

**Dr. Davidson Speaks**

**The New Ath**

By H.N.I.M.

Caltech's current athletic facilities are "so hopelessly inadequate and outmoded that they constitute a serious campus disgrace". These are the words of Professor Eric Davidson, Chairman of the Faculty Committee on Athletics and Physical Education. He is far from alone in his assessment.

Caltech's athletic facilities date from 1955 and very little has been done since then to improve them. However, the use of these facilities has increased to such an extent that there are simply not enough facilities available to those who would like to use them.

This problem is hardly new. In 1968, the Physical Education Committee recognized the need for improved facilities and drew up plans for the expansion of the athletic facilities. The Caltech Board of Trustees approved these plans and allocated the money necessary for the construction of the new facilities. However, Harold Brown, then President of Caltech, simply tabled the entire project.

The matter lay dormant until the mid-1970s, when various Faculty committees began to update requests for the new facilities. The plans have now reached their final form and call for construction of the following:

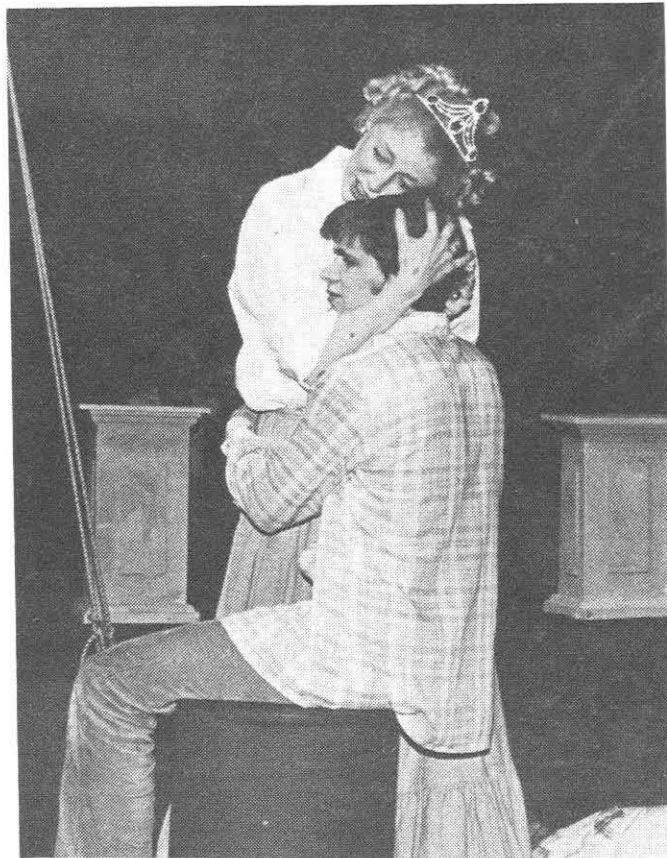
A new deep water pool (75' X 50' X 14');

A new 25,000-square foot building to house a large wood floor, new men's and women's locker rooms, weight training area, office and storage areas;

And a new 6,500-square foot building to house handball and squash courts.

Professor Davidson is hopeful that this time, some action will be taken on these requests. He recently reported to the Faculty Board on the serious need for new facilities, and the Board unanimously approved a resolution calling for the construction of the above-named facilities. More importantly the Board of Trustees and President Goldberger have been made aware of the problem and have indicated their willingness to do something about it.

Professor Davidson realizes that new athletic facilities are still an iffy proposition. He feels that in order for the new facilities to become a reality, the entire Caltech community must recognize that athletics are an important part of Caltech life. In particular, this means that the money for the new facilities, estimated to cost 3.5-5 million dollars, must be raised through a funding drive directed specifically for that purpose. According to Professor Davidson, the new athletic facilities are important enough to Caltech that they



Chris Kingsley is consoled by Jean Gothold after yet another murder in *Candide* which opens today in Ramo Auditorium. Students can get in for a mere four bucks.

Photo by Steve

California Institute of Technology Presents:

**CANDIDE**

By Joe Balke

*Candide*, this year's Caltech Musical, will be performed in Ramo Auditorium this weekend. This amazing extravaganza, directed by Shirley Marneus, is adapted from Voltaire's original work. The show promises to be very entertaining. It involves the adventures of a naive young man who is trying to catch and marry his true love. They go through many sordid adventures including murders, pirate attacks, rapes, general slaughter, earthquakes, whippings, hangings, and drownings. You could say there's a little bit of something to please everyone. For those with more should not be considered as just a part of some larger project.

However, even if action is taken on the project, new facilities are still several years away. For that reason, Professor Davidson and his committee are working on temporary stop-gap measures to at least partially alleviate the most pressing problems. These measures include improving the women's locker room and making the weight training area more safe to use by leveling the area and building a storage shed for the weights. Professor Davidson stresses that such measures are at best limited, temporary solutions and are no way a substitute for new facilities.

Professor Davidson has by no means overstated the problem. It is true that Caltech is an institution geared mainly toward scholastics and research. That is what makes athletics at Caltech so impor-

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refined, less brutal tastes, there are a good assortment of scantily-clad whores and dancers, muscle-men, and innocent little children (maybe not-so-innocent after rehearsing this play for several weeks). This play may sound a bit disgusting to some, but everything is done tastefully. (I'm sure some people will be disappointed to hear that!).

