

Volume XCII, Number 3

Pasadena, California

October 12, 1990

and His Ari The Today Show Interviews Kaplan

by Jason T. Lee Ari Kaplan will appear on the Today show next Wednesday morning at about 7:30 AM to explain his new baseball statistic, born from a SURF project done two summers ago.

Narrated by himself, the segment on the show followed Kaplan as he walked around campus along the Olive Walk, worked on his computer, and flipped throught pages of his SURF report.

"I came up with the idea for this SURF two years ago with my brother," said Kaplan. "My brother and I have always been big baseball fans.'

After his SURF presentation and trips to the conventions in Detroit and New York, Baltimore Oriole officials contacted Kaplan about a summer job.

"I did computer programming and worked with the Orioles' database of stats on all the major and minor league players," said Kaplan

Kaplan hopes that his project will branch our to other teams via more publicity, hopefully Sports Illustrated. "If it does that it'll [the publicity] explode. This statistic is already beginning to become popular now because baseball already has a whole network of media that informs the public.'

For those unfamiliar with his project, Kaplan wanted a more reliable indicator of a relief pitcher's effectiveness, rather than the standard ERA that is used currently.

After approaching Professor Rod Kiewiet, also a big baseball fan, Kaplan was awarded a grant to do his research.

"Ari showed remarkably good taste when I first met with him in being a baseball fan. Then he told me about his project, and there seemed to be a few good points that deserved some serious attention, most notably the relief pitcher's dilemma of inherited baserunners,' said Kiewiet.

Kaplan's new stat, known as the Reliever's Effectiveness (RE) involves the number of runs a pitcher allows to score in an actual situation divided by the number of runs that are expected to score in that situation.

Thus a RE of one would indicate average performance. less than one would be quite good, and more that one would be subpar.

Kiewiet was Kaplan's sponsor for the SURF and when the grant was made, Kaplan followed his intuition on the usefulness of a new stat and created the RE.

"I knew what I wanted to do with my new statistic, and my brother helped out a lot. The only hard part was getting the grant,' said Kaplan.



Ari demonstrates his new relief pitcher statistics. Major League Baseball and national television have taken notice.

"It was hard to get the funding because there's a lot of SURF money for lab research, but not too much for baseball," said Kiewiet.

Kaplan did more that just a new statistic, he created other methods of analysis and packed his report with historical examples and statistics concerning pitchers.

After his SURF, Kaplan began to receive offers. The Los Angeles Dodgers heard about Kaplan and have invited him to the winter meetings, when representatives from each team meet to talk about trades for the upcoming season.

During his stint with the Orioles, many of the pitchers expressed a keen interest in learning thier RE's. "they [pitchers] came up to me out of curiosity, or maybe to help them with salary arbitration," said Kaplan.

As for Kaplan's salary, now that this baseball "hobby" has become so full-fledged, he might make a career out of it. "I want to go into space technology and work at JPL or something, but if this baseball thing takes off, I might turn to it," he said.

photo by Michelle Tseng

"Ari is set for life," said Albert Lee, Kaplan's roommate.

Newspaper stories, radio programs, and t.v. have all played a part in Kaplan's exposure. One thing he feared was that others might look at him differently. "But the publicity hasn't really changed my personal life. This whole thing has really made a good conversational topic," he added.

Kosencran Guildenstern and

by Roy Lee

Despite the numerous setbacks that have plagued the Theatre Arts at CIT (TACIT), the student organization has been able to produce successful musicals, such as last year's Camelot. This year, TACIT sponsored play Rosencrantz & Guildenstern Are Dead will be making its debut at Caltech on October 19 in Ramo Auditorium.

The play's title refers to a scene in Hamlet, when the deaths of Rosencrantz and Guildenstern, two minor characters, are announced. British playwright Tom Stoppard was originally responsible for the play when it appeared in London theatres in 1966.

The TACIT production of Rosencrantz & Guildenstern is being directed by Todd Brun, a physics graduate student at Caltech. Brun has had numerous experiences in the performing arts. such as playing the role of Mordred in last winter's Camelot. The leading roles of Rosencrantz and Guildenstern will be played by Brian Rague and Simon Morris, respectively. The total cast consists of nineteen actors, six technicians, and three designers. Two main themes provide continuity throughout the play. The first has to do with the fact that Rosencrantz and Guildstern are minor characters in Hamlet. Although tremendous and overwhelming events surround them in the tragedy of Hamlet, they never understand the scale of their own lives as compared to the situation in which they find themselves. In one scene of Rosencrantz & Guildenstern Are Dead, the two protaganists run across a group of players who are performing

Shakespeare's Hamlet. The fact that Rosencrantz and Guildenstern themselves are characters in Hamlet leads to the second theme: that of reality versus art. Rosencrantz and Guildenstern are two characters watching a performance of Hamlet, and yet one never knows with certainty which performance is real and which is solely for the sake of art.

Although these themes deal with heavy-handed ideas, the TACIT production of Rosencrantz & Guildenstern will be primarily a comedy. Although this production will not be on the same scale as that of Camelot, a good deal of time was involved in the production. Auditions were held in the summer, and since the beginning of September, the actors have been rehearsing for two to three hours most nights. As the production approaches its debut, the cast will put more time into rehearsal.

Although TACIT is an ASCIT sponsored organization, all of its funding does not come directly from ASCIT. Revenue from ticket sales will go to the funding of the production. Much of the budget for Rosencrantz & Guildenstern is appropriated for the rental of Ramo Auditorium, which must charge rent because it itself does not have a budget. Tickets are \$7.50 for General Admission and \$5.00 for Caltech Students. The production of Rosencrantz & Guildenstern Are Dead will debut on October 19, and will run until October 28.



Sophomore Amy Hansen leads the Beaverettes with an eighth place finish.



CRIME AND INCIDENT BEAT

- Crime tip: Several thefts in the past few weeks have involved purses or wallets left on desks or in unlocked rooms. Be sure to keep those items in a secure place!
- 10/4 A Hewlett-Packard computer and printer were stolen from a Braun Lab room. The room where it was kept was shared by several persons and was usually unlocked; the computer

"Cubehead Sprinklerhead" Ned Bowden and John Pham chase down an opposing runner.

