

What's black
and white
and red all over?

The CALIFORNIA Tech

1.1 million burning
entry blanks!

Volume LXXVI

Pasadena, California, Friday, April 4, 1975

Number 22

ala hamburger

Denker Memorial

On Tuesday, the Burger King corporation announced the awarding of a \$3,000 Scholarship grant to the California Institute of Technology. The scholarship, named in honor of senior electrical engineering student, John Denker, was to be presented during a brief ceremony at the Los Angeles Press Club to Gene Wilson, of the Institute Office of Development by Tony Rolland, special projects director for the Burger King Corp.

Denker and several of his friends from Page House, recently called local and national attention to a unique prank. They entered a local sweepstakes, sponsored by another national hamburger chain, using a computer to print up over a million entries. They delivered the entries to the restaurant outlets throughout a five-county area, laying claim to one-third of the prizes.

Burger King decided to award the John Denker Scholarship as a way of making light of a situation that could have

happened to any restaurant in the fast food industry, according to Rolland. Terms for awarding the scholarship will be jointly determined by the Institute and Denker, with the Institute assuming responsibility for the awarding of the grant money to one or several deserving students.

To further recognize Denker and his fellow students for their creativity and inventiveness in outwitting the Sweepstakes, participating Burger King restaurants in the Los Angeles area, will be featuring a "John Denker Memorial Offer" for a ten-day period, ending April 12. During the promotion, customers, who bring a folded, stapled or mutilated computer card, will receive free french fries or onion rings with purchase of a sandwich of drink. The offer is limited however, to one per person per visit!

The Burger King Corporation has 1,400 restaurant outlets throughout the United States, with headquarters in Miami.



RAY OWEN, new Dean of Students interviewing a prospective freshman.
Photo by Don Ivers

Ray Owen Fills New Deanship

President Harold Brown announced late last term several major administrative changes affecting students. Among these were the creation of a new post, Vice-President for Student Affairs, and personnel changes in a number of existing positions.

Professor Ray Owen of the biology department has been appointed to the new position and also as Dean of Students. He replaced Professor James Morgan in the latter capacity, who resigned the post to assume other academic responsibilities. The appointments become effective September 1.

As part of the administrative changes, the Director of Student Relations will now report to the new Vice-President instead of directly to President Brown. The Master of Student Houses will also report to the Vice-President.

Hockey Defeats Nervous Oxy

On a recent Sunday night when team captain Bob Gardiner asked his players if they thought they would be able to demolish Occidental, they responded in unison: "It would not be difficult, mein Fuhrer." The Occidental players were very nervous about playing the Caltech champions. During the pregame warm-ups one Oxy player was heard to mutter to another, "Here on Caltech's home ice I feel as if I hadn't passed water in days."

Cliff Brown, Caltech's not unhamburgerlike goaltender, was in his usual drunken stupor. "Go get 'em" he shouted to his

teammates, "we have to win this one to clinch the title."

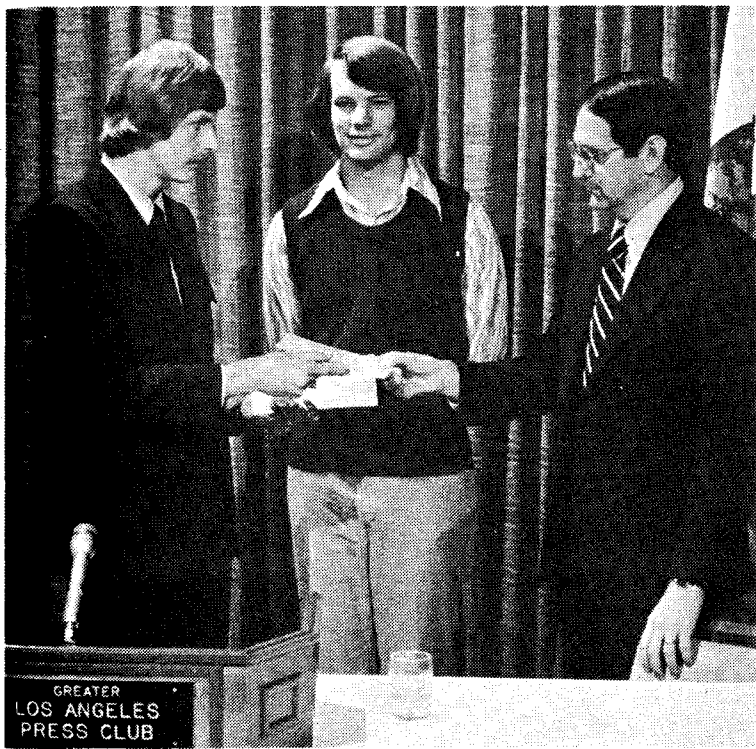
"We already have the title, Cliff. We won it last Tuesday," a fan yelled down.

"You mean we don't have to win it?" puzzled Cliff, and then added, "Well in that case I guess we should flaunt it while we've got it." Which is precisely what the team did.

Caltech won the game 7 to 3 with goals by Evans, Yates, Harris (2), Sweeney, Gates and Dobkin. The score is not a valid indication of how tight the game actually was. If it were not for the help of Occidental's thimble-

minded No. 81, Altuvilla, who amassed 5 penalties for a total of 13 minutes, the score might have been more equal.

Phil Wood was the first Techer to offer his thanks to 81 in the only language that Altuvilla seemed capable of understanding, a brawl. As the referees tried to pull the two apart, Wood punching madly away, Wood screamed, "Don't stop me now, I've got to where I like it." The two were finally pulled apart, after which Altuvilla lost control of his sphincter and voided himself.



TONY ROLLAND, of Burger King, handing the check for \$3,000 to Gene Wilson of the Development Office, while John Denker Memorial looks on.
Photo by Floyd Clark

GALCIT Honors

Two members of the GALCIT faculty here at Caltech were honored at the annual meeting of the American Institute of Aeronautics and Astronautics in Washington, D.C.

Hans W. Liepmann, professor of aeronautics and applied physics and director of the Graduate Aeronautical Laboratories, has been named an Honorary Fellow of the AIAA, the highest honor which the AIAA bestows on its members.

He was presented with a citation which lauded his contributions to transition and turbulence, shock wave boundary layer

interaction, and buffeting and aerodynamic noise.

