

# THE CALIFORNIA TECH B



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FRIDAY 24 OCTOBER 1986

# An Educator's View of Nicaragua's Revolution

by Josh Kurutz

"We're going into a potential Holocaust in Central America!" was the sentiment expressed by Dr. David Bayer in his STRIVEsponsored talk entitled, "An Educator's View of Nicaragua." Bayer spent 17 July days this year touring Nicaragua, a good deal of the time unsupervised.

"The Sandinista revolution is an independent, nationalist movement," said Bayer. "It has a right to do what it wants. The U.S. has no right to get involved."

Bayer brought up numerous objections to the Reagan Administration's policies regarding Nicaragua. He considered the present practices of the President to be "un-American." He cited as support for this claim Reagan's suppression of free press, manipulation of public opinion, and deception of the people through a practice of outright

One of Bayer's claims was that the Sandinistas are not trying to export revolution as Reagan would like to believe. "They are just trying to control their borders," said Bayer, adding that one of the most substantial problems in this area is the activity of the *contras*.

"The people targeted by the contras (for assassination) are those who are trying to make the revolu-tion take root," said Bayer. As prescribed by the CIA manual for terrorism distributed among the contras, targets include children, teachers, nurses, doctors, construction workers, etc.

Bayer described U.S. involvement as a low-key war with a continuing series of excuses for escalation. The first reason was that the U.S. had to stop arms shipments from Nicaragua to surrounding nations. Bayer asserted that this phenomenon was never actually seen by anyone and was, at best, mere hearsay

The second excuse for getting involved with Nicaragua was the the Sandinista government was Communist and had to be eliminated for that reason. The speaker countered with his impression that most Nicaraguans feel free. In addition, Bayer noted that the nation held free elections in 1984, and that these elections were the most democratic seen in Central America in years as judged by an international panel of observers.

the situation was the requirement

that the contras be included in international negotiations on the issue. "Did the Founding Fathers invite the redcoats to negotiations?" was Bayer's reply. Common to all of these rationalizations is the general conviction of the Reagan administration to overthrow the Sandinista government and replace it with the U.S.-backed contras, according to Bayer. The speaker said that the knowledge of this led a U.S. Ambassador to Honduras to resign his post.

The American position is not supported by its allies, according to Bayer. Western European nations continue to send people and money to Nicaragua. In fact, volunteers from these countries who worked for the Sandinistas have been killed by U.S.-backed

Americans visiting or living in Nicaragua are not subject to equivalently hostile sentiments expressed by that nation's populace, according to Bayer. "They have this way of separating you from the policies of the White House," Bayer said.

The citizens there seem to have positive feelings about the U.S. '(Nicaragua has received) tractors and other goods from the Soviet Union and its satellite nations, but they would rather have bought them from the U.S." This Central American nation is now in the process of trying to draw up a Constitution; according to Bayer, its government has called American lawyers to fly there and offer advice regarding its writing.

Still, Nicaraguans have a monumental objection to "Yankee interventionism," according to Bayer. "The will take to the hills fight to the end if necessary."

The Nicaraguan government is spending a good deal of effort on shaping their Constitution. Over the last two months, there have been 73 town meetings across the nation to discuss the proposed content of this document. Opposition parties have complained about some of the issues included in the document and there objections have been heard. Nicaraguans are, generally, proud of the accomplishments their nation has made. For example, illiteracy has dropped from 67% to 14% since 1982 and polio has been eliminated. Private hands hold Bayer said that a demand that 60% of the country's business and got the U.S. more entrenched in 80% of the farmland is under continued on page 3



Grad Student Christine Wilson shows the Palomar Sky Survey plate with her comet's picture on it.

# Palomar Sky Survey To Map Northern Sky In 2,682 Pieces [CNB]—Caltech astronomers have Professor at Caltech. "First, it will heavens over the ensuing three

begun a mammoth five-year project to photograph the entire northern sky using sensitive new photographic techniques. The resulting atlas of the heavens, contained on some 2,682 glass plates, will serve as the basic astronomical guide to the skies for decades to

Able to record celestial objects several million times fainter than can be detected with the naked eye, the plates of the Palomar Sky Survey-made using the 48-inch Schmidt telescope at Palomar Observatory – won't be found in the local public library. But the Survey will become a standard reference in the libraries of every major observatory around the world.

The new Palomar Sky Survey, like the first survey done in the 1950s, is valuable to astronomers in two ways," said Palomar Obser-Director Gerry vatory Neugebauer, the Howard Hughes directly yield useful scientific results, and second, it will serve as a guide for astronomers using a wide array of other telescopes.

According to Dr. Neugebauer, astronomers expect to use the data from the new survey to:

• discover new quasars, galaxies, stars, asteroids and comets.

• map the structure and circulation of our galaxy, the Milky Way, by comparing the positions of stars with those in the last major survey 30 years ago.

• serve as a celestial road map for the Space Telescope.

• identify at visible and nearinfrared wavelengths, objects discovered with telescopes that see in the radio, X-ray, or infrared regions of the spectrum.

The \$1.5-million Palomar Sky Survey is funded by grants from the Alfred P. Sloan Foundation, the National Geographic Society, the National Science Foundation, and the Eastman Kodak Company, which is also supplying the photographic plates for the survey. Once completed around 1991, the copies of survey photos will be made available by Caltech, at cost, to all astronomers, either as glass plates or as film transparencies.

Caltech pioneered the business of sky surveys in 1949, when Institute astronomers and technicians began the eight-year task of mapping the northern sky for the first Palomar Sky Survey. That survey used the then-new 48-inch Schmidt Telescope, essentially a gigantic, high-powered, wide-field camera. The first Palomar Sky Survey proved to be one of the most important developments in 20th-century astronomy, because it provided astronomers with an unprecedented wealth of information about the heavens.

In 1980, Caltech astronomers began planning for a new survey, because of advances in photographic and telescope technology and the changes in the

decades. The rotation of our galaxy had changed the positions of hundreds of visible stars.

A new northern sky survey would also complement a similar survey of the southern sky now being completed using the United Kingdom Schmidt Telescope, a twin of the Palomar Schmidt, in Australia.

The first major step in preparing for the new survey came in May of 1985, when Caltech took delivery on a new \$380,000 lens for the Schmidt telescope. This corrector lens-four feet in diameter and weighing several hundred pounds-enables the telescope to focus sharply a wider range of wavelengths than possible in 1949, without the imageblurring phenomenon called "chromatic aberration."

Such blurring tends to occur with simple lenses because, although they focus light of one wavelength sharply, significantly longer or shorter wavelengths are refracted differently by the lens and, thus, do not focus well. The new lens, consisting of two pieces of special glass cemented together and ground to a complex surface. can sharply focus light throughout the visible range and into the near-infrared.

The new lens was only part of an extensive refurbishment by the Palomar technical staff of the 48-inch Schmidt and its support facilities. Once these improvements were complete, in early 1986, the astronomers and technicians were ready to begin the gigantic task of photographing the entire northern sky. Over the last several months, they have tested the facilities and procedures and have now begun to produce the plates of the survey.

Each night during the dark of the moon, the dome of the 48-inch telescope opens to begin another night of astrophotography.

continued on page 3

# Donald Guinn, Late of PacTel, Joins Caltech Board of Trustees

[CNB] - The Board of Trustees of Caltech has elected Donald E. Guinn to membership on the Board, as announced by Chairman Ruben F. Mettler. Mr. Guinn is chairman and chief executive officer of the Pacific Telesis Group, based in San Francisco.

Mr. Guinn, who served as chairman of Pacific Teleophone during its divestiture from American Telephone & Telegraph in 1981-83, is widely known in the industrial community for his leadership in guiding the company into its new and more competitive environment as an independent institution. In April of this year he was named the 1986 California Industrialist of the Year.

"We are pleased that Don Guinn has agreed to lend his expertise to the board," said Dr. Mettler. "His dynamism and insight will be of great help in the board's task of overseeing such a rapidly advancing institution as Caltech.'

Born in Wellington, Kansas, in 1932, Mr. Guinn received his B.S. in engineering from Oregon State University in 1954, and is a Registered Professional Engineer. In 1954 he joined Pacific Telephone and Telegraph in Portland, Oregon (that segment was later renamed Pacific Northwest Bell) as assistant engineer. He held a variety of positions in engineering, operations and customer services in Oregon and Washington states until 1976, when he joined Pacific Bell's parent corporation, AT&T, as assistant vice-president of engineering and customer services.

Mr. Guinn was appointed vice president of customer and network services at AT&T in 1978. He became chairman of the board of Pacific Telephone and Telegraph in 1980, and he was named chief executive officer designate of the Pacific Regional Operating Company in 1983.

Mr. Guinn is a member of the board of directors of Security Pacific National Bank, Di Giorgio Corporation, American Medical International, and Pacific Mutual Life Insurance Company. He is vice chairman of the California Business Roundtable and a trustee of the Committee for Economic Development, as well as a member of the national Business Roundtable and the Conference Board.

## **LETTERS**

### **True Page Spirit**

To the Editors:

Slovik's attempted "proof" of Page House's unspiritedness is unreal. In the name of campus unity he insulted Page in order to disrupt a possible unity. Only the empty-headed hypocrisy of a buffoon like Slovik could produce such a lie.

