

Math May Munch It

To Graduate — Reside Here

by David Callaway

A residence requirement may be coming to Caltech.

At the last Faculty Board meeting on Monday, the Academic Policies Committee presented a proposal for a residence requirement for the B.S. degree. This means that loading up on units will probably avail to no good, as units in excess of 36 per term will not count for additional terms of residence credit. You need 11½ terms of residence to graduate, under this plan. A student may not receive more than one academic term of residence credit in any one term except that residence deficiencies may be made up by earning more than one term of residence credit in a single term, if approved by

the Academic Standards and Honors Committee.

One advantage of this is that residence credit for the B.S. and advanced degrees may be earned concurrently. Admission to programs terminating in the joint award of the B.S. and advanced degree will be by special applications to the Dean of Graduate Studies.

This would eliminate problems like the controversy over the number of units required to graduate in the various options. Now, for example, it only takes 483 units to be a Math major, but about 516 for anything else. This has been the subject of long discussions about the fairness of this requirement to the other options. Of course, this problem

would be removed if this proposal were to be passed. Dr. Richard Dean commented that the students were "magnificently silent" about this proposal. Where are all you loudmouths?

Cowardly

Some of the other things covered at the Faculty Board meeting were:

A memo from the Academic Policies Committee on teaching effectiveness. The Committee believed that students should be able to express opinions about courses and instructors. It also wanted to be able to assist the administration in weighing teaching effectiveness in making appointments and awarding promotions as well as assisting the individual faculty

Continued on Page Three

program. It was suggested that an astronomy field trip might be possible (come look into my telescope...) in addition to the usual geology and marine biology jaunts. A sub-committee composed of Karen Maples, Jim Morgan and Lee Silver will make the necessary arrangements for these. There will be two evenings at camp when slides or movies can be given. There will probably not be more than one seminar on Friday evening before the Talent Show.

There will be, of course, impromptu talks (read: recruiting sessions) on such things as athletics, Caltech Y, Glee Club, etc. Ian Hunter has also agreed to give a talk, due to popular demand. Something like Bob Coleman's talk was also suggested at the meeting of the New Student Orientation Committee. A talk on "Life and Involvement at Caltech" will almost assuredly be scheduled, with unpredictable results.

Now, each house gets to pick people to represent that house's good intentions to the frosh, although enough people will probably ask for dishwashing jobs to cause snarls in the intended imagery. The lists will be in soon, then comes the scramble. Watch this spot for developments.



THE CALTECH MEN'S GLEE CLUB performed last Friday and Saturday nights during the Glee Club Home Concert. See page 4.

Feynman To Lecture Again

The principal speaker at the 80th commencement of the California Institute of Technology June 14 is a much-admired faculty member.

He is Dr. Richard P. Feynman, Nobel Laureate and Richard Chace Tolman Professor of Theoretical Physics. Professor, scholar, and author of the widely used physics texts, *The Feynman Lectures*, Dr. Feynman has great rapport with Caltech students.

A total of 413 degrees are scheduled to be awarded at the commencement which begins at 10:30 a.m. Tentative figures are 198 BS, 105 MS, and 106 PhD degrees, and four special engineer degrees.

Feynman's name was presented to the faculty convocations com-

mittee, which arranged the commencement program, by the undergraduate member of the committee, Ioannis Nicolaos Kesides, 22, president of the senior class.

The convocations committee invited Feynman to speak and was delighted that he accepted, said Dr. William Cozart, associate professor of English and committee chairman.

William Fornaciari, Jr., graduate student member of the convocations committee, supervised arrangement of a musical program that will precede the processional march of faculty and students. The musical program will include Caltech sophomore Leslie J. Deutsch at the organ and a brass choir.



COMMENCEMENT SPEAKER Dr. R. P. Feynman shown marching to the beat of a different drum.

Oh, To Be A Frosh

Camp Plans Afoot

Not so far away is the next year's New Student Orientation, with the customary indoctrination of the new frosh. (Remember?) As some of you know already, the selections are underway for the privileged (?) few who are to become the advisors for this bombshell.

As far as is known, New Student Orientation will take place on September 26-28, at Camp Fox, Catalina Island. Deviations from tradition will be few. There will be 40 discussion groups, each with one upperclass student counselor and one faculty, staff, or alumnus counselor. There will be the usual lengthy perorations by speakers about such things as the Honor System, Life at Caltech, and other propaganda. God help the frosh.

There will be also another Talent Show, to give the people committed to Catalina a chance to demonstrate the array of talent with which they are blessed. It is on the agenda for that Friday evening (it runs from Thursday to Sunday). Liz McLeod suggested at the meeting of the committee in

charge last Thursday that the quality of this presentation might be improved if the performing groups did their thing ahead of time, before going to camp. A sub-committee composed of Karen Maples, Liz McLeod and Doug Herbert will be making the arrangements.

Those three plus Jim Kleckner make another subcommittee arranging for the selection of the 40 upperclass student counselors. These will include people who are considered representative of various organizations on campus, as well as people representing the student houses, such as House Presidents. The plan is to complete the selection of upperclass counselors by May 30. Attempts will be made to include such people as ASCIT president, vice president and other supposed notables. Exposure to these people is going to guarantee that frosh will understand a little more about how things are run around here.

Research seminars and field trips were also felt to be good things to include in the camp

I'd Bike A Mile...



BICYCLERS jockey for position during the ASCIT sponsored bicycle-beer race. Photo by T. Sheehan

Proposition 8 Fails

by Gavin Claypool

The three unresolved races remain in that state today following round two of the class elections. None of the candidates for the offices of senior class president, junior class vice president, and sophomore class president received the necessary 40% in Tuesday's balloting.

Proposition 8 failed to receive the 2/3 vote needed to pass by five votes in the accompanying ASCIT special election. The measure would have amended the corporation bylaws to give *The Big T* business manager half the remaining profit (if any) follow-

ing payment of all expenses, salaries, and commissions, and refunding of the \$12 assessment to each student.

Try Again Tuesday

Marie Beall and Rick Mitchell will be on the ballot next Tuesday for the final senior class president runoff. Beall received 17 votes to Mitchell's 16. Dave Novikoff, the third candidate, received only 11 votes and was eliminated. Forty-nine legal votes were cast in the election.

Doug Brandt led the contenders for sophomore class president by garnering 28 votes through a write-in campaign. He

and Eileen Reeds, who received 24 votes, will appear on Tuesday's ballot. Chris Russell, the other candidate on the ballot, received 22 votes. Tom Estes' write-in campaign fell short with only 14 votes cast in his favor. Ninety-six members of the class of '77 voted.

A Record Number?

Eight candidates ran for junior class v.p. after the ASCIT BOD reopened nominations last week. Alan Shusterman, Claus Makowka, and Cary Lai led the field with 18, 12, and 10 votes respectively; all three will be

Continued on Page Eight

Recommendations

IHC Whittles List

by Gavin Claypool, the Interhouse Committee, and a Host of Others

The IHC presented their recommendations for student representatives on faculty and Institute committees to the ASCIT Board of Directors last night.

The recommendations followed last week's interviewing of nearly 100 applicants and discussion by the IHC at their meeting Wednesday night.

The order of the candidates in the following list in no way implies any order of preference:
Freshman Admissions: Bill Zajc, Jon Teich, Tom Lawler, Greg Simay, Karen Maples.
Undergraduate Academic Standards and Honors: Ann Orel, Alan Shiller, Jack Schlachter; *alternate*—Phil Naecker.
Curriculum: Ellen Garber, Alan

The ASCIT BOD approved the recommendations of the IHC last night, with the exception of Institute Programs, Health, and Foreign Students.

Shusterman, David Walker.
Special Laboratories: Roy Mead, Bruce Casner.
Relations with Industry: Richard O'Keefe.
Upperclass Admissions: Paul Goodson, Jim Celoni, Charles McKnett.
Convocations: Gavin Claypool.
Athletics and Physical Education: Mary Beth Ogilvie.
Patents: Paul Goodson.
Academic Policies: Liz McLeod, Tom Little.
Scholarships and Financial Aid: Steve Walton, Karen Maples.
Air Force ROTC: Richard O'Keefe.

Continued on Page Four

News Briefs

Tutorials Available

The list of Biology tutorials (Bi 23) to be offered next fall is now available in the Biology Office, 156 Church. The tutorials are staffed by Biology faculty, post-docs 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.

Barnes, Goodstein, and Neugebauer, while Drs. Barish and Sciulli will again run Track B.

