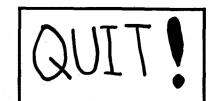


THE CALIFORNIA TECH



VOLUME XC NUMBER 3

PASADENA, CALIFORNIA

FRIDAY 7 OCT 1988

Proposed By-Law Changes A S C I T Board of Control

The following are amendments to the By-Laws which require a two-thirds vote to pass. The voting should take place a week from to-day. Explanations of the proposals are in italics.

Amend Article I - Privileges of Membership:

Append Section 1(c) ",the CLUE, and the little t"

This is where the By-Laws say we are entitled to a subscription to the Tech if we are ASCIT members."

Amend Article IV - Officers:

Replace "Section 1" with "Section 1a" Add to Section 1 "b. Only registered undergraduates who are ASCIT members shall be appointed or elected to ASCIT office."

As the By-Laws currently stand, someone who pays his ASCIT dues, and withdraws from the Institute can later be elected an ASCIT officer. So as not to conflict with Article I, officers of the corporation must be members. (This change only applies to officers of the corporation. There are other positions available by appointment or election that this doesn't concern. For the full list, read the little t.)

Add to Section 1 "c. In the event that an officeholder ceases to be a student of the Institute, he shall retire from that office unless he gets approval to continue from the ASCIT Executive Committee. The Committee shall evaluate his proposal to remain in office based on the officeholder's intent and ability to continue fulfilling the duties of the office."

Currently, there is no way to evaluate whether or not a student who goes on leave should continue to hold their job. This is a reasonable criteria for deciding if that is the

Amend Section 9. Offices of Director at Large: Strike "at least" and append "The other shall be an upperclassman."

Do we want Freshmen to be able to run for Upperclass Director at Large? Right now, the By-Laws allow two Freshmen to be the Directors at large.

Amend Section 11. Office of Athletic Manager to replace "shall procure all awards" to "shall procure all athletic awards"

Should the Athletic Manager really procure Teaching awards and Debate awards? As it reads, the Athletic Manager is responsible for everything. Amend Article VI - The Board of Directors:

Amend Section 3. MEETINGS to replace "at least once a week" with "at least once a week (except during final exams, Rotation, and vacations)"

Does the BOD really meet 52 times per year? If the BOD followed this section of the By-Laws, they would have to stay here during the summer...

Amend Article VI - Executive Committee: Amend Section 2. DUTIES to replace "fill vacancies in the Board of Directors" with "fill vacancies in the Board of Directors temporarily as provided for in Arti-

Article VIII, Section 7 is much more explicit in what the Excomm can and cannot do with respect to filling vacancies.

cle VIII, Section 7'

Amend "Section 5. Approval. All decisions of the Executive Committee must be approved by the Board of Directors."

This one was stuck here by the BOD. It is designed to strip what limited power that the Executive Committee that the Executive Committee has now. The BOD already has approval of the selection of the Exec. Committee.

Amend Article VIII - Elections and Procedures:

Add to Section 1, paragraph 3 "The Secretary shall publish an announcement in the issue of the *California Tech* immediately preceding the opening of these nominations."

We should be given at least a week's notice for when the opening of nominations is coming up.

Amend Section 10, the first sentence to read "All officers shall be installed at the second Board of Directors meeting following the election of the non-Treasurer/President officers (except as provided elsewhere)"

(Change item in parentheses)

In other places in the By-Laws (Article XIV, Section 11 for example) other dates are specified for when officers take their office.

Amend Article X - Recall:

Amend Section 1 to read "Upon presentation of a petition for recall of any elected officer, bearing the signatures of twenty percent (20) of (those eligible to vote for the office), a special election shall be held..."

 $\begin{array}{c} \hbox{(Change item in parentheses, reads becontinued on page 2} \end{array}$

The following are the proposed changes for the by-laws of the Board of Control. The changes occur in Article VII, section 3. All of section 3 has been included in this draft, with the changes in bold type. None of the proposed changes are deletions and are all additions, as shown below. Each proposed item has an explanation, in *italics*, describing why it has been proposed.

It should be noted that all of the proposals involve stating the rights of members of the community and of the Board itself, or stating procedures which are currently used but not defined anywhere. No drastic philosophical changes are proposed. Each letter item, (which is new), will be voted on independently. Only one item may need some sort of correlation; that is item 3.j with items 3.g, 3.h, and

Sec. 3. RULES OF PROCEDURE.

a. When a suspected violation of the Honor System is reported to the Board, the Chairman and Secretary will conduct a preliminary investigation to examine all relevant facts. They may require any persons involved to discuss their knowledge of any information concerning the case. The Chairman and Secretary will determine whether or not the case will be brought to a hearing of the full Board.

The procedures for preliminary investigations are not discussed in any part of the BOC by- laws. Inclusion of this statement will both give members of the community an idea of what to expect from a preliminary investigation and give incoming Chairmen and Secretaries guidelines by which to dispatch the duties of their offices.

b. When a case is brought to a hearing of the full Board, the Board will make three decisions:

1. Whether or not an honor system violation has been committed.

How to nullify the advantage that has been taken.

3. How to protect the Caltech community.

Though this is traditionally done, inclusion of this statement in the by-laws will ensure that the Board satisfies its purpose in every case, and lets the community know exactly what that purpose is.

c. All persons appearing before the Board at a hearing or a preliminary investigation will be informed of the reasons for their presence.

Statement included to protect the rights of the community which some feel have been violated in the past.

d. Persons who feel that they have been unfairly treated by any members of the Board or that their personal rights have been violated may make appeals to the Dean of Students.

Again, this is the tradition, but inclusion in the by-laws ensures that all people in the community know they have this right to speak with the Dean when they are not comfortable with the way they have been treated.

e. The Chairman and Secretary of the Board shall not have a vote on the Board.

f. Seven (7) voting members of the Board shall constitute a quorum.

g. In case of absence or disability of the Chairman, the Board shall select a temporary chairman from among their number who, while acting as Chairman, shall not have a vote. In the case of absence of the Secretary, the Chairman will appoint a temporary Secretary, who shall not have a vote, from among those who are present or past Board members (see section 3.j).

This is simply a matter of clarification of the procedure by which a temporary Secretary is appointed, a procedure which has not been outlined before and thus has caused some confusion.

h. If a Board member feels unable to render an unbiased judgement in a particular case, that member should disqualify himself. Furthermore, no member of the Board shall sit in judgement of his own case.

Again, this is traditional, but inclusion in the by-laws will ensure that decisions on the Board involve no personal biases.

i. If a defendant feels that particular Board members are unable to render an unbiased judgement, a request may be made to the Chairman or the Dean that those Board members not sit on the case.

This statement protects the rights of the community to feel certain that the decisions of the Board will be unbiased, and allows a way by which each defendant can feel more comfortable with the Board.

j. If made necessary by sections 3.g, 3.h or 3.i, in order to maintain a full quorum of the Board, the Board shall reserve the right to ask any past members of the Board of Control to serve on a case, contingent on a three-fourths [3/4] vote of the remaining voting Board members. All those serving on a case are bound to secrecy as stated in section 3.r.

continued on page 5

Quakes Cause Tree Trauma

by Ian Dutton

Over the summer, attention in the field of seismology was turned to recent advances in the dating of earthquakes made by Caltech's Kerry Sieh. Using one new technique and an improvement in another, Sieh and various partners have found interesting patterns in major quakes along the San Andreas fault.

Previously, carbon-14 dating was the standard way to determine the dates of earthquakes. Soil layers broken during tremblors could be dated by analyzing the ratio of carbon-14 to carbon-12 in traces of organic materials in the layers.

Unfortunately, the accuracy of this method was not very high, and the size of error restricted the theories that could be drawn from any apparent trends.

The accuracy of radiocarbon dating was greatly improved by a new technique devised by Sieh and researchers at the University of Washington, Seattle and Berkley. In short, the idea is to use the same test on a larger test sample (70 grams, as opposed to five to ten grams), for a longer period of time (as much as two weeks, compared to the standard approximately 17 hours), and with reduced background "noise".

The idea of reducing the background interference is accomplished by performing the tests in an underground labrotory shielded from cosmic rays, the major contributor to the noise. It is not a new concept that trees experience trauma during major earthquakes, and the trees react by producing irregular ring patterns immediately following such shocks.

In order to determine the exact dates of earthquakes, Sieh and two dendrochronologists from Columbia University took core samples from dozens of trees growing within twenty meters of the fault near Wrightwood in the Angeles and San Bernadino National Forests. Trees that were sufficiently old could have their rings analyzed by the dendrochronologists and conclusions about seismic activity in the area could be drawn.

Trees produce rings on an annual basis. The width of these rings depend greatly upon shocks to the tree such as draught, insect infestation or disease, or the loss of major limbs. Damage associated with earthquakes often causes trees to add narrow rings, if any at all. Often during an earthquake, a tree will lose branches and a large number of its leaves, and, if the quake is powerful enough, the entire top

may snap off.