Page House's spirit has never before been doubted, because of our strong support of intercollegiate sports (Page is the greatest source of intercollegiate athletes) and because of our leadership in ASCIT (over half of the officers are from Pagé) and the BOC (a third from Page). It has generally been Page House's philosophy to participate in these campus-wide activities which the administration supports, not in activities (such as name-band parties or traffic jams) of which the school or community expressly disapproves.

We have found that intercollegiate sports and intra-campus government are the most effective channels to generate a positive atmosphere of community support, involvement and loyalty. Slovik does not value these activities, but the snotty ignorance of [an expression truly not suitable for print] need not deceive one.

–Konstantin Othmer Dave Parkinson 1–53

# **More Spirit**

To the Editors:

I'm disturbed by Slo-dik's [sic] representation of Päge [sic] attitudes. Päge is extremely campus oriented. Maybe in Adam's argument with his friend, he should have mentioned in contrast that a large portion of the campus, including Päge, doesn't show up for interhouse sports because that portion is busy boosting campus spirit at intercollegiate athletic events. Once his friend has been shown that the pride of Caltech can exist in athletic and social events, not just in acting like organized groupies (after all, those are the worst kind), we can get specific.

Last year, it was Päge house that got stuck with the "H" in the spellout—the ticket-getters. If it was campus-wide, why didn't we mix up the houses, so that some Phlegms, Darbs, Moles, etc. got tickets? So much for the distant past.

I see nothing wrong with participating or *not* participating in this new-wave/rock scheme. Although some Päge personnel participated for their own personal reasons, most of Päge didn't. Hopefully for these reasons.

Let's say for a minute Päge did like Oingo-Boingo. (?) If we got Oingo-Boingo to play, it would draw a crowd of delinquents, who probably aren't going to college anyway, so why do we want them to know about Tech? So they can thrash our campus three times this year instead of the normal two (Interhouse, 7-house)? Perhaps the idea may get publicity (however ill-fated), but a lot of Päge personnel thought it not worth all-night grunge. Sorry, Slo-dik.

–Dügen Päge

# **Language Problems**

To the Editors:

Your editorial of 17 October addresses the problem of printing language and thoughts which some of your readers (including trustees and donors) might find offensive. You conclude that in the future you may practice some form of censorship, not out of editorial conviction, but because of your "healthy fear of the BOC."

I hope you will reconsider both sides of that decision. I would like to see you exercise more control over what is printed in the *Tech* on the simple ground that it is your job as editors to produce a newspaper of high quality. At the same time I trust that you will continue to uphold constitutionally protected free speech, which should be protected in the face of fear, healthy or unhealthy.

Earlier this month Ron Goodman criticized the South house renovation in a letter which was tasteless, self-centered and lacking in common sense. In short, his letter was a mistake on his part.

The proper response to such a letter is for other members of the Caltech community to point out its errors and to demonstrate that the author's position is atypical, indeed eccentric. Which is precisely what

**PASADENA** 

happened. An ill-considered letter provoked a measured and effective response. I feel sure that Caltech's donors and trustees are sophisticated enough to know that youth is a natural time to make mistakes, and that one of the functions of an educational institution is to provide an environment in which students (and others) can learn from their mistakes.

Ron Goodman had the courage to sign his name to his letter, tasteless as it was, and as a consequence I believe that his letter should have been answered (as it was) but not suppressed. But I can see no reason why you as editors did not apply a large red pencil to the puerile drivel in "The Inside World" which appears in the issue of 17 October under the heading of Dabney and is signed "Jug Rappapapapanoppolopolis."

The quality of writing in "The Inside World" rarely rises to the level of a well-edited high school gossip column, but it is usually innocuous filler. Last week's column, however, appears to be a provocative r.f. played on Dabney by someone from a rival house. If the column really was an inside job, self-respecting Darbs should identify the pseudonymous author and wash his mouth out with soap.

In my experience, Dabney House has sheltered some very good writers. "Jug R." is not one of them. Three and four-year olds can get quite excited by words like "dog poop" and junior high kids are intrigued by the possibilities they find in initials like IBM. The Dabney columnist has become excited in the same way by the word "fuck." He – for the author is surely an adolescent male-should be charged with debasing the English language. Fuck is a strong word of good lineage; while there are times when it is just the right word for a given message, those who respect effective writing should not allow such a word to be trivialized by an author who knows he is just taking up space. Too much space. "Jug R." should be restricted to writing on the walls of public washrooms until he develops a more lapidary

If "Jug R." had sent you his column as an anonymous letter, I find it hard to imagine that you would have printed it, partly because it was anonymous, partly because it said nothing at great length, and partly because of its obscenity and tastelessness. As editors-in-chief of the *Tech* you will do a favor to your staff if you demand good writing from your authors.

Firm exercise of your editorial responsibility to publish good writing will be appreciated by your readers. And it will give you a better base from which to resist censorship when free expression really does need to be protected.

−John Benton H & SS

On Liberty

To the Editors:

Most of us watched the Liberty Weekend celebration during last Fourth of July. The real, official rededication will be on October 28th. On that day, Liberty will be a century old, and again, we will probably hear different definitions of liberty.

So what is liberty? One common definition of liberty is that it is simply freedom to do what we want. But this definition is wrong because it says nothing about what we should do with our freedoms.

Our First Amendment is expressed as freedoms: freedom of speech, petition, assembly, press, and religion. In their best use, these rights are more responsibility than freedom. We speak when we have something worthwhile to say, petition when we want change, assemble when we have something to do; we use the press to inform, which is quite a responsibility; and when we practice religion, we take on huge moral responsibilities!

In their worst use, the First Amendment rights are used as justification for doing anything we want. Steve Frazier, a high school student, used sexual innuendo in a speech to further a personal cause. As expected, he got into trouble. But he took the case to the Supreme Court, saying that the First Amendment supported his sexual innuendo! (He finally lost the case, and he's at UC Berkeley.)

If we look at other cases that the ACLU takes, we see many similar cases. The First Amendment allows for pornography. Ladies' nights discriminate against men. Nazis can meet in a Jewish community, and on and on. Where is there any consideration for doing good with our freedom? Any fool can practice freedom, but how using freedom with responsibility?

We find in totalitarian countries that people simply aren't \*trusted with liberty, since liberty implies

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#### THE CALIFORNIA TECH

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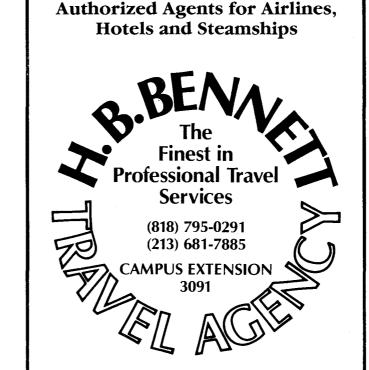
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## **LETTERS**

#### from page 2

not only freedom but also responsibility. Give a Soviet dissident the right to speak, and he will use it to express his opinion. In using his right, he exercises freedom; in using it to say what he feels is right, he exercises moral responsibility.

Unfortunately we Americans rarely think about our liberty. We never think about how useful an arm is either, until ours is broken. Even more unfortunately, we don't admit that others don't have our liberty. President Reagan caused an uproar when he used the phrase "evil empire" to describe the Soviet Union. Those who objected never bothered asking whether the Soviet government is in fact evil. Do we so easily forget shot down civilian planes, massacres, oppressed Jews, Daniloffs, Afghanistans?

To admit that there is actually evil in the world implies moral responsibility to correct them. But it is hard to take responsibility, even when we have the freedom to do so. In short, it seems Americans rarely think about liberty though many people in the world are obsessed with it. And while Americans live with liberty, many others die for it.

−Huy Cao

#### Art At Tech

To the Editors:

I can't have been the only one at Freshman Camp who noticed that when the music and the drama and the newspaper people said their about extracurricular

possibilities at Caltech, no one got up to speak for hands-on art. Potsketching, ceramics, tery, photography, woodworking, that kind of thing.

That's because there isn't any, so far as I know.

But would undergrads, and graduate students too, like some?

What it takes is the proper studios or workshops, and some professionals to instruct and guide. We have neither. Polytechnic School right next door down Wilson has both, in a large, new art building. Their facilities are hardly used, if used at all, in the evenings (it being a day school). Poly and Caltech have close relations in many ways. Use each others' playing fields-but Poly leans on us more than we don on them. I think a deal could be possible, costing the Institute far less than building its own hands-on art facilities and hiring its own staff-a deal that puts Techers into that art building. Not a new idea. Jim Morgan (our VP for Student Affairs) is well aware of the need and the possibility, and thinking about it. But how strong and firm is the

It's not particulary my business, and I don't myself throw pots. But it happens I have a toehold at Poly-I'm a Trustee. So if you really want hands-on art, send me (or Jim) a note saying so. I promise nothing, and of course cannot commit Caltech or Poly to anything, but just maybe . . .

> -Peter Fay History, 228-77

# Sky Survey

Astronomers and technicians working that night first choose a field to photograph, each field being about 6½ degrees across—about 13 times the size of the full moon in the night sky. Thus, the area of each plate is about 200 times that of the full moon.

The Schmidt telescope is then loaded with a 14-inch-square glass photographic plate, clamped in a holder designed to warp it to a spherical surface, to eliminate distortion. Each plate is coated with one of three highly sensitive photographic emulsions which are "tuned" to react to red, blue, or near-infrared light. To increase the sensitivity of the plates, a photographic technician has flushed the plates with nitrogen and hydrogen gases, removing oxygen and water molecules from the emulsion, which reduce the reactivity of the plates to light. This process increases the sensitivity of the plates five-fold.

