

Don't Vote

For the first time in many weeks, there will not be an election today. It was cancelled so the BOD can get more information about the Big T finances.

THE CALIFORNIA TECH



Volume XCI, Number 20

Pasadena, California

March 9, 1990

Honor System Talk

by Matthew Fetterman

On Friday, a panel including a lawyer, the Dean of Students, and present and former BOC members met to discuss the Honor System.

The topic that generated the most discussion involved the secrecy of the Honor Code. Here is what the participants had to say:

"I'd like to see abstracts of useful cases published in *The California Tech*. There seems to be a lack of understanding about what is a violation of the Honor Code. Students might not realize that stealing someone's door, walking on the roof, and not paying the rent are all possible Honor Code violations," said grad student Bob Sweeney.

"I don't see how publicizing cases would help," commented undergraduate Betsy Marvit. "Let's face it, if someone's going to commit, say, date rape, they're going to do it even if they're aware that it's an Honor Code violation." The audience laughed and applauded.

Undergraduate Cathy Hafer agreed that publicizing cases could be useful. However, she said that the names of the students involved should not be released. Releasing the names of the students would mean that, even if the student were innocent, his credibility would be damaged in the eyes of professors and students.

ASCIT President Dave Geraghty pointed out that in the United States legal system, names of juveniles are withheld, but names of adults are released. Why, asked Geraghty, does the Honor System treat us like juveniles?

"Because you are juveniles," the female staff member in front of me whispered to her friend.

"Next question," bellowed Professor Wales, the moderator.

Chris Brennan, Dean of Students, waved his hand. "Wait, I think that's an important question that Dave raises. Our Honor System is not really analogous to the legal system. The Honor System has two purposes: to counsel the student and to protect the community. The student has the right to keep interactions between himself and his counselor private. This is the motivation for not releasing the names of students involved in Honor Code violations."

"I agree that the names should be kept secret, to protect the defendants," said undergraduate BOC member Maneesh Sahani. "But I think publishing abstracts in *the Tech*, making sure to protect the privacy of everyone involved in the case, would be great. It would promote debate and thought, and it would keep students alert."

Panel members believed that the meeting was productive, and said that they hoped to have another such meeting soon.

The audience asked many questions, and seemed to enjoy the meeting. "This was a very good experience for me... it was the most I've thought about the Honor Code since the BOC talks," said one undergraduate. "The food was pretty good, too. I particularly appreciated the slice of cheese in the sandwich; it was kind of unexpected."



The Earth Has its Days

By Chris Dunn

April 22nd of 1990 is the date set world-wide for Earth Day, "a renewal of our commitment... to solving environmental problems," boasts Tim Brick, Pasadena's Earth Day Coordinator.

Residents of cities on all parts of the globe will show their support for the protection of Earth. Cities from all fifty states plan to participate. "EarthTech 90 Technology Fair" will be held on the Mall in Washington by the Environmental and Energy Study Institute to present to members of Congress and the media potential technological solutions.

Here in L.A. there will be events leading all the way up to Earth Day. The Arboretum in Arcadia will have an "Environmental Education Fair" on March 10th. On the 24th will be the "March for Parks" along the Arroyo Seco. Lectures, fairs, parades, and tree-plantings are being organized by cities, colleges, and environmental groups throughout the region.

Pasadena celebrates Earth Day one day earlier "because we want to be first," says Brick. On April 21st there will be the "Arroyo Seco Earth Festival" with bike tours, exhibits, health foods, entertainment, tree-planting, and other environmentally oriented activities.

This will be the twentieth anniversary of the original event, which germinated from Senator Gaylord Nelson's call in 1969 for an "earth day" of environmental

For High School Students

"Staying Dry," Mike Chou's "Archimedes' Principle," Matt Kidd's "Magnetic Lock-Pick," Golda Bernstein, Andre Yew, and Chris Ulmer's "Prisoner of Conscience," and Mary Rowe's "Guilty or Innocent?"

In the afternoon, individual competitions including "Egg Drop," "Paper Structure," and "Game Tournaments" were held. The day ended with a presentation of awards at 4:00 p.m.

concern. Twenty million people participated.

Twenty years ago, Caltech was "the place to be," according to Brick. Under the supervision of Caltech's Environmental Action Council, students and faculty staged a five-day ecology program, including an all-day teach-in on Earth Day.

An issue of Caltech News shows arches of black balloons signifying pollution, a student's face

nity members experiencing life inside an inflated plastic bag ("the home of the future"), and a pile of garbage representing three months waste from the average Los Angelean. Nothing on that scale will occur at Caltech this year.

Television viewers can find coverage of the larger events on a nationally syndicated package, or on KNBC, the official Earth Day station in L.A.



High School students work on their 'ditch day stacks.'

Ditch Day is Over

by Emily Wen

On Saturday, March 3rd, the First Annual Caltech Science Field Day was held. The purpose of the field day was to allow high school science students to have a hand-on experience on science projects.

The format of the field day was very much like senior ditch day in Caltech. There were twelve stacks prepared by Caltech students to challenge the high school students.

The students were divided into teams through lottery, and each team was to finish five stacks in the morning. The stacks were Ralph Lin's "Air Mail," John Avery and Willy Watson's "Measure for Measure," Eanna Flannigan's "How tall is Millikan?" Roy Wada's "Mystery Circuit," Tal Schwartz and Jimmy Hu's "Artificial Intelligence," Jin-ha Kim's "Name That Tune!" Bill Cross's "Puzzle Potpourri," Pongsorn Saipetch's

CRIME AND INCIDENT BEAT

- CRIME TIP:** A man identified as being in his late 20's, 6'0" tall, weighing about 160 lbs. and having long black or red hair with a bald spot in back was seen on campus last Tuesday attempting to or actually taking personal items. At the time he was wearing an aqua blue sweatshirt and red shorts. Persons seeing a man fitting this description should contact security immediately.
- 3/2 A Caltech security officer found the driver's-side window of a car parked on San Pasqual smashed. Security contacted the owner, an undergraduate, and advised him to park the car in the Caltech parking structure until the window was repaired.
 - 3/3 At 4:00 a.m., a student working in the Noyes subbasement heard a person trying to open the door of the room he was in. When the witness opened the door, the suspect looked surprised and walked off. A search of the building and grounds proved fruitless.
 - 3/5 Caltech security responded to a suspicious person call at 11:11 p.m.: two persons were seen entering Karman Lab. Investigation revealed that the two persons were custodians working special detail waxing floors.
 - 3/5 A suspect was seen inside a Beckman Behavioral Biology Lab office. Later, a victim discovered that money had been taken from her purse, which was inside the office.
 - 3/6 The man identified in the Crime Tip entered a Bridge room without knocking. He claimed to be looking for a waste basket so that he could throw away a can, but left immediately thereafter.
 - 3/6 The same man identified in the Bridge incident was observed in South Mudd going through a backpack. When a witness questioned him, the suspect bolted from the building, crossed California Blvd. and headed towards the tennis courts. Cash was stolen from the victim's backpack.
 - 3/6 At 10:24 p.m. a 150 S. Chester resident used a fire extinguisher to put out a fire in a trash bin.
 - 3/7 Reported missing were eight textbooks from a Thomas Lab office, stolen sometime during the past week. The victim didn't know if the door had been locked at the time of the theft.
 - 3/7 Reported missing from another Thomas Lab office were four textbooks, which the victim stated had been stolen about two weeks ago. The office door was not locked at the time of the incident. Total dollar value stolen this week: \$597.

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Letters

Hostility at Tech

To the Editors:

In recent letters, Mr. Langdale has expressed concern over the content of The Tech. He feels that it does not give a balanced view of life in Caltech. He and others should be more concerned with some of the problems at Caltech which The Tech reflects all too well.

Shocking as it may seem, the undergraduate community at Caltech is pervaded by a hostility to academic achievement. Are there any words with positive connotation one can use instead of "cut-throat" or "snake"? And these words are not merely relics assigned to the glossary of the little t. Witness the so-called "Ph12 Throat Society." Nobody at Caltech says to themselves, "I'm doing really well in this class, but if I study some more, I can get Joe Struggling Techer to fail, and then he'll get UASHed. Won't that be exciting!" But many undergrads seem to believe that such people are out there.

A more fundamental problem though is the way in which undergrads treat each other, particularly the way freshmen are treated. Freshmen initiations perpetuate themselves much the way child abuse continues from one generation to another. Freshmen are taken advantage of and forced into conformity at the expense of their dignity. What is so pathetic is that instead of standing up for themselves and their pride, freshmen cower in submission for a year with an attitude of "wait till next year, we'll get the new frosh real good." When next year comes, they take their frustrations out on the next class. Why don't you do something about it now? Create your own society and your own culture instead of simply accepting what others have done before.

What can be done about these problems? Getting rid of freshmen initiations is simple: just do it. This will go a long way towards alleviating some of the attitude problems mentioned above. Another senior this year said, "Frosh are by definition clueless." Of course they are. But instead of taking advantage of them and getting your jollies off of that, why don't you be a little more considerate and help them become less clueless.

Mr. Langdale worries about people drawing parallels between scenes in Tiananmen square and a picture in the Tech of someone urinating in public. A better comparison would be with pictures of blindfolded freshmen in the Big T and pictures of the arrested students after the Kwangju riots.

-Philip Nabours
Undergraduate Senior
Philip Nabours (nabours at ccoroa-da.caltech.edu) x3968.

No More Sexism

To the Editors:

I am getting very, very, very tired of seeing endless articles in *The Tech* about sexism and racism. It is true that these are issues worth talking about, but *must* we have a front page article about them every week?

-Sven O. Peterson
Undergraduate

Party Ads

To the Editors:

Caltech seems to have recently adopted a policy of actively recruiting the more "well-rounded" student, as opposed to the merely academically gifted. This is possibly the only recent policy change that has some welcome aspects; however, I know for a fact that more than a few academically talented, well-rounded students have chosen not to consider Caltech because of the frankly execrable quality of student life. If they are like many of my acquaintances, they have made that choice only after consulting a first-hand witness and, unfortunately, being somewhat forcefully discouraged.

Caltech is making necessarily slow but quite sure progress on many aspects of this problem. However, there is one aspect of institute policy that seems wildly at odds with this progress, and that if changed would certainly dampen the force of my, and probably many others', disparagement of Caltech student life: the outside advertising policy for parties.

The current outside advertising policy began to congeal when I was a freshman. Before that, Caltech parties had at least been worthy of the name; when I was doing some advertising for Interhouse at other colleges my freshman year, I got about as many "Gee, the most fun I ever had was at a Caltech party" as "It's a Caltech party, you know it's gotta be lame"s. Unfortunately, due to some advertising in inappropriate venues (in Pasadena shopping malls) by some overzealous people (all of whom are long gone), there were some ugly incidents at Interhouse that year that resulted in the first not-outrageously-overreactive outside advertising policy. Unfortunately, this policy did result in some most inopportune restrictions on advertising in utterly harmless places, namely other colleges.

The undesirable elements that were the cause of the incidents knew a good thing when they saw it, and so, as college advertising decreased, these elements became more and more prevalent. Caltech's administration, instead of reexamining its policies, reflexively tightened existing ones. The vicious cycle culminated in the party policy we know now, which resulted in, for instance, the express prohibition

of outside advertising at the recent Page-Ruddock-Blackler-Fleming party.

Worse than being useless, this "cure" is doing more harm than good. No outside advertising was needed for every high school in Pasadena and all its neighboring cities to know when interhouse was; the number of high schoolers hanging around the Caltech campus a week before interhouse asking when it was was nothing short of phenomenal. Thanks to this policy, interhouse is now recognized as the best high school party in L.A. county. Even this year, there were a significant number of high schoolers inside the gates; the only non-Caltech college students I spotted with certainty could evidently recognize a high school party when they saw one, and quickly left (after a few drinks, of course). True, I did not see any ugliness at interhouse as I'd seen in the previous two years, but since there was essentially no outside advertising two years ago and identically none last year, that can only be attributed to the gate, and not the policy.

Outside college students do not cause trouble. As a whole, they know how to handle alcohol, they are mature enough not to get into fights, they certainly do not stab people or mace security guards. Further, the presence of a large number of college students might discourage the less mature high school students who get through the gate. Even from the security aspect, much good can come from outside advertising at colleges.

The gate this year helped (but certainly a far from complete job) in ridding interhouse of the "high-school party" label. Possibly we could have a party soon that is actually a college party. We need only one outside advertising restriction: **Outside advertising may occur only at colleges.** Restricting advertising at colleges fundamentally compromises the best interests of the administration, the students, and the security guards on duty. Removal of this restriction would perhaps even elevate Caltech parties to a state worth the name, thereby removing a major gripe about student life and a major barrier to recruitment.