The most important result of the tree ring analysis thus far has not, in fact, been the precise dating of earthquakes. People living in southern California recorded a major earthquake in December, 1812. Due to damage reports, this quake was attributed to coastal continued on page 5

Nominations

Nominations are open for offices to be elected Friday, 14 Oct. The positions available are Senior class officers, Junior class officers, Editors of the California Tech, Business Manager of the California Tech, Darkroom Chair.

Nominations are due Wednesday, 12 Oct. to Jeff Flint, ASCIT Secretary, 1-53, 578-9219, or sign up on the MOSH's door.

Also on the ballot will be the proposed changes in the by-laws of ASCIT and the BOC.

Memorial Service

A memorial service for Peter Lindstrom (Senior class) will be held at 4:00 pm on Monday, October 10th in Dabney Lounge. All of Peter's friends are encouraged to attend.

Safe Landing

by Craig Volden After a cold, short night in the desert on Edwards Air Force Base, the Caltech SEDS (Students for the Exploration and Development of Space) members were ready for the landing of the Discovery. It came at 9:36AM on Monday, as the air was filled by the two sonic booms caused by the Discovery's breaking back across the sound barrier. Visible shock waves shot across the blue sky; the blazing white shuttle appeared; and within a minute it landed, kicking up the reddishbrown dust, completing the red, white, and blue spectacle.

Shortly afterwards, Vice President Bush welcomed the astronauts home. Standing next to him was the legendary test pilot Chuck Yeager,

who was the first man to break that sound barrier, just four decades ago, over the same air base. Yeager's presence gave insight into how short this history of space actually is.

NASA's first flight, of Pioneer I thirty years ago this month, was with a vehicle having a payload of just 39 lbs. Today's space shuttle has a total weight of 4.4 million lbs. The time for astronauts to stay in space has also increased. With the development of the permanently-manned space station, that length of time will sky-rocket (no pun intended). Bush promised completion of the space station by 1006

"Goo-ood morning, Discovcontinued on page 7

The California Tech

EDITORS-Eric Fung • Stephen Lew • Chandra Tucker

ENTERTAINMENT Andrew Hsu

SPORTS Scott Kister

Рнотоѕ Help Wanted **ANNOUNCEMENTS** Eric Fung

Firewor

by Stephen Lew

Last Sunday, marked the close of another year of rotation. As with many years past, Fleming marched through the houses singing the interhouse song.

Unfortunately this year, things got a little out-of-hand. One of the houses decided to lock all of the exits of their house and shoot fireworks at the so-called "invaders.'

It is a sad state of affairs when people allow their peers to partake in such a dangerous activity without trying to stop them. Fireworks are not only a potential fire hazard, but are dangerous as well. If throwing fireworks at people is not taking unfair advantage of those people, what

Although the people involved cannot be excused for their actions, one fault lies in the attitude and leadership in the Houses. Although apathy and ignorance are seen to be the "in" attitude to have at Caltech, it leads to the blurring of respon-

ASCIT, cont

fore change "(20) of the members of the

recall the Senior Class President and why shouldn't non-ASCIT members be allowed

to recall the BOC chairman and the IHC

Amend Article IV, Section 7; Article XII,

Section 1; and Article XIV, Sections 1,

8(d), 9, and 11 to replace "Teaching Qual-

ity Feedback Report" with "Course List-

ings of Undergraduate Education" (ie.

so we want to amend the By-Laws to reflect

this. (Did anyone else notice that what the

abbreviation stood for was not in the CLUE

We changed the format and the name,

chairman if they get to vote for him?

Why should Freshmen sign a petition to

from page 1

corporation")

this year?)

should always know and be responsible for the actions of their followers.

Everyone needs to help the leadership out, since a leader with no followers is nothing at all. If you see something unusual, tell someone about it.

Nobody is suggesting that everyone needs to inform the house president, master of student housing, or security about everything, but a chat once in a while never hurt anyone.

The point of the house system was to provide an organized forum in which the people living in on campus housing could deal with the administration. In this way the houses (to a limited extent) could be used as a shelter for students in their dealings with the administration. If the houses start to claim ignorance about their individual members, they are failing in their primary responsibility.

Amend Article XIV, Section 8:

Append "(e) The Totem. The Editor will receive a salary of one hundred dollars (\$100) with a maximum bonus of one hundred dollars (\$100). A group of people can share this position."

Maybe, if the Editor gets paid, we will get a Totem more than once in a Blue Moon.

Append "(f) The Undergraduate Research Opportunities Handbook. The Editor will receive a salary of one hundred dollars (\$100).

Let's be consistent here, every other edi-

Append Article XVI:

"The BOD and the Executive Committee and the Editors of the California Tech get a trip to Rio de Janeiro."

Respectfully submitted on behalf of the ASCIT Executive Committee, by Sam Dinkin, Chair.

Approved for the ballot by the BOD, Tuesday, October 4, 1988.

opinion

You Are the Future

NASA—and with it America's civilian space program-has been challenged and criticized, yet now has clearly survived the shock of the tragic loss of Challenger in January 1986.

Those of us who had been with NASA since the earliest Mercury days recognized for the first time a serious chink in our leadership armor. For the first time we began to have serious doubts about ourselves, challenger was a failure so large we could not simply regroup and press on. It required a major reassessment of our capabilities—and our courage.

Sometimes climbing back up the ladder after you've been knocked off makes you a wiser climber if vou have the determination to get back up. NASA had that determination ofter Challenger. The acceptance, regrouping, replanning, and comeback has been painful, even slow at times. But there is no doubt now. Success with Discovery was no accident.

The importance of the STS-26 mission was more than a revitalization of NASA's spirit, more than the return of our primary launch capability, and more than a successful deployment of a desperately needed Tracking and Data Relay Satellite. It was a renewal of the American public's excitement and pride in our Nation's space program.

What's next? Well, there is an enormous wealth of inventory to get into space ASAP. Some great stuff just at JPL alone: Magellan, Galileo, Ulysses, and Mars Observer. Elsewhere there's the Hubble Telescope, Space Spacelabs, Upper Atmospheric Research Satellite, the Freedom Space Station...the list goes on.

What about the long range plan? NASA is criticized for not having any coordinated, well thought out plan. That's not true. There are several very logical and well conceived plans based on certain assumptions, but a single national space plan requires a single decision and an associated national commitment by the President and the Congress. That is a political call. We hope it will occur and soon.

We do have a strategic plan for the orderly exploitation of the solar system. It is in place and being followed. The plan for other space science efforts in astrophysics, life sciences, and the study of our own planet are in place.

Options for future major manned missions are progressing in order to be ready for new and challenging opportunities towards the Moon and Mars. We are discussing with the Soviets the possiblity of coordinating our scientific efforts.

I believe the future for America's space program is bright. We have made it through our darkest hour and reemerged with flying colors as a world leader in space activities. My NASA career began in June 1961 with the original seven astronauts at Langley Field, a month after Alan Shepherd's flight. Throughout these years, I have been proud to be a part of NASA and to be a part of its many accomplishments. For a while there in the dark winter months of 1986, I was stunned along with the rest of our team. I hope at this point all of us are, as I am, still proud of America's accomplishemnts and at the same time, watching with interest and encouragement the marvels in space exploits being conducted by other nations.

How do I feel about the future? Very optimistic! What do I believe is most important now? How do you feel. You are the future. Just like the country counted on NASA to lead the way back, we all are counting on you to pick up that lead and make even greater progress. Take it from one who knows-this space business is exciting work!

Fred W. Bowen is the Manager of the NASA Resident Office at JPL.

BOC By-Laws

Included in this week's issue of the Tech you will find a set of proposed by-law changes which affect the Board of Control. These changes have been proposed by me in direct response to many of the complaints and fears which I have heard during my time on the Board. My intent was to try to add things to the BOC by-laws which will increase and protect the rights of members of the community in their dealings with the Board.

I urge you to PLEASE read through the proposed changes and

vote next Friday. It has been a long time since the BOC has changed. so everyone in the community should take advantage of this opportunity to improve things at Caltech. I also urge anyone with "con" arguments to any of the proposals to let the community know, through a letter to the editors, or to let me know. I would really welcome discussion on this

> Sincerely. Gabriela Cornejo BOC Chairman

\$198 RT

LORENZO'S BARBER SHOP

Unisex Hairstyling

Ask for Your Caltech Student Discount!

Regular Cut (men) \$ 700

\$1 off

Regular Cut (women) \$ 800

\$1 off

Style Cut \$1200

Permanent Wave \$4000

\$2 off \$5 off

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

(818) 795-5443 No Appointment Needed

Passport Photos While you wait service

Hours: 8:30 - 11:30 a.m. 1:00 - 4:30 p.m.

