

*write for
The Tech*

CALIFORNIA THE TECH

*be my
valentine*

Volume XCIV, Number 16

Pasadena, California

February 12, 1993



Nikki Giovanni; The Caltech Y will present "An Evening With Nikki Giovanni" on Wednesday, February 17, at 8PM in Caltech's Beckman Auditorium.

CALSEDS '93 Convenes to Discuss The Future of Humanity in Space

Jeff Foust

This Friday evening and Saturday students, professionals and activists from across California will gather in Pasadena to discuss the future of our society in space at the CALSEDS'93 conference in Pasadena. The theme of the conference is "Discovering Your Future in Space." The conference is sponsored by the California chapters of Students for the Exploration and Development of Space (SEDS), in conjunction with the California Space Development Council (CSDC), an organization of chapters of SEDS and the National Space Society.

The conference will focus on three distinct but important aspects of humankind's future in space, according to conference organizers. The fields of space education, space policy and space transportation will be the key areas of focus during the conference. All three fields are crucial to the future of space exploration and development.

The conference starts on Friday evening, February 12th, with an evening of activities beginning at 8pm in Gates Laboratory at Caltech.

On Saturday, February 13th, the conference will be held from 9am to 5pm at the Pasadena Hilton Hotel in downtown Pasadena. There will be a mix of speakers, open discussions and social events throughout the

conference.

A wide range of speakers, covering all three areas of focus, will be featured at the conference. These speakers include Dr. William Gaubatz, director and program manager of the SSTO (Single Stage To Orbit) program at McDonnell Douglas; Dr. Peter Diamandis,

continued on page 3

Monitoring Earth's Capacity to Support Life

Shane Sauby

Dr. Bruce C. Murray, Ph. D. and Professor of Planetary Science and Geology gave an important and interesting lecture Wednesday night. Dr. Murray's Watson lecture was titled "Monitoring Earth's Capacity to Support Life: Challenge of the Next Century." Dealing with many different aspects and problems facing the human race over the next century, Dr. Murray focused on our relationship to the environment and the planet as a whole.

Many people have different views on what is the most important issue facing the human race. Everything from global

warming, the ozone layer, and racial harmony might be mentioned, but a very direct and serious problem was put into focus during Dr. Murray's lecture. The human population is approximately 5.4 billion people right now. Conservative estimates have that number doubling in the next sixty years. Along with these figures are the indications of increased use of natural resources per capita. Not only are there more people on the planet, but they are using more resources. Dr. Murray pointed out, however, that the consumption in the industrialized world is leveling off. The observed increase in consumption is due mainly to the

continued on page 3

World Renowned Poet Giovanni Comes to Caltech

Jean Andino

The Caltech Y, in association with the Caltech chapter of the National Society of Black Engineers, the Graduate Student Council and the Caltech Race, Politics and Region Program will present an evening with the poet, Nikki Giovanni. This event, in celebration of African American History month, will occur on Wednesday, February 17 at 8 PM in Beckman Auditorium.

Ms. Giovanni is an African American poet who has been hailed as one of America's finest artists. Over the years, she has published nearly 20 books, made six records, had a movie made about her work, and performed with an orchestra. Classified as a "revolutionary poet" because of her fights for civil rights

and equality in education, Ms. Giovanni has brought the eyes of the world upon her.

Today, she lectures with great humor on her life, on poetry, and on the creativity in everything that we do.

Her focus is on the individual; specifically on the power that one has to make a difference in oneself, and thus in the life of others. In a recent speech to an MIT audience, she said, "Do something with your life! You will find that what you have covet is not worth coveting...There is a limit to what material things can do."

The evening with Ms. Giovanni will prove to be quite inspirational for all. This event is free of charge, and open to the public.

Dervan to receive Cope Award from American Chemical Society

Caltech Public Relations

The American Chemical Society has announced that Caltech chemist Peter Dervan will receive the Arthur C. Cope Award at the 1993 ACS national meeting in August in Chicago. The award, consisting of \$75,000 and a gold medal, acknowledges Dervan's groundbreaking work in the field of DNA recognition.

Dervan, the Bren Professor of Chemistry at Caltech, works at the interface of chemistry and biology, where he studies DNA, the genetic material. Trained as an organic chemist, Dervan says he is making good progress. Like fingers sliding over bumps on paper to read Braille, Dervan's chemical "machines" read "bumps" and patterns on long molecules of DNA, recognize specific sites, and bind to them. Dervan hopes that someday scientists may use specially designed molecules to perform a sort of genetic surgery inside living cells. These surgeon molecules would identify a faulty piece of DNA, bind to it, and slice it out. This would provide research tools for studying human genetic diseases and, perhaps, a novel class of human anti-virals.

Dervan, a native of Boston, received his bachelor's degree from Boston College, and earned his doctorate from Yale in 1972. After a year as a National Institutes of Health Postdoctoral Fellow at Stanford, he joined the Caltech fac-

ulty in 1973, where he has received two ASCIT teaching awards, given by the students for excellence in teaching. He has also been named an Alfred P. Sloan Research Fellow, a Camille and Henry Dreyfuss Teacher-Scholar, and a Guggenheim Fellow. He has received the Nobel Laureate Signature Award for Graduate Education in Chemistry, the Arthur C. Cope Award, and the Harrison Howe Award, all from the American Chemical Society, and is a member of the National Academy of Sciences and a fellow of the American Academy of Arts and Sciences.



File Photo

Inside this week's

CALIFORNIA TECH

This Modern World	2
Crime & Incident Beat	2
Election News	3
Y News	4
Theatreworks/USA	4
Bridge w/o Sam	5
Descanso Trio	5
Election Statements	6-9
John Haba's Sports Shorts	10
Women's Tennis	10
What Goes On	12

New Comic Strip: This Modern World

Page 2

John Haba on Sports

Page 10

Election Statements

Pages 6-9

2 FEBRUARY 12, 1993

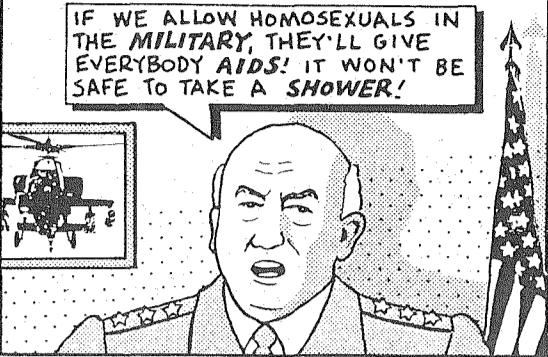
THE CALIFORNIA TECH

THIS MODERN WORLD by TOM TOMORROW

THE DEBATE RAGES... SHOULD GAY AMERICANS BE ALLOWED TO SERVE IN THE MILITARY?



MILITARY LEADERS ARE, BY THEIR NATURE, SOMEWHAT LESS THAN PROGRESSIVE... A FACT WHICH HAS BEEN MADE PAINFULLY CLEAR OF LATE...



POLLS SHOW AMERICANS TO BE EVENLY DIVIDED ON THE ISSUE... HOWEVER, IT IS THE SMALL-MINDED AND HATEFUL WHO ARE BEING EXHORTED TO MAKE THEIR VOICES HEARD...



SINCE MORE TOLERANT CITIZENS RECEIVE NO SUCH EXHORTATIONS, WASHINGTON IS FLOODED BY OVERWHELMINGLY NEGATIVE RESPONSES... GIVING COWARDLY CONGRESS-People AN EXCUSE TO SIDESTEP THE ISSUE...

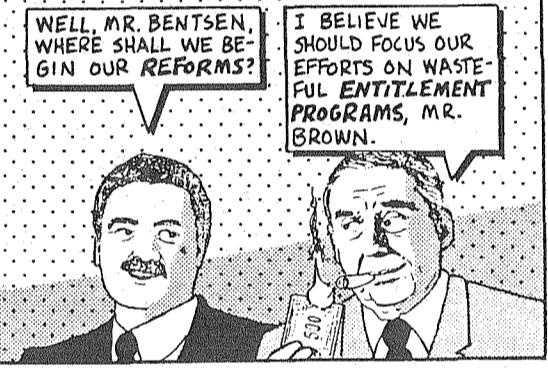


THIS MODERN WORLD by TOM TOMORROW

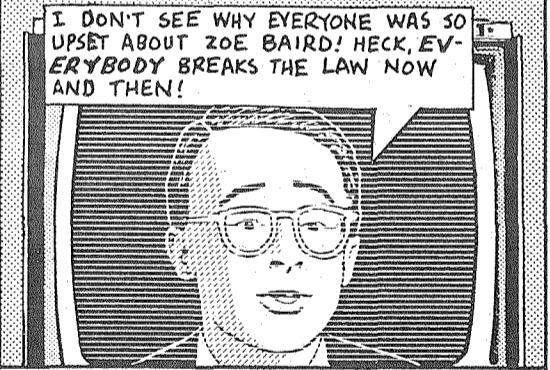
JUST THINK OF IT--A PRESIDENTIAL INAUGURAL FEATURING THE LIKES OF BARRY MANILOW AND FLEETWOOD MAC! WHO WOULD HAVE EVER DREAMED A PRESIDENT COULD BE SO HIP?



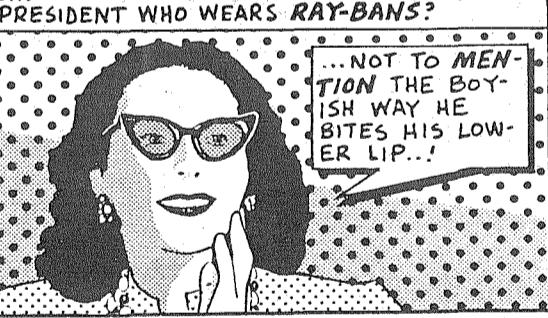
A NEW DAY IS ABOUT TO BE USHERED IN... ALBEIT BY SUCH APPOINTEES AS CONSUMMATE POLITICAL INSIDER LLOYD BENTSEN AND FORMER DUVALIER LOBBYIST RON BROWN...



THE SIGNS OF CHANGE ARE EVERYWHERE! ON CNN'S "CROSSFIRE", THE FAWNING APOLOGIST FOR POWER NOW SITS ON THE LEFT RATHER THAN THE RIGHT...



YES, THINGS ARE GOING TO BE DIFFERENT NOW! SURE, GOVERNMENT IS STILL THICK WITH CORPORATE LOBBYISTS... THE U.S. WILL MOST LIKELY CONTINUE TO FLEX ITS MILITARY MUSCLE ALL OVER THE GLOBE... DESPERATE HAITIAN REFUGEES WILL STILL BE TURNED AWAY FROM OUR SHORES... BUT WHO CARES--WHEN WE'VE GOT A PRESIDENT WHO WEARS RAY-BANS?



FRIDAY NIGHT ASCIT MOVIE

Casablanca

Baxter Lecture Hall
at 7:30 and 10:00
\$1.50 Ascit and \$2.00 non Ascit

Next Week: SNEAKERS

SATURDAY NIGHT NAIR
"It'll Take Your Hair OFF"
REPO MAN

ACADEMY BARBER SHOP

27 N. Catalina Ave., Pasadena
Open Tues.-Sat., 7:30 A.M.-4:00 P.M.
(818) 449-1681

LAEMMLE THEATRES

ESQUIRE
2670 E. Colorado Blvd.
(818) 793-6149

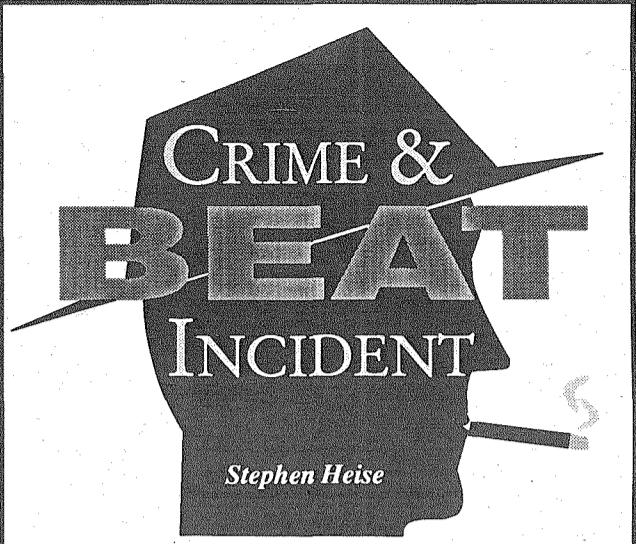
Miranda Richardson
The Crying Game

Daily 5:00, 7:30, 9:50 p.m.
Sat-Mon Bargain Matinee 2:30 p.m.

COLORADO
2588 E. Colorado Blvd.
(818) 796-9704

Catherine Deneuve
INDOCHINE

Daily 5:30, 8:30 p.m.
Sat-Mon Bargain Matinee 2:00 p.m.



