## **Blue Slips Are Here!**

# The CALIFORNIA Tech

**Can Finals Be Far Behind?** 

Number 9

#### Volume LXXV

## '73 Parent's Day **Explodes Right** on Schedule

#### by David Callaway

The Caltech Service League fired off its annual Parent's Day last Saturday in the Athenaeum, with the usual enthusiastic response by frosh parents (about 100 attended). The day began with registration and coffee at 9:30 a.m., followed by a welcome in the Hall of the Associates by Mrs. Charles G. Beatty, who is president of the Service League. After this came a discussion of the life at Caltech, with Dr. David S. Wood, associate Dean of Students, as chairman. The main speakers were Dr. Andrew P. Ingersoll, associate professor of planetary sciences; Dr. James J. Morgan, Dean of Students; and Mark Johnson, ASCIT President.

The first speaker, Dr. Andrew Ingersoll, stated his hopes for the future, as well as his opinions of the present state of Caltech, "Caltech is great at scientific research," he stated, "but does not do all that a university should." He continued, "Our students come here with high aptitudes in math and science and intensely eager to learn. It is very hard to gain their respect ... Caltech students cannot be fooled. You have to do a good job . . . telling jokes, being a nice guy doesn't work.'

The next speaker, Dr. James J. Morgan, said that when he first came to Caltech, he "didn't know there were undergrads there." He now believes, however, that "Caltech is simply unbeatable." He then talked about the other activities at Caltech, besides "trolling", such

**Continued on Page Six** 

Pasadena, California, Friday, November 16, 1973



BAREFOOT DIRTY DAVE presides at an early Saturday morning security convention. Sergeant Burns, sans jacket, and Napoleon were featured. Photo by Peisner.

**Cannon Remains** 

## **Blows RF TWICE!**

#### by Dave Peisner

slept a group of Claremont-Harvey Mudd students tried to steal the Fleming cannon-twice. The first attempt occurred Saturday morning, October 20, while the second time was last Saturday morning.

About three weeks ago at 5:00 a.m., a Tech editor (who shall remain nameless) pounded on my door and told me to wake up. When I asked him what was going on, he replied that some Occidental students were trying to steal the cannon, and he wanted someone to get pictures.

Five minutes later, I met him While the rest of the world in the darkroom to get some film. I opened my camera to load the film and noticed that there was already some in there. I had forgotten (it was 5:00 in the morning) that I had taken pictures of the pumpkin over Throop a few nights earlier, and by the time I remembered, half the roll was fogged.

#### The Difference Between

A fresh roll of film, some colorful words, and five minutes later, the two of us found > 200students from Claremont-Harvey Mudd around the cannon which by this time was near the stairs by the Athenaeum parking lot.

Their planning was inept.

Besides being noisy, they tried to move the cannon without a third wheel over the Athenaeum lawn which was criss-crossed with ditches for the new sprinkling system. They also tried to stack everyone into the houses by boarding up the doors. The windows and steam tunnels were ignored.

They tried to avoid as many Techers as they could but were unsuccessful from the beginning. When they drove up in their cattle truck, they came across several Moles in the process of taking the wheels off of Smallberg's car.

The Moles ignored them to see what they would do.

#### A Techer and a Mudder

Apparently, nobody in Fleming woke up for the Mudders moved the cannon all the way to the parking lot with minor difficulties (some Scurve kept yelling "louder and funnier"). Finally, the Moles felt patriotic and called campus security.

Within a few minutes, the entire force showed up with the entire fleet of squad cars-one blocked the truck while the other roared down the Olive Walk. Then four carloads of Pasadena's finest drove up.

About this time, a confused **Continued on Page Three** 

## News Briefs You Missed The BOD Meetings... practice schedules for the remain-

rumble...growl...

by Alan Silverstein

years the residents of the seven

undergrad student houses are not

under a mandatory food contract

system administered by the Insti-

tute, meaning that each house

and its occupants are having to

fend for themselves. Many of the

students affected have expressed

dissatisfaction with the remaining

ways of getting meals, such as

eating at Chandler, going off

campus, or preparing for them-

selves in the houses (which have

adequate refrigerators but are

Student Housing has been work-

ing on the problem. At its last

meeting, which was attended by

Dr. Jerry Pine, Director of

Student Relations, Dr. Lyman

Bonner, Director of Residence

and Dining Halls, Robert Gang,

The Faculty Committee on

short on stoves and ranges).

For the first time in many

Doughnuts will be served (?) every Thursday (except during vacations) at 4 p.m. in Flora's Office in Winnett Student Center. Everyone is invited, but remember, the office is small, and it takes about 41/2 minutes for Techers to eat 5 dozen

Center under the direction of Robert M. Sloane, Medical Care Administrator, City of Hope National Medical Center and Lecturer in Industrial Relations, California Institute of Technology. A detailed outline of the seminar can be obtained from the Industrial Relations Center.

Master of Student Houses, David Smith, Dr. Thad Vreeland, Dr. Michael Werner, and student representatives Shelly Smith (Ricketts) and Jim Ogg (Page) the committee decided on two actions concerning food contracts.

Students Gripe, Faculty Ponders

First, on Friday, Jan. 18, 1974 at 3 p.m. there will be an open meeting of the committee to hear a few short presentations of opinions and offers from various students, faculty, and food contractors. Anyone on the campus is invited to come and listen. The floor will then be opened for discussion. The reason for scheduling the meeting so far ahead is the upcoming holidays, Dr. Pine said.

Second, Dr. Bonner will represent the committee at the next faculty meeting, on Nov. 19, where he will give a detailed history of food contracts in the past. "The purpose of this talk will be to explain how we got to where we are now," Dr. Pine said, and mentioned that the faculty in general is very interested in the current problem.

The Committee on Student Housing has now reached a point of "collecting information", its director said. "We are very interested in inputs, either verbally or in writing, from the faculty and student body." Action by the committee will be delayed pending the results of the January meeting and opinions and suggestions received during the intervening months.