2 color prints \$7.70 4 color prints \$9.90

GRAPHIC ARTS • ROOM 17 Business Services Building

LOWEST AIR FARES

Chicago \$198 RT Miami \$268 RT Phoenix \$ 38 RT

Detroit New York \$258 RT

Amman \$798 RT

Seattle \$218 RT

London \$548 RT

Hong Kong \$585 RT Tokyo \$535 RT Manila \$535 RT

More lowest Domestic & International fares are available

FREE WORLD TRAVEL 1550 E. Elizabeth St., Pasadena

(818) 794-0210 Prices are subject to change

ASCIT FRIDAY NIGHT MOVIE

ROXANNE

BAXTER LECTURE HALL \$1 for ASCIT members

7:30 & 10:00 p.m. \$1.50 for others

NEXT WEEK

City Heat

THE CALIFORNIA TECH Volume XC • Number 3

7 Oct 1988

REPORTERS Ian Dutton • Carol Mullenax Craig Volden Help Wanted

> PHOTOGRAPHERS Help Wanted

> > CARTOONIST David Koenig

PRODUCTION Nick Smith

ADVERTISING Gavin Claypool Help Wanted CIRCULATION

Gavin Claypool Eric Fung Stephen Lew Linda Wald More Help Wanted

THE CALIFORNIA TECH 40-58 SAC

California Institute of Technology Pasadena, California 91125

Phone: (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 letters for expediency, literacy, or other.

Turn in copy (preferably on an IBM-compatible, WordStar-formatted floppy disk) to the Tech office mailbox, room 40 in the SAC. The deadline for copy is Wednesday at 5 PM; for announcements, Tuesday at 5 PM. Late copy may not be printed even if prior arrangements have been made with the editors.

Subscription requests should be directed to the business manager. Rates are \$3.50 per term, \$9.00 per annum (three terms). Special rate for life subscription: \$125. Printed by News-Type Service, Glendale, California

ISSN 0008-1582

entertainment

The Accused

by Carol Mullenax

You're walking back from taking your '95 exam at four in the morning, and you see a total stranger getting mugged -- what do you do? Do you hide, run away, watch, or help? Such a dilemma happens to Kenneth Joyce as he witnesses a violent crime in a new movie out from Paramount Pictures.

Kelly McGillis and Jodie Foster star in an intense drama being released this weekend - "The Accused." In the film, Sarah Tobias (Foster) is raped in the game room of a bar, and Katheryn Murphy (McGillis) is the Assistant District Attorney who is assigned to prosecute the assailants. But Sarah's cry for justice originally goes unheard at the impersonal DA's office. Katheryn becomes more personally involved in the case as time goes on, though. Together she and Sarah bring to trial the people as dangerous as those who committed the crime -- the spectators who were encouraging it.

The movie focuses mostly on the changes which occur in the two main characters as a result of the crime. Sarah has everything set against her from the time of the rape but develops the courage to go ahead with her life, and Katheryn becomes a human being instead of the stereotypical uncaring lawyer

"powerful and easy to use..."

GRAPH provides publication quality plots with no more effort than

quality plots with no more effort than it requires to log data into a research notebook! Only \$79 for PC-compatible micros (no shipping charge on prepaid orders).



Kenneth Joyce (Bernie Coulson), who witnessed the victimization of Sarah Tobias, is questioned by District Attorney Katheryn Murphy (Kelly McGillis) in Para-mount Pictures' "The Accused," a contemporary drama from the producers of "Fatal Attraction.' photo by Rob McEwan

working only for power and prestige. This movie also has a message - that witnesses should get involved instead of just standing there and watching as a felony is committed.

Both McGillis and Foster perform well in their roles, making their portrayals complex and believable. McGillis does exceptionally well in the transformation of her character, and the audience cannot help but empathize with Foster's character. The script is well-written with no noticeably slow spots, and the scenes flow logically into one another. This is a movie that does not let your mind wander and demands involvement

ACADEMY BARBER SHOP

27 N. Catalina Ave., Pasadena Open Tues.-Sat., 8 A.M.-5 P.M. 449-1681

from the audience with the action on the screen.

One interesting tidbit of trivia involving this movie is that its director is the same as for "Project X," for which many scenes were filmed on our very own beloved campus a couple of years ago.

If you want to go out and just have a fun time at the theater, this is not the movie to see. But if you feel up to an intense, serious movie. "The Accused" is a good choice.

Rag Time

RESALE CLOTHING

(818) 796-9924 Mon 10-6 • Tues-Thurs 10-5 • Fri-Sat 10-3

for WOMEN 1136 E. Green St. • Pasadena

HAPPY HOUR at the dentist?



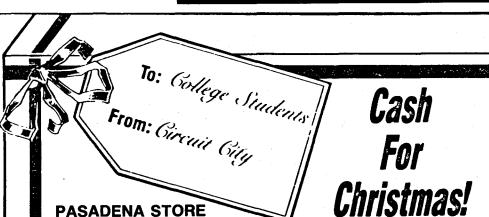
See Dr. Richard S. Phillips, D.D.S. 1302 North Altadena Drive Pasadena • 797-6778

New Patient HAPPY HOUR SPECIAL (Tues. & Thurs., 2-6 p.m.) Cleaning/Exam \$18.00 (reg. \$70.00)

expires 6/16/89

Ask for our free brochure, with detailed technical application notes, describing GRAPH and our other scientific software packages.

illicrolliath Salt Lake City, Utah 84121-3144 Telephone: (801) 943-0290



Circuit City is the billion-dollar retailer of brand-name audio, video, car stereo, and major appliances. As we approach our busiest time of the year, we're looking for FULL and PART-TIME seasonal help.

Students love our holiday employment opportunities because we offer:

- Full and part-time openings to fit your schedule
- · Great salaries to help pay your college expenses
- Merchandise discount
- An opportunity for advancement within our expanding retail organization

NOW HIRING FOR THE FOLLOWING **SEASONAL OPENINGS**

- Audio / Video / Car Stereo Sales Counselors
- · Car Stereo Installers
- Warehouse
- Entry-level Sales Counselors
- Cashiers / Credit Clerks
- Receptionists
- Customer Service Clerks

Apply in person October 6-15, 10 a.m.-7 p.m. (Mon-Fri) and 9 a.m.-6 p.m. (Sat-Sun) at the Circuit City Hiring Center located at:



The Holiday Inn 924 W. Huntington Drive Monrovia

(exit I-210 at Huntington Drive)

Equal Opportunity Employer

Noon Concerts

by Andrew Hsu

Not everyone can be on the cutting edge of technology. Some people would rather live on the cutting edge of the music industry. With the help of the Caltech Y, the world of cutting edge science will once again be able to listen to the latest and newest in the L.A. music scene right here on campus. That's right, the Caltech Y Noon Concert Series will once again be presenting noon concerts every Friday in front of Winnett Center. The concerts are free to everyone, which includes Caltech students, staff, professors, PCC students, and record label agents. Festival seating arrangements are in effect for all of the concerts.

Because of the erratic lives of L.A. musicians, a complete schedule is not available as of this printing. Besides, the names of the scheduled bands would probably mean little to most people (there are exceptions however) because most of the acts have not achieved superstardom status -- yet. There will be flyers posted each week at

various strategic locations around campus promoting that week's scheduled concert.

For today, the Caltech Y presents Mayan Tango. Trying to describe their sound is almost as impossible as finding the Grand Unified Theory in 20 minutes or less. As a fairly new band to the L.A. music scene, Mayan Tango is quickly building a large club following. Yes, see them today before they become superstars and force the audiences to pay for admission to their concerts.

Whatever you do in life, make music a part of it by supporting the musicians that perform at the noon concerts. All it takes is for you to bring your lunch, yourself, and your friends to the quad in front of the Winnett Student Center Fridays

If anyone knows of any bands that would like to play a noon concert, please have them contact the Caltech Y for booking information. See you at the Winnett quad today at noon.



THE DURFEE FOUNDATION

invites you to

travel in China

All Caltech faculty, students, and campus staff are eligible

Come to

un informational meeting about

THE 1988 AMERICAN/CHINESE Adventure Capital Program

Tuesday, October 25, 1988

Noon to 1:00 p.m.

153 Noyes Caltech

FREE sack lunches will be provided for the meeting:

> Your choice of sandwich (beef, turkey, or vegetarian) Soft drink Brownie

To order a lunch, please call Maxine at x6882 by October 18

JOIN THIS EXCITING OPPORTUNITY!

BLOOM COUNTY

by Berke Breathed

















































FRAT HOUSE OF B.K.