Math Club Meeting

There will be a meeting of the Caltech Math Club on Tuesday, May 28, in 351 Sloan. At 7:30 p.m. elections will be held and at 8:00 Dr. Fejes-Toth will speak on "Unsolved Problems in Intuitive Geometry." All are invited.

They're Juicy Now

There will be openings in many of the co-op houses for this fall and possibly the summer. [Now that mandatory food is back, do you really want it?] The co-ops have various cooking groups, comfortable furnished rooms, and are close to campus without the isolation that usually goes with o/c housing. Rent plus utilities comes to about \$50/month/person, with both singles and doubles available. See Klaus Engelhardt in 290 S. Holliston; if you do it soon you'll get a better selection of rooms, and we'll avoid having to fill up with randomness!

Math Grants Awarded

The following students have been awarded grants for summer research in Mathematics: Eric Williams, David Dummit, William Coughran, David Atkinson, Chris Henley, Hugh Woodin, Claudia Spiro, Frank Liang, and James Shearer.

Two Comments on Pre-Reg

1) Linguistics (Lin) courses count toward the same type of humanities credit as Lit, H, Mu, Pl, Art, and L courses do.
 2) The instructors for Ph 2 are listed incorrectly on the sheet. Track A will be taught by Drs.

THE CALTECH FORUM

Standards-Honors Committee Procedure Changes Urged by Student Reps

One of the most powerful yet least understood faculty committees is the Undergraduate Academic Standards and Honors Committee. UASH is the committee which acts on student petitions for reinstatement, for late drops and adds, and for excess units or underloads. UASH is required to meet only on registration day each term to act on petitions and near the end of third term to determine the recipients of several awards. Usually the committee meets for about nine hours at the beginning of a term to consider an average of over forty petitions. Only on rare occasions has the committee met in the middle or near the end of a term to consider petitions. As student representatives on UASH, we feel that, by not spending more time considering student petitions, the committee has shortchanged many petitioners.

Typically, fifteen students per term come before UASH for reinstatement. Each of these students will have his petition read by the committee and will then be interviewed for ten to fifteen minutes. Usually this is the only information on which the committee bases its decision. Advisors, although required to indicate their approval or disapproval of their students' petitions, rarely give UASH any substantial input, perhaps because many of them fail to adequately get to know their advisees. Other members of the community may submit letters to UASH regarding a student's petition, but few people realize that they may do so. Thus a student's fate may be determined by how well he can write and speak before a committee. Even the committee sometimes realizes how ridiculous this is. We believe that UASH should spend more time talking with petitioners and soliciting additional inputs so as

to be better able to decide on reinstatement and to make recommendations to the reinstated students.

We believe, also, that UASH should hold meetings during the middle of the term whenever necessary. If a student wants to drop a class in the middle of the term, but this would put him below thirty-six units, he must wait until the beginning of the next term to find out if his petition is approved. First term this year, one student who hopes to go to medical school found himself in the above situation. He decided to take a one term leave of absence rather than risk not having his petition approved and receiving an F in the course he wished to drop. Instead of graduating this term, he will graduate next year.

Besides shortchanging students with regard to time, we believe that UASH has shortchanged students with its policy on late drops. When drop day was moved to one week before finals, the faculty insisted, as a condition for this move, that the drop day be strictly enforced. UASH has taken the easy path by routinely denying late drop requests. It is most certainly the student's responsibility to make sure his drop card gets in by drop day. Yet we feel that it ridicules the concept of a grade to give a student an F in a course he may never have attended simply because he failed to get a card in on time. UASH and the Academic Policies Committee must find an alternative to the current system such as a system of fines for delinquent drops.

We wish to offer one final suggestion with regard to the functions of UASH. Many students who come before the committee are desperately in need of advice. UASH is uniquely in the position to

recognize this and to act on the students' needs. We believe that UASH should not hesitate to advise reinstated students on their programs and to get them new advisors should their current advisors be inadequate. Furthermore, UASH should strive to make available more information to advisors with regard to their students. This should include encouraging instructors not to be negligent in turning in blue slips and requesting the Dean's Office to make its files more available to advisors.

—Alan Shiller
 —Mark Johnson
 Student Representatives,
 Undergraduate Standards
 and Honors Committee

Once Upon A Time There Was A Story...

Gosh, Jim, I'm sorry. If the paper didn't have that stupid Tuesday night deadline, perhaps I wouldn't write such stale opinions.

I was confused by the IHC minutes of April 3; they said that the format of the interviewing committees would be decided on May 1. Like that Schmuckputz fellow says, even the *Tech* can be scooped. (Or did he mean shovelled?)

—Gavin Claypool
 105-51

The CALIFORNIA Tech

Friday, May 24, 1974

Volume LXXXV Number 29
 Published weekly except during vacation and examination periods by the Associated Students of the California Institute of Technology, Incorporated. Opinions expressed in all articles herein are strictly those of the authors and do not necessarily reflect the opinions of the editors or of the corporation. All rights reserved.

Editors-in-Chief Richard S. Gruner
 Dennis L. Mallonee
Associate Eds Peter W. Beckman
 Eric H. Eichorn
Entertainment Editor Marc Donner
Features Editor Greg Simay
Sports Editor Bob Kieckhefer

Staff David Callaway, Flora Constanten, Tim Groat, Mama Gronkel, Chris Harcourt, Karl Kuhlmann, Phil Massey, Jim Mullany, Dan Muzyka, Mary Beth Ogilvie, Peter Pathe, Etaoin Schroedlu, Paul Shubert, Alan Silverstein, Nick Smith, I. M. Wett.

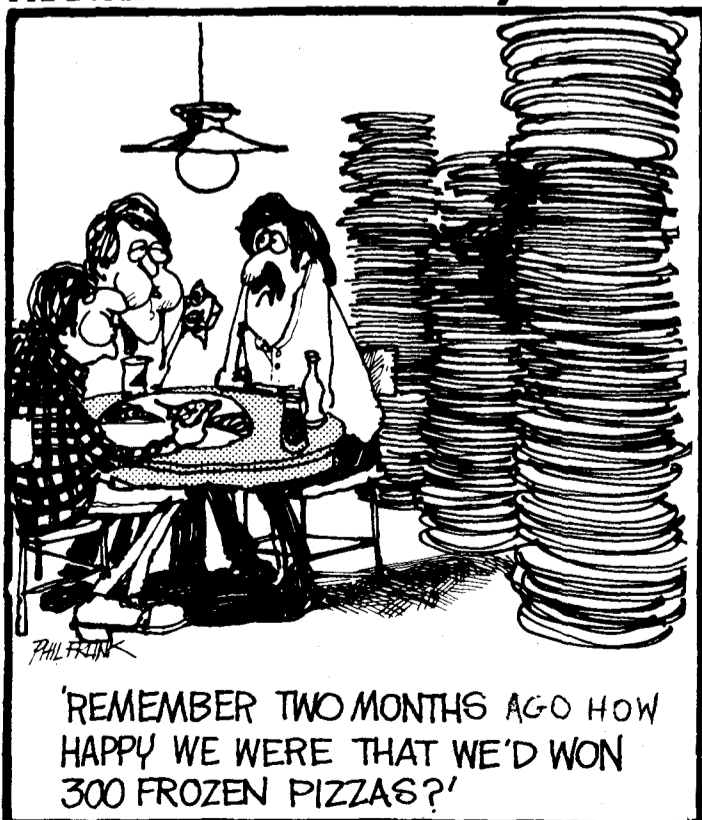
Photographers Ray Feeney, R. Feldman, Gerald Laib, Dave Peisner, C. N. Pow, Terry Sheehan.

Business Manager Gavin Claypool
Associate BM Dave Peisner
Circulation Manager John Dilles

The California Tech Publications
 Offices: 107 & 115 Winnett Center (105-51), California Institute of Technology, 1201 East California Boulevard, Pasadena, CA 91109. Telephone: (213) 795-6811, x2154. Printed by News-Type Service, 1506 Gardena Avenue, Glendale, CA Represented for national advertising purposes by National Educational Advertising Services, Inc. Second class postage paid at Pasadena, California.

Subscriptions \$1.50 per term
 \$4.00 per year

FRANKLY SPEAKING by Phil Frank



© COLLEGE MEDIA SERVICES • BOX 9411 • BERKELEY, CA 94709

THE ASCIT FRIDAY NIGHT MOVIE

Cool Hand Luke

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

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

Next Week:

There's A Girl in My Soup

The Critical Mouth

Remove Dick-Disrupt the World

Much is being said and written about the forthcoming resignation/impeachment of President Richard Nixon. Relatively unappreciated however is the effect that Mr. Nixon's removal from office may have on the world at large. Possible disruptions in the pursuit of certain foreign policy objectives could, for a long time to come, profoundly affect the lives of a great many people throughout the globe.