Dr. Pine was asked why last vear's food contract was terminated. He responded that actually it was not terminated, but allowed to lapse, so that this year the contract could be renegotiated with R & R Food Service. However, a food contract is the most expensive method of eating on an individual basis, and it was not possible this year to guarantee 'some number of people such

Continued on Page Seven



doughnuts.

#### News Brief For BEM 106

BEM 106 has always been offered in a variety of ways to fit the needs of individual students. During the second and third terms of 1973-1974, a new approach is a seminar on "Health Facilities in Our Dynamic Society." This will consider social, economic, and operational problems in managing hospitals and other health care organizations. Some Caltech students may be interested in entering this large and growing field of service.

The seminar will meet on Tuesday evenings from 7:30-10:30 p.m. beginning January 8 in the Industrial Relations

#### Putnam Preview

The Math Club will hold its first meeting this term on Tuesday, Nov. 27 at 7:00 p.m. Dr. Lorden will discuss what you can expect to find on the exam. Problems will be discussed and questions answered. The meeting will be in 151 Sloan. All are invited.

#### **Spencer Wants** Swimmers

All swimmers (male and female) who plan to go out for the swimming team this winter are cordially invited to a meeting on Tuesday at 4:00 at the pool. Topics to be discussed include

shape at that time. Contact coach Ed Spencer (ext. 2146) for more information.

der of this term-should we swim

at 4:00 or at 5:30 with the

#### **Color Pictures** Wanted

The issue of The California Tech two weeks from today will be produced in color. If anyone has any color pictures of Interhouse that would be worthy of publishing, please bring them to the Tech office no later than Monday, November 26.

#### The Shadow

#### **Continues to Advance**

Caltech's literary-art anthology, Totem, is continuing to collect material for a Fall issue. Contributions of poetry, short stories, art work, photographs, **Continued on Page Four** 

Each ASCIT member is entitled to one and only one California Tech. If more are desired for parents, girlfriends, etc., they may be purchased at Flora's office in Winnett.

-Business Manager

To the person or persons who have been removing copies of the Tech from the circulation manager's desk: We are very unhappy with you. If we find out who you are, you will be unhappy, too.

Page Two Editorial

## **Up Your Price!**

The increase in the cost of everything (just about) is not something from which Tech is isolated. Certainly no senior needs to be told that, tuition having jumped from \$2385 to \$2886 over the past four years. It's a trend that affects nearly everything, from tuition to books, from food to annuals.

The Big T is no exception. The rising costs of labor, printing, and paper have forced the book to become paperback, to eliminate color pages, and to reduce the size to a bare minimum. In addition, advertising has become hard to get, another result of the sagging economy.

There is little point in putting out a poor yearbook in order to meet the budget. The entire purpose is defeated when a large percentage of the year is left out or just touched on. The pleasure in owning a yearbook comes from the pleasures of remembering what it pictorially represents. None comes from what is not included.

Last year's book was the smallest, page-wise, in ten years, and it still cost about \$9 a copy to produce. It was paperback, and without any inside color. Rough estimates for the '74 book give a 5% increase in cost for the same type book. No hard cover, no inside color.

A four-dollar increase may seem like quite a lot. Part of this is due, of course, to the incredible apathy of past Boards of Directors, who were willing to absorb \$2K deficits without doing a blasted thing. An increase should have come years ago, making this increase less of a jump.

Proposition 1, a measure that adequately finances The Big T is a measure that deserves adoption. We support it, and urge you to vote YES on November 20.

> -Gavin D. Claypool Eric H. Eichorn Dennis L. Mallonee

## Exposed Again **Create More Pots**

This year, in a continuing policy of letting Techers have full exposure to the arts, Dirty Dave is again offering a course in therapeutic mud-pies, otherwise known as the ceramics workshop. It is located in the old houses' basement, beneath Dabney. The instructor is Cheri Pann, a professional painter (the artist variety), but highly competent when it comes to ceramics.

The workshop this year consists of many of the people who started with the workshop at its instigation third term last year, but includes a lot of new people.

by Karl Kuhlman

The workshop is large enough that one gets a measure of group instruction, but is small enough that one can get individual help and instruction. Just as an overview of what one can learn, there are three main methods of forming clay, these being pinching it into the shape desired, using coils to build something (often bowls), and rolling the clay with a roller into a slab, and then using the slabs to form something like a box.

Of course no ceramics group is complete without a potters' Continued on Page Six

## **THE CALTECH FORUM**

## **Tumbling**, Crumbling Garden Walls

And what is a wall that one should remark upon its disappearance...why should the dashing to bits of a man-made structure be the cause of even a sideward glance?

The walls around Dabney and the Crellin-Gates gardens are gone and I protest their destruction as not only a flagrant waste of material and money, but also because they were, architecturally, a refined, artistic expression. These structures evolved from an archtectural tradition-the accumulation of experience and wisdom of many generations -and they were done by a talented architect. To some those walls may have seemed a gray barrier or simply there, but perhaps the subleties, the humanizing quality their presence added to the campus can only be appreciated in terms of the whole and that whole is rapidly disappearing. I do not mean to suggest that the walls were great works of art, but they were fine, sensitively scaled and detailed walls that were only just beginning to mellow and age rather beautifully. They added a sense of continuity, of knowing one could walk among a refined past and perhaps create a better future. Most distressing of all, the walls were not destroyed to create an open space, for now in their place we are assaulted by a static, cold, artless barrier of cement bricks, surely the favored building blocks for the "Brave New World."

Only a wall you say? First came the destruction of Culbertson Hall, then Throop, and now these walls-what next? Why is Tech, an Institute that prides itself on remaining small so that emphasis is on the individual, madly wasting a heritage of humanly-scaled, artistic sturctures in order to build great concrete walls with machine-made impersonalism? If the priority is now to build a heroic, nonarchitectural, tasteless and forbid-

"FRANKLY SPEAKING"

ding environment, then why not abandon Pasadena while there is still something left and build an entire campus of windowless, 40-story cement block buildings as prototype for 1984.

> -Karen Current Steele

## "Maybe If We Use Dynamite On It..."

It has come to my attention that someone in the Caltech community has decided to become a locksmith but doesn't quite know how to go about it. He apparently found a door that he couldn't get through by picking or other normal means, so a pipe wrench was tried. This definitely is against the rules.

