

## Important IHC announcement

see page 3



The Grand and Glorious Return of

## DILBERT!!!

see page 6

# THE CALIFORNIA TECH

VOLUME C, NUMBER 3

PASADENA, CALIFORNIA

October 2, 1998

## Caltech student wins \$20,000 invention award

BY TECH STAFF

Caltech undergraduate Garun Gupta received a \$20,000 grant, the highest possible, from the National Collegiate Inventors and Innovators Alliance early this summer.

"They're very excited to work with Caltech," said Gupta. "The organization is fairly new. We were one of the first Caltech students to apply for this grant."

This is not the first grant for Gupta, a senior Engineering and Applied Science major from Page House, who also won the \$5,000 Grubb State Award earlier last year.

Gupta is joined by Phylopo Tum, a Mathematics and Computation major at UCLA, and Mahen Fernando, an Electrical Engineering major at UC Berkeley.

The three students have known each other since they attended the California Academy of Math and Science for high school.

As there is no title to their company as of yet, they refer to it as 'The Project.' The product they will create is a secret for now. "We're going to automate a previously unautomated industry," said Gupta.

Caltech owns a part of the small company. Additionally, the group is negotiating with another small company who may invest.

Gupta says he had the original idea several years before. The summer after his freshman year, he discussed the idea with Professor Slobodan Cuk. Cuk liked the idea and helped by providing resources. Cuk is currently a Technical Advisor on the project.

Last year, Gupta met Professor Kenneth Pickar, who is currently a Faculty and Technical Advisor on the project. Gupta says he has helped greatly, including aiding them in making connections.

"We're hoping to enter production by the end of 2000," said Gupta.

The grant was brought to the group's attention by Larry Gilbert, Director of the Office of Technology Transfer and a Financial Advisor for the project.

PLEASE SEE WINNER, PAGE 2

## ITS keeps the CITnet 2000 ball rolling

BY SHANNON STEWMAN

The familiar cry heard around the world for more bandwidth will at last be satisfied on Caltech's campus. The ITS CITnet 2000 project promises faster network connections for research, teaching, and non-academic pursuits.

Starting with the upgrade to the campus network's backbone in 1993, ITS has been moving from a twenty-year-old thicknet ethernet network to a modern, fiber-optic backbone with switched fast ethernet at the user end.

The project, scheduled for completion at the end of next year, should introduce switched 10Mb/s and 100Mb/s ports to all academic and administrative buildings on campus. The throughput increase to a large

number of buildings will be significant.

In addition to the network upgrade, ITS will be overhauling its IP address assignments, aiming for one class C subnet per building and limiting subnet expanse to within a building.

The current network is composed of older technology patchworked with temporary fiber-optic solutions and stop-gap measures taken by individual groups. Many buildings still use older, difficult to maintain technologies such as thin-wire ethernet and thick-ethernet backbones. Also, some groups unnecessarily claim more than one subnet, so the subnets are over allocated. Under the new network design, routing will be simplified to subnets segregated by building whenever possible.

Certainly, in such an ambi-

tious undertaking, the ultimate question is always "when." According to Mr. Watanabe the goal is to complete the project before January 2000. When asked about the status of the project, he replied "it's hard to say, but at this time I think we're pretty close to schedule."

Several buildings have already been retrofitted for the network upgrade. Steele, the first building to undergo the upgrade, was followed by a slew of other buildings. The latest to undergo the CITnet 2000 upgrade are Braun Labs and Keith Spaulding, which are currently transitioning from their old network to the new CITnet. The next set of buildings to be converted includes Lauritsen and Downs, which should be finished by the end of the year, and Jorgenson and Eudora

Spaulding Labs, both of which should be ready by November.

Buildings are being converted on a loose timescale. A major holdup for some buildings is the lack of space for wiring closets. When asked about the schedule of buildings, Mr. Watanabe explained "when there are significant renovation projects going on, then we're trying to be involved and take care of the wiring. Otherwise it's on a building-by-building basis." The retrofit involves roughly two months of work, from the electricians pulling wire to the final switchover.

The new campus topology includes two primary routing sites, at Booth and Sherman Fairchild Library. According to Larry Watanabe, ITS Network Engineer, the sites were chosen

PLEASE SEE CITNET, PAGE 2

## Professor Emeritus Dies

COURTESY OF PUBLIC RELATIONS

William T. Jones, professor emeritus of philosophy at Caltech from 1973 until his retirement in 1986, died Wednesday, September 30th, 1998, at his home in Claremont. He was 88.

A native of Natchez, Mississippi, Jones was educated at Swarthmore College, Oxford University, and Princeton University. After earning his doctorate at Princeton, he joined the faculty of Pomona College. After a three-year break during World War II, he returned to Pomona as an associate professor in 1945 and remained until 1972.

He first came to Caltech in 1972 as a visiting professor. He served as the Andrew W. Mellon Professor during 1972-73, and was appointed professor in 1973.