Current American overtures to the Soviet Union and the People's Republic of China, as well as Mr. Nixon's central role in the development of American foreign policy, must be viewed in the context of the major geopolitical events that may take place in the remainder of this century.

The Coming Crunch

A massive and unprecedented world wide protein shortage, resulting in the loss of millions of lives may well be the dominant historical event most of us today live to see. Resulting economic and political uncertainty could plunge mankind into the worst fix it has ever known, making the First and Second World Wars by comparison seem mere aberrations.¹ Men could become victims of events as increasing international tension and hostility between the industrial and third world nations leads to an escalating series of thermonuclear wars, a "conflagration that will destroy everything . . . this civilization has produced."²

Any reduction of international tensions, any drawing together of powerful nations, may help to ease the passage of mankind through the inevitable "CRUNCH" in the years ahead.

Every act of cooperation between nations may be directly translated at some time in the future into a savings of human lives and a reduction of human misery.

Nixon's Foreign Policy

It is against such a backdrop that it should be noted that chief among the goals of President Nixon has been the establishment of a so-called "structure of world peace."³

Even his detractors concede that Mr. Nixon seems to have a flair for foreign policy. Genius might be a better word.⁴ Supremely competent in communicating American intentions abroad and in securing the cooperation of foreign governments, Nixon's continuance in office is favored by such diverse foreign leaders as Chou En Lai, Brezhnev, and President Sadat of Egypt, all of whom feel that he is a man with whom they can effectively work.

Cooperation or Antagonism?

The keystone of Nixon's foreign policy, behind his drive for cooperation with China and detente with the Soviet Union, is the realization that much of the activity of various parts of the world can be related to the relations of rivalry between the three "giants" of the earth, America, the Soviet Union, and China. Cooperation with Russia and China for example was instrumental in obtaining a settlement in South-East Asia considered favorable to American interests. Soviet cooperation could do much to help defuse the potentially explosive situation in the Mideast. Rivalry between the major powers, on the other hand, results in a host of ill effects. American-Soviet

rivalry causes both countries to spend a large fraction of their resources on the military. Intense animosity between Russia and China has led many to speculate upon the possibility of a Sino-Soviet war. Such a conflict would represent a tremendous waste of human lives and resources and would clearly be against the interests of people everywhere. American contributions to the international climate could do much to encourage or discourage such a war.

Nixon's persual of closer relations with both fo the Communist giants runs contrary to powerful domestic interests.⁵ Although Nixon is right in opposing these interests, the fulfillment of many of his goals could be delayed or even prevented altogether by his removal from office.

Policy By the President

Many feel that Nixon's foreign policy successes are due in fact to the work of Henry Kissinger. Such a view is mistaken. It is the President who must make the political and economic trade-offs necessary to lubricate the wheels of international relations.

Recently for example diplomatic relations with Egypt were restored after a break of seven years. Relations were resumed partly because the United States was willing to demonstrate with a grant of \$250 million and other actions that in the future it could bring many benefits to the Egyptian government. Persuading Egypt to set one foot in our camp was made possible not so much by a shrewd Secretary of State as by the President who made the judgement that Egyptian cooperation was well worth \$250 million to American strategic interests and was prepared, in order to obtain it, to forfeit

jealously hoarded domestic political support from those elements who would rather see the money spent in our own country or who felt we were damaging the position of our friend Israel.

Detente with the Soviet Union and cooperation with China similarly carries a price tag in terms of the loss of domestic political support. The sale of American agricultural products abroad, a potentially potent diplomatic weapon as was demonstrated with the Russian wheat sale, incurs the wrath of the poor, who have difficulty meeting the resulting rise in domestic food costs.

"Political Will"

The point is that behind effectiveness in foreign policy must exist what is known as the "political will" that gives highest priority to certain foreign policy goals and is willing to pay through the nose if necessary, in terms of domestic political support, for those goals whose success is crucial. The determination of such crucial goals is the most vital requirement of all. This is the area in which Mr. Nixon's judgement has excelled. In his perception of the slow but inevitable decline in the relative strength of American power, he has recognized the necessity that America now, at its pinnacle, seize the opportunity it alone has to make possible the stable transition of the nations of this planet through the rest of the century.

The Main Point

Critics of Mr. Nixon's foreign policy point out that American

investment in Siberian oil fields hurts the interests of the American working man who would benefit from the jobs created if instead the money were invested at home. They point out further that American recognition and support of the status quo in the Soviet Union may be detrimental to the cause of human rights. They point out that in being anxious to prove our usefulness to the People's Republic of China, we supported Pakistan against India during the war for the creation of Bangladesh, and thereby damaged further already fragile American-Indian relations. Last and most indicting, critics respond that Richard Nixon needlessly prolonged the Vietnamese War for four additional years at a cost of fifty billion American dollars and one million human lives. Can critics as perceptive as these however have missed entirely the reason for all this? Very much more could be at stake.

The thought of the needless⁶ death of one million human beings died fighting for a cause in which they believed can be overwhelming. Words like grief, anger and despair might only begin to describe the bitter anguish felt by any who could appreciate its enormity. What can be learned from such an experience? Perhaps a lot. If nothing else, it shows that the stakes in the game of international politics are exceedingly high.

One million deaths cannot, should not be forgotten. Yet the

Continued on Page Six

Faculty Board

Continued from Page One

member seeking to increase his teaching effectiveness. This resulted in two resolutions, of which only the safer passed.

The first stated that teaching quality should be taken into account in all decisions regarding promotions, salaries, and tenure of members of the faculty. The

Division shall have the responsibility of gathering information on each individual's teaching effectiveness, and to submit any data in support of proposed recommendations. It was voted down.

The second proposition was that the Faculty should support the students through ASCIT, the GSC, and appropriate groups of students representing the individual Divisions and options, in their efforts to publish annually an evaluation of courses and teaching at the Institute (the Rivet?). This one was passed.

It was also decided that people wanting to take ROTC courses should be able to take them under an agreement with USC. This was enacted since the local unit was disbanded recently.

Also included in the meeting were an assortment of reports and announcements, evaluations, suggestions, memos, reading of the minutes, etc. Finally, at or around six, after three hours of struggles, the Committee called it a day.

ALL NEW STOCK
ALL NEW STYLES

RENT-A-TUX

- Flares
- Ruffle Shirts
- Shoes-Boots (Extra)
- Baggies (Extra)



Student Discount
(Student Activities Only)

after Six TUXEDO

Sears
SEARS, ROEBUCK AND CO.

Charge It on Sears Revolving Charge

GROOM FREE TUX RENTAL
(5 or more in wedding party)

FLEET PRICES TO ALL COLLEGE STUDENTS

CHEVROLET
New and Used Cars-Trucks

SEE ONLY

449-3333
684-2221

Bob & Barbara Fletcher
FLEET DEPT.

Jack Wall Chevrolet
3003 E. Colorado, Pasadena

Closed Sunday
Please Phone for Appointment and Directions

SUMMER JOBS

Volt needs students for temporary jobs. Work when and where you want. Gain valuable work experience while earning top pay. We need:

- CLERKS
- RECEPTIONISTS
- TYPISTS
- STATISTICAL CLERKS
- SECRETARIES
- PBX OPERATORS
- ALL OFFICE SKILLS

Come in to apply or call for more information.

VOLT INSTANT PERSONNEL
1033 E. Main, Alhambra 282-3124
equal opportunity employer

THE RIGHT TYPE

Professional Typing

3025B West Valley Blvd. Alhambra
289-5019

Donner Speaks

Romeros At Beckman

by Marc Donner

Never let it be said that there is any great degree of harmony among the editors and staff of the Californicator Tech. Those (characterization omitted) editors are (expletive deleted) enough to hold a (expletive deleted) (characterization deleted) Big T editorial staff meeting in the main workroom of the *Tech* on Tuesday night just a few hours before the deadline for articles when other "editors" and staff want to come in and write their articles. Not only do those (characterization deleted) hold this meeting, but they tell everyone who comes in that they can't stay because of the (expletive deleted) meeting. I say to them openly: How the Hell are we supposed to write our damned articles when denied access to our information, paper and typewriters?

Rumor has it that Senior Ditch Day is today (Friday) or was yesterday (Thursday) (this article is being written on Wednesday). Anyway if Friday is Ditch Day come around to Page House and watch the demolition of Scheffer's Stack. This (characterization omitted) senior thinks he has designed and built the unit unopenable brute force stack. To prove this he has been announcing that his stack includes (1) 1000 pounds of concrete, (2) lots of ball bearings, (3) lots of old grinding wheels (to thwart any drilling efforts), (4) several pieces of boiler plate, (5) a roll of fiberglass, (6) lots of 8x8 lumber and much more. On ditch day it will be interesting to see just how much of this is bs and how quickly we get into his stack. Tink tink.

