Card-Writers May Lure Oingo Boingo To Tech

by Steve Climent

Caltech undergraduate students entered the Honda Scooters “Back to School” Bash Promotion by delivering thousands of entries shortly before the official deadline. If successful, the campus will have the opportunity to host a concert by the popular group “Oingo Boingo.”

The promotion is a nationwide contest in which the college or high school with the most entries receives the right to present the concert between October 20 and November 20. Entries must be on 3 x 5 postcards containing the name and mailing address of the student and school. The rules stated that each card must be individually validated at a Honda Scooter dealer and mailed to an address in New York.

The night before the deadline, however, organizers in Fleming House discovered that entries could be delivered to radio stations without Honda validation. On the morning of Friday, October 13, members of Fleming, Lloyd, Blacker, and Ruddock Houses began filling out entries on colored index cards purchased in bulk from the Caltech bookstore. According to Brian Daniels of Fleming House, the 52 thousand cards cost $250 and were paid for by Fleming and Lloyd.

Ricketts soon joined in the effort, as did a few individual members of Dabney and Page. Oingo Boingo albums provided the appropriate music as students developed writing cramps and skipped physics recitation (nothing new for most) until 11:00 p.m. The freshmen finally learned their mailing addresses.

By 5:30 p.m., Daniels and Steve McNally, also of Fleming, deposited 51 thousand index cards (roughly 60-70 per Caltech undergraduate) at Pasadena radio station KROQ. Fleming, Lloyd, Blacker, Ruddock, and Ricketts each contributed about 10 thousand apiece. Most of the cards were filled out between 11:00 a.m. and 4:00 p.m. at a rate of about 160 cards per minute.

“It was fun,” commented Alex Sugiyama of Ricketts. “There were a few people who spent the whole day filling out cards, but most worked for an hour, left, and came back later. I did about eight hundred to a thousand.” Rumor has it that Li Hsin, who was unavailable for comment, produced nearly eight thousand cards. Marty O’Brian of Blacker also enjoyed the experience. “I think it was good to get away from work and do something mindless.”

According to employees at KROQ, Caltech was the only school in southern California to deliver entries directly to the station. One employee said she had “no doubts whatsoever” that Caltech would win the contest. It is unknown, however, which other schools actively participated in the contest, or how many entries had been received. Although the results won’t be known for another week, the students involved are fairly confident of success, assuming that most larger schools in the nation employed similar tactics. “Oingo Boingo is primarily a southern Californian band,” Daniels remarked. “They aren’t as popular elsewhere, so we don’t think others schools outside this area will really try to win this. We’re sure we’ve won in this area, so the chances are really good that we’ll win.”

Meteorites May Be Martian

(CNB) - Caltech researchers have determined that an odd group of eight meteorites may well be pieces of the planet Mars. Although this group of meteorites has long been suspected of having a Martian origin on the basis of their geological characteristics and chemical composition, until now no plausible mechanism has been put forward that can account for their presence on Earth.

In an article in the latest issue (October 17) of the journal Science, John D. O’Keefe, a visiting associate in planetary science, and Professor of Geophysics Thomas J. Ahrens have come up with a likely mechanism. They report that a large asteroid or comet, hitting the Martian surface at an angle, could have boosted pieces of Mars into interplanetary space via a high-speed jet of crustal gases vaporized by the impact.

The meteorites in question are called SNC meteorites because of the places where three of them were found: Shergotty (India), Nakhla (Egypt), and Chassigny (France). Others were found in Antarctica, Nigeria, Indiana, and Brazil. The SNC meteorites are unlike the 10,000 or so others in the world’s museums in several respects.

First of all, it’s clear that they crystallized from molten rock just 1.3 billion years ago. The asteroids, source of almost all other meteorites, cooled completely about 4.5 billion years ago and volcanic activity on the moon ceased 4.2 billion years ago. In addition, the SNC meteorites have spent only 2 to 10 million years in interplanetary space, as judged by their cosmic ray exposure times. And the concentrations of noble gases trapped in the meteorites are consistent with what was learned about the Martian atmosphere by instruments on the Viking landers. Finally, the texture of the meteorites shows the clear imprint of having cooled from a melt in a gravitational field, one that must have been far stronger than those found on even the largest asteroids.

But one fact has always argued against a Martian origin for the meteorites: Most meteorites contain helium-3, a light isotope of helium, whereas Martian rocks have none.

But meteorite expert Robert O’Keefe believes that the meteorites might have formed on Mars, then collected from crustal gases trapped in the meteorites are consistent with what was learned about the Martian atmosphere by instruments on the Viking landers. Finally, the texture of the meteorites shows the clear imprint of having cooled from a melt in a gravitational field, one that must have been far stronger than those found on even the largest asteroids.

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Gamma-Ray Camera Went Up, Came Down

(CNB) - A 1/4-ton camera that can scan the heavens at gamma-ray wavelengths has completed a successful 28-hour flight slung beneath a gigantic balloon over the southeastern U.S. During its flight at 119,000 feet, the camera made the highest resolution gamma-ray pictures ever obtained of stars, galaxies, quasars, and the center of our own galaxy, the Milky Way. Gamma-rays are among the highest energy emissions from astronomical objects and are produced by electromagnetic and nuclear interactions within them.

The camera landed at 1:18PM EDT on Thursday, October 16, 1986, after the Caltech scientists and engineers who built the camera radiated a signal to the balloon to fire an explosive bolt, which released the camera to parachute it to earth. The instrument package landed safely in Southeastern Arkansas, where a chase team is recovering it for future flights.