The musical accompaniment is excellent, the vocals are moving, crisp, and expressive, and the acting itself isn't half-bad.

Some of you will probably wonder why I'm writing this article and why I like the play so much. Well, aside from the fact that I'm in the play and want to make it through the show without any attempted murders by the rest of the cast becoming successful reasons for jail terms for them, I'd say it was because I've seen how dramatically the show has changed in the last week of rehearsal. It will be a great show! COME SEE IT!

Tickets are available at Ticketron and the Caltech Office of Public Events. Showtimes: Friday, Feb. 27, 8 pm; Saturday, Feb. 28, 2:30 and 8 pm; Sunday, March 1, 2:30 and 7 pm. General admission \$7, with discounts for Caltech and JPL people.

**ATTENTION! ATTENTION!**

Anyone and everyone who has a copy of the EditWriter 7500 Manual, the operation guide for the Tech's phototypesetter, is asked to return it immediately. There are no exceptions. If you think you ought to have been excepted, you aren't allowed to keep it on those grounds; you have to bring it back anyway. There are about 15 of them out there, and we want 'em back!

**SIF Elections Results**

**80K Invested in New SIF Members**

By Lee Sunderlin

Three more members of the Board of Directors of the Student Investment Fund were chosen Tuesday in a close runoff election. They are Mark Altobelli, Mark Maier, and Bim Wadhwa.

Altobelli won the most votes, 70. Maier and Wadhwa were close behind with 66 and

63, respectively. However, the other three candidates, Chip Meiling, Les Grate, and Mike Doty, lost by only a few votes. The winners will join the six already elected: Wally Walter, Ari Fuad, Les Poltrack, Brad Evans, Arley Anderson, and Joe Garcia, as well as three grad students to be appointed later.

The voter turnout of 212 was only about one quarter of the electorate. Many people didn't even know there was an election. The average voter voted for less than two candidates out of a possible three, which suggests that familiarity with those running was low. At the end of the voting season, publicity and effort seems to have died.

The SIF, though, has over 80,000 dollars to be controlled by those elected, as well as several thousand dollars which can be given away as the Board sees fit. This makes it important enough to deserve a reasonable turnout at an election. Lack of awareness seems to be the major reason for the voter apathy.

The student investment fund currently owns about 30,000 dollars in stocks, 8,000 in treasury bills, and 42,000 in ready assets, such as short term bonds. Most of that money is fairly safe, but the stocks have fluctuated recently. Of the ten companies they own shares of, nine are down in the last few weeks. Fortunately, eight of them are still up from the purchase price.

The Directors of the SIF, even though they are out of the mainstream of student power at Caltech, are important enough to be voted on seriously. Furthermore, the entrance to the local racetrack should be guarded at all times, as well as all international airline terminals. Then we can sleep soundly, knowing that our money is in good hands.

**TBPI**

By John Hershberger

In mid-January, thirty-one outstanding juniors and seniors were inducted into Caltech's chapter of Tau Beta Pi, the national engineering and science honor society. The new members joined students, alumni, and faculty members for the traditional ceremony of introduction and welcome to the organization, followed by an informal banquet later in the evening.

Tau Beta Pi is not just a national honor society; it is concerned with improving student life at Caltech. In the past, before the TQFR achieved its present level of quality, Tau Beta Pi's annual survey of engineering courses provided valuable feedback for students and faculty.

On Thursday, March 5, all Tau Beta Pi members, both old and new, will meet to discuss service projects for the current year. The meeting will be held at 7:30 pm in Winnett Clubroom 2. Since new officers will be elected at the meeting, junior members interested in becoming officers should talk to old members or current officers for an idea of the responsibilities and G&C involved. Faculty and graduate members are invited to attend the meeting. Refreshments will be served.

Baxart

**SITED**

By Lisa Grenier

"SITE: Buildings and Spaces", a fusion of art and architecture, is currently being exhibited at Baxter Art Gallery. SITE is a New York based architectural and design firm which has generated controversy by seeking out unwritten laws of architecture and

then breaking them in a dramatic fashion. This firm has chosen to present its work with the same innovative spirit that it uses to design buildings; illuminated transparencies of SITE's projects are viewed

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**GRAD STUDENTS**

Increase your social horizons. Become more involved in the Caltech community. Two Resident Associate positions are open for the academic year 1981-82. Good pay. Greater benefits. Come to the Master's office in Lloyd House on the Olive Walk for more information or call extensions 6194-6195.



# EPISTLES

## INT(RAND(O))

To the Editors:

Sometimes I wonder what back issues of the *Tech* are used for. It's plain to see that the editors don't read them. If they did would they ask the only person on the face of the earth

who owns a pink typewriter ribbon to come out of retirement? While I am aware that there is an entire crop of Freshmen that has not ever seen Random Numbers, who is

to say that this is not for the best. Besides, I think that I have become bored, tired, complacent, and coherent in my old age. I have also found a better typewriter. These are hardly the attributes that one needs to write Random Numbers and develop great articles around such seemingly useless facts as my not being able to type with my nose. All this is very well and good but it will take some thought before I resurrect Random Numbers. Like rerunning Sha-na-na, it is a decision that must be made with some care.