Once leaded, a plate is then exposed for about 60 minutes, as the Schmidt precisely tracks the sky by homing in on a bright guide star in the field. After exposure, the plate is immediately developed and examined for quality and to discover such short-lived phenomena as supernovae, comets, and asteroids.

It was just such a first-look procedure that resulted in the discovery in August of a new comet, dubbed Comet Wilson after its discoverer, Caltech graduate student Christine Wilson. That comet, as large as Halley's Comet, will be visible with the naked eye in the southern hemisphere next April.

Each of the 894 fields to be photographed in the surveycovering from the north celestial pole to the equator - will be imaged using all three kinds of plates; thus, astronomers with the full set of plates will have a catalog of the heavens at all three wavlengths. Because of the trails of overflying airplanes, plate defects, or other observational problems, astronomers expect they will have to expose two plates for every one that is finally accepted for the survey.

Thus, over the next five years, well over 5,000 photographic plates may be channeled through the telescope and into the nearby darkroom. From these will come the select 2,682 that will constitute an incomparable wealth of data about the cosmos.

# Nicaragua

private ownership and controlmost of the land has gone to smallscale entrepreneurs.

"They looked at land reform movements all over the world and decided that the small-enterprise system would be best for developing their economy." The land owned by the government is tended by workers who are used to seeing a steady paycheck from the Somosas and would not be able to deal well with needing to fend for themselves, according to Bayer.

The speaker presented numerous photographs taken inside Nicaragua. Some pictured Americans living there protesting U.S. involvement in the country; one of their banners read, simply, "Nicaragua wants peace." Other photos were of billboards that displayed messages such as, "The land is for those who work for it,' "Guarantee law, health, and education," and, "We're free! Now what?"

The last of the above billboards reflected the general sentiment that Nicaraguans consider themselves free. One man on the street told Bayer, "We may be a little hungry now, but it's better than being under Somosa." Bayer explained that Somosa held a reign of terror under which people feared for their lives and well-being.

The press is no longer completely free of intervention in Nicaragua. La Prensa, described by Bayer as the propaganda arm of the contras, ceased publication after it continually breached truth. The paper printed "panic" articles such as, "There Are No Beans in Nicaragua!" Bayer cited parallels in U.S. history when certain publications were stopped for reasons related to ongoing war.

Bayer called into question many times the credibility of the American press on the situation in of Nicaragua. "Why does the press present only part of the issue? (For instance,) why don't the reporters tell who the targets of the contras are? Why do they only use official White House statements as bases for their articles?"

One possible reason for this was stated by Larry Speakes, who said, "You don't report it our way, you don't get the information," according to Bayer. The STRIVE guest said that reporters may be afraid to print the truth or lack the enthusiasm to go out and find it.

Bayer was alarmed at this state of the American press. "If you aren't able to fight the Administration on Nicaragua, (because you lack the information necessary) it's time to forget about Nicaragua and worry about the U.S.," Bayer said. "If you lack a free press, the next couple of steps lead to fascism."

According to Bayer, the movement which ousted Somosa in 1981 is supported by about 95% of Nicaraguans; the remainder are in favor of the Reagan Administration/CIA-backed contras. The Sandinistas are widely believed to be the most influential of seven political parties in the country. The contras are composed mainly of members of Somosa's defunct National Guard; the Guard had a reputation for randomly harassing, brutalizing, imprisoning, and murdering citizens.

The movement which ousted the Somosa regime in 1981 is still considered by Bayer to be a revolution because the vast changes in the nation's structure continue to be enacted. The elected president of the country's reportedly left-wing government is Daniel Ortega. The Reagan Administration is currently trying to get more funding for the contras.

David Bayer received his B.S. from Bowdin College, his M.S. from Cornell University, and his ED.D. from the University of San Francisco. He spent two years in Peru as a member of the Peace Corps and returned there for seven years as an educator. In July, 1986, he took two tours of Nicaragua; one with the Office of the Americas, and another with the California legislature.



Dr. Peter Fay DEPT. OF H&SS BAXTER HALL, 228-77

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# **FEATURES**

# Make a Joyful Noise: Vocal Music at Tech

by Amanda Heaton

"What, sing? I can't sing! I don't have know how to sing! I don't have time to sing!

But, despite this reaction, over 70 people participate in Men's Glee Club, Women's Glee Club, or Chamber Singers. The Glee Clubs offer a singing opportunity for people with little or no experience.

"I felt like I should get involved in something," freshman Colin Howell said. "I like to sing, even though I've never had any formal singing. This is one of these once in a lifetime opportunities where you don't have to be Luciano Pavarotti to sing. So I thought, why

"Why did I join?" sophomore Carole Chang asked. "I wanted to learn how to sing. I'd never sung before and here you don't need to know how, to start."

In addition to allowing people to learn how to sing, the Glee Clubs give humanities credit while allowing people to avoid work.

"It provides a break from stupid, tedious things like classes and studying," junior Mark Berman, vice president of the Men's Glee Club, said.

The Glee Clubs also provide social opportunities.

"At first it was a little difficult because you didn't know anybody, Berman said. "But after a couple of weeks of singing the same music you feel a sense of camaraderie and, well, patriotism toward the Glee Club.

The directors also feel this camaraderie.

'Choral music is kind of a special involvement because you

get to work with so many people, Don Caldwell, director of the Men's Glee Club and Chamber Singers, said. "Here, especially, it's neat, because you get people from all walks of the campus. You really get a feel for the internationality of Caltech: India, China, England, Canada, Greece. One year we had people introduce themselves adjacently from England and Argentina.

Students also enjoy working with the directors, although they can be demanding.

"Monica's been here since the beginning of Women's Glee Club; in fact, she joined Caltech very soon after women were first admitted to the school," sophomore Lisa LePome said about Monica Hubbard, the Women's Glee Club director. "She doesn't always understand how much work there is here; she doesn't seem to have enough sympathy when you have to stay up all night and miss Glee Club rehearsal. But she's very enthusiastic and excited.'

While time constraits pose some problem, most members find that the time spent is worthwhile.

T've only quit once," junior Phyllis Pugh, librarian of the Women's Glee Club, said. "Well, I guess I really didn't quit. I was just fed up and didn't have enough time, so I stopped going to rehearsals. But I like music and Glee Club is the only music I can do anymore. I can't play the trumpet as well as I'd like."

In addition to working together on campus, the Glee Clubs take trips to various parts of the country and the world.

"Last year we only went on one trip-the combined tour with the men," sophomore Ann Lewis, vice president of the Women's Glee Club, said. "We went up the California coast, hit the wine country and Monterey. We stayed in a motel in Santa Barbara and with families at the two other places, singing in two churches and a retirement home. The people were really receptive-they were especially impressed that Caltech could produce such a wonderful, 'arty' experience.'

Although the Men's and Women's Glee Clubs generally do pieces separately, they occasionally work on major 4 or 8 part pieces

"I think it works very well considering the situation," Caldwell said. "This year we'll be doing 5 fairly lengthy pieces together so we'll be working together more. With the Vivaldi (one major piece), we'll be having joint rehearsals on Wednesdays.

While the Glee Clubs have about 30 members each, the Chamber Singers, a more exclusive group which requires that one audition to become a member, has only about 20 people.

"Glee Club and Chamber Singers are totally different groups," Caldwell said. "Chamber Singers is smaller and does a completely different kind of literature. Chamber Singers is actually two groups, too; there's a small group within Chamber Singers who do a Renaissance dinner in the spring and sing at the Athenaeum.

Nevertheless, in all their facets, the choirs obey the Caltech philosophy toward extracurriculars.

"Caltech is unique," Mark Berman concluded. "It's the only place where you don't need to be a great singer to sing, a great tennis player to play tennis. You can do

# **Open** to

by Jennifer Low

O double what? Yes, the Organization for Women at Caltech. But according to Nanette Le Coat, men can be involved with the OWC as well as women, and the OWC is looking for members, especially undergrads.

Nanette Le Coat is, according to membership director Janet Jenks, one of the forces behind the OWC. Le Coat believes one purpose of the OWC is to provide women "a group to share their concerns."

These concerns can range from career pressures to sexual harassment. The group has been successful in providing a liaison or mediator between two parties where confrontation could prove to be embarrassing or hostile. This has led Caltech to employ a Human Relations Advisor.

The group is now working on "a place on campus for women to meet" and where issues and information concerning women could be posted. As of yet they are still working with the administration.

OWC has also considered a "big sister program" to bring graduate students together with undergrads. According to Le Coat, graduate students and women with careers at Caltech have experience in "The Real World" to share with undergraduate women.

The OWC also hopes to raise money for Haven House, a center for battered women. In November, they will sponsor their annual wine tasting party.

Some people on campus believe that the OWC is merely a feminist activist group. When queried, Le Coat countered that the OWC is merely concerned with issues that affect women. "There is a feeling of isolation among many of the women." The OWC is for women to support other women.

Undergrads are encouraged to find out about the OWC-and not just women. Even men need to be aware of "women's problems" because they usually involve society as a whole, not just women. The problem, Le Coat admits, is that undergrads who would like to be involved with the OWC are also involved in many other activities. "They lack the time to attend."