There exist several methods of opening doors on campus which are tolerated, though not encouraged. The first is the master key. While these keys often prove useful, the user of such must realize the responsibilities that go with them (remember, the Honor System covers all Tech property, including offices and the equipment in such). A second method used is that of picking the lock. The same responsibilities go with this method. Various other methods have been discovered by Techers to get around or through doors. However, these methods all have one thing in common. The lock and the door are not damaged.

I would like to ask the student locksmith that this letter concerns to consider these rules and follow the rule of not messing up the door more carefully in the future. Every time something like this happens it messes it up for the rest of us. -Karl J. Kuhlmann

## The Taste of MDD is Offended

Over the past term The California Tech has been printing a series of advertisements which I and several other Techers find extremely objectionable. The ads in question are those purchased by Burger Continental in an

by PhilFrank

effort to get Techer business. These ads have been in the poorest taste possible and are an insult to our intelligence not only as Techers but also as people.

It is generally conceded that Caltech is a predominantly male school and that the average horniness quotient at Tech is several orders of magnitude larger than in the world at large. As a male Techer I cannot deny that photographs of mildly dressed women are pleasurable (in fact, I rather affirm the notion). Nevertheless, I and others strenuously object to the pictures and phrases used in Mr. Hindoyan's ads.

It is true that nothing too blatant has been printed in any of the ads, but surely the line "Everybody got it made." in conjunction with the elevated skirt ploy and a come-on smile is crystal clear even to the most naive froshling. If Mr. Hindoyan is running a pick-up parlor, as he seems to be trying to say in his ads, he should not be trying to disguise his operation as a restaurant. On the other hand if he is only trying to sell food he would be better advised to advertise the quality of his food. If his business is any good it will get customers on the quality of its food rather than on the posturings of a few mediocre models.

-Marc Donner



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THE ASCIT FRIDAY NIGHT MOVIE

## at 7:30 and 9:30 p.m. in Baxter Lecture Hall

Admission: 50c-ASCIT members and their guests; \$1.00-anyone else

Next Week: Dealing -or ----Bag Blues



... AND WE THANK YOU FOR ALLOWING US TO BE ALL TOGETHER THIS THANKS -GIVING, REALIZING OF COURSE THAT Some of us are more all together THAN OTHERS ....

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### Friday, November 16, 1973

## A Thrilling Conclusion

## **Tech's Warren Report Is Out**

by Etaoin Schroedlu

Ed Note: Most of our readers will recall that a special Caltech faculty-level Ad-Hoc Committee on the Undergraduate Program was created last year to study undergraduate education at Caltech. In February and March this Committee held several. Open Hearings, which were attended and addressed by many members of the Caltech community, and which were randomly covered in The California Tech. This Committee has recently released its final report to the Faculty; the following article discusses the material in that report. Copies of the report are available through the office of Professor Knowles, the Committee chairman, in Thomas Lab.

The report briefly cites the history of the Committee, which was formed primarily to meet accrediattion requirements for Caltech. The Committee decided to hold its Open Hearings, discussing the question "Is Reform Necessary in the Caltech Undergraduate Program?" in an effort to gather information from many diverse sources.

described. Summaries of the testimony at these Hearings were

MUSIC

and COMEDY

\*except Saturday \*\*Saturday only

included in an Appendix to the report, but this Appendix is not generally available, being n! pages long. The report goes on to say:

"As we expected, a multitude of topics were covered at the Open Hearings. The issues to which attention were most frequently drawn were as follows:

"Institute academic requirements. Are they too numerous? too narrow? too restrictive? Do they subject the student to excessive pressure?

"The grading system. Is it inimical to the creative capacity we want in our graduates? Does it foster unhealthy competition? **Important** Issues

"The academic spirit. Are we excessively prescriptive in our courses? Are the time and work demanded of the student excessive? Are we too rigid in our academic format?

"The Humanities program. Do present or proposed requirements help or hinder the student in his pursuit of, say, the arts; What is the role of foreign languages? How much foreign language should be offered?

"Diversity. Is our student The Hearings were briefly body too homogeneous? Should we admit, or encourage applications from, students with a

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and the Lug Nuts\*

John Kelly & Tom-Tom

Mag Wheels

Frank Welker

Peter Tork\*\*

wider variety of career goals?

"Quality of Life. Are our student houses stifling? Should a wider variety of housing alternatives be available?"

The report went on to state that "... many provocative ideas were offered by those who felt strongly enough to present their thoughts to the Committee. After discussing various topics suggested in the Open Hearings, the Committee decided to concentrate its attention on the issues of Institute Requirements and Offerings. These two related subjects were matters of con-

## Muddy Mudders

**Continued from Page One** editor and I walked in (we still thought they were from Occidental). Everybody just stood around and talked. I took some pictures and the police made the token effort of getting the license number of the driver of the truck.

#### Is Merely a Matter

Around the time I discovered that they were really Mudders, Dirty Dave drove up and was immediately surrounded by the curious. Shortly thereafter, Mrs. Brown arrived with her dog. She explained that she decided to give the dog an early morning walk because she hadn't readjusted to California time from Swedish time.

People talked for a few more minutes until the police decided it would be nice if the cannon were returned to its original site. The Mudders did this but weren't very careful. They pulled the



#### $\lim Ph \ 2 \ as \ t \neq 0$

The committee noted that there were other important issues too, and hoped that perhaps other committees would deal with some of them.

The report stated that the Committee members did not entirely agree on matters of requirements and offerings, but "The members of the Committee do, however, agree that the primary objective of the undergraduate program at Caltech is the education of creative scientists, engineers, and social scientists. It is felt that there will 3000 pound cannon over the ditches rather rapidly causing the wooden wheels to complain

noticeably. By 6:00, everyone had left and things remained quiet (relatively) until sometime between 4:00 and 5:00 a.m. last Saturday. But this time an anonymous source at the institute with connections at Claremont warned the Flems of another attempt to acquire said cannon and they were waiting when the Mudders arrived.