-Duncan G. Mahoney

# Y Thank You

The Caltech Y would like to take this opportunity to express our gratitude to the undergraduate and graduate students for their magnanimous response to the annual student fund drive. This year's total was \$4066.77, the second largest figure we've ever raised, and very significant relative to our total program budget of \$25,000.

Special thanks go to the members of Page House. The Dudes brought in a record house total of \$1387.50, and

needless to say were largely responsible for making this year's drive one of the best ever.

So, once again, thanks to those who gave. To those who didn't—it's never too late. And to all of you, remember to bring in program ideas. Help us spend the money you've invested in us. Give us a ring at x6163 or come on up to second floor of Winnett and discuss your ideas.

-Michael Meyer  
Caltech Y Treasurer

# CALCOMP

## THE COMPUTER GRAPHICS PEOPLE Will Hold On Campus Interviews March 6

California Computer Products, Inc. is the world leader in the development and production of digital graphics systems. Our plotting hardware and computer graphics software are the accepted defacto industry standards worldwide. With a high level of development work in both our plotter graphics and interactive graphics system areas we have needs for several electronic engineers and programmers to contribute to our future growth.

### Computer Graphics Systems Engineers

Participate in the development and support of CalComp's plotter and interactive graphics systems. Working with Senior Engineers, will be involved in the development of microprocessor-based, hardware-enhanced systems. Activities will include logic design, firmware development, specification of diagnostic methods, prototype testing, product release to manufacturing, and support.

A BS/MSEE with emphasis in digital electronics is required with minicomputer/microprocessor/microprogramming experience desirable. Experience with areas such as video graphics, bit-slice processor architecture, and electrostatic graphics would be of interest.

### Interactive Graphics Applications Programmers

Will design, code, test, and implement various interactive graphics programs to accomplish industry-specific applications needs such as architectural, structural steel, piping, mapping, engineering drafting, CAD/CAM and other architectural/engineering consultant activities. Will work in such areas as raster graphics, utility mapping, man-machine interfacing, and development of sophisticated interactive graphics packages for 2D drafting. Will also be involved with minicomputer programming on interactive graphics systems.

BS/MS in Computer Science with a good working knowledge of FORTRAN required. Experience in some of the above computer graphics areas would be helpful. Exposure to various minicomputer systems would be desirable.

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## Gameroom Chairman Responds

# Save the Gameroom

To the Editors:

Last week the *Tech* ran an article on the desire of the Student Shop to expand into the gameroom. There is a comment sheet on Theresa Meisling's office door for the purpose of seeing people's feelings about the gameroom. The only comments I have seen so far are of the nature of "Flush it," or "Scrap it." Although I am a senior, and don't particularly care what happens to the gameroom, I think something should be said in its defense. Also, I do not feel

that the burden of responsibility for finding a solution to the Student Shop-Gameroom conflict should reside with those who use the gameroom regularly. Any proposed changes should be put to a vote of the student body since the gameroom belongs to all ASCIT members.

I know that quite a few people do use the gameroom on a regular basis, and I think that more people would use it if they knew about it. Although supplies are not copious, they are adequate. There are two pool tables and a billiard table, with balls and 5

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## The California Tech

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# Humanities Division Ill-Defined?

To the Editors:

In my opinion the notion that only those courses that require a "substantial" amount of writing can be defined as humanities courses is wrong. It is wrong for many reasons.

In the first place it is wrong because historically neither at Caltech nor elsewhere has the writing of essays been a required part of all humanities courses. Innumerable history courses in all sorts of prestigious institutions do not have students writing essays except, perhaps, in exams and even many English courses do not have students writing essays. At Caltech, before the advent of the Social Science differentiation, we had many courses in the Humanities Division

that did not insist on writing—and they weren't just the economics courses. Our history courses were taught with or without essay writing as the instructor preferred until the deal was struck which made it possible for Freshmen to avoid taking Freshman English. Then we agreed that those Freshmen who took history (or Poly Sci. or Philosophy, etc.) should do a lot of writing. But to insist now that only those courses that feature writing are humanities courses is to introduce a limitation that is both arbitrary and absurd.

I think the notion is wrong, in the second place, because the writing requirement reduces

the amount of time and energy students should devote to the acquisition of knowledge. I have noted this in the Freshman sections. Especially since the introduction of Pass/Fail grading students concentrate on the 4000 mandated words of writing and skimp on the type of studying that prepares them for examina-

tions. They may practice writing but they learn less history in our 9 unit courses than they used to in our old 5 unit courses.

A third reason for not making written work a requirement in all humanities courses arises out of the fact that this would erase all significant difference between the Freshman courses

and the "advanced" courses as taught here. Since our introductory courses are not prerequisites for the upper division courses the latter, generally, are just as elementary as the former and the chief distinction tends to be a bit more specialization.