The author of several books in his fields, he is a member of both the National Academy of Engineering and the National Academy of Sciences. He has served on several NASA committees and has won numerous awards.

Donald E. Coles, professor of aeronautics, was elected a Fellow of AIAA in recognition of his contributions to the problem of turbulent flow and the development of sophisticated experimental techniques.

News Briefs

Sign Up as ASCIT April Fool

A sign-up sheet will be posted on Flora's door in Winnett for the following ASCIT appointive offices: Business Managers for *Big T*; *The California Tech*; *Totem*. Elections Committee Chairman; Coffeehouse managers; Editors for *Big T*; *Little t*; *Totem*; Gameroom chairman; Members of the following committees: Educational Policy; Executive Committee; Activities.

Remember, if you don't sign up, whatever goes wrong for the next year will be *your* fault.

Senior Pictures

So far 35 seniors have turned in one picture each, and 2 seniors have turned in two pictures each. Unless the rest of the class turns in pictures by Friday 4-18-75, they won't be in the *Big T*. (Andriola and Ruddell better decide WHICH of their

pictures they want used). Turn in your pictures to Flora, 105 Winnett.

"Sighted Cowan, Sank Same."

This Saturday night, at 7:30 p.m., to the total wonderment and amazement of very few, there will be a naval miniatures game in Dabney Hall Lounge. Join us in our search for glory as we rewrite the annals of naval history, not necessarily for the better. Take out your hostilities by firing a 5.9 inch gun at someone. Torpedo your friends and neighbors. Be different. But remember, when you're out on the sea at night, wear white!

Support Your Local Vampire

Sign up now for the Caltech Blood Bank Drive Thursday, April 17 and Friday, April 18,

11:00 a.m. to 3:30 p.m. in Dabney Hall Lounge.

If you have any questions concerning the Caltech Blood Bank Program, please call Vivian Walker, Extension 2374.

Moneygrubbers Unite!

Organizations seeking ASCIT funds should contact Chen Sun, ASCIT Treasurer, 12 Fleming. (Or else they won't get any money!)

See Rea For Keys

A lock has been installed on the student garage. Keys are now available to students at a cost of \$1.00 each. Those interested in obtaining keys may do so by contacting Ed Rea, in 213 Page.

Continued on Page Seven

The Fred Logs

Treasure in Sierra Madres

by Fred

A week after the previous expedition we were back at the ruins to test our fortunes one last time before returning to Hollystone. Our only loot from the last expedition had been the copper piece that Hugh had insisted on carrying as a "good luck" charm. Lloyd's new nickname of Golden Boy sounded more hopeful than realistic and he had made another large offering to the church the previous night with the hope of getting a little help from above.

Our explorations began prosperously. In quick succession we discovered two treasure rooms and obtained some gold and silver and a piece of jewelry that Sterling estimated to be worth more than a thousand pieces of gold. Then a moving wall slid across the passage in front of us turning it into a deadend. Returning to the surface we chose another entrance.

Our new course led us into a six way intersection on the other side of the sliding wall. We chose one of the passages and followed it for several hundred feet through a switchback and around a sharp left turn where it stopped short. Some searching revealed a secret door and listening carefully we could hear two men's voices behind it.

Gimli and Sterling tried to shoulder in the door but it resisted. When it finally yielded, the occupants of the room were ready for us. One was holding a two-handed broadsword and the other wielded a flail. Both of them were dressed in leather armor and looked pretty tough. It is a good assumption that men who live alone or in pairs are a lot stronger than those who travel in groups, and we had no desire to tangle with these at the moment. The man with the flail took a step forward and told us to go away. We shut the door quietly and departed.

Returning to the six way intersection we picked another route and soon came to a closed door. This one was quiet. We smashed it open...and stood face to face with a tall figure in

black robes. I no longer remember who acted first, but no one objected when the person carrying our newfound precious jewel pulled it out and dangled it in front of him. Without a word he snatched it away and slammed the door. There were sighs of relief followed by groans at having lost the day's only good treasure.

The next group of rooms we entered was empty and finally opened into a tunnel leading downwards. We followed it until it opened into a room that looked like an empty lair. All the signs indicated gargoyles, but there were none around. A lot of searching finally turned up eight hundred pieces of silver in a closet. Giving up, we retraced our steps to the intersection again.

At this point Legolas, Sterling and I stopped to hold a conference before making our next move. Of all the members of our party these were the only ones, besides myself, with enough intelligence to make logical decisions. Hugh was about as smart as his friends the "birdies" and the others weren't much brighter. Sterling was one of the few fighters I have met with even a speck of brains. Legolas, being an elf was, of course, an exception. The paths we had not tried yet all led deeper underground and we decided our best course would be to try and surprise one of the people we'd run away from a little bit ago. We finally opted to go back after the two fighting men. (I've always been a little afraid of people that look like evil magicians.)

Formulating what seemed like a clever plan we started back towards their lair. This time we were very, very quiet. Gimli reached the switchback and peeked around. One of the fighters had just come around the far corner. He spotted Gimli, let out a cry, and ran away. All hope of surprise was lost now but with our determination screwed to the sticking point we kept on. The door was closed when we reached it and there

was not a sound behind.

In order to break down the door on the first blow, Golden Boy, Hugh and Harry (my hired man) all lined up to hit it at the same instant. On the count of three Golden Boy and Harry hit the door and broke it down. Hugh forgot what came after two and jumped a moment too late, pushing Golden Boy and Harry through the now open door. The two fighters were waiting on each side. One took a swing at Harry and missed. The other caught Golden Boy on the shoulder with his broadsword before they both retreated to the far corner. We moved into the room and attacked.

Outnumbered two to one, the leather clad men fought back furiously. All our men were wounded before I could work around to get a clear field of view for a sleep spell. The man with the two-handed broadsword sank down under the spell just as the other got in a heavy blow with his flail against Hugh. Hugh staggered back with a near mortal wound as his antagonist retreated to a new corner.

At this point things looked tight and Golden Boy put his sword to the sleeping man's chest as I offered his partner their lives in exchange for a surrender. Realizing his position was probably hopeless, he agreed. We stripped him of his weapons and started to search the room. It turned out that the two of them were jewel thieves. Our prisoner showed us a box containing 30 gems and six pieces of jewelry worth a small fortune. He also pointed out some scrolls and a staff that he did not know the function of.