#### **Of Competence**

In preparation, Fleming chained the cannon to a tree and boarded up the doors. Then they connected two fire hoses to ample water supplies, one in alley one and the other in alley two.

The Mudders gathered in the Athenaeum parking lot again and waited while an advance crew cut the chain. At first the crew tried to use liquid nitrogen to make the chain brittle but reverted to a hack saw when nothing happened. Thus, they made sure the Flems were awake by taking several minutes to saw through the chain.

When the chain was broken, the rest of the Mudders appeared with a trailer on the Olive Walk and might have pulled off the RF if Fleming hadn't been alerted ahead of time. (Nobody was really sure the trailer would hold the cannon anyway.)

The Mudders started pulling Claremont. the cannon toward the trailer

continue to be a need for an undergraduate program with this objective which is small in size but unusual in the excellence of its faculty and students."

After commencing deliberation on Institute (as opposed to simply option) requirements, "the Committee reached substantial agreement that the freshman year as presently constituted is generally reasonable and consonant with the objective of producing creative engineers, scientists and social scientists."

The Committee, however, did not reach such easy agreement on the matter of Physics 2. Some members felt that two years of physics were an essential scientific core of knowledge, while "several members of the Com-

#### **Continued on Page Six**

and alley one turned on the water. Some of them looked up to curse the rain and were hit with the full force of the hose.

To escape, they pulled the cannon toward Lloyd and were promptly drenched as alley two opened up. Someone started singing, "that good ole mountain dew..." but the Mudders persisted in their efforts.

Mooseman and one other person drove up the Olive Walk to block the truck and things were stalemated for a few minutes until campus security showed up.

In an amazing display of loyalty, one of the guards unscrewed the valve stems of the trailer tires. People stood around and talked and eventually the Mudders left... or attempted to leave.

Their truck wouldn't start. A Tech editor (who shall remain nameless) had hidden the distributor cap after one of his friends had noticed that the cattle truck was left unguarded outside of the Athenaeum parking lot.

Eventually, campus security wanted to get rid of everyone and insisted that the distributor cap be returned. It was, but the truck didn't run too well, probably due to the shoe polish in the cap.

The Mudders finally piled into the open truck and left about 6:00 for a very cold ride to





Others say it's

the great food . . .



Some others say it's the sidewalk cafe . . .

But I say . . . It's the atmosphere that tickles me .. . .

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#### WEDNESDAY, NOVEMBER 28

A representative of the Stanford Graduate School of Business will be on campus to discuss with interested students the exceptional educational opportunity of the Stanford MBA Program.

> Appointments may be made through The Placement Office

The Stanford MBA program is a two-year general management course of studies designed for highly qualified men and women who have majored in liberal arts, humanities, science, or engineering, and wish to develop management skills to meet the broad responsibilities which will be required in both the private and public sectors in the future.

> THE STANFORD UNIVERSITY GRADUATE SCHOOL OF BUSINESS Stanford, California 94305

Page Four



Mag Wheels and the Lug Nuts are back at the Ice House, and seem to be ready for their try for stardom at the Ontario Motor Speedway superconcert. At one time, the only thing that Mag Wheels etc. had going for them was their drive and energy on stage, their ability to sweep the audience up into the music of

### **News Briefs**

Continued from Page One and what-have-yous should be directed to either Philip Massey (Ruddock), or left with Flora in Winnett, as soon as possible. Anyone vaguely connected with the Institute is invited to submit stuff.

#### News Brief For Biology Tutorials

The list of Biology tutorials (Bi 23) to be offered next term is now available in the Biology Office, 156 Church. The tutorials are staffed by Biology faculty, postdocs and grad students. They provide an opportunity for learning through personal contact in a small group situation and cover a broad range of subjects. Bi 23 may be taken for up to 6 units; grading is pass/fail.

#### Audit Chamber Mu

Chamber Music

Due to the balance of instrumentation and the intimate nature of small ensembles the Chamber Music Classes were not able to accommodate everybody. Some classes even had to be divided. However, a warm welcome is extended to all those that were not accommodated to audit any of the classes on Thursdays from 5:30 p.m. to 7:30 p.m. and from 7:45 to 9:45 p.m. in Baxter Hall, rooms 19 and 25. This can be an opportunity for gaining knowledgeable experience and of meeting with congenial people.

#### O, Come, All Ye Faithful

This weekend CEAC invites all of you to alleviate your frustrations at the recycling center behind Steele, and get paid \$2/hour with a free lunch. We'll be loading glass, starting at 10 a.m. the fifties and early sixties. This they can still do, but what is more important, now they can do it with more musical skill.

At one time, the sax player seemed about the only really competent musician of the group, with the guitarist barely competent and the bassist and drummer just sort of keeping the beat. Each time I heard them, though, the music was done better and better, and this time the instrumental work was really good. The guitarist did better on songs like "Johnny B. Goode" than I had thought him capable a few months ago, and on "La Bamba" he did a solo that I actually found impressive. The

#### THE CALIFORNIA TECH

show opened with "Chantilly Lace," ran through a lot of Elvis and other stuff, and ended with the real rockers. For the first time I felt that Mag Wheels did at least as good a job as most of the original versions of the songs. If you dig any of the music of the fifties, go see Mag Wheels and the Lug Nuts.

On the same bill at the Ice House is an act called John Kelly and Tom Tom. John Kelly plays guitar and sings, while Tom Tom plays harmonica, bass, autoharp and tambourine, sometimes two or three at once. They do songs of their own, such as the very funny "Aunt Maudie's Fun Garden," as well as songs I never expected a duet to attempt. Would you believe they even did a Moody Blues song? They also did an extremely sharp version of Harry Chapin's "Taxi." I was startled to hear them do songs like "Holly Holy," and Leon Russell's "She Smiles Like a River," but they did good jobs on both songs. They also did

ballads of their own writing, and quite well. I hope they come back some time.

Frank Welker was also on the bill, another of the many ex-Laugh-In types. In case you didn't watch the TV show, Frank Welker does sound effects and vocal impressions. This time he did a fairly clever set of television commercials as done by celebrities hungry for the money, and such oddities as a manic-depressive duck. He finished his act with a chorus of fifteen ducks singing Happy Birthday, no mean feat for a single performer. Frank Welker is a very funny fellow.

