

We just live in it.

Volume XCV, Number 1

Pasadena, California

Friday, September 24, 1993



The hamburger line stretches to infinity at Monday afternoon's ASCIT/CCF Frosh Barbeque.

Heinz A. Lowenstam 1912–1993

by Caltech Public Relations

Emeritus Professor of Paleoecology Heinz A. Lowenstam died June 7, 1993. He was 80.

A member of the Caltech faculty since 1952, Lowenstam studied the biogeochemistry of shells, teeth, and other hard parts of ancient organisms for clues about prehistoric ecology and climate. Asked about his research, he frequently referred to himself as a "professional beachcomber." In the early 1960's, he startled geologists and biologists alike with the discovery that many animals do what conventional science had considered impossible: they manufacture substances such as the iron-containing mineral magnetite within their bodies. Out of this finding came the more recent discovery that many migratory animals, including birds, bees, and whales, biosynthesize magnetite and may owe their uncanny homing instincts to the presence of this "internal compass" that allows them to navigate by means of the earth's magnetic field.

A Jewish native of Germany, Lowenstam emigrated to Chicago in 1937 when, just days away from taking his Ph.D. oral exams, the Nazi regime instituted a rule that forbade the awarding of doctorates to Jews. With letters from two professors explaining his situation, he obtained a scholarship at the University of Chicago and, after a year and a half spent researching local paleontology, he received his Ph.D. in 1939.

Following work as a state paleontologist at the Illinois State Museum, as a geologist for the Illinois State Geological Survey, and as a research associate and associate professor at the University of Chicago, Lowenstam joined the Caltech faculty in 1952. It was during his tenure here, in 1963, that he discovered that sea creatures called chitons have magnetic teeth made of iron. In 1975 he found that sea cucumbers have a network of microscopic iron beads a few layers beneath the surface of their skins, and in 1976, he found intact protein in an 80-million-year-old fossil clam shell.

In 1980 Lowenstam was elected to a fellowship in the American Academy of Arts and Sciences, and to membership in the National Academy of Sciences. The following year, he returned to Germany for the first time in 44 years to receive an honorary degree from the University of Munich, the same institution that denied him his doctorate in 1937.

New Year, New Administrators

by Michael Radford

This summer has seen many changes and new appointments in the Administration. Sharyn Slavin was appointed the new Vice-President for Student Affairs, replacing Jeanne Noda, and Kathleen Bartle-Schulweis was hired as the first director of the Women's Center. See the accompanying articles for more details.

Hal Ginder, Director of Security, retired in August. A search for his replacement has begun.

There is still no permanent replacement for Nancy Carlton, former Director of Housing, who left Caltech last year. Mike Hill has been serving as the interim director, and will stay on for at least another two months while the search continues.

Finally, there have been major changes in the organization of the Residence Life Office. Kim West, the Director of Residence Life, has decided to hire an Assistant Director, whose duties will combine some of Kim's, such as R.A. selection and the off-campus lottery, with those of the Coordinator of Student Activities. The see ADMINISTRATION, page 8

Slavin appointed assistant V.P. for student affairs

by Caltech Public Relations

Sharyn Slavin has been named assistant vice president for student affairs. She succeeds Jeanne Noda, who moved to Harvey Mudd College to become vice president for student affairs and dean of students.

Before taking office at Caltech on August 16, Slavin was associate dean of student affairs and director of campus life at USC. Slavin worked in various positions in student life and career development at USC from 1977 to 1982, when she became director of the Career Development Center. She held that position until 1988, when she was named assistant dean, later becoming associate dean.

"I am delighted to be at Caltech and am looking forward to working with the students, staff, and faculty in a place where academic rigor is the norm," said Slavin.

"Everyone in student affairs is excited about Sharyn taking this position," said Dr. Gary Lorden, vice president for student affairs. "There is so much variety and challenge in the work of the ten offices she's responsible for, that all of her see SLAVIN, page 4

Bartle-Schulweis named Women's Center director

by Caltech Public Relations

Kathleen Bartle-Schulweis joined Caltech in August as the director of the Institute's newly established Women's Center. As director, she will be responsible for identifying the needs of campus women and implementing a program to meet those needs and for rector of the Office for Women's Issues and the campus Women's Issues Advocate since 1989, Bartle-Schulweis developed and coordinated educational programs on rape, sexual harassment, domestic violence, and campus safety. She also developed policies and programs aimed at increasing awareness of, and sensitivity to, gender

Amnesty International aids Bosnia

by Jennifer Linden

In an unprecedented relief effort, Caltech's Student Health Center is sending a shipment of medicines and medical supplies to

sents an unusual course of action for Amnesty International USA, a course of action prompted by the breakdown of the healthcare system in Bosnia. Hospitals are overflowing with wounded civilians, many of whom are victims of torture and attempted extrajudicial executions. What little medical equipment that exists is obsolete, and medical supplies are extremely scarce. Amnesty International USA hopes to help relieve the urgent need for bandages and medications before the winter sets in. This relief project is just the latexample of Amnesty est International's work on behalf of people in war-ravaged Bosnia. Since the beginning of the conflict in the former Yugoslavia, Amnesty International has documented human rights abuses, publicized the existence of detention centers, and spoken out against torture and "ethnic cleansing." Amnesty International was one of the first organizations to report widespread instances of rape by members of

the military. Through its work in Bosnia, Amnesty International has pursued its central goal: protection of basic human rights around the world.

Amnesty International is a

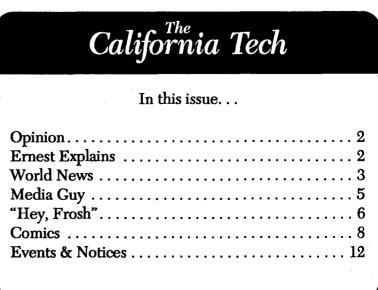
Bosnia this fall. Zenica Hospital, 50 miles northwest of war-torn Sarajevo, will soon receive desperately needed medications from Caltech, thanks to the efforts of the Caltech/Pasadena chapter of Amnesty International.

Amnesty International USA is collecting free trial samples and excess stock of bandages, antibiotics, and special medications from doctors and hospitals around the country. The Caltech Student Health Center donated several pounds of medical supplies to the cause. Medications and supplies will be sorted in Amnesty International's Washington office and then sent to doctors in the International Medical Corps, a non-profit relief agency active in Bosnia.

The current relief project repre-

worldwide movement of people acting on the conviction that governments must not deny individuals their basic human rights. Founded in 1961, the organization now has over 1.1 million members in 150 countries. The non-profit, non-political movement is funded entirely by donations from its supporters and accepts no financial contribution from any government. Amnesty International works to release prisoners of conscience (people detained for their beliefs, ethnic origin, sex, color, religion, or language, provided they have neither used nor advocated violence); to ensure prompt and fair trials for all political prisoners; and to end in all cases the use of torture and executions. The organization's efforts to promote global respect see AMNESTY, page 4 promoting the education and careers of all women at Caltech. At the University of Southern California, where she was both diissues on campus.

"I am looking forward to working with Kathleen as director," said see BARTLE-SCHULWEIS, page 11





opinion

Billboards in Space

Remember the long, boring summers of childhood? All your friends had gone away to summer camp, and you had nothing to do but pick on your brothers and sisters and throw rocks at squirrels. Every Saturday night, Dad would barbeque his dry, pasty hamburgers. Then he'd made you scrape off the grill, and you'd sit back on the porch and watch the sun set. The same old stars would come out, sitting in the same spots, like tarnished rhinestones on a dying, old woman.

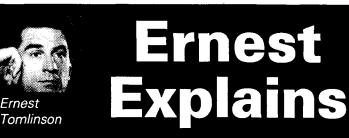
Wouldn't you have loved to see a new light in the evening sky?

There's a company in Atlanta, Georgia with a bold, new plan to both enliven the firmament and help our nation's economy. American companies will be able to buy orbiting billboards—twinkling symbols of prosperity shooting across the sky like meteors of good fortune.

As always, there are star-hugging liberals coming out in force to oppose this innovative plan. The U.S. Congress is now reviewing a bill that would outlaw any satellite meant to be visible from the ground. The nay-sayers don't realize that this sort of choking of America's competitive spirit can only hinder us in our quest to become the world's leading spacefaring nation. Can you imagine if, 500 years ago, when the oceans were the last great frontier, the governments of Europe had banned commercial sea voyages? The Americas might never have been colonized, and Western civilization would have become an cultural backwater.

If billboards in space are outlawed, only outlaws will have billboards in space.

Please send letters to the editor to *The California Tech*, Caltech 40-58, Pasadena, CA 91125, or by e-mail to editors@tech.caltech.edu. *The Tech* reserves the right to edit all letters for brevity or otherwise, and to refuse to print any letter for any reason.



Dear Ernest,

I've never received so much attention from men before! There are ten guys camped outside my door, and they keep offering to help me carry my luggage and help me with my homework. What do I do?