I tried out the staff but couldn't get any response from it. Thinking it might be useful to a cleric I handed it to Father John. He touched Hugh with the tip and immediately Hugh's wounds began to heal. He ran around the healing everyone in

Continued on Page Eight

UCLA, Ellison Give SF Course for Credit

by Gavin Claypool

The world of science fiction will be explored in a ten-week course offered by UCLA Extension this quarter.

Harlan Ellison, award-winning writer, editor, and registered trouble-maker, is the "tour guide" for the class, entitled "Ten Tuesdays Down a Rabbit Hole." Each Tuesday evening a different aspect of science fiction and its many forms will be presented.

The initial meeting (April 1) featured the early fantasists—Mary W. Shelley, Jules Verne, Edgar Allen Poe, Jonathan Swift, H. G. Wells, Edgar Rice Burroughs, and H. P. Lovecraft. Actors portrayed each of these writers and read one of their short stories or a selection from one of their novels. This example of "living theater" was narrated and directed by Star Trek's Walter Koenig.

Subsequent weeks will feature many (25) science fiction writers, television producers, directors, and writers, and craftsmen in peripheral areas such as historical mythology and comic books. Also included will be four full-length films: the not-yet-released film version of Ellison's "A Boy and His Dog" will be shown next week.

The course is available either as a lecture series (cost: \$50) or as a class for credit (\$60). If taken for credit, two requirements must be fulfilled:

- 1. Eight books of individual choice from a list of selected works of participants; and
2. A paper of not less than 2000 words due at the June 3 meeting. The paper must be on one of several possible topics announced at the May 20 class.

Credit for this class may be given by Tech; a final decision has not been reached. Interested students should see Dr. Huttenback. (In any event, credit is received from UCLA Extension; this course is part of their 400-series which is

usually transferable on a graduate level.)

Single admission tickets will be sold only at the door, if space permits. Regular price is \$5.50, but students with a valid ID card can purchase them for \$2.00.



The course is held in the Grand Ballroom, Ackerman Student Union, UCLA, at 7:30 p.m. sharp! Anyone interested in attending any (or all) meetings are invited to contact Gavin Claypool (72 Ricketts; 449-9952), who will try to coordinate rides and/or the AscitBus, and to answer further questions. [For rides—or offers of same—please let me know by Monday night.]

Highlights of the forthcoming weeks:

April 8—Shadow and Reality: From Story to Film.

"A Boy and His Dog"

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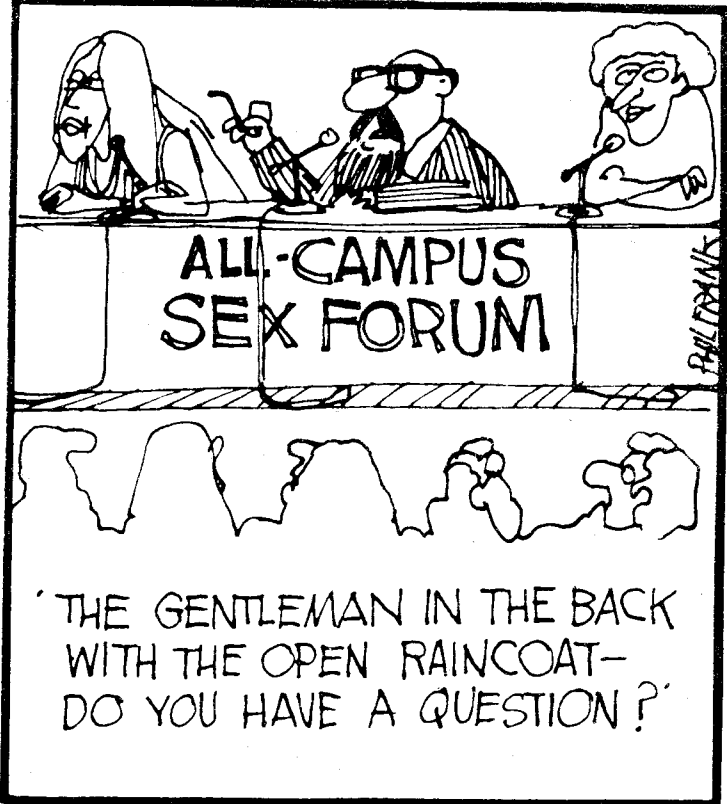
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Photographers: Greg Bone, Bobby Bus, Ray Feeney, Rich Feldman, Gerald Laib, C. N. Pow, Chris Wheeler.

Business Manager: Becky Winter
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THE ASCIT FRIDAY NIGHT MOVIE
"Beyond the Valley of the Dolls"
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: "The Great Race"

Centralization

New System for Millikan

When the concept of centralizing Millikan Library was first being considered years ago, a centralized circulation area was planned for the first floor. A planning document stated: "The user may move freely among the departmental collections. When he is ready to depart, the only formality he need observe is to check out at the central desk the books he wishes to borrow."

For various reasons these plans were not implemented when the Millikan Library was first opened, except for the installation of two large checkout counters on the first floor. After much current reconsideration and some remodeling, the Millikan Library began centralized circulation on April 1, 1975.

Centralized circulation appears to be the best method of making sure that library materials will be available and accessible to authorized library users. Inventories over the last few years show losses amounting to \$30,000-\$40,000 annually for books and journals which cannot be found. Each week about 180 non-Caltech persons with no library borrower's privileges come into the Millikan Library. By checking all persons at the point

of exit, the Library can identify non-authorized persons and prevent the checkout of material to them.

This system requires each person leaving the Library, who is carrying Library materials, briefcases, etc. to show his I.D. or borrower's card and have any Library material checked out. The Library will maintain central records as to what is checked out. Any borrower can place a "hold" on a book which is out to someone else, so that he can have it next. Materials can be renewed in person or by phone, if there is no "hold" on them.

"The Caltech Library is probably one of the last academic libraries to institute centralized circulation and closer exit control," said Johanna Tallman, Director of Libraries, in announcing this new procedure. "We hope that Caltech users will notice over a period of time that Library materials they want will actually be available instead of in the 'can't find, probably ripped off' category." This new policy has supposedly been approved by the Faculty Library Committee, Divisional Library Representatives, and the undergraduate Board of Control.

