Student–Faculty Conference today in Baxter Lecture Hall California Tech

So long, Papa John Creach

Volume XCV, Number 18

Friday, February 25, 1994

Beckman Political Internship

by Ewald Hueffmeier and Michael Clemens

As the new year gets underway, we find that it is already time to begin looking for a summer job. Perhaps you've been asking your friends what their plans are, trying to figure out what you should do. While many may suggest SURF projects, you want a change in scenery-or in subject matter. Most jobs you've considered require you to start two weeks before finals and you're now considering the local grocery store or just taking the summer off. If this is you, or if you have an interest in politics, the Beckman Political Internship may be for you.

An important reason that we came to Caltech was the appeal of the idea that since every student was primarily interested in science, opportunities in other fields would be more accessible. The Beckman Political Internship is one of these opportunities.

If you are interested, submit a brief proposal describing where and how you would use the stipend, to the Dean's Office, 102 Parsons-Gates, by *Monday*, *March* 7, 1994.

Ewald Hueffmeier's Internship, 1993

As a sophomore interested in politics, I applied for the internship last year and was selected to spend ten weeks in Washington, D.C. working in the office of my Nevada Representative, Barbara Vucanovich.

by Edray Goins

vignettes, to be published through-

out the term, on the history of

Caltech's under-represented stu-

Note: This is eighth in a series of

dents. Caltech is not known for its diverse campus. By a decree from the revered Robert Millikan, women were not allowed to enroll at Caltech as undergraduates for over half a century. It took the Institute until 1971 to change these policies. However, the Institute has never had a rule that excluded under-represented minorities by race. In fact, Millikan decided that Caltech's first Black student in the 1920's could enroll and even live with his other white colleagues.

It doesn't take a rocket scientist to know that Caltech has a small minority community. Out of an undergraduate population of 900, less than 60 are Latino, than 30 are African-American, and 10 are Native American. There seems to be no hope in sight for this community to grow; last year, only 10 Latino students enrolled, 2 African American, and 2 Native American. However, do our rocket scientists even know why the numbers are so small? In the 1970's, the scenario at Caltech was quite different. From 1972 until 1975, about 10 Blacks and 10 Hispanics entered each year. This changed drastically when about 20 Hispanic students entered with 10 Blacks in 1977. How-

It's Part of Our Past: whose fault is it?

ever, this did not create a large minority community as one may believe. Many of these students dropped out during their freshman year; it is reported that the retention rate may have been as low as 50%. You may recall that a Black Students Union was created during this period, but a Latino Student Union never crystallized. Many of the Black students were from inner city high schools in Los Angeles, such as Washington, Jordan, and Locke, as many of the Hispanic students were from Puerto Rico. Almost no Native American students enrolled during this decade. Something changed drastically in 1978: no minority students ensee FAULT, page 10

Prof. van de Snepscheut, 41, dies in house fire

by Laurent Stadler

Jan van de Snepscheut, 41, Associate Professor of Computer Science, died early Wednesday morning in a fire which consumed his La Cañada Flintridge home but left his family mostly unharmed. The exact cause of the fire is unknown, but it is believed to be related to his attack on his wife minutes earlier.

According to the Los Angeles County Sheriff's Department, van de Snepscheut's wife, Terre, was awakened Wednesday morning at 2:30 when her husband struck her with a blunt object. Once she was awake, they began to argue. The argument continued until Terre smelled smoke, when she ran to get the children and left the house. Jan did not follow, and died in the fire.

As of 4:00 P.M. Thursday, Terre was in fair condition at a local hospital and the children, aged 10, 12, and 14, were in good condition and staying with friends. Police took an axe from the scene, although it is not known whether it was used in the attack.

Van de Snepscheut was an associate professor of Computer Science at Caltech since 1989 and the executive officer for the computer see VAN DE SNEPSCHEUT, page 11

Tech prepared for quake

by Margaret Belska

With the recent disasters plaguing Southern California (riots, fires, and most recently, earthquakes), questions have been raised about just how well prepared we are at Caltech in case of a major disaster. Will we be able to handle it if, for example, the Big One hits?

"We think we're fairly prepared for the Big One," said Bill Irwin, Assistant Director of Physical Plant, "but I don't think anyone ever really is." Stan Borodinsky, Student Affairs Administrator, and Casimir Scislowicz, Safety Office Manager, agree. Although Caltech has set up the Emergency Preparedness plan, a regularly updated emergency response plan, no one can accurately predict the effect of a nearby 8.0+ earthquake. However, "We're not particularly concerned," added Irwin.

Many precautions have been taken to prepare Caltech for a major earthquake, or any disaster that would temporarily cut us off from outside aid. Caltech has enough food and water to feed a population of about 2500 (this includes about 1500 resident students, staff, and faculty), for a period of about 72 hours. The food in question is that kept in Chandler, the Coffee House, the Red Door Cafe, and the Athenaeum, each of which has enough food for three days at any see EARTHQUAKE, page 10

Scientists in Washington?

by Christopher DuPuis

Many of the most important, expensive, and controversial decisions under consideration by the federal government in recent years have dealt largely with scientific issues. Such topics as global warming, ozone depletion, health care, nuclear energy, and SDI have prompted new legislation to deal with them. Dr. Frank Press, whose credentials include such positions as President's science advisor under Carter, two-term president of the National Academy of Sciences, and former director of the Caltech seismological laboratory, addressed the challenges involved in assisting lawmakers to make informed, timely decisions regarding scientific issues in his Watson Lecture, "Can Scientists Provide Credible Advice in Washington?" on Wednesday, February 23.

Dr. Press explained the general setup for communication between the United States government and the various scientific organizations that have been established as advisory bodies. The National Academy of Sciences, which administrates funding for most government-sponsored research, was instituted by President Woodrow see PRESS, page 7

A student reads the memorial statement in front of the Millikan Pond flag, which is at half-mast in memory of Professor van de Snepscheut.

As I learned in Washington, the job of an intern is about the same in any Congressional office, although larger offices have more specialization. My office was rather small, having only nine staff members, so I got to try just about everything. The intern's responsibilities, like most of the staff's, lie in dealing with constituents. Most of the forty hours per week I spent in the office were used to enter the names and addresses of all constituents who wrote letters to the Congressman. Mail arrived three times daily so this was an ever-present task. Evthe time. ery letter from a Nevadan receives

a reply, usually a form letter that details the Congressman's position on the issue addressed by the constituent. I also answered the busy phones, taking messages from constituents and transferring calls from staff in other offices to staff in ours. Making copies, sealing envelopes, faxing material, filing, moving furniture for some staff members while others were gone, taking constituents to the galleries, calling Nevadan television stations with press release news, and dozens of other little jobs filled up the rest of the time.

see INTERNSHIP, page 9



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Student-Faculty Conference Schedule
Baxter Lecture Hall10:00 – 11:45 Improving Communication11:45 – 12:45 Lunch break12:45 – 2:30 Core Curriculum
2:45 – 4:30 Quality of Teaching
4:45 – 6:30 Honor System
6:30 Dinner on the Olive Walk

Senior photos for the Big Tare absolutely due Monday, February 28. No extensions. Pictures can be turned in to the Big T mailbox in the SAC by the ASCIT copier and should include your name, hometown, and major.



Roopnarine article biased

This letter is in response to the article concerning Dabney's disco victory that appeared in the February 18, 1994 issue of the *Tech*, and "Mr. Roopnarine's unique journalistic style." Judging from the article, I can only assume that "unique journalistic style" means one-sided (and often wrong) information presented without even the pretense of impartiality.

First, let's get a few things straight. Yes, I am a Flem. Yes, I was on the fencing team. However, as I was not blessed with the "unique" journalistic sense of Mr. Roopnarine, these facts do not factor in my objections to the article.

What objections? Well, grab a copy of the article and I'll go in order. Heck, I'll even let "valiant" and "struggling" slide. Now while the phrase "of unknown talent" in itself is not at all demeaning, when it follows the phrase "of outstanding talent" it becomes very demeaning. Especially considering that the two Flem sabreurs were the only people whose talent seemed an issue. I have never had the pleasure of meeting Mr. Roopnarine, so how exactly is he able to determine my talent? It can't be by collegiate records, or else the "valiant Dabney team" would have been described as having little to no talent, which is not the case.

I also find it interesting that in the next paragraph all that is necessary to be considered experienced in a single term of fencing. The paragraph after that must not have been very "unique" because it only contains one inaccuracy that the more aggressive person in a foil match will win. Most of Trey's points were parry-ripostes, a defensive maneuver.