Crime Tip: Cassette players are apparently the primary motive for vehicle break ins. Most of these thefts appear to transpire during the daylight hours. Leaving attractive objects such as leather jackets and tapes in plain sight is also asking for trouble. Thieves seem to avoid vehicles which appear to be alarmed. To help avoid break ins to your car remove the cassette player when you park, hide or take with you attractive objects, and have a pretty flashing red LED mounted near the stereo.

2-4 (2:30pm) Yet another Mazda pickup truck has been the subject of criminal activity. On this day a Mazda pickup parked at the Michigan lot was reported stolen. Its estimated value is \$6500. Radio controlled model airplanes valued at \$8000 were reported to be in the vehicle at the time.

2-6 (3pm) A car parked near Central Plant was broken into. The passenger side window was smashed and the stereo cassette player valued at \$200 was stolen.

This Week Dollar Total: \$14,700
If you're interested in being the C.I.B. editor, contact the editors by sending e-mail to editors@tech.caltech.edu

THE CALIFORNIA TECH

Volume XCIV • Number 16
February 12, 1993

EDITORS
Rajesh "Q" Bilimoria
Michael Oder

CRIME BEAT EDITOR
Stephen Heise

PHOTOGRAPHER
Anoop Sinha

WRITERS
Jeff Foust
John Haba
Shane Sauby

BUSINESS MANAGER
Khurram Dastgir-Khan

CIRCULATION
John Grade

THE CALIFORNIA TECH
Caltech • 40-58 SAC
1201 East California Boulevard
Pasadena, California 91125
(818) 356-6154

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

Letters and announcements are welcome. All contributions should include the author's name and phone number and the intended date of publication. The editors reserve the right to abridge and edit all submissions for literacy, expediency, or anything else.

Turn in copy (preferably on Macintosh 3.5 inch disk) to the Tech mailbox outside SAC room 40. E-Mail may be sent to editors@tech.caltech.edu. The deadline for copy is Wednesday at noon; for announcements, Tuesday at 5PM.

The California Tech is distributed free. Issues will be mailed off-campus upon receipt of \$10 per year to cover third-class postage and preparation costs.

Printed by News-Type Service, Glendale.

ISSN 0008-1582

continued from page 1

Murray

rapid increase in population of the underdeveloped nations.

Dr. Murray also produced figures showing how technology has prevented global starvation. During the past fifty years, the agricultural output of the planet has kept ahead of the population. The surprising figure, though, is that the amount of land being used for agriculture has increased only very slightly. The entire increase in production is due to technology. This is a problem, since eventually the limits of production will be reached and then the growth in the population will catch up with production.

Another serious problem put forth in the lecture is the soil degradation. Through deforestation, industrialization, or overgrazing, 10% of the arable lands on the planet have been destroyed or degraded beyond productivity. Dr. Murray emphasized that land usage and coverage is the most important aspect of the global problems being faced. Control and management of land and how it is used is of the highest

priority.

Dr. Murray stated that the organizations that are going to be answering these questions will also be different. They will be worked from the bottom up, working horizontally instead in the traditional pyramid style with one central "boss." Using the global economy and postal services as examples, he explained how different organizations are going to have to start working together to define and solve these problems. Dr. Murray pointed to a system of data organization, analysis, and eventually policy making as the step by step format by which these problems should be solved.

Dr. Murray enjoined governments, private industries, and individuals to start working towards making a difference. He said that the first step is acknowledging that there is a problem. He also stressed how this is an important time in history. He said that what we do now, especially the United States, will have a significant effect on the future. "It's a full house tonight," a gentleman in the audience said. By the end of the evening, this statement possessed an ominous double meaning.

members and people seeking to start new chapters.

For more information about the conference, contact the conference organizers at 818/449-1345 or send electronic mail over the Internet to seds@cco.caltech.edu

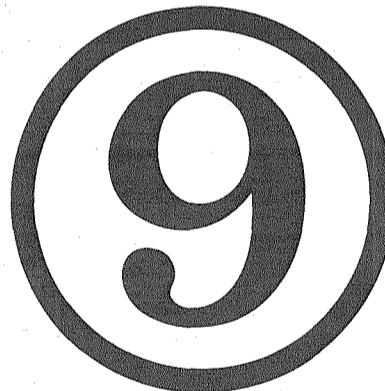
SEDS is a student-run, chapter-based space interest organization founded in 1980 at the Massachusetts Institute of Technology and Princeton University. Today there are nearly fifty chapters in high schools and colleges in the United States, along with numerous chapters in Canada, the United Kingdom, Latin America, the Far East and the Middle East. SEDS members take part in a wide range of activities, including technical projects, educational outreach, tours of aerospace and space science facilities, among other activities.

continued from page 1

CALSED'S '93

founder of SEDS and of the International Space University; Mr. Robert J. Staehle, leader of the Pluto Fast Flyby Spacecraft Team at the Jet Propulsion Laboratory (JPL); Mr. Verne Orr, former Secretary of the U.S. Air Force; and Ms. Joana Fisch of the Foundation for the Advancement of Science Education.

In addition to the speakers, part of the conference will be devoted to hearings on the Lunar Resources Data Purchasing Act, a proposed measure to be introduced in Congress this year that would open up the reconnaissance of the moon to private companies and organizations. Also taking place during the conference will be a SEDS Chapter Workshop, open to both chapter



Rag Time on Green
RESALE CLOTHING for WOMEN
1136 E. Green St. • Pasadena (818) 796-9924
Wed 10-6 • Mon-Tue-Thu-Fri 10-5 • Sat 10-3

LORENZO'S BARBER SHOP

Ask for Your Caltech Student Discount!

Regular Cut (men)	\$ 900	\$1 off
Regular Cut (women)	\$ 900	\$1 off
Style Cut	\$1200	\$2 off
Permanent Wave	\$4000	\$5 off

9 a.m.-6 p.m., Monday-Saturday
14 N. Mentor Avenue, Pasadena

Pete's GRANDBURGER
THE ORIGINAL established in LA since 1950
Pete's GRANDBURGER
526 So. Lake Street
Pasadena

63) anytime before midnight the night before the elections. (The Election Chair will not be accepting absentee ballots, nor counting ballots, since he is running for one of the offices being voted upon.) If you can not find Pablo, simply print your name and who you want to vote for on a piece of paper and slip it under his door.

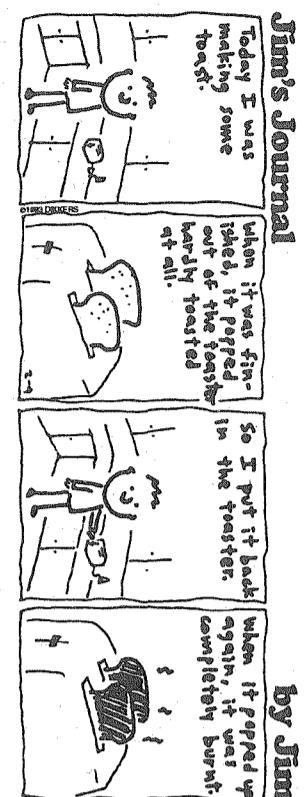
Ballot boxes for both elections will be in all 7 house lounges between 11:30 am and 11:00 pm on the days of the elections. If you are unable to vote on the day of an election, you can file an absentee ballot with Pablo Thienprasi, Executive Committee Chair (Ricketts

63) anytime before midnight the night before the elections. (The Election Chair will not be accepting absentee ballots, nor counting ballots, since he is running for one of the offices being voted upon.) If you can not find Pablo, simply print your name and who you want to vote for on a piece of paper and slip it under his door.

Voting is quick, easy and painless, so vote! As was pointed out in the article announcing the beginning of election season, and as proven in the Presidential election, in such a small student body every vote really counts.

Elections Monday, Runoffs Friday

Ewald Hueffmeier



VOTE TODAY

The California Tech will hold its weekly meeting TODAY at 12:15 PM in the Coffeehouse. Free Pizza. Open positions include Crime & Incident Editor, World News Editor, Staff Photographer, and Off-Campus Distributor.

CALTECH CAREER DAY

Thursday, February 18
11:00 a.m. - 3:00 p.m.
Winnett Lounge

- Talk to company recruiters representing a wide range of industries
- Gather information about careers, summer employment, & career opportunities

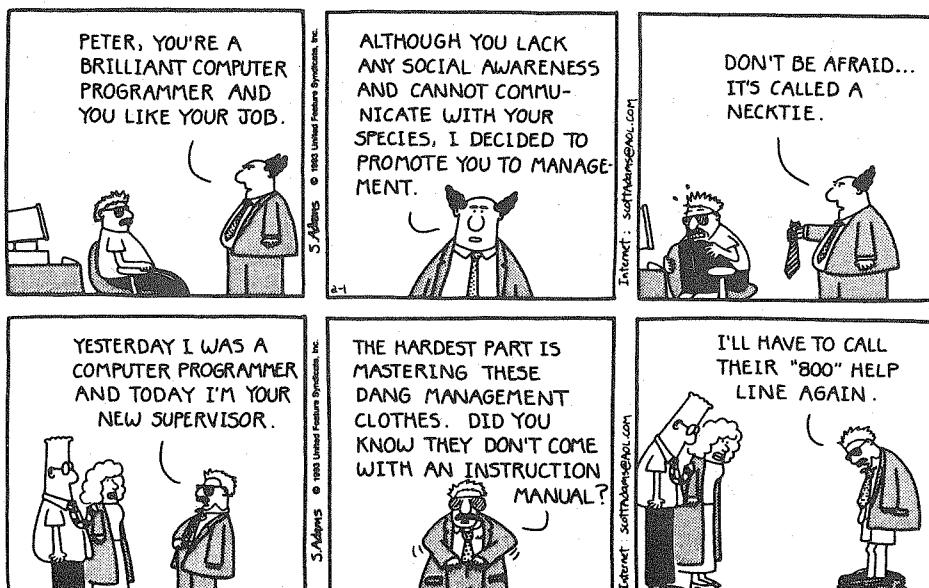
Companies Attending Career Day

AT&T	Institute for Defense Analyses	NCR Corp.
Active Voice	Intel Corporation	Ocean Research & Eng.
Amgen Inc.	IBM	Oracle Corp.
Applied Display Tech	JP Morgan	Radian Corp.
Communications Mfg. Co.	Kelco, Div of Merck & Co.	Raychem
The Boeing Company	Lasergraphics, Inc.	Santa Barbara Research
Dow Chemical	McDonnell Douglas Aerospace	U.S. Navy Engineering
Gordian	MacNeal-Schwendler Corp.	U.S. Peace Corp
Green Hills Software	Medtronic, Inc.	Xontech, Inc.
Hewlett Packard	Microsoft	Acuson
ICL, Inc.	JM Montgomery Con. Eng.	JPL

For More Info: Contact the CDC, 08 Parsons-Gates, ext. 6361

ENTERTAINMENT

DILBERT® by Scott Adams



IF ORACLE IS JUST A DATABASE COMPANY....



THEN THIS IS JUST A WATCH.

It's time we set the record straight. Oracle created the world's first commercially available relational database. Just as Seiko created the world's first quartz watch without a battery.* Both remarkable feats. But our technology didn't stop with database software, any more than theirs stopped with telling the time.

Today, Oracle provides total systems solutions through database, tools, applications, and services. Our products run on more than 100 computer platforms and are currently offered in 92 countries around the world. Imagine applying your skills in advanced networking, CASE, application development, office automation, development tools, multimedia, massively parallel technology, and more.

So when you're ready to transform your education into an exciting career, don't just settle for any software company - choose Oracle.

We are interested in individuals with technical degrees for positions in Software Development, Technical Support, Consulting and Product Management.

Send your resume to Larry Lynn or Lindsay Quintero at Oracle Corporation, 500 Oracle Parkway, Box 659501, Redwood Shores, CA 94065. Phone (415) 506-5060. Fax: (415) 506-1073. E-mail: lslynn@us.oracle.com.

Oracle will be On Campus
February 16-17
March 2

Contact the Placement Office for details.

Oracle is an equal opportunity employer and is proud of its workforce diversity.

ORACLE®
Make your vision tomorrow's technology.™

*Depicted, Seiko Sport Tech Advanced Flight Computer - the world's first alarm chronograph that records elapsed time up to 31 days, 23 hours 59 minutes, 59 seconds.
Orbital rule on dial indicates relationship between height/velocity and period of revolution of a passing satellite.

Y NEWS Y NEWS Y NEWS

It's the weekend o' love, I hope that you've got something romantic planned for you and your significant other. A love tip for the guys; if she says that you don't have to do anything special, this is the one time you can ignore her and not get beaten around the head and shoulders. Of course if you don't have a significant other just think of all the money you're saving.