HELLO! WELCOME TO
FRAT HOUSE, WE'RE THE
ONLY PRATERNITY HOUSE
ON CAMPS, AND NE'RE
ONTE PROVOOF IT. MY
NAME IT. STEVE STROGGENT
AND I WILL BE YOUR
WARM HOST FIR THIS
WE'R'S
WE'R HOUSE
TOUR.

YOU HNOW, ONE PROBLEM WITH FRMERNITIES THAT I PERCEIVE IS THAT THEY ARE VIEWED BY THE AUGUST AND DESCRIMINATORY! WHY'S THAT, ON, MR. GREWFIELD, MANNEY IT'S SO OF!

OH, PELHAPS IT IS BELAVSE PEOPLE FEEL THM A SECRETIVE & ROWLISTIC ORGANIZATION OF MEN MIGHT BE DEGRADING AND PERVERSED IN THEIR TREMMENT OF WOMEN.

THAT'S RIGHT, SEBIL. IM A MAN'S MAN, AND YOU'RE A WOMAN'S WOMAN, SO
TAKE SEF ALL SEBIL
YOUR CLARES
HAVE SEX

YOU REALLY THINK SO?

NAH, THAT WAS JUST
A RUBUK SERVICE
ANNOUNCEMENT.

OH, HR. GREDIFIELD.
DO ME. ON, ON,
MORN.

GAS

D.K.

The Inside World

This week's Inside World was brought to you by:

Dabney: Donald Finnell Ricketts: Su-Lin Wu

Dabney: Welcome to Dabney House, freshmen, and more importantly, welcome to your new reason for living, the inside world. Today we will start by answering some of the more common questions new students have regarding life in Dabney.

- 1. Is Paul a threat to my safety? No, not as long as he's well fed. To be safe you should leave small scraps of food in front of his door whenever you're in the area, and occasionally pat him on the tummy. By the way, it's alright to eat those little hairs that occasionally fall off of Paul and into the food he's serving; the French even consider it a delicacy.
- 2. What is this "Olivia d'Abo fan club" we keep hearing about? Well, actually this is just a group of people who get together every once in a while to talk about Dave Edwards behind his back. The club also organizes little pranks, such as turning Dave's pen upside down or taking pages from his calander.
- 3. How do I get into this announcement making business? The sooner you start the better. An easy way to begin is with a few announcements of the "I can't find my shoe" variety, and maybe a tirade or two against people who don't wash their dishes. Eventually you'll find your own niche in the announcement community and your fellow Darbs will learn to treasure those little jewels of wit and insight you bring into their lives. And remember: as far as announcements go, quantity is the only quality.
- 4. Is Tony Lai really smarter than Stanley Chen? Judge for yourself: all the relevant information can be found on the door to room 27. I think the answer should be obvious.
- 5. Do I belong in the playpens? Well, to be perfectly honest, you probably aren't adequately prepared to start socializing in the playpens proper. For the first couple weeks you'll probably just want to stand around on the sides and try to rise to the accepted level of discourse and learn the most popular spells. Phoney British accents are optional but highly recommended.
- 6. And all you women must be wondering: if I ask Donald out on a date, do I have to take that goofy oriental sidekick of his along too? Well, no. There's an easy way to get him out of the way: just give him a crossword puzzle and a pen with disappearing ink. You won't see him around for days.

And remember: if Escher or Paul start sucking on your shirt, please discourage them strongly.

Ricketts: Splish, splash, I was taking a bath...

The new Ricketts Hovse freshmen were duly humbled and washed thoroughly at Frosh Wash. You can easily tell who are the frosh—their heads tend to stick up above everything else.

Also at Frosh Wash, Samer Diab was chosen by the women of Ricketts to be the Most Eligible Bachelor for the second year in a row. Last year's co-winner of this high honor, Diamond Dave Lipin, was curiously not even considered in the running this year. Samer (the Middle-Eastern-looking terrorist type with one eyebrow over both eyes and a monster nose, for those of you who don't know him) was duly carried off to his bed by fifteen beautiful women. He remained there closeted with them for a suspicious three hours, from which he emerged, exhausted, with a slightly stunned look and with his nose twitching violently. By the by, Samer thinks Florida is a wonderful state to get letters from.

Getting back to Frosh Wash, The Most Annoying Tree in the The Entire Universe met its demise in the bonfire. After years of trying to kill it by depriving it of its leaves, it took teams of Scurves, putting in all they had to wrench it from the ground. Cokkie Ludlam (the short, sort of dumphy fellow with a big face and the crummy jokes, for all of our readers not in the know) wept over the body. For memorial service information, see him. Pass the firewood.

The last word on the BIG non-Techer type who was so playful a couple of weeks ago: if we see him within a hundred yards of campus, we can send him to jail for 6 months. The long scurvely arms strikes again.

Events from the longest dinner of the year:

Laura may or may not be getting married in June.

Gabby may or may not be getting married in June. Kimi may or may not be getting married in June.

A big hurray for Jason Surace, our new Gong Keeper, for Jason McElroy, our new Freshman Work Chairman, and for Karin Johnson (Karin pronounced like "Car in" as in "Put the Car in the Garage". If I'm wrong, slap me.) I think that every time any one of our new frosh officers fails in his or her duties, Kitt Hodsden (the loud girl with lots of curly brown hair) should be showered.

Congratulations to the Ricketts Basketball Team for dragging Johnboy Schmidt (the sort of tallish, musclely guy with surprisingly little hair) through the Grand Tour. Thanks, he was beginning to smell pretty

And the Naughty Rumor of the Week (since the rest of the stuff has been pretty mundane):

Johnboy Raguin (the sort of tallish, musclely guy with quite a bit of wavy brown hair) was seen at the Florentine Gardens with a gorgeous babe wearing a very short, slinky black dress. Our IWX tipster "Snake Eye" reports that the lady was causing RPS (residual pinhead slowing, for those not in the know) as she walked down the street with John. Our tipster followed the laughin and giggling couple to several bars where our House Straight was seen to consume several Kamikazes. They were last seen going into a plush hotel. When questioned later, John turned beet red and denied everything. Methinks he doth protest too much.

Later days

$\underset{from\ page\ 1}{BOC}$ By-Laws, cont.

Addition of sections 3.g, 3.h, and 3.i provide new means by which the Board may lose members for any particular case. Inclusion of this statement allows the Board to maintain its quorum, (and thus conduct business), by allowing past Board members to serve on cases when necessary.

k. Any person asked to attend a preliminary investigation may be accompanied by any Board member of his

This is a completely new addition to the normal procedures for preliminary investigations. The change is proposed in order to allow people a witness or friend for moral support.

l. A defendant attending a hearing of the full Board may be accompanied by any one member of the Caltech community of his own choosing. This person may not witness any part of the actual hearing, will be bound by secrecy as set forth in section 3.r for all witnesses, and must not interfere with the normal proceedings of the Board.

Again, this is a departure from the normal proceedings of the BOC. However, a need has been demonstrated for this change in order to allow people to feel more comfortable when they attend a full Board hearing.

m. A three-fourths (3/4) vote of those members of the BOC present shall be necessary for a decision of the Board

Necessary clarification if item 3.q is

- n. No decision of a previous Board shall be revoked unless the Board is convinced that new evidence or changed conditions change the status of the original case or upon recommendation of the Deans.
- o. Minutes of all proceedings of the Board shall be kept by the Secretary in a minute book of the Board of Control. This book shall be kept under lock and key by the Dean of Students. The Chairman or the Secretary shall have the sole power to get the minute book from the Dean and shall do so only on official business of the Board.
- p. Records of the proceedings shall include the names of all persons concerned. the decisions reached by the Board with corresponding vote tallies, a description of any previous convictions, as well as the names of the members of the Board present.

Because there have been cases where the notes of the Secretary were not complete. and thus unusable by future Boards for matters of protection, this statement ensures that the necessary minimums will be included in the notes of every case.

q. The Board of Control has the right to collaborate with the Graduate Review

There have been, and probably will continue to be, cases which involve both Graduate students and Undergraduate students. Presently there is no procedure by which these cases can be brought before either the

ments. This allows a means by which these Earthquakes, cont. cases can be discussed by the two boards, from page 1 and a suitable solution be arrived at by the two boards.

r. All those appearing before the Board, and the Board itself, are expected to maintain absolute secrecy regarding case meetings of the BOC. Divulgence of any of the proceedings shall be considered a violation of the Honor System. Should the defendant wish to discuss the issues involved in his case with others, after his case has been completed, he may do so at any time, provided no portion of the case that concerns other defendants is made public without the permission of those persons. However, once the defendant initiates discussion, witnesses in the case are no longer bound to secrecy. If, in a particular case, the Board shall deem it wise to make known the proceedings of the Board, the Chairman shall be empowered to, upon resolution of the Board, to convey such information without disclosing the names or identities of any persons involved.