The next thing that I find "unique" about the article is the assertion that a fencing bout resembles a penguin in heat. I have no doubt that Mr. Roopnarine is familiar with the mating habits of polar birds, but I doubt that anyone would be happy to be described in such a fashion. Except maybe π Qan. In the same paragraph lie another two assertions which trouble me. One, that π Qan was clearly in control of the match, and two, that the lights favored Morgan. However, these issues cannot be addressed without talking about the directing. It should be noted that during the foil matches, it was ing machine. However, with only one exception, every time this happened the point was awarded to the Dabney team. In other words, every time it was the director's decision (except one), Dabney won the point. In fact, after the bout against π Qan, the sabre director (by far the more experienced of the two directors) said he thought Morgan won 5–1, instead of 5–4. But, according to Mr. Roopnarine's undoubtedly vast fencing knowledge, the lights favored Morgan.

a common occurrence for both

lights to go off on the electric scor-

Further evidence of Mr. Roopnarine's fencing experience can be found in the assertion that π Qan was clearly in control. Aside from being thoroughly beaten, what precisely was π Qan in control of? Now don't get me wrong. I like π Qan, he's a great guy. But, he was anything but in control of that match.

Now, on to the sabre matches. The phrase "would Collins's talent give him the edge over Keith's experience" seems to imply that Keith is not the fantastically talented sabreur that he is. However, fantastically talented he may be, however, his is *not* the captain of the sabre team, as the article states. That's about it for my objections to what the article says.

However, it does not state several things. Such as the day before the meet, Matt Metzhurt his ankle, and I tore my hamstring. Nor does it mention the miscommunication that caused Matt to lose his second match. When it was 4-4, I called a time out and told Matt that he would have to win both priorities to win the bout, because it was likely that they would simultaneous. However, due to the rush, he misunderstood and thought I said it was Graham's priority, and proceeded to go on the defense, which is a tremendous disadvantage in sabre.

Also, it should be noted that this is the second article this year that has appeared in the Tech about a Dabney sports victory. Where was the Tech at any of the collegiate fencing tournaments, where the sabre team has not lost a regular season match in almost three years? Was the collegiate fencing tournament in which this year's sabre team won the conference not important? It happened only the day before the disco tournament, but I guess Tech going undefeated against the likes of UCLA, UCSD, CSUF, and Long Beach is such a common occurrence that people are used to it by now. Either that, or they never hear about it.

But then again, considering Mr. Roopnarine's "unique journalistic style," perhaps it was for the better.

Austin Collins

The Tech rarely, if ever, decides which sports events are covered we rely on motivated students like Anil and Bryce Elliott (who has been writing basketball articles this term) for our stories. You cannot complain that fencing is left out of the paper unless you or one of your teammates writes.—Eds.

Honor System is obsolete

Today is the day of the studentfaculty conference. One thing that will be discussed is the Honor Code. I have been thinking for quite a while how the Honor Code affects my life at Caltech. I have come to the conclusion that it doesn't: we should get rid of it.

Some people may think that this is a very extreme view, but I keep seeing over and over how the Honor Code is violated in just about everything that happens around me. If you look closely at the following examples, you will understand why I have said this.

Monday, February 21 was preregistration. People were lining up at midnight to make sure they got their place in line for when it came time to sign up. I don't think that is a violation. If someone wants to sit in Winnett for eight hours, more power to them. However, many people left, some just to go back and get a book or pillow from their room, which I can understand. Others left for several hours. Isn't that unfair to those who signed the list and stayed? If not, why not just sign your friends in?

Every time I go into the alley kitchen, I find some of my food stolen. Somehow, I don't think that someone from off-campus would come in just to steal a couple of slices of bread. Also, my laundry soap has a habit of disappearing. Isn't it common knowledge that you are supposed to ask a person before using their belongings?

What about \$800 Ruddock got for OPI? I think Blacker, Dabney,



1-818-905-5777

Eurailpasses issued on-the-spot!



Dear Ernest,

What do you think about the recent controversy over ASCIT? —Soliciting Opinions in Page

Dear Mike,

According to the principles of dialectical materialism, as put forth by Karl Marx, the means of production must eventually be owned by the workers. This means that one day, the Board of Directors will be overthrown by the Revolution and replaced with a dictatorship of the students. Every student will give according to his ability and take according to his need; no one will be dissatisfied, and the controversy will cease.

Dear Ernest,

Where do you gather all the information you use in your column? It must be grueling to research each topic every week and compile the results into your column.

---Impressed in Ruddock

Dear Impressed,

Since I am well-informed, I am able to write most of my replies off the top of my head. When I lack some crucial fact, however, I will ordinarily turn to the 1955 World Book Encyclopedia.

Dear Ernest,

Who is the greatest rock and roll artist of all time? —Searching for Direction

Dear Searching,

÷

and Fleming were left in the dust. ASCIT itself violated the Honor Code by favoring one House over the others. People make the excuse that they didn't go to the meeting. According to some of the South Housers, they went to the meetings last year and did not receive any money, and were told by one of the ASCIT officers this year that they might as well forget it.

Finally, the Honor Code is not taken into consideration in social situations. Inside the Houses, or at least my House, "friendly harshing" is a popular pastime. I don't see what is so friendly about it! People are careless about others' feelings to the point of them wanting desperately to leave (and some have). An Honor Code presupposes honor, does it not? If everyone thought about how their actions and words affect people in everything—*everything*—they do, the Honor Code may work. But for now, I don't see why we should get the benefits the Honor Code offers if we cannot accept the responsibility it presents.

I like to think that perhaps the Honor Code was taken seriously, but now it is essentially useless. People here really don't seem to care *how* they affect the other people around them. I have been at schools which have a lot more honor, and it isn't because they have an Honor Code.

Cherish Bauer



TONIGHT'S ASCIT MOVIE

THE RUSSIA HOUSE

STARRING SEAN CONNERY AND LIZA MINNELLI

Friday, February 18 Baxter Lecture Hall 7:30 & 10:00 P.M.

\$1.50 for ASCIT members \$2 for all others

Next week's movie: THE FUGITIVE

Michael "Jacques" Benedetti Chris "Jacques" DuPuis Michael "Jacques" Radford

> BUSINESS MANAGER Chris "X" Echols

EVENTS AND NOTICES EDITOR John Shaft

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Bosnia

Although some heavy weapons remain, the Serbians have pulled out enough weapons to avert NATO air strikes. NATO and the United States say they are convinced that the reason for the delay in removing the weapons was bad weather.

the rebels the land they demand. This demand of land may put the protected rain forests in the southern state of Chiapas at risk.

The Mexican troops have been found guilty by the International Commission of Jurists of committing numerous human rights violapreparing for a voter education workshop.

White South African demonstrators claimed two towns as their own as part as their protest against the upcoming free elections. They also want to bid for a separate homeland.

United States

President Clinton announced on Saturday that if Sarajevo is not free of heavy weapons by the NATO-set deadline, the United States would send out warplanes to launch an air strike.

The NAACP announced its support of Clinton's nominee to head the Justice

Department's civil rights division, Deval Patrick.

West Bank

Zipporah Sasson, a thirty year old pregnant mother of two, was killed by the Islamic resistance group Hamas. This is the twentyninth death so far since the peace accords were signed by Israel and the PLO.

CRIME AND INCIDENT BEA

by Gypsy Achong

Ballroom Dancing Class

with Bill Bartlett will be meeting in

Dabney Hall on Thursday, March

3 at 6:30. The classes are free. No

Crime Tip: There has been another occurence of a man masturbating in public view. This is the second occurence of this type for the term. If you see anyone suspicious on campus please call security immediately so that hopefully off-campus people will soon realise that the Caltech campus is not fair ground for crime.

- 2/16 4:30 р.м.-2/17 12:00 р.м. A check was stolen from an office on the 2nd floor of Millikan. There was no sign of a forced entry although the office was locked at the time of the theft. \$60
- 2/16 4:00 P.M.-2/17 9:50 P.M. A bike was stolen from inside 150 S. Chester. The bike was secured with a chain and lock which were
- cut. There was no sign of a forced entry to the main door. \$160 2/19 5:00 P.M.-2/20 2:00 A.M. The passenger side window of an undergrad's car parked on the south side of California was broken and a car radio was removed.
- 2/19 2:30-2/20 4:00 P.M. A window of a student's car parked on California Blvd. was smashed. Nothing was missing from the car.
- 2/20 7:45-9:45 P.M. The passenger side window of a member of faculty's car was smashed. Nothing was missing from the car. This car was also parked on California. \$250
- 2/21 7:15-11:00 Р.М. A bike was stolen from the bike rack on the east side of Keck. The bike was secured with a combination lock and a small link chain which was cut. \$30
- 2/22 8:46 Р.м. An undergrad observed a man masturbating at the southwest corner of the Synchrotron parking lot. He was naked from below the waist. This is the second time that this man has been observed masturbating in this area.

Concerned Al Ratner Mechanical pencil falls He wants reform

partner or previous experience is required. For more information, *qo* to the conference contact Sharon Kadar, x6971, email sharon@seismo.gps.

February 25, 1994

China

Officials report that forty-nine people were killed when parliamentary police moved in to stop rival religious groups from fighting. This announcement is a rare confirmation of Muslim unrest in China.

Egypt

Four people were wounded on Saturday when Muslim militants attacked their luxury train. The group known as Gamaa said the attack was in retaliation for the death sentence of an army officer and two conscripts.