Jones was a specialist in ethics and the works of Immanuel Kant. His books included *Morality and Freedom in the Philosophy of Kant* (1940), *Masters of Political Thought: Machiavelli to Bentham* (1947), *A History of* (1961), *The Romantic Syndrome: Toward a New Method in Cultural Anthropology and History of Ideas* (1961), and *The Sciences and*

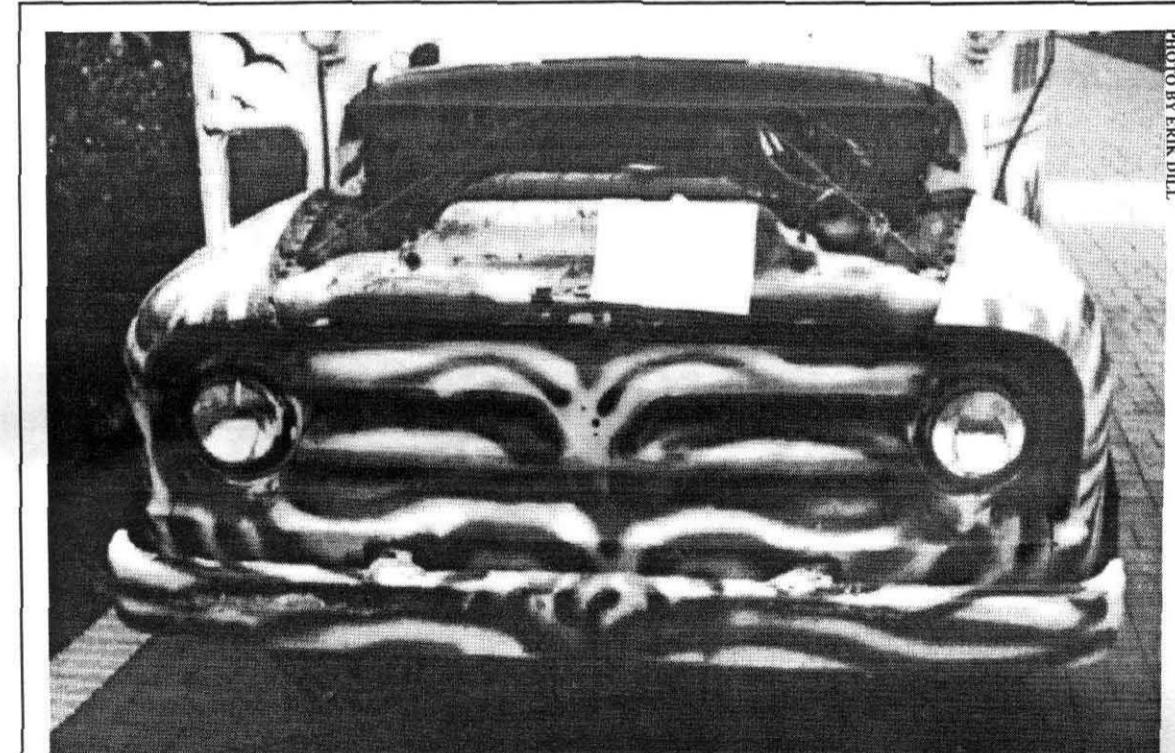


PHOTO BY ERIC DILL

## Campus clubs attract new members

Last Friday, September 25, the annual Club Fair was held in the Avery Courtyard to display the diversity of campus organizations to incoming students and assimilate warm bodies. Members of the Student Shop drove their colorful van, a work-in-progress, to the event.

the Humanities (1965).

Jones was President of the American Philosophical Association Pacific Division in 1969-70, and a member of the Pomona College board of trustees for many years. His awards and fellowships included the Rhodes Scholarship, the Nimitz Professorship of Social and Political Philosophy at the U.S. Navy War College, and the Guggenheim Fellowship.

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# The Outside World

by Cheryl Forest

**WASHINGTON:** The United States warned Yugoslav President Slobodan Milosevic Thursday that NATO would strike "soon" unless Serb attacks in Kosovo against ethnic Albanians stopped. This warning comes in the wake of Saturday's massacre of at least sixteen members of the Deliaj clan and of the killing of another eighteen civilians. While President Milosevic has stated that attacks against separatist guerrillas in Kosovo have ended, visiting ambassadors have reported no withdrawal of Serbian troops.

**BONN, GERMANY:** Gerhard Schroder, a Social Democrat, defeated Helmut Kohl Monday in the race to become Chancellor. Under Kohl's sixteen year administration, Germany was unified and the Cold War ended. However, Kohl lost this campaign by focusing on the past while his opponent, the younger Schroder, stressed economic issues and joblessness.

**MIAMI:** Hurricane Georges hit the Gulf Coast this past Monday. The storm claimed more than 300 lives as it crossed through the Caribbean, but only two Georges-related fatalities occurred in the United States. The storm blew ashore with winds gusting up to 172 mph and with 110 sustained winds, but by Tuesday morning the winds had calmed to 40 mph.

**ST. LOUIS:** Mark McGwire finished up his season by crushing his 70th home run during his final at-bat. McGwire, of the St. Louis Cardinals, and Sammy Sosa, of the Chicago Cubs, have spent this summer battling for the title of baseball's single-season home run king. Sosa finished up at 66 home runs. The previous record was 62 runs, set by Roger Maris of the New York Yankees in 1961.