One of these problems is currently unavoidable simply because of the situation that exists. The small representation of women in the field of science naturally brings attention to them. This leads to, as Le Coat puts it, "subtle forms of discrimination." And along this line, one day Le Coat would like to see a world in which "neither men nor women are aware of the sex of their colleagues" because professionally it would not matter. With the current seven to one ratio among undergrads, Caltech still has a long way to go.

If you would like to help the OWC, they will be meeting next Tuesday the 28th at noon in the Winnett Lounge.

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Dr. Peter Fay DEPT. OF H&SS BAXTER HALL, 228-77

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# A Lecture On Mars

be the long-sought form of "life on Mars"? Dr. Bruce Murray, professor of planetary science at Caltech and former director of JPL, will explore this question in a free public talk on "Man's Future on Mars," on Wednesday, October 29. Dr. Murray's lecture, which will be at 8 pm in Beckman Auditorium, is the first of this winter's four Earnest C. Watson Lectures.

Dr. Murray will discuss Earth's historic fascination with its close neighbor, from turn-of-the-century myths of little green men to the Viking mission in 1976. He will consider the political and scientific opportunities presented by the current U.S. and Soviet unmanned Mars programs, and speculate on the prospects of human exploration and colonization of the planet early in the 21st century.

One of the founders of the field of planetary science, Dr. Murray has been involved in the science and technology of spacecraft imaging since 1961, when he served as co-investigator on the Mariner 4 probe. Following that project, which brought Earth its first televised look at the Martian sur-

[CNB] – Will humans turn out to face, he played an increasingly active role in Mariner missions 6, 7 and 9, and served as imaging team leader for the Mariner 10 (flyby) of Venus and Mercury. He is founder, with Carl Sagan, and vice president of the 120,000 member Planetary Society.

Dr. Murray, 54, received his S.B. in 1953, his S.M. in 1954, and his Ph.D. in 1955, all from M.I.T. He came to Caltech as a research fellow in space science in 1960 and was appointed associate professor in 1963. In 1968 he became professor of planetary science. Dr. Murray was director of the Jet Propulsion Laboratory from 1976 to 1982.

Other upcoming lectures in the Watson Lecture Series are:

"Heart Attacks: Tactics for Sick Tictocs!" by Jean-Paul Revel, Albert Billings Ruddock Professor of Biology, November 12.

"Planetary Rings," by Peter Goldreich, Lee A. Dubridge Professor of Astrophysics and Planetary Physics, December 3.

"Brain-Like Decisions by New Computing Circuits," by John Hopfield, Roscoe G. Dickinson Professor of Chemistry and Biology, January 14, 1987.



# Dick Cary & Band In Beckman

Jazz musician Dick Cary and his band will perform on Saturday, Oct. 25 at 8 pm in Beckman Auditorium.

Original music, jazz pieces and big band tunes make up the program. Members of the band include Dick Cary, trumpet, piano and alto horn; Dick Hafer on tenor saxophone and clarinet; Fred Cooper, baritone saxophone, clarinet and flute, Dave Koonse, guitar; Dick Cathcart, trumpet; Thomas Newsom, tenor saxophone and clarinet; Rick Mason, trombone; Betty O'Hara, trombone and flugelhorn; Herb Mickman, bass; and Gene Estes, drums.

Caltech student tickets are priced at \$6.25-5.00-3.75. Rush tickets go on sale the day of the event. Faculty and staff tickets are \$10.50-8.00-5.50, with an extra discount during the hours of noon to 4:30 today (Oct. 24) bringing the prices down to \$6.25-5.00-3.75. Caltech ID required for discount purchases.

Tickets are available at the Caltech Ticket Office, just north of the Beckman Auditorium parking lot. Call x4652 for information.



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# public events

#### **EXCITING TRAVEL FILM AND** JAZZ BAND HIGHLIGHT THIS WEEKENDS PUBLIC EVENTS

If you've ever dreamed of travelling across Canada's wild and majestic terrain, then you won't want to miss 'Yukon to Yellowstone,' an Armchair Adventures travel film. Personally narrated by William Stockdale, this presentation will be shown in Beckman Auditorium tonight Friday, October 24 at 8 P.M.

From Canada's arctic and the remote goldmining outpost of Yellowknife, you will travel down through the Canadian Rockies, then on to Yellowstone, America's oldest and largest national park. Along the route lies an assortment of wildlife, flowers, people and scenic wonders.

Saturday night brings the return of jazz musician Dick Cary and his band of renowned musicians, including Tommy Newsom. The music begins at 8 P.M. in Beckman Auditorium. Original music, jazz pieces and big band tunes will be performed by artists who have played with the bands of Glenn Miller, Lionel Hampton, Benny Goodman, Alvino Rey and Bob Crosby.

Dr. Bruce Murray, Professor of Planetary Science and former Director of the Jet Propulsion Laboratory, will deliver a free E.C. Watson Caltech lecture Wednesday, October 29 at 8 P.M. in Beckman Auditorium. 'Mans Future on Mars' will be the topic of discussion.

CIT student rush prices to 'Yukon to Yellowstone' are \$6.00, available today at the Ticket Office. Regular ticket prices are \$7.50-6.00. CIT student prices to the Dick Cary Band are priced at \$6.25-5.00-3.75. CIT faculty and staff tickets for the Dick Cary bandare priced at \$10.50-8.00-5.50 for advance sales and 'Techtix' - half price tickets (\$6.25-5.00-3.75) -will be available on Friday from noon to 4:30 P.M. by visiting the Ticket Office just north of Beckman Auditorium. (Limit 2 discount tickets per CIT I.D.)

For further information about the exciting Caltech Public Events, call campus extension 4652.

# Bloom County













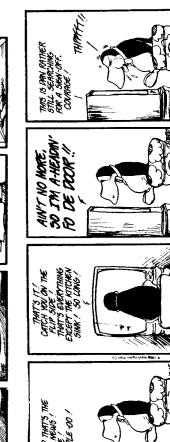












Berke Breathed

# Inside

Blacker: Dabney last Friday was forced to see a sequel to their own show: "Inning From Hell II: The Black Side." Dabney expressed their respectful vassalage by handing us the football on a platter that Saturday. That weekend also saw the finale of Summer's Underworked Regressive Flicks, and the inception of the Order. The Penile Emission Team (PET) ambushed non-Upper P vehicles until one dropped off the edge during the tussle. And Security thought that they would keep us from getting wet...

We of the House and Church of Blacker, the two being one and inseparable, were blessed Monday night by a video-inspired vision of Mike "X" Rigler. The disciples, led by the Cardinals, Steve "Gumby" Gómez, Nathan "Stupid" Inada, Bengt "Thor" Magnusson, and Irene "Wench" Chen, ensured the obedience on the part of our new adepts; the rest of us ensured their wetness as they ran the gauntlet of the Lounge Run. Brad "Sprout" Scott made the rest of us green with Kaylor. The Master was still not appeased, and abducted his first two victims, Joe "Kurth" Reynolds and Fred "Honeydew" Mallon. He hungers for new initiates, frosh. Meanwhile, the Pope is looking for a successor, and the new Purity tests are out. Christina "31" Garden just might be the first Popette, having already surpassed Dave "Zoo Juice" Cole.

Last I.H. softball w/Lloyd today, and D. soccer on Sunday. For all those others who feel left out, get a piece of the action by participating in Rent-a-Mole. As you all know, Blacker has accumulated large debts due to our, ah, natural entropic tendencies. In attempt to solve this problem, there will be an auction held today at 7:00pm in our courtyard. Moles will be sold for 24 hours to the highest bidder by the auctioneer, Bernie "Deputy" Santarsiero. How much will Nancy "Blondie" Drehwing go for? Where is the Blacker tapestry? Where is our insurance money? Will Bengt "Ful och full" Magnusson attempt the 6-man lift? Be with us next time for-

versus Titan -or-"The Cold Spud War"

" Wei -Arex " Dabney: In this week's Dabney Inside World®!!

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-Jug Rappapappanoppolopolis Lloyd: Okay, time to pull out the jokes that we couldn't use during rotation. From Wednesday's Caltech Rotation Quiz...

- ① What's the difference between Caltech and Star Trek? a. Star Trek is a science-fiction TV show.
- b. Caltech is a leading scientific institution.
- c. In Star Trek, the guys in the red shirts didn't deserve to die. 2 Ricketts Hovse members like the new furniture there because...
- a. of its stylish design.
- b. it is sturdily constructed. c. wood is flammable.

- 3 A form of birth control easily carried in one's wallet is...
- a. the condom.
- b. the Pill.
- c. the Caltech Student ID.

. More next week.

In other news, we beat Page in Softball last week (yawn). Theron, be sure to make signs for Discobolus Soccer versus Blacker (Sunday at 1). Don't forget the KROQ breakfast is just before that.

Three cheers for the 1986 Interhouse theme, whatever that turned out to be. Drink of the week is the Godless Communist: 1 part Crème de Strawberry, 1 part Sweet and Sour, 3 parts Vodka, 2 parts Tonic water. Tastes like cough syrup, but that's all we had in the Old Country. -Skeeter, Jethro and Enos

Page: Enough of the Farce. We're back in business. We have nothing to hide. The words covered, bag, and of can be construed to have no derrogatory meaning in and of themselves. But once these combine with some grotesque words like zit and pus, some people might

be offended. Gee, some people are so lucky to have loving neighbors. If there are any suspicious noises around the Mich now-a-days, the Pasadena police are promptly summoned by the ever-alert neighbors. Good work crime-stoppers!