-Frightened Female Frosh

Dear Female,

This is a common complaint of new Techers who happen to be women. You might try what women of years past have done: grab hold of the nearest unattached male and declare him your "boyfriend." This way, you only have to contend with the ravenous lusts of one pathetic Techer, instead of ten.

Dear Ernest,

It is widely accepted that Vanessa Redgrave is the greatest living actress in the English-speaking world. Who do you think the greatest actor is?

-Wondering in cabin 21

Dear Wondering,

Although Dustin Hoffman and Jack Nicholson have given many great performances over the years, and despite Clint Eastwood's sudden legitimacy, I'd have to say it is Al Pacino.

Dear Ernest,

I've only been at Caltech a few days, and already I'm full of questions. For example, why are the people of Blacker House called "moles"? —Bud, rotating out of Fleming

Dear Bud,

The name "mole" does not, as most people think, come from the small, burrowing mammal. Rather, it comes indirectly from the name of den Möhrekuchenmachern, a German guild of carrot bread bakers during the sixteenth century. The "Möhren" were one of the first guilds outside of the fledgeling construction industry to merge with the Society of Freemasons. R. R. Blacker, the benefactor of Blacker House, was of course a Mason, and often went by the nickname "Moley," which, it is surmised, is a corrupted form of "Möhren" (R. R. was a well known carrot lover). He bestowed his nickname upon the House in 1938 in a letter which reads, in part, "... you shall now be known as 'moles."

Free Pizza

will be served at the weekly California Tech meeting next Friday (October 1) at 12:15 Р.м. in the Coffeehouse. Everyone is invited.



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The California Tech





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Australia

In a meeting with Queen Elizabeth II, Prime Ministèr Paul Keating presented a plan to remove the British monarch as Australia's head of state, and the queen said that she would accept the decision of the Australian people. Keating said that the change would have to be voted on in a constitutional referendum. If approved, the amendment would lead to an Australian republic by 2001.

Canada

The mayor of Cornwall, Ontario remains in hiding under police protection following alleged death threats from cigarette smugglers. Ron Martelle, a former officer of the Royal Canadian Mounted Police, said that the action was prompted by his active campaign against the illegal trade across the U.S. border.

Commonwealth of Independent States

Leaders and bankers of the former Soviet republics of Armenia, Belarus, Kazakhstan, Tadzhikistan, and Uzbekistan signed a treaty with Russia agreeing to tie their economies to the Russian ruble. The signatory states have agreed to coordinate their financial policy and to establish a common tariff system, steps which will eventually lead to the formation of a free trade zone involving all six republics.

Great Britain

According to Business Age magazine, pornographer Paul Raymond is the wealthiest person in Britain, with a personal fortune of 1.5 billion pounds (\$2.25 billion). The listing of the 500 richest people in the nation ranked Queen Elizabeth II as 57th, with 150 million pounds (\$225 million). Raymond amassed his fortune through publication of pornography, running a topless bar, and buying up Soho property. Raymond owns about

65 percent of central Soho.

Ireland

Small bombs exploded outside the homes of four politicians from the Irish nationalist Social Democratic Labor Party in Northern Ireland early Tuesday. There were no injuries resulting from the bombs, which were reported to be small pipe bombs equipped

with timing mechanisms.

Mexico

After leaving 21 dead in Honduras, Hurricane Gert struck Mexico's Gulf Coast. Heavy property damage was reported in the coastal states of Veracruz and Tamaulipas before the storm moved westward into Hidalgo and San Luis Potosi. As it passed into the inland

states, Mexico's Meteorological Service reported that Gert had been downgraded to a tropical storm, but still capable of damage, as was demonstrated by the damage caused by flooding accompanying up to three inches of rain in the affected areas. At least 15 rivers were reported to be on the verge of flooding Tuesday morning. The storm has left a total of 41 dead in its passage through Costa Rica, Nicaragua, and Honduras.



Nicaragua

Police used tear gas to disperse striking transport workers who had set up barricades on Tuesay. The strikers are demanding the abolition of a new vehicle tax, and their activities have virtually shut down Managua for the past two days. Under pressure from the transport union, the government has reduced the tax from \$100 to \$58, but protesters want to eliminate the tariff, which

follows a recent gasoline price increase.

Russia

President Boris Yeltsin dissolved the Russian Parliament late Tuesday and ordered new legislative elections. Citing no legal grounds for his action other than political and moral authority, Yeltsin declared that the move was an attempt to save the country from political chaos, disintegration, and catastrophe. This is just the latest event in

the ongoing power struggle between Yeltsin and his opposition in Parliament.

Somalia

A team of 75 U.S. Army Rangers successfully carried out a nighttime raid early Friday against a suspected command and control center used by the forces of fugitive warlord Mohammed

Farah Aideed. One Somali who aimed an AK-47 rifle at the Rangers was shot dead. There were no Ranger casualties.

South Africa

Unidentified gunmen shot and killed 24 people and wounded 23 others in two separate attacks Tuesday in and around the black townships south of Johannesburg. Police said that they had no immediate indications of who was responsible for either of the attacks.

U.S.A.

Oregon

Klamath County was declared a disaster area Tuesday after a 5.7 magnitude earthquake struck at 8:29 р.м. Monday. The quake was preceded by a magnitude 4.4 foreshock and followed by a magnitude 5.5 aftershock at 10:46 р.м. One motorist was killed by a 14-foot diameter boulder crushing his vehicle in a quake-triggered rockslide. Engineers declared several Klamath Falls buildings to be unsafe, and have begun to inspect bridges, roads, and other nearby facilities.

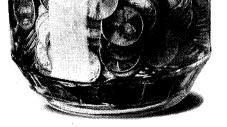
Texas

David Koresh update: still dead.

West Virginia

Vienna mayor William Owens announced this week that Lambert-Tatman Funeral Homes would be opening a Vienna branch in the building formerly occupied by the R.C. Speed and Parts radio-controlled car shop. Owens has mourned Vienna's lack of a funeral home in the past by saying, "You can't come into the world in Vienna (no hospital), you can't leave (no funeral home), and you can't stay overnight (no hotels)."





That penny jar on your dresser



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continued from page 1 Amnesty

for human rights were honored in 1977 with a Nobel Peace Prize.

Amnesty International defends basic human rights through letterwriting campaigns and publicity events. The organization's Londonbased Research Department investigates reported abuses of human rights and provides Amnesty International members with detailed information about each case. Individual members worldwide then write letters and distribute petitions, generating international pressure on government officials to address human rights abuses. Although Amnesty International does not claim credit for the release of prisoners, many former prisoners of conscience have said that Amnesty International letterwriting campaigns saved their lives.

Members of Amnesty International Caltech/Pasadena (Group 22) hope that one day a political prisoner named 'Abd al-Daim al-Wardi Ahmed 'Ali will be able to say just that. An Egyptian citizen, 'Ali has been held without charge or trial in an Egyptian prison for over a year, and has been tortured with beatings and electric shocks. In an ongoing campaign, the Caltech/Pasadena group is sendingletters, petitions, and postcards to Egyptian officials, urging that the government investigate reports of torture and bring 'Ali to a prompt and fair trial.

Amnesty International Caltech/ Pasadena members are also involved in letter-writing campaigns addressing human rights abuses in Laos, the death penalty in the United States, and refugee issues around the world. In addition, the group responds to regular Amnesty International bulletins on urgent cases requiring immediate action.

Members of Amnesty International Caltech/Pasadena (Group 22) gather on the fourth Thursday of every month to discuss human rights issues and ongoing Amnesty International campaigns. The group meets at 7:30 P.M. in the Caltech Y Lounge (Winnett Center, second floor). On the Thursday following each month's meeting, there is an informal Coffee and Letter-Writing Hour at the same location and time. Amnesty International Caltech/Pasadena also publishes a newsletter, called "22nd Street News," to keep its members informed of upcoming events. On the schedule:

•Thursday, September 23: Amnesty International Caltech/Pasadena September Meeting. Topic: The Death Penalty. (At 7:30 p.m. in the Caltech Y Lounge, Winnett Center second floor.)

•Thursday, September 30: Amnesty International Caltech/Pasadena Coffee and Letter-Writing Hour. (At 7:30 P.M. in the Caltech Y Lounge, Winnett Center second floor.)

•Friday, October 1: Benefit performance of "Come Good Rain," a one-man show about life in Uganda during Idi Amin's reign of terror. Proceeds go to Amnesty International. (At 8:00 P.M. The play will be performed at the Pacific Resident Theatre Ensemble, 8780 Venice Boulevard between La Cienega and Robertson.)

•Saturday, October 2 through Sunday, October 10: Human Rights Film Festival. Amnesty International Caltech/Pasadena members will be organizing an informal trip to the festival. (At UCLA.)

•Sunday, October 3: "Rummage for Rights," a yard sale to benefit Amnesty International Caltech/ Pasadena. (From 9:00 A.M. to 4:30 P.M., at 201 South Michigan Avenue, two blocks north of Caltech. Please contact Caltech/Pasadena Group 22 if you would like to make a tax-deductible donation of items for the sale.)

