

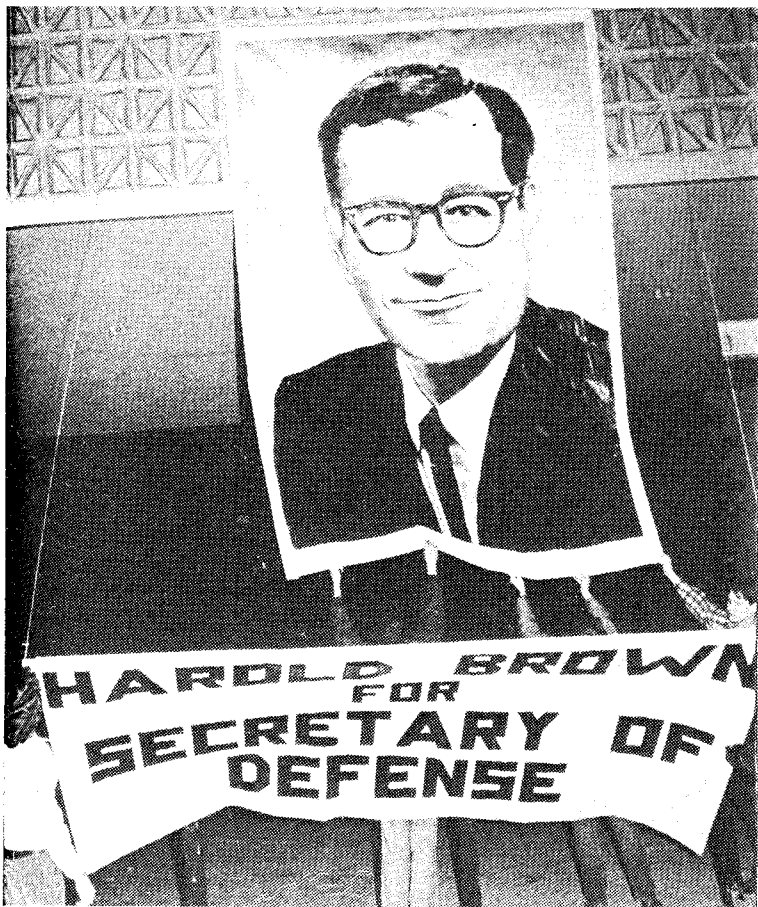


# The CALIFORNIA Tech

## FINAL

### One of The World's Great Newspapers

Volume LXXVIII, Number 11      Pasadena, California      Friday, December 10, 1976      Eight Pages



Members of Ruddock House erect eight-by-ten foot poster of Harold Brown with appropriate caption. The photo was not a photographic enlargement, as it appeared to be, but an airbrush drawing made using a standard public relations photo as reference. Photo by Dave Wheeler

## Brown Visits Atlanta

by Gregg Brown

University President Harold Brown appears to be the front runner for the office of Secretary of Defense in the Jimmy Carter administration.

Brown visited Carter in Atlanta, Georgia, late Tuesday of this week during the time that Carter was reportedly studying his choices for the various cabinet positions during his upcoming term.

When questioned, Dr. Brown said that he was going to Atlanta to visit President-elect Carter and discuss various issues. He also stated that it would be improper for him to comment on his feelings about the position until Carter made his official choice. When questioned about the position of Secretary of State in an interview earlier this term, however, Dr. Brown stated that certain opportunities or jobs would be difficult to turn down, despite the fact that he has found his work at the Institute enjoyable and rewarding.

As part of an alley challenge in one of the student houses, students recently placed an eight-by-ten foot poster of Dr.

Brown's face with the legend: "Harold Brown for Secretary of Defense." Although the poster was in response to rumors that had circulated about Dr. Brown's ascendancy to the post, they apparently had no idea that the poster would appear on campus the same day as news of Dr. Brown's chances for the post broke on local news stations.

A photograph of the poster being hung on the wall between Firestone and Guggenheim taken by Tech photographer Dave Wheeler was sent to The New York Times after the editors requested a copy of it. The photograph may be slated for general distribution by Associated Press.

Dr. Brown was predicted to hold some high position in the Carter staff after it was discovered that he had acted as advisor to Jimmy Carter on foreign policy during the election. Dr. Brown is a leading expert in the fields of armament and international defense policy. He had also served under Johnson as Secretary of the Air Force.

### Einstein Protege

## DuMond Dies

Dr. Jesse W. M. DuMond, internationally known for his work on the precise measurements of nature's yardsticks—such as the speed of light—and for his studies of the properties of the atom's nucleus, died Saturday (Dec. 4) at the age of 84 in a Pasadena hospital.

A professor of physics, emeritus, Dr. DuMond began his long association with Caltech when he enrolled here as a freshman 64 years ago. He retired in 1963 from the Institute.

For years he received from scientists throughout the world the latest calculations and values of the physical constants. They included the speed of light, the pull of gravity, and the quantity of charge on an electron.

From this information and his own calculations, he refined the measurements and supplied scientists and engineers with the most precise values of these constants, upon which the mathematical framework of science and engineering is built.

The physicist studied the nuclei of atoms with unique instruments he conceived, designed, and built. The probing was done with x-rays and gamma rays. One of the instruments, a multi-crystal spectrograph, is in the Smithsonian Institution in Washington, D.C.

In the Caltech archives is a letter written in 1932 by Albert Einstein to George Ellery Hale, founder of Mt. Wilson and Palomar observatories, praising a young Caltech physicist, Jesse DuMond.

Dr. DuMond is survived by his wife, Louise; two daughters, Mrs. Adele Panofsky of Los Altos, Calif., and Mrs. Desiree Wilson of Cambridge, Mass.; 11 grandchildren, and three great grandchildren. Services and interment are private.

Born in Paris, France, of American parents, Dr. DuMond graduated from Caltech in electrical engineering in 1916, obtained a master's degree in that field from Union College, Schenectady, N.Y., in 1918, and a PhD in physics from Caltech in 1929. He became a teaching fellow at Caltech in 1921.

The National Academy of Sciences recognized his work by electing him to membership. He also was a fellow of the



Dr. Jesse DuMond

American Physical Society and a member of Sigma Xi. He has honorary degrees from the University of Uppsala, Sweden, and the University of Manitoba for his work on the physical constants. He won a distinguished service award from Utah State University for guiding the university in establishing a graduate research program in nuclear physics.

### Security Officer Busted

## Are We Secure?

On Friday, December 3, 1976, a former Caltech security officer, Marcus Cook, was arrested and booked on suspicion of grand theft by the Pasadena Police Department. Some of the property stolen recently from the Steele Lab was recovered as a result of the arrest. The theft took place on Thanksgiving (November 25) at a time when Cook was on duty patrolling the Caltech Campus, and involved cameras and lenses from a lab on the first floor of the Steele Building. Officer Cook had worked for Caltech from November 6 to December 1, 1976,

just two days before his arrest.