Sorry, no hidden messages. But, Hetid Yad Si Worromot.

Page: After yet another sparkling week at this fine institution of higher learning, Page house finds itself with several new additions to the house. Most notably (and most expensive) is our new television set with a remote control named Eric-and just in time for the finish of the Series! Somewhat less enthusiastically, the South lounge welcomed the addition of two pinball machines, and Lower Arlington masters a new version of alley baseball.

Vince and Bill Foster are now distinguished as new Page house food-servers-with Smilin' Bill showing us (and the rest of the dining room) just how much he could eat. After a somewhat sloppy drinkoff, Bob Maher was elected beer frosh (the beer fridge is EMPTY, frosh!), and the long hallway now boasts of two new stereos of nearequal quality.

Upcoming social events include a beach trip this weekend, Red Snow at the Roxy Nov. 2, a strong potential for broomball, and an RA's promise to reinstitute alley desert nights (hear that Mega).

-Daniel J. Christy Ricketts: Once upon a time; lived happily ever after; the end. Heidi sure is cryptic sometimes. You never quite know whether she's saying what you think she's saying. It's kind of the same with the renovation committee. These are the student houses, remember? The only problem with the crud roof is the dopey white cat on it. Doesn't she know it's Crud roof, not Cherries' roof?

Steve demonstrated the malfunctioning psychic light switches in the lounge. They don't quite work right because although Steve was able to alter the lighting, he was not able to turn the lights off entirely without physically touching the switches. Oh well.

Don't forget about the ice cream on Saturday at 11AM, and sign up to go Phoenix-ward. And hey, why not have a Scurve men's dinner next week? Oh, by the way, does anyone have any ideas about a theme for interhouse?

Until next week...

-Shithead #1 and Giggles

# WHAT **GOES**

#### **Excellent Juniors?**

For the second year in a row, Time magazine is initiating a nationwide search for 100 college juniors who excel in academics and extra-curricular activities. Called the TIME College Achievement Awards, the selections are a recognition of the nation's most outstanding college students.

Twenty winners will receive awards of \$2,500 each and their achievements will be showcased in a special promotional section of the April 6, 1987 campus edition of Time. Eighty merit finalists will receive \$250 each and honorable mention in the section. All 100 winners will be given first consideration for internships with Time, Inc. and other major participating corporations.

The 1986 Time College Achievement applications will be reviewed by a panel of regional judges under the auspices of Time magazine. In addition to academic excellence, the judges will consider exceptional achievement outside the classroom in such categories as community service, student government, journalism, entrepreneurship, visual arts, athletics, and the performing arts.

To qualify for the Awards, student candidates must be juniors enrolled full time in an accredited four-year American college or university. The deadline for the completed application is December 31, 1986. Winners and finalists will be notified by mail on or before March 31, 1986.

Applications are available at the Deans' Office or by calling 1-800-523-5948.

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# **SPORTS**

# Beavers Tie Hens, Drop La Verne Again

by Joe Pele

This week the Caltech soccer team tied the Pomona Sagehens 2-2 and shut out the La Verne Leos 2-0. The win over the Leos is the second Beaver victory against this conference opponent this year.

In the game against the Sagehens last Saturday, the Beavers gave up the first goal of the game when a Pomona crossball bounced aimlessly about the penalty area before rolling slowly into the goal for a score. By the time any Tech-ers could get a boot onto the elusive ball, the linesman

had already signaled a score.

Caltech managed to tie the score 1-1 and hold the tie to the end of regulation time. In the past two years, the Caltech Beavers have been able to win all four of the contests that they have taken to overtime.

A Sagehen forward gave his team the opportunity to break Tech's winning streak in the first of the two ten-minute over-time periods. He escaped the grasping hands of the last Caltech defender and put the ball under the keeper to take a 2-1 lead.

In the second overtime period the Beavers evened the score again. Stefan Marelid, the powerful center full-back from Sweden, threaded the ball through the Pomona defence and scored the tying goal.

Caltech successfully held the

Caltech successfully held the Pomona side from going ahead for the remainder of the allotted time, but the big Tech attack was unable to push the Beavers over the top for a win. The final score stands at 2-2.

La Verne

The La Verne Leos came to

Beaver field hunting for blood. Caltech had defeated the Leos three weeks earlier at the La Verne field. Every La Verne player was determined to prove that the first result was an upset.

They did not expect Caltech to come out scrapping ready to take over where they had left off. The Beavers played well. Not a conciliatory "they played well." The Beavers out-played La Verne. The final score shows it. Two goals for Caltech, none for La Verne.

Alan Kwentus is the man responsible for the Beavers' first goal. Kwentus took a pass in front on the right wing and used the sixty pound weight difference between him and his defender to scoot around and go towards the goal

The Leos' goal keeper charged out, and Kwentus squirted the ball past him. At about this time the

hefty defender caught up with Kwentus. This La Verne defender and the goal keeper combined to send the small Tech winger flying.

Randy Bownds finished the ball into the goal for Caltech. Kwentus left the match after his shoulder met the ground. The Leos stayed down 1-0 for the first half.

The Beavers scored another goal in the second half to put the match out of reach of any possible overtime.

The La Verne side whined to the referee and linesmen throughout the match. But these men are limited to administering the laws of the game and could not save the faltering Leos.

The Caltech Booting Beavers have three matches scheduled this week. Tomorrow at 10:00 AM they host Redlands University, Wednesday they play Claremont, and next Friday they visit the Pomona coop.

# Volleyers Closer

by John Haba

The women's volleyball club is getting better and better, and is looking to pull out some wins in the remaining part of its schedule. Last Saturday saw the team's closest match yet as Caltech lost to Whittier 16-14, 15-17, 15-17.

This match was a see-saw battle, as was evidenced by the fact that the lead changed hands over a dozen times in the last two games alone. As usual, Linda Schlueter was a standout performer for Tech with an excellent hitting performance. Jessica Graves, who recently joined the club, also helped the team cause immensely

with her skillful setting. Caltech faces Whittier again on October 31, and hopes to avenge this very tough

The club's last game was at home this past Wednesday against Christ College Irvine. The Beavers sent the match to four games, but ultimately lost to C.C.I. by scores of 7-15, 8-15, 15-8,8-15.

The excellent serving of Lynn Hildemann and Carol Choy was the highlight of the match for Tech, though Jessica Graves turned in another fine overall performance.

Caltech's only game next week is Saturday, 2:00 PM, against Redlands: Live volleyball action at Caltech, BE THERE!

# WEEKLY SPORTS CALENDAR

				·	
Day	Date	Time	Sport	Opponent	Location
Sat.	10-25	9:30 am	Cross Country	Claremont-Mudd-Scripps	Pomona-Pitzer
Sat,	10-25	10:00 am	Soccer	Redlands	Caltech
Sat.	10-25	10:00 am	Water Polo	Pomona-Pitzer	Pomona-Pitzer
Sat.	10-25	1:00 pm	Fencing	U. C. San Diego	Cal Poly Pomona
Sat.	10-25	2:00 pm	Women's Volleyball	Redlands J.V.	Caltech
Mon.	10-27	3:00 pm	Football	La Verne J.V.	Caltech
Wed.	10-29	2:30 pm	Soccer	Claremont-Mudd	Claremont-Mudd
Wed.	10-29	4:00 pm	Water Polo	Claremont-Mudd	Claremont-Mudd
Fri.	10-31	2:30 pm	Soccer	Pomona-Pitzer	Pomona-Pitzer
Fri.	10-31	5:00 pm	Women's Volleyball	Whittier JV	Whittier
Sat.	11-1	9:30 am	Cross Country	SCIAC Championship	La Mirada Park
Sat.	11-1	10:00 am	Water Polo <sup>'</sup>	Whittier	Whittier
Sat.	11-1	11:00 am	Soccer	The Masters College	The Masters College
Sat.	11-1	1:00 pm	Fencing	Cal State Long Beach	Occidental
Sat.	11-1	1:30 pm	Football	Orange County Cowboys	Caltech
Sat.	11-1	2:00 pm	Women's Volleyball	Clare-Mudd-Scripps JV	Caltech

The party begins.

I can drive when I drink.

2 drinks later.

Can drive when I drink

After 4 drinks.

After 5 drinks.

7 drinks in all.

The more you drink, the more coordination you lose. That's a fact, plain and simple.

It's also a fact that 12 ounces of beer, 5 ounces of wine and 11/4 ounces of spirits all have the same alcohol content. And consumed in excess, all can affect you. Still, people drink too much and then go out and expect to handle a car.

When you drink too much, you can't handle a car. You can't even handle a pen. Il Roger's Institute

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# **SPORTS**

# Runners Top Pepp'dine

by Speed Demon

Last weekend at Lower Arroyo Park, the Caltech Beaver harriers accomplished a team goal on their own home turf. By sweeping yet another quadrangular meet, they have assured themselves of a winning season. In so doing, each and every member of the team made a contribution, running competitively and intelligently on Caltech's hot and hilly home course.