**NEW YORK:** Wall Street stocks continued to fall Thursday as investors reacted to fears of a global economic slowdown. Stocks have been unstable recently due to economic woes in Asia, Latin America, and Russia, but this latest change was in reaction to last week's near-collapse of the Long-Term Capital Management investment fund. Thursday's fall still leaves the Dow about 200 points above lows reached in August.

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# CITnet...

CONTINUED FROM PAGE 1

because of the availability of space and their separate power connections: Sherman Fairchild is on south power and Boothe is on north power.

A similar theory of redundancy is found throughout the CITnet 2000 project. Every secondary connection site has connections to both primary sites, and every end user site is connected to two better connected sites, which may be either secondary or primary sites.

Each building will be equipped with a Cisco Catalyst 5500 switch. Buildings which are primary or secondary routing sites will have router/switch modules installed into the Catalyst ports, as will buildings with more than one subnet. Smaller Cisco switches will handle traffic between the Catalyst and desktop ethernet ports.

In addition to the improvements to Caltech's internal infra-

## WINNER...

CONTINUED FROM PAGE 1

Also advising and working with the group are Executive Officer and Professor of Mechanical Engineering, Erik Antonsson, Lecturer in Electrical Engineering, Dr. Barry Megdal, Rodney Rojas,

structure, coming in November are a number of improvements in its external connectivity.

According to John Dundas, the ITS Manager of CITnet 2000, the Caltech community should be expecting to connect to the NSF's vBNS network, a fast research ATM network between universities.

Perhaps more importantly, Caltech's Internet2 connectivity, in the form of Calren, should be in place by November, as well. Internet2 is another NSF funded network between universities to advance network technology used for academic research, teaching, and learning. Calren is a coalition between Caltech,

## CITnet 2000

### Secondary Sites

Avery House  
Moore Labs  
Keck House  
the Industrial Relations Center  
Guggenheim  
Kerckhoff  
South Mudd  
Keith Spaulding  
Beckman Institute  
Beckman Behavioral Biology  
Student Activities Center

Stanford, USC, and the University of California to create a high performance network between them with a dual-ring topology.

Calren's backbone is two rings of OC48, one in the Bay area and one in the LA metro area. The two rings are interconnected and split into four OC12 bands, which are rated at 622 Mb/s. Caltech will have two OC12 lines out to the network.

Additionally, Calren is planning to peer with the Department of Energy's ESnet, providing an OC3 (155 Mb/s) link in the future. The plans, according to Mr. Dundas, are in active negotiation.

## CITnet 2000 approved buildings

N & S. Mudd  
Keck Lab  
Beckman Behavioral Biology  
Baxter  
Brown and Braun Gyms  
Braun Labs  
Keith Spaulding  
Winnett Student Center  
Dabney Hall

Lawrence Begay, and John Van Deusen.

The group has been staying at Caltech for the summer. They thank Tom Mannion and Biff Yamazaki in the housing office for providing them with lab and housing space.

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## Clubwatch!

The Caltech Anime Society meets every Friday and Saturday at 7 pm in SAC 13 (Club Room A). They show a variety of Japanese animation movies and series throughout the year. Both subtitled and raw Japanese anime are shown. An extensive VHS library is available to members. To join the mailing list, email [isaacs@its](mailto:isaacs@its). For more information contact [anime@ugcs](mailto:anime@ugcs).

The Caltech Cycling Club has been participating in the Pasadena Critical Mass monthly to promote awareness of cyclists on city streets. The club is also selling cycling jerseys. For more information, contact Dan Giammer at [giammer@its](mailto:giammer@its) or x4435.

The Caltech MSA meets every Friday at 12:40 pm on the north side of Moore to proceed to a local Mosque for Friday prayers. For more information, visit their web site at [www.its.caltech.edu/~calmsa/calmsa.html](http://www.its.caltech.edu/~calmsa/calmsa.html) or contact Adam Rasheed at [arasheed@its](mailto:arasheed@its).

The Caltech Qigong Club is holding mind and body harmonization classes every Sunday at 11:30 am in 127 Baxter. For more information, email [cqc@its](mailto:cqc@its), visit [www.its.caltech.edu/~cqc/](http://www.its.caltech.edu/~cqc/) or call Cherri at x6085.

Evil Geniuses for a Better Tomorrow announces a spaceship design contest open to the entire Caltech community. Plan around a Maxamegalon Star Drive 17. Data is at <http://127.0.0.1>.

The Francophile Clubs shows subtitled French movies every first and third Tuesday of the month in Catalina Recreation Room III. To join the mailing list, contact Olivier Duchemin at [franco\\_pres@its](mailto:franco_pres@its).

The Gay/Lesbian/Bisexual Discussion Group meets on the first and third Tuesday of each month from 7:30 pm until 10 pm in the Health Center lounge. This is a confidential meeting and does not imply anything about a person's sexual orientation—only that s/he is willing to be supportive in this setting. Refreshments are served. For more information, call x8331.

If your club or group has had a special event recently, or is planning an event or meeting, and would like to be covered by Clubwatch! please be sure to email [editors@tech](mailto:editors@tech) with information and contacts for the event. The editors reserve the right to edit or omit any submission.