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## THE CALTECHY ..... fly-by

Today, Friday the 27th is NOON CONCERT time! Featuring the Elusive Trails with Rock Howard, emanating a rock-and-roll aura. Don't miss this one; on the quad or in Winnett Lounge in case of rain. P. Pat says "Be there with your lunch!"

Tuesday, March 3, Career Counseling Seminar, discussing "Careers in Physics." William J. Karzas BS '49Ph, PhD '55Ph, Head, Physics Dept. R & D Associates, and Erik Sirri, BS '79Ay, Scientist, Nichols Research Corp. At 7:30pm in The Y Lounge.

Tuesday, March 3, The Photo Workshop continues with "Contrast and Balance." At 4:15pm in Clubroom I of Winnett.

Wednesday, March 4 brings another UPDATE Noon Discussion. Professor Gui-Ru Li, M.S., and Professor Fong-Liang Jiang, M.S., Visiting Associate in Physics, from the Institute of Geology, State Seismological Bureau (Beijing) will speak on "Earthquake Prediction in China." Bring your lunch to Winnett Clubroom I.

Wednesday, March 4, also comes with an EVENING SPOTLIGHT with David Morrisroe, Vice President for Business and Finance and Treasurer of Caltech, who will speak on "Investment and Finance," at 8:00pm in Winnett Lounge.

Friday, March 6 starts off another rock-and-roll weekend with a NOON CONCERT featuring THE VIEW. Same place the noon concerts always are.

# Is There Life After Graduate School?

**Myth:** An advanced technical degree will get you a job in industry that will keep you on the production line for years before you'll get a chance to do some real research.

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## On-Campus Interviews Monday & Tuesday March 9-10

If you're about to receive a Master's or PhD in a technical field, contact your Career Planning and Placement Center for an appointment with a representative from Fairchild's R&D Labs. For more information on Fairchild in Palo Alto, call J.A. Blades at (415) 493-3100. Or you may send your resume directly to **University Relations, Fairchild Central Research & Development Laboratories, 4001 Miranda Avenue, Palo Alto, California 94304.**

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# Up From the Well

It was a cold and windy night. Somewhere ahead in the gloom was the man I had now been tracking for eight days...and he was going to die. The certainty of his death was a tangible thing, a needlespoke of ice already impaled in his heart, much like an insect pinned to its specimen card. This specimen had eluded me until now, but the chase would end here. I knew.

It had been eight days of kaleidoscopic sequences, the only commonality being that, at the beginning and end of each, the quarry was running. The seemingly endless pursuit wound its twisty path through countless cities, endless 'portation disks, innumerable aborted confrontations, as my target each time did the thoroughly insake; yet, each irrational countermove of his served only to prolong his agony. I had tired of him thoroughly, forced him to use all of his resources; now he was up against a monetary wall, his back to the Pacific without even a credit for a ten klick jump. I pictured my target slumming with the miserable street-wanderers, trying to panhandle enough cash to make a jump to Hawaii; that was the only place left that

might assure him safety. Before that, though, I would laserburn him to a smoking caricature of his former self. —No you won't you only get to kill him in the prescribed manner, whispered a voice.

—Why was I doing this? a thought trickled into my brain. —Because this person should be, will be, myself! Being one of only two remaining clones from a long-dead figure, from the time I could act independently I was obsessed with the goal: become the only surviving clone.

My opponent was me. We were identical in all ways save one: I was the hunter, he the hunted. This was not due to fate, but skill: I had managed to embed a locator beacon in his flesh; it would take time to have it removed surgically, time which he had never had, time which I had denied him. The locator screamed out its message; here I am, come and kill. It was good for up to eight hundred miles but lousy for fine work. Damn...

Faced with the situation of being unable to 'port, my quarry (me?) had again done the irrational; rather than attempt to escape via public transportation he was proceeding on foot, something

verging on madness. No one walks anymore...even I had only walked about ten miles in my entire "life". I could pinpoint him to within four city blocks, but finding him then was a combination of luck and skill.

I was closing in on him now...

*weird...never hallucinated before...damn it i'm not even stoned let alone tripped so why the hell am i experiencing the...oh. You're in that experiment, son. Remember? You signed up as a volunteer for an APh/Psych experiment. Ha ha ha. Who ever heard of an applied physics/psychology experiment? You must have dreamt that up too. They're playing with your head, son. Got little electrodes listening in*

*on ol' brain. Got a nice, comfortable box for you to lay in, all dark and quiet and blood-warm and peaceful. Got a tape machine outside playing things you couldn't normally hear, except it's so quiet that your ears will hear two gnats collide at a hundred miles. Got little lamps outside the box, attenuated by a factor of a trillion, still visible inside because it's so dark. Got a nice man on the Outside, every two hours he presses a switch and a peanut flash goes off inside, in here. Hurts eyes. Makes me hallucinate, sudden overload neurons frazzled to crisp shock wave tumbling into cortex scrambled images get a hold of yourself, son. Brace up. You know it's just a light, it's going to flash once. You can handle that easily enough.*

*Just shut out the sensory inputs altogether. Can't close eyes, though, clamps got 'em pinned saucer-wide open. Ouch. Hear comes the next flash---hang on son. Oh no, filament getting warm, getting red yellow blue blinding soundless tsunami of light piercing through my mind...can't close eyes too late too late im starting again again...*