Tech Meetina

12:15 рм in the Coffeehouse. Anyone interested in working for the Tech is welcome to

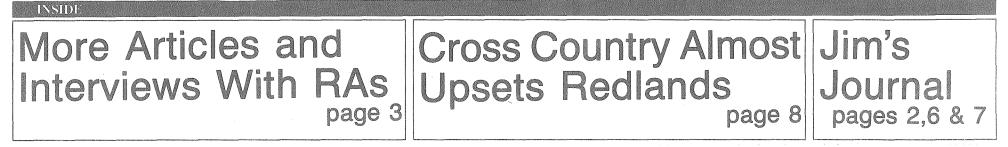
PA 15, The California come. There will be free piz-Tech, meets every Friday at za and soft drinks. The Tech can use more reporters, photographers, assistants, or story ideas.

was unsecured. 10/4 A Dabney House resident reported that \$90.00 was missing from his wallet. No one was observed taking the money from the wallet, which was in the student's room 10/6 In a similar incident, a Marks House resident allegedly found a suspect in his room and asked him to leave. When the suspect left, the resident found his wallet was missing. The wallet was recovered, but \$20.00 was not accounted for. 10/6 Damage to the bumper of an automobile at Tournament

Park parking lot was reported after someone was observed leaning a bicycle against the car, mounting the bike, and cycling away.

10/6 Another vehicle, parked in the Holliston lot, reportedly sustained damage to its bumper from a vehicle that scraped against it.

Total dollar value stolen this week: \$4960.00





The California Tech

features

One Little Indian An Interview With Shubha Tole, the New Lloyd RA

by Chris Dunn

California Tech: Why did you want to be a Resident Associate? Shubha Tole: It's funny. I've heard that question from a lot of other graduate students, phrased: "Why on earth did you want to be a Resident Associate?" Well, I like people, the idea of being in a House-not just a dorm-with some feeling of family and belonging. And I find people aren't so different. I mean, I see in undergrads here things I felt and experienced with my friends in Bombay. I like being in it.

Tech: What was life like as an undergraduate in Bombay?

Shubha: Packed with lots of things. I was in a really good program to major in Life Sciences, and studying was fun. And there were weekend seminars at resorts-things about introspection and communication and stuff. There were college magazine duties and interviews (not unlike this one), and as much as I could possibly pack in of dance.

Tech: What do you do in your spare time?

Shubha: I like dancing. I learned Indian classical dance as a child. I've been on stage since I was five. Since I've arrived here, it's been Scottish dancing on campus, and I've been looking at taking lessons.

Tech: What kinds of books are you interested in?

Shubha: Sort of science fiction, but not as much for the fiction as for the philosophy. I'd say not hard-core philosophy, but something that makes you think about life.

Tech: In which language do you prefer to read? Shubha: English.

Tech: Do you read most easily in English?

Shubha: I speak English better than any other language. I mean, communicating science or complicated thoughts. At home I speak Marathi, and I feel more comfortable using that for everyday conversation with my family. With my husband it's Hindi, which he grew up speaking, and I had it in school as a third language.

Tech: You spoke English in India, then?

Shubha: Yes, I spoke with my friends in English. We lived on campus at a research institute where people from all over the country worked. Since in India almost every state has a language all its own, the common language was English.

Tech: Is English widespread in India?

Shubha: Only in big cities. English correlates with education, usually. You can study in the vernacular, like Hindi or something, until the tenth, sometimes the twelfth grade. If you're studying the language, you can continue for longer. But at some point you have to switch to English, particularly if you're doing science. . . . As I said, each state has its own language. Hindi just happens to be the language of something like four states [out of twenty-two], four of the bigger states, which is why the most common language is Hindi. It's heavily localized in the northern part of India. The southern states especially are opposed to Hindi. In fact, they prefer English, which is strange because that's this language the British brought. I believe our constitution is in English and Hindi.

Tech: Do you know a lot about Indian history, more than about American history?

Shubha: Yes, certainly.

Tech: Culturally, do you consider yourself more Eastern or American?

Shubha: Oh, I'm completely Indian. I've been here two years. I'll say I sort of fit in at Caltech, which says a lot about myself.

Tech: Fit in? Do you mean by being foreign?

Shubha: Well, that too. I was actually making a joke. When I arrived at the airport, which was the first time I'd been out of India, the customs guy looked at my passport and saw a student visa and said, "Oh, you're coming here to study? First time out of India?" That sort of thing. "Just keep away from Caltech," he said. "There are weird kinds out there." I said, "Thanks a lot." Then he looked at the visa properly and saw that it was from Caltech, and he said, "Oh, I'm sorry.

Tech: And he meant that? A bunch of weird kinds?

Shubha: Yeah, he said there's a lot of weird people out here, doing crazy things, without even knowing I was going here. It's sort of strange. You wouldn't expect people at the airport to be aware of Caltech, but this guy was. In that sense, I came and I found to my horror that I fit in with this bunch of weird kinds. I'm happy with it. But I'm completely Indian. . . . On the serious side, I guess a reason that I'm comfortable



Shubha Tole, Lloyd's new RA

New Ricketts

By A. Borges Sugiyama

Ricketts House has a new RA this year. Rob Miles assumed the Resident Associate postion for Ricketts this past summer. He is a second year graduate student in Applied Physics.

Many students might remember Mr. Miles from last year because he worked in the MOSH's office third term. He and Rob Ripperdan assisted the Master's Office while Caltech looked for a Director of Residence Life. So when the openings for RA's were announced, Mr. Miles had some idea what he was getting into.

When asked why he wanted to become the Ricketts RA, Mr. Miles responded, "I wanted to play Four Square and Contract Bridge.

Mr. Miles plans on getting involved in many House activities, especially Interhouse sports. "I like all sports," Mr. Miles claims. I can't wait for Interhouse.

Amitabh "Amit" Mehra, Ricketts House Athletic Manager feels, "Rob is a definite asset to the Maroon Machine. We're going to have him bat clean-up in softball."

Mr. Miles is not just another ninety-eight pound weakling

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science geek. A competitive weight lifter during his days at Annapolis, he can currently bench press between 375 and 380 pounds, but is "working for 400." He is more proud of his ability to dead lift over 600 pounds and lift squat "in the mid 600's". Mr. Miles, an Aquarius, prefers to workout at the Caltech weight room around noon. But since joining the Caltech football team this year he has been forced to work out later at night.

If you want to know the proper technique for doing a squat, or just how much hazing goes on at Annapolis, Rob Miles is the one to ask. But he doesn't know anything about triathlons.

News

FREE DINNER

Join the Caltech Y for the first Entrepreneurial Dinner of the new school year as we present Mr. Al Schaff speaking on "The Handling of Success and Failure: Learning vs. Lamenting". The event will occur on Monday, October 22, 1990 at 6:30 pm in the Athenaeum. Please sign up at the Y (2nd floor Winnett) by Friday, October 19, 1990. Space is limited so sign up TODAÝ.



Tseng CAVE ART

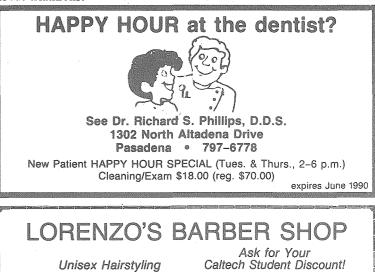
CAVE ART Count Robert Begouen, a renowned French archeologist, will be giving a lecture and slide E presentation discussing the Volp 2 Caverns cave paintings. He will also be sharing his philosophy and practical approach to conservation of archeological sites in Baxter Lecture Hall on Tuesday, October 30, 1990 at 4:00 pm. This event is absolutely FREE!!