An open letter to the Undergraduate Academic Standards and Honors Committee, Prof. David Wales, Chairman.

Dear Sirs:
Your decision to deny a recent late-drop petition has left me seriously concerned about the effectiveness of petitioning in general. The petition in question concerned a total lack of accurate information (and even some misinformation) about my own progress in Physics 106b. Essentially, my exam grade and relative class standing had not been tabulated as of drop day, and, concerned about my own status in the course, I went to discuss my alternatives with the course chairman. (My sectional professor was out of town on a 2-week research assignment.) After looking over my as yet ungraded exam, he suggested that I take the course pass-fail, since he didn't expect me to do well enough to benefit my grade-point average. Four days later, my graded exam was returned to me along with the information that my current relative standing was dead last. After discussion with, and encouragement and endorsement from the course chairman and Registrar Dr. Schaeffer. I submitted a petition to drop, with written endorsement from my advisor and a full letter of endorsement and approval from my sectional professor. Your answer to this collective decision, as quoted to me, was that "there is no requirement for any instructor or any evaluation prior

to a final exam," and that since my situation was "the same as that of all of the other students in the class... a late drop would give (me) an unfair advantage over the other students." To these arguments, respectively, may I point out that while the requirement may not exist, the evaluation was nevertheless made and it is on that evaluation that my preliminary decision was based, and secondly, that had my "situation" been exactly the same as that of all the other students in the class, you would have had as many petitions on your desk last Monday. (Hypothetically speaking) I was a questionable case, and was not sure where I stood. Had I been doing very well throughout the term, or had I been scoring comparable grades to that of my midterm on earlier term-work, my decision would have been clear one way or the other; but, since my term-work was "average" and my exam was "poor" I, unlike most of my classmates, had a legitimate request for accurate information concerning my exact status. I do not see where the "unfair advantage" manifests itself, in petitioning to drop late upon finding that incomplete or erroneous information has caused one to make a wrong decision.

You claim further that "although the midterm in the course was given late, (I) did have sufficient indication of (my) work prior to that time." As noted above, my term-work was "average", which, in my mind, does not merit a drop card. My professor supported my petition and wrote to you to indicate so. If he agreed with your feelings as stated above, I sincerely doubt that he would have given his support.

I am told that few, if any, petitions to drop courses late have been accepted by your

committee in recent years. If this is not the case, I humbly apologize for bringing your confidential decision concerning my case into public view. If, however, this statement is true, I respectfully invite your reply and defense of such across-the-board denials.

Respectfully submitted,
John B. Bacon

Gameroom

Consolidation

To the Student Body

As most of you know, there are two gamerooms for student use on campus: one in Fleming basement, and one in Winnett basement. For some time, I have been considering closing the Fleming gameroom and consolidating the best of the equipment in Winnett. Most of the reasons for this are financial: the cost of recovering pool tables has gone from \$72 to \$85 in the last year, for instance. Anyway, I would appreciate any feedback on the subject I can get. Please drop by to talk to me in 105 Winnett or call me on x2157.

Sincerely,
Flora Boyer

Penpal Needed

Dear Sir,

As a representative of your local student association, please could you find me a penfriend (preferably female) about 18 yr old, who is a student at your university.

I am a student employed by the British Civil Aviation Authority, and I'm eighteen. My interests are live music (rock), Hi-Fi and sport.

I would like to write about

Continued on Page Eight

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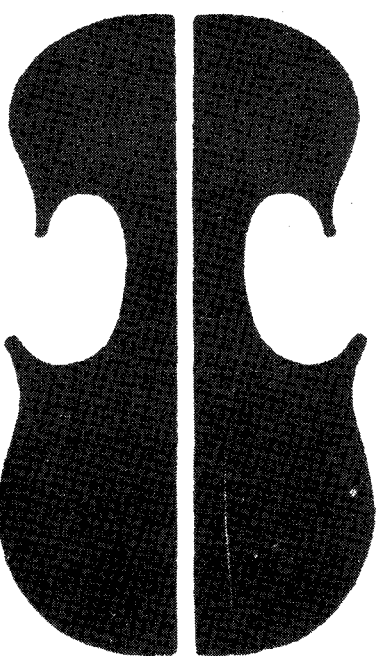
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PUT IT ALL TOGETHER IN AIR FORCE ROTC



Welcome to the last segment of the game. In this episode we are faced with the constant entertainment of the panicked senior. Now although everything else pales in comparison, if you need diversion from the seniors, or are a senior seeking diversion, there are other options for entertainment.

There is a profusion of options, too. It seems that things have actually changed over vacation. With this (and beloved brevity) in mind let me just run down the list. There are two ballets in town, the Pennsylvania and our own Los Angeles. Pennsylvania is a good troupe, and Los Angeles—under John Clifford—is growing. I want to mention three productions new to L.A., also. At the Huntington Hartford you can see Glenda Jackson in the Royal Shakespeare Company's production of Ibsen's *Hedda Gabler*. Opening at the Shubert is Edward Albee's *Seascape*. *Ring Around the Moon* (a cousin of *A Little Night Music*) is at the Ahmanson with its stars, Michael York and Glynis Johns.

In fact, there are even major new films to be seen (Those of you prone to the north-east winds will note the lack of any

mention of *Kismet*. Even I have limits.). The long awaited *Four Musketeers* has proven to be worth every bit of the wait. It's a dazzling piece, at times bringing glimpses of a different game. Ken Russell's *Tommy* is in limited availability, but brave the lines anyway. Russell is a master of image, as evidenced in this equally masterful synthesis of mystic experience and the absurd. All this in spite of the fact that they couldn't sign Mick Jagger as the Acid Queen.

The campus is hopping, too. Tonight there are two movies, *Florence* in Beckman (standing

room only) and *Beyond the Valley of the Dolls* in Baxter. Tomorrow Cinematech will show the *Seven Samurai* a classic of some three and one half hour length. Sunday the current series of Dabney Lounge Concerts will conclude with the Los Angeles Group for Contemporary Music. One of the contemporary composers to be represented is Charles Wuorinen, whose work will highlight the Ojai Festival this year.