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10-Year	4/674	N/A	N/A	N/A	N/A	N/A

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8/98

# If there were justice in the world...

by Tim Raub

In the spirit of *Pi*, this summer's blockbuster mathematical saga, the editors of the Tech have discovered within the decimal expansion of e a unique 162-digit sequence which contains within it the number "70," the number "157," and the number "100". As any Sports Fan knows, there are 162 games in the Major League Baseball Season; Mark McGwire hit a record 70 home runs this year; Sammy Sosa knocked in a National League-record 157 RBI's; and Mark McGwire and Sammy Sosa have a combined IQ of about 100. Clearly, we have discovered the secret code with which the Big Umpire in the sky encrypted all the results of this memorable Summer of '98. Since, as anyone who saw *Pi* knows, keeping the sequence a secret only ensures that we will be driven to shave our heads and drill holes in our brain, we enthusiastically share some of our revelations for this postseason:

#### Houston Astros vs San Diego Padres

Sorry, California fans. There's a definite Caltech Connection in The Code, and although San Diego is just a baseball's throw down the beach, the Astros have The Big Unit. My roommate is carrying 50 units, and he's a chick magnet. I'm carrying 51, and I have 10 hours of Chemistry left to do tonight. The difference? Only one unit — but it's a Big Unit. Randy Johnson pitches Houston past the Padres in five.

#### Atlanta Braves vs Chicago Cubs

The Cubbies haven't won the World Series

since 1908. Caltech hasn't won an SCIAC baseball game since April 10, 1987. This year, the Cubs are goin' all the way, and Caltech will win the Conference Championship. You heard it here first.

#### New York Yankees vs. Texas Rangers

George Steinbrenner has put together the best team that baseball has ever seen. Expansion or not. Plus, it is a little-known fact that Hideki Irabu passed up a Caltech Academic Scholarship to pitch for the Kyoto Buffaloes. Yanks sweep the Rangers.

#### Boston Red Sox vs Cleveland Indians

The last three digits of The Sequence are the Number of the Beast. Mo Vaughn is a beast. Boston in four.

#### Division Championships

Houston Astros vs Chicago Cubs  
Harry plus Sammy plus Wrigley = World Series, baby.

#### New York Yankees vs Boston Red Sox

Hideki Irabu fans Mo Vaughn to send the BoSox back to a cold winter in Beantown.

#### World Series

New York Yankees vs Chicago Cubs  
Can there be any doubt?

*Tim Raub is the new sports editor for The California Tech. He is a freshman.*

# Caltech Sports gains new certified athletic trainer: April Reed

BY TIM RAUB

nio," she notes. "They are more adept and courteous."

It's been one of those days. You slept through your alarm, missed your Ph1 Recitation, and then fell asleep in Ec11 while the T.A. explained how to solve nonlinear supply-side econometric diophantine equations. You forgot to grab your Rotation Tag at lunch, and now you just sprained your ankle trying to do a somersault banana-kick during soccer practice. Disgusted, you limp into Braun and head toward the Trainer's Room.

"April Reed, A. T. C."

April Reed, Caltech's new certified athletic trainer, has spent more than six years practicing Sports Medicine and Injury Studies in a variety of environments. After an undergraduate Psychology major, she took a Master's Degree in Kinesiology from Long Beach State and then spent two years working in a physical therapy clinic. After completing 1500 hours of internship training, she spent two more years at Mount San Antonio Junior College as an A. T. C. before coming to Caltech this summer. She welcomes the unique Caltech athletic scene. "Athletes here have much more refined language skills than at Mount San Anto-

nio," she notes. "They are more adept and courteous." They had better be. As the yellow sign outside the Training Room warns, cussing is one of several offenses that carry a hefty fine. April also sells Gatorade and Tiger Milk bars for \$1 apiece, and she and assistant trainer Kenny Ritchie hope to raise enough money to buy a television monitor to place in the corner of the room.

April has also adopted long-standing Caltech traditions, such as instituting a pizza-penalty for leaving the Training Room door open after entering. Already, three hapless soccer players owe April and Kenny pizza (the trainers get to pick the topping); the first scheduled delivery was yesterday after practice.

Don't be misled by the pizza rule, though — April Reed means business. "Coming from a physical therapy clinic, I really view any injury in light of its wholeness," she says. A soccer and basketball athlete herself, April focuses on rehabilitation as well as injury treatment, and this holistic approach is sure to put injured Caltech athletes back on the soccer field, volleyball court, swimming pool, and cross-country course.

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by Jason Meltzer

Clinton, Clinton, Clinton. I went home (a colloquial term for my parents' residence in New York; I largely consider Caltech to be "home") for a week and all I heard about the entire time was what Clinton did with Monica Lewinsky. Newspapers, television, radio, internet, word-of-mouth everywhere! Before I came to Caltech, I was very up-to-date as far as politics goes. Of course, like many, my interest and available time to pursue such matters declined sharply after a few months here, but I still like to think I have some caring bones in my body about the subject. I know I promised last time that I'd be writing about Rotation Rules, but as this issue has grown to such massive proportions (there might even be a blurb in "The Outside World"), I feel I should at least address it in this column. So, here's my take:

suit of political agendas? What business is it of the Senate, or the Republican party, or yours or mine to know what Clinton does in his private life? And this is not "private life" as in his diet or his sleeping patterns: this is his sex life. If your neighbor found out that you were prying in on his sexual liaisons and telling everyone about it, he'd probably try to beat the crap out of you! But it's okay to do it to the President.