Subsequent to his arrest, Cook's bail was set at \$2500 pending arraignment on Wednesday, December 8. The value of the property stolen was not available, but estimates placed its value at well over one thousand dollars. Mr. Lee Chapman, head of Caltech Security and the person in charge of the investigation which led to Cook's arrest declined to comment on more specific details until after at least the preliminary hearing which will take place probably between now and early January.

—CJL

### News Briefs

## No Letters, Dancing, and Parade Breakfast

### Sorry Lettermen

Due to circumstances beyond our control we are completely out of Athletics letters. More letters have been ordered and should arrive early next term. A notice will be placed in the *Tech* when they arrive. In the meantime the ASCIT Athletics Manager cannot distribute them.

**Jim McBeath**  
**And Other Orchestra Types**  
The *Guy's & Dolls* orchestra

needs two more violin players and a string bass player (Jim McBeath, this means you). If you are interested, call Flora on ext. 2157, or drop by 105 Winnett.

### Dance, Dance, Dance. Dancing the Night Away

There will be a semi-formal dinner and dance for couples only on January 22nd in the Athenaeum. This is open to all undergrad students at a price of \$10 per couple for ASCIT members. See your social chairmen for details. Tentative ar-

rangements are for either Missouri Fox or Holy Smoke as the band.

### Sex In The Pantry

The Pantry Market at California and Lake has for quite some time had the very friendly policy of cashing checks for Techers on the basis of their ID's, for amounts well above (or without) purchases.

Recently they have mentioned to some students that abuses of

Continued on Page Three

# Parry! Riposte!

The Editorial Page

## Shower, Frosh?

Reprinted from the MIT Ergo, "The Campus Voice of Reason," dated October 6, 1976.

by Eric Anderson

Last night MIT went through one of its annual traditions, that of "freshman shower night." This current MIT version of the long-standing college tradition of hazing freshmen involves the forced showering in cold water of each member of the incoming freshman class. Individual freshmen are cornered by small groups of upperclassmen and carried into the showers. Individuals or groups who offer real

resistance are met by large gangs of "showerers". Certain upper-classmen on each floor or suite take special care to see that no freshman is missed, and will stay up all night or even wait weeks for the opportunity to shower anyone who "gets by".

Ignoring the question of physical danger—it is not unusual for people to be hurt in hazings of this sort—it is the question of the psychological attack inherent in freshman showering that should be discussed.

One of the worst aspects of this ritual is the choice of timing. It occurs the night before the first freshman physics test, on a night when many freshmen are insecure or worried about their futures. The night before what is (for many) the first real hurdle in their college careers, they may spend hours being chased down hallways, staying locked in their rooms, hiding in out-of-the-way places, being thrown into cold water or changing their wet clothes. At a time when freshmen want to be respected as real members of the college community they are forced to participate in a childish game in which they must try to escape the gangs of pursuing upperclassmen. The interruption of their study, the stripping of personal dignity in the attack, and the resulting sense of helplessness, all add up to a concerted attack on the freshman's sense of self-esteem.

There are two questions worth asking about this tradition: why it is continued, and why the complaints about it aren't more severe. One of the primary reasons why it is continued is that most people on both sides

Continued on Page Three

## Bring Back

For the first time in over two years, Techers this term will have access to health facilities on campus during all of the first week of finals, including this Saturday and Sunday.

In response to indications from several sources that there is interest in having the health center open on weekends, Dr. Lyman Bonner decided to use some previously unallocated funds to open the health center this weekend on an experimental basis.

Use of the health center this weekend could play a critical role in the move to have the health center: if there is a great deal of use, then there will be justification for further investigation of the possibility of keeping it open; if there is very little use, then it is quite possible that a decision could be made that the effort required to pursue the possibility further is too great, and the idea shelved.

Anyone who is sick this weekend should, therefore, go to the health center, especially if the disease is contagious.

-CJL

## My Bobbin

Dear Sirs:

In the south complex game-room, there exists a sewing machine donated by the Caltech Service League for use by all Caltech students. Although it is several years old, the machine works quite well, or did until somebody walked off with the bobbin holder. I have no idea why they took the bobbin holder, as it is completely useless without a sewing machine to go with it. However, the sewing machine is also worthless without a bobbin holder to go with it. Will the person who took the bobbin holder please return it so that Techers can once again use the sewing machine.

Sincerely,  
(s) Carl J. Lydick

Bob Harrison

## "And the good-bye makes the journey harder still."

Tragedy has struck the Caltech campus, and it is a tragedy made more painful by the sense of mystery surrounding its arrival.

Robert Harrison is dead. Robert was a senior in Astronomy and a Rudd. For the people of my, the junior class, he is probably best remembered for the speech he gave on undergraduate research possibilities during freshman camp.

Apparently shy and uncommunicative, Bob was actually known as a very personable guy, talkative and with a lively sense of wit. Yet he was so intensely wrapped up in his work that few people knew him and hardly anybody knew him well.

Bob was extremely good at his work. He was compared to Dr. Leighton, a person who could understand the physics and also work with his hands. From all accounts he was the most promising Astronomy student on campus. The events surrounding Bob's death have been investigated by the Chicago police, the Pasadena police, the deans and the *California Tech* and can be sketched in their chronological order like this:

Monday Nov. 1st. Bob bought a tank full of gas for his car. When the car was checked later a great deal of that gas was used. On the front seat of the car was found a map of the greater Los Angeles area.

Tuesday Nov. 2nd. Bob withdrew \$250 dollars from his bank account. With that money he left \$40 dollars for his landlady—he lived off campus—and bought a one way train ticket to Chicago. He apparently notified nobody about his whereabouts or his plans. His parents were unable to think of anybody who he might decide to visit in Chicago, particularly a week before midterms.

Thursday Nov. 4th. Nine hours after his train was scheduled to arrive Bob was found at the bottom of depression underneath a bridge by a Chicago Bell Telephone employee. He was found at eleven p.m. Authorities checked his locker at the Chicago train station and they found some clothes, a few books and a portable radio.

Those are the facts that are known to date about the period immediately before his death. Bob's landlady had been tutoring a student from USC, and she claimed that he had stopped going to his tutoring classes at about the same time that Bob disappeared. The Pasadena police have since determined that this student was completely uninvolved with any of the aspects of Bob's death and no longer consider him a part of the case.

Although no direct evidence of the reasons for Bob's death have been found, I believe that the evidence points away from suicide. The absence of a note, the trip across the country and the recollections of the people who saw Bob before his death provide no psychological—and I use that word loosely—evidence to support a theory of suicide. Given the choice between verdicts of Homocide, Suicide, Accidental Death and Undetermined a lay jury decided that the cause of death was undetermined.