MORE FREE DINNERS

All Caltech international students are encouraged to sign up for a free dinner with a local American family for either Friday, October, 26 or Saturday, October 27, 1990 (please one date only). Stop by the Caltech Y to sign up as a small group (2)4 persons) or as an individual to take advantage of this wonderful opportunity. You will be contacted by an American family in advance of the evening you choose. Deadline to sign up is Friday, October 19, 1990.

\$1 off



Regular Cut (men) \$ 900



Thumbs Up for Desperate Hours

by Shane Saubv

Okay folks, this past Friday six movies were released, along with a little controversy. First, the reviews of those movies I didn't see

Henry and June was released, with Fred Ward and some babe. I didn't see it, but I heard that its pretty decent. Also, Avalon, the story of three generations of immigrants, was released. I heard this was also pretty decent, but neither of these will probably interest many. Finally, I also didn't see Millers Crossing which has gotten mixed reviews. It does star Albert Finney, who has done an excellent job in everything else he's been in, so I assume its okay. Well, enough about things I didn't see.

I saw Marked for Death which is the new Steven Segal movie. If you haven't heard of Steven Segal, its all right, since Arnold Schwarznegger, Bruce Willis, and Sylvester Stallone all do a better job at acting then he does. (Yes, even Stallone!) If you have seen a Steven Segal movie before, you have seen

this one. The only new thing this one had was a lot of neat sound effects when Steven broke peoples joints. I wouldn't recommend this one much.

I have seen Fantasia before and know what it was like when I was twelve. If you have not seen this Disney extravaganza, see it now. The studio has rerecorded the soundtrack, restored the original prints, and rereleased this wonderful film. It gets two big thumbs up.

The other movie I saw was the one I didn't know anything about. I walked into the theatre without even knowing who was in the film. The title was Desperate Hours and the star was Mickey Rourke. This was an extremely intense film. Rourke plays a psychopathic genius who plans his escape from a courthouse and then takes over a house to wait for his lawyer/accomplice. While waiting he terrorizes the family that lives there, acting both suave and nonchalant as he orders them around their own home. If you saw Pacific Heights and liked it, you should

go see this film. Unlike Micheal Keaton quiet coolness, Mickey Rourke is the ticking time bomb waiting to explode into a furious monster. He is both dangerous and frightening, which drives home the idea of a total invasion of a persons home. Desperate Hours is a story that could just as easily happen to the fictitious family as it could happen to your next door neighbors. It gets two BIG thumbs up. Go see

Lloyd1

Now, for a little controversy. Henry and June is the first film released with the NC-17 rating. For those of you who haven't been following the debate, this is the MPAA's answer to the outcry for a replacement to the X rating. The problem that the MPAA had with the X rating was that it was not copyrighted, so anyone could rate a movie or video X. Thus the X rating became almost synonymous with pornographic films. Recently, with such movies as The Cook, the Thief, his Wife and her Lover, Wild at Heart, and Henry: Portrait

continued on page 7

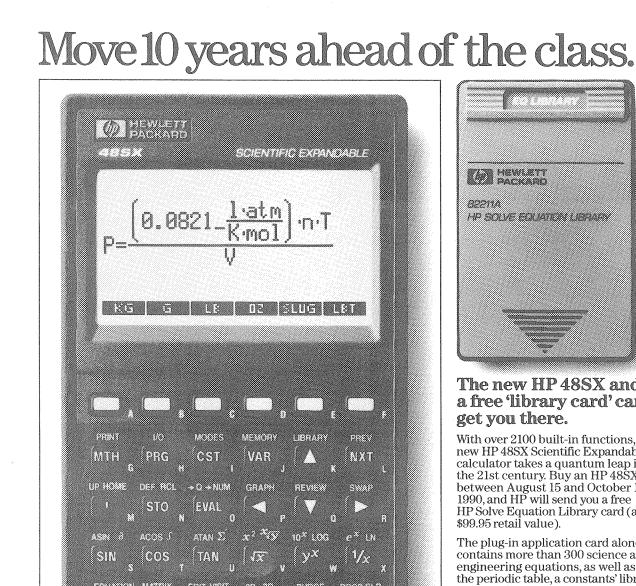
Crime and Meat Beat

The Inside World

- 7/31 At 11:15 pm, a 4SP student in Lloyd heard someone outside her window say "There's no bitches in here." The suspect reached into her room through the window and grabbed several cans of spam.
- 8/4 A secretary in Beckman left her office unlocked. When she returned there was a roast beef in her desk.
- 8/12 A student locked his prize Guernsey Heifer to a bike rack outside Lloyd House. When he returned, the cow was tipped.
- 9/20 A twenty-five pound butterball turkey was reported stolen from the Lloyd house computer room. The door to the room was usually locked, but the security cable was attached to a drumstick, which had been torn from the rest of the turkey.
- 9/28 A woman living in 344 South Holliston looked out of her window and saw a man holding a turgid Vienna sausage. Security was called, but no suspect or sausage was found.
- 10/2 A man approached a student in Lloyd house at knifepoint and said "I know you keep a lot of clams around here." The student offered the suspect all of his money, but the man went to the refrigerator and absconded with \$25 of seafood items.
- 10/9 A resident of Lloyd house was playing basketball in the courtyard when a large Armenian man holding his tongs in his hands cornered him and announced "We are going to cook steaks together!" He then placed his meat on the grill and made the student watch.
- 10/4 A car parked in the Lura parking lot had its window smashed and four pounds of hamburger were stolen.
- 10/7 A finely marbled rump roast was stolen from the eighth floor of Millikan.
- 10/8 A finely marbled rump roast was stolen from the third floor of Millikan.

Crime Tip from Hal Ginder: Keep your door locked at all times. Beef Tip from Hal Grinder: Freeze your meat to keep it fresh and tasty. Brought to you by the Meat Council

-The Beef Chief and Fish Pro Tem



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damaged by a hit-and-run driver while parked in a Caltech lot. I am hoping that someone can help me locate any witnesses or anyone with knowledge of the accident. At some time between Tues-* day, Oct. 2 and Saturday, Oct. 6,* a 1988 Ford Mustang GT parked in the Caltech lot at the north end of the Keck Graduate House was 🕻 damaged in a hit-and-run accident. The Mustang was dark-grey with light-grey lower trim and was bad-Iv scraped on the rear, passenger side. From the color of the $\frac{1}{2}$ scratches, the other vehicle was probably white in color.

If anyone witnessed the accident or has any information, please contact campus security.