The addition of this statement simply protects the rights of the community to keep secret the facts concerning their own case if they so desire.

s. Oath. The oath taken by all persons appearing before the Board of Control shall be: "I do solemnly swear (or affirm) to tell the truth, the whole truth, and nothing but the truth.'

faults. The tree core samples from those trees growing along the San Andreas fault showed an abnormal shock at this time, though, from which the trees took many years to

Comparison of these cores with others from areas further from the fault showed no similar trauma. The analysis of this was that an earthquake during the winter of 1812 had struck so closely that the root systems of the trees had been damaged, implying that the quake of 1812 had actually occured along the San Andreas fault.

This conclusion is actually very important in the predicting of earthquakes in southern California. In a science where we cannot accurately make predictions, the formation of patterns could be the key to future predictions. The current patterns do not demonstrate a consistant linear pattern, though. The average length of time between major tremblors for the last ten is between 131 and 132 years. In actuality, though, the spans range between just 45 years between the 1812 quake and the following one in 1857, and over 300 years between the 1812 quake and the previous one. Of the last ten major quakes, only one comes close to the

131-year interval.

Despite these fluctions, a pattern does become evident. "I don't mean to imply that there might be a pattern," explains Sieh. "It is clear that the current data shows two or three major ones in succession followed by a break of hundreds of years."

The question now is how these patterns will apply to the future. If we are in one of the closely-spaced successions, we are overdue for a major shakeup, the last significant tremblor occuring in 1857 (a "major" quake being approximately of magnitude 7 or greater). Otherwise, it could be a couple of hundred years before the next

major quake.

Regardless, with the last quake being that of 1857 and an average of 131 years between quakes, we are in the statistical center of probability for a quake. The notion of a major quake striking one of the world's largest metropolitain areas has scientists and government officials alike trying to improve upon our understanding of these distasterous demonstrations of the earth's power. Sieh has had reports published in Science magazine and in a U.S. Department of the Interior study over the summer that point out the advantages of these new techniques as well as their short-

LAEMMLE THEATRES

ESQUIRE

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

THE MODERNS

Mon-Fri 7:30 pm Sat-Sun 3:00, 7:30 pm

BAGDAD CAFE

Mon-Fri 5:30, 9:50 pm Sat-Sun 1:00, 5:30, 9:50 pm

Iran-Contra Cover-Up Sat-Sun at 10 a.m. only

COLORADO

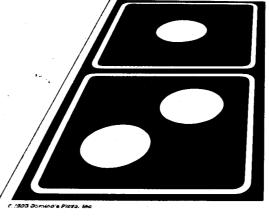
2588 E. Colorado Blvd. (818) 796-9704

Colin Friels in

GROUND ZERO

Mon-Fri 5:00, 7:00, 9:00 pm Sat-Sun 12:30, 2:30, 5:00, 7:00, 9:00 pm

REQUIRED





SERVING CALTECH **SINCE 1945**

Authorized Agents for Airlines, **Hotels and Steamships**



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



Domino's Pizza Delivers® the tastiest, most nutritious 'course' on your busy schedule. We make great custom-made pizza and deliver - steamy hot - in less than 30 minutes! So take a break from studying and have a tasty treat. One call does it all!

Our drivers carry less than \$20.00. Limited delivery area.

16-oz. Bottles 75¢ Save 20% on a 6-Pack of Coke only \$3.75

Any 12" 2-item pizza from Domino's

Fast, Free Delivery'

633 S. Arroyo Pkwy.

Phone: **797-3030**

Pizza for only \$7.00! Each

additional item \$1.00. Price

includes sales tax. One coupon

per order. Expires in two weeks.

Call Us! 797-3030

633 S. Arroyo Pkwy. Pasadena

Open for Lunch **Every Day**

PRODUCT GUARANTEE

If not satisfied with your pizza, return at least one-half and get another one free or a full refund.

SERVICE GUARANTEE

If your pizza does not arrive within 30 minutes, you may take \$3.00 off the price of your order.



Any 16" 2-item or more pizza from Domino's Pizza. One coupon per pizza Valid at this location only. Expires in two weeks.



Fast, Free Delivery" 633 S. Arroyo Pkwy. Phone: **797-3030**

DP-88-1019A®

:C: 1987 Domino's Pizza, Inc

sports

larriers Improve at Home

by Scott Kister

Last Friday, the Caltech crosscountry team ran on their home course at the Lower Arroyo Park for the first time this year. The "home course advantage" worked, as several Tech harriers beat individuals they had lost to in previous meets.

The men's team finished third

in the five team meet. They beat conference opponents Whittier and LaVerne for the third time this year, but lost to Pepperdine and Masters. Pepperdine nipped Masters by three points to win the meet. The men's team now has a record of four wins and three losses in dual meets. Six Caltech alumni also competed in the race, but

did not score.

The victory over Whittier was helped by the fact that Whittier's van broke down, and they had to run the last mile and a half to the course. Their runners arrived just minutes before the start of the race.

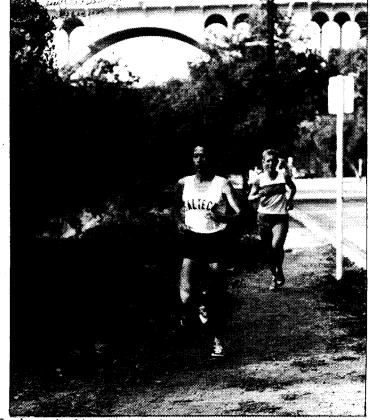
Freshman Dan Flees paced the Beavers, finishing ninth in a time continued below

Location

SUSAN KRUSE

Cuesta College

Cuesta College Redlands



Freshman Jerri Martin cruised to victory against Pepperdine, Masters, and LaVerne last Friday on Caltech's home course. The women's team was 2-1; the men's 2-2.

WEEKLY SPORTS CALENDAR

Day	Date	Time
Fri	10-7	7:30pm
Sat	10-8	All Day
Sat	10-8	9:30am
Sat	10-8	10:00AM
Sat	10-8	2:00PM
Sat	10-8	Ali Day
Sun	10-9	All Day
Mon	10-10	3:00pm
Tue	10-11	7:00pm
Wed	10-12	3:00рм
Wed	10-12	4:00рм
Wed	10-12	7:30рм
Sat	10-15	10:00am
Sat	10-15	10:00am
Sat	10-15	1:30рм
Sat	10-15	2:00pm

Wrestling Wrestling Cross Country Soccer Women's Vollyball Water Polo Water Polo Soccer Women's Volleyball Soccer Water Polo Wrestling Soccer Cross Country Football

Women's Volleyball

Opponent Cuesta College Cuesta College Tournament Claremont & Redlands Redlands Cal. St. San Bernadino JV Caltech Classic Caltech Classic Claremont-Mudd Pacific Christian Pacific Christian Claremont-Mudd Rio Hondo College Whittier

Masters, Whittier, Pepperdine

Orange County Cowboys Mt. St. Mary's College

Redlands Caltech Caltech Caltech Caltech Pacific Christian Pacific Christian Caltech Rio Hondo College Caltech Cal State San Bernardino Caltech Caltech

CARLOS SOSA

MIT, Structural Engineering.

Analyzing and designing bridges. Developed working bridge. The HP-28S helps him analyze structural stress and geometry. It's the only calcu-

matrix math and graphics capabilities. And HP Solve lets him

model of a double spandrel arch

solve custom formulas without programming. With more than 1500 functions, 32K RAM and both RPN and algebraic entry, the HP-28S is the ultimate sci-

entific calculator



GRANT JONES

University of Virginia, Finance. Studies fluctuating stock and money market

trends. Assisted head trader in Yen at Chicago Mercantile Exchange. The HP-12C with RPN lets him analyze prices,

lator that lets him do both symbolic algebra and calculus. New Achievers in formula features powerful Heavy Metal, Swing, Blue

ratios, net present value and internal rate of return. He can even create his own custom programs. The HP- 12C is the established standard in financial calculators.

giving her access to the most commonly used scientific equations. Statistics with linear regression. And algebraic entry. The ideal student science calculator

UC Santa Cruz, Marine Biol-

ogy. Studies behavior of blue whales and effect of environment on distribution of marine mammals. The new, easy to use HP-22S has a built-in equation library with solver, University of Michigan, MBA candidate. Assisted on pricing projects for GM. The HP-17Bofferseasyalgebraicentry. Plus time value of money, cash flows and linear regression to analyze budgets and forecasts. HP Solve lets her enter her own

formulas and solve for any

HOLLY A. VAN DEURSEN

variable. Hewlett-

Packard's calculators are built for your success. Look for them at your campus bookstore. Or call 1-800-752-0900, Ext. 658E, for your nearest dealer.

We never stop asking "What if...