A private autopsy conducted by a friend of Bob's father, his father is a doctor, concluded that the injuries Bob received were greater than could be caused from a fall from the bridge he was under, and pointed to Bob being hit by a vehicle before he fell.

Although this is really not the place for speculations about his death, I would like to use this space to put forth my own explanation of his death. The greatest problem for any explanation is the enigma behind his

leaving LA to go to Chicago. However, I'd like to say that stranger things have been done by Techers, there being records of purley random trips to San Francisco and even greater distances. Bob was also apparently a train aficionado, and may have simply decided to take a train somewhere. Once in Chicago, he checked his things into a train station locker, and simply went for a walk—something he was apparently known to do when he was here at Caltech. The bridge from where he fell had traffic on it and there are some reports that the side that he fell from had no sidewalk. In my opinion it was only one of the cruel vagrancies of fate, made unusual because we are a community of a thousand out of two-hundred million—a young man taking a walk while waiting for the next train is hit by a car and knocked over the side of an unsafe bridge. The driver, unaware or too scared, doesn't stop.

-Gregg Brown

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### ASCIT MINUTES

## Big-T, Cold Beer, and Brown

MINUTES OF THE ASCIT BOARD OF DIRECTORS MEETING:  
DECEMBER 6, 1976

The meeting was called to order by Bielecki at 8:05 p.m. Present were Bielecki, Gromley, McDonnell, Chess, Wells, Rousseau, Fisher, Wilson, Schwartz, Aydelotte, Boyar, Loh, and Lawrence.

1.) Chess announces that the Big-T has finally gone to the publisher in its entirety. The yearbook should be out sometime during second term.

2.) McDonnell reports on a meeting last Thursday with John Ward of Campus Leasing, Inc. who wanted to lease small refrigerators to Caltech students. He is offering the refrigerators at \$52/year, of which \$10 would be returned to ASCIT for helping in the promotional effort. Initially, he would like to begin by offering the units from January

until June for \$26 (with a \$5 ASCIT kickback). He will return Tuesday to receive a final decision as well as to present the contract, the terms of which are negotiable. McDonnell says that he informed Mr. Ward that his original demand estimates (based on roughly 10% of the on-campus population) would probably be considerably modified due to the availability of alley refrigerators in the student houses, their relative security as compared to most campuses because of Caltech's Honor System, and the fact that the Housing Office adds a \$2/mo. utility charge on to the room charge if the occupant has a refrigerator.

McDonnell mentioned that he went to see Rovers Gang for his opinion last Friday. Apparently, Mr. Gang knows the salesman and the company and considers both highly reputable, but has tended to discourage such efforts in the past in great part because the expected demand is probably

not worth the effort.

In general, the BOD thought that the idea was probably fine if any students might possibly be interested and deferred the matter until later.

3.) Wells mentions that Gregg Brown had heard from Harold Brown's secretary that Dr. Brown would be flying to Plains, Ga. on Tuesday to confer with Jimmy Carter—hinting at the possible appointment of Dr. Brown as Secretary of Defense.

4.) Wilson presents a letter from Warren Emery asking the BOD to reconsider athletic awards for Josh Levin, who was injured during the season, and Art Gooding, who was also injured and furthermore, not included in the original list of awards candidates. A vote to approve Levin for an award passed while Wilson left to obtain the sheets with Gooding's performance record (McDonnell/Chess:5-0-1)

Continued on Page Three

## More

Continued from Page Two

consider it to be "all in fun." This does not excuse the showering, however. Since part of the game is to "resist," the people doing the showering have difficulty detecting real resistance (not that they actively try to do so). Unless someone is desperate enough to pull a knife or take similar actions, his resistance is likely to be interpreted as "a part of the game", and he will in all probability be overpowered and carried away. The fact is, that to prevent his forced showering, a freshman must generally threaten violence with a dangerous weapon of some kind.

And if he does this, he will be accused of "overreacting" to the "harmless game," and will face ostracism.

Why aren't more complaints heard? The freshman who turns to the authorities for help will be amazed to find that none will aid him. The Campus Police will not interfere with shower night, and the Cambridge police hesitate to come on campus at all, and would certainly not attempt to break up a campus tradition like freshman shower night. The Dean's office passes off all complaints by claiming that showering is just student fun, and is not to be taken seriously. Those who complain to the dormitory Judicial Committees will find that the "JudComs" are as likely to help the showerers as the victims.

Another factor is the strong pressure from the other students to accept the hazing as a game; and the fact that any strong opposition, either before or after the showering, is viewed as extremely "bad form." A student

## MIT

who attempts to defend his personal integrity is quite likely to find himself a social outcast. Individuals who value social interaction must either accept an affront to their sense of personal dignity or be faced with the loss of most social contacts. For new Freshmen, who have few friends, acceptance as an individual is often a profoundly felt need (particularly after most high-school careers), and this is just the sort of pressure to which they are most likely to respond.

This is another, more important reason why this tradition is continued: for it would not have lasted so long, nor have affected so many people who didn't want to "play," had it been a simple "game" for fun. Many individuals who give up and "go along" as freshmen, undercut their sense of self-esteem in the process, and then find it necessary to make sure everyone else "gives in" in the same way a year later. These are the people that "keep records" to make sure that no one is missed, and will stay up until after two in the morning to shower the freshmen who work at night. It is no coincidence that generally the sophomores (those closest to their own showering) are the most active in the freshmen hazings. It is these people that make freshman shower night a serious, even vicious, occasion, rather than a purely "fun" event.

Upperclassmen who participated in last night's showering should ask themselves if they really spent last night just for "fun," or if they had a deeper interest in seeing the freshmen overpowered and soaked.

Freshmen, too, should think about last night. If it proper to

## Bitching

expose next year's freshman class to a trial like this? More importantly, what kind of a social system is it that puts pressure on individuals to surrender their personal integrity in order to gain peer acceptance? Should this system be permitted to perpetuate itself, year after year?

If the participants in these and other hazings would weigh the psychological costs and the chances of personal injury against the spurious "fun" of chasing freshmen around the dormitory, perhaps they would realize that a college campus is no place (indeed there is no place) for such "games".

## BRIEFLY

Continued from Page One

the privilege have been increasing; some Techers are writing checks that bounce.

## ASCIT Minutes

Continued from Page Two (Wells)).

5.) Wells announces that the TQFR surveys of this year's courses will take place next term.

6.) Bielecki reiterates the fact that the Y needs volunteers to help out with the decompression chambers. If there are not enough volunteers, it is possible

If the trend continues, we will lose the privilege. It's that simple.