Talking of saving money, all the events I have to tell you about this week won't cost you a cent. It won't even cost you lots of cents because they're all absolutely free! Amazing!! Today there is a Mountain Bike trip meeting at 10 am at the Y. Tonight at 8 pm will be a Nigerian Drum Performance in Dabney Lounge. There is a volunteer trip to do trail maintenance in the Arroyo Seco. No experience is required, sign up today as space is limited, and meet at the Caltech Y 7:30 am Saturday. Monday is the first of four Meditation Seminars 7 - 9:30 pm in clubroom 2, just show up if you are interested. Finally, poet Nikki Giovanni will give a presentation in Beckman Auditorium 8 pm next Wednesday. For more information read the article in today's Tech.

Remember folks, this Sunday is St. Valentine's Day so do something nice for all the ones you love. Then again, if all that love and happiness just makes you nauseous, you have a perfect excuse to be grumpy on Monday, St. Bitterness' Day.

The Caltech Y is open Monday to Friday, 9 am to 5 pm. We are located on the second floor of the Winnett Student Center.

Theatreworks/USA presents "Play to Win" at Caltech

Caltech Public Events

Theatreworks/USA presents its musical "Play to Win" on Saturday, February 13 at 2 p.m. in Caltech's Beckman Auditorium. This is a 60 minute Family Faire presentation designed especially for children and their families.

"Play to Win" is a musical about Jackie Robinson, an American hero who changed the face of professional athletics in this country when he signed with the Brooklyn Dodgers in the spring of 1947, thus becoming the first black player to enter baseball's major leagues.

In 1984, as a nominee for Musical Production of the Year at the Twelfth Annual Black Theatre Awards, "Play to Win" earned an AUDELCO Award for "best writing of a new show by black authors for a non-commercial theatre." Theatreworks/USA is America's largest theatre for young people in 49 states since its founding 1961.

Tickets to "Play to Win" are priced at \$8.50 for adults and \$4.50 for children. Tickets can be purchased at the Caltech Ticket Office and all Ticketmaster Ticket Centers.

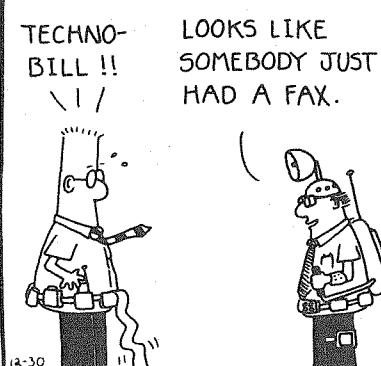
This event will be American Sign Language (ASL) interpreted. Call (800) 423-8849 or (818) 356-4652 for information. Individuals with a disability should call Deborah White at (818) 356-4688 (Voice and TDD) Monday through Friday between 8 a.m. and 4 p.m. for information and assistance.

SERVING CALTECH
SINCE 1945
Authorized Agents for Airlines,
Hotels and Steamships

H.B. BENNETT
The
Finest in
Professional Travel
Services
(818) 795-0291
(213) 681-7885
CAMPUS EXTENSION
5091

690 E. GREEN ST.
PASADENA, 91101
(between El Molino & Oak Knoll)

AMERICAN SOCIETY
OF TRAVEL AGENTS
ASTA



MANDARIN CUISINE AND SEAFOOD

LUNCH SPECIAL

Choice of 13 entrees
11:30 a.m.-3 p.m. from **4.50**

EARLY BIRD DINNER SPECIAL
Choose from 13 items
3-7 p.m. DAILY ONLY **5.95**

CLASSIC DINNERS

Sunday-Thursday 3-10 p.m.
Friday-Saturday 3-10:30 p.m.
Between Altadena Dr. & Sierra Madre Blvd.



Two-Star Award Winner

by the Southern California
Restaurants Association

2475 EAST COLORADO BLVD., PASADENA

FOR RESERVATIONS: (818) 449-8018

Open 7 Days • Cocktail Lounge • Food To Go Orders Welcome • Free Parking in Rear

ENTERTAINMENT

Bridge Without Sam

Jeff Goldsmith

Crossing the Rubicon

In the 1950s and '60s, a group of Italians devised a few artificial bidding systems, mostly based on a strong club. They found that strong three suited hands were hard to bid, so they used a 2♦ opening bid to show three suiters with, typically, 17+ high card points. More recently, many players have adopted the "Mini-Roman 2♦," which shows the same shape with 10-12 or 10-13 high card points. I have never understood the point of this convention; it does not help fill a gap in system like the original did, nor does it help get to the best contract, since, unless you find a fit or unless partner has a strong hand, it preempts beyond the best contract, often 1NT. Worst of all, it draws a roadmap for the defenders, who know that it is usually best to lead trumps.

Playing in the North American Open Pairs with a partner who does not share my bias against this convention, but who knows mine, I pick up in third seat:

♦AKQ86 ♠AJ75 ♦103 ♣Q5

Hoping for a nice constructive auction, I am somewhat disappointed, but then elated when partner passes and RHO opens 2♦, which is alerted and explained as Mini-Roman. I am still not sure whether to bid spades or not when I look at their convention card for more information. They did not mention that 2♦ guaranteed spade length, but there it was. I find even more confusing that Mini-Roman users would choose to anchor around a spade suit. Guaranteeing four or more diamonds I can see, so that responder can pass when you are in trouble, giving them fewer chances to crush you, but why spades? Why preempt when you have spades and a decent hand?

Anyway, upon finding out that RHO has four spades, my enthusiasm for bidding is entirely gone, but this hand suddenly becomes a perfect candidate for our defensive convention to Mini-Roman. I double, showing a balanced good hand with interested in defending. Upon their reaching a final contract, my double almost commands a trump lead, which must be good for us.

After the double, alert and explanation, LHO passes as does partner. I have some apprehension about this; they may have an eight-card diamond fit which they couldn't reach if I had passed. No, RHO converts to hearts, showing a singleton diamond and it is crushing time. I reach for the trusty bloodstained axe and get even better news when LHO converts to 2♦! I am able to put another notch in my axehandle since they are willing to play doubled in my best suit! I am about to lead

(out of turn) my fourth best trump, hoping to score partner's stiff Ten or Jack when he leads the ♠J! Happiness and Joy, this is going to be fun. Dummy hits and I see the cheese with which they have volunteered to be splattered:

♦ 10732
♥ Q1086
♦ 5
♣ AKJ3

♠ AKQ86
♥ AJ75
♦ 103
♣ Q5

Partner's ♠J holds, of course, and I signal with the smile of the executioner. (We play Right-Side-Up signals.) He finds the heart shift (I whopped 2♥, too) and declarer inserts the 8, losing to my Ace. I happily draw all the trump, partner beginning with the expected singleton. Partner signals discouragement in diamonds, but that is within the context of his already announced penalty pass, so I am sure that he has at least something there. I continue with a small heart, knocking out declarer's now-stiff King. Declarer hopelessly misreads the position and takes the club finesse immediately, which is an error, of course, since partner has diamonds and I can only hold 16 points left, but I win and sever the two hands with a diamond. Declarer wins the Ace, and cashes his King and the two high cards in dummy, then disgustedly concedes the rest for 800.

Such a nice convention; it prevented us from playing our 4-3 heart fit at the two-level, going down. It is so nice when they save vs. our partscores, but it is even nicer when it is a phantom.

Later, when comparing scores with my ride home, I find that at their table, the auction went identically, but declarer played it a trick better (also not finding the endplay for down 1.) He was disappointed to not get a top for +500, but, since he shares my enthusiasm for their convention, vicariously enjoyed the hand at our table, too.

During the ride home, we were able to figure out the best reason to play Mini-Roman 2♦, which is the same reason to play mini-micro (aka Fishhead!) notrump openings (5-8 HCP, balanced.) It is to be able to give a review of the bidding thusly, "The opponents have doubled throughout, the bidding has gone..."

The Caltech Bridge Club meets every Monday night at 7:15 in Winnett Lounge. Everybody is welcome; call Jeff Goldsmith at x2818 for details.

*From Bill Cole's *Fishheads*, a collection of fine and funny stories.

Jim's Journal



by Jim



Descanso Trio to Perform at Caltech

Caltech Public Events

The Descanso Trio with guest clarinetist Daniel Geeting will perform on Sunday, February 14 at 3:30 p.m. in Caltech's Dabney Lounge. Members of the ensemble include violinist David Stenske, cellist Joyce Geeting and pianist Robert Sage.

This program features Ravel's Piano Trio and Messiaen's "Quartet for the End of Time."

The 1993 Northwestern University College Prep Program is looking for Counselors to work this summer.

We're looking for some "Big Sibs" to help guide high school students from around the nation through a summer of learning and fun at Northwestern.

For an application call:
1-800-FINDS-NU.

been a finalist in the Bachauer and Busoni competitions. Danial Geeting is currently associate professor of woodwinds at California Lutheran University.

This concert is open to the public, free of charge. For information, call x4652.



THEATRE ARTS AT THE CALIFORNIA INSTITUTE OF TECHNOLOGY PRESENTS

HELLO, DOLLY!

Book by Michael Stewart
Based on the play "The Matchmaker" by Thornton Wilder
Original Production Directed and Choreographed by Trevor Chapman
Produced for the Broadway stage by David Merrick and Champion-Five, Inc.

IN RAMO AUDITORIUM ON THE CALTECH CAMPUS, PASADENA

FRIDAY, FEB. 19	8 PM	FRIDAY, FEB. 26	8 PM	TICKETS:
SATURDAY, FEB. 20	8 PM	SATURDAY, FEB. 27	8 PM	GENERAL ADMISSION
SUNDAY, FEB. 21	2 PM	SUNDAY, FEB. 28	2 PM	CALTECH STUDENTS

\$10.00
\$7.00

ASCIT ELECTION '93

Election Statements

DIRECTOR Academic Affairs Flora Ho

"What we've got here....is FAILURE to communicate."

Important academic issues often are not addressed as a result of inadequate communication between students and administration. The concerns of Caltech undergraduates regarding graduation requirements, the curriculum, pre-registration problems, and other academic areas need to be made known to the administration and reconciled with its policies through a mediator. In order for this to be accomplished effectively, a mediator must not only be cognizant of the important issues and able to convey student sentiment to the administration, but also capable of understanding both views, students' and administration's alike, and apprising each of how the other stands. In serving as Food Rep for the past year, I have had mediating experience conveying the suggestions of the members of my house to the food service. As Director of Academic Affairs and chairman of the Educational Policies Committee, I will take steps to improve communication on two fronts: 1) among students, by better publicizing the Committee's affairs, and by publishing a thorough, comprehensive C.L.U.E. handbook with the aid of mailed questionnaires, and 2) between students and faculty, by organizing, together with the current Director, a student-faculty conference to discuss topics of undergraduate student concern. This conference, which is scheduled to take place every other year, will be based on a panel presentation, followed by an open-forum exchange of ideas. Its success can be maximized by the organizational experience I have gained from planning weekly house events as an active Social Team member.

The frustrating haze that students often perceive to obscure interchange between themselves and the faculty can be dispelled. Vote Flora Ho for ASCIT Director of Academic Affairs.

DIRECTOR Social Activities Anandi Raman

Hi, I'm Anandi Raman and I want to be your next ASCIT Director of Social Activities. I know it's a job that requires a lot of work, and I'm willing to put my time and effort completely into it.

Anoop Sinha

Is pre-registration a pain in the neck? Are problems with student-faculty interactions giving you a headache? Do some aspects of Caltech just make you ache all over? 'NOOP THEM!!'

Qualifications: Educational Policies Committee (EPC): 1993 Student-Faculty Conference Subcommittee, 1993 DRL Leadership Retreat.

Caltech has good points, but it also has many problems. These problems, such as general student dissatisfaction due to academic and social reasons, antagonism between students and faculty, problems with individual courses and graduation requirements, and simpler things, like problems with pre-registration, all fall under the realm of "Academic Affairs." I firmly believe that there are ways — non-trivial ways — "to lessen the pain" of these problems. Hosting a more productive Student-Faculty conference and expanding the C.L.U.E. are just two possibilities. In the end, we really can make Caltech a better place!

ASCIT Secretary

Michelin Aldridge

Hello, my name is Michelin Aldridge and I would like to be the next ASCIT Secretary. In the last two years, I have become concerned with a few campus wide issues that I would like to be involved in their discussion. A few of these issues are the role of student government in Institute policies, the continuing success of the honor code, future academic policy changes, and the future role of the women's center. I feel that the best way I can contribute to the discussion of these issues is by involvement in ASCIT.

I carefully considered each ASCIT position and decided that of all of them I would most like to be the Secretary. I feel that I am qualified and interested enough to responsibly fill the position. I believe that the position of Secretary requires

I have experience in putting together large social events, from being Student Council Social Committee Chairman in high school, and being on the Ruddock Social Team last year. I also have a lot of experience working with groups of people, and I enjoy it. I think that's an important qualification for anyone on ASCIT. Being an O'Doms manager in Ruddock has given me the skills of organization, by keeping track of large sums of money and buying food for the house every week.