-Joe Cates Thank you. * Home: 107 Keck House, (no * phone). Office: 222 Guggenheim, * 356-4764 ** * * * * * * * * * * * * * * * *

Environmental Task Force

Caltech Environmental Task Force C.E.T.F. will meet this Wednesday, 17th October, at noon in Clubroom 1 (above the bookstore). Bring your lunch.

C.E.T.F aims to design and implement programs that will make it easier for the Caltech community to have more environmentally conscious lifestyle, and to encourage the Caltech administration to adopt policies that enhance both the local and the global environments.

Contact David MacKay, X2805, mackay@hope. The Bid Green Debate at Caltech Caltech Environmental Tast Force is organising a public debate on the "Big Green" initiative, prop. 128. A panel drawn from the science, politics and industry will be moderated by Larry Mantle, news director of KPCC-FM. The Big Green Debate will take place on the West Lawn of the Beckman Institute at 2pm on Sunday 21st October. Contact Debbie Bradbury x3630, 1-71.

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There is a better way.



Trash Club

Trash Club meets weekly, Thursdays at 5pm, at the Caltech recycling centre, just north of Beckman Auditorium, to mantain and expand the recycling program at Caltech. All are welcome to come and help. Cookies are served.

Volunteers are also needed to drive recyclables to a neighbourhood recycling centre.

Contact Sakae Suzuki, x6935, sakae@romeo.

The Inside World

This Week's Inside World was written by: Lloyd1: Raif Majeed and Scott Harris Lloyd2: Aaron Lipman and Ari Kaplan Ruddock: Chris Martin

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Lloyd

We're back for another year, and to start it off, we have a story about a pathetic journey into the world of the opposite sex, titled

ALI 'S FANTASY PART II

"Today was my first day back at Caltech after spending a fantasy week at Smith college. I was expecting more of Caltech's dull social life, but instead I became the hot sex object of numerous women. I was just standing around, and this gorgeous incredible babe, wearing only a blouse, skirt, jacket, and heels actually talked to me!!! She said, "Here's your change have a nice day!!!" Can you believe that? and I wasn't even trying to hit on her. Then, later that day, some woman named Naughty Nancy talked dirty on the phone to me for ten minutes!!! Of course, for me, it only cost \$7.50 a minute. Then, I went to my physics lecture, and this bodacious babe sits right next to me and, (I'm NOT making this up), starts a conversation with me! She was my T.A., and she told me that I was flunking, but it was still a female !! Of course, later that day, some woman with no clothes on started coming on to me. And to think that it was only \$2.25 to rent that videotape !!" OK That's enough of Ali for now. Now, here's a handy guide of rotation tips for Freshmen. 1. When people say, "Hey, what's up?" don't say "a preposition" or "the

ceiling" like I heard from some of you. It's not cool and original, it's pretty gay.

2. Don't spend twenty minutes talking to people about your muscles. 3. If you are asked, "Do you like to do anything besides studying?" don't say "NO".

4. Don't brag about what a stud you were in high school.

5. If your name sounds like Bell Biv Devoe, just admit it! It's not a personal attack.

6. Don't say "Gee, I can't decide whether I want to be in Ricketts, or Fleming", and seek counseling from the presidents of each house.

That's enough tips for the clueless Frosh. Here's one last tip for everybody. Don't stick your head in the TV room, look around at everybody without looking at the screen, and then leave. And never press the messages button when other people are watching a movie. Just ask people what the movie is! And also, clueless frosh, don't attend two chem lectures in the same day! In fact, don't go to any chem lectures at all!

Anyway, if there's anyone we haven't offended, we'll get to you next week. Love,

Aaron and Ari.

The Inside World

Ruddock Those In N' Out guys aren't bothered by much. I know I would've been bothered if someone walked into Pistol Pete's Pizza, my old job, and ordered 10 pizzas. But when John and I pulled up to their sorry little burger shack and ordered 10 double-doubles, they didn't even flinch. I guess they're used to being hosed all day. Still, this annoys me that these burger guys have so much charcol in their brains that I can't get to them. Why would I want to bother these poor burger flippin' slobs? Well, there's a couple of reasons: Numero-Uno: They wear goofy looking paper hats. Numero-Two-O: They make more money than we do. These guys can make up to \$60,000 a year. I know it's true, I read it on one of their placemats. Sure they have to spend eight hours in a 5 by 10 space with four other sweaty men, doing nothing more than flipping patties and say-ing, "Would you like onions on that?" But there pulling down almost \$80,000 a year more than us, all things considered.

Anyway, this is my idea. Let's wait for a really bad dinner (shouldn't take long) and then have everybody order a burger from In N' Out. I'll take a video camera so we can capture his reaction when I ask him for 500 double-doubles, 120 fries, and 350 chocolate shakes. And when the administration cancels ditchday like they did Interhouse, this tradition can take its place. We can call the grease-gurus every night and tell them, "You better get to sleep early tonight, because tomorrow we're going to hose In N' Out!"

Speaking of stupid traditions, a bunch of tone-deaf persons dressed up like Santa Claus tried to force their way into Ruddock House the other night. Never let it be said that Ruddock House isn't a good host, cause we had refreshments ready for them. I think they especially enjoyed the buckets of Kool-Aid and Diet Slice, but they dribbled most of it down the fronts of their shirts. We were also planning to bake a cake for them, but they had to settle for the raw ingrediants: 50 lbs. of flour. Lloyd house thought they were being invaded by the Pilsbury Dough Boy brigade. Anyway, all the stuff the Flems didn't want to eat is being served up at the Suicide Picnic Sunday at 3:00. Be there for some barbeque-fu.

The freshmen are running amok in Ruddock this week, trying to take all the Sophomores off campus. Seeing as how you're reading this on Friday, this might not help, but here's some basic info to give you frosh some direction. My best three guesses for Pledgemaster are John Krowas, Keith Oslakovic, and Melissa Li herself. How are you going to get any of these three sophs off-campus without using tranquilizers? Well, like all sophomores, these three are governed by the basic animal impulses. Let's take these one at a time, shall we?

FEAR: For Melissa Li, this fear is comes in the form of falling only two weeks ahead in any of her classes. If you can get her to believe that there is a problem set she forgot to pick up, you can snag her. Even better, if you tell her that she can get extra credit by visiting, say Tommy's, you've got her there too.

HUNGER: Keith Oslakovic and the rest of the 'hungry bunch' have never been observed to go over two hours without food. Let it slip that Foster's just made up a new set of donuts, and lie in wait. Or just slip a coupon for Rose City under his door. Maybe you can catch him at Tommy's when you get Melissa.

SEX DRIVE: John Krowas needs nookie. Any of you female frosh can probably lead John by the, ahem, nose right off campus. Or if you can get his hopes up, he may make a 'condom run' to the Health Center, and there you have him. Good luck frosh, and take a valium, okay?