...closing on him now though it grew progressively harder to narrow the gap between us. Before, his motions were totally random, designed only to lose me; now there was an overriding pattern which I couldn't interpret yet guiding his motions. We were getting closer to—

(to be continued)

—the realist

## Tech Guru Commentary

# Ant Farm

When I was much younger, I used to enjoy spending afternoons playing in ant hills. Some of my most fulfilling moments have been spent watching an innocent insect being devoured by a swarm of angry ants simply because I dropped it into the middle of one of the ants' formic projects. Even more thrilling was to throw a

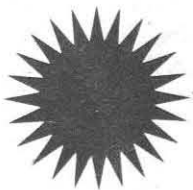
handful of yellow ants into a pile of red ants and to observe the offended reds madly carting the hapless minority (with the six-legged equivalent of the full-nelson) into the hidden grottoes of their home. In coming to Caltech, I was delighted to find no paucity of ant hills among the student houses.

This time of year is particularly glorious because, for some unknown reason (it might have something to do the rainy season), the ants are much more tense than usual. In fact, every evening one can see them beating their little antennae against their tiny ant tables. Just the other day I saw the red

ants all putting a big stick in front of their main opening, when a group of yellow ants began hurling larvae at them. Naturally the red ants swarmed, but they converged on a purple ant and tore one of its legs off.

Flailing its remaining appendages, this purple ant crossed antennae with the drones of the major ant hills. Much formic acid was exchanged, but the red ants continued to work on their big stick, and the other ants returned to their hills. Who knows what the ants will do next, but maybe someone will come stomp on the whole pile.

—Stuart Goodnick



# TRY ADVENTURE

Some graduates like routine assignments. Others prefer technological adventuring at, or beyond, the limits of the current state-of-the-art.

We would like to talk to the Adventurers.

Here's why. Our basic and applied research is in areas such as: high-energy laser optics, infrared electro-optical systems, fiber optics, lasers; materials processing; solid state electronics; energy conversion; materials technology; gas turbine technology, fluid dynamics, emissions, combustion, noise, controls; V/STOL technology; manufacturing technology; ramjet and rocket technology; industrial and military systems analysis; computer sciences; scientific and commercial programming; instrument research, design and development; wind tunnels.

Over the past five years, United Technologies spent \$1.8 billion on research and development; during the next five years, there are plans to spend another \$2.5 billion or more.

Think about it!

To learn more, write Mr. F. M. Marcin at the United Technologies Research Center, East Hartford, Connecticut 06108.

ON CAMPUS INTERVIEWS: March 3 at Placement Center



An Equal Opportunity Employer

Late one night while graphing data points for physics lab or trolling through your quantum mechanics, have you ever looked up from your desk and said, "Gee this is great, but what happens when I graduate. I don't think Exxon hires too many theoretical physicists." Well the Y and the Gnome Club may have the answer to your anxieties. On Tuesday, March 3rd, the subject of the biweekly career

counseling seminar will be "Careers in Physics."

As usual, the format of the seminars will be an informal discussion with two Caltech Alums now in the industrial world. The guests for this discussion will be William J. Karzan Ph.D., B.S. '49, Ph.D. '55, who is head of the Physics Department of R&D Associates; and Erik Serri, B.S. '79, who is a scientist with Nicholi Research Corp.

So if you're interested in alternatives to professional studenthood, come to the Y Lounge at 7:30 pm on March 3rd and review your options.

Mark Maier

All-you-can-eat dinner for 5.95!

Colonel Lee's Mongolian Bar-B-Q

You can make your selection from four kinds of meat and fish, nine fresh vegetables, and ten different Bar-B-Q sauces. The sliced meat and fresh vegetables are cooked on our special Mongolian grill in just one minute, right in front of your eyes. Come and try it once. Our luncheon menu ranges from \$2.50 to \$3.95, and dinner is \$5.95 for all you can eat.

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TONIGHT: Starring THE WHO

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NEXT WEEK The Freshman...



# Body shop

HF solutions (hydrofluoric acid) in contact with the skin produce marked tissue destruction; fluoride ions readily penetrate intact skin and deeper tissues, causing necrosis (tissue death), and will attack bone. Untreated, this process may go on for days, unlike other acids which the body rapidly neutralizes. Because penetration is insidious, onset of symptoms may be delayed up to 24 hours.

the concentration of HF to which one is exposed. When skin is contacted by solutions of 20% or less, there will be pain and redness, with a latent period of up to 24 hours. Solutions of 20-50% cause the same symptoms in one to eight hours, and concentrations above 50% cause immediate pain and tissue destruction is rapid.

### Treatment of an HF Burn

Upon exposure, or possible exposure, of the skin to HF, immediately wash the affected

area in water—rapidly flowing tap water is fine, but any water will do. Remove any contaminated clothing while rinsing. Notify, or ask someone to notify, the laboratory TA. As soon as is practical, the exposed part should be immersed to an iced solution of zephiran chloride and the student taken to the Health Center.