I am really looking forward to planning this year's ASCIT Formal. I was involved with the preparation

not only the ability to read and write but also responsibility, leadership skills, listening skills, and familiarity with student issues and the administration. I believe that I have experience in each of these areas. I have been involved with several campus wide academic and social committees as well as holding house offices. The campus wide committees include BUSAC for two years, the Student Academic Advisory Committee for two years, several committees for alternate Interhouse ideas, and the ASCIT Social Committee. I have held the position of Social Chair in Ruddock for two years as well as the manager of our house convenience store (well it is sort of a convenience store) for one year.

My experience in the last three years has familiarized me with both the student body's views as well as the administration's. I know the administration well and I think I am capable of working with them when necessary. I also have a fairly good idea of who to talk to when there is a problem.

I would very much like to be able to air the concerns of the student body when it is necessary. ASCIT has the power to express your wishes to others and that is why I would like to be an officer. If I am elected I will help bring to the attention of the campus the various concerns we all have. I feel that if the student body does not begin to effectively make their views known that we will begin to lose more of the freedoms we consider important. A current example would be the administration and faculties mistrust in the honor code. It seems that students do not have the trust that they once did. I think that only through the effort of the entire student body can this be changed.

I would very much appreciate your vote so that I might try to address your views. Thank you.

Erica L. Alliston

I think that I would be a good ASCIT secretary because I know how to take notes (and I can even touch-type!), I am an extremely organized person, I have room in my room for lots of ASCIT "memorabilia," and I am always dedicated to whatever duties I take on. I can give you an example of this. I am on the Ruddock social

rations last year, and in high school, I was on the Prom Committee for three years. The Social Director is also responsible for the Halloween Party, and I have some good ideas for that already. But I'm also open to suggestions about how to improve the social life at this place!

Having served on my house's ExComm for a year, I'd like to try something of a greater scope, involving the whole school. That's why I'd like to serve you on the ASCIT BOD, as Director of Social Activities. So please support me, Anandi Raman, in Monday's election! Thank you for your time and attention.

team, and just tonight (Wednesday) I sat down in my room and made all 20 phone calls that were necessary to finish organizing the social event that is going to take place three weeks from now, even though I have a big assignment that is due tomorrow. This should tell you that I will do a good job at getting the ASCIT minutes to the Tech in good time, because I will do anything to avoid doing my homework... But seriously, I think that I can do a good job because I am dedicated to seeing that the student body gets a bigger say in many of the things that go on around campus. I think that one very important way of doing that is to keep everyone informed about such things. The ASCIT secretary helps do this by writing up and submitting the BOD meeting minutes to the California Tech. This is the main reason that I would like to serve as ASCIT secretary: to help make everyone more aware of important happenings, and hopefully to get more people involved in them. It is to this end that I would like for you to vote for me on Monday.

Karen Shih

After much thought and deliberation, I, Karen Shih, have decided to run for the office of ASCIT Secretary.

I have been actively involved in house politics such as with the North House Renovation Committee and coordination of Lloyd's Ladies' Night Out. Through these involvements, I have gained valuable experience in working with various campus organizations and with people of different opinions and goals. Furthermore, I have established positive relations with the DRL and am certain that as ASCIT Secretary, I will work to maintain a good rapport with Institute offices while fighting for undergraduate rights.

My commitment to the student body is not through offices and titles, but as an enthusiastic and dedicated supporter. The office of ASCIT Secretary will not be just a title to me; I am confident that my services will be an asset to the ASCIT BOD.

This is a time of transition for the entire student body. The impending construction of Centennial House and the establishment of the Women's Center will no doubt add a new dimension to undergraduate life here at Caltech, and I hope to be involved as a representative for undergraduates on the ASCIT BOD. The future of the 3-2 program as well as that of our house system are definite catalysts for making possible the forward progress of thought and action as undergraduate students.

I have the enthusiasm and the spirit as well as the organizational skills to excel as your ASCIT Secretary. Changing personalities of the student body demand changing personalities of its leaders; I ask for your support in making this possible. Vote for me, Karen Shih. I want to be your ASCIT Secretary.

ASCIT Treasurer

Vance Bjorn

...the scene cuts to the Treasurer, a short, fat man with glasses who has handled all the mob's money for the last five years, as he jumps aboard a private plane, tacitly assumed headed for some distant island...

I may not be short and fat, but I have glasses.

But seriously, I know money management. With dealings in international corporate finance and tax law, not to mention being on both the Patent and Industrial Relations committees here at Tech, I'm the one for the job. Internationally renowned experts in finance have called to ask me questions (they maybe are just asking when they're going to be paid, but who's counting?)

Vote for me, Vance Bjorn, for ASCIT Treasurer this Monday.

Ewald Hueffmeier

In the election on Monday, one of the offices for which you may vote is ASCIT Treasurer. I believe that I can serve the Caltech student body well in this position. In high school, I was treasurer of a number of smaller organizations and thus have experience in the area. Holding any position on the Board of Directors, especially Treasurer, requires a great deal of dedication—dedication which I have demonstrated in the fulfillment of my duties as Election Chairman. Although not a member of the BOD, I have attended almost every meeting for the past year and thus feel well prepared to serve as a voting member of the Board. Finally, as a math major, I like numbers. Thus, I believe that I will enjoy my duties as Treasurer as I have enjoyed being Election Chairman. For these reasons, I ask that when voting for ASCIT Treasurer you consider circling the name Ewald Hueffmeier.

BÖC Secretary

Dan Milward

To all those who think it's an important quality, I really do play the blues. Please console me: Vote Dan Millward for BÖC secretary.

IHC Chair

Jill Bush

My name is Jill Bush and I am running for the office of IHC Chair. I am a junior this year and a member of Fleming House. Though I have lived off campus for the past year, I have become anything but obscure.

My commitment to leadership at Caltech began when I was a freshman, as the Frosh workchair and a member of the Fleming Social Team. For the past three years I have played on the women's tennis team, this year as co-captain. I have gone to Frosh Camp twice as a Deans' Helper, and hope to go again in the fall. As the Off-Campus UCC for Fleming, I represent off campus members of my house on the Fleming Ex-Comm and send out a regular newsletter keeping them informed of house activities. Living off campus has helped me appreciate the value of our house system. I strongly believe in the individual personalities of each house and the spirit of competition built by these distinctions. However, I have always had friends in other houses and find that the encouragement of inter-house relations and communication are a very important part of the social scene at Caltech. These realizations about the beauties of the house system and also the confinements sometimes placed on people have made the IHC an appealing body of government to me. My enthusiasm to be the IHC Chair has been growing since I discovered the significance of the IHC, and the importance of campus-wide government.

The main duties of the IHC Chair entail presiding over the Interhouse Committee, made up of the seven house presidents, and acting as a liaison between the administration and the IHC. The person holding this office must therefore be objective, assertive, and maintain good working relations with members of the administration. As a Deans' Helper for two years, I have established a positive rapport with the Deans and the Residence Life staff. Past leadership positions have helped me develop an objective yet assertive attitude in dealing with conflicts.

The 1993-94 IHC will face many transitions as the development of the Master Plan continues. Frosh picks were extremely successful this past year, with well over half the freshmen getting their number one choice; however, this success was marred by long hours spent dealing with rotation violations. The need for trusting relations with the DRL, a clear-cut plan for the revival of multihouse social events, and a more expedient method for dealing with Discobolus rule violations are some of the continuing obstacles facing the new IHC. More multihouse events and an emphasis on "friendly competition" are necessary if the seven-house system is to live up to its potential as a uniquely distinct set of socially-interlinked families.

I am confident that I have what it takes to be your IHC Chair. My past experiences as a leader as well as my present duties as a UCC and co-captain of the women's tennis team have given me the chance to develop qualities necessary for this job. I am certain I can be a good mediator at IHC meetings as well as an effective and productive go-between for the students and the ad-

ministration. So when you vote Monday, remember my name. Vote for Jill Bush—IHC Chair.

Bryce H. Elliott

In my two+ years at this hallowed institution of learning, I have seen some changes. My freshman year was the first year without Interhouse, and the first year of DAPAC. In Page House, traditions like Hell Week and Mt. Wilson have been destroyed by the administration. In Ricketts, a permit is necessary to have a fire in the pot, and Apache, the last good party left at Tech, is being targeted. In Dabney, the administration also wants to know when they plan to have bonfires. I'm sure that there are numerous other examples of those higher up meddling in house business of which I am unaware. It has to stop.

We live on the most stressful, socially deprived campus in the country, yet those in power seek to curb our stress outlets and social activities that they deem unacceptable. This has the additional effects of disrupting house cohesiveness and weakening house autonomy. We are told that we are allowed to run our lives as responsible adults, but the administration seems determined to direct residence life as though we were children. As individuals or even as individual houses, we are all but powerless to fight the whims of the administration. Only as a united campus can we hope to stop the apparent attempt of some administrative faction to turn this place from houses with a social atmosphere and autonomy into lifeless dorms governed directly by the administration.

At this pivotal time in Caltech life, the job of IHC Chair requires someone who will not only work tirelessly with fresh vigor toward a unified campus, but will consult past IHC members to learn where brick walls were put down in front of them, and not retread the same ground the administration is used to blocking. It also requires someone who will listen, as well as talk, when problems arise.

This is where I come in. I'd like to work with the house presidents to preserve those traditions and activities we have left, as well as moving toward the resurrection of activities such as Interhouse. I have fought and worked with the administration before, trying to save Dave Goldberg from being unfairly thrown out, as some of you may remember from last year. I have attended numerous IHC and ASCIT meetings, so I am familiar with the workings of both. I am also currently your ASCIT Ath Man, and I am well under budget, by the way (If you STILL haven't picked up your jacket, dial x3761.).

Vote for Bryce H. Elliott on Monday, and I will do everything in my power to bring about the aforementioned changes and to help the campus run smoothly.

Asif Hassan

Hi, my name is Asif (see above) and I'm running for IHC Chair (see also above). So why should you vote for me (aside from my flair for redundancy)?

The IHC chair has to do three main things: he/she has to run Rotation (in all its nitty gritty splendor), run IHC meetings, and when necessary the Chair has to be a representative of the student body and a

liaison with the administration. I think that this past year I've spent as a Representative at Large on the Board of Control has prepared me well to perform these duties.

Rotation basically requires a large time commitment, but since eight to twelve hour Board meetings are fairly run-of-the-mill this shouldn't be a problem. I've also had to keep focused on the subject at hand for hours on end during such aforementioned hearings, so I would be able to keep IHC meetings on track (and I don't mind being pelted with ding-dongs). Finally, being a Board Rep has taught me to be fairly level-headed, so I think I am able to deal with people honestly and openly.

In short, I believe I'm the best person for the job, and I'd appreciate your vote.

Hans Hornstein

My reasons for wanting to be IHC Chair are fairly clear. I feel that a time of critical importance to all students is coming, and proper leadership will be vital. I feel that the Chair should be a person who is deeply concerned about what happens to students and campus life. I think the Chair should be able to communicate student problems effectively to the administration. The Chair should be ready to fight for the students, while not letting things get out of hand. He (or she) should be fair and determined, able to keep meetings on track and Rotation on an even keel.

I have a strong sense of duty, commitment, and persistence. The future of student life at Tech means a great deal to me, so I will do everything in my power to help Caltech maintain the unique atmosphere created by the Honor Code, the House system, and Tech traditions. I want to open the channels of communication between student government and the administration, and make sure that student concerns are addressed. I want to make Tech the best place for students that it can be, or at least graduate trying.

The IHC Chair is a position of vital importance for student life, so please think carefully before you vote on Monday.

Craig Smith

I am running for IHC chair because I want to. I like the house system, and want to see people enjoy it the way I have. I am a little upset that there is not a great amount of interaction between the houses. I don't want all the houses to live in harmony, peacefully, like one big family. I want to see more pranks and more rivalry. I think that one thing that could help to change this is removing this concept of the non-RFable (how the hell does one write that?) item. I tend to think that energy comes from conflict and not from harmony; in a transient environment, our only hope for a dynamic campus is to foster friendly rivalry. I firmly believe this and would like to see more of the wackiness which should exist on a college campus.

On a more political note, I am qualified. I am a very reasonable person, and I can represent the views of the undergraduate student body. I have attended frosh camp as a UCC and also attended Freshman picks twice. I am prepared to deal with the housing crunch which will happen at the end of this year, and will do my best to represent our

concerns to the administration. I know I can do a good job, now give me the chance by voting for me, Craig Smith, for IHC chair.