Problem Solving

by Golda Bernstein

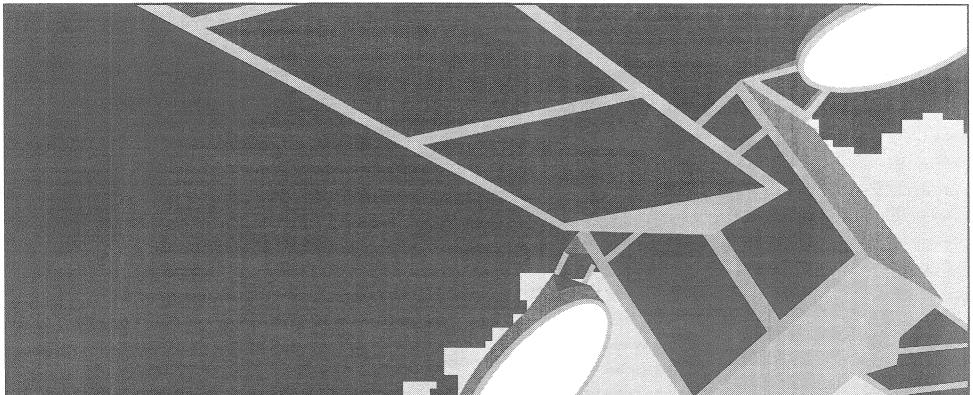
If drug use were legalized and the government became a supplier, should they make a profit? Would this increase or decrease usage, violence, and drug-related crime? How could a controlled distribution system be set up for maximum benefit to drug users and victims?

If training and materials were provided, some fair percentage of homeless could spend their days constructing homes instead of panhandling and hanging out. This has been done, but not recently in L.A.. How could a self-sustaining constructions program operate with a one-time capital outlay?

Remember the trouble the last census had with inaccurate counts of the homeless population? How difficult would it be to set up a computer system to keep a daily record of the homeless through their visits to soup kitchens and other support facilities? What if some foundation or government agency were to provide a grant to pay a few techers to work out such a system?

The problems posed above are admittedly more complicated and less well defined than those on the last Ph2 or AMa95 assignment...but are they so much more difficult? If you can solve problems in the classroom, why not outside of it too? So bring your ideas and appetites to the first meeting of the CRW club - Caltech and the Real World - and we eat Real Food, too! It's at the Y lounge, Monday at noon. See you there!

You can also submit suggestions, solutions, and additional problems to CRW, mail code 218-51



Employment Odyssey



in Palo Alto, California.

raduation marks the start of a whole new adventure. Your mission? To find a job and a company that give you the space and resources to develop your potential. Now's your chance to explore the possibilities in the Space Systems Division of Ford Aerospace

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- Mechanical Engineering
- Aeronautical Engineering

Join us for an on-campus interview. See your placement office for details.

Or send your resume to: Jesse N. Parham, College Relations, Ford Aerospace, Space Systems Division, 3825 Fabian Way, MS D-11, Palo Alto, CA 94303-4697. An equal opportunity employer. Principals only, please. U.S. citizenship may be required for some positions.



Ford Aerospace **Space Systems Division** October 12, 1990

The California Tech



I would've bought a Macintosh even without the student discount.

Greg Gallent Consumer Economics and Housing Cornell University

"The first time I saw a Macintosh, I was immediately hooked. It's a work of art. I saw the student pricing and my next move was obvious: get one.

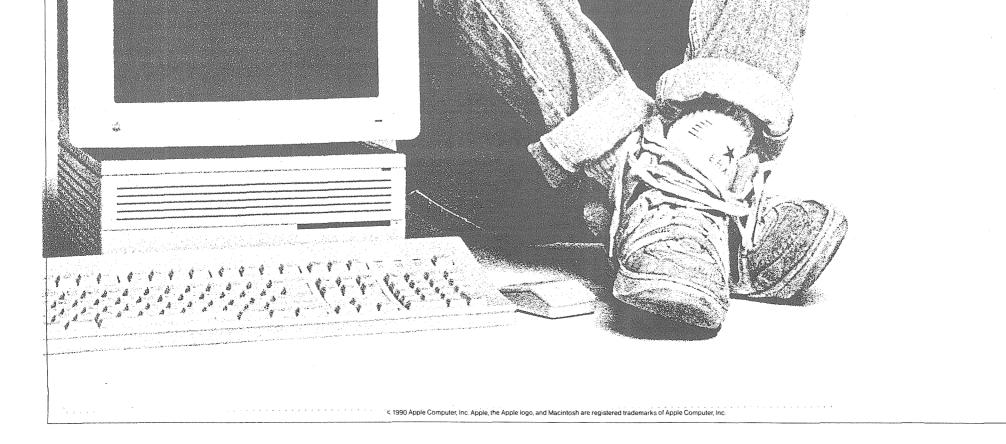
"Some other computers are cheaper, but they're a pain to learn, and working on them can be a grueling experience. Last year, a friend bought another kind of computer against my advice and has used it for maybe 15 hours. What a waste. "Macintosh, on the other hand, is a logical extension of the mind. It lets you concentrate on what's *in* your paper, not on how to get it *on* paper. You can create professional-looking documents in minutes, and you lose the fear of learning new programs because they all work in the same way.

"Once you've worked with a Macintosh, there's no turning back."

> For further information, visit the CCO Business office, Jorgensen Bldg. Room 158, ext. 4612



Why do people love Macintosh®? Ask them.



The California Tech

October 12, 1990

Movies from page 4

of a Serial Killer, there has been a cry for an A rating for "Adults Only." The president of the MPAA did not think this was necessary and continued to give X ratings to movies that were not pornographic. Most theatres would refuse to play such movies, and thus the movies were cut to give them an R rating. (This sometimes having a large effect on the flow of the movie, as in Black Orchid) What is amusing is that the new NC-17 rating has all the restrictions of an A rating, but the MPAA didn't name it A so it wouldn't have to admit that it was wrong in refusing the rating for almost a year. On top of all this, there are now protests against the rating. Activists are saying that this new rating will allow studios to make more explicit movies and that the risk that young children will see these accidentally is too great. One child under eighteen did see Henry and June with his parents, who afterward did not mind what he had seen. Hopefully, the hoopla will soon pass and directors will no longer have to worry whether a scene they're filming will have to be cut or not.

On-Campus Recruiting for Seniors

On-Campus Recruiting for bachelor's and master's students starts October 29. If you didn't receive a package of information from the Career Development Center and are intersted in participating, stop by our office and get on our mailing list. Each year. between 150 and 200 companies come on campus to interview prospective graduates. We also compile a resume book for students seeking permanent industrial employment. The deadline to submit your one-page resume for inclusion in the book is Friday,

November 2. Stop by for more details. The Career Development Center is located in 08 Parsons-Gates. Our hours are from 8-12 and 1-5. Our extension is x6361.