The Caltech launch team in Texas was led by engineer Rick Cook, and the overall project leader was Associate Professor of Physics Thomas A. Prince. Other team members included staff scientists Alan Cummings and Stephen Schindler; electronics engineers William Althouse and James Weger; and graduate students Mark Finger, David Palmer, and Chris Starr. Development of the gamma-ray camera is a project of the Caltech Space Radiation Laboratory. The project was also aided by the efforts of Edward Stone, professor of physics and chairman of the Division of Physics, Mathematics, and Astronomy. The camera was built almost entirely at Caltech, with major contributions from Caltech’s Central Engineering Services.

The Caltech gamma-ray camera is basically a flared cylinder three meters long and one meter in diameter mounted on a pointing platform. The camera’s gamma-ray detector is a large circular plate of sodium iodide-crystal 40 centimeters in diameter and 5 centimeters thick. Gamma rays striking the crystal produce light scintillations of light, which are...
Ethnic Supporter

To the Editors:

Recently I had an argument with a friend who claimed there was, no school spirit here at Tech. I argued that, even though there aren't any overtly ethnic events as there are in interhouse athletics, there is a pride and loyalty to Tech. Last week my point was proven. Students from the whole campus got together and worked for a goal benefiting all of Caltech. All the houses got involved in trying to bring Oingo Boingo to Tech (not to any one house). All the house leaders were there.

Just like last year, when six houses planned a prank on the freeways (spelling CALTECH in the air), we have decided to get involved in any campus-wide activity.

I just want to know why Page never gets involved. Are they just apathetic? Lazy? Do they hate the rest of the campus so much? Or maybe only some houses—and they aren't big enough to overcome it for the common good.

The answer, I think, is clear—Page is doing nothing.

--Adam Slovak
Fleming 1-57

P.S. Look for results of the Oingo Boingo contest next week. Final count of entries—$1,350. School with the most votes wins. Caltech won the L.A. region, but national contest results are not yet determined.

The Editors Reply: It has been brought to our attention by members of Page House that Mr. Slovak's assertion is false, they claim that Page filled out at least 500. Expect a letter next week.

Censor the Tech?

To the Editors:

The ASCB Board of Directors held their weekly meeting this Tuesday night in the master's office. The minutes of the meeting that are distributed give a quick view of what transpired at the meeting. But that's only a small part of it.

David Bruning brought up a subject that did not make it into the minutes. He thought that the BOD should take up the matter of overseeing the editorial integrity of the student publications at Caltech.

This topic came up in response to the taunting of Ron's letter by a man in which he berates the Institute for improving the South houses without first consulting the editors. The editors of the Tech chose to print the letter without editing several crude remarks that Mr. Goodman included in order to get his point across.

The question here is not whether Mr. Goodman should have used vulgar language where acceptability is in question. Nor is it the question what class of newspaper the Tech editors wish to print. Rather, we must question whether we want our Board of Directors scrapping the ideals of the First Amendment of the U.S. Constitution.

Reasonable people do disagree as to what is acceptable for print in a newspaper representing the Caltech undergraduate student body. But if the ASCB BOD are going to deliberate a course of action, they owe it to us not to hide their deliberations from the Caltech community.

If, by the time of this writing, the Directors choose to print a complete copy of the minutes taken at this meeting, then I thank them for bringing this important matter out to the open. I hope that the members of the BOD realize the danger of censors—Advisory Panels or "Editorial Boards" that truly serve as no less than censorship committees. --Michael Keating

The Editors Reply:

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Editorial: On Keeping Those Trustees Happy

Two weeks ago, we ran a letter by Ron Goodman, in which he expressed his disgust at the results of the South house renovation, and began toincare about those on who donated the money for it. Now, I'm a great believer in freedom of the press, as long as it's a free speech opinion upon assuming the mantle of Editorship made last year. In that editorial I said that I was not in the habit of keeping certain four- and odd-letter words out of the Tech at all costs. It was with such thoughts of the First Amendment that we (that's me and Josh, not the editorial "we") decided to run Ron's letter complete and uncensored.

A few days ago Clea Bures and Pam Feldman (ASCIT and BOC respectively) pointed out to me that our own California ASCIT FRIDAY NIGHT MOVIE

THE MAD MAD WORLD

This is our latest collection.

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NEXT WEEK: The Gods Must Be Crazy

Student Attitudes Polled

The Survey Said—

According to a survey recently commissioned by the National Association of College Student Councils, the college student attitudes are more conservative in their attitudes about a wide range of subjects than the generation which preceded them. This survey, which the NACCS calls "the most penetrating survey of college student attitudes ever undertaken," was conducted at a number of different universities throughout the U.S., including Caltech, as well as some junior colleges. It is estimated that $20 billion in discretionary spending per year is made by these students. The survey also provided an insight into financial habits of students, including the fact that $48.5% of students reports having little or no trust in banks.

Sixty-nine percent of the students stated religion was important to them. Of these, 93% said they believe in an afterlife. Seventy-five percent of the students have a television set, while 39% have a stereo system; 36% have a computer. Seventy percent believe that abortion should be legal. Fifty percent of the respondents get more than half of their discretionary income from their own earnings, and 58% of those said they earned over $2,000 last year, while 25% earned over $5,000. When it comes to discretionary spending, 61% said they spend less than $300 per month, and $219 of $250 or more. Largest dollar expenditures by students during the school year were at the college bookstore, with a median of $248.61.