Willis To Speak Next Tuesday

On Tuesday, May 28, psychotherapist Jack Willis will speak on "The Major Schools of Psychotherapy and Their Relevance for Libertarian Lifestyles" in the Athenaeum at 6:00 p.m.

Jack Willis is a licensed psychologist with a private practice in Los Angeles. As a therapist he is oriented toward psychodynamic verbal and Reichian non-verbal therapies. He holds graduate degrees in biochemistry and psychology and is currently working toward a Ph.D. in Human Behavior. He has also

The big news for this week is the concert tomorrow night (Saturday) in Beckman Auditorium. The Romeros (Celedonio and his three sons: Celin, Pepe, and Angel) will be returning to Beckman Auditorium at 8:00 p.m. The Romeros last year brought their incomparable music to Beckman and brought the house down with their marvelous playing. Three or four encores were played before the audience would let them escape. This concert includes music by Sor, Sanz, Albeniz, Tarrega, Guilini, Tansman, Malats, Bach, Torroba, Jiminez and de Falla. Last year they represented part of a Guitar series which had featured concerts by Bream, Parkening and Montoya; but this year they are returning just for themselves and us.



audience

Fine singing combines with brilliant showmanship to make last Saturday's Spring Jubilee one of the most effective Home Concerts of the Men's and Women's Glee Clubs. Imaginative use of Beckman and dramatic interaction between men and women singers are already well-established in the opening songs: "The Prayer of St. Francis" has just bathed the Beckman audience in calm. Suddenly, "Hodie

Apparent" ignites a triumphant mood from the balcony. Proceeding from the lobby to the stage, the women lend "Rorate Caeli" a sweet solemnity. The men join them, adding urgency and power to the chant.

Sacred songs, Italian opera, and popular works smoothly succeed one another during the program's first half. The "virile male sound" of the Men's Glee Club infused "Miserere Mei," "Glory to God," and "O Sing Unto the Lord" with an intense reverence. "Hymn of Peace" is made especially moving by the Women's Glee Club. Jim Hugg's superb solo, "Largo al Factotum" from *Il Barbiere di Siviglia*, draws a thunderous curtain call. The Chamber Singers and Madrigal Singers lend all their songs warmth and charm, including "Dance, Dance My Heart" and "To a Wine Jug." The Men's Glee Club provide a strong finish with "The Dorados"

and "You've Got a Friend." Every song is communicated with feeling, especially in the second half of Jubilee, when a mini-musical, *A Fantasia of American Folk Songs*, replaces the usual concert format. Never were the women singers more effectively used; they made *Fantasia* possible.

The dialogue linking together the various performances is often corny, but it does succeed in creating a folksy atmosphere instead of a saccharine one. *Fantasia* covered a wide range of tunes, including (but not limited to) "This Land," the Shaker hymn "Simple Gifts," Stephen Foster's "Gentle Annie," "John Henry," "Amazing Grace," and "He's Got the Whole World in His Hands."

Fantasia also has a number of pleasant surprises. Al Nikora's rendition of Scott Joplin's "The Entertainer" is a delight. Olivia Hugg twined her moving solo of "Get Away From My Window" into one of the evening's highlights. The Varsity Quartet provides humor as well as harmony, regaling the audiences with "Limburger Sandwich" and "The Songs Mama Didn't Allow," "I Left My Heart in San Francisco," with slides of that city, also proves very enjoyable.

Spring Jubilee ended traditionally with "Salvation Belongeth to Our God" and The Caltech Alma Mater. Olaf Frodsham and Monica Roegler should

Continued on Page Eight

Shakespeare Schedule

by Etaoin Schroedlu

The San Diego National Shakespeare Festival has announced the schedule for the 1974 summer season, the Festival's 25th year of operation. This justly famed group, the only professional Shakespearean Repertory Company on the west coast, opens its season with the comedy *Twelfth Night* on June 4. *Romeo and Juliet* opens June 7, and the historical play *King Henry IV part 2* opens July 10.

Ticket prices are \$5.75 and \$6.25, with season tickets for use before July 28 available at \$15.75 and \$17.25. Due to the repertory nature of the performances, which are at the Old Globe Theatre in Balboa Park, San Diego, the calendar of exact

dates of performances is very complicated; interested individuals may consult the Festival advertisements in the *Calendar* section of the *Los Angeles Times*, or write to the Old Globe Theatre, P.O. Box 2171, San Diego, CA 92112, for further details. If you are interested, don't delay; the Old Globe is a small house, and I understand that the Festival normally sells it out.

Appointed

Continued from Page Two

Student Housing: Jim Kleckner, Shelley Smith.

Institute Assemblies and Programs: Greg Simay, Phil Naecker, Tim Erickson, Kathleen Kong.

Health: Steve Aley, Dayna Salter. **Relations with Secondary Schools:** Liz McLeod, Richard Atwater.

Library: Jack Schlachter.

Foreign Students and Scholars: none.

For non-faculty committees: Art: Bob Coleman.

Computer Facilities Executive Committee: Eric Carter.

been active in the Libertarian Party.

Members of the Caltech-JPL community are invited to attend. For further information, contact Greg Simay (449-9886) or Karl Blasius (x2143).

at the ICE HOUSE

PASADENA
24 N. Mentor
Reservations Phone
681-9942

Now Thru Sunday
JAMES LEE REEVES
Frank Welker
Rufus Krisp
Monday night: HELLO PEOPLE
Coming next: Tim Morgon

What better bribe than a pizza from

ROMA GARDENS

BEER & WINE
ITALIAN CUISINE

PIZZA SPAGHETTI RAVIOLI

10% Discount On Food To Go

1076 E. Colorado 449-1948

OPEN 4-12 Daily
4- 1 Fri. & Sat.

FOREIGN STUDENTS SHIPPING SPECIALISTS OF
BAGGAGE AUTOMOBILES/
HOUSEHOLD ARTICLES
COMMERCIAL CARGO

AIR • OCEAN • TRUCK
Pick Up & Delivery
Packing & Crating
Insurance Documentation
Estimates given without obligation
10% off with Caltech ID

ANYWHERE-ANYTIME
A REGISTERED AGENCY

transcargo
SINCE 1956
a tradition of personal service in freight forwarding

Martin Lewin Transcargo, Inc.
2240 N. Figueroa St.
Los Angeles, CA 90065
(213) 225-2347

FRIDAY	SATURDAY	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY
24 ZANIES LAUREN & HARDY	25 Robert Redford Jeremiah Johnson The man who became a legend The film discovered to be a classic!	26 Robert Redford Jeremiah Johnson The man who became a legend The film discovered to be a classic!	27 MONTEREY POP ig brother and jan: nd masy moremoremo)	28 Adam West and Burt Ward in BATMAN	29 WILL PENNY JACK LEMMON SAVE THE TREE	30 THE GREAT ESCAPE
31 Ingmar Bergman's CRIES AND WHISPERS ADALIN '31	<h1 style="font-size: 2em;">MAY</h1>		<h1 style="font-size: 3em;">HIGHLAND THEATRE</h1>			
				Figueroa at Ave. 56 Highland Park 255-6066 99¢		