HEWLETT PACKARD



HP-28S SCIENTIFIC CALCULATOR



HP-12C FINANCIAL CALCULATOR



HP-22S SCIENTIFIC CALCULATOR



HP-17B BUSINESS CALCULATOR

from above

of 30:49 on the 5.2 mile course. Scott Kister finished 11th in 31:24. followed by Chris Campo in 12th place in 31:52.

Moving up to fourth place was freshman Mike Mahon in a time of 33:07. Rounding out the top seven were Andy Crews (33:40), Mark Lyttle (34:20), and Kurt Storm (34:50).

Other finishers for Caltech were Alex Duncan, Ray Hu, John Bowers, Chris Raymond, Mike Ida, Joe Fierro, Eric Stout, Delwyn Gilmore, Neil Brandt, Andre Ohanissian, and Todd Kaplan.

The women's team finished second out of four teams to improve their dual meet record to three wins and three losses. They beat Masters and LaVerne by forfeit and lost to Pepperdine. The Whittier women's team did not make it to the race in time because of their car trouble.

Jerri Martin, Caltech's top runner, got a measure of revenge against Pepperdine. Two weeks ago, Pepperdine's top runner beat Martin by forty seconds. Last week, however, Martin blew by her in the last half mile to win the race by nineteen seconds. Martin's time on the 3.1 mile course was 20:26. This was the second time that Martin has finished first overall in just three races.

Margi Pollack was next for Caltech, finishing in ninth place in 23:18. Bibi Jentoft-Nilsen finished 10th in 23:40, and Golda Bernstein was 12th in 23:50.

Caltech's second pack of runners consisted of Mary Rowe, Christina Garden, and Emmeline Naranjo. Rowe placed 17th overall in 26:19. Garden was 18th in 26:30. And Naranjo was 19th in 26:35.

Other Tech finishers were Liz Warner, Ami Choksi, Carmen Shepard, Teri Englehard, Dee Morrison, Betina Pavri, Maria Toronto, and Cynthia Wittman.

Tomorrow, Caltech travels to Redland's home course, where they face two of the stronger team in the conference, Claremont and Redlands.

Sam Gustom Tailor

3519 E. COLORADO BLVD
PASADENA

(818) 793-2582

Hours: 9:00 a.m. - 7:00 p.m.

TAILORING for
LADIES & GENTLEMEN

ALTERATIONS
RESTYLING
INVISIBLE REWEAVING

Special rates for Caltech/JPL community

Landing, cont.

Americana with a message that could better have been put: "Goo-ood morning, America!" It was a

crew members, but to all Ameri-

cans, signifying the "wake-up" of the space program.

"Shuttle, go at throttle up." The last words spoken to the Challenger on Jan. 28, 1986, were repeated 32 months later to a crew and an audience of millions, whose hearts and breaths stopped ever so briefly until the moment had passed. It was a tense launch.

Television screens showed flames bursting out once again near the time we thought the Challenger's explosion had begun. NASA officials dismissed this as a natural, non-critical valve burndangers and responded with their was clear: it's great to be back!

ery!" This wake-up call given by loudest applause 73 seconds into Robin Williams mixes a little the flight, when the two solid rocket boosters separated from the Discovery.

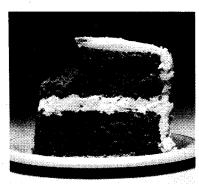
The Challenger's crew of seven wake-up call not just to the five were not the only fatalities of space programs. Both Soviets and Americans alike have had an undesirable number of deaths on missions. In addition, the Soviet ship, which fell out of its orbit and was running low on oxygen less than a month ago, reminded us of the dangers at every phase of space flight.

And "The Star Spangled Banner" was played to the cheering crowd on Monday--a triumphant reminder that America is back in space, hopefully with increased safety. The crowd's enthusiasm at "the rocket's red glare" was calmed to some hesitancy at the "bursting through. But the crowd knew the in air," but the general sentiment



Adventist Health System

How can somethi so innocent make me feel so guilty?



Does food have a grip on your life? Does it leave you feeling guilty, helpless, out of control?

Do you diet, fast, take laxatives or diuretics, exercise excessively or vomit to get rid of calories?

Chances are, you've never told anybody about this. It can be hard to admit, even to yourself.

But the longer you keep your secret, the longer you'll go on

feeling isolated, lonely, and obsessed with food.

If you answer "yes" to three or more of the following questions, call us for a free consultation or more information about our treatment programs.

Together, we'll work to get your life back in control.

163	STYU	
	☐ Do you feel out	of control
	around food?	

- □ □ Do you spend most of your time thinking about what you eat and how much you weigh?
- ☐ ☐ Do you ever fast or restrict your diet?
- ☐ ☐ Have you stopped menstruating, or are your
- periods irregular? ☐ ☐ Do you vomit or use laxatives or diuretics to control your weight?

ADVANCESM EATING DISORDERS TREATMENT PROGRAM

Glendale Adventist Medical Center, 1509 Wilson Terrace, Glendale, CA 91206

For further information: (818) 409-8280

© 1987 Western Physician Services, Inc., Roseville, California

BBD UP WI

TRAFFIC JAMS & POLLUTION? SCARCE, EXPENSIVE HOUSING? **DETERIORATION OF THE ENVIRONMENT?** OVERCROWDED RECREATION AREAS?

Convert Your Frustrations Into Action And Help Solve The Underlying CAUSE Of These SIDE EFFECTS - OVERPOPULATION.

THERE IS A REAL SOLUTION!

Join the campaign to stabilize the population of the U.S.



The U.S. has the fastest growing population of any country in the industrialized Western World.

In the next 32 years, today's U.S. population of 244 million will increase by 53 million to nearly 300 million and continue to grow, if current trends continue

we will add two and a half times more people than the rest of the industrialized western countries combined.

Last year alone, California's population grew by 600,000 people, that's equal to adding another San Francisco every

12 months. Texas added the equivalent of a new Corpus Christi and then some. Florida burgeoned by another Tampa.

BOX SCORE BY 2020

The U.S. will add enough additional population to create another:

New York City, Los Angeles, Chicago, Houston, Philadelphia, Detroit, San Diego, Dallas, San Antonio, Phoenix, Baltimore, San Francisco, Indianapolis, San Jose, Memphis, Washington, Jacksonville, Milwaukee, Boston, Columbus, New Orleans, Cleveland, Denver, El Paso and Seattle — PLUS the next 75 largest cities in the

.. if we don't act now to stabilize U.S. population!

Our unchecked population growth means higher education costs, over-burdened social services, more pollution, more traffic jams, more water shortages and other adverse effects on the environment.

Overpopulation is threatening to destroy the carrying capacity of the physical environment and the social conditions necessary for maintaining our free society in

Yet, all levels of government — federal, state and local —typically avoid dealing with rapid population growth. They just try to accommodate the increased numbers of people by attempting to mitigate the side effects. Costly, false solutions such as more freeways or massive water projects nearly always make matters worse or merely postpone the day of reckoning.

WE MUST ACT NOW TO STABILIZE OUR POPULATION BY DEALING DIRECTLY WITH POPULATION INCREASE.

WE CANNOT DO EVERYTHING AT ONCE! BUT WE CAN BEGIN BY:

Reducing immigration into the United States

· Supporting programs to reduce unwanted pregnancies

· Controlling growth at the local level

Even though we are all aware of the problems of crowded urban areas and unplanned, unwanted pregnancies, the fact is immigration from foreign countries is the most important single cause of this excessive growth.

- · Over 40% of the United States' and over 50% of California's population growth is caused by legal and illegal immigration from foreign countries.
- In addition to stressing the environment, the population increase resulting from immigration cost millions in added social services and other govern mental outlays.
- · Illegal immigration creates unfair job and wage competition and unemployment for U.S. residents, because illegal immigrants are easily exploited.
- Excessive immigration contributes to housing shortages, high taxes, homelessness, urban crowding, and other social problems
- · Failure to adequately control U.S. borders encourages illicit drug trafficking and stimulates even more illegal immigration.

RIGHT NOW, IT IS ESSENTIAL THAT WE ACT TO REDUCE **LEGAL** IMMIGRATION CEILINGS BECAUSE:

In the waning days of its current legislative session, Congress is considering bills which would <u>raise</u> legal immigration levels — some by apparently as much as 60%. But, we already admit more than 600,000 legal immigrants each year. This is multiplied by the many relatives who come later. And, adding this to estimated illegal immigration of half a million a year makes a total of over one million new immigrants a year. That's already too many! We need less immigration, not more

Putting U.S. population on the stabilization track requires passage of new federal legislation setting an all-inclusive immigration ceiling of 200,000 immigrants per year. This ceiling would balance the estimated annual number of emigrants who leave the U.S. to live elsewhere

ACT NOW! YOU CAN MAKE A DIFFERENCE!