Ninety-six percent said they smoke more clothing than any other category. With a median expenditure of $187.40. Forty percent of all discretionary spending is spent on health and beauty aids. In terms of car ownership, 56% have and use bank credit cards, 41% have borrowed money to attend college, and 36% have bought a used car, 38% own a television set, and 21% own a stereo system. 36% a camcorder and 17% a computer.

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Love Toads Explained
Social & Sexual Relationships
by Huy Cao

If you weren’t at frosh camp this year, you’re probably puzzled by vague allusions like “love toads.” A talk entitled “Social Relationships and Sexual Awareness at Caltech” given at the camp by Robert Illes, a psychotherapist, unafﬁliated with Caltech, discussed sexual choices and managing relationships.

Dr. Illes discussed some problems of college-age students. Adolescence, he explained, is a time when the transition to adulthood takes place. Adolescents learn social skills and experiment sexually. This can be very positive if we are really sure of our own wants and intentions.

Sexual tendencies are natural, such as the desire to touch others. Dr. Illes talked at length about gay tendencies, explaining that, like straight desires, gay desires aren’t chosen. He said that the environment that we sexually experiment in has an effect on our sexual preference. If we sexually experiment in an environment with many people of our own sex, we’re more likely to have gay experiences.

One major point of the talk was that we should be straightforward in our relationships. He stressed the need to talk clearly about the sexual level. We should be assertive, said Dr. Illes, but then again, we shouldn’t let ourselves be “talked into” anything unless, of course, we want to.

To illustrate the points more realistically, skits were performed. The ﬁrst one was about asking for a date. Mark Carlin wanted a date with Heidi Anderson so, after much inner debate (spoken to the audience), he would talk to Heidi, he ﬁnally asked. The point conveyed was to ask if you want a date. The second skit, performed by Douglas Roberts and Nancy Drehwing, was set in the back of a car. He wanted to “do” it (they had been dating a long time, of course) and was discussing it with her before going on. This skit took a longer time, apparently because she also wanted to get more intimate, but didn’t want to appear to be easy. The message in this skit was to discuss relationships openly, so that each person will understand the other.

Dr. Illes also showed two ﬁlms, both amusing but less obvious in meaning. The ﬁrst portrayed an overly aggressive woman on a ﬁrst date with a bewildered man, in a humorous reversal of stereotypical gender roles. The second skit, ﬁlmed by Doug Roberts and Nancy Drehwing, has been more appropriately called “horny amphibians.” Some characterized it as the work of somebody who liked seeing two stuffed animals engaged in all sorts of sexual positions.

“The purpose of the talk,” Associate Dean of Students Jeanne Noda said, was “two-fold: to provide information on sexual relationships and preferences, and to provide some food for thought as freshmen get to know each other.”

The freshmen thought the talk was interesting but useless. “I didn’t learn anything,” said Tom Capellari admitted.

Frosh Cathy Cretsinger stated the reactions of many when she said that “most of the talk wasn’t relevant to life at Caltech.” It was especially the opinion of most of the upperclassmen who were there. Jean Tang, senior, said “The talk was mainly sexual education. The freshmen didn’t seem to know the purpose of the talk, and weren’t made aware of social situations that could happen here.” Junior Chris Nolte similarly stated that “Although [the psychotherapist] had lots to say, he didn’t touch on speciﬁc Caltech problems. The implication of the [male/female] ratio is that the [female] sex is more on the intellectual level. We should be assertive, the upperclassmen I’ve talked to.

Heidi Anderson, a sophomore, stated that Dr. Illes should have toned down his talk. “He talked a lot about sex but not about normal day-to-day relationships.” She, and almost all upperclassmen interviewed, thought the talk was more relevant to her now than it would have been as a freshman.

While the talk was intended for freshmen, they seemed to get the least out of it. They either thought it was irrelevant, or else liked it more on the intellectual level. The upperclassmen, for whom the talk was not speciﬁcally intended, seemed to get much more out of it. “The freshmen haven’t been here long enough to have much to go on. The talk is more relevant to the upperclassmen who already have background,” said Chris Nolte.

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More Inside World

From page 3

Question of the week: what color is Konstantin going to repaint his car? And will the Mich alley money cover the bail?

After a disorganized start, the Greased Freshmen/New Security Guard Initiation was held on Sunday, Oct. 12. The Force, Page House's brilliant Sophomore alley, emerged undefeated and claimed the alley trophy.

And now! The Page House return volley in the War of the Blank Verse (for our neighbors across the Olive Walk with the blank minds).

"Woe to him who would attempt the Bard's work, Unskilled of meter, unlearnt of verse
And more banefully still, completely dumb.

We want a verse that's blank, not one that's lame.

Mourning the elegy of Sydicate,
The Aubard sang of LN enemas,
Latent Homosexuals and the Cannon.

In true fleming addiction the oversex'd
Herd plac'G their Cannon, their vicarious Tool,
At the center of their imagin'd world.

Oh, how relieved the herd, how happy the house
When Syndicate leaders mov'dto allow the flems
to continue their inbreeding undisturb'd.

P.S. H-Blatz is dead. Now heavy metal will get the point.

May THE FORCE Be With You,
- David Richard Holk

Ricketts: Can it be true? Were my eyes deceiving me? Sophomores at a brakedrum pile, of all things. And what a pile it turned out to be, lasting a whopping 25 minutes, during 23 of which the brakedrum was within ten yards of its starting point. The finish arrived with dizzying speed, however, as the underdogs proved that they had learned something from their previous thrashings, and pulled a fast-break across the goal-line. Then it was Miller time for the sophomores and laundry time for the frosh.