We turn to lectures Monday with a Watson Lecture, this one featuring Dr. Bruce Murray speaking on *Science, Transcience & Miracles*. With the growth of technology there has lately been a corresponding growth of the "quasi-sciences." What does it all mean? If an empathic extraterrestrial riddles your mind with images of archetypal daemons, you'll want to know, too. Elsewhere in this journalistic paragon you should be able to read about John C. Lilly's Lecture on *The Science of Inner*

Reality in Ramo on Tuesday.

Wednesday you have off to contemplate the mystery of the jam of the Dead on the Palm. And besides, Thursday will be a special opportunity for techers. You see, Neville Marriner and the Los Angeles Chamber Orchestra with soloists Pepe and Angel Romero will present a program in Beckman including works by Rossini, Sor, Bloch, Barber, and Rodrigo. And on top of this, Mr. Marriner has invited Caltech to attend the final rehearsal in Beckman that afternoon. This is the time when performance is polished and also when the music is fit to the acoustics of Beckman.

So chin up. The Coleman Auditions are coming, and Harriet Shock is at the Ice House. The Cal Arts Festival is coming, and so are Emerson, Lake & Palmer & Elvin Bishop & the Doobie Brothers & . . .



Instruction Starts Next Week

Caltech will again offer instruction in Classical and Flamenco guitar with guitarist Darryl Denning. The classes are free of charge and are open to Tech students only. Classes will meet on Tuesdays in the Fleming Music room starting April 8. The Beginning Section (no previous experience necessary) will be at 5 p.m. and the Intermediate Section at 4 p.m. For further information call x2297.

Mr. Denning is also affiliated with UCLA and Occidental College. He has concertized (don't blame us for that word, he said it himself) throughout Europe, Mexico and the U.S. and will be heard in June in London's Wigmore Hall. His next local appearance is a Faculty Recital in Alumni Auditorium at Occidental College on Saturday evening, April 5 at 8:15 p.m.

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LOG, L _n	YES	YES	YES
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\sqrt{x} , e^x	YES	YES	YES
x^2	NO	YES	NO
\sqrt{x}	YES	YES	YES
$\sqrt[y]{x}$, $x \leftrightarrow y$	YES	YES	NO
$1/x$	YES	YES	YES
EXCHANGE X WITH Y	YES	YES	YES
BIGGEST DISPLAY	YES	NO	NO
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Big Sing

Seminar to be Held

by Dick Beatty

On May 1 to 3 Caltech will host the annual Intercollegiate Musical Council Spring Seminar. Music educators from all over the United States will be on campus for such seminars as "The Nature and Care of the Male Vocal Instrument."

Six glee clubs from other colleges will be at Tech. The United States Army Chorus will give a concert Friday night in Beckman Auditorium; Saturday night clubs from UCLA, UC Santa Barbara, Cal State LA, Cal Poly San Luis Obispo, and Loyola will join our own Caltech glee club for the *Big Sing* in Beckman.

At this already half-booked concert each club will present a short program of its finest repertory; concluding with all six choruses (over 350 voices) on stage for the *Tarentella* by Randall Thompson. This number will be conducted by Dr. Howard

Swan, one of the world's renowned collegiate choral directors.

This year's seminar is the first time in IMC history to be hosted by a school with no music department. All the preparatory work is being done by Dr. Olaf Frodsham, Director of Choral Music at Tech with (student) members of campus choral groups. While no academic credit is given at Tech for musical activities, all of the visiting clubs have some course credit arrangements; nevertheless, our own Glee Club holds its own against any chorus in the country—a tribute to the ability of motivated Tech students.

Tickets for the Friday (Army Chorus) and Saturday (*Big Sing*) concerts are available from the Ticket Office now. These shows will be the finest collegiate choral productions in California for a long time—anyone interested should get tickets soon.

by James Llewellyn

Imagine for a moment how it would be if you were totally deaf. Keeping in touch with reality, already a difficult problem, could become impossible. This is a problem faced by the deaf in a society which uses such instruments as telephones and television, two sound-dependent communications devices.

In an effort to aid the deaf to cope with life, two young engineers have formed a company, called Aph Technological Consulting, that specializes in small scale technical projects. Glenn Hightower, 25 years old with a master's degree in EE from Caltech, and John Denker, 20 and a senior in EE, founded their company in September of 1973.

Since that time they have undertaken such consulting jobs as computer programming and designing (and building) electronic systems for various businesses. In Hightower's words, "APH was conceived as a way of matching student talent with the short-term technical needs of business... Many companies have small, specialized tasks that need to be done and that they are not equipped to handle. We can supply the talent."

Money from such consultation jobs is used to help finance several current projects designed to help deaf persons. These range from a series of devices to help deaf people develop their voice quality (it is rather difficult to sound "right" when you can't

even hear your own voice), to a system of signalling when the doorbell or telephone rings, or an alarm goes off by blinking every light in the house off if it is on, and on if it's off.

A major project is a teleprinter which allows deaf persons to communicate by telephone with other persons having a similar device.

A system of such devices already exists, with approximately 10,000 families having them across the nation. But most of these are old, surplus models which have become obsolete. One defect is the noise that they create, which can be bothersome to non-deaf people.

APH's new teleprinter will eliminate the noise and incorporate several new features. Output from the new device will be on a three-inch strip of paper with no breaks between words (skipping to the next line if the last word won't fit). Outgoing messages are typed in black and

incoming are in red.

A prototype model will soon be finished. It will weigh 16 pounds and be easily portable, another feature lacking in the older types. The price is expected to be moderately low. As Hightower explained, "Deaf people as a class are not wealthy. We want to build things for them at a cost they can afford."

The original impetus for APH's interest in machinery for the deaf was given by Hightower's orthodontist, Dr. James C. Marsters, who has been deaf since childhood. Dr. Marsters has continued to aid APH by giving them advice, and ideas which will help deaf persons.

"We take our pick of these ideas and work on those we want to," Hightower said. "We're pretty much inspired to work on this stuff for awhile because we think we can make a significant contribution to helping solve some of the communications problems of the deaf."

More News Briefs

Toroidal Equations

There will be a meeting of the Math Club this Tuesday, April 8 in the lounge, 3rd floor Sloan at 7:30 p.m. Joe Carroll will give a talk on "Algebraic Topology."

"Of The Persons, By The Persons..."