- Send the coupon below to your Senator. Representative or favorite candidate: Let him/her know that you feel strongly that our excessive population increase must be dealt with directly, and that you favor passage of an <u>all-inclusive legal</u> immigration ceiling of 200.000. Calling will help too!
 Fill out the coupon below to receive your free population information kit so you
- will have the facts regarding this critical problem.
- Join Population-Environment Balance. You will receive newsletters and legislative alerts telling you what's happening in Congress and around the country You will also have other opportunities to help work toward a solution!
- Feel free to send us your ideas together, we can more effectively work to achieve population stabilization.

POPULATION-ENVIRONMENT BALANCE, INC. is a national non-profit membership organization dedicated to actions that will stabilize America's population. In keeping with our valued traditions of opportunity and fair treatment for all, BALANCE applauds our healthy ethnic diversity and does not discriminate on the basis of race, creed, color or national origin.

BALANCE actively promotes programs that encourage maintenance of our nation's <u>carrying capacity</u>, including protection of our environment, support for small family size, ending illegal immigration, and establishing an all-inclusive ceiling on legal immigration into the United States.

Population-Environment Balance 1325 G Street, N.W., Suite 1003 Washington, D.C. 20005-4105 Please send me free information about U.S. overpopulation and what can be done to stabilize it. Please enroll me as a member of Population-Environment Balance so I can be part of the solution. Enclosed is my membership donation of \$ (\$10 Students) (\$25 Regular)	Dear: I am increasingly frustrated by the lack of real solutions to problems in the United States caused by too many people — water shortages, traffic jams, high housing costs, high taxes and environmental degradation, among others. I strongly feel you must act to deal directly with overpopulation, because attempts to accommodate overpopulation are nothing but costly, false solutions. Immigration from foreign countries is a major cause of population increase in the U.S. Therefore, legal immigration should be limited by an all-inclusive immigration ceiling of 200.000. Please confirm that you support this ceiling.
Name	
· ·	Name

what goes on

Announcements for What Goes On should be submitted on an announcement form available in the SAC copy/mail room (Room 37) or on a plain piece of paper. Please indicate the date(s) you want the announcement to run. Send announcements to 40–58, or put them under the door of Room 40A of the SAC.

Announcements must be received by the Tuesday prior to publication.

Women's Glee Club Signups

The Women's Glee Club is still welcoming new members. We meet in Room 1, SAC on Monday nights from 7:30-9:30 pm and Wednesdays from 5-6 pm. All members of the Caltech community are welcome. Women undergrads and grad students especially enjoy the chance to get together and build community through music. Previous singing experience is a plus, but not necessary. For further information contact Ami Choksi or Elaine Lindelef in Dabney or the Women's Glee Club office at x6260.

S.P.E.C.T.R.E Strikes Back

Once again, autumn is here. With it come the return to the classroom, the change in the colors of leaves (at least in sensible climatic regions), and the return of the biweekly SPECTRE announcements!!

For the uninitiated, SPECTRE is the Caltech Science Fiction Club. It is composed of graduate and undergraduate students, staff, faculty, and a whale named Petunia. We are lead under the dubious auspices of graduate student and campus personality Mark Looper and his evil band of madmen SPECTRE's main claim to fame, outside of its bi-weekly meeting, is its library which is in Room 36 of the SAC. Information about library rules, adresses/phone numbers of keyholders, the SPECTRE produced Tshirt, and the Meaning of Life is posted on the glass windows of the library book-shelves. For even more information come to a SPECTRE meeting or call one of the SPECTRE gods (Looper et al).

As we're on teh subject, we would like to invite everyone in the universe to the next SPECTRE meeting. The momentous event will occur at 7:30PM Wed, 12 Oct in the traditional Clubroom B/Room 15 of the SAC. Our feature presentation will be Episode 5 of the Star Wars saga: The Empire Strikes Back, in which Luke Skywalker learns a few things. This is the Specter of SPECTRE, hoping to see you there. If you have any further questions about SPECTRE, or are looking for a good laugh, BUG Mark Looper at 304-0006 or x6634. Be seeing you.

Register to Vote

The deadline to register to vote is drawing near—October 11, 1988. Please come by Rm. 64 of the SAC to pick up your voter affidavit, or go to the Hill Ave. Branch Library, 55 S. Hill Ave. Register and vote, or you have no right to complain about who wind

SPERM DONORS NEEDED

STUDENTS • FACULTY Earn up to \$105 per week West Los Angeles location call (213) 824-9941

California Cryobank, Inc. Area's largest sperm bank

CLASSIFIED ADS

FOR RENT-

2BR/1BA CONDO with built-ins. 280 E. Del Mar. 1st level. Pool, spa, sauna, rec. rm. 1 yr. lease, \$880/mo. + sec. Clark (agent) (818) 357-0057.

FOR SALE-

SUZUKI SAMURAI JX 1987. Convert/ hardtop \$5,800. (818) 584-5760.

Commodore 1541 floppy drive: best offer. Unitron 8×25 binoculars: \$50. Yamaha polyphonic keyboard (programmable, stereo): \$100. J. Roth, x4026, 105-24.

SERVICES -

INSURANCE WAR! We'll beat anyone's prices or don't want your business. Sports cars, multiple tickets, student discounts. Request "Caltech Plan." (818) 992-6966 or (213) 873-3303.

RATES.....\$3.00 for first 25 words;10¢ for each additional word. Send written ad with payment to 40–58. No charge for on-campus lost & found.

Frosh Camp Lost & Found

The lost items found at Camp on Catalina Issland include: Casio wristwatch; black sweatpants; 1 pillow; blue bathing trunks; navy bongo shorts; 2 towels; 1 white cap. Please, if you have misplaced your be-

Please, if you have misplaced your belongings, come to the Deans' Office, Room #102 of Parsons-Gates, to claim them.

Wanna Be On A Game Show?

Viacom Productions is interested in male undergrads 18-23 years of age that are good in arithmetic to audition for a pilot game show called "Betcha." Possibility of winning cash prizes. If interested call Bob or Trudy at (213) 557-5414.

Folkdancing

The Caltech International Folk Dancers meet every Tuesday at Dabney Hall, from 7:45 pm to midnight. (Classes teaching the actual dances run until 9:00 pm.) Tuesday, October 11, C.I.F.D. will present a beginners' night of folk dancing. No previous experience necessary.

Social Security Booklet

Social Security? Many people only know half the story. Get the whole story from the free booklet, "Social Security, How It Works For You." Call toll-free 1-800-937-2000 to request the booklet.

Gay and Lesbian Discussion Group

The Gay and Lesbian Discussion Group meets the first and third Wednesday of each month. The next meeting will be held on Wed., Oct 19, in SAC room 26. Refreshments will be served. For further information, please contact Bruce Kahl, x6393.

Frosh Mugbooks for All!!

An anonymous alum's generosity has made it possible for ALL undergraduates to pick up a copy of the Frosh Mug book for this year. They are available (the books not the Frosh) in the Dean's office in Parson's Gates

Bluegrass at Winnett?

Laurie Lewis is a champion old-time fiddler, superb singer and gifted songwriter with a passion for the "spooky" harmonies and driving energies of bluegrass. Originally trained on classical violin, she switched to fiddling in the folk renaissance of the '60s. This Saturday, Oct. 8, she will be appearing at Caltech with The Grant Street String BAnd, which she co-founded. Look forward to a spirited performance by a group of talented individuals who really enjoy what they collectively create. As Lewis put in in an interview, "There's nothing like being inside the band and having all that music crashing in on you."

crashing in on you,"

Concert starts at 8PM in Winnett Lounge.

Tickets \$8.00, Caltech students: \$5.00 thanks to the GSC and the Y.

Russian Language Workshop

The Caltech Russian Language Workshop has begun its 1988-89 season. The workshop meets each Wednesday evening in Steele lab, room 110, from 7-9 pm.

The study program is geared to present or former students of Russian who wish to maintain or update their knowledge of the language. Emphasis is on proverbs, vocabulary building, grammar review, selected readings and oral practice. For information phone Larry Mak (JPL) 77-46748, or simply stop by

Bookbuilders West \$\$

Bookbuilders West is offering \$1,000 scholarships to students in their junior year who are interested in pursuing a career in the book publishing industry. Each scholarship recipient will also be eligible for participation in a summer internship program. The deadline for application is October 31, 1988. For further information, please contact the Financial Aid Office, 515 S. Wilson.

Amelia Earhart Memorial \$\$

The Zonta International Foundation is offering grants of \$6,000 each to qualified women for graduate study in aerospacerelated science or engineering in memory of Amelia Earhart. The deadline for application is December 31, 1988. For further information, please contact the Financial Aid Office, 515 W. Wilson.