Since this column did not appear last week, I want to mention a couple of the acts which appeared and might return. Aronson & Ford opened the show, a sort of Ian & Sylvia type of duo who did some very nice music ranging from traditional folk music to Beatles and Dell Shannon. I'd like to hear more of them before deciding for sure, but I think that they have a great deal of potential and are worth listening to.

**Continued on Page Five** 

## REGAL NOTES

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pliers or a screwdriver may be useful.

#### Plunkety Plunk-Plunk

Rich Gruner, Al Nikuro, and Kelly Beatty are trying to start a Dave Brubeck-type quartet for next term, but they still need a string bass player. If you can be of any help, and would like to do the arts a great service, see Rich (Page 209) or Al (Ruddock 103).

#### Karate Demonstration By Blackbelts

Kung fu and Korean Taekwondo styles. Saturday, November 17, at 2 p.m. Pasadena Public Library Auditorium, 285 East Walnut Street. Admission free.

## OFFICER

THE NUCLEAR-TRAINED SURFACE OFFICER'S CAREER IS CHALLENGING AND REWARDING. MAINTAINING AND OPERATING THE SOPHISTICATED NUCLEAR PROPULSION PLANT AND ELITE WEAPONS AND SENSOR SYSTEMS IS NOT ONLY A TRUE TEST OF HIS PROFESSIONAL ABILITIES, BUT ALSO PROVIDES HIM A DEEP-SEATED SATISFACTION OF ACCOMPLISHMENT. THESE CAPABILITIES WERE DEMONSTRATED IN 1966 WHEN A NUCLEAR SURFACE FLEET CIRCUM-NAVIGATED THE GLOBE WITHOUT LOGISTIC SUPPORT OF ANY KIND.

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CALL COLLECT

Friday, November 16, 1973





## Frets & Frails

#### **Continued from Page Four**

A group called Redwood was also on the bill, and I wasn't sure just what to think about them. They aren't all that outstanding musically, but they are very good songwriters and entertaining on the whole. They just aren't as strong vocally as most of the groups which appear at the Ice House, and so they suffer somewhat in comparison.

Chuck Mitchell filled in for the missing feature act (Gabe Kaplan was taping a TV appearance) and sang several things he doesn't always do in his regular appearances, including the original version of the Weill-Brecht song once murdered by Bobby Darin, "Mack the Knife." He also did a couple of songs from "Finian's Rainbow," as well as some other nice things.

Lee Clayton, an MCA country recording artist, was a special guest act for the night, and he performed well. The only one of songs that seemed at all outstanding, however, was a number called "Spend the Night With Me," a much more forceful and drivin number than most of the typically random country music he has to do to please the hicks. That one song was a blend of western and rock that produces music like Neil Young and Poco do in their own ways. Lee Clayton could either go that way musically, or turn into another Porter Wagoner or something equally bad. I hope it's the former.



#### by Marc Donner

Jazz is a difficult music form to pin down. It has no very specific rules and is very flexible with regard to such subtle things as style and composition. This very amorphousness makes definitions of good and bad jazz pretty much subjective matters. Each person can decide he himself is the ultimate authority on the quality of a piece or a group and very few will say him nay or contest his judgement for want of specific criteria for evaluating jazz.

Despite these difficulties there are times when even the most vain jazz relativists will concur. When in the presence of perfect-Continued on Page Six



Page Six

## Ceramics

#### Continued from Page Two

wheel, and our workshop is quite complete. Usually workshop people do several projects using the previously mentioned techniques, and instruction on the use of the wheel follows, if the student asks. It is here that one discovers the real joy of cer-

## Ad Hoc

#### **Continued from Page Three**

mittee feel that Physics 2 is too specialized and narrow to be required of all students, particularly certain biology, mathematics and social science majors. Still others consider that two years of physics is too much physics to be required of all undergraduates."

#### Time out for Cheers

The Open Hearings had not brought out much comment on the Institute physics requirement, so the Committee solicited additional information, in particular from Professor Rochus Vogt, well known to generations of Caltech underclassmen. Dr. Vogt "expressed strong dissatisfaction with the need to teach 'conscripted' students in Physics 2. .... He is not convinced that all nonphysicists need a second year of physics, especially as given in the present Physics 2. He suggested in response to questions that it might indeed be possible to offer in one year a course which would provide a sensible minimum of physics as needed by all Caltech students."

The Committee considered several alternatives formulations to Physics 2, although deferring any final decision to other deliberative bodies. One proposal consicered called for retaining one year of physics as an Institute requirement, with perhaps just one additional term of (any) physics, to be taken at any time during the students' stay at Caltech. Physics 2 would be retained, and continue to be required by such options as wished to do so.

Other proposals included: to retain the two-year requirement, its student members, suggested as but broaden soph physics to include other topics, such as biophysics.

To permit Physics 2 to be taken at any time after the freshman year.

to permit all Institute required courses to be graded A-B-C-no credit, or pass-fail.

amics, as one notes that 1) the clay is a little wetter than that used for the other methods, 2) one uses quite a bit of water on the fingers which has a tendancy to run down the side of the figure onto the wheel, 3) add centrifugal force. But it's all part of the fun of the workshop.

After one completes a project, he has a large variety of glazes to

Committee was the matter of Institute offerings and requirements in the Humanities and Social Sciences Division. In the Committee's view, "the Institute's undergraduate requirement in humanities and social sciences is expected to function in two ways. First it must provide the means by which the undergraduate student learns, in reasonable depth, to read, write, understand and discourse in the various areas of human intellectual concern, especially as presented in those courses in which the mode of thought is typically nonmathematical. In its second role the humanities program is asked to provide the opportunity for the student to acquire some experience in areas remote from his major professional interest, such as painting, music, journalism, econometrics, and so on."

The Committee felt that it is 'reasonable' to continue to require Techers to spend about one-fifth of their course time on HSS courses, and that about half of this time be devoted to study "which emphasizes reading, writing and understanding in substantial depth," and leave the remaining time "as unrestricted as possible to encourage the pursuit of diversity."