The Pantry also dislikes people walking off with their carts. "Borrowing" them is obnoxious; subsequently losing them or destroying them (yes, it's happened) is downright criminal, as they cost about \$1.00 each.

Stay Up  
For Breakfast

An early morning New Year's day "Parade Pancake Breakfast" will be held again this year from

that there may be no decompression chamber this term. In any event, Walt Meador should have made the decision one way or another by Wednesday.

7.) The meeting was unanimously adjourned at 8:35 p.m. (McDonnell/Wells: 6-0-0).

Respectfully submitted,  
Tom McDonnell, Secretary

5 a.m. to 8 a.m. at Throop Memorial Church, 300 S. Los Robles, just three short blocks from the Rose Parade route in Pasadena. A full breakfast of pancakes with syrup and butter, plus sausages, juice and hot beverage will be available for a donation of only \$1.50 for adults and \$1.00 per child.

This is the second year that Throop Church has made these breakfasts available to early birds, to give parade watchers a place to get fed in a warm, friendly atmosphere.

## Taj of India

Award Winning Cuisine  
Experience the romance  
and mystique of India's  
gourmet cuisine.

Daily 5:30 to 9 p.m.  
Fri. & Sat. to 10 p.m.  
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## THE ASCIT FRIDAY NIGHT MOVIE

## DIRTY HARRY

7:30 p.m. & 9:30 p.m.  
in Baxter Lecture Hall

Admission: 50¢—ASCIT members and  
their guests; \$1.00—anyone else

NEXT WEEK

Finals

Budweiser® presents "Beer Talk"

## Salt in beer?



1.

Did you ever see somebody put salt in his beer to bring the head back up?



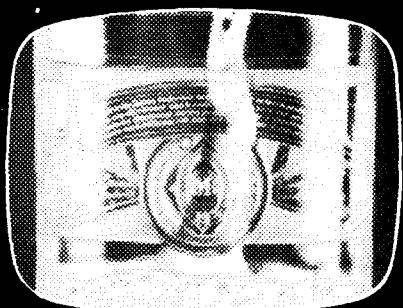
2.

Well, if you want to do it that way, it's okay with us.



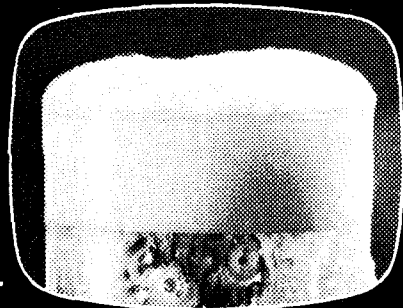
3.

But really... what salt does to a great beer is make it salty.



4.

A perfect head of foam is easy: Just start with Budweiser. And pour it smack down the middle.



5.

You can save the salt for the popcorn, 'cause that Beechwood Aged Budweiser taste speaks for itself.



6.

And you can take that without a grain of salt!



Get a free copy of the Budweiser "Beer Talk" Booklet.  
Write "Beer Talk," Anheuser-Busch, Inc., St. Louis, Mo. 63118



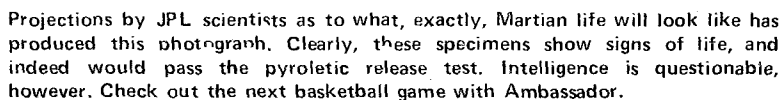


Photo by John Loo

## The Galloping Gourmand

# Pepper Mill Grinds Right

After years of tossing around the *Pepper Mill* on Walnut in Pasadena has finally settled down under new and apparently successful management. The outside has been remodeled, and the inside refurbished for a fine experience.

Upon entering, one is greeted by a "front hallway," a homey touch if nothing more. A display case on the left houses a few dozen silver trivia, looking somewhat like a collection of wedding gifts that nobody knows what to do with. The decor is sort of "late Wild West pompous" but not overpowering—seating is in somewhat overstuffed booths but thoroughly comfortable. The tables are far enough apart that one needn't whisper or worry about disturbing adjacent diners.

Reservations are taken in advance, but having a reservation only means you are next in line for a table when one frees up—this means a small wait on arrival but ensures that all the tables are filled, thus speeding up the walk-in seating. Upon being

seated one is presented with an unpretentious but diverse menu. Entrees include the standard steaks and prime rib, along with teriyaki steak, roast lamb roast duckling, etc. No lobster here: 'tis a pity; it would probably be very good. The dinners include soup and salad from the salad bar, and potato, vegetable and hot rolls. Price: The teriyaki steak is \$6.95, and a "mammoth cut" prime rib is \$9.95.

Guests are directed to the soup and salad bar after ordering dinner. The choice of salads and garnishes is surpassed nowhere this writer can recall. In addition to the standard tossed green salad with assorted dressings one can add macaroni salad, creamed cauliflower, deviled eggs, chopped mushrooms, etc. The soup is different each day; the vegetable beef variety I tried was undistinguished but still quite good. A nice touch is storing the salad plates in an icebox at the end of the salad bar—good salad carelessly served on a warm plate is a disaster.

The quality of the entrees is extremely high; the teriyaki steak (a sirloin cut) is quite tender and not so heavily marinated that one forgets that it is a steak. A cup of sauce is provided, though, for those who wish to drown their meat. The prime rib is perhaps the most tender I have come across; it can be quite literally cut with the side of a fork. The vegetables are very good but undistinguished; when I was there they had run out of their "fresh hot rolls" but was assured that they are very good—take that for whatever it's worth. The carrot cake is superb, and almost reason enough to have dinner here.

It is hard to assess the quality of the service. Robin worked my table and was very efficient; I left with the impression that the service was excellent. A friend of mine, though, had another waitress at the same time and thought things were miserable. Hard to say.

The bar is excellent, offering  
Continued on Page Eight

formed in an earth like environment, life would have been the only process capable of producing the results. On Mars, however, with its different surface and atmospheric compositions, coupled with a high surface flux of UV radiation, the environment is so different from the earth's that the data has to be interpreted very carefully. Chemical reactions, which would not take place in terrestrial conditions, might be favored by those of Mars and therefore could produce activity in its soil sampels which would ordinarily be interpreted as signs of biological processes. With this in mind, it has been difficult for mission scientists to make any firm statements on the detection of life by Viking. At present, most mission scientists are looking for non-biological processes to explain the data.

Data was provided by four experiments (excluding the lander and orbiter cameras which to date have not revealed any visual evidence of life). Horowitz's pyrolytic release experiment showed that the soil sample could produce a small amount of organic material when exposed to and artificial Martian atmosphere and illuminated. The activity of the soil decreased when it was heat sterilized and the presence of water vapor left in the chamber also seemed to inhibit the activity of the sample. The labeled release experiment showed that  $\text{CO}_2$  was produced when the soil was moistened with a nutrient solution. Another experiment, the Gas Exchange experiment, showed that large amounts of oxygen were given off when the sample was moistened. A superficial look at these results would seem to indicate the presence of life. However, when the amount of activity and the conditions under which the experiments were performed are considered, chemical processes seem to be the cause of the results.