SALES & SERVICE DIRECTORY

ANSWERING SERVICE	ARTIST - DRAFTING	DENTAL LAB TRAINING	NURSERY - PET FOOD	TRAVEL
<p>LIN'S ANSWERING SERVICE</p> <ul style="list-style-type: none"> ★ 24 Hour Service ★ Equipped L-cross connect ★ Emergency help for stalled elevators ★ Radio paging (Beepers) ★ Vacation Service ★ Wake up Service ★ Tow Service <p>681-9229 796-0151 We have the sweetest girls in town</p>	<p>Fine Arts-Oil Paint-Water Colors-Clay-Brushes-Acrylics-Pencils-Fine Papers-Ink-Gouache-Poster Board-Presentation Albums-Easels-Flip Charts-Pens-Matte Board-Instant Lettering-Sprays-Graphing Materials-Charting-Tapes-Overhead Projection-Markers-Tables-Drafting Machines-Lamps-Slide Rules</p> <p>PAS graphics, inc. 1292 E. Colorado Blvd 793-4173</p>	<p>Private School for the training of Dental Laboratory Technicians Co-Ed Day & Evening classes approved for veterans call 714-532-4241</p> <p>Dental Technology Institute 969 N. Tustin - Orange County</p>	<p>GOODES SEED & FEED STORE HAS ALL YOU WILL EVER NEED FOR YOUR GARDEN</p> <p>INSIDE: Live Plants, Fertilizers, Bird Seed, Pet Supplies, Potteries</p> <p>OUTSIDE: Landscaping, B.B.Q.s, Flagstone Patios, Sprinkler systems, Gdn. lighting</p> <p>Horse, Chicken, & Duck Feed 1272 N. LAKE AVE. 797-1611</p>	<p>Over 40 years experience H.B. BENNETT TRAVEL AGENCY</p> <ul style="list-style-type: none"> ★ Airline tickets ★ Steamship ★ Tours & Cruises <p>Information & Reservations Campus Ext. 2226 795-0291 690 E. Green St. Pasadena</p>
<p>ARCHERY</p> <p>ARCHERY HEADQUARTERS OF SAN GABRIEL VALLEY</p> <ul style="list-style-type: none"> ★ Indoor shooting lanes ★ Instruction by certified Teachers ★ Complete line of equipment ★ Sales - Rentals - Accessories <p>We invite you to join one of our leagues.</p> <p>4591 North Peck El Monte 448-4165</p>	<p>AUTO SUPPLIES</p> <p>ALLIED AUTO SUPPLY Parts & Accessories at lowest discount prices Complete Service Department</p> <p>Open Daily 9 AM - 9 PM Sunday 9 AM - 3 PM</p> <p>1060 E. Colorado Blvd. - Pasadena (3 Blocks East of Lake) 793-1893 681-6822</p>	<p>ELECTRONIC PARTS</p> <p>Dow Radio</p> <p>Your Electronic Shopping Center. Electronic parts, Hi-Fi, Auto stereo - C.B. Equipment featuring Jensen Sound Producers Watch for our big complete stereo & components dept. opening soon. 1759-67 E. Colorado 793-1195</p>	<p>OPTICIANS</p> <p>HEIMANN</p> <p>36 NORTH MADISON AVENUE, PASADENA, CA. 91101 213-796-9177</p> <p>960 EAST GREEN STREET, PASADENA, CA. 91106 213-449-3390</p> <p>390 NEWPORT CENTER DR. NEWPORT BEACH, CA. 92660 714-640-8475</p>	<p>TRUCK RENTALS</p> <p>THE TRUCK YOU NEED WHEN YOU NEED IT</p> <p>Hertz</p> <p>call for FREE copy of HERTZ GUIDE TO DO-IT YOURSELF MOVING call central Reservation 628-1255 main office 2300 E. Olympic</p>
<p>ART GALLERIES</p> <p>POULSEN GALLERIES</p> <p>Original Oil Paintings Oriental Art • Antiques Original Signed</p> <p>LITHOGRAPHS RARE PRINTS SERIGRAPHS REPRODUCTIONS ETCHINGS CUSTOM FRAMING</p> <p>910 SAN PASQUAL ST. PASADENA, CALIF. 792-7410</p>	<p>AUTO WRECKING</p> <p>MONROE AUTO WRECKERS</p> <p>TOP CASH for foreign and domestic cars STUDENT DISCOUNTS on parts 1090 Lincoln Ave. Pasadena 795-1141 • 419-3320</p>	<p>FLOWERS</p> <p>Wedding Specialists Flowers for all occasions World Wide Delivery</p> <p>"Love is why we are"</p> <p>Member FTD All major credit cards</p>	<p>PHARMACY</p> <p>BROWN & WELIN PRESCRIPTION PHARMACISTS</p> <p>FAST DELIVERY PARKING FIRST DRIVEWAY ADJOINING PHARMACY ON LAKE AVE.</p> <p>64 S. Lake.....793-3121 793-7126 From L.A. call.....681-7514</p>	<p>TYPEWRITERS</p> <ul style="list-style-type: none"> ★ Typewriters ★ Elec. Calculators ★ Adding Machines ★ Stationary ★ Duplicating Mach. <p>SALES-SERVICE-RENTALS we specialize in portables</p> <p>J.A. Freeman & CO.</p> <p>35 S. Los Robles Ave. Pasadena Call 795-5123</p>
<p>ALFA ROMEO</p> <p>SALES SERVICE LEASING</p> <p>PETER SATORI CO., LTD. 325 West Colorado Blvd. Pasadena, California Los Angeles longest established import car dealer Telephone: 795-8835</p>	<p>BABY FURNITURE</p> <p>CAROUSEL Baby Furniture</p> <p>Quality merchandise at discount prices Everything for your baby</p> <p>Layaways - Experience personnel Free Delivery - Friendly Service 1726 E. Colorado, Pasadena 684-0457 Open Mon. and Fri. nights til 9 p.m.</p>	<p>FOOD TO GO</p> <p>Campus headquarters for 24 hour eating pleasure</p> <p>JACK IN THE BOX</p> <p>Visit your nearest location Take life a little easier!</p>	<p>RESTAURANT</p> <p>LOOSE CABOOSE</p> <p>A Restaurant that's truly different. Cocktails, dinner, lunch, salad bar, entertainment. Dine in Early American railroad cars. Open every day 317 S. Arroyo Parkway - Pasadena Telephone 795-9145</p>	<p>VACUUMS</p> <p>Pasadena Vacuum and Sewing Center Sales and Service Most brands sewing mach. & vacuums. Courtesy discount-Students & faculty on purchases of new vacuums & sewing machines with Student Body Card. Pasadena 795-3231 - 80 E. Colorado Aradia 446-2111 - 1216 S. Baldwin Av.</p>
<p>FIAT</p> <p>SALES SERVICE LEASING</p> <p>PETER SATORI CO., LTD. 325 West Colorado Blvd. Pasadena, California Los Angeles longest established import car dealer Telephone: 795-8835</p>	<p>BICYCLES</p> <p>CAROUSEL</p> <p>"WORLD'S LARGEST? No, just seems like it!" 350 on display - over 1000 in stock Free assembly - Life guarantee Pasadena's only authorized Dealer for Raleigh - Motobecane - Italvega - Starfire 1726 E. Colorado, Pasadena 793-1141</p>	<p>JEWELRY - WATCHES</p> <p>Fine Jewelry • Gems • Watches Expert Jewelry Design and Repair Watch Repair by Master Craftmen</p> <p>B. D. Howes & Son Fine Jewelers For Three Generations 336 South Lake Avenue Pasadena 796-2653</p>	<p>RIDING STABLES</p> <p>Arroyo Seco Stables Specializing in riding instruction. Horses rented for trails & boarded Riding equipment Arroyo Seco Park 255-4333 256-9888</p>	<p>WALL SYSTEMS - GIFT</p> <ul style="list-style-type: none"> ★ Modular Wall Systems for every room in the house ★ Executive array of tasteful gifts & decorator lamps ★ Contemporary furniture designed to blend with any decorating scheme. <p>INTERIOR SYSTEMS 500 South Lake Avenue Tel: 796-2564</p>
<p>FORD</p> <p>Robert H. Loud SELLING FORD CARS & TRUCKS FOR TWO GENERATIONS</p> <ul style="list-style-type: none"> • SALES • SERVICE • LEASING • PARTS • TRUCKS • USED CARS <p>1555 EAST COLORADO BLVD., PASADENA CATER-CORNERED FROM PASADENA CITY COLLEGE 793-3154 681-7614</p>	<p>CAMERAS</p> <p>LEE-MAC Camera Exchange Inc.</p> <p>Everything Photographic WE buy-sell-trade-rent • Sony tape recorders • Color finishing specialists Special discounts to CALTECH Students & Faculty 39 S. Los Robles, Pasadena 792-4343 681-8961</p>	<p>MARKET & CATERING</p> <p>CALTECH We Love You</p> <ul style="list-style-type: none"> ★ Complete Super Market ★ Catering Service ★ Near Eastern Specialties (including shish kabob, grape leaves, etc.) ★ Call us at 795-7741 ★ 4 blocks from CALTECH at 1720 E. Colorado <p>GERTMENIANS</p>	<p>SAVINGS & LOAN</p> <p>GLENDALE FEDERAL</p> <p>Try Us</p> <p>722 E. Colorado Boulevard 795-9531 (Corner of Colorado and Oak Knoll)</p>	<p>WATERBEDS</p> <p>INTERNATIONAL WATERBEDS, INC.</p> <p>SHEETS • HEATERS • CUSTOM FRAMES Credit terms available OPEN MON.-FRI. TILL 9:00 P.M. SATURDAY 10:00 A.M. - 8 P.M. IN PASADENA - 796-6171 Corner of COLORADO & MENTOR</p>
<p>MAZDA</p> <p>New and used cars Sales and Service</p> <p>MAZDA the car that gives super performance with super economy.</p> <p>PASADENA MAZDA 1285 East Colorado Blvd. 793-7143 Open 7 days a week</p>	<p>CAMPING - SKIN DIVING</p> <p>Alta Sport</p> <p>KELLY BACK PACKS Down sleeping bags Dried foods - accessories</p> <p>Skin Diving Classes start March 3rd Full line of Equipment 9034 Huntington Dr., San Gabriel 287-0737</p>	<p>MEN'S CLOTHING</p> <p>HACKETTS</p> <p>Men's clothing and shoes High Quality, Low Prices</p> <p>In Pasadena 62 S. Lake Ave. 915 E. California Blvd.</p>	<p>SHOES</p> <p>Unruh FAMILY FASHION SHOES</p> <p>Featuring for Men</p> <p>811 Fair Oaks Ave. South Pasadena 799-4077</p>	<p>WEIGHT CONTROL</p> <p>BE Baabra Elleck A NEW BEGINNING</p> <p>REGISTERED PHYSICAL THERAPIST REGISTERED ELECTROLOGIST Facial Contouring - Individual Eyelashes Food Supplement - Wigs Beauty Products - Fitted Custom Bras CALL 449-1231 1065 East Green St. - Pasadena</p>
<p>V. W.</p> <p>TRANS-OCEAN MOTORS Night or Day Service 24 Hour drop-off</p> <p>After hours park & lock your car. Fill out early bird form stating service needed, drop in box with keys. Open 7:30 a.m.-5:00 p.m. daily 7:30-11:00 p.m. Saturday</p> <p>SHUTTLE BUS available when leaving car during regular hours. 130 N. Sierra Madre Boulevard 795-9581</p>	<p>CAR RENTAL</p> <p>Has no gas problems Rent a Vega Capris V.W. Pinto</p> <p>Budget Rent a Car</p> <p>For as little as \$6.00 a day & Mileage 424 E. Green St. Pasadena 449-0221</p>	<p>MEN'S HAIR STYLIST</p> <p>Mr. D.C. Men's Stylist 5 barbers to serve you Hair Coloring Straightening, manicure Cut & Style only \$8.50 plus shampoo if required 8:30 - 5:30 Daily Sat. til 4 p.m. Appointment only: 449-8110 49 S. Marengo (between Colorado & Green)</p>	<p>TENNIS</p> <p>VOLLEY Hi</p> <p>The complete tennis shop Where the "service" is always IN!</p> <p>516 S. Lake Ave. 795-3456 Mon.-Sat. 10:00 - 6:00</p>	<p>If you need help call 795-8088</p> <p>*****</p> <p>We need your help too- Donations desperately needed FOOTHILL FREE CLINIC 30 N. Raymond, Pasadena</p>

