being done with both Math 1a and Math 2a, but a better solution has not been found.

Math 2b is slated to cover ordinary differential equations, a situation that may prove problematic.

Students who did sufficiently well in Math 1 will be permitted to take Applied Math 95 as sophomores. The math and applied math departments are permitting students to choose this route because there no longer is any advanced placement into Math 1b available.

However, students who elect to take AMa 95b as sophomores without having studied differential equations may have problems. This course covers differential equations and methods of solving them, so having some familiarity with the material covered in the new Math 2b would be quite useful.

A report on the new core curriculum that was released last term included a statement that AMa 95 did not require any current sophomore mathematics courses as prerequisites. It seems to me, however, that Math 2b should be a prerequisite for AMa 95b. I am aware of discussions to change the order of the material presented in AMa 95 somewhat to be more congruous with the new core, but I do not know whether anything was done in that regard.

Now that these changes have been made, has Caltech's math core has been improved? I would guess that most people in the math department are not pleased that there is one fewer mathematics course in the core. However, reducing the math coverage by one term helps diversify the core without requiring more units from students who already have more than enough of a burden placed on their shoulders.

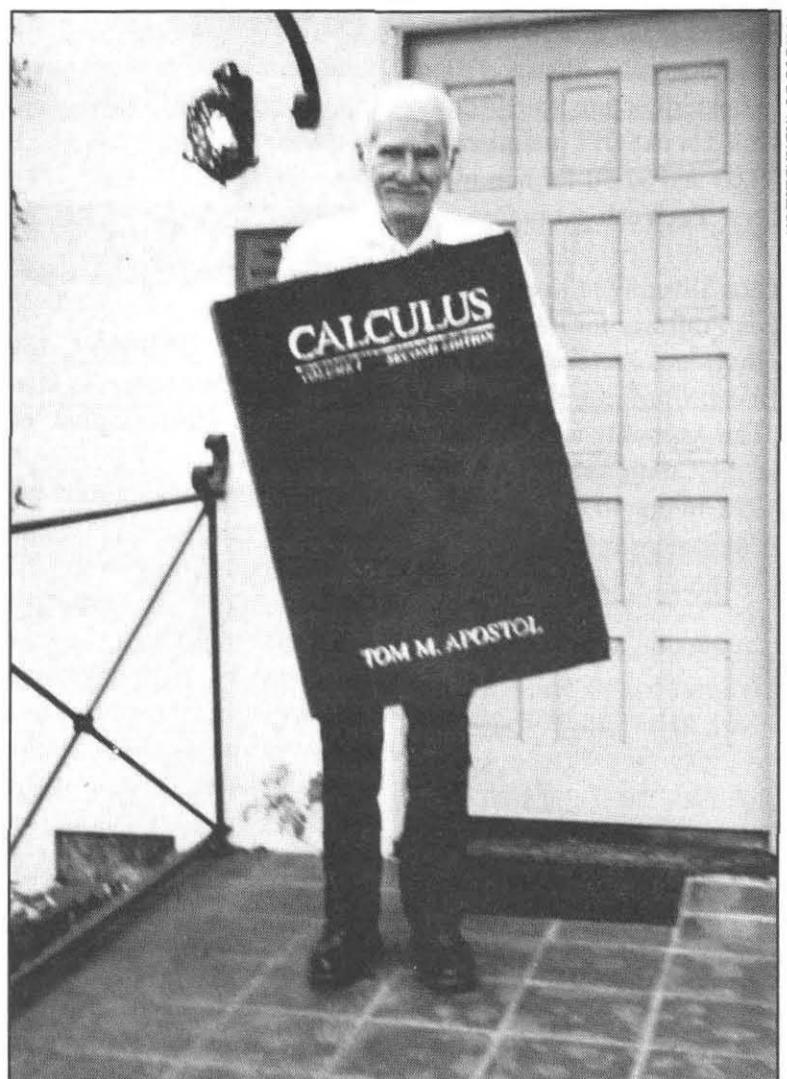


PHOTO BY VAL ANDERSON

*T* is for Tommy: Tom Apostol as his book, which is no longer standard in freshman math courses.

In other words, this change frees up units to be allocated elsewhere. Though some students may not appreciate having to take courses in a larger variety of subjects, it is probably better to expose them to sciences such as geology and astronomy.

I do hope, however, that some way is found to cover probability and statistics in one term so that one's courses do not completely switch gears in the middle of a term.