If exposure is to the eye, wash thoroughly and bring the student to the Health Center at once. If the Health Center is closed, the student should be taken to the Emergency Room at Huntington Memorial Hospital. Someone should call the Emergency Room while the student is en route, so the hospital personnel know what to expect.

It is important for the

physician to know what concentration of HF was contacted, especially whether it was over or under 20%, because the ongoing treatment differs. If under 20% HF was the offending agent, only a few hours of soaking in aqueous zephiran will probably suffice. If over 20%, local injection of calcium gluconate solution is indicated.

In nearly all cases, particularly those involving hands, the student will be referred to one of the hand specialists in this area for further observation and whatever treatment (beyond the early emergency measures) is indicated. Other consultants are readily available and will be called in as needed.

Note that the above applies

to HF solutions. Exposure to hydrogen fluoride gas is a different, far more serious, matter because of the danger of pulmonary edema, which can be fatal. If exposure to HF gas occurs, do not attempt any emergency measures, simply take the victim at once to Huntington Hospital Emergency Room where the proper facilities are available.

Of course, the best treatment is prevention. For specific safety instructions, consult your APH 9 lab TA and his recommendations.

—Judson James, M.D.  
Health Center 1-8

### Venice Trio

This Dabney Lounge Chamber Music Concert will feature pianist Kathryn Ando, cellist Frederick Seykora and violinist Haim Shtrum. The program will include Beethoven's 10 Variations on the song "Ich bin der Schneider Kakadu," Op 121a; Trio in C Minor, Op. 1, No.3; and Ravel's Trio in A Minor. Admission: free. Performance Date: Sunday, March 8, at 8PM in Dabney Lounge.

For information, phone 356-4652.

### Use It or Lose It!

Any organization that was budgeted money from ASCIT for fiscal year 1980-81 must pick it up by Feb. 28 or it will be gone. This gives you only one day! Contact Dan Pernich, 231 Lloyd, or phone 796-1698.

# Humanities

### FROM THREE

Finally, I think the notion is tactically wrong. We should not try to sell humanities to the Institute on the grounds that we teach writing—or give the students practice in writing. (We would do better nowadays to claim that we teach oral and audio visual presentation skills—it is equally a "service" function.) Our task in the humanities is to acquaint students with the *great patterned diversity of human behavior* and the cultural products which are our inheritance. Practice in writing is an additional goodie but it should not be allowed to subtract too much from our main function. The fact that every year we excuse many Freshmen from the Freshman classes because they have given evidence that they know how to write would seem to indicate that we shouldn't require those students to write in the upper division courses too. There would now be no escape—no reward for demonstrated ability. I can hear the (justified) howl now.

There remains the basic question, the problem caused by the perceived necessity of distinguishing between *Social Science* and *Humanities* so that students can be required to distribute their time somewhat equitably (and, one hopes, usefully) between the two. Under the pressure of this territorial imperative we are driven or tempted to make artificial, arbitrary and absurd distinctions—and I classify the writing requirement under all three. The fact is that the so-called social sciences and the so-called humanities interpenetrate and both deal with various aspects of the same people problems. Methods differ considerably. The social sciences tend to be more quantitative, the humanities more literary; the social sciences tend to be more objective, the humanities may be more in the areas of effective cognitions. But none of these differentiations apply consistently—to all the social sciences or to all the humanities (and remember that *mathematics* is also one of the humanities).

If we absolutely have to distinguish between the two "halves" of our division we had better leave it with the *ad hoc* arrangement we now have—without trying to define

the difference in so many words, doing violence in the process to reality. And while instruction and practice in writing should be under the general aegis of humanities not all humanities courses should be required to teach writing. Indeed, if we provide a trapdoor "below" for those who need improved skills in writing, and provide special courses for them, there is no need to make writing such a big part of e.g., Freshman History (or Freshman Political Science, Philosophy, etc.) and we can make those courses less of a "fraud". That also takes the pressure off for releasing the

"good" students. We may want to, or individual instructors may want to, use essay work as part of the teaching/learning process. We may wish to retain a requirement that all Freshman humanities shall emphasize writing—for everyone. But don't extend that requirement to *all* humanities courses and define humanities by that requirement. You don't make an "honest woman" out of a whore by making all women whores—and you don't rescue the "Freshman Humanities" courses by imposing the same disabilities on all humanities courses.

—Heinz Ellersieck

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# TANDEM



# sports

## Volleyball Gets Off to a Dismal Start

By Spike Jones

Caltech has had a women's volleyball team for two seasons now. Last Sunday night the men's volleyball club began competing against other schools, losing a close match to Claremont-Harvey Mudd, 9-15, 15-8, 10-15, 16-14, 15-8. Composed primarily of grad students, the team was organized at the beginning of the year by Chad Edwards, and played in several United States Volleyball Association "friend-

ship" tournaments first term. Practices were held twice a week in the gym, until gym space became unavailable second term.