Alumni Day Speaker

Lockheed Chairman Speaks Out

by Bob Kieckhefer

"We aren't ever gonna get rid of our economic problems." Everybody who has had difficulty balancing a checkbook has probably uttered similar predictions, but when these words are spoken by Daniel Haughton, chairman of the board of Lockheed Aircraft Corporation, they come from a man who should know. After all, not everyone has needed, or has gotten, the US government as collateral for a bank loan.

Haughton gave this and other predictions in the keynote ad-

dress to about 1000 alumni at Saturday's Alumni Seminar Day. Though his talk was ostensibly about "The Future of Air Transportation," the rambling presentation touched on many other topics and also gave insight into the role played by a major corporate executive.

"D'ja Ever Sit In Coach?"

Haughton predicts that, through the 1980's, air travel will continue to be the preferred mode of travel between cities over 300 miles apart, and that no fundamentally new aircraft will be introduced. He also predicts

that wide-bodied jets, similar to the Tri-Star, DC-10, and 747, will take over the major air routes: "People are gonna find out about wide bodies and they're gonna do it [fly them]."

While lamenting the government's decision to cancel the supersonic transport (SST) program, stating that it was embarrassing that the Russians and French were doing something the Americans weren't, he did not mention the SST in his forecast for the Eighties. Haughton speculated that the US would, however, produce a hypersonic

(Mach 6 or 7) transport in the 1990's, though he didn't mention where we would get the fuel to fly it.

And although he praised the wide-bodied subsonic jets' economics in the face of fuel shortages, he ignored the economic problems facing supersonic aircraft. He speculated that the American SST would have been more economical than either of its European counterparts, though.

Free-Flowing Philosophy

Haughton's comments on subjects other, than air transportation left no doubt that a person in his position has to be a politician as much as a manager. He frequently praised the engineering graduates from Tech, over 200 of whom work for Lockheed, and did more handshaking than any gubernatorial or congressional candidate who has visited the campus in recent years.

Who else but an incumbent politician would say "There's been a lot said about the quality of life today, and ah'm all for it"? Who else but the chairman of the board of Lockheed could get away with saying it?

ASCIT Of Mullany: Elections Approved And People Thanked

by Jim Mullany

The BOD met in public session last Tuesday with Beatty, Shiller, McLeod, Anderson, Mallonee, Teich, Manis, and Pietrasz attending. A motion to amend the minutes of the last meeting passed quickly. The board then acted on the following matters:

Last week's election results were validated, and nominations were opened for last Tuesday's election, much to Mallonee's relief, as of the previous Thursday and were closed (retroactively in both cases) as of the night before the elections. Shiller made a point of being opposed to both actions. The next series of run-offs will take place on May 28.

McLeod officially thanked Director for Social Activities Paul Manis and Secretary Dennis Mallonee, the former for his excellent supervision of last Sunday's bicycle-beer race, and the latter for his no-nonsense managing of last Tuesday's elections.

The BOD will presently form a search committee to nominate faculty members for the soon-to-be-vacated posts of Associate Dean and Coordinator (of Winnett Center).

The Coffeehouse managers got their \$400 bonus.

The TQFG hopes to have their report out by the middle of finals week.

The next BOD meeting was set for last night at 7:30 p.m.

NIXON

Continued from Page Three

perspective of history shows that this instance of human tragedy is not unique. Both world wars in this century resulted in greater loss. Last year alone, in 1973, half a million starved to death in a handful of African countries. Such occurrences shall continue. To limit their scope and wonder, we must profit from our experience, and come to grips with the coming of the greatest challenge mankind has ever faced.

Compared to the spectacle of the coming "CRUNCH", the ethical improprieties of Mr. Nixon in the White House seem relatively unimportant. At any rate, the harmful effects of Mr. Nixon's conduct upon the American people's respect and trust for their government and its institutions are now over. The question remaining is what to do about the damage Mr. Nixon's removal from office will have upon the fulfillment of those goals, those foreign policy achievements which he has recognized as vital, and for which he has had the understanding and above all the "political will" necessary to give them priority above all else. To neglect this question for the sake of concentrating attention upon the problems associated with the misuse of political power is to be either hypocritical, or blind to what must be the central issue of our time. To wit, how do we prevent the coming "CRUNCH" and its associated tensions from resulting in thermonuclear war between the rich industrial nations and the third world, clamoring for its share of the Earth's resources? The world situation grows more unstable with each passing year. How can we insure the stable transition of the nations of this planet through the "CRUNCH" and safely into the next century?

I'd Support Al Capone

Noam Chomsky, distinguished critic of the left has said, "By any rational standards... Richard Nixon is one of the major criminals of the Twentieth Century." Be this as it may, respect and consideration for the lives of millions of people, some as yet unborn, lead me to a conclusion. I'd support Al Capone for President if I felt he were the earth's most capable handler of international affairs. Wouldn't you?

-Bruce Scott Hantover

Editors note: Mr. Hantover would be happy to answer any letters sent to him, care of *The Tech*, on any of the somewhat controversial assumptions and conclusions he makes!

Footnotes:

1) Anyone who can read a graph of the earth's population vs. historical time can see that the pattern which has prevailed for centuries, that of a simple logarithmic expansion, must change due to the forces of nature into an s-curve. This change, due to come in this century, accompanied by death and misery on a massive scale, arises because the earth's resources, its capacity to sustain life, is limited and because nature is not about to let any of her natural laws be violated. Indeed such a historical period, labeled "The Crunch" has been predicted by many, and among the pessimists, the notion is popular that all mankind will return to a new dark age. The pessimists are wrong however. Mankind and his civilization will survive the coming crunch, and even any world war which might accompany it.

2) Richard Nixon, from a recent interview with James Kilpatrick.