Analysis of the soil by the Gas Chromatograph Mass Spectrometer also point to chemistry. To date no organic compounds have been detected at either landing

site. If organisms were present in the soil, traces of their existence should have been detected. The instrument used for the analysis can detect many different organic compounds down to strengths as low as .1 to ten parts per billion. Although it would have taken as many as 100 000 to 1,000,000 organisms per cubic centimeter experiment to have detected the chemicals making up the organisms themselves, the remains of dead organisms, and the organic building blocks of life should have been seen if life were present. Had the Gas Chromatograph-Mass Spectrometer detected such compounds, biological processes would be a much stronger theory to explain the data.

One problem with the chemical explanation of the data comes with identifying a reaction or set of reactions that can explain the results. One possibility that is being looked into by the experimenters is reactions involving peroxides, superoxides, or ozone. Dr. Horowitz explained how hydrogen peroxide could give the results seen—hydrogen peroxide can react with carbon monoxide, a chemical present in the Martian atmosphere to produce formic acid and free oxygen. Such a reaction could explain the organics produced in the pyrolytic release experiment and through other reactions explain the results from the other experiments. The Martian environment is such that the presence there of hydrogen peroxide is a real possibility, and indeed Dr. Michael McElroy, who has been working with the atmospheric analysis, has suggested that it may even exist on Mars in its liquid form.

As is is, however, life has not and cannot be ruled out as a possibility on Mars. The Viking extended mission may give further information on this question. Too little is known about Mars, and life itself to permit any firm conclusions at this point. As Dr. Soffen put it, "The discovery of life on Mars would take life from the world of miracles to the world of statistics."



# the california tech

*Food Diversion Entertainment!*

## Piano, Comedy, Aesop, and an Early ASCIT

Gary Graffman, the noted pianist, will be heard in recital at Ambassador Auditorium in Pasadena, on Sunday, December 12, at 2:30 p.m. Noted for his dazzling virtuosity as well as probing musicianship, Graffman was designated "one of the greatest living pianists" by Newsweek Magazine.

At Ambassador, Graffman will play Schubert's Sonata in C minor, Op. Posthumous; Brahms' Variations on a Theme of Paganini, Op. 35; Prokofiev's Sonata No. 3 in A minor, Op. 28; several pieces by Rachmaninoff two preludes, Barcarolle and three Etudes Tableaux.

Tickets are \$7.50, \$6.50 and \$5.50. The box office is open Monday through Friday from 10 a.m. to 6 p.m. and Sunday from noon to 6 p.m. Tickets can be purchased through PHONE CHARGE with BankAmericard, Master Charge or American Express. The phone number for box office and PHONE CHARGE is 577-5511. For theatre parties, benefits or group rates, call 577-5515. Tickets are also available through Liberty and Mutual ticket agencies.

\* \* \* \*

Victor Buono has been signed to star with Maggie Smith and Brian Bedford in "THE GUARDSMAN," the second production of the Tenth Anniversary Season for Center Theatre Group at the Ahmanson Theatre, it was announced today by Managing Director Robert Fryer. Mr. Buono will portray Dr. Bernhard, the clever and acerbic critic, in this romantic comedy by Ferenc Molnar.

"THE GUARDSMAN" will play from December 17 through January 29, 1977, at the Ahmanson Theatre of the Music Center.

\* \* \* \*

"Fables: A Diversion," a unique chamber opera by American composer Hugh Aitken, will be presented by Bing Concerts at the Los Angeles County Museum of Art on Thursday, December 16, at 8:30 p.m. in the Museum's Leo S. Bing Theater.

Based on 10 of Aesop's fables as retold by the 17th-century French poet Jean de La Fontaine, the work has been translated and expanded by Aitken for this theatrical version. Four singers, grouped in duos, trios and quartets, will enact two dozen roles, wearing masks to identify themselves as animals, as mythological or fictional personages, and, in one fable, as an oak tree and a reed. Nine instruments comprise the accompanying

chamber orchestra. Robert Henderson will conduct and Jeanne D'Andrea, coordinator of the Museum's exhibitions and publications department, will design the sets and costumes.

Ticket price is \$1. Those interested should call the Museum Ticket Office at 937-4250, ext. 265, to check ticket availability. The Los Angeles County Museum of Art is located at 5905 Wilshire Boulevard.

\* \* \* \*

For a preview of this year's ASCIT musical, *Guys and Dolls*, starring Frank Sinatra, Marlon Brando, Jean Simmons and Vivian Blaine, will be shown on Channel 5, Thursday, December 16 at 8:00 p.m. Eleventh in the series, "IBM Presents Movies to Remember," it will be telecast with only one commercial interruption.

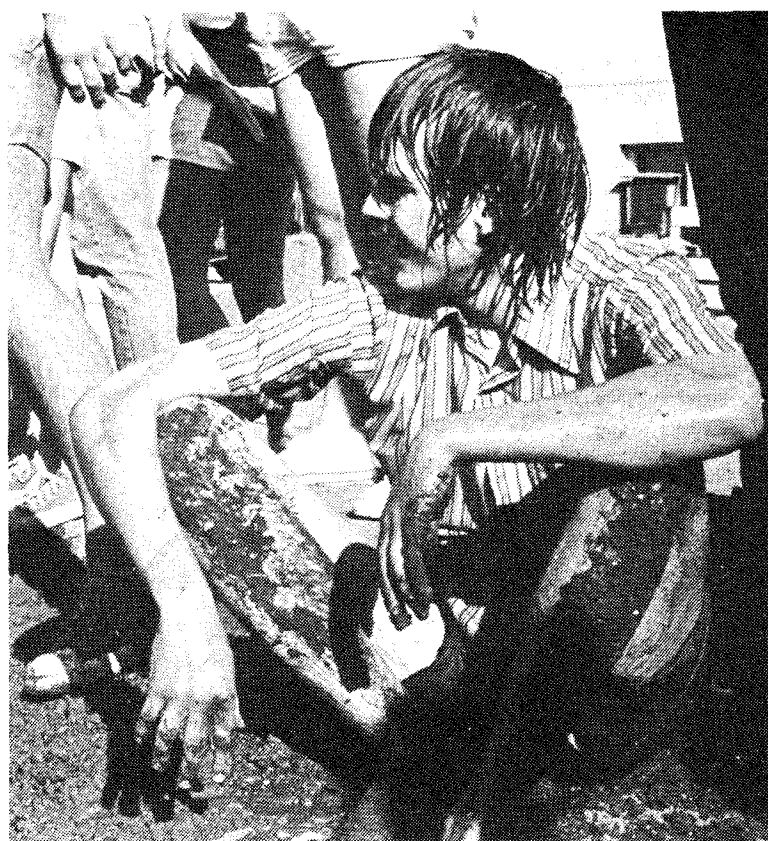
In this film version of the Broadway musical, Damon Runyon characters are transported to the streets of New York, accompanied by a snappy Frank Loesser score—"Luck be a Lady", "Sit Down You're Rocking the Boat" and "Guys and Dolls".