Mexico

Before the rebel uprising can be settled, the Mexican government must decide whether or not to give





tions in the course of stopping a peasant uprising in Chiapas.

Talks concerning the end of the rebel uprising were held on Monday in San Cristobal de las Casa, Mexico.

South Africa

Fifteen young supporters of the ANC were killed by four unidentified men armed with assault rifles. The young ANC supporters were

News from the new ASCIT BOD

by David R. Derkits

On Tuesday, the first of March, the new Board of Directors takes office. As the Secretary of this new BOD, I would like to bring the following to your attention.

For the remainder of second term, the BOD will continue to meet on Tuesday (March 1 and March 8) at 10:30 P.M. in the ASCIT office (SAC 64). Those with new business should come at the beginning of the meeting with at least fifteen copies of any material they wish to present to the BOD. If you have concerns or comments you would like to share with the new BOD, feel free to join us.

Angie Bealko, the new President, will have office hours from noon until 2:00 Р.м. this Wednesday-Friday (March 2-4) in the ASCIT office.

Over the next several weeks the ASCIT appointed offices will be opened for sign-up and filled. A list of these offices can be found in the

little t. All sign-up sheets will be posted on the east side of Winnett (outside of the MOSH's office). Currently, sign-ups are open for the Tech Business Manager, the little t Editor(s), and the little tBusiness Manager. The sign-ups for Tech Business Manager close on March 1; the other two offices close on March 29.

If you have any general questions about ASCIT, please contact me at dderkits@cco, x1402, Page 130, or MSC 553.



Write for the *Tech*.

You are invited to the weekly staff meeting of The California Tech today at 12:15 P.M. in the Coffeehouse. Free pizza and soda will be served. We are now looking for someone to edit the Events and Notices page-if you are interested in this or any other staff position, we encourage you to attend.



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WILLIAM MATTHIAS: Laudi (Los Angeles Premiere)

SPOHR: Clarinet Concerto No. 1

DVORAK: Symphony No. 8

Tuesday, March 1, 1994 8:00 p.m. Ramo Auditorium, Caltech Information: 818/395-4652

Thursday, March 3, 1994 8:00 p.m. Thorne Hall, Occidental College Information: 213/259-2785

ADMISSION FREE

sports

Swimming ends strong with record set

by Agota Spitz

The year was 1968. A short, muscular man from the California Institute of Technology travelled to St. Cloud, Minnesota for the National Swimming Championships. The race was the 100-yard freestyle. The man's name was Henry DeWitt, and his fourthplace finish was remarkable—his time of 48.20 would stand for twenty-six years as a Caltech record.

The record fell last week when sophomore Mike Greene, swimming in the SCIAC Conference Championships, took it down to 47.93. The swim was a lifetime best for Greene, who said after the race, "I wasn't sure I was going to make it back to the finish, I was so exhausted." Greene's race was one of the highlights for the Caltech team during the three days at the Championships.

The men's team fought Occidental College every step of the way. At the end of the first day, Oxy held onto a slim 87-74 lead. After Eric Aamot and Jamie Sherman dove strong on the one-meter diving board, Caltech took the advantage, 125-111. Occidental was swimming fast, and began to rack up some points, but Caltech countered time and time again with several outstanding efforts, led by freshman Jason Hong in the backstroke and the 400-meter individual medley, and at the end of day two, the teams found themselves in a virtual dead heat, Caltech trailing 194 to 189. The Techers took the lead in the 1650 with a dramatic fifth place finish from Chris Buchner and some solid swims by Sookatoo Bhuta and Hyle Park. Caltech held onto a slim lead at 208 to 203, but the last three events (100-meter freestyle, 200 breaststroke, and 200 butterfly) saw the Occidental Tigers inching ahead in points, finishing the 400 free relay and the meet with 283 points to Caltech's 259. All-Conference honors went to Eric Aamot, who placed third on both the one- and three-meter boards. Our final SCIAC place was fifth, with Redlands ending Claremont's domination in men's swimming.

The women were out-swum by Whittier's larger team, but because of outstanding swims, the score remained close throughout the meet. Tamara Tolou dove to high marks from the judges, and just missed all-conference honors. Ki-Young Suh's high placement in the 400 individual medley and Jennifer Ohgi's blistering 1650 race both deserve high praise. Relays proved a strength as Wing Cheung, Kelly Eom, and Hope Chang. Gina Serraiocco did an especially fine job. The Techers placed sixth, just 43 points behind Whittier.

Beavers continue to improve

by Bryce H. Elliott

Playing Whittier in Braun Center was considered the Caltech basketball team's best chance this year to achieve a SCIAC victory, so there was quite a fan turnout on Saturday night. Throughout the first half, the Beavers showed why they made the Whittier coach sleepless the night before the game, leading by as many as nine points before taking a 33-28 halftime lead. Josh "MJ" Moats was the first stanza star for Caltech, scorching the nets for 14 points by the break. The Poets regrouped in the second half, though, erasing the Beaver advantage in two minutes and subsequently taking the lead for good a short time later. The Beavers played valiantly throughout the game and showed why they have gotten so much respect from the other SCIAC teams in recent years. "Sneaky" Steve Tsai led Caltech with 20, followed by Moats with 17. John "Pimp Daddy" Parks

paced Beaver rebounding with twelve boards.

Despite a recent loss to Pomona-Pitzer, Cal Lutheran came into the game as one of the top rated teams in Division III. Each game begins 0-0, though, and the Beavers made the Kingsmen prove themselves once again. Caltech led for a good portion of the first half, and broke the Kingsmen press very well. There were many times during the half when the Kingsmen players looked over at their coaches and asked what they were supposed to do to stop Coach Victor's brilliant motion offense. However, Lutheran demonstrated why they are rated so highly, overcoming 80 percent Beaver shooting to take a 58-46 halftime advantage. The Kingsmen came out with fire in their eyes in the second half, and they wore the Beavers down with a full-court press and physical defense. The weary Caltech squad finally succumbed 121-71. Parks see BASKETBALL, page 11

Oldenburg named Athlete of the Week

by Tom Dmukauskas

The track team got off to a quick start in their first meet of the year on February 12th. In dual meet scoring, the women obliterated their competition, while the men were surpassed only by Biola. True, the Caltech Invitational I did not attract the likes of UCLA or even Oxy, but nonetheless, the outcome was a reason for optimism. Amy Oldenburg led the women by scoring 34 points via placing 2nd in the 100 m high hurdles, 3rd in the shot put, 1st in javelin, 1st in discus and running a leg of the 3rd place $4 \times$ 100 m relay. This performance earned her the award of California-Nevada Track and Field Ath-

lete of the Week. Way to go Amy! Other top contributors for the women were Rebekah Mills (2nd in 100 m, $3rd in 200 m, 4 \times 100 m$, 1st in shot, 3rd in disc), Gretchen Larson (4×100 m, 3rd in 100 m HH, 1st in high jump, 2nd in triple jump, 2nd in long jump) and Cailin Henderson (1st in 1500 m, 1st in 3000 m). The men were outmatched by Biola, but had a few outstanding performances of their own. Ned Bowden cruised to victory in the 1500 m and came 2nd in the 800 m. Matt Metz claimed 2nd in the 400 IH, 3rd in the 110 HH, and 1st in javelin. The 4×400 m team finished the meet on a high note, turning in a 3:33.11, good enough for 2nd place, and saving

the Beavers from a dual meet defeat to our good neighbors at PCC.

The following week saw Tech travel to Pomona-Pitzer and their luscious blue track. The All-Comers meet was reasonably well attended and gave Tech its first look at several other SCIAC teams. Many of the stars of last week's meet were shining again this week. Oldenburg launched a school record of 114'11" in the discus to go along with her 2nd place in the javelin. Henderson roared from back in the pack to a 3rd place 5:11 in the 1500 m. Bowden continued to stride toward nationals with a 1:58.52 in the 800 m. Andy Zug smoked his 3000 m interhouse see TRACK, page 11

May leads Velo to 7th place

by Michael Kantner

On the weekend of February 19 and 20, Caltech Velo competed in the Mt. Baldy hill climb time trail and the Cal Poly Pomona criterium. At the time trial, Caltech Velo placed seventh overall, beating USC and a few Calstate schools. Caltech failed to place at the criterium, Caltech did not place.

At Saturday's hill climb, Scott May, Jody White, and Marcus Chen raced for Caltech. May turned in Caltech's finest performance ever with a third place finish in the Men's A. Jody White placed fourth in the Women's B race. Marcus finished 24th in the Men's C race. Scott's and Jody's placings gave Caltech a seventh-place finish.

Unfortunately, a storm blew in overnight, and the Saturday's good weather changed to pouring rain for the criterium. Cyrus Behroozi competed in the Men's D race, but did not finish. Due to the poor road conditions (they were wet), he did pedal hard through the turns, and had to make up ground in the straight sections. Eventually, his caution was his downfall. He fell of the pace and was pulled from the race. In the Men's Crace, Michael Kantner raced well, but did not have good position for the final sprint. He finished 13th. For more information on collegiate cycling, contact Michael Kantner at x4882 or cycling@cco. One-day racing licenses are available, and there are races for all skill levels.