The Committee also suggested that Caltech consider buying a bus to facilitate Techer enrollment in courses at other colleges (Here's your chance, Johnson.), and "urges, however, that the Division of Humanities and Social Sciences explore fully the possibilities on our own campus offered by part-time and visiting faculties in such areas as music, painting, sculpture, etc.'

#### Offices in Baxter Pond?

The Committee, in particular well that the HSS Division consider providing some guidance to Techers concerning content and sequences in HSS courses.

The Committee, reaffirming the importance of the HSS To revise the grading system program, noted "We emphasize that the successful continuation of this activity will require that the Institute and the Division, in They're Catching On allocating resources, avoid attach-Another major subject of the ing low priorities to programs

choose from. Because of the type of clay, however, these are generally dark colors, but quite attractive. The workshop posesses its own kiln, as well as just about anything else you would need for ceramics.

THE CALIFORNIA TECH

The workshop is open for new members. If one is interested one can come Saturday at 11 a.m. and join.

simply because they may not be accompanied by graduate work or may involve only a small number of tenured faculty. The effort in foreign languages appears especially vulnerable in this respect. The Committee regards foreign languages as an integral part of the Institute's academic activity, one which meshes naturally with other areas such as literature and history. The language program should accordingly be carried on by a faculty whose stature and status is comparable to that of the remainder of the faculty of the Institute."

## **Parents' Day**

**Continued from Page One** as "art and culture" and independent research.

Mark Johnson was the third speaker, and began with sentimentalities about Caltech, then "Things here are massive... you're really at the forefront of the world." He concluded with several examples from his own experiences at Caltech.

After the discussion, the Parent's Club gave a luncheon. during which Dr. Robert Huttenback, chairman of the Humanities Division spoke.

The luncheon was followed by a guided tour of the campus, and the day concluded with a tea, at which last week's Tech was distributed.

## **Proposition 1**

#### Change Article XIII, Section 7 from:

Section 7. BIG T ASSESSMENT. A special assessment to make the Big T available to all undergraduates shall be eight (8) dollars payable on the days of registration at the rate of three (3) dollars first term and two and one half (2,50) dollars second and third terms. An undergraduate withdrawing before the end of third term may either receive a refund for installments paid on the subscription, or, on written request to the Business Manager of the Big T, complete payments for the remainder of the academic year and receive a copy of the Big T. The prerequisite for exemption from this payment shall be a written recommendation from the Dean.

#### to:

Section 7. Each corporation member will be assessed twelve dollars (\$12) for The Big T, payable on the days of registration at the rate of four dollars (\$4) per term. A member withdrawing before the end of third term may either receive a refund for installments paid, or complete the payments and receive an annual. Before the end of third term, a member who does not wish to receive a copy may, upon written request to the business manager of The Big T, receive a refund of any installments paid toward that year's book.

## **Proposition 2**

#### Change Article XV from:

#### A. THE CALIFORNIA TECH

Section 1. NAME. The official newspaper of the corporation shall be the California Tech

Section 2. POLICY. The Editor and Business Manager of the California Tech shall be solely responsible to the Board of Directors for the success of that publication. The Board of Directors may make



### COLUMBIA UNIVERSITY **Graduate School** of Business

Professor Samuel Stewart will be on campus November 30 to speak with students from all disciplines who are interested in a graduate management education. There are nine concentrations offered in the Business School, plus joint degree programs with the schools of Law, Journalism, Public Health, Architecture, International Affairs and Teachers College. For further details, please contact the Placement Service.

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#### Friday, November 16, 1973

recommendations to the Editor or Business Manager in regard to policy or finances. Printing contracts for the *California Tech* must be approved by the Board of Directors before they are awarded. The Board of Directors shall be ultimately responsible for the circulation and finances of the *California Tech*.

Section 3. FINANCES. The Business Manager of the California Tech shall be responsible for all funds belonging to the California Tech and shall deposit all funds received in said bank as approved by the Board of Directors. He shall account for all receipts and expenditures in a manner recommended by the Treasurer of the corporation. He shall submit term and annual reports to the Board of Directors on the financial condition of the California Tech. All checks for expenditures shall be signed by both the Business Manager and the Editor.

Section 4. PROFITS. The Editor(s) of the *California Tech* shall receive a salary of three hundred dollars (\$300.00) for the year's work. On advertising sold and paid for, not subject to any commissions or discounts to outside advertising agencies, there will be a net commission of 35%. The same rate will hold for all advertising from which such outside commissions and discounts come to less than 35%, the amount remaining when the outside commissions are subtracted being considered the net commission. Should the external discounts and commissions exceed 35%, the net commission shall be the difference between 40% and the total external discounts and commissions. The net commission shall be distributed as follows: The first six hundred dollars (\$600.00) shall be guaranteed to the business manager; of the remainder, 50% shall go to the business manager and 50% to the editor(s).

Section 5. EXPENSE ACCOUNTS. The Board of Directors shall, at its discretion, honor all personal expense accounts incurred by the Editor, Business Manager, and members of the staff of the *California Tech* while in office.

Section 6. APPOINTMENT. The Business Manager of the *California Tech* shall be appointed by the Board of Directors at the beginning of third term.

B, THE BIG T

Section 1. NAME. The official yearbook of the corporation shall be the Big T.

Section 2. POLICY. The editor and manager of the Big T shall be solely responsible to the Board of Directors for the success of that publication. The Board of Directors may make recommendations to the Editor or Manager in regard to policy or finances. All engraving and publishing contracts must be signed jointly by the Editor and the Business Manager and must be approved by the Board of Directors with advice of a competent attorney.

Section 3. FINANCES. The Business Manager of the Big T shall be responsible for all funds belonging to the Big T and shall deposit all funds in a bank as approved by the Board of Directors. He shall account for all receipts and expenditures in a manner as recommended by the Treasurer of the corporation. He shall submit term and annual reports to the Board of Directors on the financial condition of the Big T and such additional reports as the Board of Directors shall require. At the beginning of the school year the Business Manager shall submit a budget for that year's Big T to the



#### THE CALIFORNIA TECH

Board of Directors for approval. The Business Manager shall be held responsible for reporting immediately to the Board of Directors any important changes which occur in the school year. All checks for the expenditure of funds shall be signed by both the Business Manager and the Editor of the Big T.