—David Ritchie

## Mud For the Huddled Mass

Though the Mudeo drew a small crowd this year, there were still those few who decided to come out and have a little clean fun. The chill of winter's approach did not stop those from coming out in shorts (right) though most of the time everyone just huddled together to keep warm (below.)

Photo-Ken Li



# The World's Lack of Energy

The following is a report by the Bureau of Intelligence and Research based on energy data from "World Energy Supplies, 1950-74," United Nations, New York, 1976.

The postwar period has seen rapid growth in the use of energy. It has also witnessed major shifts in the pattern of energy consumption by regions and by fuel source. In particular, the changing patterns of oil consumption and production illustrate the increasing dependence of some areas on petroleum imports.

During the period 1950 through 1974, energy consumption for the world as a whole grew at an average annual rate of 5.2 percent. Not surprisingly, already developed areas showed smaller relative annual increases:

- North America, 3.7 percent;
- West Europe, 4.5 percent;
- Far East, 8.1 percent;
- Communist countries, including People's Republic of China, 7 percent;
- Rest of the world, 7 percent.

These differential growth rates have resulted in a change in the "shares" of world consumption

for the various areas. The shares for North America and West Europe have declined, while those for the Far East, the Communist countries, and the rest of the world have increased.

During the period, world population grew at an average annual rate of 1.9 percent; thus per capita energy consumption for the world as a whole grew at a rate of 3.2 percent per year. By way of comparison gross product for the world in constant dollars has been estimated to have grown at an annual average rate of 4.9 percent, or on a per capita basis by 3 percent.

World energy consumption "shares" by source of fuel have also changed substantially. For the world as a whole, the share of coal has steadily declined while that of oil and that of natural gas have increased. Hydro and nuclear electricity together have a very small but gradually increasing share.

The only major area to enter the period with oil holding a large share of the energy market was North America; since then natural gas has gained at the expense of coal while oil has roughly held its own.

West Europe shows the most dramatic shifts. Coal was predominant at the start of the period, but oil rapidly crowded it out and, in the late 1960's, natural gas began a rapid growth in its share.

In the Communist countries, coal has maintained a larger share of total energy consumption than in other major areas.

Oil consumption has increased dramatically its share of the expanding energy market. For the world as a whole, it grew by 7.2 percent a year during the 1950-74 period. By area the growth was:

- North America, 4 percent;
- Latin America, 6.7 percent;
- West Europe, 11.2 percent;
- Africa, 6.6 percent;
- Middle East, 11 percent;
- Far East and Oceania, 13.5 percent;
- Communist countries, 10.9 percent.

These growth rates, higher than those for total energy consumption, especially in West Europe, reflect the shift from coal to oil. This shift was caused by the lower relative price of oil and to some extent by antipollution controls.

The geographic distribution of oil production has developed quite differently from that of oil consumption. The most noteworthy differences have occurred in West Europe and the Far East, with high consumption but low production, and in Africa and the Middle East, with low consumption but high production.

These differences caused oil trade to grow rapidly, and set the stage for the "oil crisis." As the Western countries became increasingly dependent on a few producing countries for a major portion of their energy supplies, these producing countries were able to band together into the OPEC (Organization of Petroleum Exporting Countries) cartel to extract monopoly rents (profits) for their oil. And as the Middle East's share of production became predominant, the Arab oil producers believed they were able to wield the "oil weapon" successfully, at least in the sense that it caused Japan and much of West Europe to alter their Middle East policies.

Looking to the future, careful examination of this record leads

Continued on Page Six





On the second of this month members of the humanities faculty toasted Dr. David Smith's victorious reign as manager of the Baxter Art Gallery.

Above: Faculty members and friends cavort as the party wears on and spirits of sundry natures run high.

Right: Dr. Delbruk's new hairstyle delighted many at the party this is just one example of the many covetous looks he received.

Photos by Gregg Brown



by Chris Hardcourt

It's Finals Eve. This overpowering fact suggests tonight's schedule to be a light supper followed by quiet meditation and an early bedtime. Let us therefore consider how best to blow out the evening. The most accessible diversion, of course, is the Finals Decompression Chamber—which begins tonight in Winnett and concludes Sunday with an appearance by the Steve Pope Band.

If an opera is just the thing for tonight, but you can't afford the broker's fees for *La Traviata* at the Pavilion, try Englebert Humperdinck's *Hansel and Gretel*. It plays in Costa Mesa at the Orange Coast College Auditorium. If a less grandiose excursion is in order, Gabor Szabo is still at the Lighthouse through Sunday. About the closest thing to a major rock act

you might see tonight is at the Picfair on Fairfax, where for \$1.75 you get Jean-Luc Goddard's *Sympathy for the Devil* and Nicholas Roeg's *Performance*, both featuring Jagger and the Stones.

Once into the realm of movies, however, vast new possibilities arise. At the Nuart tonight there is a double-bill of Bogart and Bacall, *Casablanca* with *To Have and Have Not*. Bogey abounds tonight, as you can catch him at the Rialto in South Pasadena in *The Treasure of Sierra Madre* (and learn the truth about Alphonso Bedoya) with *Key Largo*.

Checking the listing for the Fox Venice reveals a hidden gem, Cosmic Soup. Billed as "an evening of film and live music," Cosmic Soup features the film *Namaste - A Day in the Life of Ram Dass* and performing artists Francisco and the Cosmic Beam Experience and Tony Selva, Steven Fiske and Friends. A special light show is also in the works. There are two shows, at 7:00 and at 10:30, with admission at the door \$4—(advance tickets are \$3.50).

Continued on Page Eight

April 20—*Aliens and Empires: Whatever Happened to Nicholas van Rijn*; Poul Anderson.

April 27—*Far Out Physics: Black Holes and Other Subjects of Extreme Gravity*. Dr. Robert Forward.

May 4—*More Than Human*. Dr. John McCarthy, Theodore Sturgeon.

May 11—*Designing Creatures of the Cosmos*. Bonnie Dalzell.