Engineering \$\$

The National Society of Professional Engineers is offering scholarships to undergraduate and transfer students who are pursuing a degree in engineering. The deadline for application is December 1, 1988. For further information please contact the Financial Aid Office, 515 S. Wilson.

Railway Engineering \$\$

The American Railway Engineering Association (AREA) is offering two undergraduate research fellowships for engineering students who have a potential interest in railway engineering careers. The fellowships are in the amount of up to \$4,000 each. The deadline for application is October 15, 1988. For further information please contact the Financial Aid Office, 515 S. Wilson.

Watson Fellowships

The Watson Foundation provides post-graduation fellowships of \$13,000 (\$18,000 for married students) for a year of independent study and travel. Fellowships are not intended to support extended formal study at a foreign university. They encourage, instead, an informal break in the normal sequence of undergraduate/post-graduate education. Caltech students are frequently chosen for this award. In-fact, a 1988 graduate, Ken Haynes, is on a Watson Fellowship this year.

Drafts of project proposals are due on Friday, October 14th. Seniors interested in applying for these travel fellowships should talk to Jeanne Noda in the Deans' Office, 102 Parsons-Gates.

Theatre Arts Gets Organized

Caltech Theatre Arts will hold its organziational meeting on Sunday, October 9 at 2:00 pm in Winnett Lounge. Anyone who is interested in Theatre: be it acting, being on technical staff, playing in the orchestra, watching shows or just interested in having fun should be sure to attend. If you have any questions about the program, feel free to contact us at 356-6259 before the meeting. Hope to see you there!

Solow Speaks On Productivity

The Caltech community—students, faculty and staff—are welcome to attend the address that Dr. Robert M. Solow (Nobel Laureate, professor of economics from MIT) will be giving to The Associates prior to the Black Tie Dinner on October 5. The dinner following the address is by invitation for The Associates. The talk will be at 6:30 pm in Beckman Auditorium. The theme of the talk will be "American Productivity and International Competitiveness."

PARIAN TRAVEL

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

Caltech Officially Approved

Electron Microscopy \$\$

The EMSA Council (Electron Microscopy Society of America) is offering an undergraduate scholarship program to further the educational and research potential in students intent in pursuing electron microscopy as a career. The applicant must be a U.S. citizen or resident alien and a full time undergraduate. The application deadline is Nov. 15. For further information please contact:

Dr. Robert Price Bio-Architectonics Center Case Western Reserve University 2119 Abington Rd. Cleveland, OH 44106

or contact the Financial Aid Office, 515 S... Wilson.

More Engineering \$\$

Equal Opportunities Publications, Inc. is offering two non-renewable \$500 scholarships to honor outstanding women, minority, or handicapped students who are pursuing a career in Engineering. For further information please contact the Financial Aid Office, 515 S. Wilson.

Goddard Memorial Scholarship

The National Space Club is awarding a \$7,500 scholarship for the academic year 89-90 in the memory of Dr. Robert H. Goddard. The 1989 award winner will also be introduced to the nation's leaders in science, government and industry. The applicant must be a U.S. citizen, in at least the junior year, and have the intention of pursuing undergraduate or graduate studies in science or engineering during the interval of the scholarship. The deadline for applications is Jan. 6. For further information please contact the Financial Aid Office, 515 S. Wilson.

An EVEN RATIO at Caltech?

That's right - the COED Caltech Cheerleaders are getting together this year! It's fun! It's exciting! And there are NO grades. NO experience necessary - all you need is energy and a smile! Take time out from your daily grind to support Caltech athletes!

The cheerleaders meet for about 2-4 hours a week, usually in the evening. We will cheer for first and second term this year, AND you receive PE credit! Come to our first meeting on Tue. 11 Oct, to prepare for the '88 football season. Meet in SAC room 25 at 6:30pm and have PIZZA with us instead of "dinner" with Gary. Bring a friend.

stead of "dinner" with Gary. Bring a friend. Call Emily at 578-9504 or Dave at x3955 with your PIZZA and BEVERAGE request (so we'll get enough!).

Guitar Classes

Guitar classes for the fall quarter will meet on Tuesday, starting October 4 in Room 1 of the SAC. The schedule is as follows:

Beginning class: 4:30-5:30 pm Intermediate class: 3:30-4:30 pm Advanced class: 5:30-6:30 pm

Classes are free of charge to Caltech students (and other members of the Caltech community, space permitting). Undergraduates can receive 2 units of credit of they choose. Classical and Flamenco repertoires will be explored but the techniques transfer to other styles of guitar. The Beginning class includes a jazz and folk chord system. Private instruction on any level can be arranged. The instructor, classical guitaris Darryl Denning, has an international recording, performance and teaching background and can be reached at (213) 465-0881.

Add Three Credits Of Clay

Be spacey, play with clay. Cross the border and walk over to Polytechnics ceramics studio. Learn to use the pottery wheel, spray glazes, or do some sculpture. 10-week class, Wednesday nights 7-10 (or lab hours). Ceramic instructor: Stuart Freed. See Nancy Matthews, Rm. 64 SAC for more info.

Need A Club Mailbox?

If your club or student organization does not have a mailbox on campus, and you would like to have one, see Nancy Matthews or Milly Pena, at the Student Activities Center, 1:30-3:00 pm, Monday-Friday.

Free Coupon Book!

This year the Student Activities Center, in coordination with local store owners, has put together a coupon book for all undergraduate and graduate students. The coupon book gives discounts and buy-one-get-one-free items at local delis, restaurants and other establishments of interest to students. Come by the Student Activities Center, Mon.-Fri. 1:30-3:00 pm and pick up your coupon book from Nancy Matthews or Milly Pena, Room 64, SAC.

Knott's College Days

Knott's Berry Farm is hosting a week for students, faculty members and their families and friends. For \$12.00 per person (children 2 years and under FREE), you get unlimited use of all park attractions (except Pan for Gold and Arcades), including Bigfoot Rapids, Camp Snoopy, and Kingdom of the Dinosaurs. In order to take advantage of this special discount, you must present a Special Value Certificate at any Knott's box office window. You can pick up the Certificates in the office of the Student Activities Coordinator (Room 64 SAC), during open office hours, 1:30-3:00 pm, Monday-Friday.

Pianists Take Note!

Piano accompanist wanted for modern dance classes. Tuesday and Thursday, 4-6:30 pm, in Dabney Lounge. There's pay. Contact Liz Oberstein at x6146 or (213) 451-9669.

After Apartheid: A Solution

A presentation and discussion of Francis Kendall and Leon Louw's proposal for eliminating apartheid and diffusing political power so that none of South Africa's racial or ethnic groups can politically dominate the other. Time: 7:30 pm, Wednesday, Oct. 12. Place: Winnett Lounge. Sponsored by Caltech Students for Individual Liberty.

Bergman at Cinematech

Legendary Swedish director Ingmar Bergman's Persona will be the film featured in this week's Cinematech showcase. Liv Ullman plays the noted actress who, during a performance of Electra has suddenly become silent and has thereafter refused to step out of the world of self-chosen muteness. Bibi Andersson is the nurse who is caring for her during her convalescence at a remote home. Gradually, patient and nurse begin to grow closer until the nurse starts to take on the psersonality of ther patient and vice-versa. (Well, it's Bergman.) One of Bergman's most controversial films, from its unique opening to unusual ending.

The film will be screened on Sat, Oct. 8 at 7 and 9:30pm in the Baxter Lecture Hall. (We will even throw in a short titled *The Divided Man.*) Admission charge is \$1.50.

Oh No, Another Totem!!!

Attention writers, poets, and artists! The second *Totem* in as many years will be coming out this year, in the spring. Within the *Totem* will be a complete and diverse collection of Techers' expressed wisdom and imagination. If you want to see your creative efforts in print, send in those stories and drawings. Address works to mail code 116-58. For additional info contact Sam Dinkin (1-59 or x3828), or Erik Russell (Annex #5, 1-59, x6188). Also available are extra copies of previous issues of the *Totem*.

Bike Shop Meeting

Current and potential members of the Bike Shop should attend this meeting, 5:00pm, Sunday, 9 Oct. Dabney House Dining Room. New keys will be issued and dues collected.

Road Hockey

On Saturday, October 8th at 9:30 am the Caltech Road Hockey Club will start its fifth season. We will play every Saturday morning in the parking lot behind Beckman Auditorium. Newcomers are encouraged to check us out; equipment (i.e. sticks) will be provided. For more information contact Jeff Hall at x2185.

THE CALIFORNIA TECH 40–58 SAC Caltech Pasadena, California 91125

STUDENTS –

GET \$4.00 OFF

WITH THIS AD

Shampoo, Style Cut

MEN Reg. \$20.00 NOW \$16.00 WOMEN Reg. \$25.00 NOW \$21.00

449–6967

1009 E. COLORADO • PASADENA

Offer valid only Monday-Friday, expires June 30, 1989