•Thursday, October 28: Amnesty International Caltech/Pasadena October Meeting. Topic: Human Rights in South East Asia. (At 7:30 P.M. in the Caltech Y Lounge, Winnett Center second floor.)

•Thursday, November 4: Amnesty International Caltech/Pasadena Coffee and Letter-Writing Hour. (At 7:30 P.M. in the Caltech Y Lounge, Winnett Center second floor.)

•Friday, December 10: International Human Rights Day.

For more information about Amnesty International or any of these upcoming activities, contact Jim Smith (jnsmith@romeo. caltech.edu) at 799–6810 or Jennifer Linden (linden@cns.caltech. edu) at 449–1063.

Open Line

by Gary Mines

Are you interested in meeting friendly and caring people from a widevariety of backgrounds? Open Line is a group made up of students, staff, and faculty from many different departments on campus, and from a variety of ethnic and cultural backgrounds. We are both an action group and a discussion group. We discuss topics related to people's well-being (from the L.A. riots, to child care at Caltech, whatever people bring up!) and share information on our different backgrounds, and we sponsor activities that bring people together (multicultural potluck picnics), keep people informed (lectures on pertinent social issues), and help out people in need (food and clothes drives). We welcome everyone's views and ideas, and encourage people to drop in whenever they can. Our agenda is flexible and is solely determined by what people in the group suggest.

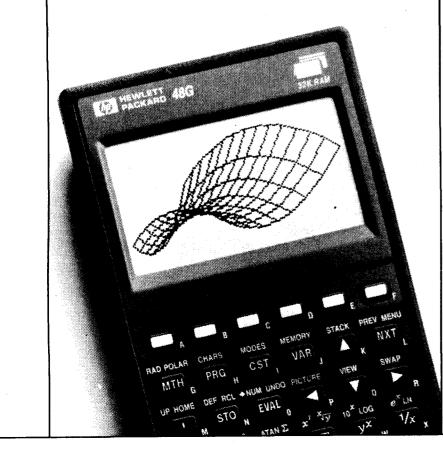
So, if you want to get yourself out of your lab, textbook, or office for a little bit and broaden your experience at Caltech, drop by any meeting and say hello! We meet from noon to 1 P.M. on Tuesdays in the Y lounge (2nd floor Winnettfeel free to bring your lunch). We will be having a special welcoming meeting on Tuesday, September 28th (noon-1 Р.м., Y Lounge), and a multicultural potluck picnic (bring your friends, family, and your favorite food, "ethnic" or otherwise) on October 3rd from 12-6 P.M., at Tournament Park (located just south of the Braun gym parking lot and east of the track). Hope to see you there!

continued from page 1 Slavin

expertise and breadth of experience is being put to use very quickly."

Slavin received her B.A. from Cal Poly Pomona in 1971, and then earned an MS in education at Southern Connecticut State University. While working at USC, she also attended classes there and earned an M.S. in counseling in 1979, and a Ph.D. in higher education administration in 1986. Slavin, a Pasadena resident, teaches classes at Azusa Pacific University in a master's degree program on counseling and student affairs.

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by Adam Villani

Welcome to Media Guy. This column will be full of my opinions on a variety of subjects in the entertainment world, and there may even be a few useful items.

John Cage Rolywholyover: A Circus

John Cage died last year, but you can still see his new art exhibit at the Museum of Contemporary Art (MOCA) in Los Angeles. It uses many of his ideas on indeterminism based on the I Ching. The exhibit incorporates many separate works of art arranged by various random algorithms, and the individual pieces are brought into the exhibit, moved, or removed each day. The overall effect is somewhat akin to the feeling I got when I was a little kid visiting the L.A. Children's museum-there's just so much to do. The first room has cabinets with hundreds of books inside their own individual drawers. All of the books looked interesting, but there's just no way I could have looked through all of them. The other rooms are filled with a random hodgepodge of art works, many of them Cage's. Like all of Cage's works (I am most familiar with his music), the ideas behind the making of Rolywholyover: A Circus are quite interesting and intellectually challenging, but unlike most of his other works, this one is actually aesthetically pleasing and fun.

Late Night Talk Show Wars

David Letterman: Thumb Up. Jay Leno: Thumb Down, but he'll stick around. Conan O'Brien: A potential Thumb Up. Chevy Chase: Ouch. Thumb Down.

"Saved By the Bell: The College Years"

O.K., I actually watched the premiere of this show. What is it about this show? The writing is sophomoric, the acting is tepid, and it's certainly nothing new. It's still kind of enjoyable. Maybe it's because this show doesn't attempt to be meaningful like 90210, or maybe it's because Kelly's a babe, or maybe it's because watching this show makes me thankful that I go to Caltech instead of "California University" with these morons.

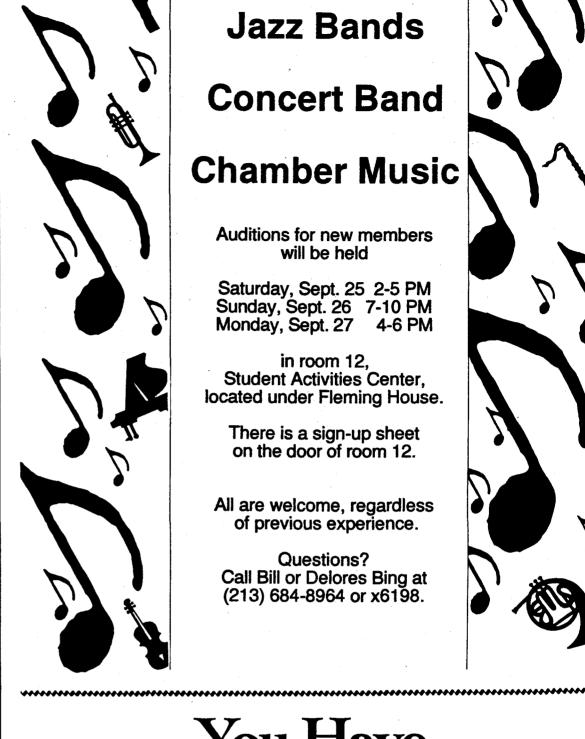
Prog Watch

Progressive music à la Yes, ELP, Magma, early Genesis, Gentle Giant, and King Crimson has got to be the most abused form of music in the media. For a prime example, read the section on "Progressive Rock" in the Rolling Stone Record Guide. Rolling Stone's review of Yes's "Union" disc wasn't a review of the album until halfway through the review, after the reviewer had finshed his tirade about how prog wasn't "real" rock 'n' roll. So anyway, I shall be the antithesis of rock "journalists."

The new King Crimson project will consist of Robert Fripp (guitar), Adrian Belew (guitar), Tony Levin (bass, stick), Jerry Marotta (drums), and former Crafty Guitarist Trey Gunn on stick and guitar. Two stick players in one band! Unfortunately this project has been delayed (sigh) because Fripp is tending to his ailing mother. Don't come whining to me about Bill Bruford not being in on this project, because you won't get any sympathy.

The new Yes studio album has been delayed and will hopefully be good. Steve Howe's latest, "The Grand Scheme of Things," is out, and he sings on it, so be warned. The money-grubbing scum at Atlantic are putting out a new Yes greatest hits album, and there seems to be an orchestral Yes project coming soon involving Alan Parsons.

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Auditions for new members will be held

Saturday, Sept. 25 2-5 PM Sunday, Sept. 26 7-10 PM Monday, Sept. 27 4-6 PM

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There is a sign-up sheet on the door of room 12.

All are welcome, regardless of previous experience.

Questions? Call Bill or Delores Bing at (213) 684-8964 or x6198.