Section 4. The salary of the Editor of the Big T shall be three hundred dollars (\$300) for the year's work. The Business Manager of the Big T shall be guaranteed a 10% commission on the first \$2000 of advertising sold and paid for, and a 20% commission on all additional advertising sold and paid for; and after all costs and expenses of the Big T shall have been paid for, including the aforesaid 20% commission to the Business Manager, then the profit from additonal sales of advertising shall be distributed evenly between the corporate General Fund. In case of a deficit, the corporation shall make up the loss.

Section 5. EXPENSE ACCOUNTS. The Board of Directors shall, at its discretion, honor all personal expense accounts incurred by the Editor, the Business Manager, and members of the staff of the Big T while in office.

Section 6. APPOINTMENT. The Editor and the Business Manager of the  $Big \ T$  shall be appointed by the Board of Directors at the beginning of third term.

C. THE LITTLE T

Section 1. NAME. The official handbook of the corporation shall be the *little* t.

Section 2. POLICY. The *little t* shall be published each year by one or more editors and a business manager to be appointed by the Board of Directors before the end of second term. The editor(s) and the business manager shall be solely responsible to the Board of Directors for the success of that publication.

Section 3. PURPOSE. The purpose of the *little* t shall be to provide the Student Body of the Institute a concise and informative manual concerning the Student Body activities and traditions.

Section 4. PROFITS. The business manager shall receive a commission of 15% on all advertising sold. The remaining money shall constitute the Operating Budget of the following year's *little t*. The Operating Budget shall be divided as follows: one hundred fifty dollars (\$150) salary to the editor(s), the remainder to be spent on producing the *little t*.

#### **D. GENERAL**

Section 1. COMMISSIONS. All commissions and salaries shall be paid on the satisfactory performance of the year's work. No commissions shall be paid under any circumstances until the advertising has been paid for.

Section 2. AUTHORITY. The Business Manager of an official publication shall be the only one empowered to transact business in the name of the publication.

Section 3. CONTRACTS. No contracts shall be made by the Business Manager of any publication for a longer period of time than the school year in which he holds office, except that the *California Tech* may enter into contracts for national advertising and the *Big T* may enter into contracts for covers for a period not to exceed three (3) years, if the proposed contract is first approved by the Board of Directors.

#### to:

Section 1. The official publications of this corporation are a newspaper, *The California Tech*; an annual, *The Big T*; a handbook, *the little t*; and a literary-art anthology, *Totem*.

Section 2. The editor and business manager of each publication are solely responsible to the Board of Directors for that publication's success. The Board of Directors may make recommendations to the editor or business manager in regard to policy or finances. Printing contracts must be approved by the Board of Directors before they are awarded. The Board of Directors is ultimately responsible for the circulation and finances of the publications.

Section 3. The business manager of each publication is responsible for all funds belonging to that publication. He may open accounts only Continued on Page Eight

#### DICTIONARIES WEBSTER

## Soccer Finishes In Grand Style

#### by Bill O'Meara

Caltech closed out the 1973 soccer season by losing the final three games to La Verne, Redlands, and Oxy.

La Verne avenged their earlier (4-0) loss to Tech by holding the Beavers to two goals in a 5-2 win. Pete Groom and Kevin Gromley scored for Tech. Redlands and Oxy beat the Beavers by identical 5-0 scores to wrap up Tech's 1-11-3 soccer season.

Among the graduating Techmen are four-year-men Bob Durst and Scott Thompson, who will certainly be missed in upcoming soccer seasons.

### Almeida

**Continued from Page Five** ion, as we were last Saturday night at the Laurindo Almeida Quartet Concert, you *know*. This Quartet, each member of which is a jazz luminary in his own right, weems to be too good to appear in an off-the-trial place like Beckman Auditorium.

If the brilliance of his and the group's music making isn't enough, Laurindo Almeida possesses an incredible flair for winning the hearts of the audience. With his soft Brazilian accent he conquered half the audience with his first few words; simply introducing a piece which he'd written for the Judy Garland biography "A Star is Born". After a pair of solo guitar pieces he announced the first member of the quartet to join him on stage - Ray Brown with his string bass. In his quiet voice Almeida introduced Brown as a good friend and you know that this was no put on. Each additional member of the group was introduced after a couple of pieces had been played by those on stage, and each was introduced as another friend. It was obvious from watching them and hearing them play that they were incredibly comfortable with one another. They seemed to emanate a well being that those in the audience could feel.

The first half of the concert was devoted to introducing the group and to some milder, more classical pieces, among them several Bach compositions and a composite piece called "How Insensitive" which combined motifs form Chopin and A.C. Jobim. The second half of the concert, after the group had warmed up some, featured the more 'jazzy' entries to the program. The concert ended with a Bud Shank composition called Sun Dancers which had some very striking and pleasurable melodies and forms, but the Quartet was called back for a double encore.

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## Starvation

**Continued from Page One** that you can afford to do it."

In the meantime almost all of the houses have tried to arrange dinners independently from once to five times a week, with varying success. It is the responsibility of the committee, however, to arrange any general contract involving all of the houses.

## The CALIFORNIA Tech sports



Page Eight

Friday, November 16, 1973

District Meet, however. The

## Runners Fall To Fifth

The Caltech cross country team completed its season with the SCIAC All-Conference Meet at Puddingstone Dam two weeks ago and the District Meet last Saturday. After a respectable 4-4 season (3-3 in the Conference), the squad turned in a catastrophic sixth place out of 7, leaving Caltech fifth in the conference.

The Beavers came back with a

surprising fifth place finish in the

"grueling" race claimed a number of casualties resulting in the disqualification of several teams. Due to superb hill and smog training, the Caltech contingent, consisting of Junior Greg Griffin and Freshmen Steve Kellogg, Joe Arpaia, Tom Creswell and Rich O'Keefe, persevered. Oxy was the undisputed victor of the race as usual, but Caltech exacted some revenge by defeating Cal Lutheran.