Sincerely,
-Gordon Pioreschi
Senior, Page House

Christian Cynics

To the Editors:

I am writing regarding the Dabney contribution to the 'Inside World' of 23 February, specifically the reference to the crucifix and the origins of Christianity. [Ed. note—the reference was actually in the *Ruddock Inside World*—the Darbs are innocent this time.]

As a Roman Catholic, I am a believer in the 'religion whose main symbol is a guy nailed to a cross.' The scandal of the cross is as old

as Christianity itself: the New Testament already contains references to the rejection of Jesus as Messiah due to His ignominious death. So, coming from someone who is evidently not a Christian, the statements are understandable, though hardly original. While I find them sacrilegious (something the writer, 'cynical', wouldn't understand), they also offend my intellectual sensibilities. Does 'cynical' often wander into graduate courses in various departments and spout off hills ill-informed opinion on the subject matter being taught that day? I would tend to bet not. Any act of such intellectual hubris would be the closest thing to heresy that this campus knows. So why, 'cynical', do you take it upon yourself to subject us to your facile opinion on the mystery of the cross?

Fundamentalists are often criticized (and rightly so) for proclaiming themselves authorities on matters of which they are ignorant. Well, 'cynical', count yourself among them, and in the future, stick to what you know best—which isn't, by the way, eschatology.

In Christian charity,
-Matt Gursky
Graduate Student

Security, x4701

An Open Letter:

I was in Blacker courtyard, walking back to my room on Saturday night about 1:30 am, when I saw two guys I don't ever recall seeing before. One was riding a small bike that seemed way too short for him, and as I watched, the other guy went over to another bike, got on it, and both started to ride away. There was no one else in the immediate vicinity, so I followed them a ways. I thought of asking them some obvious question, like the location of the MOSH's office, or where Blacker lounge was to stall for time and collect my thoughts, but I was too indecisive. They rode away at a leisurely, and perhaps hasty pace, laughing to one another and speaking in a foreign language, and bicycled off to the east side of Ruddock.

I pondered the situation for a moment as I watched a Caltech Security truck, which had been parked with headlights on in front of Page, start up and drive away, but in the other direction. I got to the nearest phone in Page and dialed 5000. (I did not even know the correct phone number to call!) They told me to call x4701, which I did, and described the situation to Security.

The intent of this account is to point out how feeble I was in this situation. I found myself thinking that perhaps these were just obscure Techers (and maybe they were), but I fear it is more likely I will read in this Friday's Crime Beat: "3/4 1:30 am Two bikes sto-

len from Blacker (or Ricketts). Security alerted, but no suspects found." I keep thinking that if I had only been better prepared, I would have known better what to do in this situation and more could have been done. We all know in an earthquake to dive under tables or stand in doorways, but in situations like this, we are but novices. I know you can think of actions that would have been better to take in this situation, since I have thought of many since, and obtained much constructive criticism from friends. Situations like this infuriate me, and I hope you will take out a moment right now to see what you would have done, and in the event you find yourself in similar circumstances, you will know what to do immediately!

-Infuriated Page Boy

THE CALIFORNIA TECH

Volume XCI • Number 20
March 9, 1990

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Pasadena, California 91125

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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 literacy, expediency, or else.

Turn in copy (preferably in WordStar format on an IBM-compatible floppy disk) to the Tech mailbox outside SAC room 40 or through the Network email to TECH Iago. Caltech.edu or TECH CITIago. The deadline for copy is Wednesday at noon; for announcements, Tuesday at 5 P.M.

Subscription requests should be directed to the office manager. Subscriptions are \$3.50 per term, \$9 for one year, \$17 for two years, \$24 for three years, and \$30 for four years. Life subscriptions are available for \$125.

Printed by News-Type Service, Glendale.

ISSN 0008-1582

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ASCIT MINUTES
of the meeting on March 6, 1990

Present: The BOD minus Jason MacLeod, Jennifer Remine, Steve Hwan, Steve Harkness, Matt Fields, Alecia Chen, Emily Wen, Marty O'Brien, Paul Socolw, Andre Ohannissian, Chris Campo, Jerry Hauck, Chris Goddard, Gary Eastvedt, Bappa Mukherji, and our special guest: Chris Brennen.

Lloyd-Blacker Broomball: Jen Remine announces Lloyd-Blacker broomball this Saturday at midnight and gets \$200 out of this quarter's social budget.

Election Procedure: Jerry says there has been a lot of discontent over the way the bylaw elections have been run. In the future try to publicize upcoming elections more, posting both old and proposed bylaws so people can contrast the two without having to get out their *lytle t*, and include at least some information on why this change is being proposed. Specifically related to the upcoming election on the proposed raise of Big T charges, everyone votes down an increase in dues unless their is a very good reason not to. Alecia needs to write a convincing statement for the Big T charges increase for this week's *Tech*. Paul Socolow, in a stunning move, will be temporary election chairman for this Friday's bylaw election. "Who needs Jon Hamkins?"

ASCIT Meeting Times: To make it easier for interested faculty-type people to come to ASCIT meetin, starting next term, the BOD will have one meeting a month between 8 a.m. and 5 p.m. Schedules of interested faculty will be compiled to find an appropriate time, which will be announced later. The ASCIT BOD promises to clean up the foul language spewing from President Dave Geraghty's mouth for these special meetings.

Big T: Alecia brings this year's budget. On the proposed budget, the Big T is projecting a loss of

\$2100 this year. Pam: "Are there any ways to cut costs?" Alecia: "Right now the yearbook has 288 pages with 2 color sections of 16 pages each. We could either eliminate 32 black and white pages decreasing the book size to 256 pages, or change one of the color sections to just normal black and white keeping 288 pages." The yearbook staff doesn't really want any cutbacks but will if necessary to help the book break even.

MOSH Notes: The MOSH is getting mad that people drink his pop every Tuesday night, so stop doing it! One of the few quotes coming out of Dave's mouth that was printable, "Bill, don't drink the damn pop!"

ASCIT Van: Aimee needs a car to get food for meetings, she'll take the ASCIT van. People who get tickets in the ASCIT van will first get a notice that their account is being charged for the ticket, while ASCIT will pay for the ticket directly and will handle the paperwork, with a possible 100% processing fee tacked on.

ASCIT Copier: Milly in the SAC is sick of people hassling her about cards and fixing the copier. Since Millikan and the ASCIT copier are on the same system, everyone could buy their cards at Millikan. This action will simplify billing, while still retaining the same number of hours for copy card purchase. If the ASCIT copier breaks bug Bill Swanson (578-9562), not the women in the SAC. A notice detailing these changes will be posted above the copier. Sonny: "Could we use our student account numbers, like in Thomas?" There is too much access to the ASCIT copier, too much chance for the system to be abuse by peopl just typing in 90xxx.

Tailgate Party: Chris Goddard is here for Page to be reimbursed \$60 for the tailgate party out of this term's social budget.

The California Tech: Discussion of the proposed new compensation schedule. The *Tech* editors want to postpone discussion for a week, because they did not have adequate time to look it over. Sonny says he showed the editors, Emily says, "You didn't say anything." There is confusion over what the jobs of business manager and advertising manager entail and it seems some of the salaries may be excessive. Sonny seemed convinced of the soundness of his figures, and will bring back more information on the first meeting of next term. Anyone wshing to see a copy of the proposed compensation schedule, contact Mark Lyttle at 356-6828.

ASCIT Thanks: The Caltech Y sends a letter of thanks for ASCIT's funding of the upcoming Tom Deluca event in May, and Tom Everhart sends a letter of thanks for ASCIT's funding of TACIT. The upcoming lecture "Communism in Crisis: Movement Toward Democracy in Vietnam" that ASCIT approved funding for has been postponed from March 6 until sometime in April because the speaker, Mr. Vo Van Ai, has been unable to get a United States visa due to a new law restricting the availability of U.S. visas to Vietnamese refugees born in Vietnam.

Upcoming Topics: Round III: Sonny Arcilla vs. The ASCIT BOD: more discussion of the *Tech* compensation schedule, Signups for appointed offices will go up the first Tuesday of next term. Discussion of resolutions concerning appointed offices. The next meeting of the ASCIT BOD is the first Tuesday of next term at 10:30 p.m. in the MOSH's office. All are welcome and there is free food and drink.

NOTE: At the time of the ASCIT meeting, the plan was for the Big T bylaw change was to be voted on Friday, March 9, but this election has been postponed until sometime third term.

Beckman Internship

by Mark Fey

The Beckman Internship is an annual award designed to encourage Caltech students to explore a field that is often overlooked by Techers—the field of politics. The internship offers a \$2600 stipend to a student working for the summer in a politically-related job. Any student who will be attending Caltech in the fall is eligible to apply. The student may find his own job, or may obtain assistance from the school in locating a suitable job. The job may be located just about anywhere, on Capitol Hill in Washington D.C., locally in a state, county or city office, or in your hometown. I even spoke with a past Beckman Intern who worked in the British Parliament while spending the summer in London.

I received the Beckman Internship for the summer of 1989, and worked full time in the District Office of California State Assemblyman Richard Polanco. Assemblyman Polanco represents the 55th District, which includes parts of Los Angeles and Pasadena. He is very active in the Democratic leadership in Sacramento and has several important committee assignments.

One advantage of working at the state level as opposed to working for a national congressman is that I was able to try my hand at everything a staff aide does, as well as working on a large project that I chose. My main responsibility was constituent casework. Oftentimes, people call or write the Assemblyman to get help in dealing with a state agency, such as the DMV or the Franchise Tax Board, or to express a position on upcoming bills or issues. I served as a liaison between the constituent and the state agency; identifying the problem or concern, deciding which agency was appropriate to

contact, cutting through bureaucratic red tape, and solving the problem. For example, I became the office expert on consumer affairs problems and was able to help people with concerns about faulty repairs and used car "lemons". In one case, I was able to help an elderly woman get her TV fixed in two days, after she had waited for three months to get it repaired.

In addition to doing casework, I performed tasks such as writing position papers and letters to concerned citizens, and tracking legislation of importance to the Assemblyman's constituents. For instance, I helped author an informational pamphlet on the dangers of household chemicals, especially around children and pets, and wrote letters about the potential effects of the governor's cuts in the family planning budget.

I also was able to work on a project of my own, which involved analyzing the Assemblyman's vote returns from the 1988 election. I broke down the returns by precinct and analyzed geographic, socioeconomic, and voter registration effects. I was able to present my ideas on a map of the district and made suggestions as to the Assemblyman's campaign strategy.

The Beckman Internship offers a chance to explore what is probably a new field for most Caltech students. If you've ever thought you would be interested in a politically-related job, you should think about the Beckman Internship. Feel free to call me at 577-4270 or the Dean's Office at x6531 for more information.

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 April 9, 1990.

Olive Walk Poll

by Joseph Chiu

Question of the week: *Do you support Malathion spraying?*

Undergrads responded with 5 saying yes, 11 saying no, 2 with mixed feelings.

Grad students gave 5 yes, 5 no, and 1 mixed.

Faculty and staff responded with 13 yes, 16 no and 4 mixed.

In answer to this week's question, no one responding to the survey replied with an "I don't know." While most of them responded with a yes or no, some people have strong, mixed feelings about the use of Malathion in bug-eradication. Yes, it's a nuisance, but how else are you going to get rid of the flies? Car owners, for obvious reasons, did not like Malathion spraying, while those living outside of spraying-affected areas tend to support it. By the way, it seems to this reporter that car covers have increased in popularity the last few months.

Some not-so-verbatim quotes:

I'm a So. Cal. native, and I've seen them tackle the pest for years. I want the problem solved, but I'm also a car owner and an environmentalist.

Tastes great! (Uhm, the apple—no, really!!!) (Some random Lloydie...)

The SURF-ers say NO! (This said by three wonderful women...)

F--- no! It oxidizes the paint on my car! (This respondent was very emotional about the issue)

Some official on TV said there's a two to three per thousand chance of cancer. At that rate, I don't want it.

It gets all over my car. The fruit fly needs to be eradicated!

Hawaii loses 80% of their crops from worms. All they can grow there are pineapples because of that. (A faculty member, with an air of confidence...)

Y News Five Year Checkup

By Chris Dunn

Every ten years Caltech endures the scrutiny of the Western Association of Schools and Colleges (WASC). Next week, Caltech receives its five-year checkup. A visiting team of administrative officers, led by Georgia Tech President John P. Crechine, will evaluate the Institute's response to previous recommendations and may devise some new ones.

"Reaffirmation of Accreditation," assembled by Vice Provost David L. Goodstein with other members of the accreditation committee, outlines efforts to satisfy the recommendations, which address issues of minority representation, student attrition, and undergraduate research.

While accreditation might seem to be assured for a highly regarded university, WASC takes the recommendations very seriously.