Against Claremont, Caltech jumped out to a quick 8-0 lead on Edwards' serving, and held on to win the first game easily. The next two games were split as both teams had streaks of bad passing off the serves. In the fourth game, Tech had match point at

14-19, but couldn't put away the final point, as Claremont rallied to win that game and the deciding fifth game. Still, it was not a bad start for a team with no coach, no uniforms, no practice time, and not too many players. The setters for Caltech against Claremont were Edwards and Lance Dixon; Bob Kanne and Mike Ullner provided excellent middle blocking; and Prakash Kasiraj, John Tanner, Byron Sin and Joe White alternated at the remaining outside hitting and back row slots. (Conspicuously absent were middle blocker Greg Blaisdell and setter Jim Rowson.)

A rematch at Claremont is scheduled for April 4. It is hoped that matches against other SCIAC schools will be scheduled soon. Caltech has already had close games with Pomona College during past 'friendship' tournaments, and showed again Sunday night that it can compete with SCIAC teams in volleyball.

## Tennis Team Wins

By J. L.

The Caltech tennis team won its first match this year, defeating La Verne 5-4 in a hotly contested match.

The big match was second doubles, won by Terry Thomason and Ray Gralak in three sets. Chris Lutz won in both singles and doubles with Gary Glassmoyer. Other Caltech winners were Rod Morison and Harry

Mousmoules. Coach Lamb hopes that injured players Pete Rodriguez and Ned Wingreen will be able to compete against Whittier on Tuesday, March 3 at 3:00 on the Caltech courts. As Pete and Ned play first and third singles and first doubles, they just might add the strength to upset Whittier.

## Christopher Robbin

By C.R.G.

You are a judge on the Supreme Court. Here is the case:

A biological team from Johns-Hopkins along with a biochemical team from Monsanto Corp. have created a new form of life. The process involved changing the D.N.A. structure of an existing organism. The technique involved a radically new process. They wish to patent both the technique and the final product. The case has gone through the regular court system and is now in front of the U.S. Supreme Court. Four of the Justices have said yes patent both, four have said no, don't patent either. You now have to make the decision. If you say one, it's one. If you want both, it's both. Think of the political, religious, and moral implications.

Patent law is a very confusing branch of our legal system. In the area of patenting living organisms, no precedent has been set (forget about the G.E. ruling of last year).

Well, it's up to you. What are you going to do?

Give it a little thought.

Listed below are the consequences of a few choices.

a) Say "no" to both. This is, in effect giving all other companies permission to take the Hopkins-Monsanto invention and use it as they will, along with practically destroying any hopes of other research projects being funded by major corporations. The companies won't back something if they're not going to get a return. You're not

making much money when everyone else is selling your invention. Saying no would curb the incentive of research projects and take away the upper hand given the pioneering companies.

b) Say "yes" you can patent the process but not the final product. This allows you to get the best of both worlds but it's a dangerous decision. By the "best of both worlds" I mean that you are allowing companies to continue research projects with the intension of patenting their discoveries. You also have most of the "Moral Majority" and religious groups satisfied because you have not given a patent on a living being. This easy out has a fault. Since you're just allowing the patent for the technique, what happens if another company develops a different technique for creating the same form. Can they get a patent? If so, then what's the use of giving the original. If not, why not? You can't say "because some one else has already done it" because they haven't. This is a new technique. You already said the process is patentable. So this is just a new process. Saying yes and no would relieve the moral ramifications of a "yes you can patent life" verdict but cause confusion when other companies filed for similar patents.

c) Say "no" you can't patent the process but you can patent the product. This is a poor verdict in that very little comes out of it. Other companies can now slightly alter the technique and patent their "discoveries". The original research company

CONTINUED ON PAGE 8



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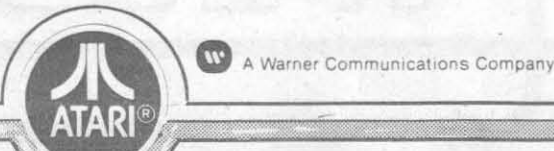
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### On Campus Interviews

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Baxart

# SITED

FROM ONE

through windows in authentic construction fences. Even the graffiti on the fence is authentic; credit is given to The Dirty Ones, a Brooklyn gang.

One building features a corner which daily breaks away from the building on a motorized track to form the main entrance of the store. Another store seems to be in an indeterminate stage between construction and destruction. The front wall extends beyond the logical level and ends with parts of the wall at different heights. A pile of bricks was added to create the illusion of the wall tumbling onto the pedestrian canopy. Other projects include a "ghost parking lot" where twenty cars are

buried in asphalt, a waterfall with tropical scenery enclosed in a store, and a store where the wall appears to be peeling away from the building.

The exhibit runs through March 22 and can be viewed from noon until 5:00 pm, seven days a week. Architectural critic John Pastier will speak on SITE's work Tuesday, March 10 at 8:00 pm in Baxter Lecture Hall.

Dear G. 21,

Officially opening diplomatic relations; there is a scent of cherry blossom in the air; it pervades ev'ry nook and cranny of the land, not overpowering, but steady, like background noise. It exerts a gentle pressure as inexorable as falling snow. Til we meet again.

-r<sup>3</sup>

# Game-room

FROM TWO

or 6 pool cues. There are two ping pong tables, with nets, paddles, and balls provided. The foosball tables aren't really functional, but there is a chance that we will get a new one soon. There are also a few pinball machines down there, which do not belong to the gameroom.