And now for Part Three of the fiasco that has become our nation, the reason all of this is happening in the first place: the public. What a bunch of backward, ignorant, uninformed zombies the American public has become. I said earlier that older allegations of misconduct on Clinton's part (all of which were more important and

First, President Clinton is a slimy, corrupt, perverted piece of political refuse. He's the worst kind of politician: the kind that will do anything to get elected, and anything to stay in office. He'll also shack up a few times on the side. He lost his effectiveness and vision a long time ago, and has been playing politics ever since. The only reason I see for his reelection was that there simply was no better candidate, so, as is often the case, the lesser of two evils was chosen. Now we find that, not only is he a political predator, but he's also a cheating liar, who's probably banged more women through the power of his offices while married than the number of greasy chocolate covered donuts he's inhaled. I've heard many arguments about this matter, and I agree that adultery *per se* is not immoral, and certainly not illegal. However, that point relies on the mechanics of his marriage to his wife. If Hillary, for example, is out "visiting Chelsea" at Stanford and picking up a new college boy on the side each night, too, and she and her husband agree to live that way, then there is nothing wrong with Clinton's actions. But (and this is a very important "but") we cannot assume this to be the case. The institution of marriage as we know it forbids these actions, and as they are married, we must assume that the accepted traditions of marriage apply, unless we have other information, which we do not. Therefore, Clinton's actions should be looked upon as morally reprehensible as they defile the bond of marriage he shares with his wife. Does this mean he should be thrown out of office? No. Sleeping around is not a crime; it may be immoral, unfaithful, or disgusting, but it is not a crime. Lying under oath, in contrast, is illegal, and could be punishable by impeachment and revocation of the office of the Presidency if the Senate sees fit to do so. In short, Clinton has dug his own grave, and now it's time to jump in.

grave, and now it's time to jump in.

But wait!! Before you convince yourself that I'm a right-wing conservative tight-ass (which I'm none of; well, maybe a tight-ass, but don't ever accuse me of being a right-wing conservative), I'm going to show you another perspective which I believe as much as the first. As reprehensible as I think Clinton's actions were, I find it equally disgusting the depths to which his political opponents - Ken Starr and his Republican cronies - have sunk to bring him down. The Republicans have been trying to pin something on Clinton for years - Travelgate, Whitewater, China, fund raising - but nothing has stuck (probably because people don't care about any of that but I'll get to that later). But now there's

illegitimate than current charges) were largely ignored by the public. In fact, every time he got away with something, Clinton's ratings actually went up. Why is that? The simple truth is that the public just wasn't interested in any of those "scandals" - they were boring and confusing. Most of our citizens are apparently just too simple minded or apathetic to understand all of that. But they understand sex alright! They understand that Clinton is a womanizing pervert and that he lied about it. It's crude, seamy, and basic - a level of deceit and misconduct that they can relate to. And it sells great. The media prints it, and the public eats it up like it were manna laced with the waters from the fountain of youth! It was the People that *allowed* a dirtbag like Clinton to get elected in the first place, and it was the People that *allowed* a bloodhound like Starr to dig up and expose the personal life of the President. Thomas Jefferson is quoted as saying, loosely: "People get pretty much the government they deserve." This is exactly what we deserve (if we deserve a Democracy at all, but that's a topic of another column). At the heart of this issue is this fact: the American public has become so desensitized to the corruption of a govern- ment that they helped shape that they have retreated to considering it another form of entertainment. Entertainment: the dirtier the better. They don't care about important issues like crime, education, foreign affairs, the economy (oops, forget that one! *Everyone* cares about the economy), except when it affects them personally, of course, but they do care about getting their daily dose of political mudslinging and life-exposing. They don't care if their politicians are statesmen, with vision and courage and integrity, and they certainly don't want someone who is *better* than themselves (no, that would be too intimidating to their fragile self-esteem). Instead, they want someone they feel that they can "relate to," someone who has human problems that can be ripped from behind the veil of privacy and thrown stark naked into the arena of public scrutiny. But they also want someone they can trust, someone who can make fine campaign speeches and promises that they know cannot be kept. Someone who is a politician.

It is no wonder people look back and admire the statesmen of our country's youth - Washington, Jefferson, Franklin, to name a few. True, they were not perfect human beings, but they were people of vision and integrity. When one studies the American Revolution, it is difficult to come away without this realization. It would have been easy for the new nation to slip into civil war led by factions and self-serving demagogues. And at many times, any one of these men could have easily appealed to the People's understanding of a monarchy and raise himself to a king. These men, however, did not abandon their principles, their vision. Even through disagreement and compromise, the Idea remained and was not abandoned, though it would have been a far easier and more profitable route to do so. These were leaders and statesmen, and I often wonder what the people we call our leaders would have done in their places.

With that thought, I will end our excursion into the world of politics. Next time, I'll talk about something more pertinent to our smaller, happier world of Caltech. And if you're interested enough, send an e-mail to [Judiciary@mail.house.gov](mailto:Judiciary@mail.house.gov) expressing your opinion, whatever it may be.