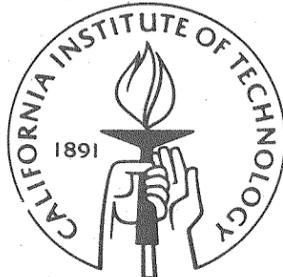
Gary Lorden, head of the accreditation committee, explains

that accreditation is "not just a quality validation" and cannot be taken for granted.

However, says Lorden, the process is not adversarial. He calls self-examination an important element.

WASC avoids direct interference in academic administration, and declares only general dicta, for example "Thou shalt not be too specialized," as Lorden says.

The visiting team will conduct interviews next week. One hopes that, if any exaggerated denigrations should be voiced by students, the team will consider the timing of its visit.



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Deluca is coming!
Finals already? Good luck! Don't forget to take a break and come to Decompression on Saturday and Sunday nights (8:00 to midnight).

So. You want Noon Concerts to continue? Our new ASCIT President finds he won't have time to do the Noon Concerts (or at least won't enjoy it?). If you want to help out, contact the Y or Dave Geraghty.

Spring Break. Sun and sand or snow and skiing? The Y is sponsoring two spring break trips. The three day trip to Palm Springs will cost just fifty dollars for students. There will also be a trip to Mammoth. Signups are in the Y, as is more information.

Tickets. Reduced admission tickets are available at the Y. Current ticket deals: L.A. Philharmonic tickets are being offered at a cost of \$5. Available dates are March 10, 14, and April 1, 6, 22 and 27. **Just \$2 for the 8:00 performance on Saturday, March 24.** Ticket services for movies and other events will continue during Break.

Y Hike. (You loved it and want to relive your past.) The Caltech Y is looking for leaders for the 1990 fall hike. Stop by the Y to sign up, and for more information.

The Caltech Y is located on the second floor of Winnett Student Center (the building where the bookstore is). Phone x6163.

LAEMMILE THEATRES

<p>ESQUIRE 2670 E. Colorado Blvd. (818) 793-6149</p> <p>5 Academy Nominations</p>	<p>COLORADO 2588 E. Colorado Blvd. (818) 796-9704</p> <p>3 Academy Nominations</p>
<p>MY LEFT FOOT</p> <p>Daily 5:45, 8:00, 10:10 p.m. Sat-Sun matinees 1:00, 3:30 p.m.</p>	
<p>Kenneth Branagh's HENRY V</p> <p>Daily 7:00, 9:45 p.m. Sat-Sun matinees 1:20, 4:10 p.m.</p>	

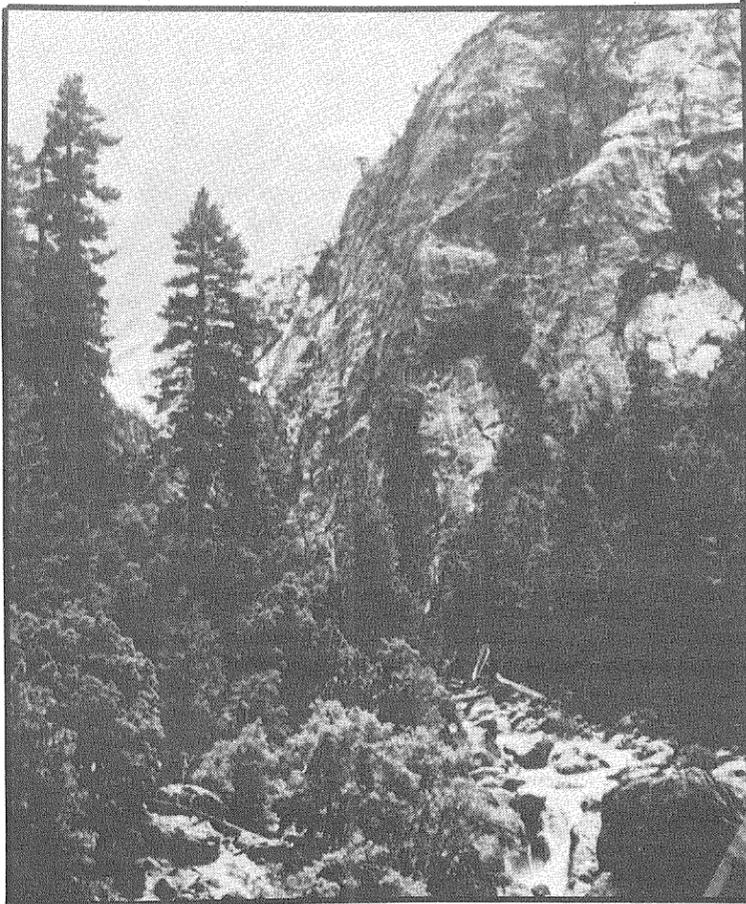
Earthquake, News Crews hit Caltech

By Joseph Chiu
Underground, in the office of the Keith Spalding building, a fishing weight hung from the ceiling of the office of Earl Reider, the G.A.F. printing supervisor. As the workday approached the end, this room suddenly rolled about. A few workers in the corridor panicked and ran around. It was 3:43, Wednesday, February 28. An earthquake had hit. "See that up there?" said Earl pointing to the now swinging fish weight, "That's my earthquake detector."

As people began to evacuate the Keith Spalding Building (which, coincidentally, is undergoing structure reinforcement for quake proofing), news vans and reporters flocked to the Mudd Laboratory where seismologists busied themselves to analyze the latest quake. The office, cramped with Helicorder quake detectors, became even more cramped as camera crews routed cables, lights, and cameras.

The first question on everyone's mind: "Where, and how big?" Giving the usual disclaimer of not having analyzed all data, Kate Hutton gave the preliminary data: a 5.5 quake, three miles north-west of Upland, with some aftershocks. There also was a foreshock at 12:37 that morning, and the quake was felt widely over Los Angeles.

Other seismologists were busy at work, like Steve Bryant who was working on data coming in from the over 250 stations connected to the U.S. Geological Survey monitoring network. To give them room to work, a "press conference" was held out in the hallway where Ms. Hutton gave additional information on the quake. She reported that the quake was a "part of the frontal fault system", but refused to confirm specific fault lines. She also said that the quake appeared to be a "pretty normal" quake, but that it was too early to tell whether it was a "textbook example". And contrary to popular belief, the earthquake was not caused by the warming "earthquake weather", pointing out that the quake originated five miles below the earth's surface.



Don't Pollute

by Linda Salzhauser
FACT: Southern Greece and Italy have not had any rain for the past eight months. Is the Sahara moving north? Is the "Greenhouse effect" becoming a visibly increasing danger?

Now that such effects are threatening our lives, people are finally realizing the importance of conservation. We cannot use this planet to death anymore.

Tips for lowering air pollution:
•Recycle
•Carpool, and use the air-conditioning in your car as little as possible.

•Choose paper over plastic when shopping—avoid all goods wrapped in plastic whenever possible.

•Buy non-aerosol sprays.
•Buy in bulk instead of "convenience" sizes. This is hard for students sometimes—collaborate with friends.

On Wednesday, January 17, the Caltech Environmental Task Force was formed. It aims to design programs that will make it easier for the Caltech community to have a

more environmentally conscious lifestyle, and to encourage the administration to adopt policies that enhance both the local and the global environments. The CETF meets every fourth Wednesday at noon in Clubroom 1 of Winnett Center. The organization is subdivided into four groups—resource conservation, transportation, recycling, and education. Each of these groups is designed to address a specific issue, and also meets during different times during the month.

This column will now be appearing regularly in *The Tech*. If you wish to take an active role in helping to combat our local environmental problems, the dates and times of meetings will be announced here. Any involvement would be appreciated, of course, but this column will also serve to inform the Caltech community about what can be done on an individual level to help slow down, if not reverse, the damage that is being done to our world.

March 8—transportation group meeting—contact Riley Geary at x6946, or mail code 252-21.

March 16—general meeting, 12 noon, Clubroom 1.

If you have general questions or have ideas about environmental issues at Caltech, please contact: Caltech Environmental Task Force, 140-58.

Chairman: David MacKay. x6114. E-mail: mackay@aurel.cns.caltech.edu.

Vice-chairman: Ben Discoe. 564-0962. E-mail: bdiscoe@byalt. Mail code 1-60.

If you have any important facts that you would like to see published in this column, please contact me. Linda Salzhauser, 577-6860, mail code 116-81.

SEDS Takes Off

JPL TOUR
The first 80 students to sign up will be taken on a tour of the Jet Propulsion Laboratory on Friday afternoon, April 27. The tour will include bus transportation, a multi-image show about JPL, a flight projects update, a special speaker, and a tour of the space flight operations facility, spacecraft assembly center, and the spacecraft exhibit area. Priority will be given to SEDS members. FREE.

PALOMAR OBSERVATORY TOUR

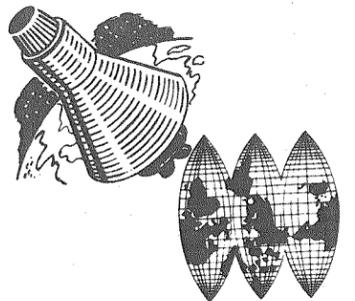
On Saturday, April 14, up to 100 students will be given a behind-the-scenes tour of Caltech's Palomar Observatory. We are planning on leaving at 9am and returning by 6pm that night. Current plans are to carpool up, but if there is enough interest we may be able to obtain bus transportation. Lunch not provided. Gas will be paid for carpoolers, and the trip is FREE for carpoolers.

CALISTO UPDATE
James Maxwell, chairman of the CALISTO (Caltech Interdisciplinary Shuttle Transport Organization) committee, will be giving an update on recent developments in the committee. The committee is currently considering designs for four experiments to be flown on the shuttle.

DOWNEY ROCKWELL TRIP

Rockwell International's Downey plant holds an open house on the last Friday of each month, and Caltech SEDS will be carpooling on April 27. The open house includes a multi-media presentation, a tour of a mock space shuttle, and other space-related exhibits. FREE.

SEDS is a relatively new organization on campus open to all members of the Caltech community. Again, all of the above activities are open to members and non-members. Sign up soon, as space is limited for each of the events. If you cannot attend the meetings and would like to sign up for one of the activities or have questions regarding any of the SEDS activities, call Sonny Arcilla at 577-4423.



Supercomputing Seminar

by Peggy Olsen
Gray Lorig, Computer Animation and Graphics Specialist with Cray Research, Inc. will be the speaker for this month's Supercomputing Seminar Series to be held on Wednesday, March 14 in the JPL von Karman Auditorium from noon to 1:30 pm.

The title of Mr. Lorig's presentation will be "Supercomputers and Their Evolving Role as a Tool for Computational Investigation." This talk will examine the history of visualization on Cray supercomputers as well as both current practices and future trends. The story of computer graphics on such systems is primarily one of networking and workstations for these two components have drastically improved the ability to make information accessible to the user. Therefore, special attention shall be paid to the future of distributed applications and the schemes they may employ.

Mr. Lorig received both his BS and MS in Computer and Systems Engineering from the Rensselaer Polytechnic Institute where he later served as a research staff member within the Center for Interactive Computer Graphics. He has lectured extensively both in the U.S. and abroad on the subject of scientific visualization. Lorig's interests center around the presentation and manipulation of scientific data in visual form both as a postprocessing operation and as an integral part of the computational process. He has worked in a range of different disciplines from computational chemistry to structural analysis.

Boffo-Bonecrusher II Results		
Game	Teams	Result
1	3 vs. 4	4, 1-0
2	5 vs. 6	6, 1-0
3	7 vs. 8	8, 3-2
4	1 vs. 2	2, 2-0
5	9 vs. 10	tie, 0-0
6	2 vs. 3	2, 2-1
7	4 vs. 5	4, 2-0
8	6 vs. 7	7, 3-0
9	8 vs. 9	8, 3-0
10	10 vs. 1	1, 2-1
Semis	8 vs. 7	8, 3-1
Semis	2 vs. 4	2, 2-0
Final	8 vs. 2	tie

Team Names

1. Club Homeboy
2. "I don't know"—Chris Goddard
3. The Samantha's
4. Damn Scurves
5. Team With John Krowas 1st
6. Roadkill
7. "Free Beverage"
8. Sinister, Icy Broomball Team of Death
9. Team with Delwyn 1st
10. The Brutes

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Thuncan by P.M.

SEPP Lecture: DNA Fingerprinting

by Ali Mortazavi

An increasingly common application of modern molecular biology and genetics in society has been the use of "DNA fingerprinting" as forensic evidence in courts of law. Can we trust the claims of quasi-infallibility that are routinely stated by its proponents? Should new technologies be accepted as evidence in courts of law? This was the subject of Dr. Eric Lander's Human Genome lecture on Wednesday, March 7th.