October-AIDS Awareness The Pasadena AIDS Community Coor-

dinating Committee has a full calendar of events for AIDS Awareness Month-the Pasadena Health Department has counsel-ing and free HIV testing (for information call 405-4391); there is a medical panel discussion on HIV/AIDS on Sunday, Oct. 14 from 2-4 pm at St. Joseph's Medical Center, Burbank. For more information on calendar events, call or visit the Student Health Center on Arden Road, x6393-it will be posted in the lobby.

Folk Dancing On Campus The Caltech Folk Dancers invite you to come and join us for folk dancing on Tuesday nights in Dabney Hall Lounge. Dances are taught from 7:30 pm to 9:00 pm, with dancing from 9:00 until 11:30 or midnight.

Alpine Club

Do you want to go hiking, climbing, skiing, or mountainbiking this year? Looking for other people who also enjoy the mountains? Need information on outdoor recreation? Then come to this year's first meeting of the Caltech Alpine Club, Thursday, October 18, at 7:30 pm in Winnett Clubroom 1. Peter Green will present a slideshow of an ascent of Cerro Aconcagua, the highest mountain in the Andes. We'll also discuss this year's trip schedule, so bring your ideas day, weekend, and spring break trips! All outdoors enthusiasts are welcome! For more information, call CAC president Andy Wells at x4165.

what goes on Speech/Debate Meeting Submit announcements for What Goes On on forms available outside the Tech

The Caltech Speech and Debate Team will have its first meeting of the 1990-91 school year Monday, October 15 at 5:30 pm in Rm. 15 of the SAC. All students interested in participating, regardless of previous experience, should attend. We will discuss our plans for the year, including trips to competitions. For more information contact Jeff Foust at x3777.

The Putnams Are Coming!!!

The 51st Annual William Lowell Putnam Mathematical Competition will be held this year on Saturday, December 1. Please sign up quickly, in Sloan, if you wish to take it. As usual, we hope many participants will enjoy a day of math problems and donuts.

D.R.U.G. Bust

office (SAC room 40A) and in the

copy/mail room (SAC room 37), or use a

plain piece of paper. Send announce-

ments to 40-58, or put them in the IN box

outside the Tech office. Indicate the date(s)

the announcement must run. Announce-

ments 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 avail-

able and will be chosen according to size

and interest to the Caltech community.

Announcements for commerical events unrelated to Caltech will not be published.

The CLUEs (Course Listing of Under-graduate Education) are in. If you want to get one before Add Day, talk to Scott Kister,

796-3220, or stop by room 40 of the SAC

Volleyball for fun Volleyball For All The gym on Thursday

nights has been reserved for volleyball from

10 p.m. to 12 a.m. All with experience are

welcome. Come over and join us for some

First meeting of the Society for Women

and include the borney for the formed at 7:30pm in Ruddock House Lounge, next to the Ruddock House dining hall. Frosh

women are invited to attend. Old members

Anyone interested in working with the Cen-

tennial BigT is invited to a meeting next

Wed, 10-17, at 7:30 p.m. at SAC room 15.

In response to student demand, the Health Center and Counseling Service will

make their 1990-91 Spouse Programs avail-

able to all students' spouses regardless of

their insurance coverage. The fee will be

\$50 each term-charged to the student's

account-for each program, Medical or

Counseling. Therefore, if your spouse en-

rolls in both programs, it will be \$100 each

term. Registration forms for these programs

will be available at the Health Center. You

The Caltech Y is sponsoring a FREE

dinner at the Athenaeum on Monday, Oc-

tober 22, 1990 at 6:30 pm. The featured

speaker will be Al Schaff, currently a world-

wide consultant on electronic sensor de-

velopment and manufacture. He will be

speaking on "The Handling of Success and

Failure: Learning and Lamenting" followed

by a time of questions and answers. Please

sign up at the Y by Friday, October 19, 1990

Next meeting is THIS SUNDAY at SEVEN at WINNETT LOUNGE (or maybe

upstairs; do we have a room yet, Joe?)

COME IN GARB !!!! Also, if you don't real-

ly want to feel like you are all dressed up

with no place to go, there will be a demo

at the Pasadena Waldorf School at 2pm the

same day-Come to that in garb. For more

details and possible rides, call you rdeputy

Mon-Fri 9:30 a.m.-5:30 p.m.

1388 E. WASHINGTON BL. - PASADENA

Saturday 10 a.m.-5 p.m.

may call for details at x6393

(space is limited).

Entrepreneurial Dinner

The Voyager Dormant

Call the editors for more information.

Health Center Spouse Costs

next Thursday afternoon or evening,

Get a CLUE, Frosh!

fun and exciting games.

S.W.E Meeting

should try to come.

Come Join BigT

D.R.U.G., the DarkRoom Users' Group, will have our annual organizational meeting this Saturday, 13 Oct. 90, at 2 pm in the Darkroom (Rm. 39, SAC). Dues levels and policies for the coming year will be set at this meeting, so come if you want a voice in operations this year. For more info, call the DRUGgist, Mark Looper, at 304-0006.

To All Frosh Women!!!

The first meeting of the Society for Women Engineers will be on Tuesday, Oc-tober 16 at 7:30 pm in Ruddock House Lounge, next to the Ruddock dining hall. Frosh women are invited to attend and join as full members. Old members should try to come.

The Count is Coming!

A world renowned French archeologist will he visiting Caltech on Tuesday, October 30, 1990 at 4:00 pm in Baxter Lecture Hall. Count Begouen will be discussing the cave paintings in the Volp Caverns (with slides) as well as presenting his philosophy and practical approaches to conservation of archeological sites. This event is FREE and open to the public.

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.

Off-Campus Folkdancing

Join the Pasadena Folkdance Co-op every Friday evening at 7:30 pm at Throop Unitarian Church in Pasadena at the corner of Del Mar and Los Robles. The club offers beginning instruction at 7:45 pm and intermediate at 8:30 pm. Each month the community is invited to participate in line, set and couple dances from all over the world. A \$2.00 contribution is requested of nonmembers.

Attention Internationals

Would you like a FREE home cooked meal along wiht meeting an American family? Stop by the Caltech Y (2nd floor Winnett) to sign up as a small group (2-4 persons) or as an individual to take advantage of this wonderful opportunity. You may choose from two dates: Friday, Oct. 26 or Saturday, Oct. 27, 1990 (please one date only). You will be contacted by the American family prior to the evening you choose Deadline to sign up is Friday, October 19, 1990.

Staying Sane: Community Corner Hey all you socially conscious techers

out there! The Community Services Club at Caltech is gearing up for another term of activities away from campus where you can have fun and make a difference to someone else. Knowing that you're needed can help you keep perspective when homework & grades add up to STRESS.