Coach Jim O'Brien explained that he had assigned many of the athletes specific jobs they had to do in order for Caltech to win. The team focused its attention on Cal State San Bernardino, a team which had demolished the 1984 and 1985 CIT Cross Country teams. Last year, for instance, CSSB finished four runners before Caltech had one cross the line up in San Bernardino. This was a sound thrashing and they brought essentially the same team to Pasadena with the addition of one athlete who was already running faster times than the other four. Caltech definitely had their work cut out for them and it's a credit to the team that they arrived at the Lower Arroyo Park with hard hats on and lunch pails in tow.

While CSSB had improved somewhat over last year, Caltech's athletes have improved dramatically. John Gehring, Chuck Lee, Mike Jensen and Alex Athanasopoulos all trained hard

over the summer. Coach O'Brien believes firmly that this additional training and dedication has been the secret to this team's success.

The race itself was highly dramatic and exciting. For the first 11/2 miles Caltech's top four (Gehring, Lee. Jensen and Athanasopoulos) packed together as a single unit while several CSSB runners were stringing out ahead of them. Then it was time to start reeling them in, each athlete keying on a specific opponent. At the halfway mark (2½ miles), as the runners passed by the starting line, CSSB was still in position to win the race by three points. O'Brien was getting frantic, barking instructions to each of the runners as they raced by, all the while calculating the outcome of the race.

Being the finely tuned, highly trained and tremendously coachable team that they are, it was at this point that CIT dropped the hammer on CSSB.

John Gehring edged ahead of CSSB's number one runner while Chuck Lee (30:27) also cracked into their top three. Meanwhile, Mike Jensen and Alex Athanasopoulos were straining to get ahead of CSSB's number four man, which they finally did, finishing in 31:00 and 31:22 respectively. John Beck and Jeff Willis were cleaning the clock of Cal State's fifth man, completing the 5.1 mile race in 32:16 and

32:23. Darin Acosta closed fast to round out the top seven with a time of 32:57. Final score: Caltech 26, CSSB 30!

#### Other Teams

You are probably wondering about the other teams involved in this meet. Well, we are going to tell you anyway.

Pepperdine U. and Masters College were the other participants, but with the exception of Masters' number one runner, it was no contest. Phil Duncan of Masters blazed this course as though he owned it. He now *does* own the course record after completing it in 28:19. Additionally, John Gehring recorded the fastest time ever on the course by a Caltech runner as he obliterated the old record by 24 seconds, finishing in 29:37. Final score: Caltech 20, Masters 43 and Caltech 16, Pepperdine 47.

Several other Caltech runners raced exceptionally well, running as a second pack and finishing very strongly. Ron Rogge (33:06), Andrew Stevens (33:09), Ted Sande (33:54) and Rob Grothe (33:41) all placed ahead of Masters and Pepperdine's number two runners.

#### The Women's Team

Caltech's women weren't nearly as successful as the men, but they certainly raced their hearts out and took another victory over Masters College by default while turning in some of their best performances of the year.

Over the hilly 3.1 mile course, Vicki Lane returned to racing after a foot injury, to finish ninth in 24:25, as Margi Pollack closed in fast for eleventh place in a personal best time of 24:38. Jarita Holbrook, who was busy tying her shoe when the race began, played catch-up all the way to finish in 25:12. Closing out the scoring were Christina Garden and Bibi Jentoft-Nilsen, who completed the race in 25:41 and 26:08 respectively. Christina has shown great promise while steadily moving up through the ranks despite a late start in training and a nagging ankle injury, according to Coach O'Brien. Bibi has been a very steady performer for us throughout the season and is only now beginning to scratch the surface of her potential.

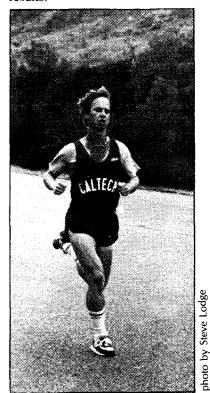
Closing out the top seven were Carmen Shepard (26:45) and Dee Morrison (29:34). Dee turned in her best performance of the season.

Caltech was defeated 15 to 40 by a very strong CSSB team, and 22 to 30 by Pepperdine. The home team has been combating a series of minor injuries all season and, as of yet, hasn't had the opportunity to fire on all cylinders.

#### The Future

This weekend, Caltech tangles with Pomona-Pitzer (for the third time this season) and Claremont-Mudd-Scripps at Pomona. This will close out the dual meet season, as both men's and women's teams begin preparations for the SCIAC Finals at La Mirada Park on the

first of November, and the NCAA Division III Western Regionals in San Diego on 15 November. Stay tuned for more *Orange Crush* 



Caltech's John Ghering set a new course record last weekend in the Beavers' race against Pepperdine University. The Beavers are in action again tomorrow at Pomona.

# All-Day Polo

by R. Mikasa

The Beavers played polo literally from dawn to dusk this weekend. At first they thought Big Clint wanted them there at 6:00 AM China time, but at 6:00 AM California time, they found their way through the darkness to the pool. No one got lost this week because, fortunately, all five games were at the Caltech pool.

PCC, their first challenge, was also their closest game. Little did the Beavers know that the first game of the tournament was their chance to knock off the tournament champions. The Beavers trailed most of the game, although they had a chance to tie it up in the third quarter with no goalie in the goal. However, "The Golden Choke" demonstrated excessive strength by hitting the side of the cage as hard as he could, and Tech fell 16-13.

Then the Beavers turned on for two victories against Chapman and Redlands, followed by the traditional, celebrated victory naps. (The Beavers had been playing since before dawn, after all.) Said Coach Dodd, "Vince, you're a SENIOR."

The Chapman game was interesting because, by the end of the game, Chapman had only four eligible field players in the water. All the rest had been kicked out. The motto of this story is, "Don't play dirty polo against the Beavers when they're paying the referee."

Although everyone was very excited about the Riverside game, everyone was also very tired. What can you say? The Beavers finished the day with a 2-2 record and third place out of five teams, achieving thier most extravagant goals of mediocrity.

The Beavers opened conference play Wednesday with a disappointing loss to Occidental. What? You mean all those games they've played don't count for squat? That's right. The next four weeks are what make or break Beaver polo.

The Beavers start a tough road trip Saturday against Pomona-Pitzer. The current record is now 8-10, conference record 0-1.

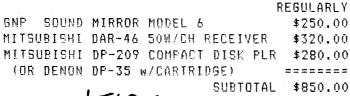


WELCOME BACK!

NOW THAT YOU'RE SETTLED ... (AND PROBABLY PREPARING FOR MIDTERMS), YOU COULD PROBABLY USE SOME AUDIO "DECOMPRESSION". CONTINUING WITH THE 7 YEAR TRADITION, (HAS IT BEEN THAT LONG?) WE'RE HAVING A "BACK TO SCHOOL" OR "I REALLY DON'T WANT TO WAIT UNTIL DITCH DAY" SALE! IT STARTS THIS FRIDAY AT 11:00 A.M. AND ENDS SUNDAY AT 5:00 P.M. (WHEN WE CLOSE!). THERE WILL BE SOME ONE-OF-A-KIND AND LIMITED QUANTITY PRODUCTS ALA DITCHDAY, BUT HERE ARE A FEW SPECIALS -- SOME ARE LIMITED TO QUANTITIES ON HAND:

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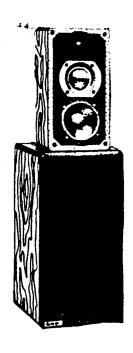


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THERE WILL BE LOTS OF OTHER NEW, USED, AND DEMO EQUIPMENT FOR SALE BUT PRICES ARE FOR THIS WEEKEND ONLY!







#### See Snotty Scotty

Yes, Pasadena favorites Snotty Scotty and the Hankies perform today at noon on the quad. This local band entertains many patrons at the Loch Ness Monster Pub every Saturday night, and is very well received. They are also the official band of the Doo Dah Parade. Caltech is fortunate to be able to their music today. Remember—eat your lunch on the quad to the tunes of Snotty Scotty and the Hankies!

#### U.S.—Japan Talk

Dr. Milton Plesset breaks the monotony of another long Caltech week with a special presentation to be held in Winnett Clubroom One Wednesday at noon. His presentation, "Modern Technology in the United States and Japan," compares the development of the nuclear power industry in the two countries. Dr. Plesset is a Caltech Professor Emeritus in Mechanical Engineering.

#### Sail, Hike, and U.N.

Tomorrow will be a busy day for many at Caltech, as the Y sponsors three programs. First, for the nautically inclined who were lucky enough to have reserved their space early, the day-long sailing trip departs from Winnett at 8:00AM sharp for a day of adventure around Anacapa.

For those landlubbers who still seek adventure, the Caltech Mountain Hiking Club holds its first allthrills no-frills event. the Mt. Baldy day hike also leaves at 8:00AM sharp. Please make sure you are in the right car...

Finally, for those with worldly interests, the United Nations Association celebrates the UN's **41st anniversary** at the Ath. If you signed up, you will have an excellent lunch and meet other students from Oxy and beyond.

The Y has many other exciting programs in the planning stages. If you or someone you know is interested in helping with program ideas or implementation, stop by the Y Office, second floor of Winnett, for more information.

#### Wise Internships

WISE, Washington Internships for Students of Engineering, is looking for a few good third-year engineering students. Students will study the roles of engineers at government hearings, as staff members of legislative and regulatory bodies, as lobbyists, as members of corporate staffs interacting with governmental agencies, and as representatives of professional engineering societies, standards setting organizations, or public interest groups.