After a brief overview of the coming of age of genetics in the 80's, Dr. Lander discussed the application of cutting-edge scientific technology to criminal investigations. In theory, it should be straightforward to take some sample found on the scene of the crime (blood, hair, semen, etc. . .) and compare its DNA with the DNA of the suspects: if there is a mtch, then you have proof of who committed the crime. Varied claims of the accuracy of the technique range from 1 in 10,000 to an impressive 1 in a 100,000,000 for a false-positive match.

Real life however is messier. The DNA sample is often available in only minute quantities and usually not in the best shape. One can assume that the environmental damages have not been too great, but this noticeably decreases the reliability of the test. Furthermore, it is not possible to conduct more than a couple of tests because of the scarcity of the evidence: there is no way of reconducting the lab analysis if need to be.

This is significant, for incautious handling and record keeping of the laboratory results have already caused false-positive matches to be declared. The common problem of bandshifting (when uneven salt concentrations causes one marker band to travel down in the gel faster than another one) only makes the task of deciphering the

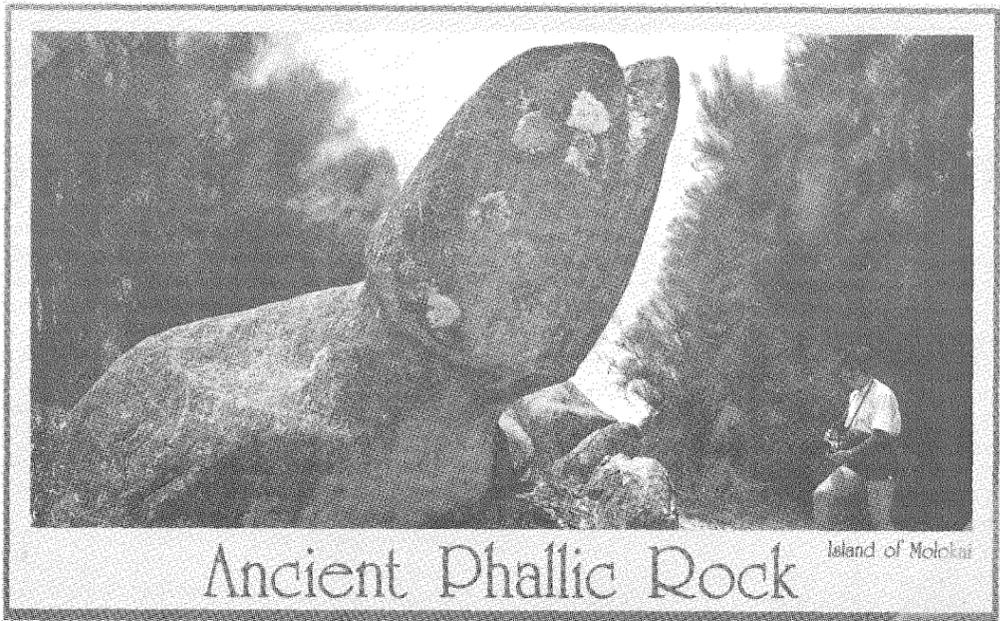
results harder.

There is the more subtle, yet crucial, problem of the distribution of genotypes (e.g. the markers used in the test) in society: their frequency varies according to geographical location and racial composition of the pool. A marker that could be rare (a good test for a match) in one location, could be common somewhere else. . . .

Lander expressed both great concern and excitement about the use of the technique in courts. Jurors tend to take the statistics assigned to the match as an unflinching proof of guilt or innocence, without taking note of how unreliable the tests really are at this time. In a larger context, the dilemmas posed by DNA fingerprinting are typical of the complexity of technological transfer to nonscientific areas of society such as the judicial system.

At the turn of the century, the Supreme Court set the Frye standard, which states that expert advice is usually taken only if the views expressed are widely accepted in the scientific standards, should it be banned from use until it becomes more reliable? Dr. Lander believed that DNA fingerprinting's ultimate advantages (i.e. proving tangibly that someone is guilty or not) outweigh any current concerns over its reliability. He finally envisioned a not-so-distant future when our DNA code would become the equivalent of our Social Security card. He advised the large audience to think about the safeguards that should be put on the possible uses of such private information.

Dr Lander is a member of the Whitehead Institute at MIT as well as a faculty member at Harvard Business School. The Human Genome lectures are a monthly component of the Science, Ethics, and Public Policy seminars given on a weekly basis on campus.



Ancient Phallic Rock Island of Molokai

One of the less sexist pictures of Hawaii we had.

Fish throw Frisbees in Hawaii

by Fru Fringehead

Two weeks ago on a particular weekend the Caltech Ultimate Machine travelled the glorious path to the Hawaiian Islands to get their kick ass in ultimate. Well, not quite. Really we went for the babes and the sun but we did play some disc.

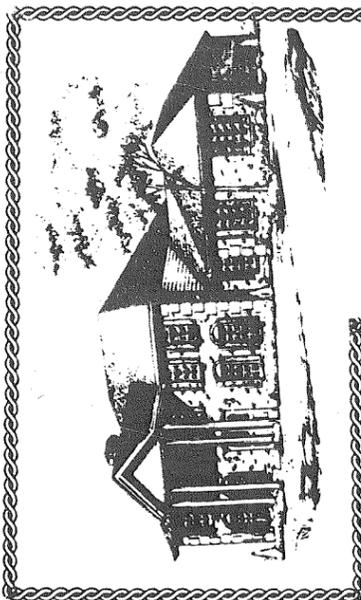
The team, which consisted of teachers, JPL'ers, and people from the Pasadena Club, decided to use

the name of an actual fish: The Sarcastic Fringehead. With specially made shirts they loaded their discs and tanning oil and went of to Hawaii.

While in Hawaii, we participated in two tournaments. The first was the 3rd Kaimana Klassik and went on for two days. The first day, the Fringeheads went up against four Hawaiian teams: The Hulaguns, The Home Boys,

University of Hawaii, and a team from Maui. We lost in a very close game to the Hulaguns but won the other three.

The second day didn't go quite as well and we lost to Palo Alto, which disqualified us. The second tournament was more carefree and we just played for fun. Altogether, a fun time was had by all involved and I encourage anyone interested in Ultimate to pursue their interest because it's the Ultimate sport.



by Nancy Carlton

Students should remember that for reasons of health and sanitation, students must register pets with the Housing Office. There is no fee to register a pet. Owners will be responsible for any damages caused by their pet. Pet food should not be kept in public areas, hallways, or kitchens, but maintained

in pet owner's room. If a pet brings fleas into student's room, apartment or house, student will be financially responsible for spraying services handled through the Housing Department.

And, pets are *not* allowed in Braun, Marks or the Catalina Complex.

- D** TIME: 8:00 to Midnight
- E** DATE: March 10 & 11 (Sat. and Sun.)
- C** PLACE: Winnett Lounge
- O** COST: FREE
- M** WHAT: Dating Game (Saturday at 8:00)
- P** Movies
- R** Food (lots of)
- E** --chili
- S** --hamburgers & hotdogs
- S** --desserts
- I** --bagels & cream cheese
- O** --fruit
- N** --beverages

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features

Predicting a Caltech Undergrad's GPA

by Kin Ha

The question of what determines one's success at Caltech has always intrigued many people, and each of them probably has his or her own theory as to what the important parameters are in the equation. Rather than appealing to the intuition, I have undertaken a statistical study on the phenomenon. The accumulative grade point average (GPA) will be used as a measurement of one's success at Caltech. The data was collected by survey early in April of 89.

The Model

The sample was made by selecting every fifth student from an alphabetical list of all currently enrolled undergraduates. The roster was published by the Registrar office on January 01, 1989. There were about 800 undergraduates. About 35 of the selected students were freshmen and thus were excluded from the study since they have not yet had GPAs. Of the remaining 130 students, only 79 of them responded. The others either left Caltech or did not respond. This sample is about 10% of the current undergraduate population.

The variables used in the analysis are: SAT scores, achievement test scores, high school GPA, high school rank, public or private high school, one's citizenship, one's gender, one's participation in extracurricular activities at Caltech, and lastly, one's Caltech GPA.

The student's GPA is analyzed by an ordinary least squares regression according to the model

$$\text{GPA} = C_0 + C_1 \cdot \text{SATV} + C_2 \cdot \text{SATM} + C_3 \cdot \text{PHYS} + \dots + C_{14} \cdot \text{EXTRA}$$

where $C_0, C_1, C_2, C_3, \dots, C_{14}$ are constants.

The Findings

With this model, here are some of the findings drawn from the analysis:

1) SAT math and Math Level 2 achievement tests play very important roles in the equation of predicting a student's GPA at

Caltech. Indeed, they have the two highest coefficients of all the standard tests. A difference of one hundred points in either SAT math or Level 2 Math achievement tests between two students can mean a difference between their GPAs of 0.4. This is expected because many courses at Caltech are taught with a lot of mathematics involved, be they in physics, chemistry, engineering, or economics.

2) Physics achievement tests do not have as much of an impact on a student's GPA as mathematics. A possible explanation is that the physics being tested in the Physics achievement tests is more physically oriented, whereas many Caltech courses are more mathematically oriented — a quite different approach.

3) Chemistry, Biology, and Level 1 Math achievement tests are not statistically significant in predicting a student's GPA. Aptitude in the materials covered in those three tests have no bearing on how well a student does at Caltech. Possible explanations can run as follows: Although high-school biology entails an enormous amount of reading, the material is relatively straight-forward. Since many courses at Caltech require more than just hard work, aptitude in high-school biology may not be a very good indicator of one's ability to handle the work at Caltech. In regard to the Level 1 Math tests, those who take them probably have not been exposed to more sophisticated mathematics in their high school education. Some of them, after coming to Caltech, are able to keep up with those who have had the materials before; others may not be as successful. Therefore, Level 1 Math is not a very good measurement of one's ability to succeed at Caltech.

4) Strangely enough, SAT verbal has a negative coefficient. This implies that it has a damping effect on a student's GPA. The analysis

shows that if a student scores 100 additional points in the SAT verbal section, he is likely to have 0.2 lower GPA. One may speculate that those who score high in SAT verbal are likely to be more diverse people than others and engage themselves in more extracurricular activities, and thus ending up with less time to devote to their study. But this explanation is not supported by the analysis because the variable for extracurricular activities has been controlled. Another speculation may be that it is the foreign students, the majority of whom do not score very high in the SAT verbal section and yet have higher GPA than the mean, that gives rise to this damping effect. But this, again, is not supported by the analysis because when the regression is run with the foreign students excluded, the coefficient of the variable is still negative and retains its statistical significance. A possible explanation may have to do with the dichotomy between the left and right brain.

5) Because of the negative effect of SAT verbal scores, one may expect that English achievement tests would also have a damping effect on a student's GPA. But the study shows that this is not the case. A possible explanation is that the SAT verbal section is designed to test one's word power and reading comprehension, and English achievement tests are designed to test one's understanding of English grammar and sentence structures, the former being associated more with the familiarity with the language, whereas the latter associated more with its mechanical structure. Since the methods of trying to apply rules in analyzing sentence structures is to some extent quite similar to the techniques applied in mathematics and science, it may not be quite a surprise to see that the coefficient for English achievement tests is positive.

6) High school GPA has little bearing on a student's success at Caltech. The reason is that the level of difficulty fluctuates a great deal from school to school. A 4.0 student at one high school can be just a 3.0 student at another. Thus, high school GPA is not a good indicator as to whether one is likely to succeed at Caltech.

7) On the other hand, high school rank is by far a better indicator of one's ability to succeed at Caltech. Indeed, it is the most significant of all the variables. The reason may be that it is tougher to be a valedictorian in a class of 500 than it is in a class of 100 even if the level of difficulty in the larger school is less intense.

8) As expected, the coefficient for the variable of extracurricular activities is negative, and thus it has a negative effect on a student's GPA.

9) In contrary to the general belief, male students are indeed likely to do worse than female students.

10) Mean GPA = 3.2 with the standard error of 0.5

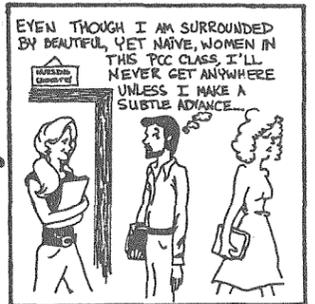
Mean SAT verbal = 657 with the standard error of 83

Mean SAT math = 752 with the standard error of 37

Acknowledgements

I would like to take this opportunity to thank the following people for their effort in helping me to get their house members to fill out the survey: Barry Lino, Jim Coykendall, Curt Hagenlocher, Susan Howard, Brian Patterson, Richard Reid, and Peter Wenzel. I would also like to thank those who took the time to fill out the survey.

Thuncan by P.M.