## Turn Off The Lights...

Continued from Page Five to certain conclusions:

**First**, existing plans suggest that nuclear energy should grow rapidly. However, it starts from a very small base and cannot provide a major share of the world's energy for many years. Other nonfossil energy sources are in this same category.

**Second**, the growing demand for energy means that new supplies or alternative forms of energy must be found at an increasing rate if economic stagnation is to be avoided. While world coal production increased by a total of 66.7 percent (an annual rate of 2.1 percent) during the 1950-74 period, coal's share of total energy consumption fell from 61.5 percent to 31.8 percent.

**Third**, oil will continue to be of major importance for quite a long time and the Middle East's significance as the principal source of its supply is likely to increase in the mid-range future.

**Finally** in the long run, all fossil fuel will be exhausted, but present resources are sufficient to carry us over until nonfossil sources can be developed.

# ROCK ON ROCK

Go by Yamashtu, Winwood, and Shrive

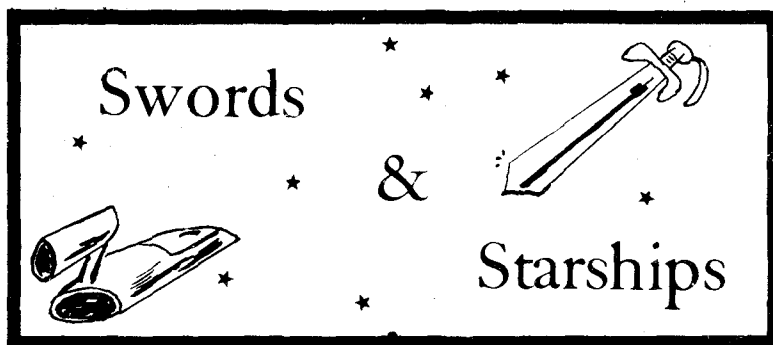
Go is an album created by a one time collaboration of some renowned rock and roll figures. The best known of the many fine artists are Michael Shrive, former percussionist from Santana. Steve Winwood, lead singer for the now defunct Traffic, and Stomu Yamashtu, a Japanese artist who is known throughout the world but has received little acclaim in the U.S. until this effort.

Yamashtu has an extensive jazz, classical and rock background and is the main influence in this particular work. Not surprisingly, then, this album embodies many different styles of music. The best of it is spacey pseudo-classical synthesizer a la

Rick Wakeman. There are also cuts of jazzy Weather Report style music, some latin-flavored rhythms, and a bit of good rock and roll highlighted by excellent Winwood vocals. Even disco gets a nod on one of the cuts. The bulk of the music is reminiscent of Mike Oldfield or Pink Floyd and is very good except where the lead parts occasionally drift into mere random noise production.

Go purports to be a concept album but you would never know it without the enclosed folder to tell you this fact. The story is weak anyway and the music lacks the cohesion necessary for it to be considered as a whole. By the way, the record has absolutely nothing to do

Continued on Page Seven



by Gavin Claypool

"Deep Prophecy: The Meeting of Science and Fiction," a six week lecture and discussion series on science and science fiction, will be presented by UCLA Extension during spring term on the Westwood campus.

Larry Niven and Jerry Pournelle, both well-known SF writers and together one of the best collaboration teams in the field, will coordinate the programs. Other highly-regarded writers and specialists in many areas of science will join them on Wednesday evenings beginning April 13.

Niven is the author of *A World Out of Time*, *Ringworld*, and is working on a sequel called "The Ringworld Engineers." Pournelle's most recent book, *West of Honor*, has just been published; his earlier novels include *Birth of Fire* and *A Spaceship for the King*.

Together they have written *The Mote in God's Eye*, *Inferno*, and the forthcoming *Lucifer's Hammer*.

The guest speakers for the six weeks include Dan Alderson, spacecraft navigation programmer at JPL; Poul Anderson, author of *Tau Zero*; Dr. Robert Forward, senior space scientist at Hughes Research; Dr. John McCarthy, director of the Artificial Intelligence Laboratory at Stanford; Theodore Sturgeon, author of *More Than Human*; Bonnie Dalzell, paleontologist, zoologist, designer of extraterrestrial life forms; and Hal Clement, author of *Mission of Gravity*.

The series will be available on both a series and an individual basis. The cost will be announced later (probably \$45 for the series, and \$8.00 for a single evening). Enrollments will be taken after the spring quarter bulletin is mailed out, sometime in late February. It is not available for credit.

A capsule description of each week:

April 13—"Alderson Drives" and *Cosmic Catastrophes*. Dan Alderson, Larry Niven, Jerry Pournelle.

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# Alumni Lose

by Rock

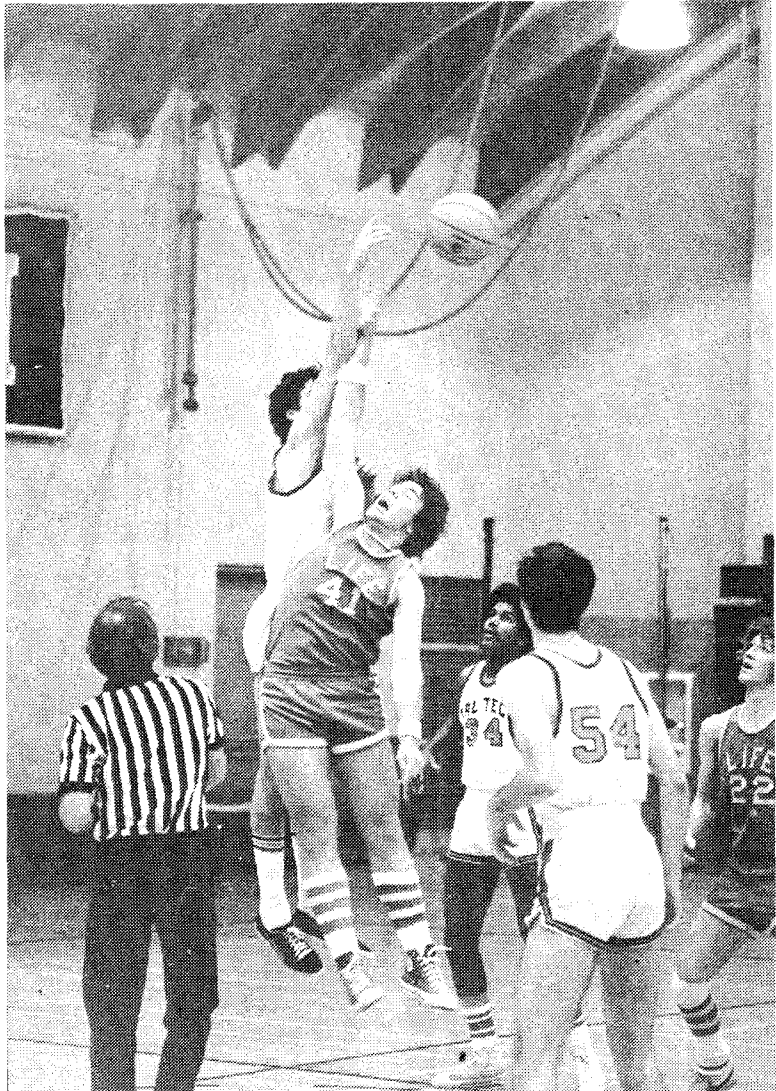
Greg Blaisdell drilled in a 16-foot jump shot as the final buzzer sounded to give the Caltech varsity its first win this year over a talented and stubborn alumni team, 56-55. The thrilling conclusion was a fitting ending to what had been easily the best performance this year by the Tech cagers. The alumni put up an excellent fight and showed a lot of poise and talent. While they were playing only for their own personal pride, the alumni played every moment quite seriously and managed to give the varsity much more of a game than they might have asked for.