3) Some say that any attempt to impose a "Pax Americana" (literally an American Peace) upon the world would go against the tide of history and hence must fail. This is not clear.

4) Professor Riker of Political Science, California Institute of Technology.

5) The power of such interests may be demonstrated by the support of a majority of the American senate for the Jackson amendment, a bill which blocks the expansion of trade with the Soviet Union and delays the progress of Soviet-American cooperation. The shortsighted Jackson amendment conditions the granting of Most Favored Nation trading status to the Soviet Union upon internal reform in the Soviet domestic structure, principally the granting of unlimited emmigration rights for Soviet Jews. In actuality, Soviet reform would come about more quickly with negotiations than with the ultimatums posed by such a stupid and dangerous bill.

6) Assuming, of course, that history decides it was needless.

7) Noam Chomsky, *Watergate and Other Crimes Ramparts*, June 1974

8) Bruce Murray, *Future Reality* (tentative title)

*JHE
R.V.E.T.
A.R.E.
V.E.R.Y.
C.L.O.S.E.*



This is your key to unprecedented calculating capacity. Only Hewlett-Packard offers it.

It lets you "speak" to your calculator with total consistency, because it lets you load data into a 4-Register Stack. This means: (1) you *always* enter and process your data the *same way*, no matter what your problem; (2) you don't have to re-enter data; (3) you can see *all* intermediate data anytime.

Our HP-45 is one of two pre-programmed scientific pocket-sized computer calculators with this key. That's one reason it's the most powerful pre-programmed pocket-sized scientific computer calculator. Here are three of many others:

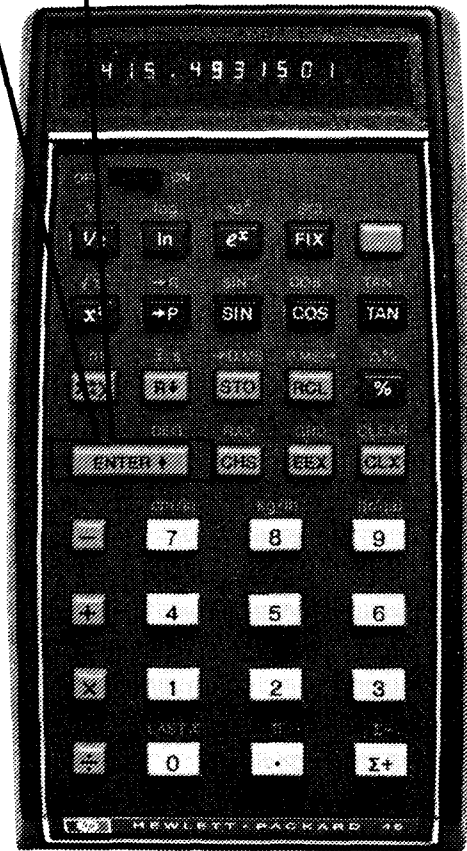
1. It's pre-programmed to handle 44 arithmetic, trigonometric and logarithmic functions and data manipulation operations beyond the basic four (+, -, x, ÷).

2. It lets you store nine constants in its nine Addressable Memory Registers, and it gives you a "Last X" Register for error correction or multiple operations on the same number.

3. It displays up to 10 significant digits in either fixed-decimal or scientific notation and automatically positions the decimal point throughout its 200-decade range.

Our HP-35 is the other. It handles 22 functions, has one Addressable Memory Register and also displays up to 10 digits in either fixed-decimal or scientific notation. It's the second most powerful pre-programmed pocket-sized scientific computer calculator.

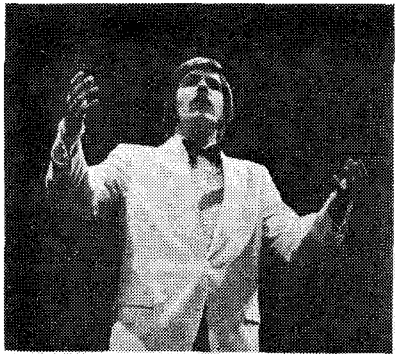
Both of these exceptional instruments are on display now. If you're looking for unprecedented calculating capacity for your money, by all means see and test them.



Hewlett-Packard makes the most advanced pocket-sized computer calculators in the world.

Caltex Bookstore

1201 East California Blvd.
Pasadena, CA 91109
(213) 795-6811 X2161



A Spring Jubilee

The Caltech Glee Club Home Concert



Photos by Floyd Clark

Dave Dummit and Chris Henley Honored At Recent Math Banquet

Caltech undergraduates David Dummit and Christopher Henley were honored May 19 at a Mathematics Awards Banquet.

Dummit, a junior mathematics major, was awarded the E. T. Bell Undergraduate Mathematics Research Prize for a paper entitled "Cubic Fields Without Power Bases."

Henley, a freshman, received the Morgan Ward Prize for his derivation of a formula which

expresses the arithmetic-geometric mean of two numbers in terms of an elliptic integral.

Each prize consists of a cash award and a certificate. They are financed by funds won by Caltech undergraduates participating in the William Lowell Putnam Competition, a national mathematics contest in which the Caltech team took first place during the last three consecutive years.

The Mathematics Committee on Prizes judging this year's entries consisted of Professors Tom Apostol, Hershey Kisilevsky, and David Wales.

MORE CALTECH FORUM

Irate Boonier Castigates Editors

I emphatically protest your publication ("Forum", *The California Tech* v75 No. 22, 5 April 1974) of a private letter from me to the O.C.R.C. The most casual perusal of that letter should make clear to the veriest moron that it was intended not to be published; indeed, the sentiments expressed in it are inconsistent with its publication. Would you have the world think me a hypocrite?

I insist on an immediate public apology, to Ms. McLeod and to me. I cannot permit this blot upon the by Request escutcheon; that name is synonymous with candor and discretion wherever letters are read.

Moreover, I demand an explanation of how your organization came by this document.

Gentlemen do not read one-another's mail, sirs, let alone pilfer and publish it.

—Name Withheld by Request
The Boonies
Middletown, U.S.A.

Backwater Mail from SOCA

I was intrigued by the letter in last week's Forum in which Madam R. stated that you have been refusing to publish OCRC articles. It seems that the SOCA (Student Opposition to Communist Aggression) also has an article rotting, unpublished, on your editor's desk. Is *The California Tech* unconcerned about the struggle between the forces of good and evil in the real world? Is it so third world that it refuses to acknowledge the existence of the first and second

worlds? Is it afraid to discuss political issues of the day? Is Women's Lib as controversial as it gets? Is it embarrassed because outsiders write more informative, more interesting, and funnier articles than Morg Blorg and its own staff is capable of conceiving? Does it refuse to publish news in this weekly magazine-disguised-as-a-newspaper? Is it trying to cut costs by becoming so boring and trite that no one will read it?

Mr. Mallonee and Co. is going to have to realize that, try as they might, their rag (a term normally applied only to real newspapers) is never going to win the CNPA Award for General Excellence in college journalism, so they might as well print our articles.

—Carrie Nation
SOCA Communications Officer

Back-Water Mail from OCRC

There are now two OCRC articles sitting in a back corner of the *California Tech* offices. In addition to these, there are two articles from our rivals, the SOCA. Are you trying to suppress political controversy on campus? Some very fine, though provoking points were raised in these articles. Consider these issues: AFROTC, Ditch Day, the New Geophysics Building, Watergate, and the People's Wall. But were these printed? No!

Instead of these relevant, controversial items, Mr. Mallonee chooses to print pages and pages of useless information on some of the more nonspecial women on this campus. Half of them were mere secretaries with glorified titles. Glowing portraits of these ordinary, boring women is not at all beneficial to the Women's

Liberation Movement. That particular issue of your paper could have been so much more exciting. There are so many creative and unusual women on this campus.

For example, you might have featured a Dabney House "freak", one of Ms. McLeod's dogs, Dr. Huttenback, Phyllis Anwyl, the only female geology major, the only female physics major, or myself, the only truly controversial figure on this dull campus.

In closing, I take this opportunity to announce the formation of the Avenge Culbertson Subcommittee of the OCRC. All of you who remember Culbertson realize what a great void now exists on the corner of Wilson & California. To demonstrate our strength, the Subcommittee is asking all who sympathize with this view to wear black armbands to the opening of the new Mudd Laboratory.

—Madame R
President, OCRC

Irate Boonier Rides Again

Today (May 15) I finally received *The Tech* v73 No. 24, dated April 19, 1974. I am not writing to tell you to get your (expletive deleted) circulation manager in gear, though that could certainly use some doing. I am writing because there remains between us the little matter of your stealing and printing my private correspondence.