In addition, each student will complete a project that will document a specific engineering-public policy issue, address topics of concern to the participating societies, and/or form the basis for technical papers and case studies to be disseminated by the sponsoring societies. There is a stipend and a travel allowance.

For application forms, write to:

American Society for Engineering Education

Eleven Dupont Circle Washington, D.C. 20036.

#### Application Deadline, December 31, 1986. Folk Volunteers?

The Caltech Folk Music Society is looking for volunteers to help set up for concerts, move chairs, transport equipment, etc. In return for your help, you will get free admission to our concerts. If interested, call Rex Mayreis at 793-8775 or write to the Folk Music Society at 138-78.

#### Chinese Dance Group

Have nothing to do on Halloween night? Then come see the Youth Goodwill Mission from Taiwan perform in Beckman Auditorium! The performing arts group, which consists of students selected from various universities in Taiwan, will present exciting Chinese dances and songs. This will be their 12th U.S. tour and they have played at Caltech before with great reviews. The tickets are \$5.00 for adults, \$3.00 for kids 12 years and under; they can be obtained through the Caltech Ticket Office (call x4652). Remember, the performance time is 8:00 pm, October 31.

#### \$120,000!

For all you aspiring investment bankers out there, now's your chance to get some hands-on experience in buying and selling stocks by joining the Caltech Student Investment Fund (SIF). The SIF is a portfolio of stocks, bonds and cash presently worth about \$120,000 which is managed by Caltech (undergrad and grad) students. Investment policies and decisions are completely under the control of the student board, which meets on a weekly basis to discuss current investments and long-range strategies. The only prerequisite for participation in the SIF is interest: anyone wanting to learn more should contact Wesley Boudville, Chairman (x4873) or Alex Becker, Vice-Chairman (449-2565).

#### SAM/PE Money

Engineering, physics, chemistry, and metallurgy students studying materials and processes are eligible to apply for the Society for the Advancement of Material/Process Engineering \$1000 scholarship for 1987. Applicants must be full-time undergraduate students. Application forms and information are available in the Financial Aid Office, 515 S. Wilson. Deadline is February 1, 1987.

#### Frosh Pre-Meds

There will be an informal sandwich luncheon meeting at the Health Center from 11:30 am to 1:00 pm on Monday, October 27, with Dr. Coleman, pre-med advisor.

#### **College Fiction Contest**

Playboy magazine is now accepting entries to its annual College Fiction Contest, open to all registered college undergraduate and graduate students. The writing competition offers a cash prize of \$3,000 and publication of the winning short story in the October, 1987 issue of *Playboy* magazine.

Entry deadline is January 1, 1987, and full rules are available in the October issue of *Playboy*, and may also have been sent to the Humanities office (there is some doubt at this writing).

#### **Truman Scholarship**

Sophomores interested in a career in government are eligible to apply for the 1987 Harry S Truman Scholarship. Each scholarship covers eligible expenses of tuition, fees, books, and room and board, to a maximum of \$6,500 annually. To qualify you must be nominated. To apply for nomination you must be a full-time student, have at least a B average and be in the upper ¼ of your class, be a U.S. citizen or U.S. national, and have selected a major related to public service.

Applications are available in the Financial Aid Office, 515 S. Wilson, and must be returned to the office no later than November 14, 1986.

#### GEM Fellowships

The National Consortium for Graduate Degrees for Minorities in Engineering, Inc. (GEM) is accepting applications for its fellowship program which will provide 125 fellowships to minority students in engineering for 1987. Application is open to those falling into the groupings of American Indian, Black American, Mexican American or Puerto Rican, who are U.S. citizens. At the time of application, the minimum academic requirement for the student is enrollment in the junior year of undergraduate study in one of the engineering disciplines. Those presently in their senior year or recently graduated are also encouraged to apply.

Each fellowship participant must work as an intern for a member employer in the program and must complete the academic work for the master's degree at one of the member universities. There are 50 member employers and 50 member universities in the program at this time. The fellowship includes a stipend of \$5,000 per academic year plus a salary for summer internship as well as free

Applications must be received by December 1, 1986. Awards will be announced by February 1, 1987. Information and applications may be obtained from: GEM, P.O. Box 537, Notre Dame, IN 46556.

#### **Swedish Scholarships**

Scholarships for \$500-\$1000 are available for 1986 from the Swedish Club of Los Angeles. Qualified applicants must be fulltime university students living in Southern California, of verifiable Swedish descent, strong academic qualifications, economic need, and be U.S. citizens or permanent residents. To apply, send your résumé to:

R. W. Jackson 1250 E. Walnut St., Suite 210 Pasadena, CA 91106 Deadline is November 14, 1986

#### Straighten Those Knees!

Walkers Club of Los Angeles holds a Racewalking Clinic at the Caltech Track every Thursday evening at 6 pm. Walkers at all levels are welcome. Racewalking is good aerobic exercise that is not hard on your joints, it's fun, and it doesn't look funny.

And for those who really want to spectate (or better yet, to participate), the Rockport Grand Walk, featuring the American, Mexican and Canadian racewalking teams, will take place on Saturday, November 1 at the Rose Bowl. Lest you should be intimidated, the Grand Walk also includes a 5K "All Comers" race and a 5K Fitness Walk.

If you want to compete, want to learn how to walk all over again, or are merely curious, come out some Thursday or call (818) 577-2264 for more information, or contact Kate Hutton at 252-21 (x6959).

#### **Med Scholarships Too!**

The Army Health Profession Agency is offering 350 scholarships to students planning to attend medical school. To qualify you must be a full-time student, a U.S. citizen, and under the age of 35 when you enter medical school. Students who accept the scholarship will become members of the Army Reserve and required to attend 45 days of Active Duty Training per year they are in the program. The scholarship pays 100% tuition, books and fees, and provides a monthly stipend. There is no obligation attached to submitting an application. Deadline is December 1 for 1-4 year scholarships. To apply write to:

U.S. Army Health Professional Support Agency

1600 N. Broadway, Suite 300 Santa Ana, CA 92706-3954 or call collect (714)836-2355. Additional information is available in the Financial Aid Office at, you guessed it, 515 S. Wilson.

#### CIC Fellowships

The Committee on Institutional Cooperation Minorities Fellowship Program is offering 40 fellowships to members of underrepresented minority groups seeking PhD degrees in a wide variety of fields in the areas of Social Sciences, Humanities, Mathematics and Engineering. The member universities are the midwestern Big 10 plus the University of Chicago. (If you don't know who's in the Big 10, find a sports section-this is football season).

Each CIC Minorities Fellowship is for four academic years. For 1987-88, each award will pay full tuition plus a stipend of at least \$7,000. The eligibility is kind of complicated, so contact them as early as possible. Application deadline is January 7, 1987. Write: CIC Minorities Fellowships Program, Kirkwood Hall 111, Indiana University, Bloomington, IN 47405, or call toll free (between 6 am and 1 pm Pacific time) (800) 457-4420.

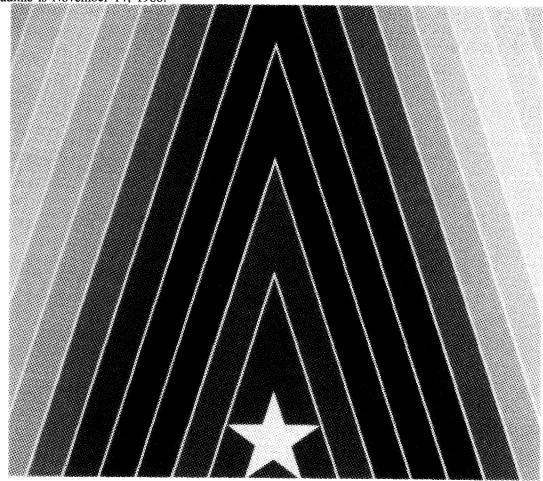
#### . And EE Scholarships

The Northrop Corporation has established a \$3,000 scholarship at Caltech for the 1986-87 academic 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 the Northrop facility and must not be a concurrent recipient of another company's scholarship.

Applications are available in the Financial Aid Office at 515 S. Wilson. The deadline is 4:00pm Friday, October 31.

(If you are receiving needbased financial assistance, receipt of this scholarship could lower your "self-help" aid by as much as \$1,750.)

continued on page 6



## HOW FAR WILL YOUR TALENT TAKE YOU?

Apply for the TIME College Achievement profiled in a special promotional section of Awards and find out. TIME Magazine is searching for 100 college juniors who have distinguished themselves by their excellence, in academics and, more importantly, exceptional achievement outside the classroom.

The top 20 winners will be awarded \$2,500 and

TIME. Eighty finalists will receive \$250 each. All 100 students will be given first consideration for internships with participating corporations.

Deadline for applications is December 31, 1986. Details at your dean's office or call 1-800-523-5948. In Pennsylvania, call 1-800-637-8509.

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Or the grand prize, for the number one student referral champion in the nation: a Porsche and one year of unlimited coach air travel.

And how do you get to be the referral champion? Just sign up as many friends as possible, and make sure your membership number is on their application. In order to be eligible for any prize you and your referrals must sign up before 12/31/86 and each referral must fly 3 segments on Continental or New York Air before 6/15/87. And you'll not only get credit for the enrollment, you'll also get 500 bonus miles.