John Pender scored 12 first half points to stake the varsity to a 32-26 half-time lead. Tech extended the lead to 44-34 and seemed in complete control before lightning struck. The Alums scored 12 straight points while holding Tech scoreless for 5 minutes. The spurt was capped by a steal by David Blackmore who then drove full court for a lay-up that put the ex-Beavers ahead 46-44. The alumni never trailed again in the game until the last split second.

Tech's chances were dimmed when its leading scorer, John Pender, fouled out with almost 12 minutes left after tallying 19 points. Clutch defense kept the Beavers close, however, and two late baskets by Bart Croes kept them alive. Trailing by a point with only 35 seconds left, Bo Lee was forced to take a foul in a desperate attempt to get the ball back. Unfortunately, the foul was Bo's fifth and so Tech's second leading scorer (with 10 points) was also forced to exit the contest.

Fortunately, the strategy paid off as the free throw was missed. Tech immediately called time out. Then, showing great faith and ignoring the percentages,

Coach Scott made the gutsy decision to run the clock down and play for the final shot. The team went into a four corner offense and ran the clock down to 10 seconds before calling time out again. Peter Edwards then inbounded the ball and the team passed the ball around crisply until Joe Zasadzinski spotted Greg open near the foul line and gave him the ball for the final shot. Greg, who had shot well all evening, then jumped and pumped and hit nothing but net. The 2 points, Greg's ninth and tenth of the game, were just enough to hand Tech a very satisfying and well-deserved victory.



Despite their recent loss to LIFE, the Tech cagers still managed to defeat the alumni, 56-55.

Photo-John Loo

# PEPPER

Continued from Page Four

not only a full selection of liquid refreshment but also skill in assembling the potion of your choice. I tried their gin and tonic and Irish coffee; both were perfect—need I say more? House wines served by the glass or *en carafe* are by Inglenook and quite satisfactory.

All things considered the Pepper Mill is a fine restaurant providing a pleasant setting for an enjoyable meal. I recommend it highly and look forward to returning myself.

—Dick Beatty

# Injuries Hurt Tech

by Rock

Last weekend was a most forgettable one for the Caltech basketball teams. First came the news that Ernie Lewis had suffered a fractured wrist during the game against LIFE College and would be out of action for 5 or 6 weeks. Then came lopsided losses to Cal Lutheran and Ambassador College.

In the Cal Lutheran game

Tech was rattled by a full court press and fell far behind early and trailed by 67-22 at the half. The team managed to play much better in the second half but the game was already beyond hope. The final score was 106-54. Dave Blessing and Ray Fields led Cal Lutheran with 22 and 20 points apiece. Bo Lee led Tech with 12 points and Peter Edwards added 10.



# Hockey Slow to Gain Momentum

Last Sunday night's opening home game against Ambassador College's newly formed hockey team began on an optimistic note, as Phil Wood (alias 'not quite Espo') faked left then right and hammered home his first goal of the season, giving Caltech

a 1-0 lead at the end of the first period of play. Bursting out "It's as easy as driving nails in" Wood was mobbed by his teammates, for the goal marked a turning point in team morale since it was the team's first score of the season. Earlier games on the road ended in losses to Cal State Northridge and U.S.C. 0-11 and 0-12, respectively. Midway into the second period Sunday, Wood and Lye both tickled the twine to give Caltech a 3-2 lead, and things were coming up all roses for the Beavers on ice, when a force more powerful than pure and applied science was felt in the arena. Whispers spread through the crowd that Garner Ted Armstrong himself had been called to the visitor's bench, and as the clock ran out the

scoreboard showed a 4-7 decision for Caltech's across town rival, despite a third period unassisted goal by Dave Evans. Goalie Cliff Brown, having his best game of the year, stopping 47 shots on goal, was heard mumbling "How can we possibly win when God is on their side?"

Still winless in 3 league outings, the Caltech pucksters are hopefully looking toward their next encounter with the powers above (Ambassador C.) which takes place Sunday, Dec. 12 at 10:15 p.m. in the new ice rink behind the Pasadena Civic Auditorium. Reliable sources say that science will be no match for Garner Ted and that only God himself has a chance of stopping the Beavers. Don't miss it, your life may depend on the outcome!

# Tech around Town

Continued from Page Six

With finals week having no classes, one frequently finds a schedule of busy nights and free days. Which is good, because there's lots to do in daylight. Sunday at 2:30 you can hear Gary Graffman at Ambassador playing Brahms, Prokofieff, Rachmaninoff, and Schubert.

If during your labours you wish to walk the well-travelled roads of fantasy, you can see such works in varied media from 12:30 to 5:00 Tuesday through Sunday at *A Magical Mystery Tour*, the exhibit at the Municipal Art Gallery at Barnsdall Park (4804 Hollywood Blvd.). Another show with which you might identify is *Devils, Demons*

and *Dragons* at the Craft & Folk Art Museum (8514 Wilshire Blvd.), an exhibit commemorating the Year of the Dragon.

As finals pass, the next major event to loom up is New Year's Eve. The basic choice is whether to attend a public or private party. If you choose a private party, you're on your own. If public, well, now's the time to decide. For \$30—you can spend the evening in Century City with a package consisting of a seven-course Jade West supper followed by *Chorus Line* at the Shubert (where, by the way, it will play through at least mid-March). If you wanted a less structured party, you can go to Disneyland, Knott's Berry Farm, or Magic Mountain, tickets for all of which are available at the Ticket Office.

The Ticket Office also carries three New Year's Eve concerts which share a top price of \$10. The Beach Boys are at the Forum, Sparks with Flo and Eddie are at the Santa Monica Civic, and the Grateful Dead are at the Cow Palace with Santana and the Sons of Champlin.

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