UPPERCLASS DIRECTOR At Large

Greg Howes

I, Greg Howes, am running for the office of Upperclass Director at Large. You may not know me, because I am a transfer from Occidental College and have only been here at Caltech for a short time. But I would like to get involved in ASCIT to contribute what I can to this school. I will be able to provide diligent service in taking care of ASCIT property. Additionally, having held the position of Vice-President in student government at Oxy, I will bring to the BOD a depth of experience which may result in improvements in government. So, at election time, please vote for me so that I may bring diversity to the ASCIT BOD. Thank you.

Jason Lee

My name is Jason T. Lee, and I am running for the position of Upperclass Director at Large. I feel that I am qualified for the position because of my experience here at Caltech. I am currently a junior, and have been avidly involved in house government, having been Fleming House Librarian, UCC, Athletic Manager, and Treasurer. All of these positions have given me the opportunity to be a charismatic leader, and that I think is important to be an ASCIT officer.

My primary responsibilities as Upperclass Director at Large will be taking care of the ASCIT Van and Copier, and being a member on the BOD. There are two qualities I believe that are most important in being able to handle these duties faithfully—one being organization, and the other accessibility.

My organization skills are obvious to those who know me. When I am asked to do something, it will be done. I try as much as I can to help anyone in need, and I am still able to balance this with all my other activities. Keeping the van and copier running will take no more than just a little organization, and I believe I can do this very well.

I have always been accessible to students with concerns. I know how to listen to criticism and use that to improve whatever I might be involved with. Others generally feel very comfortable around me, and I would be a very strong voice on the ASCIT BOD.

Up until now I have concentrated my involvement into house government, and I know I want to become more involved campus-wide. Being a member on the BOD will allow me to do this, and I will faithfully perform all duties asked of me. Please vote for Jason T. Lee on Monday for Upperclass Director at Large.

Joseph Lee

What motivates me to run for the position of Upperclass Director at Large? Is it the power? The fame? The celebrated titles of Van-man and Sir Speedy? Definitely not. It is

the means to express my ideas about the proceedings of and to play an active role in the ASCIT Corporation. The duties of the Upperclass Director at Large are three:

- 1) To maintain the ASCIT van and copier
- 2) To carry out those responsibilities delegated by the BOD
- 3) To represent the student body

In taking active interest in student government, I will fulfill these duties to the best of my ability. If elected, I hope to be a bit more than just your Van-man.

Ryan Naone

My name is Ryan Naone, and I am asking for your support by voting for me as Upperclass Director-at-Large. You may have heard this office called more informally as the ASCIT Van Man or the ASCIT SAC Copier Man. Living with the current Upperclass Director for the past school year, I should know what being the "Van Man" is all about.

All I ask is for your support.

Gisela Rodriguez-Sandoval

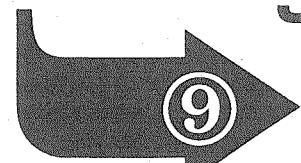
Hi! I am Gisela Rodriguez-Sandoval and I'm running for Upperclass Director at Large. Traditionally, the main responsibility of this office is taking care of the ASCIT copier and van. Well, I use the copier a lot. I know how annoying it is when it breaks down and you have to walk all the way to the library. I live on campus and so I'm always around and easy to reach. So if there is a problem with the copier or you just want to use the van I'm easy to find.

I think a very important part of having an ASCIT office is being on the BOD. I feel that student input is very important, especially on issues that can affect our lives at Tech. This summer as the student representative on the Health Committee I was involved in the selection process of the Drug and Alcohol Outreach Coordinator. When we were down to the final candidates I felt it was important to have other students opinions be heard and I helped organize a committee consisting only of students to interview them. As a part of the BOD I will be available. I want people to feel free to come by and tell me about issues that are important to them and I will bring them up at a meeting. I feel things that we are unhappy about at Tech can change and I'm willing to put in the effort to see this happen.

Regardless of whether you vote for me or not, please voice your opinion and vote on Monday.

Ath Man & FDAL statements

on page 9



```

    hbiCurrent
    dwOffset = _lseek(fh,
    lclose (fh);
    if (hbiCurrent == NULL) {
        ErrMsg("%ls is not a Legitimate DIB File!",
        return FALSE;
    }
    DibInfo(hbiCurrent,&bi);
    /* Set up the palette */
    if (hpalCurrent == NULL) {
        ErrMsg("CreatePalette() Failed");
        return FALSE;
    }
    /* Convert the DIB color table to palette relative indexes, so
     * we can do this because the palette() can avoid color matching.
     * Now that the DIB color table of the bitmap, ie the indexes is identical,
     * we must use DIB_PAL_COLORS as the wUsage parameter to SetDIBits()
    */
    lpbi = (VOID FAR *)GlobalLock(hbiCurrent);
    if (lpbi->biBitCount < 16) {
        pw = (WORD FAR *)((LPSTR)lpbi + lpbi->biSize);
        fPalColors = TRUE;
        for (i=0; i<(int)lpbi->biClrUsed; i++)
            *pw++ = (WORD)i;
    }
    GlobalUnlock(hbiCurrent);
    bLegitDraw = TRUE;
    /* If the input bitmap is not in RGB FORMAT
     * not work! we need to load the DIB bits into memory.
     * if memory DIB, load it all NOW! This will avoid calling the
     * banding code.
     */
    if (bMemoryDIB || bi.biCompression != BI_RGB)
        hdibCurrent = OpenDIB(achFileName);
    /* If the RLE could not be loaded all at once, exit gracefully NOW,
     * to avoid calling the banding code
     */
    if ((bi.biCompression != BI_RGB) && !hdibCurrent) {
        ErrMsg ("Could not load RLE!");
        FreeDib();
        return FALSE;
    }
    if (hdibCurrent && !bDIBToDevice && bMemoryDIB) {
        hbmCurrent = BitmapFromDib(hdibCurrent,hpalCurrent);
        if (!hbmCurrent) {
            ErrMsg ("could not create bitmap!");
            FreeDib();
            return FALSE;
        }
    }
    SizeWindow(hWnd);
    return TRUE;
}

```

If You Speak This Language, Speak To Us.

To certain people, this isn't just a list of symbols. It's a work of art. It's where cool technology starts. And eventually changes the world.

You see the beauty in a piece of optimized code. We do too. Which is why we created the optimum environment to make it happen, giving you autonomy and authority without layers of management.

At Microsoft, we respect talented people

who do creative things with code. And can use it to build innovative products that improve the way people work.

If that sounds like your idea of a great environment, see us. You'll find that we speak your language.

Come find out more about Microsoft by attending our upcoming event.

Microsoft is an Equal Opportunity Employer and supports workforce diversity.

Microsoft®

Software Demonstration

Wednesday, February 17, 1993 • Student Activities Center, Room 13

5:00 pm • Pizza will be served

See your Career Center for more details.

Microsoft® is a registered trademark of Microsoft Corporation.

FRESHMAN DIRECTOR At Large

Angie Bealko

"The people who win the respect of others are the ones who deliver more than they promise, not the ones who promise more than they can deliver. As Freshman Director-at-Large, I will commit myself to delivering more than I promise. The main project for the Freshman Director-at-Large is to publish the Undergraduate Research Opportunities Handbook. I believe that I possess the dedication and organizational skills to produce a handbook that everyone will find extremely useful. In addition, as a member of the BOD, I would vote on the fate of many ASCIT issues. Having a representative who you can respect, trust, and easily approach with concerns is critical. For these reasons, I ask for your vote in the upcoming ASCIT election."

Huy Le

I know what's going through your mind: Whom am I going to vote for as frosh director at large?

I also know what's bothering you: Why are there only frosh (frosches?) running for this thing?

And you're probably wondering: Who the hell is hyu-lay? That's Huy Le, by the way, but you can call me Huy, since we're such good

ASCIT Ath Man

Alan Blaine

My name is Alan Blaine. Some of you know me as Pinky. I am running for the ASCIT Athletic Manager.

The Ath Man has two main jobs: to hand out varsity letters and jackets, and to act as a go-between of ASCIT and the Athletic Department. The first job is well within my capabilities, as I know many of the varsity letter people in most sports. I would be able to accomplish the second part of the job also, as I have played under some of the coaches ASCIT deals with, namely Wendell Jack, and I have a superior working relationship with Dan Bridges and all of the other coaches. I also work as a building supervisor at the new Braun Athletic Center, and spend most of my free time at the gym.

I also have other qualifications. I have competed athletically my whole life, and have a love for any

friends.

Obviously, my answer to your first question would be the skinny long-haired Oriental, but that would be slightly biased. So I'm just going to say that you'll probably vote for the right person (but we both know who the right person for the job is, so I guess you could ignore that last statement as fruitless, purposeless, useless redundancy).

As to the second question: I don't blame you if you wished non-frosh ran for this office. On the contrary, I totally agree — I should not be a frosh. Unfortunately, the administration didn't believe me when I told them I was the professor replacing Apostol.

For the final question, let me just say Huy is not just another obscure and clueless frosh. Actually, let me rephrase that. Huy is not just another frosh. Oh, whom am I kidding? I'm just another frosh. But vote for me, anyway. You're just another Techer.

Albert Lee

My name is Albert T. Lee and I am running for the office of Frosh Director-At-Large. My name might seem familiar (there are officially four undergraduate Albert Lee's), but I'm really not a junior or senior who just forgot what class he's in. I'm a frosh. However, if you are an upperclassman and don't know any of the candidates, feel free to vote for a junior or senior Albert Lee. Just make sure you circle 'Albert Lee' on the ballot.

As for the frosh Albert Lee, I think I would do a good job as Frosh Director-At-Large. I'm willing to accept the duties, and if I am elected,

athletic endeavor. I have played football and baseball both years I have been at Tech. I have been on my house's Ath Team, and I have the endorsement of the current Ath Man, Bryce Elliot.

As I stated before, I feel that I am well qualified for ASCIT Athletic Manager. Furthermore, I want to do the job, and will do a bust-up job if you elect me.

John Visconti

I am a student at Concordia University in Mequon, Wisconsin. I want to be your Ath Man. Please vote for me on Monday.

CLASSIFIED ADS

FOR RENT—

PASADENA DUPLEX. Nice 1-bedroom with garage and yard. 113 N. Berkeley Ave. \$650. Call Won (818) 570-1676.

RATES \$4.00 for first 30 words; ... 10¢ for each additional word. Send written ad with payment to 40-58. Deadline is 6 p.m., Monday before issue. No charge for on-campus lost & found.

I will carry out the duties responsibly. I will get the UROH out on time and I will act dutifully as a member of the BoD.

Anyways, vote for me. Just circle 'Albert T. Lee' on the ballot.

Chris Marsh

Why an at Large Rep?

There are several reasons why I, Chris Marsh, would like to be the frosh representative at large for Caltech. To begin with, the rep is in charge of one main solo task, the UROH. I believe that I am up to this task, and would thoroughly enjoy discovering what all of the Tech professors are planning for research and job openings, since I enjoy doing that for myself even now. Another task for the rep is to represent their class on the board of directors here at Tech. Again I think that I will perform aptly here, for I already know quite a number of frosh in all seven houses, and always enjoy meeting more. In sum, I think that I would make a fine choice, please vote for me, and thanks for spending your time.

Prasanth Surampudi

Hi My name is Prasanth (Merlin) Surampudi. I am running for Freshman Director at Large. The Freshman Director at Large is re-

sponsible for the publication of the Undergraduate Research Opportunities Handbook. I know I can fulfill this duty because I have had a lot of experience putting information together; in high school, I worked with my high school newspaper for over a year. The Freshman Director at Large is also helps with the budget of ASCIT. I can be a contributing member during this process; I have had over four years of experience as a Treasurer in various clubs putting together budgets. The Director at Large also does other miscellaneous activities which require lots of time. Next year I will make time to do the job if I am elected. I feel I can make a difference and be a contributing member in student government. So please vote for me Prasanth Surampudi. (Merlin)

Renny Talianchich

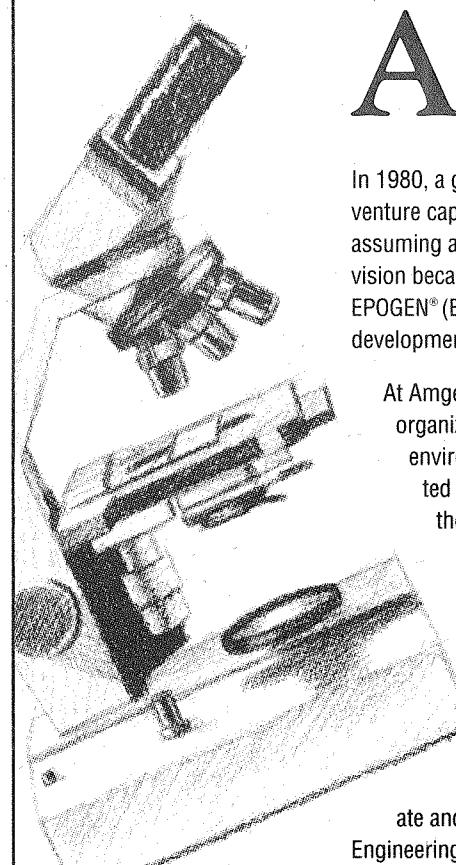
I would like to be your Freshman Director at Large. Caltech is special because of all the opportunities that it has given me to actually meet professors and work with them on their research. I'm quite certain that I am not the only person here who loves lab work, so I will do my absolute best to fill the UROH with as many listings for research as possible. I want to give something back to the student body, because you and the Honor Code make this campus a great place to live. So, remember Renny on election day!