All undergraduate women interested in planning and implementing an on-going organization of Caltech's undergraduate women (run by us, supported by the Institute), please come to an organizational meeting, Thursday, April 10, from 7-8:30 p.m. in the Health Center Lounge. Any pre-meeting suggestions and ideas are welcome. Contact Merle McKenzie, 795-1978 or Beverley Manley, x2394.

Movies With Taste

Cinematech is showing Akira Kurosawa's action-packed epic *Seven Samurai* tomorrow at 8 p.m. in Baxter Lecture Hall. This film is rated one of the best ever made, and certainly it is the epitome of the Japanese samurai flick. Don't miss it, if you haven't seen it already, and see it again if you have. ASCIT and GSC members get in for a dollar, otherwise admission is \$1.50.

Coffeehouse Needs Talent

If you have a talent, or even know someone with a talent, in music, poetry, or anything entertaining, and would like to perform before people at the coffeehouse for informal shows, please contact Moses Ma at 792-0086 for a booking. If you can't decide, please call and I'll be glad to talk you into it.

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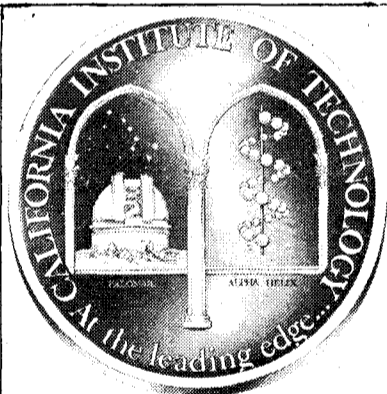
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Believing that the pigeons would not be appreciative, and that grass doesn't grow under paper, we opted for the contest, and...

Friday, March 14, 11:30 P.M.

Screams of " " and " " are heard coming from under a certain Page House president's bed. Steve Klein comes up clutching a ragged piece of paper with the words "OFFICIAL

ENTRY BLANK, McDONALD'S 'A YEAR'S GROCERIES FREE AND A NEW DATSUN Z' SWEEPSTAKES" emblazoned across the front and a wealth of teeny tiny print engraved upon the back.

"My god, *print* your name, address, and zip code on a 3" x 5" piece of *paper*," he was heard to utter, "Enter as many times as you wish. Deposit entries at a participating McDonald's — but the contest closes next Sunday... To the line printer!"

Saturday, March 15

5 cars, 5 years of groceries at \$250 per month, over 1800 McDonald's \$5 gift certificates—\$46K worth of goodies being offered in the sweepstakes. A committee of five was formed to plan and execute the R.F. Strange creaks and groans emanate from beneath an open door... Eavesdropping on the

central committee we hear:

"100,000 entries?" asks Klein.

"No," says Lou Scheffer, "One million entries."

"That should give us 50% of the prizes," calculates Barry Megdal

"We'll have to make over 1000 slices on a large paper cutter," states Dave Novikoff.

"I can cut them in one day," claims Greg Denker of Oxy.

Fadeout.

Sunday, March 16

Last ditch effort to salvage GPA's.

Monday, March 17, 8:00 P.M.

The race is on. Can our courageous turkey students manage to print, cut, and distribute over 1 million entries—52 boxes of line printer paper—before the deadline? The program is written and the first boxes begin to roll off the 370's line printer no. 1. Job "Arches" is underway. Several operators and three nights of work later the printing is finished. 1:00 A.M. on the morning of the twentieth the last box burps off the exhausted machine.

Meanwhile, at the Occidental College print shop... the agony. Changing 140,00 pages of paper into all those cute 3" x 5" entries. The committee and its cohorts labor on, though, and finally, at 9:41 P.M. the same night of the twentieth, the last entry is cut.

Friday, March 21

The world erupts. John Denker, our neighborhood glory-monger has spilled the beans. The *Times*, the *Pasadena Star News*, KKDJ radio, channels 4,7, and later 2 descend upon your harried heroes. The salvageable portion of the day is spent in dividing the entries among the four areas to be blanketed, and from there, among the eight drivers who will effect the deliveries. 104 McDonald's around Los Angeles, Orange, Riverside, and San Bernardino counties are planned for. Our

initial estimate—50% of the total entries.

Saturday, March 22

A squeal of brakes. Sweating bodies explode from the rolling vehicle, protectively cradling half a box of entries, and quickly scurry through the doors with the golden arches, stuff the 10,000 entries through the slot in the official box (average time 6 minutes) and then race off to hit the next in their lineup of targets.

Continued on Page Eight



NO! NO! You have Washington facing the wrong way! Photo by Floyd Clark



STEVE KLEIN submits his applications for the John S. Denker Memorial Scholarship. Photo by Floyd Clark

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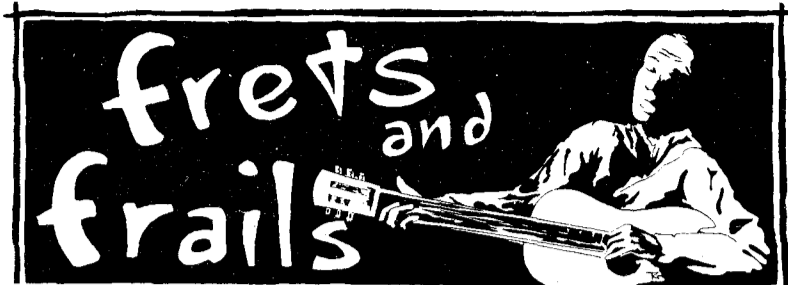
Just to kill a minute or two, why don't you match your own beer-drinking habits and preferences against those of the Budweiser Brewmaster. While you're taking the test, it might be a good idea to cover up the answers with a cold can or two of the King of Beers.

1. When you do use a glass, do you ease the beer down the side? Or do you pour it down the middle to get a nice head of foam?
2. How much foam do you like on a glass of draught beer? None at all One inch One and a half to two inches
3. Do you like to drink your beer in little sips? Big swallows? Something in between?
4. Which do you like best? Canned beer Bottled beer Draught beer
5. Which beer is brewed by "exclusive Beechwood Ageing with natural carbonation to produce a better taste and a smoother, more drinkable beer?" Budweiser Some other brand
6. When you say "Budweiser," do you say it... often? ...eagerly? ...loudly? ...gladly?