California Forms: F.A.S.I. Frione Service - (800)338-0505 Regular Phone Service - (800)852-5711

The Financial Aid Office (515 S. Wilson, Second floor), Career Center, Dean of Student's Office, and Office of International Programs have a two page tax guide available. Feel free to stop by any of these offices and get a copy.

Volunteer Income Tax Assistance (VITA) is available in Pasadena February 22 - April 15* at the following locations:

<u>CENTRAL LIBRARY</u> 285 East Walnut St Tuesdays and Thursdays 6:30pm - 9pm Beginning 2/22/94

LA PINTORESCA 1355 N. Raymond St Saturdays 12pm - 3 pm Beginning 2/26/94 <u>SANTA CATALINA</u> 999 E. Washington Blvd. Saturdays 10am - 12pm Beginning 2/26/94

VILLA PARKE CENTER 363 East Villa Thursdays 1 - 3pm Beginning 2/24/94 Alternating Saturdays 9am - 12pm Beginning 2/26/94 JACKIE ROBINSON CENTER 1020 N. Fair Oaks Tuesdays 9am - 12pm Beginning 2/22/94 Alternating Saturdays 9am - 12pm Beginning 3/5/94

*Dates subject to change

TRACULA

Saturday, February 26, 1994

Both events will be held at 8 p.m. in Beckman Auditorium.

For Each of These Events:

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Note: Tax volunteers are sometimes unavailable as scheduled

Bridge Without Sam

by Jeff Goldsmith

One of My Favorite Things Playing set at IMPs with a very good partner against two strong, young players, I hold a hand on which I wasn't perfect, but my early error allowed me great enjoyment later.



The bidding takes some explanation. We were playing a mininotrump, so the Northern 16-count had to open $1 \oplus .2 \diamond$ was Fourth Suit Forcing; when I rebid $3 \heartsuit$, it was forcing to game. $4 \oplus$ was Roman Key Card Blackwood; $5 \diamond$ showed two Aces and denied the $\heartsuit Q$. $6 \heartsuit$ was an error; I should have bid either 6NT or 5NT and allowed partner to choose which slam to bid. If his $\oplus Q$ were the $\diamond Q$, $6 \heartsuit$ would be much better than 6NT; as it is, I'd much rather be in 6NT from partner's side.

Due to my error, I get to play this hand and on the ± 10 opening lead, $6\heartsuit$ is not cold. Since the lead might be a singleton, I must win with the Ace. I drop the $\pm I$ as East encourages, as a matter of habit.

Two lines of play suggest themselves. If the $\heartsuit Q$ is on-side doubleton or tripleton, I am playing for an overtrick. Alternatively, I can cash two high trumps and hope for 3–3 spades to pitch my club away. The two lines are pretty close, but I can also make on some 4– 1 trump breaks by finessing, so I think running the $\heartsuit J$ is slightly better. I try it and it holds. One hurdle. I lead another trump from dummy East covers with West following suit. On the third round of trumps, West pitches a small spade.

Phew. The slam is now cold; I can now consider the overtrick in more depth. That spade pitch is dire; West is a good player, so he has either a small doubleton or tripleton spade or five of them. That's good news! If he has four or more spades, I have all the remaining tricks on a double squeeze. East must guard clubs; West must guard spades; no one will be able to handle diamonds. This is an ordinary type R double squeeze. Double squeezes are my favorite plays, and I shall play for it. I cash two more rounds of trumps, pitching clubs from the table. West pitches diamonds and East clubs. I cross to the $\bigstar K$, cash the $\bigstar Q$ and East shows out. The double squeeze will work and I just claim the balance, saying, "spade to the Ace, heart, double squeeze." The defenders look at my cards for a second and concede. Making seven. I am elated. Not only do I love double squeezes, my favorite play of all is to claim grand slams on double squeezes. I am very pleased that my bidding error allowed me to be in this position.

Partner comments, "Well done. If I had known that my four of diamonds was to take a trick, I would have bid more!"

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



entertainment

Games and Puzzles: Chess Answers

by Wei-Hwa Huang

So, we made another mistake. Problem 1 in last week's issue lost its description somehow, so the solution will be deferred until next week, along with Problem 3, which has a *long* solution.

This is White to move and mate in *two*:





For a mate in three, Charles takes the pawn with his rook. If Black moves his king, R-R3 is mate, so Black must move his bishop. If it moves on the long diagonal, R-R3 is still mate, so it takes the knight or the rook. If it takes the rook, N-B3 forces the bishop to move, allowing P-N4 mate. If it takes the knight,

R-R3 check forces B-R5, where Charles can then do P-N4 mate.

Without the white knight, Charles mates in four by taking the pawn with his pawn, threatening R-N4 followed by R-R4 mate in two more moves. The only way for Black to stop this is to protect his R5 square with his Bishop in those two moves; e.g., B-K6 followed by B-N4. In this case, Charles does R-R4 anyway. Black must take the rook with his bishop, allowing P-N4 mate.

Without knight or pawn, Charles exploits his open king rook file by moving R-N7, threatening to mate in three with R-N1 followed by R-KR1 mate. Black can delay this by sacrificing his bishop on his 8th rank for one move, but he does a bit better by attempting to interpose the bishop on the king rook file. He can do this in three moves on R5 or in two moves on R7. If he tries B-R5 when Charles plays R-KR1 check, Charles gives Black a Trojan horse by sacrificing his rook at R2. Black's only move is to take the rook with his pawn, allowing P-N4 mate. On the other hand, if Black tries B-R7, Charles moves R-K1. Moving the bishop leads to RxB followed by R-R1 mate, so Black must move his King to R5. After Charles moves his King to N6, Black has no way of avoiding R-K5 mate. (Of course, R-OB1 would have worked just as well.)

Without the rook, Charles moves N-B3, immobilizing the King and threatening to take Black's pawn next move, followed by P-N4 mate. Black can't take Charles' Pawn since then P-N4 is mate, so Black must move his bishop. He must protect his pawn, so B-K1 is the only real move. Knight takes bishop, and Black still can't take the Pawn because of N-B3 followed by P-N4 mate (nothing Black can promote to will help him), so Black moves K-R5. Charles moves P-R3. P-R4 by Black leads to N-B3 mate, so Black is forced to move K-R4. Charles then moves N-Q3, forcing K-R5; N-B4 forces P-R4; and N-N6 is mate.

Problem 4

The main theme is 1. R-R8 KxP, 2. RxN K-N1 3. R-R1 K-B1, 4. R-R8 mate. And now you know why it's called the "Perimetric" marvel! If Black moves his knight instead of taking the pawn, P-R8 (R or Q) is mate; if Black moves his king to R4 instead of taking the pawn, R-R4 is reply, followed by P-R8 (R or Q) mate. If Black moves to R3 instead of N1, R-R1 is mate; and if Black moves to R1 instead of N1, K-B7 is followed by R-R1 mate.

And, a bonus question: Sam Loyd's "Excelsior"!



White to move and mate in 5. This problem is the basis of the "Excelsior theme," obviously suggested by the poem by Longfellow.



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Student-Faculty conference needs your participation

by Flora Ho

Will the 1994 Student-Faculty Conference change the face of Caltech? The most important factor is, of course, attendance and active participation. Without students and faculty showing their support for the conference by showing up, how can there be motivation for change? We must realize that while we will not always be one hundred percent satisfied with Caltech, we can make improvements. That's what the Student-Faculty Conference is about-addressing prevalent concerns among members of the Caltech society, providing a vehicle for you to express your opinions and ideas, and finally, generating enough interest and support to actualize solutions to those concerns. Significant changes require persistence and time, and chances are we won't be around to see the dawn of a brand-new Caltech perfectly suited to our needs. The recommendations we're proposing at this conference probably won't turn your life around, but they certainly will move Caltech in the right direction.

It has been noted, reasonably enough, that because the 1991 Student-Faculty Conference produced few tangible results, this year's conference may prove no different. Three points deserve mention here. One-the last conference may not have perfectly yielded the results envisioned by the conference committees, but the numerous recommendations it generated gave this year's committees a broad base with which to work, an idea of what issues are of greatest concern to students and faculty. Two-not all of the recommendations from the last conference went unheeded; for example, the Dean has confirmed the approval of an on-campus ATM, and as mentioned in last week's student-faculty conference article by Zack Berger, private phone service for students and suggestions dealing with security (e.g., escort services) are two other areas which have been implemented. Finally, we should keep in mind that conferences in the past have proven their utility in generating significant changes, freshman pass/ fail being one notable example.