Christopher Zagrodny

My name is Christopher Zagrodny, and I would like to be the Frosh Rep. I think undergrad research is one of the things that really makes Tech special, which is why I'm looking forward to putting our the UROH. Those of you who know me know I'm very responsible and civilized, and so will probably vote for me. Those who don't know me can meet me when I drop by your house at dinner. Remember to vote Z!



DISCOVER AMGEN



In 1980, a group of leading biologists and biochemists joined forces with several venture capitalists to create a dynamic, innovative organization dedicated to assuming a leadership role in the emerging field of biotechnology. In 1989, this vision became a reality when Amgen received FDA approval for its first product, EPOGEN® (Epoetin alfa). Today, Amgen has become a leading force in the development of recombinant DNA-based therapeutics.

At Amgen, you'll find a balance of business and science, people and ideas, organization and community, products and development. Here, you'll find an environment which values the individual, where people are deeply committed to what they're doing and strive toward a common goal of improving the quality of life for patients worldwide.

Amgen's Summer Internship Program

Our program is designed to introduce you to Amgen's unique culture and the challenges faced by a growing company in the biopharmaceutical industry. We have opportunities for undergraduate and graduate students in areas including Life Sciences, Chemical Engineering, Marketing and Law. Our goal is to provide you with a complete learning experience by defining a focused project which can be completed in a 10-12 week period. Allow us to tap into your skills and energy while we help you maximize the potential for your success.

For more information...

about this important opportunity, please contact your Career Placement Office.



AMGEN will attend the Career Day at Winnett Student Center from 11 a.m. to 3 p.m. on February 18th.



PARIAN TRAVEL

Caltech Officially Approved

Most professional, courteous, economical and efficient service for your official and personal travel needs.

Free service to you.

Airlines, Cruises, Tours, Hotels, Car Rentals.

Individual, Commercial, Groups.

(818) 577-8200

468 S. Sierra Madre Boulevard, Pasadena

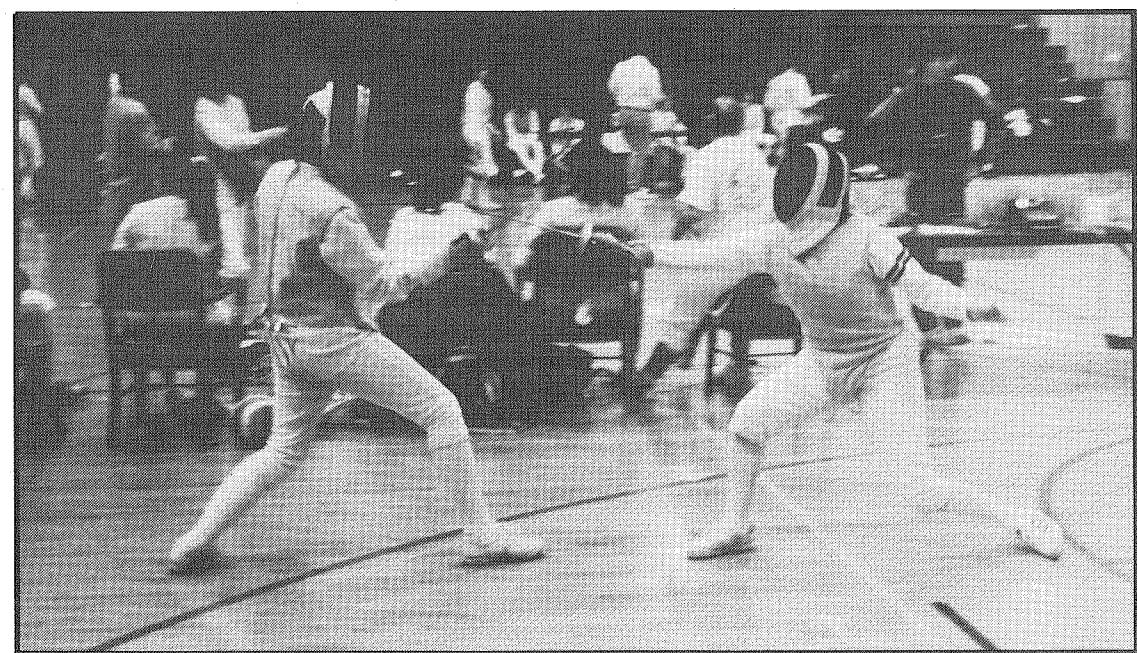
Spanning the globe to bring you a constant variety of sports..... It's time to talk some puck. Unbeknownst to me, and probably many of you as well, the Caltech Hockey program is alive and skating. The team lost many players from last year, switched conferences, and lost their coach not long before this season started last October. Despite all that, the team stayed together and has done all right. In fact they defeated Orange Coast College last weekend, and this Sunday at 11:30 AM they square off in their annual contest against a team of MIT alumni. If you've never seen a hockey game up close, by all means head over to the Pasadena

Ice Center this Sunday (300 E. Green Street by the Convention Center) to check out the action. And if you've ever put on a pair of skates, or are a Canadian, you can find out how to get involved with this club team. Hockey is a great sport to watch in person, especially with the free front row seats you're guaranteed at Caltech's games. So bring a jacket this Sunday to see some puck, and watch MIT get a little dose of humility in the bargain maybe..... It's a lean time of year for sports fans: No pro football or baseball, and the NBA and NHL are at mid-season. But remember, March Madness and baseball spring training are right around the corner..... Speaking of the national pastime, I can tell you right now who will meet in the World Series next October—Cleveland over Atlanta in a tight seven-game classic. I'll outline my reasoning in future columns.

When the Indians are busting out the champagne next year, remember you heard it here first..... With travesties seeming to occur almost daily, doesn't boxing seem less and less an actual sport as time wears on? An exercise in brutality, backroom deals, and big bucks would be a better description..... Why is it that when Charles Barkley is losing and spouting off to the press, he's considered a jerk, but when he's on a winning team and spouting off just as much, he's suddenly a colorful character? Any athlete who has so little self-control that he spits at fans and physically attacks referees

doesn't deserve any kind of respect. I call it the "Ditka Syndrome": A big mouth, a bigger ego, and any measure of success guarantees an enormous amount of unwarranted media attention..... Anyone out there with GSC news to report? Does indoor ultimate exist? Are there definite sports lined up for third term?..... The latest buzz at the Braun Center is that the Caltech basketball program and star player George Papa are attracting a lot of attention from local papers and TV stations. More on this when I find out where and when these features will run..... Thanks to Jody White from Caltech's Hockey Club for information on the team. Here's hoping others with any news or views on sports contact me at Box 935 or haba@cco..... Topics on the table for next week include Caltech basketball and the NHL..... Until then.....

John Haba's SPORTS SHORTS



Renny Talianchich(left) fails to parry a blow from her opponent during the meet last Saturday, February 6.

photo by Anoop Sinha

Lady Racketeers on Rampage

John Haba

The Mount St. Mary's Athenians are probably still hearing tennis balls pounding past them in their sleep, after last Saturday's 9-0 loss to the unstoppable Caltech Tennis Machine. MSM's players spent most of that afternoon ducking for cover to escape the Beaver's punishing barrage of high-speed serves and overhead slams. Fresh off a heartstopping 5-4 victory three days earlier, Coach Karen Nelson's Caltech squad showed absolutely no sign of a letdown in upping their season record to 2-0.

As in the season opener, the tone of this match was set by #1 singles player Diane Wong, who methodically crushed Maria Gosom 6-0, 6-1. At center court with her family and a good number of spectators looking on, Diane stayed loose, relaxed, and focused as always. This composure should serve her well in upcoming conference matches which may be against nationally-ranked singles foes.

While Diane's victory was overwhelming, heavy hitters Monica

Silva and Yu-Chien Kuo were the players who truly struck fear into the hearts of the Athenians. Monica, recently dubbed "Big Guns" by teammate Jill Bush, proved her nickname an apt one by hammering Leydita Lasaca 6-0, 6-1 with serves that most resembled a series of shotgun blasts. And seeing Monica's exploits on the #3 court, number two seed Yu-Chien was not to be outdone. Sighting powerful groundstrokes and slams from behind those trademark sunglasses, she terminated Kirsten Abundo 6-3, 6-0 with Schwarzenegger-like efficiency.

Silva and Kuo were by no means finished with their assault after singles play either. Coach Karen Nelson paired them at #2 doubles, much to the delight of tennis fans courtside. People line up to watch Monica and Yu-Chien for much the same reason people have historically flocked to see gladiatorial combat, chariot racing, and professional hockey — there's a good chance someone might get hurt. The crowded court area and increased proximity of players in doubles often lead to something more resembling target practice than tennis, when hard-hitting athletes are competing. The Mt. St. Mary's coach mercifully excused Abundo and Lasaca from facing Caltech's dy-

namic duo again in doubles, so it fell on Linda Nguyen and Maria Gosom to dodge the Big Guns. They did a good job at it too, losing 6-1, 6-2, but managing to avoid serious injury. In fact, Yu-Chien was the only one to come out of the match slightly bruised, thanks to an errant serve by her partner.

Jill Bush and Karen "Ace" Shih also turned in another dominating performance in both singles and doubles. Jill slammed her way past Linda Nguyen 7-5, 6-1, while Karen beat Michelle Anderson 6-0, 6-2. Karen "aced" her opponent on the very first serve, which means it was so fast and well-placed that Anderson couldn't even get a racket on it. From that point on, Shih was in complete control. In doubles Jill and the Ace scored big over Anderson and Monica Diaz 6-1, 6-3 despite some questionable calls made by the Mt. St. Mary's pair. Bush and Shih were flagging a bit in the second set until, as Jill stated; "They called two obviously good serves bad, and that made me MAD." Jill got her revenge putting big points away at the net, and Karen continued her explosive serving to seal a satisfying win.

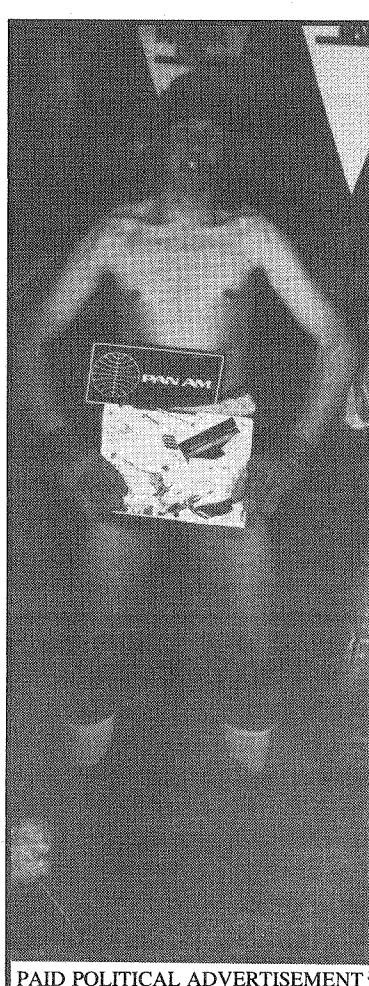
Fourth seed Miran Rhee battled through the closest match of the day in defeating Monica Diaz 6-4, 3-6, 6-3. Miran maintained a high intensity level throughout the contest to wear down her impressive rival. She played especially "smart" tennis down the stretch by constantly dropshotting the fatigued Diaz. Rhee then bounced back from that draining singles match to quickly down the Athenians' #1 doubles team of Abundo and Lasaca 6-0, 6-1 with

continued on page 11

YOUR INCOME TAX QUESTIONS CAN NOW BE ANSWERED!

The offices of Financial Aid, Graduate Studies, and International Student Programs, in cooperation with the Faculty Records Office, have arranged for a panel of specialists to address various questions pertaining to the preparation of individual federal and California state income tax returns. International students and faculty with specific concerns about federal and/or state tax preparation are encouraged to attend. The panel's membership will consist of an immigration attorney and three tax attorneys.

Monday, February 22, 1993
(Instructional Recess)
Baxter Lecture Hall
1:30 - 3:00 p.m.



PAID POLITICAL ADVERTISEMENT

CLASSIFIED ADS

FOR RENT—

PASADENA DUPLEX. Nice 1-bedroom with garage and yard. 113 N. Berkeley Ave. \$650. Call Won (818) 570-1676.