Speaking of dizzying speed, Andrew Kaluzniacki, madman of the sophomore class, set out to prove his hard-headedness during El Pile. Executing a jacknife dive into the turf which earned him a perfect score from the judges, "Drew walked away the victor over the ground, only to be taken to the hospital for drug screening. Chocolate-covered espresso beans are suspected.

In other news, our fireplace is still going, the frosh still can't play fissingball, and the Great Ricketts Thief-Chase is on. When caught, we suspect this person will fall down the Crud stairs two or three times while attempting to escape. Ricketts house now has 28 frosh and counting, as Rob Williamson and Geoff Pilling are now bouncing baby Scurves. Lock your doors, add your classes, and PLAY SOFTBALL.
- Shithead and Giggles

Ruddock: Greetings from Ruddock-Home of Gods, Warriors, Men who can take it, Women who can handle it, and Shower Curtains which are feeling a bit homesick. Yes, Hassle Week is over and the frosh though the frosh tried valiantly they didn't get the Pledge Master, but they did learn how to water the Court of Man & found a use for last year's shirts (Vax's idea?) Welcome to Ruddock, frosh. (Even if you didn't earn an additional 2 million points stealing the cannon). Oh well...

There's a softball (software?) game today against Fleming. Be there to support the Big Blue Machine. Hopefully we'll do better than against Lloyd—we lost by 1 run but gained stitches. Games next week on Tues­day and Wednesday.

If you're interested in playing GSC volleyball, go talk to Lloyd or Tung.

House social event this weekend: the GAAC, by Waynus, Sunday afternoon. Until then, alley standings are: 4 forget the rest.

Hey everybody! Nik got a date...and don't forget the house meeting Tuesday night to talk Interhouse budgets, the historian's new Lamborghini, and the grand opening of Victor's of Pasadena.

P.S. And yes, Wayne, things do grow in the shade.
FRIDAY 17 OCTOBER 1986

Bookstore Man

by Amanda Heaton

Reading and 'rithmetic: the purposes of college. But these activities require equipment: books and paper, pencil and pen. And the most convenient place for students to find such things is the Caltech Bookstore.

In order to provide these necessary items, the bookstore must make choices. Bill Kros, Book Buyer and Assistant Manager, selects books and organizes the store.

"I buy all the books—the course books, the reference books (mainly science oriented), the literature section books, the science fiction and mass market books," he said. "We sell mostly science books, obviously. Last year we sold 3700 physics books just off the general shelf, not required for classes. We sold close to 8000 computer-related books."

In addition to supplying textbooks, however, the bookstore tries to offer a variety of reading materials.

"They've got a good science fiction selection," sophomore Paul Searcy said. "I buy a lot of stuff there—textbooks, pens, pencils."

"I've gotten stuff in there for specific classes and some science fiction," junior Lisa Giaimo said. "And when a new Far Side or Doonesbury or Bloom County book comes out they'll have it before anybody else."

Although few people pay careful attention unless they have a specific problem, choosing the books poses many problems.

"The bookstore is cramped for space," Kros said. "In my opinion, we could easily double the size of the bookstore and still fill the shelves with books and sell them. In 1972 there was an Ad Hoc Committee on the bookstore and they decided that the bookstore needed more space. And everyone agreed. But there was no money so nothing was ever done. Now, 14 years later, we're basically in the same boat."

The literature section, a collection of classics chosen based on their appeal to college students, wanes even more than other areas due to the lack of space.

"All of the non-science sections have to suffer," Kros said. "Apparently, before I came (August 1985) the store had experienced great difficulty selling literature books, so the person before me decided to cut back inventory drastically. But I feel that a college store should have a decent literature section; you ought to be able to go in and buy some Faulkner and Hemingway. But now, I'm basically stuck."

Continued on page 6

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any 16" pizza
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An order to escape from Mars, large boulders must somehow have been accelerated beyond the Martian escape velocity of 5.05 kilometers per second (11,300 miles per hour). At first glance, the most likely mechanism for this would be a grazing meteorite impact. But impacts certainly occurred on Mars, they would not have launched materials past escape velocity. Impacts with dynamic pressures as high as any occurring anywhere in the inner solar system. Using the data gathered from the gun, O'Keefe and Ahrens built "equations of state" that describe the behavior of various materials under various impact conditions. The results of these simulations indicate that the best way to launch material from Mars involves neither perpendicular nor extremely shallow impacts. Rather, material is most likely to be accelerated past escape velocity if the impact angle is between 25 and 40 degrees from the horizontal. Such impacts vaporize the crustal rocks, trapped water, carbon dioxide, and other gases trapped in the Martian crust and produce a jet of hot gas that can reach a velocity of 20 kilometers per second. This is sufficient to sweep rocks ranging up to one meter in diameter off the surface of Mars, at speeds greater than 5 kilometers per second, without damaging them in any appreciable way.

Although these rocks escape the Martian gravitational field, says Ahrens, "they probably don't get a high enough velocity to escape the solar system, and they go into orbit around the sun. Objects that are launched into somewhat eccentric orbits have permitted or orbit as a result of the very slight gravitational effects of the planets. Probably most of these objects go into Mars-crossing orbits and, in time, fall back to that planet. But a small number look out of the zone around Mars and eventually go into Earth-crossing orbits."
Gamma Camera

From page 1

detected by photomultiplier tubes behind the crystal.