Nevertheless, the perception that the 1991 conference fell short

of expectations remains valid to many. We feel that this year's conference can avoid the same fate by looking at the lessons taught by previous conferences. Because attendance was high and many suggestions were approved, the conference itself was actually very successful-but because so many recommendations failed to be implemented, the overall outcome was less satisfactory. What have we learned from the last conference? Primarily, to keep our goals realistic and our ideas implementable; to limit ourselves to a few strong, concrete proposals per committee, because having too many makes it difficult to effect any; to phrase these proposals such that they can be presented, with necessary modifications, to the proper offices for more rapid approval and subsequent implementation; and to remember that albeit we're hoping for campus-wide participation, the conference itself functions only as a forum-the work remaining after February 25th (that is, seeking implementation) will be the determinant true of the conference's success.

As a reminder, the four panels will be dealing with: Improving Communication, the Core Curriculum, the Quality of Teaching, and the Honor System. The faculty board has asked that professors encourage attendance in whatever fashion they deem appropriate, whether through rescheduling/cancellation of classes, bringing their classes to the conference, or otherwise. Refreshments will be provided, as well as an Olive Walk dinner at the conclusion of the conference, which we hope will facilitate student-faculty interaction and stimulate further discussion.

One final note. Endeavors such as the student-faculty conference should always be approached with a certain degree of acceptance that improvements may be neither immediate nor drastic, but more importantly, with the belief that we have the responsibility to voice our opinions as well as the power to produce changes. These biannual student-faculty conferences are held with the intent of improving the quality of life here at Caltech. Isn't it worth your while to grab this opportunity and make yourself heard?

We hope to see you there!

Dilbert[®] by Scott Adams



ynews

by Sam Webb

Once again, the Y news is back to inform you of the nifty things going on with the Y. This Friday at noon in the Winnett Quad, the African American Dram Group will be performing for your lunchtime pleasure. Bring out your lunch and listen for a while. On March 3rd, Peter Russel, the author of "White Hole on Time", will be giving a presentation entitled "Physics, Pyschology, Philosophy, Computer Science, and Business: A New Perspective on Humanity's Place in the 'Universe" in the Beckman Institute Auditorium. If you're interested in *your* place in the universe, contact the Y for more information.

And last, but certainly *not* least, Boffo Bonecrusher Broomball is back again! Once again, eight teams will emerge on the ice. Spaces are limited, so sign up quick. Promised to be better than ever, so even if you don't play, come by to watch. Remember, that's on March 5th. If you have any questions on coming Y events, contact the Y at x6163.

continued from page 1 Press

Wilson at the behest of Professors Robert A. Millikan and George Ellery Hale in order to allow the government to have ready access to a single, unified body which would be able to provide them with information on political topics vitally connected to the sciences, and to facilitate more efficient use of government research money. The communication between the government and the National Academy of Sciences is carried out by the National Research Organization, which is essentially a subcommittee of the National Academy. Another committee, the Office of Science and Technical Policy, also exists to provide the government with information about scientific issues. However, Dr. Press noted that, since the OST is actually part of

the government, many of the positions in it are rewarded to individuals as political favors, with no regard to complete lack of technical background. Both the National Research Organization and the Office of Science and Technical Policy report to the President's science advisor, whose responsibility it is to brief the president on scientific issues, and is also required to appear before Congress to provide them with necessary information.

Dr. Press then went on to give some examples of how a science advisor should go about informing a president or prime minister on a variety of issues by giving a short exposition on several subjects as if he were advising such a leader. For example, when dealing with the subject of global warming, he pointed out that, while the effects of increased global temperatures due to greenhouse gases might be catastrophic, the connection between carbon dioxide emissions

and the greenhouse effect has not yet been established to a point that it can be said with certainty that changes in climate are due to human actions rather than natural fluctuations, and, even if this fact were to be established, the cost of legislating the phasing out of hydrocarbons as a source of energy would be prohibitive, ranging up to several trillion dollars over many years. Thus, Dr. Press said that his advice would be to institute a kind of "insurance policy" by creating legislation to encourage conservation of energy and the development of alternate energy sources, which are relatively inexpensive measures which make good financial sense in and of themselves.

According to Dr. Press, the communication between science and government is sometimes less comprehensive than it ideally should be. As a case in point, he gave the example of the Strategic Defense Initiative. Apparently, Ronald

Reagan announced this as a presidential initiative of vital importance while his science advisor was away in Europe, and had not consulted with anyone in the scientific establishment about it. Not surprisingly, then, this project was of a type that the advisors never would have decided was urgent, because the amount of money needed to fund such a project was utterly prohibitive, the technology to build such a thing in any useful way did not (and still does not) exist, and its costs far outweighed its probable benefits. Nevertheless, the project was funded by Congress.

Dr. Press made many such examples, and, in the end, he concluded that, while it is often difficult and frustrating to advise the government on scientific issues, this difficulty is far preferable to doing nothing, and thus, his answer to the question "Can scientists provide credible advice in Washington?" was yes, though a qualified yes. The qualification, as he stated it, was that they give advice the way porcupines make love—very carefully.

Ricketts wins bridge trophy

by Jeff Goldsmith

For the second year in a row, Ricketts House won the Interhouse Bridge Tournament. They beat Lloyd, Page, and Ruddock. The Ricketts team was Dan Xystus, Jim Schaaf, Steve Farris and Jeff Goldsmith.







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IHC minutes for Monday, February 21, 1994

by Craig Smith

Present: Asif Hassan (chair & late), Eric Slayback (chair-elect), all the presidents, Stephanie Haussmann, Laurent Stadler, Steve Skovran, and Tom Mannion.

Dave's (Perlman) World: Let's impeach Asif (for being late).

He wants to know if any other Houses have invitation-only parties. He is dealing with how to disinvite people from Apache in a nice way. No one remembers a similar problem in their House.

Mystery Men: In Lloyd, DeBar came across some Indian guy walking off with a cooler and a pitcher. He said he would bring it right back, and did, but never even asked. The "guy" who has given three different names and two House affiliations to members of Dabney may actually be a disgruntled Flem who lives off-campus. There was a tall, blond guy causing trouble around campus who was arrested. Among his misdeeds: sleeping nude in Catalina lounges, bashing cars in Ruddock loading zone, and violence in Dabney.

Ath Lists: The great debate. Fleming asks to add Ken Wiberg and Jason Lee to their athletic list. Should we allow alumni to participate for their House? We should make a policy and stick to it on this particular issue. What if we were to actually follow the bylaws and require the Ath Lists to be submitted to the IHC each term? Then decisions could be made at the beginning of each term, and we wouldn't have the votes before each sport. The problem is a conflict in attitude toward interhouse athletics: competitive vs. un-competitive. The Houses have the right to define their own membership (or do they, with respect to interhouse athletics?). Eventually we decide the following:

• Athletic lists shall be submitted to the IHC at the first meeting of the term (the first meeting after Rotation for First Term) clearly indicating potential members who do not fall into the following two categories: registered undergraduate students, and RAs. At the next meeting of the IHC, the Ath Lists for the term will be finalized.

The above passes, 7–0–0.

The IHC feels that a good policy for athletic teams to follow in the instance that they want someone not on their athletic list to participate in a particular sport is to, before the sport commences, agree with all other athletic teams whether the individual may play or not. This will hopefully be better, as Athletic managers will not be forced to directly tell an individual at the scene of the event that he/ she may not participate.

Jason Lee and Ken Wiberg approved for Fleming list for rest of this term, 5–0–2.

Dave Townsentl and Albert N. Lee approved for Lloyd list for the rest of the term, 6–0–1.

Parking: Asif, Moeen, and Eric spoke with Bill Irwin about undergraduate reserved parking in the parking structure. We may get some token reserved parking somewhere. More next week. If you have any questions or concerns about parking, talk to Asif.

Secession: Laurent and Steve have a plan. They basically want to create (if their House is for it) a non-profit organization to provide ASCIT-like services, and more, for Darbs. They want more control in how their money is spent, and feel that they can give the people of Dabney House more rewards from the equivalent of ASCIT dues. They would basically pay ASCIT for some of its services to make the transition easier. Logic:

• ASCIT is basically a North House Club

• Darbs aren't really members of many clubs anyway.

Raging discussion about incompetence and competence of ASCIT omitted.

If you want more information, talk to Laurent or Steve. (It is probably on net news in all its full glory, as well).

Discobolus: Ruddock beat Dabney in luge (i.e., ice block racing in the SAC), Blacker has challenged, and the next to challenge is Page. Current order is: Bl Pa Ri Ll Fl Da (Ruddock has the trophy).

Important: there will be no challenge next week, due to Murph day.



PEOPLE ARE PUTTING TOO MANY RETIREMENT DOLLARS.



money you don't send to Washington

IHC minutes, February 14

by Craig Smith

Present: Asif Hassan (chair), James Honaker (Bl), John White (Fl), Mike DeBar (Ll), Jim Murdoch (Da), Dennis Ugolini (Ru), Dave Perlman (Ri), Michael Ng (Pa), Eric Slayback (chairelect).

Dennis: Page has one of the masts from OPI; the other needs to be moved. Mikey (Ng) had no idea that Page had one of the masts.