#### Proposition 2 (cont.) Continued from Page Seven with banks previously approved by the Board of

with banks previously approved by the Board of Directors. He will account for all receipts and expenditures in a manner recommended by the treasurer. He will submit term and annual reports to the Board of Directors on the financial condition of that publication. He is the only one empowered to transact business in the name of a publication. All checks must be signed by both the editor and the business manager.

Section 4. Contracts may not be made by the business manager of any publication for a longer period than the academic year in which he holds office, except that *The California Tech* may enter into contracts for national advertising and *The Big T* may enter into contracts for covers for a period not to exceed three (3) years, if the proposed contract is first approved by the Board of Directors.

Section 5. All commissions and salaries will be paid on the satisfactory performance of the year's work. No commissions may be paid under any circumstances until the advertising has been paid for.

(a) The California Tech: The editor(s) will receive a salary of six hundred dollars (\$600) for the year's work. On advertising sold and paid for, there will be a commission of 35%; the net commission will be the difference between 35% and the total external discounts and commissions (if any). Should the total external discounts and commissions exceed 35%, the net commission will be the difference between 40% and the total external discounts and commissions. The net commission will be distributed as follows: the first eight hundred dollars (\$800) will be guaranteed to the business manager; of the remainder, 50% will go to the business manager and 50% will go to the editor(s).

(b) The Big T: The editor will receive a salary of four hundred dollars (\$400) for the year's work. He may appoint a maximum of four assistant editors, who will each receive one hundred dollars (\$100). The business manager will receive a commission of 15% on all advertising sold and paid for.

(c) the little t: The editor will receive a salary of two hundred fifty dollars (\$250). The business manager will receive a commission of 15% on all advertising sold and paid for.

Section 6. The Board of Directors may, at its discretion, honor all personal expense accounts incurred by the members of any publication staff while in office.

## **Redlands Not Crushed**

#### by I.M. Wett

Caltech water polo continued its winning ways last Saturday with an 11-1 victory over Whittier. All good things, like winning streaks, must come to an end, however, and Redlands' 16-7 defeat of Tech on Wednesday resoundingly ended Tech's latest two-game streak.

The tankmen were in high spirits for the Whittier game, which occurred three days after Tech's 5–0 shutout of Pomona. Whittier's slow first-year team was swamped by Tech's moderate speed, so that even Tech defensemen were able to get body-length leads over their opponents during 10-yard sprints. Saturday Morning Scores

Russ Desiderio started the scoring spree with two firstperiod goals. Howie Bubb scored two in the second quarter, and additional tallies by Desiderio and Steve Bitondo gave Tech a 6--0 halftime lead.

With the outcome of the game in little doubt, Tech's halftime talk centered around the hopes of holding Whittier scoreless. No Tech water polo team has ever won two consecutive shutouts, but the 1973 tankmen has a string on six consecutive scoreless quarters at this time.

#### Shutout Streak Broken

Whittier finally got its chance to score after Tech was assessed an ejection foul. They got off one good lob shot—their only good shot all day—which just escaped goalie Virgil Shields' outstretched fingertips and ruined his shutout. But one goal in two games isn't too bad a defensive record, regardless.

With the pressure off for getting a shutout, the Techers had a lot of fun (at Whittier's expense) in the final period. Nearly everybody scored, and those who didn't were busy passing the ball to those who did. Freshmen Mark Visser and Mike Wilson scored their first varsity goals, though Wilson's was nullified because one of Tech's co-captains committed a 2-yardline violation (offside to you soccer and hockey fans). Desiderio (yes, the same co-captain) scored twice more, giving him five goals for the day, while Bitondo and Bob Kieckhefer added the other fourth-quarter tallies.

The distribution date of *the little t* must be no later than the day of general registration first term. The responsibilities of the respective editors terminate after the publication goes to press. The responsibilities of the respective business managers terminate after the distribution of the publication and the collection of all revenues from advertising.

Section 9. Totem is to be published at the discretion of the editor.

Section 10. The Publications Darkroom Chairman is responsible for maintaining the publications darkroom, authorizing persons to use the facilities, and filing negatives for the use of the publications. He will receive a salary of one hundred fifty dollars (\$150) for the year's work. He takes office at the beginning of the academic year.



### tomorrow with a home game against Occidental at 10:00. Wimpy Sports Menu

Redlands' indoor pool has

often been the scene of very

poor showings by Tech's water

polo teams. Wednesday's 16-7

rout was no exception, as Tech

looked little like the team which

led Redlands for 31/2 quarters at

Desiderio gave Tech a 1-0

lead less than a minute into the

game, but Redlands went ahead

2-1 at the end of the quarter

and 7-2 at halftime. Tech

narrowed the lead to 10-6 after

three quarters on two more goals

by Desiderio and one apiece by

Bubb and Bitondo. Arithmetic

shows that Redlands outscored

SCIAC and is in solid possession

of fourth place. The season ends

Tech now has a 4-5 record in

Tech 6-1 in the final period.

Tech three weeks ago.

WATER POLO-Occidental at Caltech, 10:00 a.m., Alumni Swimming Pool.

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Ride needed to San Francisco leaving November 21 and returning November 25. Contact Jane at 791–3310

### WANTED

Wanted: T.T.I. Second place

Section 7. The editor and business manager of *The California Tech* take office at the beginning of the corporate fiscal year; the editor and business manager of *The Big T* take office at the beginning of the academic year covered by their edition; the editor and business manager of *the little t* take office immediately following their appointment; the editor and business manager of *Totem* take office the first day of June.

Section 8. The distribution date of *The Big T* must be no later than ten (10) days after the beginning of first term the following year.

Second Class Postage paid at Pasadena, California. The *California Tech* is published weekly except during exams and vacation periods by the Associated Students of the California Institute of Technology, Inc., Winnett Center 105-51, California Institute of Technology, 1201 E. California Blvd., Pasadena, CA 91109, Subscriptions: \$4.00 per year.

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