RESEARCH SUBJECTS NEEDED—

HEALTHY NON-SMOKING MALES, ages 18-35, needed for UCLA/EPA air pollution bronchoscopy study. Must reside and exercise regularly *outdoors* in the San Gabriel Valley area. Attractive participation fees paid. Call Arthur (310) 825-2739, Monday-Friday.

RATES . . . \$4.00 for first 30 words;
. . . 10¢ for each additional word.
Send written ad with payment to 40-58.
Deadline is 6 p.m., Monday before issue.
No charge for on-campus lost & found.

continued from page 12

WHAT GOES ON

The SME Manufacturing Engineering Education Foundation is announcing the availability of 4 separate undergraduate scholarships for direct application by the students. These scholarships range from \$500 to \$2,500. For information on scholarship criteria for each scholarship visit the Financial Aid Office. The application deadline is March 1.

Applications for the ASME Student Assistance Program are now available. Applications must be postmarked no later than March 31, 1993.

The American Scandinavian Foundation of Los Angeles will distribute five \$1,000 scholarships in 1993 to upper division and graduate students with a demonstrated interest in Scandinavia. Applicants must have strong academic qualifications and must show financial need. Two letters of recommendation, a transcript and the completed application are due by March 15, 1993.

The Jewish Community Scholarship Fund is providing scholarships designed to assist Jewish students who are legal residents of Southern California, pursuing post high school training or education on a full-time basis, and able to document significant financial need. Forms may be obtained from the Jewish Vocational Service, Room 303, 6505 Wilshire Blvd., Los Angeles, CA 90048, or call (213) 655-8910. Deadline for submission of completed applications is April 1.

American Electroplaters and Surface Finishers Society (AESF) is offering scholarships for the 1993-94 academic year to students of at least junior standing. Awards are not necessarily based on financial need. Field of study for this scholarship is in chemistry and/or the engineering sciences. The application and all requested information and documentation must be postmarked by April 15, 1993.

The Jewish Family and Children's Services announces the availability of financial support for Jewish individuals and their families. Students may apply for aid by mailing the questionnaire to the JFCS office or calling Ted Schriber at 415 561 1226 to receive an application. There are no deadlines and student's may apply throughout the year.

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

MPC Summer Research Scholarships 1993- Advanced materials research and educational programs require the collective talents and expertise of a broad spectrum of disciplines: chemistry; physics; mathematics; chemical, electrical, and mechanical engineering; computer science; as well as materials science and engineering. The Materials Processing Center at MIT seeks undergraduates from any of these disciplines who would like to experience and contribute to advanced materials processing through their summer research program. Participants will work with faculty and staff on current projects. The program is open to students entering their Junior or Senior years in September 1993. Selection is based on an applicant's academic standing and faculty recommendations. The ten-week (June 6 - August 13) program award includes \$3,500, round-trip travel expenses and MIT summer housing and meal plan. For information and an application contact Mrs. Frances Page, Room 12-007, MIT, Cambridge, MA 02139; (617) 253-3217; fax (617) 258-6900. Application deadline is March 15.

The Danville-Alamo branch of the American Association of University Women has two \$600 scholarships available. The successful candidates must be female college students from the San Ramon Valley with a junior or senior standing in September of 1993. Applications can be obtained from: Mrs. Janet Lather, 703 Contada Circle, Danville, CA 94526, (510) 831-9355. Completed scholarship applications must be postmarked by Monday, April 5.

The John Gyles Education Fund is offering financial assistance to students in both Canada and the United States. Effective March 1st selected students will receive up to \$2500.00. Deadlines vary. A minimum GPA of 2.7 is required. For details and an application send a self-addressed, stamped (US \$2.29) No. 10 envelope to, The John Gyles Education Fund, Attention: R. James Cougle, Administrator, P.O. Box 4808, 712 Riverside Drive, Fredericton, New Brunswick, Canada E3B 5G4.

FEBRUARY 12, 1993 11

continued from page 10

Rampage

the help of Diane Wong.

Caltech's perfect day extended to the non-scoring matches as well. Eighth seed Linda Springer beat Robin Venerta 6-4, 7-5, and Laura Verhoff became the fifth member of the Beavers' donut club by blanking Joy Dedrama in the sec-

ond set of a 6-4, 6-0 victory.

The women's tennis juggernaut continued through P.C.C. last night (details next issue), and rolls into Whittier next Wednesday at 3PM to square off in the season's first SCIAC contest. While 20-0 may not be quite possible, the unbeaten Beavers are clearly building momentum toward a very successful season.

PASADENA COMPUTER*Your Best Choice***One Year Parts & Labor Warranty****486DX-33MHz**

*256K CACHE RAM
*170MB IDE HARD DISK,13MS
*INTEL 80486 PROCESSOR W/MATH
*4MB RAM UP TO 32MB ON BOARD
*1.2MB & 1.44MB FLOPPY DRIVE
*DUAL IDE FD/HDD CONTROLLER
*AT I/O: 2 SERIAL/1 PARALLEL/1 GAME
*16BIT SVGA CARD W/1 MB RAM
*14" 1024 X 768 0.28 DOT SVGA MONITOR
*101 ENHANCED KEYBOARD

SALE PRICE: \$1445
CASH DISCOUNT: \$1375

486SX-25MHz

(30% FASTER THAN 386)
*64K CACHE RAM
*125MB IDE HARD DISK,16ms
*4MB RAM UP TO 32 MB RAM ON BOARD
*1.2MB & 1.44MB FLOPPY DRIVE
*DUAL IDE FD/HDD CONTROLLER
*AT I/O: 2 SERIAL/1 PARALLEL/1 GAME
*16 BIT SUPER VGA CARD W/1 MB RAM
*14" 1024 X 768 0.28 DOT SVGA MONITOR
*101 ENHANCED KEYBOARD

SALE PRICE: \$1150
CASH DISCOUNT: \$1095

386DX-40MHz

*128K CACHE RAM
*125MB IDE HARD DISK,16ms
*4MB RAM UP TO 32 MB RAM ON BOARD
*1.2MB & 1.44MB FLOPPY DRIVE
*DUAL IDE FD/HDD CONTROLLER
*AT I/O: 2 SERIAL/1 PARALLEL/1 GAME
*16 BIT SUPER VGA CARD W/1 MB RAM
*14" 1024 X 768 0.28 DOT SVGA MONITOR
*101 ENHANCED KEYBOARD

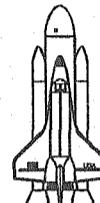
SALE PRICE: \$1075
CASH DISCOUNT: \$1025

EISA 486DX-33/DX-50/DX2-66

*** 486DX + EISA = TURBO COMPUTER ***
*INTEL 80486 PROCESSOR WITH BUILT IN MATH
*256K CACHE RAM
*4MB RAM UP TO 32MB RAM ON BOARD
*1.2MB & 1.44MB FLOPPY DRIVE
*DUAL FD/HDD CONTROLLER CARD
*AT I/O: 2 SERIAL,PARALLEL,GAME PORT
*101 KEYBOARD

*170MB IDE HARD DISK,13MS
**"ORCHID" EISA SVGA CARD 1280 X 1024 W/1MB
*15" 1280 X 1024 SVGA (.28), FLAT SCREEN

SALE PRICE: \$2095/\$2305/\$2460

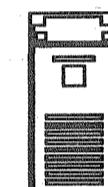
15" CAD STATION**CASH DISCOUNT: \$1995/\$2195/\$2340****VESA LOCAL BUS 486DX-33/DX2-66**

*INTEL 80486 PROCESSOR WITH BUILT IN MATH
*256K CACHE RAM
*4MB RAM UP TO 32MB RAM ON BOARD
*1.2MB & 1.44MB FLOPPY DRIVE
*DUAL FD/HDD CONTROLLER CARD
*AT I/O: 2 SERIAL,PARALLEL,GAME PORT
*101 KEYBOARD

*170MB IDE HARD DISK,13MS

*LOCAL BUS SVGA CARD 1280 X 1024 W/1MB
*14" 1024X768 SVGA MONITOR (.28)

SALE PRICE: \$1570/\$1935
CASH DISCOUNT: \$1495/\$1840

**486DX-50MHz/DX2-66MHz**

(25% FASTER THAN 486DX-50)
*256K CACHE
*170MB HD,13ms

*INTEL 80486 PROCESSOR W/MATH
*4MB RAM UP TO 32MB
*1.2MB & 1.44MB FLOPPY DRIVE

*DUAL IDE FD/HDD CONTROLLER
*AT I/O: 2 SERIAL,IPARALLEL,IGAME
*16BIT SVGA CARD W/1MB

*14" 1024X768 (.28) SVGA

*101 ENHANCED KEYBOARD

SALE PRICE:\$1630/\$1780
CASH DISCOUNT: \$1550/\$1695

PRINTER ON SALE!**CANON BJ-10ex**

PORTABLE
Ink Jet Printer
>8" Characters/second
>360 DPI
>Lightweight 4 lbs
>Up to 30 Sheets
>45 DBA-It's Quite!
>Letter Quality

\$245

CANON BJ-200

INK JET PRINTER
Laser Quality
NEW
Ink Jet Printer,Laser Quality
>300Characters/second
>360 DPI
>Manual & Sheet Feed
>248Characters/second
>360 DPI >6.6 lbs
>Epson & IBM Emulation
>100 Sheets or 10 Envelope
>42 DBA-It's Quite!
>Laser Quality

\$325

CANON BJ-300

Sale
INK JET PRINTER,Laser Quality
>300Characters/second
>360 DPI
>Epson & IBM Emulation
>Any size paper(Envelopes A4,Legal,Single sheet, Transparencies)
>Laser Quality
\$339 Limited Quantity
Ink Cartridge \$25 ea.
(Bundle with 4 ink cartridge)

EPSON AP-3250

>24-Pin Printer
>Compact Case
>5 Built-in Fonts
>2 Scalable Fonts
>50 Sheets Paper Tray
\$189
LQ-570
>250Characters/second
>10 Built-in Fonts
>2 Scalable Fonts
\$259

PANASONIC (Color 24 Pin)

KX-2123 \$235
KX-2124 \$309
(92'Best Printer)
Color Kit \$45

(Laser Printer)
KX-4410 \$615
KX-4430 \$855

NOTEBOOK SPECIAL**Manager's PC****386SX-25/486SLC-25**

Sale Price:\$1395/\$1840
Cash Discount:

386:\$1325
486:\$1750

Engineer & CAD PC**486DX-33/486DX2-50**

Sale Price:\$2050/\$2160
Cash Discount:

D33:\$1950
D50:\$2250

COLOR 486SX-25

>Color 9" Passive VGA
>Built-in Trackball Mouse
>Lightweight 5.7 lbs
>4MB Ram,Up to 8MB
>120MB HD
>3.5" 1.44MB Floppy
>Serial, Parallel
>Extra VGA Monitor Port
>Extra Keyboard Port
>AC / DC Adaptor
>Carrying Bag
\$2395

Pasadena Main Office:

1756 E. Colorado Blvd
Pasadena, CA 91106
TEL: (818) 568-1088
FAX: (818) 568-9132

Olympic Blvd

PICO BLVD
SANTA MONICA BLVD
JAN DIEDO BLVD

Los Angeles Branch:

11737 West Pico Blvd
LA, CA 90064
TEL: (310) 575-4028
FAX: (310) 575-3831

Mazatlan
\$109*

Honolulu \$129*
New York \$159*
London \$225*
Tokyo \$290*
Sydney \$349*

*Fares from Los Angeles and are each way based on a roundtrip purchase. Restrictions apply and taxes not included. Student status may be required.

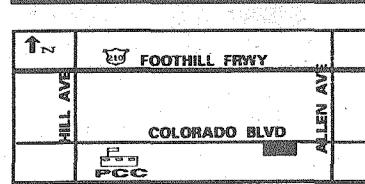
Call for a FREE copy of the Student Travels Magazine

Council Travel

14515 Ventura Blvd. #250
Sherman Oaks, CA. 91403

1-818-905-5777

America's oldest and largest student travel organization



WHAT GOES ON

NOTICES

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

Women and Men at Work - If you are planning to join the ranks of the employed anytime in the next couple of years, this is a course you can't afford to miss. Dr. Barbara Gutk, visiting professor of management and policy at the University of Arizona, has designed SS 101, offered spring term MW 2:30-4:00, to focus on differential experiences of women and men in science and in management. Factors that determine career choice, selection and placement in organizations, advancement, performance, job satisfaction, and models for change will be covered.