The key component of the camera is its unique "lens," which consists of an array of 1,000 small lead hexagonal blocks, arranged in a pattern that created a series of apertures through which the gamma-rays pass. Each of the apertures in this mask is like the hole in a pinhole camera, creating a separate image of the sky on the sodium iodide crystal. The hexagonal blocks are arranged, or coded, so that a computer can unscramble the faint overlapping "images" of the gamma-ray source, combining them into a single, more intense image. The entire 300-pound mask rotates at one revolution per minute, causing the view of a source to be turned off and on at every point on the detector. This "chopping" or modulation of the source signal allows precise subtraction of the large gamma-ray background.

The result of this "coded aperture mask" system is a camera that can divide up the field of view into 1,000 separate parts, or pixels. Most previous gamma-ray detectors were essentially "gamma-ray buckets," able to identify only a general direction for celestial gamma radiation. The best resolution previously obtained by such devices was by a University of New Hampshire system that could resolve the field of view into 35 pixels.

In its flight, the gamma-ray camera went through a series of preprogrammed observations, its motorized pointing system bringing it to bear on one astronomical object after another. The pointing system uses the earth's magnetic field, detected by an internal magnetometer, as its guide. The data was recorded digitally on a videotape recorders and was radioed to the ground.

The objects to be studied included:

- The Crab Nebula, the remains of a supernova or exploded star that has a spinning pulsar in its depths;
- Geminga, a mysterious object that is among the brightest objects in the sky at high-energy gamma-ray wavelengths;
- the quasar 3C273. Quasars are distant and luminous extragalactic objects that may emit a substantial fraction of their energy at gamma-ray wavelengths;
- the center of our own galaxy, the Milky Way. The galactic center very likely harbors a massive black hole and should show gamma-ray emissions from the region near the black hole;
- Cygnus X-1, believed to be a binary star system with a neutron star that emits ultra-high-energy cosmic rays and gamma rays.

The gamma-ray camera studied the spectrum of gamma rays being emitted from these objects with energies ranging from 30,000 electron volts to 5 million electron volts. Such studies will yield insights into very high energy particle interactions going on within the objects. Development of the camera was funded by NASA, Caltech, and the Ralph B. Lloyd Foundation.

The Twenty First Century Overture

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To an information utopia where knowledge belongs to everyone? To an age when the computer becomes one with communications and thought travels everywhere, anywhere and at anytime?

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Communications is our middle name.
**Road Hockey**

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

**Another Kind of Troll?**

The Caltech Gamers would like to inform all fellow Caltecheros of another kind of troll, a kind that avoids sunlight, talks in grunts, eats disposable products, and lives in holes... hmm, maybe there isn't such a difference after all.

Andy, stop by the O'Malley residence (1st floor at the corner of Willett) any Friday night to join in an evening of science fiction and fantasy games, and to get together to schedule things that can take place on other days or nights. The Gamers have been involved in activities ranging from the simple playing of games to actual design and publishing. Undergrads, grads, faculty, and staff total several volunteers.

**Folk Volunteers?**

The Caltech Folk Music Society is looking for volunteers to help set up for concerts, move chairs, etc. In return for your help, you will get free admission to the concert. If you are interested, call Rex Maxreis at 793-8141.

**Bridge, Bridge, Bridge!**

Bridge is back! At least the Bridge Club is. Here's your chance to have fun, meet new people and play. We play duplicate at 7:00 pm on Monday nights at the Red Door Cafe. Beginners to experts, faculty, staff and students all welcome. We are ACBL sanctioned, so you can earn master points! Don't miss out on the game of the '80s! Bridge! Questions? Call 793-8141 or Jennifer (x4302) or write Jeffrey Pugh, 205-45.

**Jazz Improv Class**

Vocal jazz is an improving class. It will be taught by a woodwind player who has agreed to teach for a semester or two as long as you go"basis. This non-credit class will meet Mondays from 10 to 11:30 pm in the Multipurpose Room in the Student Union. The office is located in the basement of the Student Center, just across from the Student Shop. All members of the Caltech community are welcome. All levels of proficiency are encouraged to attend. Information, please call Bill Bing at (213) 684-8964, or just attend the first class which will be on October 11.

**Volleyers Score**

by Joe Dink

Improvement is the key word for the women's volleyball team these days, since the club continues to play better and better as the season wears on.

Last Friday, Caltech began a long volleyball weekend by traveling to Redlands. The Beavers fared well in this contest, and barely lost a hard-fought first game 15-8. Down was won fairly quickly in the next two games of the match. Saturday, the team faced Pacific Christian's home with high expectations. These expectations were justified to a certain extent as Caltech defeated P.C. 15-8 the game, and were narrowly beaten in an earlier game 15-11. However, the team also displayed a Jekyll & Hyde personality during this match by losing the other two games by scores of 15-0 and 15-3.

The following individuals sparked Tech's successes on the day. Linda Schlenker, whose outstanding serves highlighted yet another great performance on her part; Nicole Vogt, who had many excellent hits at key points in the match; and Courtney Smith, who played an excellent match.

As far as future matches go, the only scheduled match this weekend is a home contest against Whittier. Attendance was surprisingly good last Saturday's match, so keep up the support by coming to the gym this Saturday at 2:00 pm to catch volleyball action, Caltech style.

**Straighten Those Knees!**

Walkers Club of Los Angeles hosts Racquetwalking Clinic at the Caltech Track every Thursday evening at 6 pm. Walkers at all skill levels (and all ages) who are interested in conditioning, 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 be competitive (or just want to participate), the Rockport Grand Walk, featuring the American, Canadian, and Pacfic Divisions racetrack, will take place on Saturday, November 1 at the Rose Bowl. Last you should be in trunk, the Grand Walk also includes a 5K "All Comers" race and 10K race. For more information, contact Kate Hutton at 252-21 (x9659).