ANSWERS

1. Right down the middle for a healthy head of foam.
 2. 1 1/2 to 2 inches.
 3. Big swallows.
 4. Any of these, as long as it's Budweiser.
 5. Only Budweiser.
 6. All answers are acceptable.

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After a delay of several weeks, recording star Harriet Schock finally appeared at the Ice House this week. She was definitely worth the wait.

In case you don't recognize the name, Harriet Schock is the one who recorded the versions of "Hollywood Town" and "That Ain't No Way to Treat a Lady" that you've been hearing on the radio. As is usually the case in such matters, these are not even vaguely her best music. "Hollywood Town" is one of those songs that is popular even though people don't listen to the words, and "Lady" is often mistaken as being by Olivia Newton-John. Unfortunately, I do not have a very great opinion of ON-J.

"She's Low Clouds", the title song of Harriet's new album, is an excellent song that is (fortunately) getting some radio airplay. It is a beautiful song, one of the high points of the show. Other

songs of note were "Southern Belle" and one which I think is entitled "Play It Again". Harriet Schock is primarily a songwriter who became a singer, an order of development becoming somewhat common nowadays. She very much resents being classified as a "country" performer by people, since her only claim to such a field is her Dallas accent. Her music occasionally sounds like something Linda Ronstadt might sing, and this may be another contributing factor to sounding "country", since some people seem to confuse Ronstadt with country.

Harriet Schock is very amply supported by Don Whaley (I probably misspelled that) on bass and David Carr on whichever keyboard Ms Schock isn't playing herself.

One of the greatest moments of the show is a song by Harriet written as a reply to "I'm a

Woman" (a song written by two men, by the way) called "I'm So Macho". Anything that does that good a job of insulting the Macho syndrome can't be all bad.

Appearing with Harriet Schock on this show are Peter Alsop and George McKelvey. Peter Alsop is an insane musician who plays strange things on guitar, harmonica and kazoo. Songs such as "Howl to the Moon, Bob Lincoln" and "Junk Food Junkie" leave the audience collapsed in their seats. His serious songs, such as "Sandrock Canyon", are done well enough to indicate that he has musical talent as well as humorous. He will be appearing on campus here on April 25, as one of the Y noon concerts, so if you miss him at the Ice House, you will have another chance.

George McKelvey is a low-key comedian who hasn't been here recently. His comedy is of the form of sarcasm and understatement suited to a quiet club, not the slapstick that some modern comics find it necessary to employ. There aren't really any "routines" to describe to you. George merely talks to the audience and makes them laugh. If that isn't enough for you, then there isn't anything I can do for you.

All in all, the show this week is definitely worth seeing. It will be playing through Sunday night at the Ice House. Next Tuesday the Mule Deer and Moon Dogg Medicine Show appears, and if you've ever seen them, that is enough incentive to go see them again.

-Nick Smith

News Briefs

Tax Day Election

Nominations for ASCIT Director of Social Activities will close next Monday at noon, to be followed by an election eight days later, Tuesday, April 15.

Local Girl Makes Good

The Long Beach Symphony, conducted by Alberto Bolet, will be performing at Lakewood High School, in Lakewood (look it up) on April 12. What makes this of interest in these pages is the performance of Kathleen Kong (of Ruddock House) with that orchestra.

Kathleen, winner of the 1973 Young Artist Competition, will be performing Beethoven's *Emperor Concerto*, Op. 73, in E Flat Major. Student tickets are available for \$1.50 from the Long Beach Symphony Association. For more ticket information, call 436-7953.

Windblown Rag

Sunday, April 6 at 2:00 p.m., the Caltech Wind Ensemble will feature ragtime by Joplin and suites by Gustav Holst and Ralph Vaughan Williams in a performance in Dabney Gardens (in the Lounge if the weather requires). Appearing on the same program will be the Caltech Jazz Band and the premiere of original compositions by segments of the sixty-foot microcanonical brass ensemble.

Pampered Slaves?

Were American slaves badly exploited and brutalized? Or were they well-fed, well-housed, bourgeoisified skilled workers? For information on H 161, "The Economics of Slavery", which will concentrate on the highly controversial recent book, *Time on the Cross* (see Profs Lance Davis or Morgan Kausser).

Beatty vs. Beatty

RED Rallye Classic

The Caltech Clean Air Car Project will enter two cars in the Intercollegiate Reduced Emissions Devices Rallye on April 8-13. This is the fourth R.E.D. Rallye from (U.C.) Davis to Los Angeles; the CACP has entered all of them, generally winning their respective classifications against entries from other schools across the nation.

A 1974 Datsun 610 sedan (on loan from the Nissan Motor Corporation) will be modified and entered by captain David Beatty and his team. A 1970 Hornet (donated to the CACP by the American Motors Corporation for the 1970 MIT-CIT Clean Air Car Race and in competition ever since) powered by LPG (propane) gas will be entered by Dick Beatty and Leroy Fisher. Last year the Hornet won third overall and first in class.

Scoring for the rallye is based on a combination of perfor-

mance, economy and emissions scores. Entry vehicles have been modified by students from different colleges, generally in conjunction with engineering courses. While general emission control concepts are universally known, technical implementation is often a great problem. The Rallye provides opportunity for invaluable exchange of successes and failures in technology.

The goal of the CACP is to find means of air pollution control from automobiles capable of rapid implementation. Funding has dried up for research although one section of the freshman engineering lab course (E5) was taught by the CACP last term, which provided some crucial funding. While vehicle pollution research may be going broke at Tech, the work will continue until the problem is solved.

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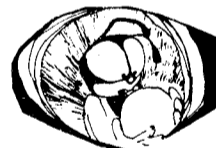
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The Fred Logs Marches On

Continued from Page Two
sight while I read the scroll. Written on it was a spell for summoning an Invisible Stalker, a very useful creature whom I shall describe more fully later.

With everyone (including our opponents) healed up to strength we gathered our loot and stepped out. Just before closing the door I released the sleeping spell and Hugh tossed something past me into the room. "Have a lucky copper piece," he called merrily. Leaving the captured armor and weapons in the hall we headed for the surface well satisfied.