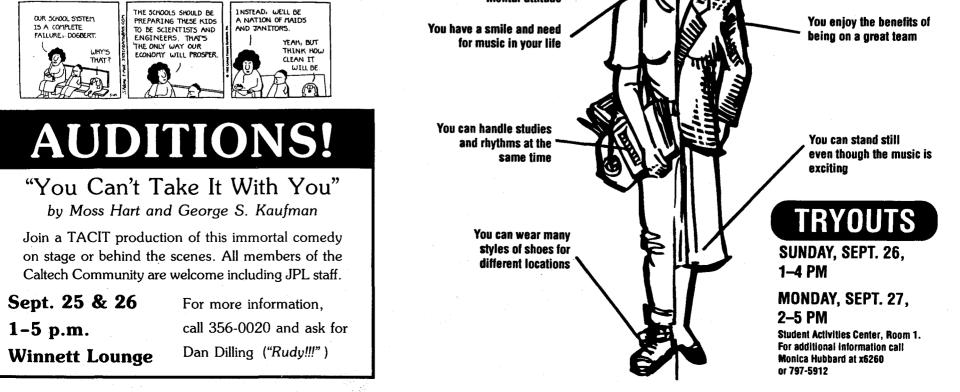
You Have What It Takes To Be a Member Of The Women's Glee Club! You are an

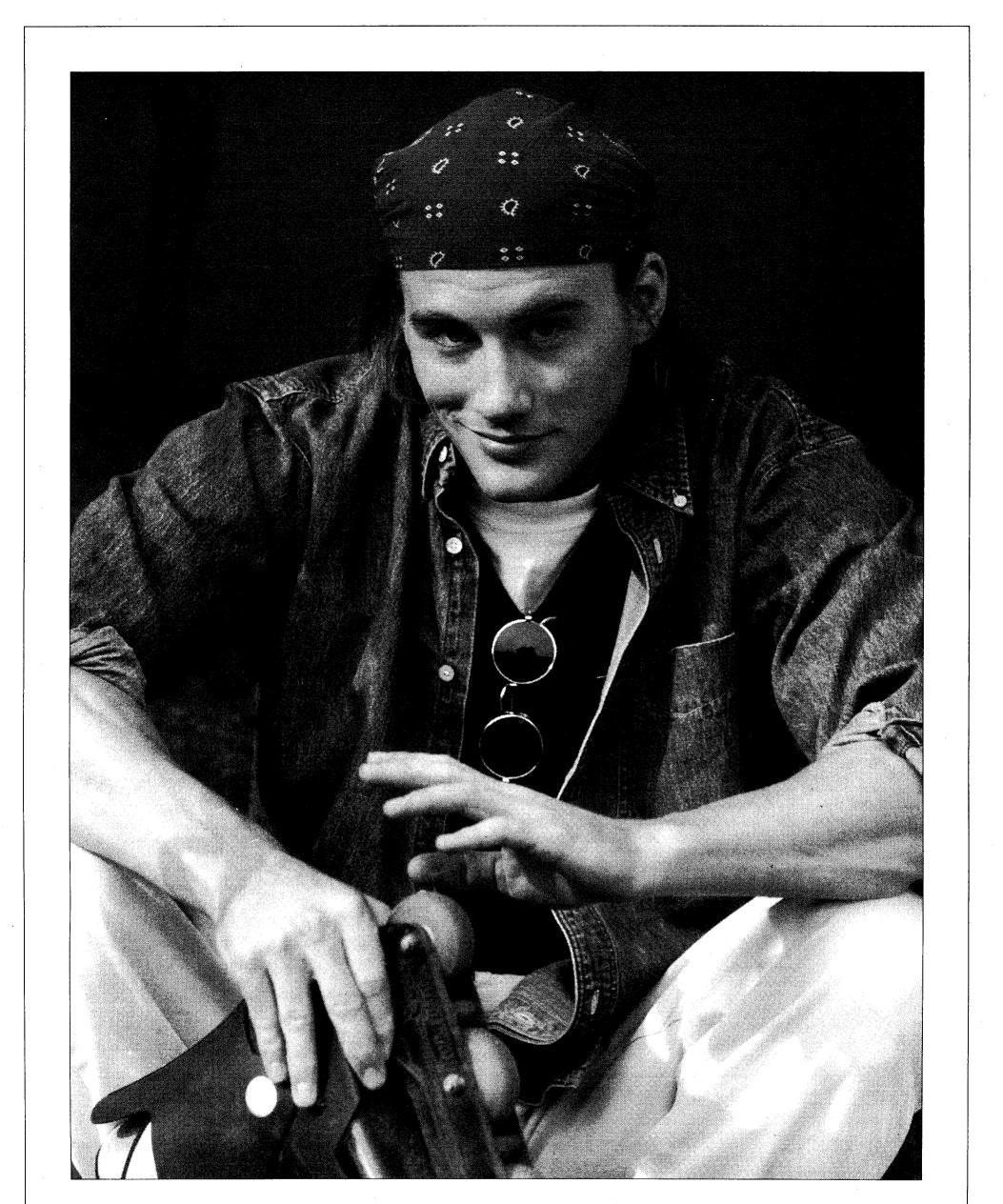
Undergraduate student, graduate student, Post Doc or a Caltech/JPL staff member and female.

ANATOMY OF A GLEE CLUB MEMBER

You have, make, count and keep time

You have a sharp mental attitude





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Frosh Survival Guide

Useful information for those in need

Food

- 1. A+ Donuts-Better than Winchell's, but not spectacular. Get someone to drive you to Far Foster's instead.
- 2. Avanti's, Coco's, Del Taco-Avanti's is wood-fired gourmet pizza. Expensive, but rather good. Coco's used to be a Bob's Big Boy, and hasn't changed much. Don't go to Del Taco.
- 3. Baskin Robbins
- 4. Beadle's—Get out of the cold, get into the old.
- 5. Coffeehouse—It won't open until after Rotation. The Coffeehouse sells the best milkshakes in Pasadena. It's close and cheap. Don't throw ice at the managers. 6. Denny's
- 7. Espresso Bar-A pretentious, crowded, smoke-filled coffee shop, populated by Euro-poseurs playing chess and reading poetry. You must go there at least once. It's in the back of an alley off Raymond Ave., behind the vacuum cleaner store.
- 8. Fairway House-It's a bit expensive, but it opens early and it's close to Tech. It looks like a hunting lodge on the inside. Basic diner-type fare.
- 9. Hoppe's Old Heidelberg-A wacky German restaurant in Van Nuys. You'll have to drive, but it's worth the effort to see the German waitress playing her accordion and singing. The address is 13726 Oxnard.
- 10. Jack in the Ba, Beef Bowl, Carl's Jr.-Fast food.
- 11. Old Pasadena Restaurants-Barney's, Market City Caffe, Mi Piace, Old Town Bakery, Rose City Diner, the Rite Spot. To find out more, ask an upperclassman or his little t.

12. Pasadena Creamerv-Good Italian ice creams and ices.

- 13. Pataya-Thai food. We can't be glowing enough about Pataya. It's cheap and tasty. Go there as often as possible.
- 14. Pete's Grandburger—"I like to eat there."-Mike Benedetti
- 15. Red Door Café-Not as pretentious as the E-Bar, and more grad students.
- 16. Souplantation-All-vou-can-eat soups, salads, and various muffins and breads. They have a Caltech discount, so bring your I.D.
- 17. Subway-The nation's second largest fast food chain. It's not awful.
- 18. Super Antojito's—A seedy Mexican restaurant. A Tech favorite.
- 19. Tarantino's-A good Italian restaurant. Their pizza is among the best in the city. They have limited seating, but they sometimes give you free stuff if you have to stand in line too long.
- 20. Winchell's-Bottom of the barrel doughnuts. They are open 24 hours, though.

Grocery Stores

- 21. Eddie's Market-A tiny convenience store and deli next to Grant Park. They sell good sandwiches and a number of imported beers.
- 22. Pavilions-The closest supermarket to Tech. It has higher prices and a smaller selection than Ralph's, but if you have to walk, it's your best bet.
- 23. Ralph's-Shop here if you can. Big and cheap.
- 24. Trader Joe's-A gourmet and health food market.
- 25. Vons—It's too far away, and too similar to Ralph's.

Theaters

- 26. The Academy-Admission is cheap, but movies take a while to get there. If you missed it the first time, catch it at the Academy.
- 27. AMC Old Pasadena-It's underground. Shows current release films, and has a Caltech discount.
- 28. Laemmle Theaters (Esquire and Colorado)-Art films, foreign, "Saturday Night Fever," etc. 29. UA Marketplace-Another mainstream, first-run theater. More expensive than the AMC.

Video Rentals

- 30. West Coast Video
- 31. Music Plus
- 32. Tower Records/Blockbuster Video-Tower is cheaper, but Blockbuster has a better selection.

Banks

- **33. American Savings**
- 34. Bank of America
- 35. California Federal 36. Coast Federal
- **37. Home Savings**
- 38. Wells Fargo

Record Stores

- 39. Canterbury Records—Some used recordings, good classical selection.
- 40. Pooh Bah—The place to buy and trade CD's. They have a great selection of rare and used CD's at great prices.
- 41. Penny Lane-They have used CD's, but higher prices than Pooh Bah. They carry lots of strange bootlegs.
- 42. Tower Records-You can't beat its selection, especially for classi-

cal, foreign, and funk. It is usually more expensive than other stores, but it has frequent sales.

Bookstores

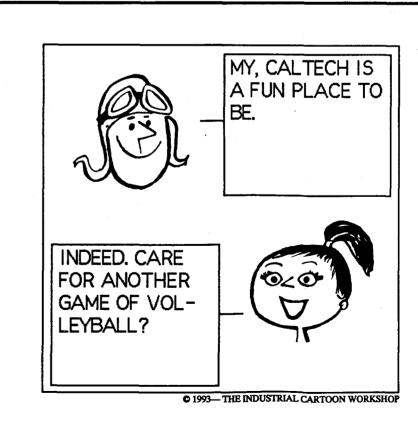
- 43. Cliff's Books-A charmingly sleazy used book store. Miles and miles of wooden shelves filled with books on every subject.
- 44. Hunter's/Super Crown-Hunter's has a good fiction section. Super Crown is huge. 45. Vroman's-The king of Pasadena bookstores.