So cut the coupon, and send it in now. Be sure to include your current full time student ID number. That way it'll only cost you \$10 for one year (\$15 after 12/31/86) and \$40 for four years (\$60 after 12/31/86). Your membership kit, including referral forms, will arrive in 3 to 4 weeks. If you have a credit card, you can call us at 1-800-255-4321 and enroll even faster.

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	Zip		
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# WHAT GOES ON

Announcements for What Goes On must be submitted on an announcement form (available outside 107 Winnett) or on a plain piece of paper. Please indicate the date(s) you want the announcement to run. Send announcements to 107-51, or put them in the mail slot in the door of 107 Winnett.

Announcements *must* be received by the Tuesday prior to publication.

#### **Frosh Admissions Opening**

Sign-ups for *one* position on the Freshman Admissions Committee will be on the Master's Office Door from Friday the 24th until the evening of Tuesday the 28th. Interviews will be held Wednesday the 29th at the IHC meeting.

#### **Medieval Combat**

Learn medieval-style armored combat! The Caltech Medieval/Renaissance Society will be meeting this Monday (27 Oct.) from 7:30 to 9:30pm in the Y Lounge, to plan and schedule regular on-campus fighting practice sessions. Contact Doug Bloomer (578-9769) or Amy Carpenter (794-2612).

#### **Philharmonic Tonight**

Tonight marks the start of another ever-popular Y program series: the L.A. Philharmonic trips. Kurt Sanderling conducts the Philharmonic in Schubert's Symphony No. 8 and Bruckner's Symphony No. 7 tonight at 8:00рм. А Y car leaves for the Music Center at 7:15 from Winnett. If you are interested, please ask at the Y Office, second floor Winnett. Tickets are at a subsidized price of \$2.00, and more performances later in the season are planned for those unable to take advantage of tonight's opportunity.

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#### FOUND-

**FOUND:** Phasar Analog watch with broken band at Lloyd house. Contact P. Searcy, Lloyd #131 x6810.

#### CALTECH BOOKSTORE—

**SIDEWALK SALE ENDS TODAY:** Book bargains of 50%-90% off. Oodles of discounted books, reduced records, clothing, and supplies. 10 a.m.-3 p.m. Caltech Bookstore.

RATES.....\$2.50 for first 25 words; ...10¢ for each additional word. Send written ad with payment to 107–51. No charge for on-campus lost & found.

#### **Rent-a-Mole Today!**

Blacker House needs money. YOU need your room cleaned, your car washed, your Interhouse built, your paper typed...and now is your chance to have all these tasks accomplished—by someone else! Twenty to twenty-five brave volunteers from Blacker House will be auctioned off to the highest bidder today for work time on Saturday. The auction will be held tonight (Oct. 24) in Blacker Courtyard starting promptly at seven PM. Bernie Santarsiero will be the revered auctioneer.

For your reference, the following people are participating so far:

Shubber Ali, Paul Amadeo, Irene Chen, Nancy Drehwing, Glenn Eychaner, Rob Fätland, Steve Gómez [note ethnic accent mark], Bill Gustafson, John Hart, Tim Hochberg, Andrew Hsu, Nathan Inada, Bibi Jentoft-Nilsen, Scott McCauley, Mike McDonald, Marty O'Brien, Tracey Ollick, Margi Pollack, Randy Pollock, and Brad Scott.

The rules:

① Bidding starts at \$10. No opening bids less than this will be accepted.

② Arrangements for a day other than Saturday may be made by mutual agreement between buyer and buyee (?). The day should be approximately equal to an eight-hour work day (unless the person should agree to do more willingly). Time off will be given for sports events in which the purchased Mole is a team member.

3 Most of these people will be very good natured about whatever you ask; however, a joke is a joke—don't push things too far, especially if your Rent-a-Mole is getting ticked off or upset. This is supposed to be fun for everybody.

The DMOSH/auctioneer has final say in all transactions.

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#### **More Russian Tours**

For those too anxious to wait for the spring break Russian tour, there is a winter tour being offered by the Society for Cultural Relations/USA-USSR. The 30-day tour, including intensive practice and individual attention in the Russian language, hotel accomodations, meals, sightseeing in Moscow and Leningrad, three cultural performances, a gala New Years party, a troika ride and an excursion to Pushkin, costs \$2295 from New York. The tour is from December 19 to January 17. For more information, call the Society for Cultural Relations USA/USSR at (213) 937-4130.

#### **Intel Presentation**

Representatives from Intel Corporation will give a presentation Monday, 3 November, from 7:00 to 9:00pm in the Salvatori Room, 365 S. Mudd. Intel is a leading developer and manufacturer of microelectronic components and systems. They will be reviewing their technology and philosophy along with challenging career opportunities in Engineering. Refreshments will be served after the presentation.

#### **Bike Shop/Club**

The Caltech Bike Shop provides bike tools and a workplace for the low, low price of \$5.00 per year (plus \$5.00 key deposit). On Saturday the 25th at 1PM there will be a reorganizational meeting to clean up the shop and to start or renew memberships. We'll also decide how to spend our money.

If you're interested, the Bike Shop is in the Blacker-Dabney Garbage Court (off California Blvd, near the linen rooms). Members who don't renew their memberships will not be authorized to use the shop. So there. Contact Andrew Huntington, 356-9258, 5 Dabney.

#### **Road Hockey**

The Caltech Canadian Club is starting its 1986-87 road hockey season. We play on Saturday mornings at 9 am in the parking lot north of Watson. If you would like to play, come on out! We have spare sticks. Non-Canadians welcome too. For more info, call Malcolm Butler, x4666.

#### **Bok Fellowship For Ph.D.s**

Recent or almost Ph.D.s take note: a fellowship is being offered in Astronomy and Astrophysics at Steward Observatory, University of Arizona. The designated fellow will receive a stipend of \$24,000 per year, commencing in September, 1987, and the designation is normally for a two-year period of research. There is also a small research fund, as well as a small transportation allowance. Applicants should submit a brief resume of proposed research as well as a personal resume and references. For more information, contact: Director's Office, Bok Fellowship Committee, Steward Observatory, University of Arizona, Tucson, AZ 85721.

#### **Research Associateships**

The National Research Council announces the 1987 Resident, Cooperative, and Postdoctoral Research Associateship Programs for research in the sciences and engineering to be conducted in behalf of 26 federal agencies or research institutions, whose laboratories are located throughout the U.S.

Approximately 450 new full-time associateships will be awarded on a competitive basis in 1987 for research in the sciences and engineering. Most of the programs are open to both U.S. and non-U.S. nationals, and to both recent Ph.D. degree recipients and senior investigators.

Awards are made for one or two years; senior applicants who have held the doctorate at least five years may request shorter tenure. Stipends for the 1987 program will begin at \$26,350 a year for recent Ph.D.s and be appropriately higher for senior Associates. A stipend supplement of approximately \$5,000 may be available to regular (not senior) awardees holding recognized doctoral degrees in those disciplines wherein the number of degrees conferred by U.S. graduate schools is significantly below the current demand.

Applications to the National Research Council must be postmarked no later than January 15, 1987 (December 15, 1986 for NASA), April 15 and August 15, 1987. Initial awards will be announced in March and April (July and November for the two later competitions) followed by awards to alternates later.

Information on specific research opportunities and federal laboratories, as well as application materials, may be obtained from: the Associateship Programs, Office of Scientific and Engineering Personnel, JH 608-D1, National Research Council, 2101 Constitution Ave., N.W., Washington, D.C. 20418. Phone (202) 334-2760.

#### **Forest Volunteers**

Through the Student Conservation Association's Park, Forest and Resource Assistant (PFRA) Program, selected volunteers work independently or assist conservation professionals with such tasks as wildlife surveys, natural history interpretation, backcountry and wilderness patrol, and biological or archaeological research. In return for their efforts, volunteers develop skills and gain experience that often enhances their college education and gives them an edge in seeking paid employment with these resource management agencies. Past participants also have found their volunteer service to be personally rewarding whether or not they are considering a conservation career.

Those volunteers selected for the programs will receive a travel grant for round trip transportation to their program area and a weekly stipend to help offset food and basic living expenses. Free housing is provided by the hosting agency at or near the work site. For more information, send a postcard requesting an "application and listing of the winter/spring Park, Forest & Resource Assistant Positions" to: Student Conservation Association, PO Box 550C, Charlestown, NH 03603, or telephone (603) 826-5206/5741. Those wishing to volunteer in January and February should apply by November 15. Those wishing to work in March and April should apply by January 15, 1987.

#### Caltech Kicks Mudd's Balls

Come see the spirited Caltech soccer team defeat Harvey Mudd-Claremont next Friday. The Mudders will be providing muchies and your favorite refreshments after the game. Hordes of Claremont women are also rumored to be attending. The game is at Harvey Mudd and starts at 2PM; see the posters around campus for directions.

#### **Chicano Scholarships**

The National Chicano Council for Higher Education is offering 20 fellowships to juniors who are interested in pursuing a doctorate and academic career in a sciencerelated field. Each fellow is sponsored for 3 years. Sponsorship amounts vary. Applicants must be Hispanic citizens of the U.S. for further information call (714) 856-6463 or write: Dr. Eloy Rodriguez, Director, NCCHE Science Fellowship Program, International Chicano Studies Program, School of Biological Sciences, TR56, University of California, Irvine, CA 92717. Application Deadline is November 15,

continued on page 10

# GOLDEN

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