WRITE FOR THE

NEITHER SQUARE-EDGED SQUIRRELS NOR STRETCHY STREETCARS Natural vs. Human Design

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A world authority on biomechanics

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Dr. Vogel is the winner of the first annual Irving and Jean Stone Prize for science writing for his book *Life's Devices: The Physical World of Animals and Plants*. Jean Stone will present the award prior to the lecture.

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Million Dollar Mathematics Grant

(OPR) Caltech has received \$1,060,778 from the National Science Foundation (NSF) to support Project MATHEMATICS!, a nationwide effort that is producing a series of computer-animated videotapes for high school classrooms. More than 4,000 schools are using the first module, "The Theorem of Pythagoras."

A new NSF grant of \$684,325 for the year 1990 augments an earlier award of \$376,453 for the six-month period from July to December, 1989. Project MATHEMATICS! had earlier received funding from the Association of Computing Machinery Special Group on Computer Graphics, the Educational Foundation of America and an equipment grant from Hewlett-Packard Company.

Each Project MATHEMATICS! module consists of a videotape, 15 to 20 minutes in length, and a workbook to guide students through the video, elaborating on the important ideas. The videotapes make extensive use of computer animation with color, motion, and three-dimensional images to demonstrate concepts in ways that are difficult or impossible to do in a textbook or at the chalkboard. The animations, blended with live action and stills, provide historical perspective and connections to real-world problems. Together with narration, music, and special effects, the video is intended to motivate students, enhance their intuition, and stimulate their imagination.

The project is headed by Tom M. Apostol, professor of Mathematics and an internationally known author of mathematics textbooks. Codirector is James F. Blinn, one of the world's leading computer animators, who is well

known for his voyager flyby simulations. Blinn and Apostol worked together previously as members of the academic team that produced The Mechanical Universe, the award-winning physics course for television also developed at Caltech.

"Reports from hundreds of teachers who have shown 'The Theorem of Pythagoras' to more than 300,000 students nationwide indicate that computer animation indicate that computer animation is a powerful educational tool that is making a positive contribution to the teaching of high-school geometry," said apostol. "We are indeed fortunate that Jim Blinn is devoting his energies and his considerable talents to an educational project that can have a lasting impact on millions of school children."

"We are delighted that the NSF is enabling us to move forward with this important and exciting project," said Caltech president Thomas E. Everhart. "Mathematics is the language of science and engineering, and we need more of our citizens to understand this language. American education in science and mathematics is facing a serious crisis. More than half the schools in the United States offer no advanced courses in these areas, and nearly one-third of those presently teaching science are inadequately prepared. In the next decade, a significant fraction of these teachers will retire, and there is virtually no prospect of replacing them with qualified teachers because of drastically declining enrollments in teacher training programs. Televised instruction such as The Mechanical Universe and Project MATHEMATICS! excite students and help their teachers. They prevent our students from becoming scientifically illiterate

citizens at a time when science and technology play an increasingly important role in everyday life."

Project MATHEMATICS! is seen as a continuing effort in which four to six segments will be produced each year. Two modules, one on the Theorem of Pythagoras and another on the number pi, have already been finished. A third, on the concept of similarity, is currently in production. Apostol expects to complete four additional modules during the coming year.

To ensure that Project MATHEMATICS! will reach as many classrooms as possible, the departments of education in all 50 states have been invited to join a consortium whose members will reproduce and distribute the videotapes and written materials to public schools at cost. This consortium will also take part in the teacher training program. To date 32 states have joined the consortium.

"The Theorem of Pythagoras" module has been enthusiastically received by teachers and students and has captured first-place honors at five major film and video festivals. It has won the Gold Medal at the 1988 International Film and TV Festival, Oakland, California; the Blue Ribbon, Best of Category, at the 1989 American Film and Video Festival, Chicago, Illinois; the Electra Certificate, Best of Category, at the 1989 Birmingham International Educational Film Festival; and, most recently, a gold Cindy award from the Association of Visual Communicators, an honor that is considered to be an Emmy of the audio/visual industry.

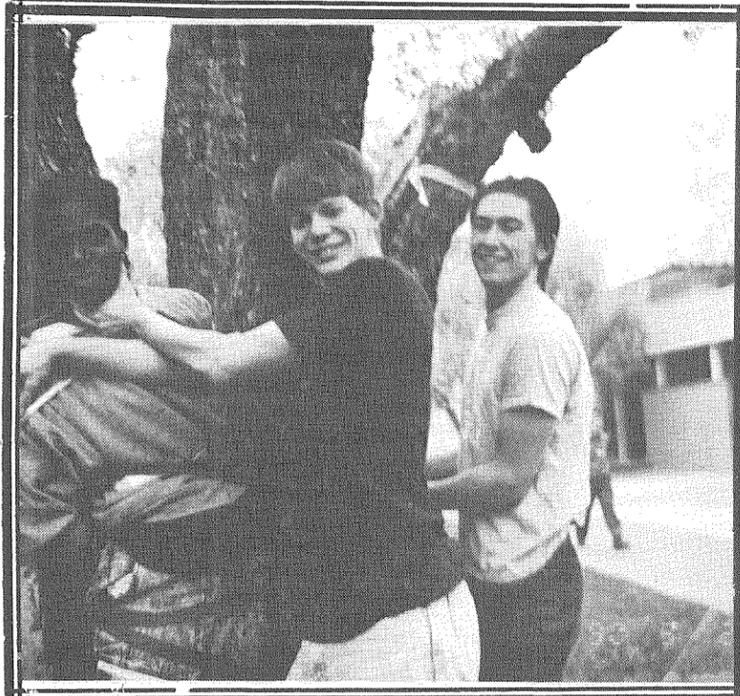
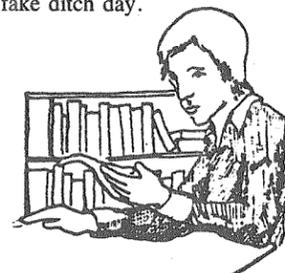


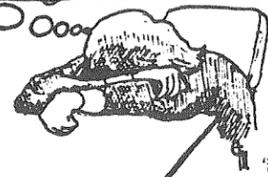
photo by Lindee Goh

Cliff gets tied up. Blacker underclassmen take revenge on the seniors for their fake ditch day.



'Dear son,
We are so proud of you! Our little boy finally off to school; we're sure you'll do well in your studies. But remember, these are the best years of your life ...'

Only 200 more pages and I can go to sleep!



'And maybe you'll meet some nice girl at school. Do try to stay out of trouble though ...'

Guy Miller

Schedule an Interview on March 19 with REACT Environmental Engineers!

If you're looking for...

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REACT, a division of D. W. Ryckman & Associates, Inc., is a professional environmental engineering firm headquartered in St. Louis, Missouri. We specialize in creative solutions within the high-liability, high-priority marketplace of hazardous waste and contaminated site remediation.

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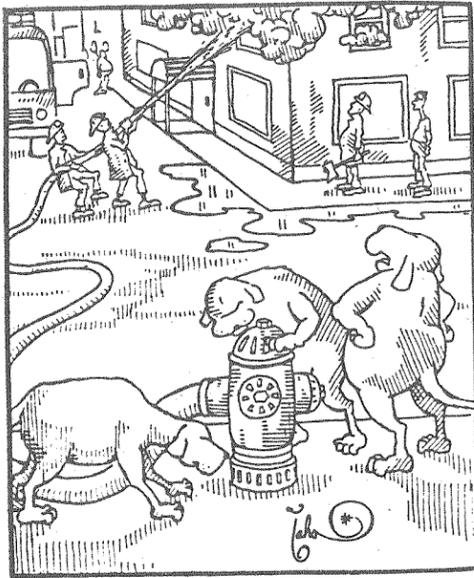
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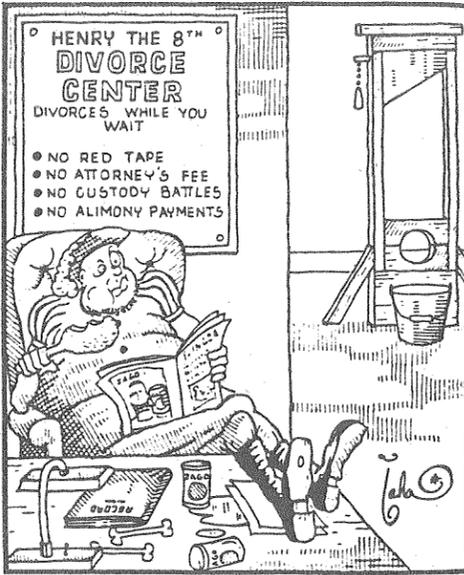
© L. Taha 1989



Are we somehow responsible for all of that?

Odyssey

© L. Taha 1989



The Inside World

Page 2

Tragic news, Page House Members. A person we all love and respect died last night in his sleep. A person cherished for his witty and sometimes true Page Inside Worlds for the past two weeks. The one we all relied on to get the latest gossip about the affairs?!? of Page House. Yes, Page members, BART IS DEAD!!! According to his roommate, the BAD BOY, he heard Bart scream something about "Evil Amazons, High School, and Abduction." before rolling off the bed. The Bad Boy couldn't be more specific, though. He was in a hurry to get to someplace called the Seventh Veil to grieve for his roommate.

However, life must go on without Bart. We must not feel sadness in his death, but rejoice in the memories he's left behind for us. So in memoriam to Bart, this reporter presents to the best of his abilities Bart's final notes. Bart would have wanted it that way.

Never one to be modest in his writings, Bart's notes start off with the mention of *The Hunt for the Red Honda* (I think it should say *The Hunt for Red October*) that Bart organized a group of 50 Page boys to see last Friday. It must have been a damn good flick for Bart gave his rarely seen 21 finger salute to the movie. Ever the sports fan, Bart mentions the Saturday night main event of BOFFO BONECRUSHER II where one of the winning teams was "I Don't Know" featuring Chris Goddard and friends. Bart's notes also mention that Lloyd has become the new punching bag for PAM?!? This reporter can only guess at what the genius of Bart meant by this remark. Maybe Gary could enlighten us. Just Kidding!!! The Page Athletic Machine has been unstoppable and seems assured of a victory in both Disco and Interhouse.

Never the one to be caught with his pants down, Bart saved his best for last to achieve the proper climax of his writings. Get ready, Page members, for according to Bart, the Tyson-Douglas fight will pale in comparison to the BATTLE of the GOLDFISHES. Bart's notes are a bit sketchy, but it seems that not only do Irish bikes prefer to be ridden by Goldfishes but it seems that there might be others who prefer to be ridden by them as well. It is not clear exactly who because some person or persons took Bart's notes where he mentions names. Would that person or group of persons please return them, no questions asked? Anyway, following in the footsteps of last year's house virgins, the new Page-Fleming combination platter is still cooking. Now presenting, not one but two, Top Ten Lists.

- Top Ten Locations of the "G-Spot" according to the House Afro:
10. Inside Jupiter's giant red spot. (No!)
 9. Inside a star. (Try again.)
 8. Inside the atom. (Get a clue!!)
 7. Inside a gravity well. (Well, you're getting close.)
 6. The event horizon of a black hole. (Close, now try anatomical.)
 5. You mean, behind the ear. (BITE ME!!!)
 4. The small of a woman's back. (Come on...)
 3. The back of the knee. (Higher...)
 2. The bellybutton. (Wrong!!!)
 1. Oh, it's the armpit!!! (Go back to your studying.)

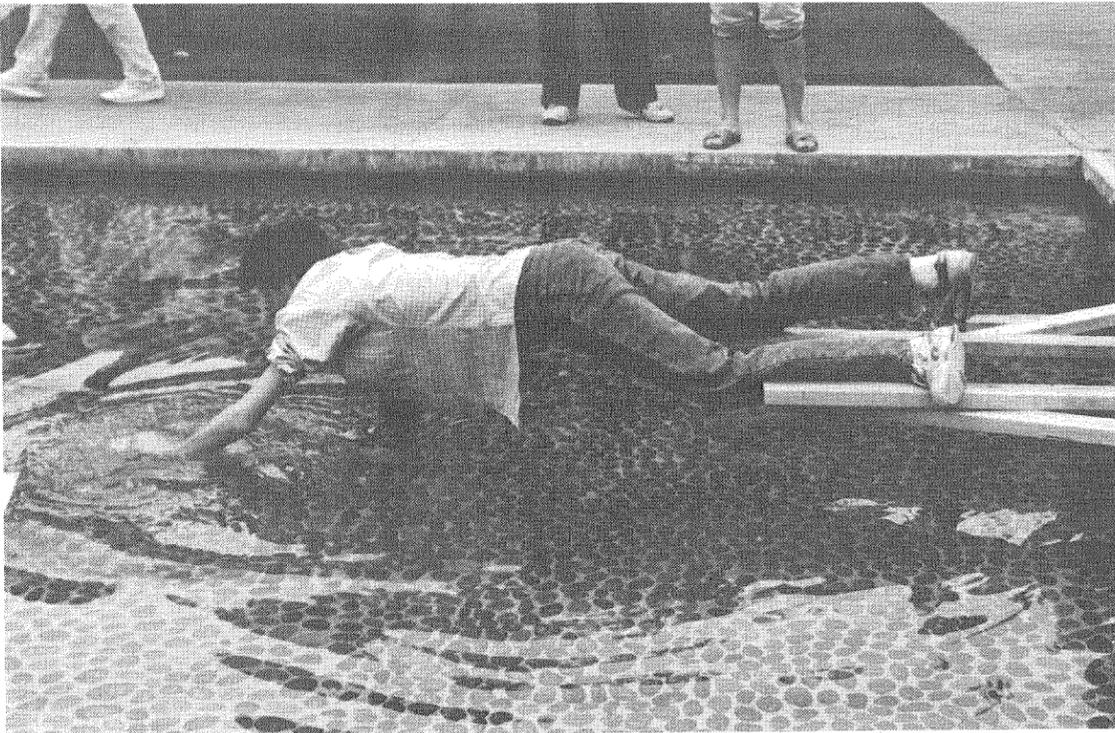
Now for the much awaited Top Ten list.