**... And EE Scholarships**

The Northrop Corporation has established a $3,000 scholarship at Caltech for the 1986-87 academic year. The scholarship, which is open to juniors in Electrical Engineering with at least a 3.3 GPA and a genuine interest in the defense aerospace/electronics industry, is to be awarded to a U.S. student who is interested in geographic proximity to the Northrop facility in El Segundo. The deadline for this scholarship is March 15, 1987.

EE Scholarships:

- **Army Health Professions Scholarship** 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 sign a contract with the Army Reserves and will be required to attend 45 days of Active Duty Training at least every year. The scholarship pays 100% tuition, books, and fees, and provides a monthly stipend. There is no obligation attached to submitting an application. Deadline is January 1 for 1-4 year scholarships. To apply:
  - U.S. Army Health Professions 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 Caltech, or you may also be sent to the Humanities office (there is some doubt at this writing).

- **Truman Scholarship**

Sophomores interested in a career in government are eligible for the 1987 Harry S Truman Scholarship. Each scholarship carries eligibility requirements of tuition, fees, books, and room and board, to a maximum of $6,500 per annum. 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 third of your class, be a U.S. citizen, and have chosen a major related to public service.

Applications are available in the Financial Aid Office, 515 S. Wilson, and must be returned to the College 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, Hispanic American, or Puerto Rican, who are U.S. citizens. At the time of applying for fellowship, the student must be in the first, second, or third year of undergraduate study in one of the engineering disciplines. Those who will be in their fourth year or recently graduated are also encouraged to apply.

Each fellowship recipient must work as an intern for a major employer in the program and must complete the academic work for the master's degree at one of the Consortium's four member institutions. The fellowship includes a stipend of $5,000 per academic year, and $3,000 for summer internship as well as free tuition.

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

**CIC Fellowships**

The Committee on Institutional Cooperation Minority Fellowships Program is offering 40 fellowships to minority group students who are seeking PhD degrees in a wide variety of fields in the areas of Social Sciences, Humanities, Sciences, Mathematics, and Engineering. The membership 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 $7,000. Eligibility is kind of complicated, so contact them as early as possible. Application deadline is January 7, 1987. Write: CIC Minorities Fellowships Program, Public Affairs Office, 111, Indiana University, Bloomington, IN 47405, or call toll free (between 6 a.m. and 9 p.m. Pacific time) (800) 457-4420.

**Renewal Meeting**

The Caltech Medieval/Renaissance Society is sponsoring a meeting this Sunday (Oct. 19) at 3pm in the YWCA. Membership in the Caltech community are welcome; refreshments will be served. Contact Carole Curtin (x4662) or Doug Bloomer (578-9769) for more information.

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Get to know more about us at an informational meeting on Tuesday, October 21 from 4:00 to 5:30 p.m. We will be interviewing qualified candidates on Wednesday, October 22. Contact the Career Development Center for more details.

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The 1987 Honeywell Futurist Awards Competition.

Here's your chance to stop us in our tracks: Power up your imagination and make a 25-year leap into the future. Turn your visions into two short essays, and you could win one of ten $3000 prizes plus a Honeywell summer internship. If you're a full-time student at an accredited U.S. college or university, call toll-free 800-328-5111 (ext. 1581) for an entry form and complete rules. Or write: Honeywell Futurist Awards Competition, MN12-4164, Honeywell Plaza, Minneapolis, MN 55408.

We'll even send you a pair of future socks for practice. But don't drag your feet—you must request your entry form before December 31, 1986; and mail your entry by January 31, 1987.

Together, we can find the answers.

Honeywell

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**SPORTS**

**Soccer Boot Two Chances**

- **Noca Scores Hat Trick**

by Joe Pole

The Caltech soccer team lost two matches this week to confer- ence opponents. The first loss came Friday night against the Whittier Poets by a score of 2-1. Then on Wednesday afternoon the Booting Beavers dropped another close one to Occidental, 4-3.

In Friday's match against the Poets, the Beavers played a lethargic first half and went down quickly by one goal. By the time Caltech woke up at half-time, they found themselves in the hole by a score of two goals to one. In spite of the second-half awakening, the Beavers were unable to even the score.

Wednesday afternoon's meeting between Caltech and Occidental lived up to its advance billing as the Match of the Week. Oxy initially took a quick two-goal lead on several Caltech miscues. Oxy held this advantage to half-time. Caltech charged out aggressive- ly in the second half, exerting a physical presence that was lacking in the first period. The number of Oxy players limping on the pitch began to approach the number of lane-techers. Paul Cabral, Derek Ney, and Michael Keating all came to life in this half.

But Flavio Noca sparked the brightest fire on the field. Noca took the ball with thirty minutes left in the match and a half-dozen Oxy defenders between himself and the goal. He sent the defenders into dizzy spells with his magical ball control and dispatched the ball nearly under the keeper and into the net. Caltech had narrowed the margin to 2-1. Occidental then scored what ap- peared to be the icing goal with 21 minutes remaining, sending the score to 3-1. But they apparently had forgotten Caltech's Italian ice- creamer, Noca. Even sillier of them, they forgot the rooster he had taken to the goal. With Bill Foster draw- ing a defender out to the flanks, Noca retraced his steps to the Occidental goal to keep the Beavers within striking distance, three goals to two.