Clothing

46. Bullocks-A rather pricey department store. 47. Eddie Bauer 48. Plaza Pasadena-Like all malls, has many clothing stores.

Other

- 49. Athletic Fields
- 50. Caltech Health Center
- 51. Central Park
- 52. Grant Park
- 53. Huntington Memorial Medical Center
- 54. Memorial Park
- 55. Pasadena City College-A large flea market is held here on the first Sunday of each month.
- 56. Pasadena City Hall
- 57. Pasadena Convention Center
- 58. Pasadena Library (Hill Ave.
- Branch)
- 59. Pasadena Central Library



Mike's Message of Hope

Welcome to Caltech. Contrary to what many upperclassmen may be telling you, it is possible to enjoy yourself here. In fact, you will soon be a part of one of the most exciting and tiring annual events at Tech: Rotation. On the following pages is a schedule that will tell you where you are to eat each day. It is very important that you go to each meal, or you will be counted absent and bad things will result. Also contained in this supplement is a map of our area of Pasadena, listing a few of the many restaurants and shops in the area. We encourage you to go off campus and explore L.A. as much as possible.

Your pal,

Micharl P. Benedett

Mike Benedetti

Rotation

lame	Sun	Mon	Tues	Wed	Thurs	Fri	Sat	Name	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
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The California Tech

September 24, 1993

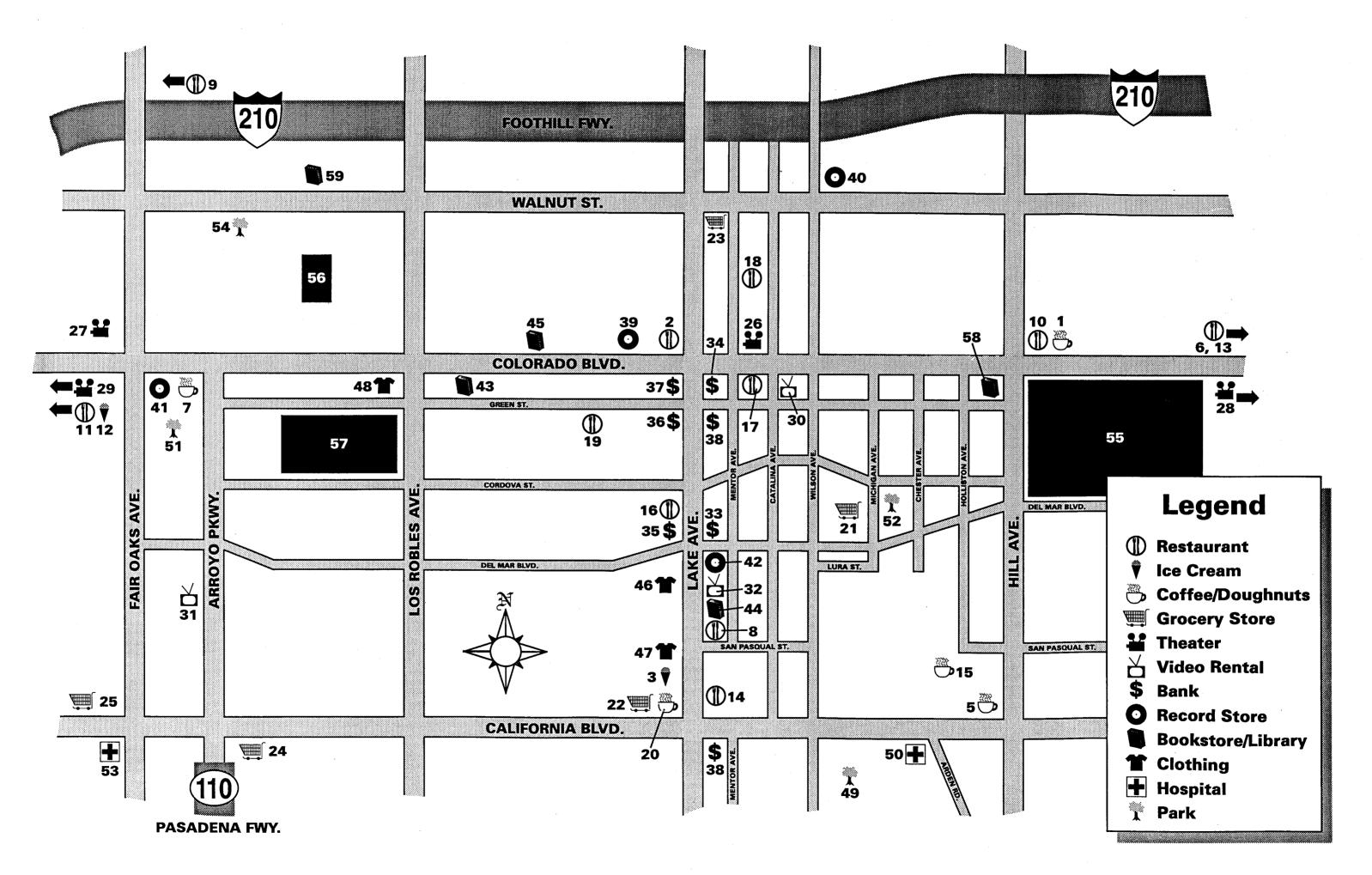
Schedule

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Paddock, Emily	/Bl	Pa/Ll	Ri/Da	Da/Fl	Ll/Ri	Fl/Pa	Ru/	Sumasara, Khurram	/Ll	Ri/Pa	Fl/Da	Da/Bl	Pa/Fl	Bl/Ri	Ru/
Park, Jae	/Da	Ru/Ri	Bl/Fl	Fl/Pa	Ri/Bl	Pa/Ru	Ll/	Sutton, Phillip	/L1	Fl/Ri	Bl/Da	Da/Pa	Ri/Bl	Pa/Fl	Ru/
Passey, Aron	/Da	Bl/Fl	Ll/Ri	Ri/Ru	Fl/Ll	Ru/Bl	Pa/								
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Petrovic, Lena	/Fl	Da/Pa	Ll/Ri	Ri/Ru	Pa/Ll	Ru/Da	Bl⁄	Thulin, Karl	/Bl	Fl/Ri	Ll/Ru	Ru/Pa	Ri/Ll	Pa/Fl	Da/
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Rotation 1993

The Interhouse Committee cordially invites all new students to attend a series of informal meals and evening receptions to acquaint you with each of the seven Student Houses (and vice versa). Above you will find a matrix of names and days of the week. Please find your name in the leftmost column and read across to determine the order in which to visit the Houses (for each day, meals are listed as lunch/dinner). Lunches are cafeteria-style, while dinners (and the final Saturday lunch) are family-style followed by a reception at which refreshments will be served. You are strongly urged to give all seven Houses a fair chance; attendance is expected at all meals (please pick up your name tag to indicate your presence). If you cannot attend a meal, be sure to contact the President of the relevant House in advance, or you may be marked as a no-show and be required to rank all seven Houses equally. At the end of the week, you should hopefully have a good idea of the character of each of the Houses. On Saturday afternoon after the last reception, you will be given a form on which you will rank at least four Houses in order of preference. These forms must be submitted by 3:00 P.M. to the Resident Associates of the House in which you are temporarily living. The compiled list will be ready at 5:00 P.M., when you should reconfirm your rankings with the RA's. Picks will take place on Sunday morning in a closed meeting of delegates from each House, and the results of the House picks will be announced on Sunday Evening. If you have any questions or concerns, please contact Asif Hassan, IHC Chairman (x6964, Ruddock 240, Box 290), one of the House Presidents, or the Residence Life Office. We sincerely hope that you find your Rotation experience to be enjoyable.





Edward C. Posner 1933–1993

by Caltech Public Relations

Edward C. Posner, visiting professor of engineering and JPL's chief technologist for the office of telecommunications and data acquisition, was hit by a truck and killed as he bicycled from Caltech to JPL on the morning of June 15, 1993.

Posner earned his B.A. in physics, and his M.S. and Ph.D. in mathematics, at the University of Chicago in 1952, 1953, and 1957, respectively. He taught mathematics at the University of Wisconsin and at Harvey Mudd College before joining JPL as a technologist in 1961. He became a chief technologist in 1982. He was appointed a lecturer in electrical engineering at Caltech from 1970 to 1977, became a visiting associate professor in 1977, and had been a visiting professor since 1978.

Posner's specialty was information and communication theory. At JPL, his work on coding theory and data compression has enabled

The *Tech* needs an on-campus circulation manager. An undergraduate or graduate student is preferred. For more information, call Gavin at x6154.

the volume of data returned from spacecraft over the Deep Space Network to be increased by several orders of magnitude. His campus research interests included communication network design, and automatic switching systems for such applications as cellular telephones.