"Lefty's Top Ten Oriental Women of Caltech" according to Bart's notes.

10. Audra Meng
9. Yu-chien Kuo
8. Kimberly Guin
7. Fiona Lo
6. Emily Lo
5. Ng Twins
4. Monica Oei
3. Jennifer Joh
2. Helen Cheng
1. Lisa Wang

photo by Michelle Tseng

-The Evil Twin



Silly High Schooler, when you become a frosh, you will enjoy getting wet.

Jeanine, Paul said the Coffeehouse would pay for this ad. Call the Tech office for the price.



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*(except from 7:00 A.M. to 2:00 P.M. on Friday because of Gary's contract)

Blacker

I was just in the Tech office. I asked Lindee (she's an Editor), "Does Blacker have an Inside World?" Lindee said, "No, if they're going to turn anything in, they should do it, like, now." I thought for a moment. Then I said, "I could write the Inside World." Then I left the Tech office to write the Inside World. Then I asked Dave, "Dave, do you want to help me?" Dave said, "Uh, sure." Dave came down to Tunnel computer room to help (Dave lives in Tunnel). Dave said, "Actually, I didn't want to study math anymore." I said, "Oh." We heard someone coming down the hall, singing,

"Little bunny foo-foo hoppin' through the forest, pickin' up the field mice and pwooopn' em on the head." ... Ah, come on Dave, don't write that... Shut up, Brian... "But what a FOB mean?" Come on Dave, its my turn... Whap... Ouch, Dave, that hurt. Brian, they're gonna be saying "Frosh!" and make us feel real dumb. Yeah, Dave, especially Noam and Walker. Yeah, Brian. Well, Noam and Walker are lame. The only word in Walker's vocabulary is "Frosh!" Dave, maybe you shouldn't say such harsh things about Noam and Walker. Brian, Brian, Brian. What? I don't know, Brian. We're only Frosh. Dave, they say that this is supposed to be a kinder, gentler, hoarse....

Dave, last night I came back from lab and there was the smell of beer in the lounge. Can you tell me what happened? I don't really know, Brian, but there was just lots of beer and people kept yelling out the time and saying something about 100... They were really loud and obnoxious, and all this funny poetry... Maybe it was crew training... seven seconds, five seconds... maybe we have some up and coming talent... Yeah, Dave, sounds like more fun than CS10 lab.

Well, Dave, I think its about time for dinner. Oh. I can't remember anything more anyways.

Bridge Championships

The Caltech Bridge Team is headed for Forth Worth and the North American Collegiate Bridge Championship over spring break. The Caltech team won the right to advance to the championships with their November playoff victory, and will represent the Western Conference in the final round of six teams.

The team, consisting of Bill Cross, Fred Upton, Sam Dinkin and Jeff Goldsmith, will be competing against Harvard, Brown University, Rice University, University of Illinois and University of Virginia. The American Contract Bridge League is paying the expenses of the six competing teams.

The final competition will be in conjunction with the North American Bridge Championships (which draws 7,000 competitors).

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features

Jim's Journal

by Jim

<p>Steve got the mail today.</p> <p>(He usually gets the mail.)</p>	<p>He walked up to me, flipping through the letters.</p>	<p>"Nothing for you, Jim," he said.</p>	<p>"I guess nobody likes you," he said.</p>
<p>Today Tony was reading one of his school books.</p>	<p>Suddenly he yelled, "Ha!" as if he disagreed with the book.</p>	<p>A little while later he said it again: "Ha!"</p>	
<p>Today Steve made himself a bowl of soup, a grilled cheese sandwich and a salad.</p>	<p>He sat in front of the TV to watch Nova, which he taped the other day.</p>	<p>But the VCR must not have recorded it because it wasn't on the tape. Steve was really disappointed.</p>	<p>Tony offered to let him watch his tape of Fast Times at Ridgemont High.</p>
<p>I read four chapters in my history book today.</p>			<p>It took me a really long time.</p>

Jim's Journal

by Jim

Jim's Journal

by Jim

Folk Concerts

by Nick Smith

The Caltech Folk Music Society is presenting not one, but two concerts between now and the next issue of *The Tech*, so this is your only chance to read about them.

First, on Saturday, March 10, Steve Gillette and Cindy Mangsen will be in Dabney Hall Lounge at 8:00 pm. Cindy Mangsen is a multi-instrumental talent and folk singer who is building quite a following. Those of you who enjoyed the Priscilla Herdman concert first term will also enjoy this one. As it happens, she is married to the other performer, the legendary Steve Gillette.

Legendary? Well, those of you who don't read music credits may not recognize his name, but the first song hits written by him came long before this year's frosh were gleams in the eyes of their parental units. He has been writing folk, country and pop music for a quarter of a century or so... He used to play in Pasadena, at a club called the Ice House (back in the days when men were men, and the Ice House was more than just a comedy club). In fact, his show there was reviewed in *The California Tech* as far back as 1972, when the reviewer said:

"Steve Gillette is not only a talented writer, but also an extremely good guitarist and singer... an excellent entertainer who has simply not received the recognition one of his talent deserves."

One reason is that his style is a little *too* diversified for cheap stereotyping. Ian and Sylvia had a hit recording of one of his songs, a beautiful ballad called "Darcy Farrow." A 1960's group called "The Sunshine Company" (they still get played on oldies stations) made a pop version of "Back on the Street Again". Steve Gillette plays and writes songs that could be called folk, country, blues, or just good music, because they are just that.

As if that weren't enough, those indefatigable Folk Music Society people are presenting another concert on Friday, March 30 at 8:00 pm, just in time for those of you who get back from Spring Break early. This one features Andrew York, a really classy guitarist whose background ranges from classical to jazz, and Jennifer Robin, a jazz/folk fusion artist along the lines of a Joni Mitchell or a Rickie Lee Jones. If you've seen her at clubs in the L.A. area, you may have seen her with a band. Well, this is her solo, which is even better.

Tickets are \$8.00 general admission, but thanks to certain special subsidies, are only \$4.00 for Caltech students. Buy tickets at the door or at the Caltech Ticket Office.

book review book review book review book

by Nick Smith
Star Trek: The Kobayashi Maru
 by Julia Ecklar
 Pocket Books, \$4.50
 Caption from an old cartoon: "Books? You mean science fiction comes in books??"
 Before the popular fan reaction to *Star Trek*, it wasn't so much that science fiction existed only in books, but rather that science fiction fans only existed for books. There were no huge *Forbidden Planet* fan clubs, or clamoring for TV adaptations of *The Day The Earth Stood Still* (thankfully).
 Therefore, it is only fitting that *Star Trek* be the most successful TV show to be adapted back into

novels. (Actually, there are more *Dr. Who* novels than *Star Trek*, but my sources say the total sales are much less, being primarily in the smaller British Isles market.)
 Anyway, this seems to be a first novel for Julia Ecklar, previously known as a singer and songwriter. Well, I'd heard of her, anyway, and even have some of her recordings. As a first novel, it's a pretty good one, although she plays favorites among the *Enterprise* crew.
 The basic plot is simple: the book takes place between *Star Trek: The Motionless Picture* and *The Wrath of Khan*, apparently shortly before Chekov's reassignment. Kirk, Bones, Scotty, Sulu

and Chekov get stuck in space in a shuttle craft, and while waiting to see if Spock will ride to the rescue in time, Bones finally gets to hear the story behind the Kobayashi Maru test (remember, he's a doctor, not a starship captain). As it happens, all four of the others took the test, and all had different ways of handling the "unwinnable battle" scenario.
 For those of you who have forgotten, the Kobayashi Maru scenario is a test at Starfleet Academy. Command officer candidates are presented with a simulated starship command, and during a routine flight a distress call is received from the Neutral Zone. If you an-

swer the distress call, no matter what you do, your ship will be destroyed by the Klingons. The test is not related to winning, but to how you lose, and how you handle it.
 As you may recall from the reference to the scenario from the films, Kirk's solution was simple: he cheated. That isn't as immoral as it may sound, since he had a good reason: the reason the scenario was unwinnable was that the computer was programmed to cheat if you started winning. So, from his point of view, since the computer was cheating, it was logical to cheat back. Well, you know how reasonable Kirk is...
 Chekov comes out looking like

an idiot—not for his solution to the scenario, which was... um... not quite standard Starfleet procedure (he blew up the Klingons and his own ship)—but for the rest of the story of his days at Starfleet Academy.
 Sulu's story is a very moving piece about life and change. His solution to the scenario was, again, incidental to the story—he simply didn't fall for the trick in the first place. I'm not sure anybody else ever did that...
 Scotty came out of the story looking best of all—the computer still destroyed his ship, but it *really* had to cheat to do it. So help me, he *engineered* TWELVE Klingon ships to death before losing. The method is so amazing (and hilarious, in a warped way) that I can't spoil it for you by revealing it. His test results convinced Starfleet that it was safer to keep Scotty in the field of engineering than to let him have a starship of his own to play with.
 The only flaw I found with the book, other than the author's apparent dislike for Chekov, was the framing story. It's hard to feel a sense of impending doom for the five characters trapped in a shuttle craft, when you have already seen the *sequels* to the story, and everyone is still alive and well. If she had tossed in a few expendables somehow, it might have been more dramatic (at least there would have been someone whose survival was in doubt).

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<p>3 FREE BAGELS Buy 3 Bagels, Get 3 Bagels FREE</p> <p>BAGEL BAKERY Coupon required. Not valid with any other offer. EXPIRES 3/30/90</p>	<p>"THE BEST, CHEWIEST BAGELS IN ALL PASADENA!" Susan Kranwinkle, Food Writer, Star News</p> <p>BAGEL BAKERY (818) 79-BAGEL 792-2435 HOURS: M-Th 7-9, F-Sat 7-10:30, Sun 7-5</p> <p>86 W. Colorado, Pasadena (Next To UA Marketplace Theatre)</p>	<p>1/2 PRICE ANY SANDWICH</p> <p>BAGEL BAKERY Coupon required. Not valid with any other offer. EXPIRES 3/30/90</p>
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what goes on

money

Submit announcements for *What Goes On* on forms available outside the Tech office (SAC room 40A) and in the copy/mail room (SAC room 37), or use a plain piece of paper. Send announcements to 40-58, or put them in the IN box outside the Tech office. Indicate the date(s) the announcement must run. Announcements for the current issue must be received by 5 pm Tuesday and should be shorter than 75 words. Announcements will be published as space becomes available and will be chosen according to size and interest to the Caltech community. Announcements for commercial events unrelated to Caltech will not be published.

Play Bridge

Play bridge at the Caltech Bridge Club this Monday. We meet every Monday at 7:15 pm at the Red Door Cafe in Chandler Dining Hall. No card fee, no membership fee, no partner needed. Undergrads, grads, faculty, etc. welcome.

Nutrition & Diet Counseling

A group on Nutrition and Diet will begin on April 9 through June 11 at the Caltech Health Center, on Fridays 3-4:30 pm. Azita Sahatti, Family Nurse Practitioner, will provide counseling on nutrition and diet issues—individualized if necessary—with group sessions to include: weekly weighings (discreetly); lectures on weight management issues, healthy diet, sports nutrition, tips on food shopping and reading labels, eating disorders; and general group discussions. The group is open to the first 12 students to sign up—call the Health Center at x6393.

Mystery Horse

As usual the Cowtech Equestrian Team will be presenting another great video this Monday, March 12, at noon. We do not know what we will show but it will be good. Join us in Baxter 19. If any questions, call Liz at x4515 or Victoria at x3828.