With twelve minutes to go in the half, Caltech pulled up to even the score. Quite predictably, it was Flavio Noca dancing the ball into the net. The Occidental goalkeeper fashioned his own method of stopping future attempts by Noca. Immediately following his third goal, Noca left the field with a severely bruised thigh muscle.

The Caltech Beavers would not die easily. But neither would the Occidental side. With under a minute remaining in the game, Oc- cidental put the deciding goal into the net. Even a flying Van Eric Stein, Caltech's spectacular goal- keeper from Ruddock House, could not pull down the killing shot. And once the referee blew the final whistle, Noca's magic could not save the Beavers.

Tomorrow, Caltech will play their third conference opponent in the past eight days at the Pomona-Claremont Regional, bringing their league to the Beaver stadium. Game time is 10:00 am.

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**Cross Country 'Caltech Pizza!'**

by Speed Demon

This past weekend at beautiful Bonelli Park on a cool and drizzly autumn morning, Caltech's men and women Cross Country runners put it all on the line. It wasn't enough to go out and win one for the Gipper, but better yet, for the glory of this esteemed institution of higher learning.

No, this meet was far more serious than that. We're talking large with extra cheese and pep- peroni, or large with canadian bacon and pineapple, or extra large with mushrooms, sausage and green peppers (no anchovies, thank you!). This particular race was all about free pizza!

Coach O'Brien is not above a little bribery to elicit some strong performances from his charges. The deal was simple. If the Caltech runners could defeat both La Verne's and Whittier's men and women, the coach would be buy- ing. His pockets were quite noticeably bulging with cash as we headed off for Bonelli Park.

**The Course**

Unlike last year, the course was properly marked, and nobody got lost out there. La Verne usually tries to gain an advantage by having the opposing teams guessing "which way do we go?" at every turn. Needless to say, this tends to slow the pace just a tad.

The men's race went pretty much as planned with the mighty hungry Caltech team defeating Whittier 17-44 and knocking off La Verne 24-35. Essentially, it was a blowout of Whittier, a come-from-behind with La Verne that wasn't decided until the last mile of the race.

**Edging La Verne**

In his best performance of this season, John Gehring averaged 5:30 per mile and raced La Verne's Denny Morse right to the wire, finishing fourth overall in 27:32. There was a gap between Caltech's first and second runners as Alexis Athanasopoulos and Chuck Lee continued on page 10.
**X-Country**

from page 9

came blazing in at 29:13 and 29:28 respectively. Once again Jeff Willis and Ray Hu battled each other tooth and nail, photo-finishing with a mere .03 seconds between them at 30:52 to complete the scoring.

The next two runners to cross the line were both freshmen who have been showing steady improvement despite some nagging injuries. Ron Rogge finished as sixth man in 31:23 with Andrew Stevens rounding out the top seven in 31:40. Close behind Stevens (one second) was Sophomore Todd Sandle.

**The Women's Races**

The Caltech women were left with the task of beating only Whittier because La Verne had said that three healthy runners and would therefore forfeit (takes five to score in a team). The job was a dirty one, but somebody had to do it. So, with Bibi Jentoft-Nilsen and Jennifer Low sporting their niftiest headbands, and Jarita Holbrook stuffing her raggedy bandana into her shorts, they were off. There was some comfort in knowing that Whittier's number one runner was taking the Graduate Record Exam. However, so was Clea Bures (Caltech's number one runner). Sounds like a stand-off to me.

Unfortunately, the Caltech women were also without the services of Vicki Lane (Caltech's number two), who was nursing a sore foot and leading cheers from the sidelines.

**The Race**

At two miles the picture is clear. Caltech must move up on Whittier during the last mile in order to win. Whittier's Margi Pollack overtaking one Caltech runner and staying ahead of her, finishing in 26:56 and 27:02 respectively. Once again Jeff Willis had been showing steady improvement since their close season opener on the fourth of October. The Beaver kicking game has shaped up since last week, with Hubert Berg near-

**Celebration**

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Discussion Group

On October 28th there will be a gay and lesbian discussion group, for lesbian and gay people and others related to lesbian and gay people and interested in their issues. All members of the Caltech community are welcome.

This is a monthly discussion group focused on lesbian and gay topics such as the coming-out process; being gay or lesbian at Caltech; relating to parents and other close relatives; dealing with internal and external homophobia; integrating one’s religious beliefs and its effect on the gay and lesbian community; gay-lesbian political activism.

The group is sponsored by the Caltech Counseling Service and the Caltech Y and will be led by Dr. Bruce Kahl (of the Counseling Service). It will be held in the lounge of the Young Health Center on the fourth Tuesday of each month from 5:00 to 6:30 pm. All members of the Caltech Y and will be led by Dr. Bruce Kahl (of the Counseling Service) and its effect on the gay and lesbian community; gay-lesbian political activism.

Freedom of Smoking?

Philip Morris Magazine, a quarterly devoted to issues related to smoking, will sponsor a major essay competition on the First Amendment and encroachments made upon its protections.

Guy Smith, publisher of the magazine, said the prize structure “reflects the importance of the issue.” First prize is $15,000; second prize, $7,500; third prize, $5,000; fourth, $2,500 and 50 state winners of $1,000 each.

The competition is open to anyone over 21 years of age. “We are seeking essays from writers—that is anyone who cares to put their ideas on paper—that explore the inherent dangers in efforts to curtail our commercial free speech,” Smith said. [For those of you who don’t know, there are efforts afoot to control tobacco advertising, comparable to the current controls on the advertising of hard liquor. —Eds.]

The essays will be judged by an independent panel of distinguished editors, writers and journalists. The deadline for entry is January 1, 1987 and the winners will be announced in early 1987. Entries to smoking, will sponsor a major essay competition on the First Amendment and encroachments made upon its protections.