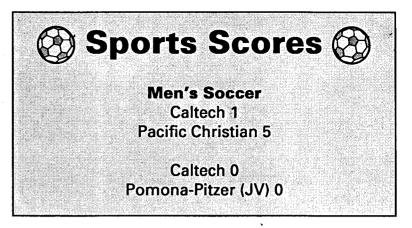
Posner was one of the founders of research into neural networks at Caltech and JPL in the early 1980s, and was instrumental in the creation of Caltech's interdisciplinary graduate-study program in Computation and Neural Systems, the first program of its kind in the world. Neural networks are often proving more adept at some complex tasks, such as pattern recognition, than traditional computers.

A dedicated supporter of under-graduate research, Posner had been a member of Caltech's SURF (Summer Undergraduate Research Fellowship) Administrative Committee since 1990, and cofounded the SURFSAT satellite program with Robert Clauss at JPL.

Since 1984, he had sponsored 13 SURF students, not counting three who had just started this summer's work. Between 1988 and 1991, he cosponsored another 20 SURFSAT students at JPL with Clauss. Posner had also served on the Freshman Admissions Committee since 1991 and the President's Fund Committee, which funds innovative research by Caltech faculty and students at JPL, since 1990.

Posner was a fellow of the Institute of Electrical and Electronic Engineers, and chairman of the Neural Information Processing Systems Foundation, and a member of the American Institute of Aeronautics and Astronautics, the American Association for the Advancement of Science, the Society for Industrial and Applied Mathematics, the International Neural Network Society, the World Space Foundation, and a charter member of The Planetary Society, and on the editorial boards of several scientific and engineering journals.





THE WATSON FELLOWSHIPS **REMINDER TO INTERESTED SENIORS**

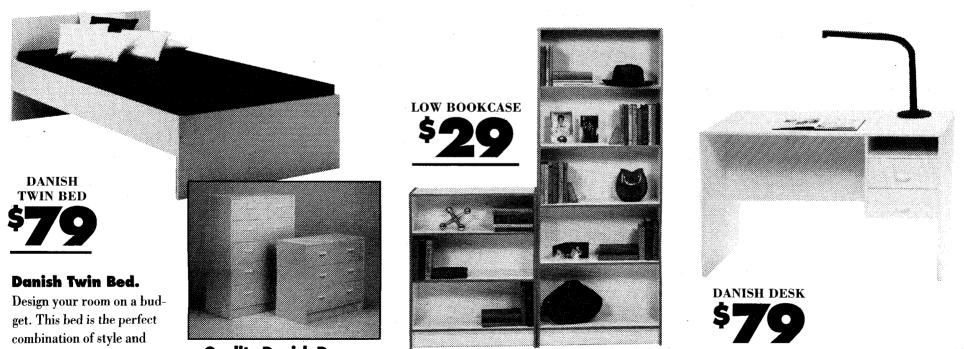
A one- to three-page project proposal draft for the Watson Fellowships is due in the Dean of Students office, 102 Parsons-Gates, on

Friday, October 8, 1993.

Keep in mind that successful proposals generally have a single topic of study or investigation that reflects a student's longstanding interest in that area.

The Watson Foundation provides fellowships of \$15,000 for a year of independent study and travel after graduation. They are designed to encourage an informal break in the normal sequence of undergraduate-postgraduate education and are a marvelous opportunity to travel outside of North America. Caltech nominates two seniors each year for this fellowship.

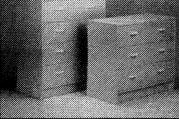
How To Fulfill Your Basic College Requirements.





price. Available in white or black, just \$79*.

* Sealy and Serta mattresses additional.



Quality Danish Dressers.

Made with a durable melamine surface for scratch-resistance and easy cleaning. Available in white or black. High Chest \$79 Low Chest \$59

An Exceptional Student Value.

These quality Danish bookcases are great for storing everything. Low bookcase: 27"w x 10" 33.5"h. Just \$29. High bookcase: 27" x 10" x 68.5 h. \$39 each or 3 for \$99.

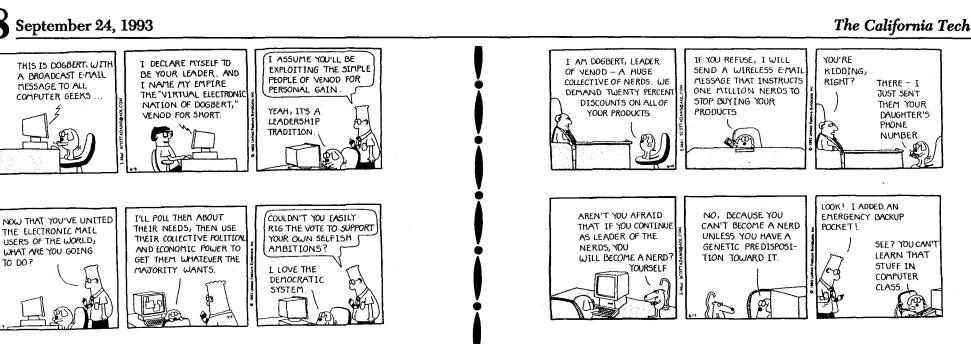
Functional And Affordable.

This Danish desk is just the right size for an apartment. 47.6"w x 27" x 28"h. In all-white, black or white with beech trim only \$79.

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continued from page 1 Administration

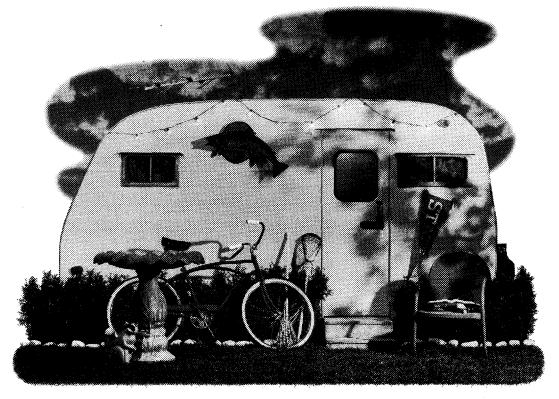
Coordinator's position, which has been vacant since Robert Cobb left last January, has been abolished. The search for an Assistant Director will begin soon, and the search committee will include students. Kim hopes that the Assistant Director will help to free her for more interaction with students and to pursue other projects.

David Wales's office has been moved to the east side of Winnett, but it will still be used for ASCIT and IHC meetings. Gina Armas has moved to Winnett from her office in the SAC, but will still be in the SAC three to four mornings a week for Coffeehouse business. Elizabeth Sheiman, who assisted both the Coordinator of Student Activities and the Music Department, will no longer be working for Residence Life. She will continue working for the Music Department in the same office. Kim West does not foresee any problems with the loss of the half-time position, but she will use the salary money to hire extra student workers if the office turns out to be under-staffed. She hopes that the rearrangement will make Residence Life more accessible to students, and help the staff work together more closely.





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*Savings based on AT&T Simple Savings Plan. © 1993 AT&T

The Psychology behind the Citibank Classic Visa card, and the emotional security of the Photocard. The Citibank Classic Visa*

instills in students feelings of safety, security, and general wellness not unlike those experienced in the womb. Therefore, it is the mother of all credit cards. ¶ Some experts attribute these feelings to the **Citibank Photocard**, the only credit card with your photo on it. A voice inside says, "This is me, really me." (As opposed to, "Who the heck is that?"—a common response to the photo



Subject suffering from Credit Card Theft Nervosa.



Subject after receiving Citibank Classic Visa Photocard.

on one's driver's license.) It's an immediate form of ID, a boost to your self-image. ¶ Of course if your card is ever lost or stolen and a stranger is prevented from using it, you'll feel exceptionally good (showing no signs of Credit Card Theft Nervosa). ¶ Other experts point to specific services, such as **The Lost Wallet**[¬] **Service** that can replace your card usually within 24 hours. Or the **24-Hour Customer Service** line, your hotline, if you will, for any cardrelated anxiety whatsoever. ¶ Further analysis reveals three services that protect the purchases you make on the Citibank

Classic Visa card, at no additional cost. **1. Buyers Security**^m can cover them against accidental damage, fire or theft, for 90 days from the date of purchase¹ (preventing, of course, Insecurity). **2. Citibank Lifetime Warranty**^m allows one to extend the warranty for the expected service life of eligible products up to 12 years.² **3.** And **Citibank Price Protection** assures you of the best price. You need only see the same item advertised in print for less, within 60 days, and Citibank will refund the difference up to \$150¹ (hence no Post Purchase Depression). ¶ Special student savings are particularly therapeutic. There's the free **Citibank Calling Service**^m from MCI to save up to 26% on long distance calls versus AT&T.³ (You're encouraged to call Mom and Dad regularly preventing Parenta Non-Supportus.) And a **\$20 Airfare Discount**⁴ on any domestic flight. (Case studies indicate that a Fear of Flying is overcome when Spring Break in sunny Florida is a possibility.) Not to mention the low variable interest rate of 15.4%⁵ and no annual fee for college students. ¶ Suffice it to say, you'll have a credit card you can depend on while building a credit

The Monarch^{*} Notes Version: The Citibank Classic card gives students peace of mind, protection against Freud—or rather fraud—a low rate and no fee. Apply today. Call 1-800-CITIBANK, ext. 19

history. So call 1-800-CITIBANK, extension 19, to apply over the phone (students don't

need a job or a cosigner) or to have your photo added

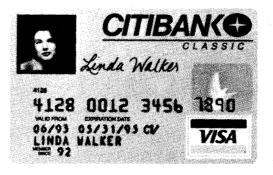
to your Citibank Classic Visa card. ¶ If we say that a

sense of Identity is the first component of the Citibank

Classic Visa card, a sense of Security the second, and

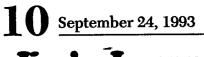
a sense of Autonomous Will from your newfound

financial independence the third, don't be crazy...Call.