Psycho Signing

Robert Bloch, the author of *Psycho*, among many other SF and horror novels and stories, will be autographing books and talking to people at Planet 10 bookstore (79 N. Raymond in Old Town Pasadena) from 2-4 pm on Saturday, March 10. Call (818) 577-9309 for information or directions.

Let The Games Begin

Every Friday night, the Caltech Gamers meet to enjoy role-playing and board games. Friday meetings are in Winnett Clubroom 1 at 8:00 pm. Meet others who share your interests. All welcome! Most common Friday games are fantasy role-playing, but it's a good time to find players to share whatever games you like.

Submit To The Totem

An effort is now underway to produce another issue of *the Totem*, the Caltech literary magazine. In the past, the main barrier to publication has been profound apathy (i.e., submissions have been about a tenth that required). This is a plea for all interested students to submit their art, poetry, and short fiction or, at least, to offer suggestions. Please include your name, campus address, and phone number. Submissions to Ben Schaeffer, 1-59, x6173.

Interested in Sailing?

You too can use the Caltech sailboats. Find out how by joining the Caltech Sailing Club. Contact Axel or Martin at (818) 568-9168. Open to students, faculty and staff.

Y Spring Break Trip

The Caltech Y is sponsoring a spring break trip to Palm Springs, March 16-19. Palm Springs is a year-round resort which every spring break attracts college students from all over the West Coast. The cost is \$50 and includes transportation and 3 nights' lodging. The trip is open to Caltech graduate and undergraduate students. Space is limited to the first 20 people signed up. Details and signups are at the Y.

Win A Date With Andre!!!

or some other celebrity student at the 2nd Caltech Y Decompression Dating Game. Prizes include dinners, movies, and trips to exotic places like Palm Springs. The "Dating Game" will be Saturday, March 10th at 8:00 pm. Call Dwight at 795-8606 to enter or get more information. Contestant secrecy guaranteed.

Folk Music Concerts in Dabney

The Caltech Folk Music society presents Steve Gillete and Cindy Mangsen in concert in Dabney Hall Lounge on Saturday, March 10 at 8:00 pm. Then, on March 30, also at 8:00 pm, guitarist Andrew York and jazz/folk fusion artist Jennifer Robin will be in concert. Tickets are \$8.00 for the general public, but only \$4.00 for Caltech students. Advance tickets at the Caltech Ticket Office, north of Beckman.

Fishing For Ideas

The Fishline, a newsletter serving all Christians of the Caltech community, needs material! If you have any ideas, upcoming events, or articles that you would like to share, please submit them (Mac format, if possible) to *The Fishline*, 126-58. Also welcome are announcements by neighborhood churches, Christian groups and clubs, as well as mailing list additions. Contact Mike Nassir (578-9833) for more information.

Attention Writers!!!

The Literature Faculty is pleased to announce the 44th Annual McKinney Competition. The Mary A. Earl McKinney Prize is awarded each year for excellence in writing. Only full-time students officially registered at Caltech as undergraduates are eligible to enter the competition. This year three prizes will be given in three categories: poetry, prose fiction, and non-fiction essays. All submissions must be typewritten and double-spaced. In the poetry category, entrants may submit up to three poems. Submissions of prose fiction should not exceed 12,000 words. Essays may be ones prepared for a humanities class or any good piece of original writing on a topic relevant to the humanities. The prize in each category will be \$250.

Each student is entitled to only one entry in each category. All contestants must submit their work to Professor Jenijoy La Belle, Division of the Humanities and Social Sciences, by no later than April 20, 1990. No entries accepted after 5 pm, April 20. No entries will be returned. Each category will be judged by a committee from the Literature Faculty. Essays will be judged on the quality of thought and the effectiveness of the writing. Winners will be announced the last week of May, and the names of the winners will appear in the commencement program. The Committee may divide the award in each category in case of more than one outstanding submission. Previous winners in any one category are not eligible for the competition in that category.

If you have any questions, contact Dr. La Belle, x3606, or Odessa Myles, x3609.

Korean-American Students

The Korean-American Student Association meets on alternate Mondays at 8 pm in SAC Rm. 13 (Clubroom A). The next meeting will be on March 12, and follow every two weeks. All members, and those who want to be members, are encouraged to attend. As always, there will be free munchies. Please contact Dong-su Kim at x8309 if you have any questions.

Badminton, Anyone?

Badminton is played on Mondays and Fridays in the gym, from 9 am until 11 am. Intermediate players (faculty, staff and students welcome). For information, please call Cherrie Leighton, x4915, Division of Biology.

NSF Chem Program at USC

A newly-funded NSF program at USC is sponsoring a summer undergraduate research program. Spend normally ten weeks carrying out research in one of the following areas: organic, inorganic, physical, bio-organic, polymer, theoretical, surface, and chemical physics.

Receive a \$2600 stipend. Also included are housing (dorms), meals, medical coverage and a \$150 bookstore allowance.

If interested, stop by the Dean of Students Office, 102 Parsons-Gates, to fill out the application. The deadline is April 15; applicants will be informed of a final decision by April 25. For further information, call Ms. Laurel Luchsinger at (213) 743-2781.

Summer Fellowship Program

The Dept. of Pharmacological Sciences School of Medicine at the State University of New York at Stony Brook has a limited number of summer fellowships available for outstanding undergraduate (Junior) students interested in eventually pursuing graduate studies in the Pharmacological Sciences (Pharmacology-chemical, biochemical or physiological, Medicinal Chemistry or Toxicology). The fellowships cover a period of approx. ten weeks and pay a stipend of \$2,000.

If you would like to be considered for such a position, please indicate your interest in a letter addressed to: Dr. Moshe Eisenberg, Director, Summer Fellowship Program, Dept. of Pharmacological Sciences, School of Medicine, State Univ. of New York at Stony Brook, Stony Brook, New York 11794-8651.

Also, submit a transcript and two letters of recommendation. Deadline is April 15, 1990. For more information, contact the Deans' Office, 102 Parsons-Gates.

Political Internship

The Beckman Internship will be available for the summer of 1990. The internship, supported by friends of Dr. Arnold O. Beckman, will pay a stipend of \$2,600. It allows a selected intern to spend the summer working in the office of a politician and to see from the inside the process of government. The intern is expected to make arrangements with the appropriate political persons. It is open to any Techer who intends to be a Caltech undergraduate 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, April 9, 1990.

Do You Want To Dance?

Social dances, such as the waltz, tango, swing and others will be taught at Dabney Hall on Tuesday nights during March. Come and dance with the Caltech Folk Dancers. Beginning teaching 7:30 to 8:00 pm. Social dance teaching 8-9 pm, followed by open request dancing until 11:30/12:00.

Special note: on March 20th, we will be meeting in Winnett Center, instead of Dabney Hall.

Speech And Debate Meetings

Debate meetings and meetings for the Speech Team will be held Mondays from 4:30 to 5:00 this term in SAC Rm. 13. Meetings will be for information, tournament registration, and practices. For more information, contact Craig Volden at 1-60 or x3762.

Gay/Lesbian Discussion Group

On the 1st and 3rd Tuesdays of each month, all students, staff and faculty are invited to an ongoing discussion of Lesbian/Gay topics, from 7:30 to 9:00 pm. After the talk, time is devoted to informal talking, with refreshments provided. This confidential meeting is held in the Health Center Conference Room; call x8331 for further information.

E.T. Bell Prize

The E.T. Bell Undergraduate Mathematics Research Prize is a cash prize of \$500 awarded for the best original mathematics paper written by a Caltech junior or senior. Contestants for the Bell prize must be nominated by a faculty member familiar with their work. Students who wish to be considered for this prize should contact a member of the mathematics faculty prior to the end of second term to discuss the nature of the research. If the entry is sufficiently worthy the faculty member will nominate the contestant and act as sponsor. Each student is entitled to only one entry. All contestants nominated must submit their papers in final form to their faculty sponsors by the end of the fourth week of third term. A faculty committee will then judge the papers and announce its decision before the end of third term. The committee may award duplicate prizes in case of more than one outstanding entry. The name of the winner (or winners) will appear in the commencement program.

Morgan Ward Competition

Any Caltech freshman or sophomore may enter as an individual or as part of a group of two or more students. Each student is entitled to at most three entries, of which at most two may be individual.

An entry is to consist of a mathematical program, together with a solution or significant contribution toward a solution. The problem may have any source, but this source should be stated in the entry. The entries will be judged on the basis of the nature of the problem and originality and elegance of the solution. Any outside references used should be indicated.

Entries must be placed in an envelope and delivered to the Mathematics Office, 253 Sloan, during the fourth week of third term. The names of all participants must be on envelope only, not on the entry. Each winner will receive \$75.

Online Schedule of Classes

The Caltech schedule of classes, as published by the Registrar's office, has been added to the online INFO system, accessible via CITnet. A write-up on using the INFO system is available from the CCO Consulting Office, 162 Jorgensen.

Temple U. Summer Research

Temple University in Philadelphia seeks applications for a Summer Research program for minority undergraduate students funded by the United States Department of Education.

Up to 20 undergraduate students will be selected to participate in a 10-week program designed to provide participants with extensive "hands on" research experience in one of the following areas: Life Sciences, Chemistry, Engineering, Experimental Psychology, Geology, and Physics.

Duration: May 29 to August 3, 1990. Award: a \$2,500 stipend and campus housing for the duration of the program. Some travel funds are available.

Requirements: applicants must be undergrads, U.S. citizens or permanent residents, and members of underrepresented minority groups (Black, Hispanic, Native American). Preference will be given to applicants who will have completed their junior year by the starting date of the program, although those having completed their sophomore year will also be considered.

Review of applications begins March 16. Final deadline is March 30. Applications are available in the Deans' Office, 102 Parsons-Gates.

New Aero Course

Next term, engineers and scientists from Hughes Aircraft will present and discuss communications satellites in Ae 107c—Case Study in Engineering. The Organizational meeting will be held in 269 Lauritsen on Monday, April 2 at 4:00 pm. If any questions, please call Patrick at x4789.

The Financial Aid Office has applications and/or information on the following scholarships. All qualified students are encouraged to apply. The office is located at 515 S. Wilson, 2nd floor, phone x6280.

The Coors Veterans' Memorial Scholarship Fund is offering scholarships ranging from \$2,000 to \$5,000. Applicants must be sons or daughters of Honorably Discharged Veterans, active military personnel, or American service personnel Killed in Action, Missing in Action, or Died in the Line of Duty. Applicants must also be under the age of 22 as of March 15, 1990, have completed a minimum of one semester of college with a minimum 3.0 cumulative GPA. Deadline is March 15, 1990.

The Planetary Society actively encourages science students through a variety of programs. The Mars Institute Contest is open to students in both high school and college, and college undergraduates are eligible for the College Fellowship Awards. For entry details write to: The Planetary Society, Scholarship Department, 65 N. Catalina Ave, Pasadena, CA 91106. Deadline for completed applications to be received by The Planetary Society for both the Mars Institute Contest and College Fellowship Awards is April 16, 1990.

California Council of the Blind is offering a number of awards to applicants who will enter or continue studies at an accredited college or university in either undergraduate or graduate status. Awards will be granted on the basis of academic scholarship and other factors including financial need. Deadline for application, transcripts and records is June 1, 1990.

The San Joaquin Valley of the Society of Petroleum Engineers will be awarding scholarships to qualified applicants who are enrolled as full-time undergraduate or graduate students in engineering or energy-related disciplines at an accredited college, university or local community college. The completed application, question section, and an up-to-date official transcript should be submitted to ARCO Oil and Gas Company no later than March 31, 1990.

The General Motors Corporation is offering one scholarship to a sophomore in Environmental or Chemical Engineering. The GM Scholarship includes full tuition, a book allowance, and a paid summer internship. The award is renewable for the senior year. Financial need is NOT a consideration in the selection process. Applications and additional information are available in the Financial Aid Office, 515 S. Wilson. The deadline is March 19, 1990. Apply now!

AESF Scholarships. Undergraduate Scholarship Program: \$500 minimum per year. A scholarship holder may reapply for a second year, but not for more than two years. A student may apply for any academic year when he or she will be an undergraduate of at least junior standing in chemistry, chemical engineering, environmental engineering, metallurgy, or materials science program where the focus of the curriculum is in surface science subjects. Award selection will be based on, but not limited to: career interest in surface finishing, scholarship, achievement, motivation and potential. Awards are not necessarily based on financial need. Deadline for submitting a complete application and supporting documents is April 15, 1990.

The Society of Women Engineers announce their 1990-91 Freshman and Reentry Scholarship Program for all qualified women students who have been accepted into the engineering curriculum. Deadline for applications and supportive materials is May 15, 1990.

The Polish University Club of Los Angeles, Inc. is offering scholarships to students interested in the Polish/Polish-American ethnic. The filing deadline is April 15, 1990.