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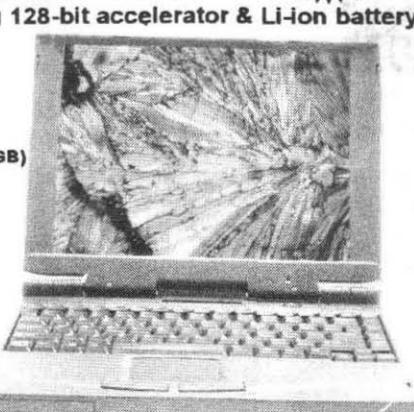
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**Events**

◆ This week's ASCIT Movie is *Raiders of the Lost Ark*. It will be showing at 7:30pm and 10pm in Baxter Lecture Hall. Admission for ASCIT members is \$2.00 and \$2.50 for non-members. **Prefrosh** get in free.

Leon Silver, W.M Keck Foundation Professor for Resource Geology, and Professor Emeritus Brian Wernicke will present "The Assembly and Evolution of the Continents" April 18th, 1997 in Ramo Auditorium at 4:00pm as part of the Astronomy/Geology 0.1 seminar series.

◆ The Watson Caltech Lecture "Geophysical Secrets Beneath Antarctic Waters" will be given in Beckman Auditorium, on April 23rd, at 8pm. The lecture will be given by Dr. Joann Stock, associate professor of geophysics. Admission is free. For more information call x4652.

◆ "Argentina: The Land of Passion," an Armchair Adventures travel film, will show in Beckman Auditorium. Travel lecturer Buddy Hatton will present the film at 8pm on April 25th. Admission is \$7.00 - \$9.00. For more information call x4652.

◆ Spring Term Guitar Classes, Tuesdays, starting April 8th. Beginning: 4:30-5:30pm; Intermediate: 3:00-4:00pm; 5:30-6:30pm. Classes held in SAC 1. Free for Caltech students (and staff if

time permits). For more information contact (213) 456-0881, or *ddening@cco*.

**Notices****New Course: SES/H/PL 169 Contemporary Issues in History and Philosophy of Chemistry.**

Philosophers have recently begun to take an interest in chemistry because in posing the question of the reduction of the sciences, one cannot ignore the question of whether chemistry reduces to physics. If reduction even fails at the first hurdle, then there would seem little hope of achieving a more ambitious reduction like that of biology to physics.

This course seeks to explore some recent issues in history and philosophy of chemistry, including the impact of discoveries made in atomic physics on chemistry. A survey will be made with reference to the history of modern chemistry, of questions such as whether chemistry is reduced to quantum mechanics, the role of atomic orbitals in chemistry, the history and theoretical status of the periodic table, the nature of explanations in chemistry and the debate regarding the relative virtue of prediction and accommodation by chemical theory. Instructor: Diana Barkan and Eric Scerri W 7pm to 10pm For

◆ denotes a new announcement.

further details contact Eric Scerri, x4030, or *scerri@hss*.

**Johns Hopkins University** will be running a summer program for 7th and 8th grade students at Caltech this year. There are several openings for TAs, RAs, instructors, and office help. JHU will pay for room and board for the duration of classes and pay a stipend as well. The program will run from June 23th to August 9th. If you are interested in applying for these jobs, please contact Keith Counsell as *keithc@cco*, at x3320, or in the Housing Annex between the hours of 8:00am and 5:00pm.

**From the Counseling Center**

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? 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.

If you have any questions about these programs or want to discuss your individual questions or concerns regarding coping with stress, please contact the Counseling Center at x8331.

**Fellowships and Scholarships**

**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 graduate 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.

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

**The John Gyles Education Fund** is offering financial assistance to students who are Canadian or U.S. Citizens. A minimum G.P.A. of 2.7 is re-

quired for eligibility. Criteria other than academic ability and financial need are considered in the selection process. Selected students will receive up to \$3,000. To receive an application, send a stamped, self-addressed, No. 10 envelope to: The John Gyles Education Fund, Attention: R. James Cougle, Administrator, P.O. Box 4808, 712 Riverside Drive, Fredericton, New Brunswick, Canada E3B 5G4. Filing dates for mailing applications in 1997 are **June 15**, and **November 15**, 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 Coalition of Higher Education Assistance Organizations (COHEAO)** is pleased to present an opportunity for students to apply for three \$1,000 scholarships and three \$200 runner-up awards. Applications and supporting documents are due **May 15th**, 1997.

The sign-ups for the **IHC appointed faculty student committees** are up! Sign up for your future position before you lose your chance at power and graft! Sign-ups come down on Thursday, April 17th, for the following committees:

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