Not just Visa. Citibank Visa.

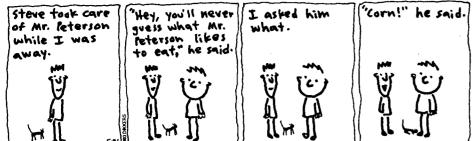
¹Certain conditions and exclusions apply. Please refer to your Summary of Additional Program Information. Buyers Security is underwritten by The Zurich International UK Limited. ¹Certain restrictions and limitations apply Underwritten by the New Hampshire Insurance Company. Service life expectancy varies by product and is at least the minimum based on retail industry data. Details of coverage are available in your Summary of Additional Program Information. 'Savings claim is based on a 10-minute night/weekend call in the 1.911 to 3000 mileage band using MCI's Card Compatibility rates vs. AT&T's standard calling card rates, effective 4/93. Citibank Calling Service long distance usage cannot be applied to obtain benefits under any other MCI partner program or offer, including travel award programs. 'Offer expires 6/30/94. Minimum ticket purchase price is \$100. Rehates are for Citibank student cardmembers on tickets issued by ISE Flights only. 'The Annual Percentage Rate for purchases is 15.4% as of 8/93 and may vary quarterly. The Annual Percentage Rate for cash advances is 19.8%. If a finance charge is imposed, the minimum is 50 cents. There is an additional finance charge for each cash advance transaction equal to 2% of the amount of each cash advance transaction; however, it will not be less than \$2000 or greater than \$10.00. Monarch* Notes are published by Monarch Press, a division of Simon & Schuster, a Paramount Communications Company. Used by permission of the publisher. Citibank credit cards are issued by Citibank (South Dakota), NA. Member FDIC.



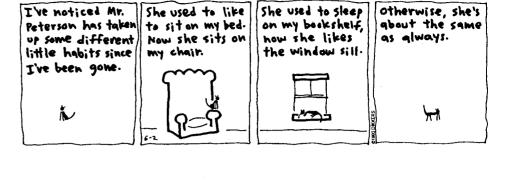
The California Tech

by Jim

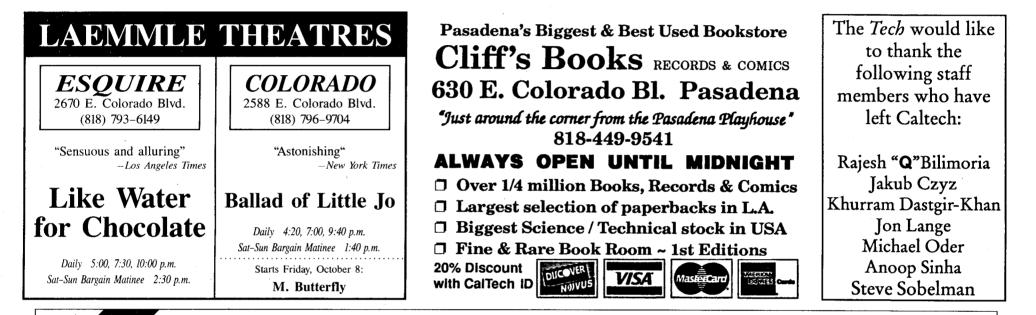
Jim's Journal













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able to qualifying students, at participating authorized Apple Campus Resellers. ©1993 Apple Computer, Inc. All rights n Centris and PowerBook are trademarks of Apple Computer, Inc. Classic is a registered trademark licensed to Apple Computer In

continued from page 1 **Bartle-Schulweis**

Dr. Paul Jennings, provost at Caltech. "This Institute is fortunate to have attracted someone with her ability and experience."

"I am thrilled to be the first director for the Women's Center at Caltech," said Bartle-Schulweis, "It will be challenging to work at such an outstanding institution."

Bartle-Schulweis received her B.A. from UCLA, graduating summa cum laude in sociology with a specialization in women's studies. She earned her M.A., also in sociology, from UCLA, and expects to receive her Ph.D. in sociology from UCLA this year. Bartle-Schulweis and her husband, Seth, have three children-Miranda, 11, Sarah, 7, and Aaron, 5.

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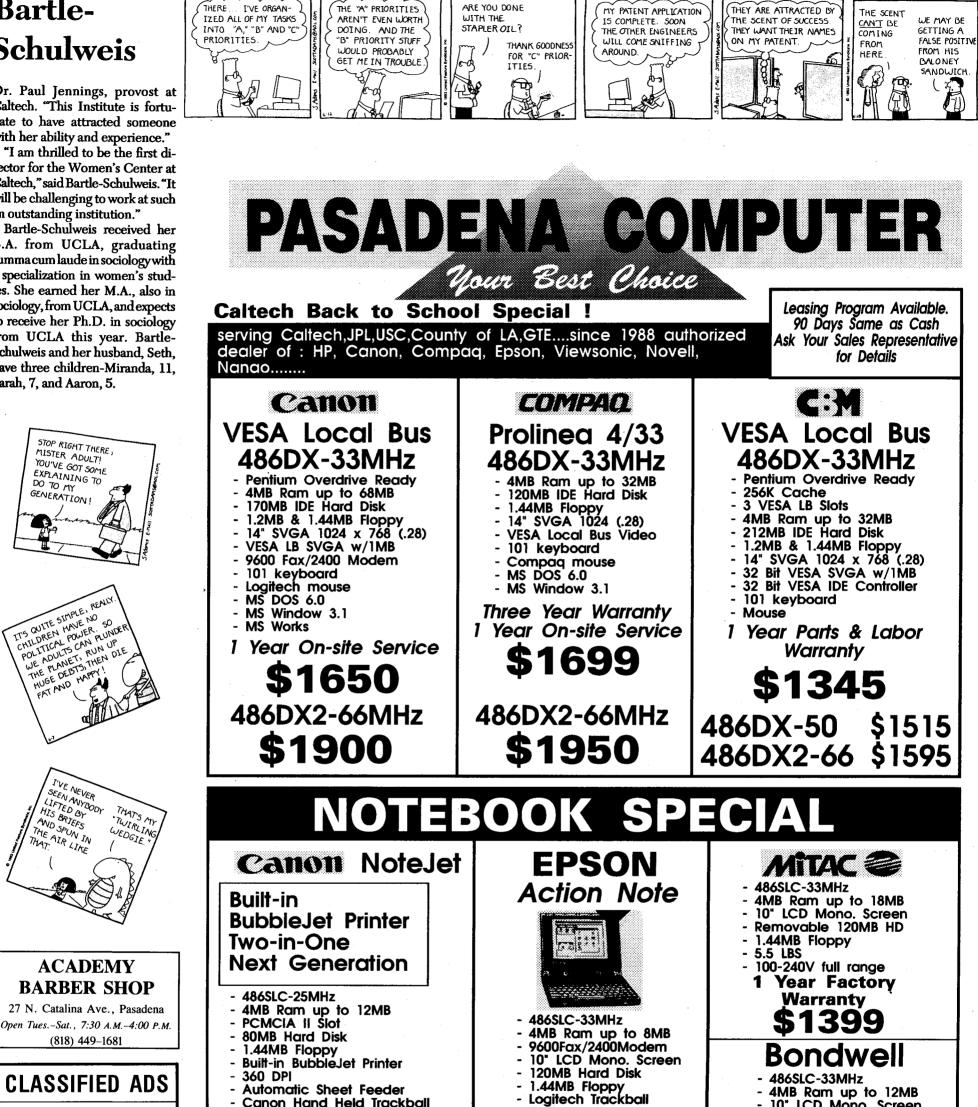
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September 24, 1993

PRIME LOCATION - LARGE STUDIO COND with view windows, 1115 E. Cordova St (2 blocks from Caltech), security building all-electric, partially furnished, pool, pati 2 car spaces. \$675/month, utilities par paid. Call Ray at x6331 or (818) 792-905

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* Note: asterisks indicate new announcements

Notices

1993-94 H&SS Course Schedules Schedules of courses expected to be taught in the Humanities and Social Sciences during the 1993-94 academic year are available in 228 Baxter.

Y The Caltech Bookstore will be open Saturday, September 25, from 9 A.M. to 5 P.M. Regular hours are 8 A.M. to 5:30 P.M., Monday through Friday. The bookstore is continuing its on-campus delivery service: it's free with any \$10 purchase.