The Desk and Derrick Club is offering scholarships to residents of Kern County (but may be attending outside Kern County) pursuing higher education in a petroleum or allied industry-related field. Deadline for submitting an application is August 1, 1990.

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sports

Hockey and Gravity Constants

By Brooke Anderson

In a game of ice hockey last Friday, the proud and mighty Caltech Beavers again competed against the UCLA Bruins. The rink we played in was the same one the Kings practice in, and we saw Marty McSorley and Kelly Hrudey as we walked to the dressing room. As I walked past, I could just make out their hushed conversation: "Wow. I think it's the Beavers." "Yeah. Hey, look — there's Horhay Yahtays!" "And Eagle Eye Moore!" "This is gonna be a show."

It was. Of course, Dwight Berg wasn't there to run up the penalty minutes, but we did our best. Jaccques Belanger (I put in extra c's to make up for the ones I left out last time) got a couple of penalties, one of which, according to the referee, was for "general princi-

ples" (this is no joke). Even the usually peaceable Ben Skrainka pitched in for some penalty time.

And then there was the scoring. Phil "Lard" Askenazy scored 3 goals: one while laying prostrate (no, not prostate) on the ice, one via an ueber-slapshot, and one which was "just as good as the real thing." With my rapid switches between various levels of inaptitude, I bemused the whole UCLA team and, in the process, scored 3 goals and got 2 assists. Bob Lane got 2 goals and 4 assists. His second goal was scored in slow motion while the theme song for Chariots of Fire played in the background. George Yates got 3 assists and used the newly developed "diffusion shot" to score a goal. Jeff Moore got 1 goal and 1 assist. Dale Laird got 1 goal, even though he was ill with a com-

bined case of the flu, a cold, typhoid fever, hepatitis, and tuberculosis. Herman Cho got 2 assists. Dave Fort and Dennis Moore (discoverer of the aforementioned diffusion shot) each got 1 assist. Rob Nickells, Beaver goalie extraordinaire, let in no goals. Of course, he IS still in a scoring slump, having not scored a goal in our last 3 games.

Altogether, the final score was a resounding 11-0 victory for Caltech. Now, I know what you're saying: "Last time with your special formula, you predicted a 314-3 victory. What's up?" Well . . . I forgot to factor in the gravitational constant. Re-evaluating my formula with this factored in, I get a predicted score of 10.97-0.02. Not bad.

Track Beaten Like a Drum

by Chris Campo

Caltech's first conference meet was held against Claremont-Mudd-Scripps, Pomona, and Occidental at Claremont. The CMS dirt track was not the most ideal running surface, but it could have been much worse.

The Beavers men were beaten like a drum by three of the heavyweight teams in the SCIAC Conference. The scores were CMS 111 Caltech 51, Pomona-Pitzer 115 Caltech 43, Oxy 124 Caltech 40. In spite of the formidable competition the Beavers essayed to perform their best, and out of their admirable effort emerged a number of top performances.

In the sprints, Brady Montz took fourth in the 100 meters with a time of 11.43. Montz also shone in the 200 meter race, finishing fourth in an impressive 23 seconds flat. Montz, along with Rob Whiteley, Gary Eastvedt, and Dave Park, ran the 4x100 relay for Tech. The Beavers finished second, behind only Oxy, with a time of 45.91.

If the sprints were Montz's realm Saturday, the middle distance races belonged to freshman John Freeman. Freeman finished sixth in the 1500 meters behind such SCIAC powerhouses as Oxy's Emmet Hogan and CMS' Eric Blum. John's time was 4:13. In the 800 meters, John ran a steady pace and let the pack go out at blistering sub-60 pace for the first lap only to hunt them down like so much roadkill on the second lap. John blew by several runners on the back straightaway and finished strong on the home stretch in third place with a time of 2:01.2. John's split at one lap was 60.7 seconds, evidence that John ran a beautifully even race.

Moving on to the weight events, Steve Harkness threw the shot an impressive 42 feet 10 inches to finish in second place.

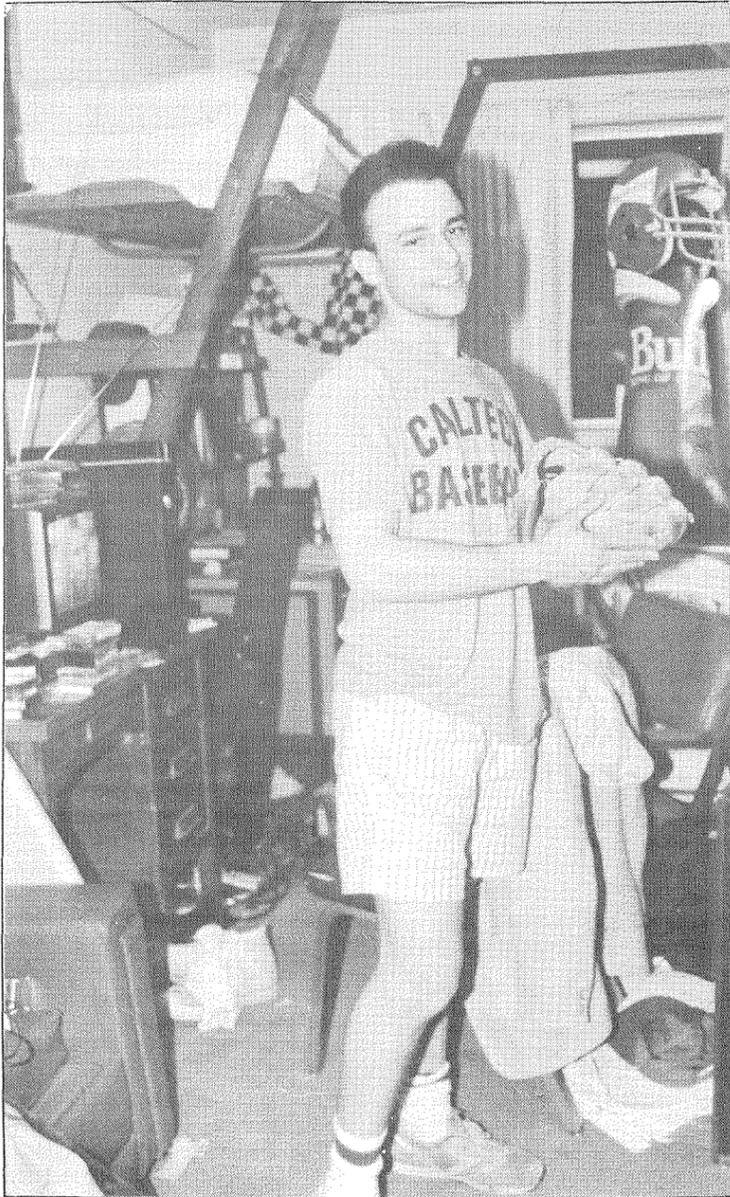
Jeff Martin finished eighth in the discus with a throw of 110 feet.

For the women, the beating received on Saturday by the SCIAC Terrible Trio was even worse than that the men took. The scores were CMS 116 Caltech 13, Oxy 102 Caltech 17, Pomona 108 Caltech 16.

Jennifer Remine threw the shot put 28 feet 1 inch to capture eighth place. Emmeline Naranjo finished seventh in the 110 high hurdles in 18.8 seconds. Also performing for Tech at the meet were Aimee Smith and Kitt Hoddsen.

After Spring Break it would help immensely if the size of the Caltech team expanded from its present size of four women. If you are a female at Caltech please consider coming out for Track and Field third term. For one thing you'll get three units. For another you can tell people that you are a member of an NCAA Collegiate Track Team.

Tommorrow the Beavers compete at home against a handful of small schools including Masters and Christ Colleges. The meet is at Caltech and starts at 11:30 am, so if you'd like to see what goes on, drop by to cheer the Beavers on.



Baseball player and researcher Ari Kaplan shows off his room.

photo by Michelle Tseng

Baseball Swangs Into Action

by Ari Kaplan

Well, all you sports fans out there, I know it's been awhile. I'm sorry, but NOTHING FUNNY has happened until lately. The Caltech Baseball team "swang" out to a great start by crushing PCBBC, the Pacific Coast Baptist Bible College, in our first five matches. We also beat La Verne's JV team. Yes, we had our losses too, but so does everyone. At one of our more recent losses, we played a team known to the world as Redlands . . .

It was a double-header, and our boys of spring were ready for an exciting game. We were sweetly serenaded by the sounds of baseball organ music's greatest hits played on the Redland PA system.

While looking around, I noticed that the outfield fence had barbed wire to keep kids from sneaking in. That's pretty stupid. If an outfielder reached over the fence to catch a home run, he'd be in hacked heaven. There was a 5 foot hole in the fence anyway.

So their organ tape version of "Star Spangled Banner" played and we were on our way. The neighborhood was pretty quiet except for the occasional low-flying army planes. Anyway, Jon McGill, one of our second basemen, confused the runners by blurring out things dealing with Fourier Transform or something. In another inning, Ken Campan started coming into the dugout with only two outs. Occa-

sionally the Redland players would shout "Swiiiiinnngg batter!" Pretty gay.

In the second game, Dwight Berg led us off with a monster homerun that cleared the right-field wall by at least ten feet! That was the only run we got that game. Ken, don't feel so bad- Dwight started to come in with two outs also. Anyways, we lost both games.

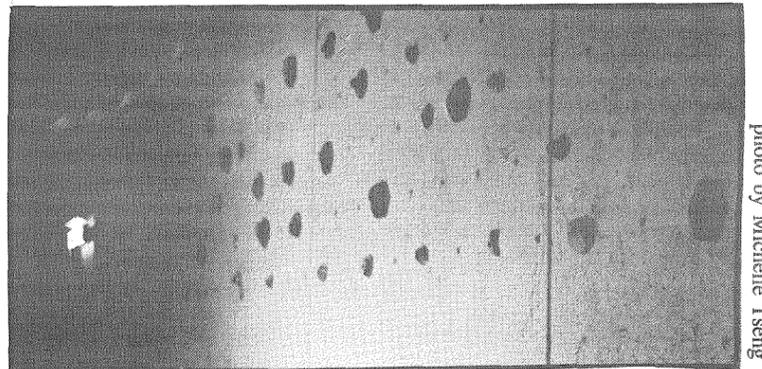
Well, if you've missed watching the team, or if you are a regular fan, there will be a game on Saturday, March 10th against the Caltech Alumni. Hey- you could see history being made. . . . Caltech has never beaten the Alumni, according to Coach D'Auria. Saturday at 1:00? See ya there!

WEEKLY SPORTS RESULTS

Day	Date	Sport	Opponent	Results
Fri.	3-2	Baseball	Redlands	1-8
Fri.	3-2	Tennis (W)	Mills College	2-7
Fri.	3-2	Hockey	UCLA	11-0
Sat.	3-3	Track	Claremont, Pomona-Pitzer, Occidental	Men: vs. CMS 58-111, vs. PP 43-115, vs. Oxy 40-124 Women: CMS 13-116, vs. PP 17-102, vs. Oxy 16-108
Sat.	3-3	Baseball (2)	Redlands	0-12, 1-14
Sat.	3-3	Tennis (M)	Christ College	4-5
Sat.	3-3	Tennis (W)	Whittier	4-5
Tue.	3-6	Tennis (M)	Occidental	1-8
Wed.	3-7	Baseball	Pac Coast Bapt Bible Col.	9-11
Wed.	3-7	Tennis (W)	Cal Lutheran	2-7
Thu.	3-8	Baseball	Colorado College	1-9

WEEKLY SPORTS CALENDAR

Day	Date	Time	Sport	Opponent	Location
Fri.	3-9	1:00 pm	Golf	Redlands	Whittier
Fri.	3-9	3:00 pm	Tennis (W)	Pasadena City College	Caltech
Sat.	3-10	12 noon	Track	CIT Invitational III (Revenge of the Beavers)	Caltech
Sat.	3-10	2:00 pm	Baseball	Alumni	Caltech
Sun.	3-11	1:00 pm	Soccer (W)	Spinoffs	Caltech
Sun.	3-25	TBA	Soccer (W)	TBA	TBA
Sun.	4-1	TBA	Soccer (W)	TBA	TBA
Wed.	4-4	3:00 pm	Tennis (W)	Mount Saint Mary's	Caltech
Fri.	4-6	3:00 pm	Baseball	Pomona-Pitzer	Pomona-Pitzer
Sat.	4-7	11:00 am	Baseball (2)	Pomona-Pitzer	Caltech
Sat.	4-7	11:00 am	Track	Cal Lutheran & Whittier	Pomona-Pitzer
Sat.	4-7	1:30 pm	Tennis (W)	Occidental	Occidental
Sat.	4-7	2:00 pm	Tennis (M)	Redlands	Redlands



If you couldn't figure out what this was last week, here is another hint.

photo by Michelle Tseng

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