Do I take the line on page 1, just above Dr. LaBelle's photo, to refer to this matter? If so, I find it insufficiently specific. In either event, as the authorship of the original letter cannot be a complete secret (at Tech nothing is) and as it was published without

Continued on Page Eight

show · your · SUPPORT.

Get Your Streaker T-shirt In Full Color

It's the ONLY T-shirt endorsed by THE INTERNATIONAL STREAKERS ASSOC.

only 3⁹⁵ each OR 2 for 6⁹⁵ postpaid

The MasterArt Co.
Post Office Box 444
Maumee, Ohio 43537

NAME _____

ADDRESS _____

ZIP _____

Size S M L
\$3.95 each | tax
\$6.95 for 2 | incl

Total \$ _____



Page Eight

Friday, May 24, 1974

TTT Does It Again

More Records Fall

The Tech Track Trio continued its record-book rewriting ritual last weekend at the NAIA District III Championships. Haywood Robinson, Alan Kleinsasser, and Greg Griffin broke three Caltech records and tied another as they qualified for the NCAA College Division National Championships next week.

Robinson took second places in both the 100- and 220-yard dashes at Redlands last weekend. His time of :21.4 broke his old 220 record, set two years ago, while his :09.7 time tied, for the third time this year, Caltech's

47-year-old 100-yard-dash-mark. Kleinsasser took second in the 880 for the third year in a row with a time of 1:51.2, bettering the record he set a year ago. Griffin ran the 6-mile in 30:09 to take third place and set Tech's third record.

Next week's NCAA Nationals will mark the last appearance of Robinson and Kleinsasser in Caltech uniforms. They were the team's leading scorers this year, co-winners of the Goldworthy Track Trophy in 1973 and 1974, and each hold or share two varsity track records.

Without ROTC

The Navy has announced a new collegiate program in which qualified college students may work for a commission in the Navy and be paid without joining an NROTC unit.

A student may apply upon completion of his junior year, having successfully completed 405 units, including one year of calculus through Ma 1 and one year of physics, and be within one (!) year of graduation. Grades: "B" average or better in minimum required courses. For those enrolled in a physics, mathematics or engineering curriculum, a "C" average or better is required in the technical or science courses.

The applicant must be a male U.S. Citizen, not less than nineteen and not more than twenty-six and one half.

Detailed information on this and other officer programs can be obtained from the Navy Recruiting office at 125 N. Marengo in Pasadena, 793-3623.

Audience

Continued from Page Four
be very proud of their closing effort of this season. We were certainly proud of all those Techers who added to the zest of spring.

—Greg Simay

Health Center Survey Released

by E. Squirrel Mole

Back in February, when the controversy first arose about reducing the hours of operation of the Health Center, a poll of the undergraduate and graduate students at Caltech was made by Blair Folsom, graduate representative to the Health Committee. Following the outcry of public opinion against the reduction of Health Center services, it was announced that the cuts would not take place, everything was really alright, and Techers should go back to their trolling and not worry about it, which is more or less what they did.

In recent weeks it has become clear that we were too quick to be pacified, as news of continued plans for weekend closing of the Health Center, and night operation only by a Licensed Vocational Nurse (LVN), becomes known to us. Since the matter is apparently still under discussion, we are publishing the results of

the student survey at this time. "I don't think . . .

The three alternatives offered were:

(1) No Cuts. There would be one Registered Nurse (RN) on duty at all times, and two RN's on duty during the day shift, as it is now.

(2) Cut \$20,000. There would be one RN on duty from 8 a.m. to midnight, and a Licensed Practical Nurse on duty from midnight to 8 a.m.

(3) Cut \$20,000. There would be two RN's on duty from 8 a.m. to 6 p.m. (overlapping shifts), and an LPN on duty from 6 p.m. to midnight, and a "caretaker" on duty from midnight to 8 a.m.

There were 87 graduate and 179 undergraduate responses to the poll sheets which were not ripped off by janitors and other toads. 74% of the graduates and 78% of the undergraduates responding were in favor of choice (1), no cuts at all. 24% of the

graduates and 20% of the undergraduates were in favor of the second choice. A statistically insignificant 2% of the graduates and 3% of the undergraduates were in favor of choice (3).

. . . this is very funny."

A Registered Nurse must have at least a twelfth grade education, followed by three years of training in nursing. A Licensed Vocational Nurse (which will be staffing the Health Center at night under current plans) needs only a tenth grade education, followed by one year of nursing training. A Licensed Practical Nurse has six months of training under an RN. A "caretaker" is any random troll, trained in first aid at the most, who would live in the Health Center. This person could presumably perform any first aid which you or a friend could have performed without crossing the street to the Health Center, or call a competent person on the phone, which you could have done faster than walking there.

It would be nice to see more communication between the student body and the Health Center brass. The students are concerned about what might happen to the Health Center, and we would have thought that the people running the Health Center cared about what the students thought.

Held Over from May 9

by Marie Beall

Sorry about that, gang, but the first women in intercollegiate sports at Caltech did not compete against the men. The Women's foil team, part of the Caltech Fencing Team, has been competing against women's teams from other schools since the winter of 1971. At first, the team struggled along against Cal State LA (who has an Olympic-quality fencer) and Cal State Fullerton (perennially the national champs) and other schools

in the league. We continued to fight and improve, however, until this year the Caltech fencer with the best overall record was a woman (yours truly)!

We still have problems: a dearth of members, especially new ones, has made it nearly impossible for us to compete as a team. New members (for next year's season) are both encouraged and welcomed, especially as the entire current team will graduate in 1975!

Boonier

Continued from Page Seven

the least indication to the reader that it was not sent to your paper, I feel you may well have done my reputation damage. I try, in this as all things, to retain my sense of humor, but I do not expect you to laugh this off.

Without my Honor System booklet I am uncertain whether an alumnus counts as a "member of the Caltech community", but if one is, it would not be out of place to send a copy of our correspondence to the ASCIT vice-president. I shall not—now—because I think it likely you were merely thoughtless and stupid, rather than malicious.

But I do think that apology is due. Now.

—Name Withheld by Request

Elections

Continued from Page One

placed on Tuesday's ballot.

The candidate who receives the greatest number of votes in the senior and sophomore races will be declared elected. To be elected junior class vice president, a candidate must receive at least 40% of the vote and more than the number of "no" votes. In the event no candidate is elected junior class v.p., the top two candidates will be voted on next Friday; the top vote-getter in that election will be declared elected.

INCREDIBLE?

The True Story of
the Two Cops Called
Batman and Robin

THE
SUPER
SCOPS

A LAEMLE THEATRE
2670 E. Colorado
HO 4-1774
ST 2-4149

CO-FEATURE
JAMES COBURN
KRIS KRISTOFFERSON-BOB DYLAN

"PAT GARRETT &
BILLY THE KID"

COMING JUNE 5

"WHERE THE LILIES BLOOM"

Special Two Week Engagement

The Committee

Coming June 4: Buffy Sainte-Marie
DOUG WESTON'S

Troubadour

9081 SANTA MONICA BLVD. L.A. 278-6168
COCKTAILS • DINNERS • HOOT MONDAYS • NO AGE LIMIT

Classified Ads

TRAVEL

EUROPE/ORIENT/MIDDLE EAST/NEW YORK Charters, Youth/Group Fares, Compl. travel arrangements. Immediate ticketing. AIS Flights and Travel, 9056 Santa Monica Blvd., L.A., Ca. 90069 (213) 274-8742

CHARTERS YEAR ROUND
No more club fees! 50 Departures, also NYC, Japan & Australia. Youth Fares, too. Since 1959: ITSC, 323 N. Beverly Dr., Beverly Hills, CA 90210, (213) 275-8180.

EUROPE - ISRAEL - AFRICA
Student Flights all year round. CONTACT: ISCA, 11687 San Vicente Blvd. No. 4, Los Angeles, CA 90049. Tel: (213) 826-5669 or (714) 287-3010

WANTED

TRANSLATORS
with scientific training required. All languages and disciplines. Free-lance. Send resume to Box 5456, Santa Barbara, Cal. 93108
Rider wanted to share driving to Tampa, Florida, or point between. Leaving June 15. Extension 1173 or 792-5381.

SERVICES

SCIENTIFIC ILLUSTRATION
for Thesis illustration, dissertations and special projects. Christiana Irving 472-7353 (references available and reasonable rates).

Buying or selling something?
You, too, can take out an ad in The California Tech! \$1.50 per inch plus \$.25 per extra line for Classifieds. Bring ad copy to the Tech office or phone ext. 2154.