Hans Hornstein was upset that I referred to his letter about fraternity as "nasty." I am really sorry Hans, it was *extremely negative*.

Dennis heard that there will be no reserved spots for undergrads in the newly constructed parking garage. They are already giving out reserved spots. Asif said that he and Moeen had meant to look into this last term, and would get some more information.

James: How did Ruddock get an extra \$800 from ASCIT for OPI? Could it have something to do with a largely Rudd BOD?

Asif: they gave a proposal, as had been done in the past. The logic was that OPI is a party which has in the past been widely attended. Ruddock also received extra money last year.

John: if you take the scoreboard, please return it in the same condition. Page damaged some wires when they took it after elections Thursday night. Mikey (Ng): "God damn my House!"

Asif: CCO (Steve Fought in particular) is trying to establish an online edition of the Caltech Phone Directory. If people are interested, they can put student extensions on it as well. Jim: The only concern is the privacy of the information.

Jim: see the caltech.discuss newsgroup for more about frats and the House system.

Discobolus: Dabney beat Fleming in Fencing; Ruddock has challenged; the next to challenge is Blacker. The current order is: Ru Bl Pa Ri Ll Fl

(Dabney has the trophy)

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Funð.



by Mike Benedetti, with Adam Villani

Gershwin Plays Gershwin: The Piano Rolls

George Gershwin was, by all accounts, an accomplished pianist and an expert at showboating. Now, through the miracle of modern technology, it is possible to listen to some of Gershwin's work, played by Gershwin, without having to deal with the poorly made records of the 20's. A couple of obsessed engineers took piano rolls played by Gershwin himself (and one by Frank Milne), scanned the rolls, digitized the information, and replayed the songs with a computerized 9-foot Yamaha Disklavier grand piano. Some of the songs, which were in a format that does not feature any information about dynamics on the rolls, were replayed on an antique pianola, which requires a human to adjust the volume of the music. I have no idea which tracks were done by which method.

So there you have it: digitized piano rolls played by a robotic piano (and recorded on compact disk, no less. It's enough to put Jim Boyk in his grave). Overall, I find something lacking in the pieces. They seem to lack soul. Even the version of Rhapsody in Blue, featuring two extra hands overdubbed by Gershwin himself, fails to knock me out. Maybe if I didn't know it was Gershwin's re-animated corpse playing, it wouldn't matter.

Mighty Morphin Power Rangers

I first heard about the Rangers this Christmas, when they were supposed to be the new, hot toy. The Rangers were said to be ninja teens in giant robotic dinosaurs. This seemed like a very weird concept for a show, but I was willing to give the show a chance.

I'm glad I did. This is by far the funniest show on TV today, overwhelming both "Seinfeld" and "Beavis and Butt-Head" with a mix of campy, overacted comic scenes and stylized, jerky action sequences. An episode of the Rangers is built around a carefully defined structure, much like a sonnet. The Rangers cope with a silly subplot, fight a giant, rubber monster, and leave us with a life lesson. Within this framework, strange and wonderful things are sure to happen, and you are certain to come away from an episode a better person. The Rangers is shown locally on Fox at 5 P.M.

Media Guy's Two Cents

The worst part about reviewing CBS's Winter Olympics is that I must confess that the coverage is marginally better than in past years. By virtue of these being the Winter Games, Americans are not expected to do quite as well, so we're able to see the competitors from other countries. Also, there are fewer events in Winter, so we get coverage of all the sports, not just the popular ones like Figure Skating. I really hate being bombarded in the Summer with hour after hour of Gymnastics, Boxing, and Swimming without catching a glimpse of Team Handball, Archery, Table Tennis, or Kayaking.

On the other hand, we still get a few idiots who think the Americans can do no wrong. I was watching Hockey on Monday, when the Americans had just won their first game and were going into the quarter-finals with a record of 1 win, 1 loss, and 3 ties. Their opponent was to be Finland, who had won all five of their games and had only allowed 4 goals in the tournament thus far. The Chicagoaccented "experts" were predicting that the U.S. would win, since they were "on a roll" and that they would "break Finland's weak psyche." They predicted, furthermore, that Finland wouldn't even get a medal. Needless to say, Finland won the game, 6–1.

It also goes without saying that I'm sick of Tonya Harding and Nancy Kerrigan.

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continued from page 1 Internship

Interning in a Congressman's office was an interesting experience. Besides learning a great deal more about how Congress works and what it does, I got a chance to see what life in the "real world" is like. It was very interesting to see what educated people not in scientific fields talk about, what they do, and how they think. I got to tour Washington, see important figures like Vice-President Al Gore, and Senator Bob Dole, and I also made a number of friends whom I still contact from time to time. I greatly enjoyed my summer experience in Washington, and would suggest that anyone interested apply for the Beckman Internship. If you have any questions about the program in general or my experiences in particular, feel free to contact me at Page 143, or e-mail me at ewaldh@cco.

with one of the world's top programs in environmental engineering. But those interested in investigating the political and economic underpinnings of issues in environmental engineering find limited opportunities for research or course work. To supplement my studies here, I used the Beckman Political Internship award to work at the United Nations Development Program office in Bogota, Colombia, as part of a broad-spectrum rainforest conservation project.

I found the post by requesting a volunteer position with the UN in a mass-mailing I sent out to several different countries. The Colombian resident UN representative was extremely kind to me, and arranged a position for me as assistant to one of the project's sociologists. In this capacity I spent last summer with my boss and his anthropologist colleague to develop a methodology for evaluation of the effect of indigenous agricultural production systems on rainforest ecosystems. This work involved studying in several institutional libraries around metropolitan Bogota, as well as making four research missions into the jungle of about a week each. These trips, in particular, were some of the most extraordinary experiences of my life. At one point I was living in an Embera Native American village where some of the residents had never seen an automobile! Often traveling alone, I would find myself discussing territorial rights with a fro-colombian civil rights activists right after my morning shower in a waterfall.

Although the cost of living in Colombia is relatively low (in dollars), getting there is a major expense, and the whole summer position would have been completely unavailable to me without funding from the Beckman Political Internship. Because I received the money, I had an amazing summer, one which has since guided my choice of graduate school programs and career direction. I want a career with the United Nations. In other words, I had a lot of initiative but not much money, and the internship provided the missing link that has opened up unbelievable opportunities for me.

Michael Clemens's Internship, 1993

Caltech presents its students

TACIT's 'Side By Side' garners praise

by Eve Kiefer

The Pasadena Weekly selected the TACIT musical review "Side By Side By Sondheim" as one of the "Hottest Tickets In Town."

The Weekly was delighted to learn that the cast and crew of students and staff were "not all engineers," and the editor went on to say that the show would "brighten even the crankiest of spirits."

"Side By Side" is a compilation of musical hits and unknown treasures with words or music written

by Stephan Sondheim. Featuring songs from the hit shows "West Side Story", "Gypsy", and "A Funny Thing Happened On The Way To The Forum", "Side by Side" has a little bit of everything. It runs a gamut from torch songs, such as "Losing My Mind", to comedic numbers like "The Boy From Tacarembo La Tumbe Del Fuego S Malitas Zacatecas La Junta Del Sol Y Cruz".

Last weekend's performances were especially well-received. The audiences applauded greatly. We snooped around and picked up the

following quotes:

- "Diana Lorden was stunning" -Gary Lorden
- "Side By Side was great fun" -anonymous JPL employee
- Bravo! Stupendous! A Milestone for TACIT"
- -Gino Vianelli, director of the highly acclaimed film "Revenge" Purchase your tickets for this weekend's final performances. Major discount for Caltech students. Tickets can be purchased at the Ticket Office or by calling (818) 395-4652.

TAX SEMINAR

for

International Students and Scholars

with

Judy Lasswell, Licensed Tax Consultant

Sunday, February 27, 1994



10 a.m. - 1:30 p.m. **Baxter Lecture Hall**

An IRS representative will be available at 1 p.m.

Please bring all your tax-related documents, including W-2. Tax forms and refreshments will be provided. No Permanent Residents, please.

Ms. Lasswell will also give a limited number of consultations to individual students and groups by appointment only. For more information and to sign up for an appointment, stop by ISP or call x6330.

Sponsored by International Student Programs, Dean of Graduate Studies, Faculty Records, and Financial Aid.



Cailin Henderson makes her way around the track in the 3000 m, one of the two races she won at the Caltech Invitational I on February 12.

Ranger Round-Up				
	Monster fought	Sub-plot theme	Lesson learned	
Monday	Giant Orb	Science Test	Hard work	
Tuesday	Giant Flea	Saved the juice bar	Persistence	
Wednesday	Giant Jellyfish	Saved high school time capsule	Cooperation	
Thursday	Giant Praying Mantis	Cockroach kung-fu	Honor	

continued from page 1 Fault

rolled. Some suggest that it was because A Better Chance (ABC) programs began at other schools, and had more appealing financial aid packages and campus activities for minority students. Others suggest that the number of applications from minority students were low. If any of these statements were valid, it would mean something was wrong. Caltech received 1500 applications; it was the most the Institute ever had up to that year. So the question arises: whose fault is it that no minorities enrolled?