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*Jason Meltzer is a Sophomore living in Avery House. Write him with questions, comments, suggestions or complaints at JasonM1@its.caltech.edu.*

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# Dean's Corner

*Flying fish and walking turtles*

by Jean-Paul Revel

Frosh Camp, it can be argued, is part of a "New Year" exercise, a time for reflection and self analysis, with Upper Class students, Faculty and Staff getting together with Freshwomen to consider what makes Caltech tick, and how to get the most out of the university experience. And a memorable Camp it has been. We traveled out of the gloomy overcast of a thick marine layer caught on the rocks of the San Gabriel Mountains, into the placid waters of the Santa Catalina channel and the sunny eastern slope of the island itself. One disappointment of course was the paucity of flying fish (there were a few apparently, but so few that they were missed by most of the people huddled on the windy prow of the boat) and the absence of a dolphin show. I am told that the flying fish actually made their appearance at the end of the Camp Fox pier on that

s n u f f l e down the hills in the early morning, surprising a few early risers on lawns and pathways. The talks and presentations were generally excellent. I very much enjoyed the thoughtful Honor Code Presentations and the Challenges and Choices. The Science talk was given by President Baltimore, who managed to deftly describe the incredibly complex mechanisms by which specific genes are selected for expression, eliciting excellent questions from the audience.

For me, however, there was a very sad undercurrent in spite of all the wonderful adventures. We didn't much about an event of the previous Sunday that weighed on many of the non-frosh minds. We did not talk much about David Rosefield, the sophomore who had been killed by a bomb he had built and was trying out while visiting a friend at Rose-Hulman Institute, en route to Caltech. There was not much to say to the Frosh about David (Alex as he was called at Tech), as they did not know him, and he was therefore only a name in the

news, if that much to them. But a shiver went down my spine and, I am sure, the spines of many in the know, during the talk on Safety, when we all were vigorously taking up the refrain... **or else you'll die**. Yes what a terrible thing to have to announce, that someone in our small community died, disappeared never to come back again, because he did one of the things that one should not do, **or else you'll die**. What a waste of a superb intellect, what a waste of a budding intellectual, of a future researcher, teacher, philosopher, a searcher after the truth, who now will forever be denied the chance of finding it, of feeling the joy of discovery, and of knowing the love of his family and friends. What a shock to realize that there are now ideas unthought, thoughts unfinished, enthusiasms tied to the past never to soar again. Along with the intelligence which characterizes so many of our community there comes often a lack of hubris, of intellectual modesty, a feeling fueled by a surfeit of youth and an abundance of brains, that one is invincible. Please, dear readers, please, allow your brains the humility of understanding that physics and biology apply to all of us, without exception, to the fool and the genius. Let it be the fate of the genius to exercise caution, to ap-

preciate that what could be dangerous for the fool will also be for the genius. We have rules and regulations and honor codes and legal codes. They all come to naught unless one uses common sense. Yes, the turtle only moves forward when it sticks its neck out. Yes, risk taking is the only way to advance. But Darwinian selection will undoubtedly take care of the turtle that extends a neck too far, so far as to allow to be grabbed by the next soaring eagle in search of breakfast. Please think of the consequences of anything you do....**or else you'll die**. Fires are fun to watch, but should stay in the chimneys, explosions are exciting, but the forces released can crush bones and flesh, and no, your intelligence is not a shield. Save yourself so you may contribute to our understanding of the world. There will be magnificent vistas and understanding that will come in the future. Be sure you live long enough to participate and witness all of it. If any good is to come from Alex's death, it will be, I fervently hope, to prevent other such catastrophes.

May my "A bientot" be a reality.. see you soon again

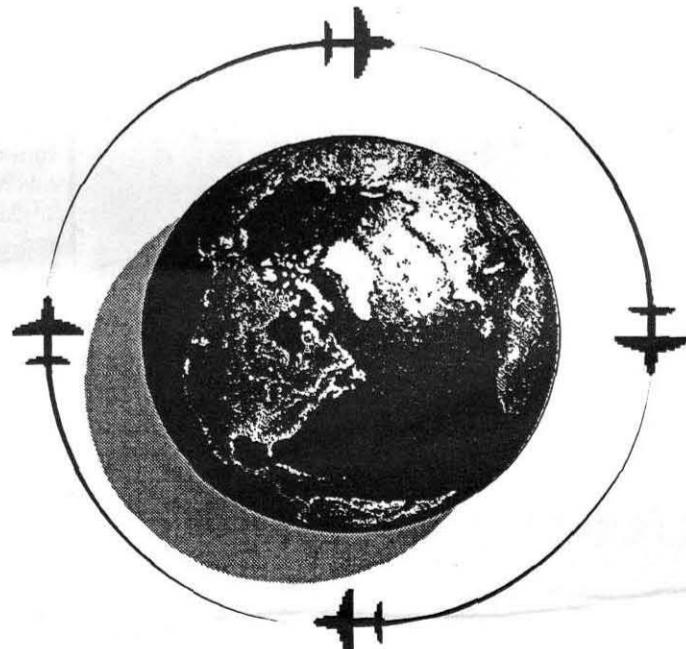
*Jean Paul Revel*

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# Mints

## Announcements

**Caltech Guitar Classes** for the Fall quarter will meet on Tuesdays, starting October 6 in Room 1 of the Student Activities Center (SAC) as follows:

Beginning Guitar Class	4:30 -
Intermediate Guitar Class	3:00 -
4:00 PM	
Advanced Guitar Class	5:30 -
6:30 PM	

Classes feature a classical technique which can be used in many forms of guitar. Classical, flamenco and lighter pieces are explored including a jazz/folk chord system in the Beginning Class. Classes are free to Caltech students and other members of the CIT Community (space permitting). Undergrads can receive 3 units of credit if desired. Private instruction can also be arranged. The instructor, Classical Guitarist Darryl Denning, has an international background in teaching, performing and recording. For further information email Denning at [ddenning@caltech.edu](mailto:ddenning@caltech.edu) or telephone (323) 465-0881.

**GREEN CARD LOTTERY BEGINS IN OCTOBER** The instructions for the 2000 Diversity Immigrant Visa Lottery have been announced. The dates for this lottery are October 1 through October 31, 1999. Nationals of China (mainland and Taiwan, except Hong Kong S.A.R.), India, the Philippines, South Korea, Vietnam, United Kingdom (except Northern Ireland) and its dependent territories, Poland, Colombia, Dominican Republic, El Salvador, Haiti, Jamaica, Mexico and Canada are not eligible for the program.

To pick up a copy of the proce-

## THE WATSON FELLOWSHIPS

### OCTOBER 12 DEADLINE

**REMINDER TO INTERESTED SENIORS:** A two to six page project proposal draft for the Watson Fellowship is due in the Fellowships Advising Office, Room 25 of the SAC, on MONDAY, October 12, 1998 at 12 Noon. Keep in mind that successful proposals generally have a topic of study or investigation that reflects a student's well-developed interest in that area (samples available in our office). Students should discuss the study plan and indicate how you will carry out the project, what skills you have that will enable you to undertake such a project, how it fits in with your longer term plans, and why this project is important to you.

The Watson Foundation provides fellowships of \$18,000 for a year of independent study and travel after graduation. The Watson is designed to encourage an informal break in the normal sequence of undergraduate-postgraduate education and is a marvelous opportunity to travel outside of North America. Caltech nominates 2 seniors each year for this fellowship.

dures on how to apply for this Lottery, please stop by the International Students Programs office (Lloyd House, Olive Walk) if you are an international student, or the Faculty and Postdoctoral Scholars Office (Parsons-Gates, 010) if you are an international postdoc, professor, researcher, or staff member.

**Low-cost and free mammograms and Pap tests** will be available at hundreds of approved facilities throughout October and November. These facilities are listed in the free *Breast and Cervical Cancer Health Services Directory*. An English/Spanish directory is available by calling 1-(800)-706-3131 or visiting an American Cancer Society Office.

The **Los Angeles Philharmonic** is offering \$10.00 student rush tickets for the 1998/99 winter season. Current full-time students may purchase one ticket per ID at the box office prior to the performance. For current program information or a free schedule, please call 313-850-2000

## Events

**The Earnest C. Watson Lecture Series** commences on October 7, 1998 with Caltech President David Baltimore presenting "Cell Life and Cell Death." The lecture begins 8:00 pm in Beckman Auditorium. Seating is on a first come first serve basis, starting at 7:30 pm. The event is free.

"**Corporate Tyranny: A Call to Action,**" sponsored by Mobilization for the Human Family will occur Saturday, October 17 from 9:00 am to 12:30 pm at the Immanuel Presbyterian Church, 3300 Wilshire Blvd. Registration starts at 8:30 am. There is no fee and child care is available. For more information, call the Mo-

bilization Office at 909-625-8722.

The **World AcappellaFest** will be held Saturday October 17, 1998 at the John Anson Ford Amphitheatre in Hollywood. There will be an afternoon concert at 3:00 pm and an evening concert at 7:30 pm. For information and tickets, call 877-222-7352.

**Nmon Ford-Livene**, baritone, will be performing in Dabney Lounge, on Sunday October 4, 1998 at 3:30 pm. Admission is free. For more information call 1-888-2CALTECH.

## Fellowships and Scholarships

### \*NSEP Scholarships for 1999-2000\*

Applications for National Security Education Program (NSEP) undergraduate scholarships are currently available for study abroad in summer 1999, fall 1999, and spring 2000. Scholarships are available to U.S. citizens enrolled at two- and four-year institutions who wish to study abroad in critical world areas in Africa, Asia, Eastern and Central Europe, Latin and South America, and the Middle East. Scholarships are not available for study in Western Europe, Canada, Australia, and New Zealand. Sophomores and Juniors majoring in science and engineering may apply to study for a summer. This summer, Walt Ogburn '99 studied Russian language in culture in St. Petersburg under an NSEP Fellowship. During the summer of 1998, Jeanne Wilson '98, who is now on a Watson Fellowship, studied Turkish language and culture in Istanbul.