Caltech Velo - The Caltech Bicycle Club Thursday, February 18, 8 p.m., Winnett Lounge The club organizes all types of rides, both road and off-road rides, for all skill levels, from novice to advanced including collegiate racing. All cyclists are welcome. For more information, contact Michael Kantner at x4882 or E-mail to kantner@hot.caltech.edu

EVENTS AND SERVICES

Sweet Feast with the MOSH - Bring your sweet tooth with you to the Master's House, at 355 S. Holliston for some homemade sweets on Wednesday, Feb 17 from 9 to 11 pm.

Friday Morning Donuts! - That's right ASCIT and the Caltech Y are bringing back the Caltech tradition of Friday Morning Donuts. Donuts will be served today and every Friday at 8:00 am in front of Lloyd House. Come on out, eat breakfast, read the paper, and meet interesting people. Then, you can go back to bed, but don't miss the donuts.

Caltech Career Day - All students and members of the Caltech community will have the opportunity to meet with representatives from a variety of organizations on Thursday, February 18 from 11 am to 3pm in Winnett Quad. For more information call the Career Development Center at x6361.

Credit Union Annual Meeting - Join us for the forty-third shareholders' meeting on Tuesday, Feb 16 at 5:30 pm in Beckman Auditorium. Come early to hear the music of Clear County Line, featuring Kris Garret. There will be a free gift for everyone attending, a door prize, and refreshments. For more information call x6300.

Friday Prayer - Prayers organized by Caltech Muslim Students are held in the Caltech Y lounge at 12:30 pm every Friday.

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

Mass - Thursday at 8:15 in the Y lounge and Sunday at 10 am 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.

OWC Hang-N-Eat - Bring a lunch, socialize, or just "hang out" with members of the Organization for Women at Caltech on Thursday at noon in Winnett clubroom #2.

Gay, Lesbian, Bisexual Support Group - Meets the first and third Tuesdays at 7:30 pm in the Health Center Lounge. This confidential meeting is open to all Caltech community members looking for a supportive context in which to address questions and concerns about sexual orientation - including coming out, being out, self-discovery, coping with families.... We begin with a focus topic but move to whatever is feeling most relevant to the group that night. Refreshments are served. For information, please call x8331.

Preschool Playgroup - Meets on Tuesday, Feb 16 in the Caltech Villa Apartments from 10 am to noon providing structured activities for mothers and fathers and their children. For more information call Valerie Murray, 287.8960.

Adult Children of Alcoholics - A 12-step group which meets on campus every Tuesday, from 12 noon to 1 pm, in Y club room 2. The group is open to any student, staff or member of the faculty who grew up with family alcoholism and other problems. For more information call Dinah Lee Schaller at x2961.

Women's International Friendship Group - All women from foreign countries are warmly invited to this meeting at 415 S. Hill on Monday at 9:30 am. Children will be supervised. For more information contact Susan Dimotakis at 794.2594 or Kay Corwin at 447.1081.

Open Line - Open Line meets every Tuesday in the Y lounge upstairs during lunch, between 11:30 and 1:00. Topics discussed include developing a youth center for ages 5-12 for tutoring services, activities and cultural development for the children of Caltech students, staff and faculty, developing a multicultural book for the understanding of all nationalities, traditions and customs. Open to all of the Caltech community.

The CIT-KNIT Group meets at noon on Tuesdays in the Benioff Conference Room (Rm. 256 S. Mudd). For all levels of knitters. Come and join us.

Baby Furniture Pool - The Caltech Service League loans out baby furniture to students and postdocs on Wednesday at 324S. Chester from 10 to 11 am. For more information call 952.1631.

ENTERTAINMENT

S.P.E.C.T.R.E. Film Fests-S.P.E.C.T.R.E., the Caltech Science Fiction Club, will be hosting two Video Nights this week. The first is to commemorate our consultation by Universal Studios about time

travel for their new ride based on the movies BACK TO THE FUTURE I, II, III. We will be showing these films Saturday, February 13th, 7pm+ in the Catalina III Rec Room. Our second movie night is domestic competition with the (Un-American) Anime Club.

Our (Non-Japanese) Animation Night will show "Wizards" and "Heavy Metal" starting 7:30pm Wednesday, February 17th in Room 35 of the SAC. For further information contact Gorm@568.9168 or spectre@cco.

The Showdown At Brown - Tonight (Friday, February 12th) at 6:45 in Brown Gymnasium (a.k.a. the old gym), the men's volleyball club team will play a rare home exhibition match against USVBA rival team "Sideout". Volleyball fans can expect to see high-flying, hard-hitting offensive action backed up by solid blocking and spectacular defense as Caltech's team prepares for the upcoming USVBA season. This is a match you won't want to miss!

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.

OWC Hang-N-Eat - Bring a lunch, socialize, or just "hang out" with members of the Organization for Women at Caltech on Thursday at noon in Winnett clubroom #2.

"Jake's Women" - The Caltech Y is offering tickets at \$5 each (\$33 to the general public) to "Jake's Women" a play by Neil Simon and starring Alan Alda. So for only \$5, you can see a great play in Hollywood and meet some other neat Caltech students. Only 40 tickets are available, so hurry and buy one.

Canoe down the Colorado River this Spring Break - The Caltech Y is organizing a canoe trip down the Colorado on March 21st through the 25th. The cost is \$195.00 for five days (This includes everything but personal gear). The deadline for signing up is on Feb. 28th or until all 15 spaces have been filled. (A \$95 deposit is required on the date of sign-up) No experience is necessary.

"Scotland" - Sherilyn Mentes will personally narrate her travel film "Scotland" on Friday, Feb. 12 at 8 pm in Beckman Auditorium. Mentes takes a light-hearted tour of Scotland, from the Borders' gentle hills to the pine forests and bleak moors of the Highland. She visits the lively and colorful city of Glasgow, born during the Industrial Revolution and shaped by Victorian manufacturers. Other highlights include visits to Edinburgh, St. Andrew, the Shetland Islands and Orkney. Tickets are \$8.00 and \$6.50. For more information call x4652.

Nigerian Drum Performance: A demonstration/performance of the music of West Africa. It is a part of an on-going celebration of teh African-American History month Will be held on Friday February 12, 1993 at the Dabney Lounge at 8:00 PM. Admission is Free. Everyone is invited. Sponsored by International Student Programs Office, Caltech chapter of the National Society of Black Engineers, and the Caltech Y

"Play to Win" - Beckman Auditorium, Saturday, February 13 at 8pm. This award winning musical about America's first African-American baseball hero, Jackie Robinson, is presented by Theatreworks/USA. Admission is \$8.50 adults, and \$4.50 children. Call x4652 for more information.

Decanso Trio - Dabney Lounge on Sunday, Feb. 14 at 3:30 pm The program will feature Ravel's Piano Trio and Messiaen's Quartet for the End of Time. Admission is free.

The Pasadena Folkdance Co-op offers beginning and intermediate instruction every Friday at 7:45 pm in Throop Unitarian Church on the corner of Los Robles and Del Mar. A program of varied international dances follows the instruction at 9:00 and continues until 11:00. Wear soft-soled shoes. A contribution of \$1.50 is requested.

International Folk Dancing - Tuesday nights in the Dabney Lounge. Beginning instruction starts at 7:30 pm; intermediate at 8:00 pm and open dancing takes place from 9:00 until midnight. Donations are accepted. For more information call Mike McKenna at (310) 692.0366.

Israeli Folk Dancing - Sundays in Winnett lounge, Beginning instruction starts at 7:30 pm, 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 pm. 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 pm in Dabney Lounge. The performance is open to the public and free of charge. Feel free to come late or leave early. For more information call x6353.

LECTURES AND SEMINARS

"Form and Function in the Public Sector: State and Local Government in the 20th Century" - presented, Thursday at 4 pm in the Judy Library by John Wallis, professor of economics at the University of Maryland. Refreshments will be served.

"Evolution and Creation: The History of a Controversy" - The Skeptics Society sponsors a seminar Saturday on the debate between Creationism and Evolution. Dr. Michael Shermer, Dir. Skeptics Society and an adjunct professor of history of science at Occidental College, will present this all day seminar. Part I (9am-10:30am) Darwin and his theories. Part II (10:45am-12noon) The creationists arguments. Part III (1:30pm-3pm) The evolutionists respond. Part IV (3:15-5pm) From the big bang to the big brain. Cost is \$25.00 for members and \$30.00 for non-members. Saturday, Feb. 13 in Baxter Lecture Hall. Refreshments(except lunch) will be provided.

SCHOLARSHIPS, INTERNSHIPS & COMPETITIONS

The Summer Undergraduate Research Fellowship (SURF) program is accepting applications. Application forms and Announcements of Opportunity are now available in the SURF Office, Room 137 Beckman Institute. Application deadline is March 1, 1993.

Master-Program - Information Networking Institute of Carnegie-Mellon University. Brochures and Information about the Bellcore Graduate Study Program (GSP) are available in the Career Development Center, 8 Parsons-Gates, x6361. This is a company sponsored program where students receive tuition, fees and a stipend and will work for Bellcore during the summer.

Summer Student Fellowship Program 1993 - Summer Student Fellowships are awarded to upperclass (juniors and seniors) in any of the fields of science or engineering with at least a tentative interest in oceanography and/or marine policy. Fellowships are awarded to pursue an independent research project chosen by the Fellow under the guidance of a member of the Research staff. The Fellowship stipend is \$3,660 for the 12-week program during the months of June-August. A travel allowance may be provided. The deadline for applications is March 1, 1993. Notification of decisions by April 12, 1993. Further information and application forms: The Fellowship Committee, Education Office, Clark Laboratory, Woods Hole Oceanographic Institution, Woods Hole, MA 02543. (508) 427-2000, ext. 2709.

Monticello Foundation Internships 1993 - The Deans' Office is accepting proposals for the Monticello Foundation Internship. One to three Caltech undergraduate women (current freshmen, sophomores and juniors) will be given an opportunity to participate in research projects outside the Caltech community for ten weeks during the summer. Each student will receive a \$3,500 stipend. Applicants are required to identify the projects in which they wish to participate. All arrangements with the principal researcher will be the responsibility of the student. Interested? Identify a sponsor for your experience at a research facility for a ten-week period. In a short essay, describe your project, and submit it to the Deans' Office, 102 Parsons-Gates, along with two faculty recommendations. Proposals are due March 1, 1993.

"Global Leaders of Tomorrow" Essay Contest - The Sunkyoung group of Korea is offering awards of \$5,000 and a one week trip to Korea to each of the top essays in the areas of science, government/law and business. The contest is open to registered undergraduate and graduate students. Contest guidelines are available in the Career Development Center. Entries must be postmarked by March 24.

The American Society of Naval Engineers is sponsoring a \$2,000 scholarship for the 1993-94 academic year. The candidate must be a U.S. citizen, demonstrate a genuine interest in a career in naval engineering, and be applying for support for the last year of a full-time program or for one year of graduate study. Financial need may also be considered. Deadline for receipt of scholarship materials by the ASNE offices is February 15, 1993.

The American Physical Society (APS) is offering \$2,500 scholarships to African-American, Hispanic-American, or Native-American undergraduate freshman or sophomore students majoring in Physics. The deadline to submit completed applications to APS is February 26, 1993.

The Consulting Engineers and Land Surveyors of California (CELSOC) will award several scholarships for the 1993-94 academic year. Scholarships will range from \$1,000 to \$2,000. Scholarships are available to upper division students in the fields of engineering and/or land surveying with a minimum GPA of 3.5 in their field and a minimum overall GPA of 3.2. Deadline for applications is Feb. 26, 1993.

The American Society of Naval Engineers is a sponsoring a \$2,000 scholarship for the 1993-94 academic year. The candidate must be a U.S. citizen, demonstrate a genuine interest in a career in naval engineering, and be applying for support for the last year of a full-time program or for one year of graduate study. Financial need may also be considered. Deadline for receipt of scholarship materials by the ASNE offices is February 15, 1993.

The American Physical Society (APS) is offering \$2,500 scholarships to African-American, Hispanic-American, or Native-American undergraduate freshman or sophomore students majoring in Physics. The deadline to submit completed applications to APS is February 26, 1993.

continued on page 11

BURGER CONTINENTAL

Buy Caltech cards and save, save, save!

Buy Caltech cards and save, save, save!

TO ALL CALTECH STUDENTS, FACULTY, AND STAFF:

All the time.

BREAKFAST \$2.19

Seven days a week.

LUNCH \$4.95

HEAR THE WEDNESDAY NIGHT JAZZ BAND

DINNER \$6.25

Breast of chicken, seafood, lamb, or the day's special

SPECIALTIES

Shish kebab Shaorma Souvlaki steak

Fresh fish and lamb Baklava

Homemade pizza Gourmet hamburgers

Mondays - Half price margaritas.

Tuesdays - Beer half price.

Wednesdays, Thursdays 3-7 p.m.

We cater for all occasions

535 S. Lake Ave.

(818) 792-6634

THE TECH

CALTECH 40-58 SAC
PASADENA, CALIFORNIA 91125