The Caltech community may have had part of the blame. The minority community looked somewhat appealing to applying minority students. There was a Black Students Union, and of the 30 Black, Hispanic, and Native American students at the time, 10 were women. However, the retention

Earthquake

given time.

"We made a decision that we weren't going to have any special [emergency] food. We have food all the time," said Borodinsky.

There are five large first-aid boxes placed around the campus, each with the capability of supplying basic aid for about 400 injuries.

"Our staff [in the Safety Office] is all trained in emergency response," Scislowicz said. On the whole there are about 150 to 200 people with up-to-date training in first-aid, and courses are offered to anyone who is interested.

Caltech also has its own emergency power generator, located at Central Plant, which could pro-

rate was very dismal. Students dropped out and flunked out during their freshman year, while others had severe culture shock. Considering the radical feelings of the 1960's and the growth of militant organizations such as the Black Panther Party, many under-represented students did not get along with their white colleagues. The Student Support Program (SSP), now known as the Bridge program, was an attempt to remedy this problem, but it was only a band-aid on a larger wound. Lee Browne, the Director of Affirmative Action programs, did not have enough support from the Institute to recruit, retain, and graduate under-represented minority students by himself. With a staff of one secretary and opposition from many in the "Old-Boy" network, Browne was against the odds.

The minority community at large may have had part of the blame as well. Although we do not know the number of applications the Insti-

vide the entire campus with minimum service indefinitely. All essential functions and life support services could be kept on-line in case of a city power outage, but a lot of research could not be continued.

Even with electric and phone lines down, Caltech would still have a link to the outside world through CITARC, the California Institute of Technology Amateur Radio Club, who hold regular emergency response exercises and are prepared to go mobile if the need should arise.

If evacuation of the campus is necessary, the Red Cross will set up a shelter, and the athletic fields will be utilized to house students. However, all Caltech buildings were designed to exceed building codes by 50%, and with some of the world's best structural engineers here on campus, Irwin believes it would take a lot of shaking to cause any serious damage to the campus.

However, even in spite of this, after every earthquake an inspection crew that includes individuals from Physical Plant, the Safety Office, the Security Office, and the Office of Student Affairs is immediately gathered and sent out in groups of two or three to survey any damage and assess the safety of campus buildings.

Education is another important aspect of disaster preparedness. In 1992, five Mass Care Workshops were presented on campus. Four focused on safety goals, protection of campus property, and food and shelter issues. About 100 employsee EARTHQUAKE, page 11

THE GROWTH POTENTIAL





tute received from under-represented minorities, it may not have been many. If we look at the applications from the last few years, we may make a guess as to what the applicant pool was like twenty years ago. In 1988, the year Caltech first kept track of the ethnicity of the applicants, the admissions office received just over 1500 applications. Almost 30 were from Latinos, 20 from African-Americans, and 1 Native American. That is, 3% of the applications received were from minorities. If we assume that this number is comparable to those in the 1970's, we see that minorities were not applying to the Institute. The same year, of the 500 that were admitted (30% of the applicants), as many as 20 (40%) were minorities. If a larger percentage of minorities were admitted, it would seem that Caltech was doing its best to enroll minority students. Next week, we will see what the

true answer is.



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continued from page 1 Van de **Snepscheut**

science department since 1992. Many students may have known him as the instructor of CS 20, a sophomore level computer science survey course.

continued from page 4 **Basketball**

was leading rebounder again with 11 and high scorer for the Beavers with 20, most of those coming off of a fine pass from one of his teammates. George Papa followed with 17 and Moats with 16.

The last game of the season will have been played by the time this

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article is published, but the submission deadline prevents the results from being printed immediately. Look for the final Beaver Basketball article in next week's Tech, as the Thursday night game against the C-M-S Stags is recapped



Empty Baxter Hall Rick Wilson gathers his things He scratches his beard

go to the conference

Since 1988

ees attended these sessions. The fifth workshop was given to the staff of the Office of Student Affairs and the Residence Associates to discuss earthquake recovery issues for permanent residents of the campus. In addition, Red Cross booklets entitled Safety and Survival in an Earthquake are handed out on a regular basis.

Although no one can ever be prepared for a major earthquake, if one is going to hit, and you're not lucky enough to be out of town, the best place to be will be the Caltech campus.

continued from page 4 Track

record to finish 4th in 9:02.3. Despite training through the meet, a large number of personal records were set, prompting Coach O'Brien to hammer the team even harder this week. Will it work? Find out on Saturday at 12:00 P.M. at the Caltech Invitational II (the sequel).





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- MS Dos 6.0
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Note: asterisks denote new announcements.

Notices

* Senior Messages—This year, students can submit messages to members of the senior class in the Big T. These messages will appear in pages at the end of the senior section. If you would like to submit a message, you can sign up March 2–4 from 12–1 P.M. by the student mailboxes. Forms will also be available in the houses. Messages cost \$3 per line for a line of up to 32 characters.

SURF's Up!—SURF applications are now available in the SURF office, 1-37 Beckman Institute. There is also a list of projects and research sponsors for students who need help identifying a research sponsor. If you have questions about SURF, call the SURF office at x2885 or stop by. SURF proposals are due March 1.

Events & Services

*** Holly Party '94**—Join Bryce, Chinley, and the rest at 297 South Holliston for a relaxing evening of food, games, drinks, music, and people. The event will be the Sunday night before Murph Day. Shirt and shoes are required.

*** The Fourth Annual Tribute** to African American History Through the Arts will begin with an opening reception today from 4:00–7:45 P.M. in Dabney Hall. The show will continue on Saturday and Sunday.

The Caltech Y also presents the "ixthus" Drama Group— The History of Black Innovations in Science and Technology, on Friday, February 25, at 12 noon in Winnett Quad. (Winnett Lounge if it's raining). Sponsored by the Caltech Y, Student Affairs, and the Caltech chapter of the National Society of Black Engineers.

*** Glee Club Concert**—The Caltech Men's and Women's Glee Clubs will present motets, chansons, and Fauré's "Requiem" March 4 at 8 P.M. Tickets are \$5.00 and are available from the Ticket Office.

* Need a Job? Join the Caltech Annual Fund for a reception on Thursday, March 3rd, in Winnett club room 1. Starting at 7:20 P.M. the Annual Fund staff will give a brief presentation of this year's Student Telephone Campaign. Find out what it is, what it does, how it's different, and how you can be a part of it.

Caltech Velo—The Caltech Bicycle Club meets every Thursday at noon in Red Door Café. The club organizes all types of rides, both road and offroad rides, for all skill levels, from novice to advanced, including collegiate racing. All cyclists are welcome. We lead the following weekly rides, all meet in front of Winnett Lounge:

Monday 8:00 A.M. 25 miles, moderate pace Tuesday 12:00 P.M. 10–15 miles, easy pace Wednesday 2:00 P.M. Off road ride

Also other harder rides not listed.

Please contact the club in advance to double check the time of the ride. We also lead other rides which are not listed. For more information, contact Michael Kantner at x4882 or e-mail to cycling@cco.caltech.edu.

Gay/Lesbian/Bisexual support group meets the first and third Tuesdays of each month at 7:30 P.M. 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. Refreshments are served. For more information, call 395–8331.

* A women's psychotherapy group for graduate and undergraduate students will be meeting weekly on Tuesdays from 12–1:30 р.м. at the Counseling Center beginning mid-March. The group will examine a range of issues releivant to

Save up to 35%

Events and Notices

women's lives and experiences. For more information of to schedule a pre-group interview, call the Counseling Center at (818) 395-8331.

* The next movie to be featured in the German Film Series is Nosferatu (1922). The film is silent with accompanying music and will screen in Baxter Lecture Hall on Thursday, March 3 at 7:30 P.M. Admission is free. For further information, call x3610.

Caltech Alpine Club "Sit and Chat"—Bring a sack lunch to the patio outside the north end of Keck Laboratory on Wednesdays from 12 to 1. Talk about mountains, the weather, and outings, past and future.

Friday Prayer—Prayers organized by Caltech Muslim Students are held in the Caltech Y lounge at 12:15 P.M. every Friday.

Mass—Catholic campus life includes Mass on Sundayat 10 A.M. (Winnett Lounge) and on Thursday at 8:15 A.M. (Y Lounge), Rosary at 11:15 A.M. daily in Winnett 1A, and various spiritual development groups and study circles. For more information contact Fr. Brian Wilson at x6212.

Bible Study and Discussion—Every Wednesday at noon in the Y lounge. Bring your own lunch. For more information call Mike Gerfen at x4886.

OpenLine—A group made up of students, staff, and faculty from many different departments on campus, and from a variety of ethnic and cultural backgrounds. We are both an action group and a discussion group. Our agenda is very flexible and is solely determined by what people in the group suggest. Drop by any meeting and say hello! We meet from noon to 1 P.M. on Tuesdays in the Y Lounge (2nd floor Winnett, feel free to bring your hunch!). Remember, we *always* welcome new people, at any time of the year. Hope to see sometime! For more information contact Gary Mines at x6542 (gam@xhmeia.caltech.edu).