The maximum scholarship is \$8,000 per semester and \$16,000 per academic year. **The campus application deadline for the 1999-2000 academic year is January 25, 1999.** Turn all materials into the Fellowships Advising Office, Room 25 of the SAC. All applicants must undergo and endorsement interview with Lauren Stolper, Director of Fellowships Advising. Applications will be available in Fellowships Advising by mid-October. Additional information on preferred geographic regions, languages, and fields of study and application procedures can be found at <http://www.iie.org/nsep> (FAR)

**Rhodes, Marshall & Fulbright.** The deadline for submitting applications for the Rhodes, Marshall, and Fulbright is October 1. Turn materials into the Fellowships Advising Office in SAC 25. Be sure to have official copies of your transcript and reference letters submitted to us by Oct. 1. (FAR)

**Watson.** There will be an information meeting on the Watson at which the current director of the program, Noreen Tuross, will speak. We encourage seniors and juniors to attend this meeting. Note that only seniors can apply this year. However, we cannot guarantee that the director will be on campus to speak next fall, so take advantage of this opportunity to get information now if you are a junior. Friday, October 2nd, 1998 at 12 noon in the Winnett Club Room. We will be serving a nice buffet luncheon.

Please RSVP to [fellowships@cco.caltech.edu](mailto:fellowships@cco.caltech.edu) by October 28. Give us your name, your board contract number if you are on board, and state if you are a junior or senior. If you have special food needs (we will have a veggie item) please call Karen Johnson at ext. 2150. Note that the Watson deadline is Monday, October 12 at 12 noon. You can read essays of former winners in the Fellowships Advising Office. Contact our office if you have questions. (FAR)

**NSF.** Applications for the NSF are available in Fellowships Advising or on the Web at <http://www.fastlane.nsf.gov>. Click on the GRFP icon. The application submission deadline is November 5. U.S. citizenship or permanent residency required. (FAR)

**Hertz Fellowship.** Applications for the Hertz are only available on the Web at <http://www.hertzfdn.org>. The application submission deadline is October 23. Applicants must have a 3.75 GPA and U.S. citizenship or permanent residency is required. (FAR)

**Attention Senior Women and Minority Seniors.** All female and minority seniors seeking to pursue doctoral degrees in either astronomy, chemistry, computer science, geology, materials science, math, or physics and related fields should apply for the National Physical Sciences Consortium Graduate Fellowships in the Physical Sciences. Applications are available at <http://www.npsc.org>. The application deadline is November 5. Applicants must be U.S. citizens with a minimum 3.0 GPA. (FAR)

**Fellowships for Grad Study in the Sciences Information Meeting.** There will be a pizza lunch meeting to discuss the fellowships listed above and the Churchill Scholarship for one year of grad study at Cambridge University, England on Thursday, October 8 at 12 noon Winnett Lounge. Please RSVP to [fellowships@cco.caltech.edu](mailto:fellowships@cco.caltech.edu) by Tuesday, Oct. 6. Call Fellowships Advising at ext. 2150 if you have questions. Please note that the director is available to review your fellowship applications and essays by appointment. (FAR)

**The Hispanic Scholarship Fund** (formerly the National Hispanic Scholarship Fund) is accepting applications for scholarship awards ranging from \$500 to \$2,000. Applicants must be U.S. citizens or permanent residents of Hispanic heritage, full-time undergraduate or graduate students, and already completed at least 45 units of undergraduate work with a minimum 2.5 GPA. Applications are available in the Financial Aid Office. The deadline is October 15, 1998. (UFA)

**The Southern California Chapter of Women in Cable & Telecommunications** is offering a \$1,000 Jeanne Cardinal Grant to one female junior or senior student residing in Southern California. Applicants must plan to pursue a career in the telecommunications field, have a 3.0 or higher GPA, and be active in at least one school approved campus organization or in community service. Applications are available in the Financial Aid Office. Applications are to be completed and sent to: The Southern California Chapter of Women in Cable & Telecommunications, c/o Pamela Drake, Avenue TV Cable Service, Inc., PO Box 1458, Ventura, California, 93002. The deadline is December 31, 1998. (UFA)

**The Northrop Grumman Corporation** is offering a \$3,000 scholarship to an undergraduate who has a career interest in the Aerospace/Defense Industry. Applicants must be U.S. Citizens, full-time students in 1998-99, and must have a 3.0 or higher GPA. Applicants must also be majoring in one of the following fields: Electrical Engineering, Mechanical Engineering, Aerospace Engineering, Computer Science/Engineering, or Manufacturing Engineering. To apply, submit a resume and academic transcript to the Financial Aid Office by October 16, 1998. (UFA)

For information on the listed fellowships, assistance with essays, for clarification of questions, contact:

**FAR - The Fellowships Advising and Resources Office.**

For information, please contact [lauren\\_stolper@starbase1.caltech.edu](mailto:lauren_stolper@starbase1.caltech.edu). To make an appointment, call x2150

**UFA - The Undergraduate Financial Aid Office.**

For information, call x6280, or stop by 515 S. Wilson for an appointment.

To submit an event for the Mints, contact [mints@tech.caltech.edu](mailto:mints@tech.caltech.edu) or Mail Code 040-058 by noon on the Monday prior to its inclusion. Submissions must be brief and concise. Please do not send Mints in difficult formats like binhex or word document, .rtf and ASCII are best. The editors reserve the right to edit and abridge all material.

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