Skeptics Lecture

Lavanam will give a lecture titled, "Fighting Superstitions in India," in Beckman Lecture Hall this Saturday, October 25 from 7:30 to 9:00 p.m. This talk is co-sponsored by the Southern California Skeptics and The Caltech Y.

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 science-related 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) 856-8463 or write: Dr. Eloy Rodriguez, Director, NCCHE Science Fellowship Program, International Chicano Studies Program, School of Biological Sciences, Tr65, University of California, Irvine, CA 92717.

Application Deadline is November 15, 1986.

Swedish Scholarships

Scholarships for $500-$1000 are available for 1986 from the Swedish Club of Los Angeles. Qualified applicants must be full-time 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: Dr. Eloy Rodriguez, Director, NCCHE, TR56, University of California, Irvine, CA 92717. Application Deadline is November 15, 1986.

Misanthrope at Beckman

Molière's comedy Le Misanthrope will be performed entirely in the 17th century classical style and in French by the Compagnie Claude Beauclair, Saturday, October 25, at 8 PM in Beckman Auditorium.

The Compagnie Claude Beauclair, from France, is dedicated to bringing the works of Moliere to audiences around the world in the original language of the plays. In Le Misanthrope they have made an effort to expose the real situations suggested by the play and to throw light on friendship, love, jealousy, social structures and psychological realities.

CIT student tickets are priced at $6.25/5.00/3.75. Rush tickets at $6.00 go on sale the day of the event. Faculty and staff tickets are $10/8/5/0. Faculty and staff who visit the Ticket Office between noon and 4:30 PM Friday can buy tickets at the student rate. I.D. is required, and only two discount tickets per I.D.

continued on page 8

WORD FROM "PYTHON" PISCOPO

EX-WRESTLER ABOUT MILLER LITE

"DUH"*

*TRANSLATION: A SUPERBLY BREWED, FINE TASTING PILSNER BEER.
RATES ......

... $2.50 for first 25 words...
... for additional word.
• Service charge: .50 per word.

'No charge for on-campus lost & found.

ON----~I
DeutscM
general
10¢
for each additional word.

Christian
cal.e.c.b

TH E CALI FORN IA TECH FRIDAY 17 OCTOBER 1986
R. Amok
7:30 pm on Monday, October 20.
The movie, shown in conjunction
lives respectably like his
neighbours in a comfortable
physical or psychological com­

Shortly before the police arrive he
and a visiting neighbor, irrational­

one evening, he kills his wife, child

and a garden. The routine of his daily life

Fassbinder, and has English

George Cheron, is planning to
repeat the previous years' highly

$3.00 discount for Caltech students with this ad

restorations not included. Void where

U.N. Anniversary
The United Nations celebrates its
41st Anniversary this Saturday,
October 25. The United Nations
inaugurates a special luncheon at the
Atheneum, followed by a presentation,
to commemorate this occasion. A very
limited number of tickets have been
subsidized by the UNA to only
$2.00 per person! Fortunately, if
you come to the Y Office today (Friday, 17 October), or, if it is possible for Monday, you can still
reserve a seat. For more information, call
6165 — or better still—

Announcements for this calendar must be submitted on an announcement form
available via 107 Witten. If not a plain piece of paper, Please indicate the
date on which you want the announcement
sent. Announcements will be submitted
October 22, or appear in the next issue.
Announcements must be received by the
Tuesday prior to publication.

Russia Trip
Interested in visiting the Soviet
Union over Christmas break? The 2nd
year Russian instructor at Caltech,
George Chernon, is planning to
return to Russia in late December. His trips are highly
successful trips. The cost is $1400 (includes: round-trip
flights, hotels, meals, tour guides). Open
to students, faculty, and staff of Caltech.
A group roster will be drawn up at an orientation meeting
next Wednesday, October 22, at
noon in Space 5-137. For more information,
call x3615.

Watchen Sie Deutsch?
There will be a showing of the
German movie Wunsch Lufth. Herr
R. Amok in Baxter Lecture Hall at
7:30 pm on Monday, October 20. The
movie is a German black comedy with
L 320, was directed by R. W. Fassbinder, and has English
subtitles.

"With his wife and child Mr. R. lives respectively near a
neighbour's in a comfortable modern apartment with TV and other
technology, and his own little garden. The routine of his daily life
runs smoothly, without any problems; there are only a few
violations. Returning from work one evening, he kills his wife, child
and a visiting neighbour, irrationally
and inexplicably compelled. Shortly after the police arrive he
hangs himself."

Greg Susca
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Special discounts to Caltech community

GREG SUSCA
Painting Wallcovering
Interior and Exterior Phone: 249-5646
1009 E. Colorado • Pasaden..,
HIS AND HERS
OPEN EVENINGS
449-9697 449-1022
$3.00 discount for Caltech students with this ad
1009 E. COLORADO • PASADENA

WHAT GOES ON
Fall Blood Drive
The blood drive will be held in the
Winston Student Center Lounge on
Tuesday, 28 October from
9:45 AM to 2:30 PM. Wednesday, 29
October from 12:15 pm to 5:00 pm,
and Thursday, 30 October from
8:30AM to 1:00PM. There will be a
coffee and snacks available during the
drive. Undergraduate students who come
during this period of time will receive a
$2.00 discount. Students may donate
up to 4 pints of blood during the
annual drive. The blood drive is
co-sponsored by the American Red
Cross and the Caltech Student Council.

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