The next day we left Stockton, parting company with Gimli and George. Returning to Hollystone we were almost mobbed by a crowd of new hopefuls and old adventurers, all eager to return to the dungeons. One of them was an enormous elf who had stormed into the "Fiery Gronkel" during our absence and demanded some news about his little brother Amalric. He wasn't too pleased when someone informed him that Amalric had been killed in battle with a mob of orcs. No one dared to mention that he'd been accidentally killed by our own side. Athanasius finally got bold enough to enquire as to the stranger's name. "Baldric," he replied with a surl, "but you can call me Superelf." (Since he was bigger than most of us, and nearly as strong as any two, no one so much as giggled.)

While a dozen expeditions began to form simultaneously, I slipped off to do a little research on the subject of Invisible Stalkers. A Stalker is a powerful fighter from "another dimension" according to the scroll, who has the added advantage of being invisible. In addition, he is a faultless tracker (hence the name Stalker) and can apparently follow anyone through anything. They are reasonably obedient to whoever summons them and are commonly used as bodyguards by certain magicians.

Within hours our feats of the last few weeks had been magnified out of all proportion. Six would-be heroes cornered me in the inn that night and flattered my ego to the point where I agreed to escort them through the dungeon the next day. Hugh was standing seven feet tall by

now and added his promise to mine before I could have second thoughts.

That night I wracked my brain for the safest part of the dungeon to lead them to. I finally settled on the west entrance and figured that if we stayed close to the surface not too much could happen to us.

Next day we entered from the west end while another, larger party entered near the center. We passed two trapdoors in the floor and kept going. About two hundred feet inside the entrance we suddenly heard the sounds of many feet ahead of us. A moment later the head of an orc column appeared, spotted us, and charged. Not wanting to turn tail and run from mere orcs (it would ruin my heroic image if nothing else), I determined to stand and fight. Hugh stood to the front with a dwarf at his left and I threw a sleep spell that felled the first wave of orcs. Hugh's first blow connected and killed the orc before him. Engrossed in the battle he hardly noticed when the dwarf beside him was cut down. Behind Hugh was Harry and behind the dwarf was an elf. As the orcs surged around Hugh's left flank he began to realize his position and began to retreat. One of the orcs struck him a bloody blow. Then the elf fell over dead and the orcs began attacking Harry from the side. Hugh was hit again and a sword blow cut through Harry's armor nearly killing him. He staggered but hung on bravely. The man behind the fallen elf also held and Hugh began to fall back to our new line.

Realizing our danger, there being still at least forty orcs attacking, I hurriedly pulled out my new scroll and summoned the Invisible Stalker. The Stalker materialized beside me and I ordered him to get to the front and hold off the orcs til we could beat a retreat. As he worked his way forward the fury of the battle raged on. At last we

SF Highlights

Continued from Page Two
—original and screen versions. Ellison discusses both and the problems of making one into the other.

April 15—New Worlds For Sale: Building Novels Before Your Very Eyes.

Poul Anderson, Hal Clement, Larry Niven, and Frederik Pohl have designed a new planet; Robert Silverberg, Frank Herbert, Theodore Sturgeon, and Thomas M. Disch will create stories involving this planet with an hour's preparation.

April 22—Sui Generis: Two Nonpareil Visionaries Read Their Work.

Fritz Leiber and Roger Zelazny reading from their own works, along with a specially commissioned light show.

April 29—Look What They Did to My Dream, Ma.

Filming science fiction, with Michael Crichton, Richard Matheson, and others. Also, John Frankheimer's film *Seconds*.

May 6—Changelings: New Young Writers Get It On.

The newest writers: George Alec Effinger, Edward Bryant, Vonda K. McIntyre, Jack Dann, Gardner Dozois, and Lisa Tuttle, in a free-wheeling presentation.

May 13—SF's Peculiar Inputs.

Source materials outside of science and philosophy: sword-and-sorcery, historical mythology, comic books, pulp heroes, film and television legend. With Denny O'Neill, Roy Thomas, Philip José Farmer, Lin Carter, and Robert Bloch.

began to fall back and when the orcs found themselves pitted against an invisible foe they were taken aback for a moment. We escaped, I recalled the Stalker, and before the orcs could pursue us, we mounted up and rode. Twenty four orcs were dead. Thirty six more boiled out of the entrance behind us.

I reflected to myself on the fighting abilities of this new wave of adventurers and vowed to travel in the company of more experienced people after this.

May 20—Nuts and Bolts: And Now For Something Completely Serious.

The science behind SF, discussed by Ben Bova, Frederik Pohl, Philip José Farmer, and others. *Dark Star* will be shown.

May 27—The Women Have All the Answers: SF's Real New Wave.

Joanna Russ, Kate Wilhelm, Doris Piserchia, and others, discuss the newest revolution.

June 3—Open End.

Ray Bradbury, Prof. James Gunn, Damon Knight, and (who else) Harlan Ellison in an open forum, and a brand new feature film.

McDonald's

Continued from Page Six
10:13 P.M.

The last delivery group checks in. The final operation is complete. Elapsed time from conception to completion: 7 days 23 hours.

According to the rules, the drawing will be held before April 23 and the winners notified within 30 days of that date. Later estimates place our entries at 25% of the total. How much will we win? Tune in again, loyal readers. Same time, same place, for round two of us versus them.

"Lacombe, Lucien" To Raise Funds For PCC Scholarships

L'Alliance Francaise de Pasadena, through the courtesy of Mr. and Mrs. Dennis Stanfill, invites you and your friends to a showing of the outstanding French film (with English subtitles) *Lacombe, Lucien* (rated R), Directed by Louis Malle. The Place: Twentieth Century Fox Studios, 10201 West Pico Boulevard, Los Angeles, opposite Motor Avenue. The Time: Friday, April 18, 8 p.m.

A donation of \$1.50 per person is asked, to go toward an annual Alliance Francaise de Pasadena scholarship in the French Department of Pasadena City College. For those needing transportation, a bus leaves at 6:45 p.m. at the Pasadena Federal Savings and Loan Association, Lake Avenue and Walnut Street, Pasadena: \$2.50 per person.

Send your check with names, donations, and bus fare (if needed) before April 12 to: Miss Frances Pryor, 285 West California Blvd. No.3, Pasadena, CA 91105.

No one will be admitted without reservation. Reservations will be held at the door.

The Forum

Continued from Page Three
University life, Universities in general, music, current affairs etc.

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