A list of opportunities is available at the ... it includes working with kids, serving the homeless, doing handyman work at group homes, giving blood, working in a hospital, doing adult literacy tutor-ing,...and more. If you are interested, just come up to the Y and say so! Or call x6163, leave your name & mail code and join our popular mailing list.

Yogurt With Glee?

Enjoy some frozen yogurt and help the Caltech Women's Glee Club, too! We're having a fund-raiser with Heidi's Frogen Yozurt at the Pasadena Plaza, today, October 12 from 5-9 pm. So join us for some great frozen yogurt, and Heidi's will donate a portion of the proceeds towards our concert program. Thank you.

WISE Lunch

The 3rd Women In Science and Enineering at Caltech lunch will be held on fuesday, October 16th in Dabney Gardens. Come in and meet other women from across campus.

Entrepreneurship Association

The first meeting of the Caltech Entrepreneurship Association will be Wed., Oct. 19 at 7:30pm in Rm. 25 of the SAC.

Decorating Caltech's Float

All members of the Caltech/JPL community interested in volunteering to decorate Caltech's entry in the 1991 Rose Parade are invited to attend one of two float-decoration programs. These instructional presentations are both scheduled from 7:00 pm to 8:30 pm. The first will be in the Winnett Lounge on campus on Wednesday, Nov. 7; the second will be at Rosemont Pavilion on Tuesday, Nov. 13. Rosemont Pavilion, the Caltech float's building site, is located at 700 Seco Street at the corner of Rosemont.

These programs will be presented by Charisma Floats, which is constructing Caltech's "For Every Action ... A Reaction" float. The object of both presentations is to acquaint Caltech/JPL people with the fundamental aspects of float decoration ("petalpushing") and to provide a preliminary schedule for the Dec. 26-31 decoration period.

If you are interested in volunteering to decorate the float and cannot attend either of these programs, please call Lenore Freise at 356-2188 to ensure that you will be contacted later this year with additional information.

Ride Board

Need a ride home after exams? Want to go to San Francisco for the weekend? Feel bad about driving alone? Want to save gas and help others as well? Now you can, with Caltech's new ride board, set up by the Caltech Environmental Task Force and the Caltech Y. Come by the Board, just outside the Y Office on the second floor of Winnett, and use the provided cards to offer a ride or look for a ride. Save money, hassle, time and gas! Reduce smog-use the ride board!

Green Hills Scholarship

The Green Hills Software Corporation has announced the availability of \$5,000 Computer Science scholarships. These renewable scholarships are to be awarded to juniors and seniors with an interest or experience in computer science. The Green Hills scholarship is based solely on academic performance with no regard to financial need. The deadline for submitting the Green Hills Scholarship application has been ex-tended to November 1, 1990. Applications are available at the Financial Aid Office, 515 S. Wilson, and the Dean's Office, 102-31.

Scholarship Listings

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

The California Irrigation Institute has announced the availability of a \$1,000 scholarship award for the 1990-91 academic year. To be eligible, students must be either juniors or seniors, enrolled full-time in a course of study leading to a major in an irrigation- or water-related field of study The deadline to apply is November 1, 1990. The National Space Club will award a

\$7,500 scholarship for the academic year 1991-92. The scholarshipo is in memory of Dr. Robert H. Goddard, America's rocket pioneer. Applicants must be U.S. citizens in at least their junior year and have the intention of pursuing undergraduate or graduate studies in science or engineering. The deadline to apply is January 4, 1991

The Northrop Corporation is offering scholarshiops at Caltech for the 1990-91 aca-demic year. The scholarship is open to juniors in Electrical Engineering with at least a 3.3 GPA and a career interest in the defense aerospace/electronics industry. The applicant must be a U.S. citizen, a resident in geographic proximity to a Northrop facility and must not be a concurrent recipoient of another company's scholarship. Applica-tions are available in the Financial Aid Office at 515 S. Wilson. The deadline is 5:00 pm on Friday, November 1.

Service League Offers Money

The Caltech Service League now has a fund request form. All campus organizations requesting financial aid from the Service League must use this form. The forms are available at the MOSH's office and at Lydia Matthew's office in Parsons-Gates, x6315. 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.

Why Graduate School?

The GEM Program will present a twohour national interactive videoconference on "Why Graduate School in Science and En-gineering?" on Tuesday, October 30, 1990. Viewing will be from 10 am to 12 noon in Baxter Lecture Hall. The goals of the conference are to inform science and engineering undergraduate students of current trneds in American graduate education in science and engineering, to demonstrate the advantages of graduate education, and to inform students of resources and financial assistance available, among other topics. The Career Development Center, x6361, has all the details



Watson Fellowships

The Watson Foundation provides postgraduation fellowships of \$13,000 (\$18,000 for married students) for a year of indepen-dent study and travel. Fellowships are not intended to support formal studies at a foreign university. They encourage, instead, an informal break in the normal sequence of undergraduate/postgraduate education. Caltech seniors are usually chosen for this award. In fact, a 1990 graduate, Jennifer Low, is a Watson Fellow this year.

One to three page project proposal drafts are due in the Deans' Office on Friday, October 12, 1990. Keep in mind that successful proposals generally have a single topic of study or investigation that reflects a student't long-standing interest in that area. Also, the foundation will be making a con-certed effort this fall to increase the quantity and quality of projects having a business focus. Seniors should stop by the Deans' Office if they have any questions about this program.

Caltech Student Special 14" Pizza with 2 toppings \$8.99 or two for \$17.49

10% CIT Discount after 9pm 577-9936 26 N. Los Robles

October 12, 1990 The California Tech **Nearly Upset Weakened Redlands** arriers

by Chris Campo

"I thought that a cross country team was good if its top five finished all within a minute." A perplexed Mark Lyttle shook his head, and exclaimed, "Our top men had a whole minute between each of them!" Indeed, the key adjective for the men's cross country team in their meet at Bonelli Park in San Dimas this weekend was "sparse".

Going into the meet, Caltech had expected to face invulnerable competition from two of the strongest teams in the conference. Occidental's reputation for being a superpowerhouse this season had gotten around, and Tech prepared to be meted out severe punishment from Oxy as payback for their loss to the Beavers the previous year.

Also there to stomp on the Beavers' butts would be another of the SCIAC conference's strongest teams, the University of Redlands. Oxy came to the meet in a show of force, but in a delightful surprise for the Beavers, Redlands came without three of their top runners.

Unfortunately, the fact that Redlands showed up to the meet "caught with their pants down", so to speak, didn't prevent them from defeating the Beavers narrowly by 26-29. Oxy shaved it not nearly so close, lambasting Tech, 18-42.

The five mile course at Bonelli was a composite of varying terrain: a quick jaunt across muddy grass

Day

Fri.

Sat. Sat. Sat. Sat.