Caltech SEDS (Students for the Exploration and Development of Space) meets every Sunday evening at 9 P.M. in 107 Downs to discuss and plan for its \$4 million satellite proposal. Help is needed from undergraduate and graduate students, and advising is needed from research fellows, faculty and staff. Experience with space hardware or with the specific experimental subsystems (gammaray astrophysics and atmospheric chemistry) is not necessary. All members of the Caltech and JPL community welcome. Contact Ben McCall at x2902 or bjmccall@cco.

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

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

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

Music with James Boyk—Pianist James Boyk gives a performance each Wednesday from 4:30 to 6 P.M. in Dabney Lounge. The performance is open to the public and free of charge. Feel free to come late or just skulk. For more information call x6353. **Open House**—The office of International Student Programs (ISP) would like to invite international students, scholars, and the Caltech community to coffee, tea, and conversation every Wednesday from 4–6 P.M. Take a break and relax with friends at ISP (Lloyd House on the Olive Walk).

*** Baroque Lunch**—Caltech students will present a concert of Baroque chamber music on Thursday, March 3 at noon in Dabney Lounge. The program will include trio sonatas by Bach, Telemann, and Loeillet, some of which will be performed on original Baroque instruments. Sandwiches will be served.

Lectures & Seminars

* John Stachel, from the Office of History and Technology at U.C. Berkeley, will give a lecture entitled **Out of India: Bose and Einstein** in the Judy Library on Friday, March 11 at 2:00 P.M. Refreshments will be served.

The Middle East Peace Accords: Present Realities and Future Possibilities — International Student Programs invites all Caltech community to a presentation given by peace activist Marina Riadi, on Friday, March 4, 1994, at 4 P.M., at Beckman Institute Auditorium. You are encouraged to take part in the discussion, which will follow the presentation. Refreshments will be served. Sponsored by the International Student Programs, Women's Center, Caltech Y, Open Line, and the American Friends Service Committee. For more information stop by ISP or call x6330.

Tax Seminar for International Students and Scholars—Presented by International Student Programs on Sunday, February 27, from 10 A.M. to 1 P.M. in Baxter Lecture Hall. Please bring all your tax-related documents, including W-2 forms. Tax forms will be provided. A limited number of individual and group consultations will be available by appointment only. The event is co-sponsored by the Dean of Graduate Students, Faculty Records, and Financial Aid. For more information stop by ISP or call x6330.

Scholarships, Internships, & Competitions

* Travel Grants for Undergrads—Undergraduate students who are U.S. citizens or permanent resident may apply for the International Student Identity Card (ISIC) Travel Grant. Students involved in any type of educational program including study, work, voluntary service, internships, etc. in one of the developing nations of Africa, Asia, or Latin America are eligible. This grant will cover round-trip expenses from the U.S. to the overseas program. Last spring one Caltech student was awarded this grant. The application deadline is March 15. Check with the ISP office (x6330) for further details.

Summer Internship in Japan—Tokyo Gas Company invites Caltech students (undergraduates and graduates) to apply for a 1994 Summer Internship. The two month program beginning in June is to offer students the opportunity to become familiar with the development of Tokyo Gas technology. The internship will pay a monthly stipend of ¥120,000 (approximately \$1,100), provide accommodation, and domestic transportation fee. The intern has to provide their own travel funds (approximately \$700 LA-Tokyo). Tokyo Gas, the major gas company in Japan, has a variety of research programs in Energy Technology, at

Save up to 35%

the Research Institute and Fundamental Technology Research Laboratory located in Tokyo. Qualification for this internship includes basic Japanese language capability. The deadline is **March 1, 1994.** For more information and an application, please contact Dr. Kayoko Hirata, Humanities and Social Sciences, 331A Baxter, x4210.

The Deans' Office is accepting proposals for the Monticello Foundation Internship and the Robert and Delpha Noland Summer Internships. 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 4, 1994.

The Charles G. Koch Charitable Foundation invites students to apply for its Summer Fellow Program in market-based public policy. The tenweek program, running from June 11 through August 20, will bring together 30 students from around the world to study market-based solutions to public policy problems and effective methods for implementing those solutions. Through research and writing projects, mentoring by policy professionals, work with experienced policy analysts, readings, and seminars, Fellows will learn about the issues, institutions, and skills of professional policy analysts. Fellowships include roundtrip airfare to Washington, furnished summer housing, seminar room and board, and a \$1500 stipend. Students interested in applying market ideas to society's most pressing economic and social problems should contact the Foundation immediately for a brochure and application. Deadline for application is March 1. To request a brochure or to recommend qualified students, write Summer Fellow Program, Charles G. Koch Charitable Foundation, 1401 I Street, NW, Suite 300, Washington, DC 20005; call (202) 842-4616; or fax (202) 842-4667.

Political Internship—The Beckman Internship will be available for the summer of 1994. The internship, supported by friends of Arnold Beckman, will pay a stipend of \$3600. It allows a selected intern to spend the summer working in the office of a politician and to see the inside process of government. The intern is expected to make arrangements with the appropriate political persons. It is open to any undergraduate who intends to be a Caltech student next year. If interested, submit a brief proposal describing where and how you would use the stipend, to the Deans' Office, 102 Parsons-Gates, by Monday, March 7, 1994.

Contact Lauren Stolper, Fellowship Advisor, Lloyd House, x2150 for information on the following fellowships and programs:

Women Grad Students may apply for an award of \$3000 given by L.A. Soroptimist International. Women in any field may apply. Applicants must be U.S. citizens and residents of California. The application deadline is March 1.

Attention Graduate Students—Graduate students with U.S. citizenship (permanent residents are not eligible) who need to do field work or research abroad in a country other than Canada or Western Europe may be interested in obtaining funding from a new program: the National Security Education Program Graduate Fellow-

The California Tech

ships. You will have to combine your research or course work with formal course work in the language of the country. (You need not have prior language training in this language.) For example, a physicist who wanted to do research in an Eastern European country, a biologist who wanted to do field work in South America or Mexico, or a geologist doing field work in Africa could benefit from this program. If you'd like more information contact Lauren Stolper at x2150 or e-mail Lauren_Stolper@starbase1.caltech.edu. Be sure to include you mail code on campus and phone in any communication. The deadline is March 1, so please contact me by next Tuesday if you are interested.

The Financial Aid Office has applications and/ or information for the following and *additional* scholarships. All qualified students are encouraged to apply. Our office is located at 515 S. Wilson, second floor.

* The Ebell of Los Angeles is announcing the competition for the Ebell/Flint Scholarship. Applicants must be U.S. citizens who are legal residents of Los Angeles County, must attend an accredited college or university in Los Angeles County, and must be registered to vote here if eighteen years of age or older. Applicants must be unmarried, full-time undergraduates and have a G.P.A. of 3.25 or above. Applications and all supporting documents must be returned to the Financial Aid office by April 22, 1994.

The John Gayles Educational Trust is offering financial assistance to Canadian and American citizens. Selected students will receive up to \$2500. A minimum GPA of 2.7 is required. Deadlines range from April to November. For an application, send a SASE (#10 envelope) to: The John Gayles Education Fund, Attn: R. James Cougle, Administrator, P.O. Box 4808, 712 Riverside Drive, Fredericton, New Brunswick, Canada E3B 5G4.

The Society of Manufacturing Engineers has four scholarship opportunities for a full-time manufacturing engineering or engineering technology major who has completed 30 college credit hours. The application deadline is March 1, 1994.

The Marin Education Fund is announcing the opening of their 1994–95 grant application process. To qualify for a grant, a student must be a Marin County resident, have low to moderate income, and be enrolled at least half-time in an approved undergraduate degree. Applications are available by calling the Marin Education fund at (415)459–4240. Applications must be postmarked by March 2, 1994.

The American Scandinavian Foundation of Los Angeles (ASF/LA) will distribute five \$1,000 scholarship awards to upper division and graduate students enrolled in accredited schools in the Greater Los Angeles Area. Students must have a demonstrated interest in Scandinavia. Applicants must have strong academic qualifications and must show financial need. Two letters of recommendation, appropriate transcripts, and the completed application are due by March 15, 1994.

SPIE—The International Society for Optical Engineering is once again offering scholarships for 1994. Applications may be made for the funding of any activity in the field of optics. They will be judged on the basis of the long range contribution which the granting of the award would make to optics and optical engineering. Awards WILL NOT be made on the basis of need. Applications must be received at SPIE Headquarters by April 1, 1994.

The Danville-Alamo Branch of the American Association of University Women is offering several scholarships, from \$500 to \$1000. Applicants must be female students from the San Ramon Valley, and must have a junior or senior standing in September 1994. For application packets, write: Mrs. Janet Lather, 703 Contada Circle, Danville, CA 94526. The completed application **must be postmarked by April 5, 1994.**

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