Additions to H&SS Fall Courses_An 22, introduction to the Anthropology of Development, will be offered by Prof. Scudder first term Monday at 7:30 P.M. There is an enrollment limit of 35.

Deletion to H&SS Fall Courses BEM 109, Venture Capital, has been canceled.

Russian History Course Offered First Term-Dr. Linda Gerstein, a cultural and intellectual historian specializing in Russian studies from Haverford College, Pennsylvania, will teach H 161, Russia in the 20th Century: From Revolution to Revolution. The course will include the revolution of 1917, the Bolshevik cultural revolution in power, Stalinism and the Purges, the revolutionary movement of the Dissidents against Stalinism, and the fall of the System in 1991. Offered MW 2:30-4:00.

Economics and Politics of U.S. Technology Policy-SS 101 addresses the economic effects and political viability of government efforts to promote technological innovation in the United States. The instructor, Dr. Linda Cohen, visiting associate professor of economics from the University of California, Irvine, works in the fields of political economy, government regulation of and government policy toward research and development. The course is open to graduate students, as well as undergraduates. TTh 1:00-2:30.

Events and Services

Pasadena Folkdance Co-op-September is Learning Time Again! Come Learn International Folk Dance! Learn Folk Dances form other lands such as Japan, Bulgaria, Greece, Scotland, China, Armenia, Israel, Lebanon, etc. every Friday evening. The Pasadena Folkdance Co-op invites community members to join the club at Throop Unitarian Church at the corner of Los Robles and Del Mar where you will receive beginning and intermediate dance instruction at 7:45 P.M. followed by a brief break at 9 P.M. You are invited to continue dancing until 11 P.M. To protect the wooden dance floor, we ask all to use soft soled shoes. A \$1.50 contribution is requested of all participants.

Pasadena YWCA Rape Crisis Centor-Survivor Support Groups Forming (Adult Survivor, Adolescent Survivor, and Adult Survivor of Child Sexual Assault). The goals of the groups are: to reduce feelings of isolation, empower women, expose myths about sexual assault, and enable members to build support systems.



Events and Notices

These are peer-support groups, and do not profess to be "therapy groups," but therapy and healing do occur. Cost is FREE; nominal donations are accepted but not demanded. Contact the YWCA Rape Crisis Center at (818) 793-5171.

* Pasadena YWCA Rape Crisis Centor-Self Defense for Women. Classes held monthly. Saturdays from 12:00-4:00 P.M. September 25, October 16, November 6. \$25 per session (Sliding Scale, no woman turned away for lack of funds).

Big Brothers Needed—Now that summer's over and school is back in session, the fatherless boys on our waiting list need a friend who can help them hang up their beach gear and ease into the first days of school. You can be that friend. You can be a Big Brother. To learn more about becoming a friend to one of these boys from father-absent homes, men 18 and over are invited to attend an orientation meeting.

For information contact Mary Langford at Big Brothers of Greater Los Angeles at (213) 258-3333. Big Brothers of Los Angeles is a private nonsectarian agency that matches a fatherless boy with an adult male volunteer to become the boy's role model and friend.

***** Auditions for Jazz Bands, Concert Band and Chamber Music-Auditions for new members will be held Saturday, September 25, 2-5 г.м.; Sunday, September 26, 7-10 г.м.; and Monday, September 27, 4-6 P.M. They will be held in room 12 of the Student Activities Center, located under Fleming House. There is a sign up sheet on the door of room 12. All are welcome, regardless of previous experience. Questions? Call Bill or Delores Bing at (213) 684-8964 or x6198.

Caltech Y ExComm Meeting-The Y invites anyone who wishes to co-sponsor an event to attend on the first or third Monday of each month.

Caltech Hillel/Jewish Community Weekly Meeting-An informal gathering, every Thursday at noon in the Y lounge. For information call Caty Konigsberg at (213) 259-2959.

Friday Prayer—Prayers organized by Caltech Muslim Students are held in the Caltech Y lounge at 1:30 P.M. every Friday.

Mass-Thursday at 8:15 A.M. in the Y lounge and Sunday at 10 A.M. in Winnett lounge. Sacrament of Reconciliation (confession) is given 20 minutes before masses. Refreshments are served after mass.

Bible Study and Discussion—Every Wednesday at noon in the Y lounge. Bring your own lunch. For more information call Mike Gerfen at 356-4886.

*** OpenLine**—Are you interested in meeting friendly and caring people from a wide variety of backgrounds? Open Line is a group made up of students, staff, and faculty from many different departments on campus, and from a variety of ethnic and cultural backgrounds. We are both an action group and a discussion group. We discuss topics related to people's well being and share information on our different backgrounds, and we sponsor activities that bring people together, keep people informed, and help out people in need. We welcome everyone's views and ideas, and encourage people to drop in whenever they can. Our agenda is very flexible and is solely determined by what people in the group suggest. So if you want to get yourself out of your lab, textbook, or office for a little bit of and broaden your experience at Caltech, drop by any meeting and say hello! We meet from noon to 1 P.M. on Tuesdays in the Y Lounge (2nd floor Winnett, feel free to bring your lunch!). Remember, we AL-WAYS welcome new people, at any time of the year. Hope to see sometime! For more information contact Gary Mines at x6542 (gam@xhmeia.caltech.edu).

Baby Furniture Pool—The Caltech Service League loans out baby furniture to students and postdocs on Wednesday at 324 S. Chester from 10 to 11 A.M. For more information call 952-1631.

Israeli Folk Dancing---Sundays in Winnett lounge, Beginning instruction starts at 7:30 P.M., intermediate at 8:00 and open dancing goes on from 8:30 to 10:30. For information call Nancy Macmillan at 795-3655. Admission is \$2.00.

Scottish Country Dancing---On Wednesdays in Dabney Lounge from 8 until 10 Р.м. Beginners are welcome and no partners are needed. For more information call David Hills at 354-8741.

Music with James Boyk—Pianist James Boyk gives a performance each Wednesday from 4:30 to 6 P.M. in Dabney Lounge. The perfor-



mance is open to the public and free of charge. Feel free to come late or leave early. For more information call x6353.

Lectures

* Redefining Femininity: The Checkered Career of Mme. Du Châtelet—Mary Terrall, a visiting scholar at UCLA, will speak on Wednesday, 20 October 1993 in the Judy Library at 4:00 P.M. There will be refreshments

Scholarships, Internships & Competitions

For information on the following scholarships, please contact the individuals listed at the end of each scholarship.

*** Summer 1994 Internships**---The Sacramento Bee, a 263,000 circulation McClachy newspaper offers summer internships in reporting, sports, copy editing, photojournalism and infographics. The internships are full-time for 12 weeks and pay \$375 a week. Interns are responsible for their own housing. Reporting interns will do rotations in metro, business, and features. Sports interns will spend time writing as well as working on the sports copy desk. Copy editing, photo and infographics interns will assume regular shifts in their departments. Applicants must be working toward a college degree or be recent college graduates.

Apply by December 1, 1993. NEWS and SPORTS REPORTERS and COPY EDITORS should send a cover letter, resume with three telephone references and up to 10 clips demonstrating a range of work including headlines for copy editors. Mail materials to: Editorial Internship Director, The Sacramento Bee, P.O. Box 15779, Sacramento, CA 95852. PHOTOCRA-PHERS should send a cover letter, resume, three references and 20 to 40 slides or prints. Mail materials to: Mark Morris, director of photography, The Sacramento Bee, P.O. Box15779, Sacramento CA 95852. (Samples will be returned for photography applicants.) GRAPHIC ARTISTS should send a cover, resume, three telephone references and photocopies of 10 to 20 work samples. Mail materials to: Cynthia Davis, editorial art director, The Sacramento Bee, P.O. Box 15779, Sacramento, CA 95852. (Samples will be returned for graphic art applicants.)

***** United States Department of Energy: Integrated Manufacturing Predoctoral Fellowships-The United States DOE is offering twelve three-year fellowships for study toward the Ph.D. degree. Eligibility is limited to citizens, nationals, and permanent resident aliens of the United States, who will have received a master's degree by the fall of 1994, but evidence of equivalent postbaccalaureate professional industrial experience may be offered by the applicant in lieu of the master's degree. There is a stipend of \$20,000 per year, and up to \$15,000 per year will be provided toward tuition and fees. Selection is merit based. Contact: Fellowship Office, National Research Council, 2101 Constitution Avenue, Washington, D.C. 20418, or call (202) 334-2872. Initial application date is November 5, 1993.

1994 Student Research Program— The American Heart Association, California Affiliate and Greater Los Angeles Affiliate is spon-

soring this research program for college juniors and seniors (as of fall 1994) who are either California residents or attending a college in California. Deadlines: to request application: December 15, 1993. Receipt of materials: January 15, 1994. For more information, contact: AHA, California Affiliate, Research Department, 1710 Gilbreth Road, Burlingame, CA 94010. (415) 259-6700.

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