Sat. Wed

Wed

Wed

Fri. Sat. Sat. Sat. Sat.

was followed by a gentle climb up a one mile slope, and then a descent down a steep, rockstrewn hillside. The next mile and a half of the course was flat and fast pavement, but a gruesome surprise awaited the harriers at the four mile mark. The course veered off the pavement onto a dirt trail and then climbed an agonizingly long and steep hill. After the hill, it was down onto pavement again through to the finish.

On this battleground, the Beavers made their bid for victory over Redlands. Mark Lyttle gets the "fast move of the week award" for plotting a shorter start around picnic tables at the beginning of the race and thus achieving a place at the head of the lead pack 300 meters into the race. Lyttle's lead didn't last for long, however, but teammate Dan "Terminator" Flees took his place at the front for the first two miles.

"They went out slow," said veteran Flees, referring to a strategical start by the front pack. "They passed me after two miles, though. One of these days those guys aren't going to catch me!"

Tech's Beavers spread out after two miles, doing exactly what a cross country team shouldn't. The critical battle of the day was between Caltech and Redlands, and Coach O'Brien bit his nails as he watched the runners come into the



Doruk Engin sets up pass during the Caltech Classic water polo tournament.

ohoto

Dan Flees leads the Beavers early, but transfer Aaron Matzner comes back to lead the Beavers and finish third overall.

finish shoot. Aaron Matzner. dubbed "Motorcycle Man" by his teammates, motored over the course to finish ahead of all Redlands runners in a blazing time of 26:59.

The first Redlands runner came in 20 seconds behind Matzner, but the second Bulldog made it in five seconds ahead of Tech's Terminator. Dan finished with a time of 28:02, beginning the trend of finishing a minute behind the next faster Beaver. Scott Kister continued that tradition, finishing 17 seconds behind the third Redlands man with a time of 29:01. The race at this point was very close, but if Tech didn't break the pattern of "Redlands man, Caltech man, Redlands man, Caltech man ... " victory would not belong to the Beavers.

Alas, the fourth Redlands man finished ahead of Chris Campo, e who finished fourth for Caltech nearly a minute behind Kister. After Campo came another Redlands runner and the fate of the Beavers à was sealed. Jonah Michaud, Tech's g fifth finisher, finished the Caltech "Minutemen" parade by clocking a "Minutemen" parade by clocking a time of 30:57 – exactly one minute

behind teammate Chris Campo.

WEEKLY SPORTS RESULTS

Day	Date	Sport	Opponent	Results
Fri.	10-5	Soccer	Loma Linda	2-2
Sat.	10-6	Cross Country	Oxy, Redlands, Laverne	Men vs. Oxy 42-18, Redlands 29-26, LaVerne forfeit win Women vs. Oxy 45-15, Redlands and LaVerne forfeit win
Sat.	10-6	Soccer	LaVerne	3-5
Sat.	10-6	Football	California Wolves	33-18
Sat.	10-6	Water Polo	Chapman	5-11
Sat.	10-6	Water Polo	Pasadena City College	11-14
Sat.	10-6	Volleyball (W)	Christian Heritage	2-15, 4-15, 15-8, 9-15
Sun.	10-7	Water Polo	Whittier	5-10
Sun.	10-7	Water Polo	Redlands	lost
Wed.	10-10	Volleyball (W)	Loma Linda	lost

WEEKLY SPORTS CALENDAR

Caltech's women raced over a three mile course, without the dreaded fourth mile hill, and faced the same schools as the men and an incomplete LaVerne team. Like their male counterparts, the Oxy women were unbeatable; they pounded Tech into Beavermush 15-45. Redlands and La Verne, however, had incomplete teams. This meant that Tech was victorious over both.

In spite of having the results fairly well fixed even before the race began, the Beavers put forth a good effort, finishing close together with a time of 1:25 between first and fourth place. Sophomore Amy Hansen, with a time of 22:40, blazed the fivekilometer course and led the Beaverettes with a final sprint to the tape for eighth place. Aimee Smith earned a 10th place finish,

running her fastest time ever at 23:15 (Smith also competes on the men's JV soccer team.)

Freshman Carol Johns and Emmeline Naranjo finished 11th and 12th, with times of 23:40 and 24:05 respectively. (Emmeline will be starting her first week of practice this week for the women's volleyball team.) In her first collegiate race, freshman Becky Green, with a time of 25:24, closed out Caltech's top five runners capturing 14th place overall.

The Caltech Invitational, on October 13, will take place on the Beavers' home course in the Lower Arroyo Park. Invited teams include NCAA Division I Pepperdine, as well as Life Bible College, Mt. St. Nary's and SCI-AC opponents LaVerne and Whittier.



						and the second
Day	Date	Time	Sport	Opponent		Location
ri.	10-12	6:00 pm	Volleyball (W)	Caltech Invitational		Caltech
at.	10-13	9:00 am	Cross Country	Caltech Invitational		Lower Arroyo
at.	10-13	10:00 am	Soccer	Claremont-Mudd		Caltech
at.	10-13	11:00 am	Water Polo	Redlands		Caltech Caltech
at.	10-13	1:30 pm	Football		Antelope Valley Crusaders	
at.	10-13	2:00 pm	Volleyball (W)	Caltech Invitational		Caltech Redlands
Ved.	10-17	4:00 pm	Soccer		Redlands	
Ved.	10-17	4:00 pm	Water Polo		Occidental	
Ved.	10-17	7:00 pm	Volleyball (W)		Mount Saint Mary's	
ri.	10-19	3:00 pm	Soccer		Pacific Christian	
at.	10-20	9:30 am	Cross Country		Cal Luth., Pom-Pitz., La Verne	
at.	10-20	10:00 am	Soccer	Occidental		Occidental Designed Bitman
at.	10-20	11:00 am	Water Polo Football	Pomona-Pitzer Cal Poly Pomona		Pomona-Pitzer Caltech
at.	10-20	1:30 pm	rootball	Cal FOLY FOLIONA		Canech
PARIAN TRAVEL Caltech Officially Approved Most professional, courteous, economical and efficient service for your official and personal travel needs. Free service to you. Airlines, Cruises, Tours, Hotels, Car Rentals. Individual, Commercial, Groups. (818) 577-8200 468 S. Sierra Madre Boulevard, Pasadena					HELP WAI RECEIVE \$2 study on wo couples wan is a graduat RATES Send writter Deadline is 6	SIFIED ADS <i>VTED</i> — O FOR PARTICIPATING in a rk and marriage. Dual-earner ted in which at least 1 spouse e student. (213) 326–6869. \$4.00 for first 30 words; c for each additional word. ad with payment to 40–58. 5. p.m., Monday before issue. or on-campus lost & found.
					And an and a second	

Cass Nakasone (24) surges past trailing California Wolves en route to the Beavers 33-18 victory at home.