I think that all Caltech

students should have the opportunity to use gameroom facilities if they want to. Not everyone has access to this equipment in a student house. The gameroom was even used for a Discobolus match in ping pong this term, because it was the best place available.

I do not think that dismantling the gameroom and giving the equipment to the student houses is a good idea. It limits the access to the equipment, so that many Caltech students will no longer be able to use it. Also, there is a space problem in many of the houses, and they would have no place to put the equipment.

There is merit in the Student Shop's desire to expand, and the only reasonable place to expand into is the current Gameroom. Since I think that we should continue to have a gameroom, two possibilities

suggest themselves: the student shop could expand into part of the present gameroom, putting up a temporary wall in between, or the gameroom could be moved to the basement of the old houses, or another location. I think that any expenses involved in relocating the gameroom should be borne by the student shop. It is also possible that someone else would pay for renovation of the old houses' basement to where it would be usable.

If anyone has any questions or comments about this issue, please feel free to talk to Theresa Meisling or Eric Korevaar.

-Eric Korevaar  
Gameroom Chairman

P.S. You can still sign up to be next year's Gameroom Chairman on Theresa Meisling's door (105 Winnett).

# Prof Elected Fellow

(CNB)—Dr. Paul C. Jennings, professor of civil engineering and applied mechanics here at Caltech, has been elected a Fellow of the American Association for the Advancement of Science. Founded in 1848, the AAAS is the world's leading scientific society, with a membership of over 130,000.

Dr. Jennings was cited "For fundamental developments in earthquake engineering and their applications to tall buildings, power plants and off-shore structures."

Dr. Jennings came to Caltech after obtaining his B.S. from Colorado State University. After earning his M.S. and Ph.D. here, he went on to become a Research Fellow and then a faculty member in 1966. A member of the National Academy of Engineering, he has served on numerous advisory panels concerning the effects of large earthquakes on structures, including panels of the National Academy of Sciences, the U.S. Geological Survey, and the State of California. His awards include the Walter Huber Research Prize of the American Society of Civil Engineers.

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# stuff that didn't fit anywhere else

### Duos and More Duos

Caltech is loaded with good musicians, especially pianists. On Friday evening, March 6 at 8 o'clock, seven pianists from Elma Schonbach's Ensemble class will preform music for four hands at Dabney Lounge. Sandra Loh, Carolyn Venger, Michael Meyer, Kent Daniel, Michael Kong, Kimo Yap, and Xian-Li Yeh will present music by Beethoven, Schubert, Mozart, Loh, Schumann, Satie and Khachaturian. The public is invited to the concert and reception.

### Oops!

Contrary to the course announcement, Lit 125a (*Romanticism*) will be offered in the spring quarter of 1981 by Professor Ende. There will be an organizational meeting on Wednesday, April 1 at 7:30 pm.

### Tau Beta Pi Meets

The Tau Beta Pi meeting for elections and discussion of projects will be Thursday, March 5 at 7:30 pm in Winnett Clubroom 2.

### Quack Wants You! (Still)

We still need people who are willing to help publish the TQFR. It takes a little time, but its time well spent (women just love men of *power* like the EPC). The more people who are involved, the better we can determine how to meet the needs of the students. So if you're even interested, *please* sign up in Theresa's office or get in touch with me (I live in Fleming).

### Free Music!

Tuesday, March 3, at 8:00 in Dabney Hall, Michael Walsh will be giving a concert of original music. The program consists of several chamber ensembles of a neo-classical nature (no, this ain't New Wave). It's free. Be there.

### GSU Meets

There will be a weekly meeting of the Gay Students Union tonight (February 27) at 9:30 pm in Room 218 Baxter.

### In Search Of The Lost Course

H 161: History and Anthropology: Comparative Studies in Europe and Asia (Dirks and Hoffman)

This seminar will focus on topics currently of interest to anthropologists and social historians: violence and revolts, rituals and statebuilding, politics and social structure, individualism and the decline of the traditional. Examples will be drawn from Asia and modern and early modern Europe; the emphasis will be upon the problems involved in the transformation of traditional societies. Meetings will be Mondays, 2-5 pm.

### Opportunity Knocks

David Morrisoe, Caltech's Vice President for Business and Finance and Treasurer, will discuss topics on investment and finance this Wednesday, March 4. The presentation will introduce various opportunities currently available to investors and how to evaluate them. Anyone in the Caltech community is welcome to attend this Y program in Winnett Lounge at 7:30 p.m.

### Free Money!

The Bank of America as Trustee under the Jake Gimbel Scholarship Fund has funds available for \$1000 *interest-free*, ten-year loans to male student applicants. Applications will be considered from two categories of students: 1) male students currently in their senior year at Caltech and who are planning on pursuing a Master's or a Doctor's degree either at Caltech or at any other university or college in the State of California, 2) current graduate students in pursuit of a Master's or a Doctor's degree either from Caltech or from some other university or college in California. Applications are also restricted to U.S. citizens or permanent residents.

Please come by the Office of Financial Aid (208 Dabney) for applications and further information on the Jake Gimbel Scholarship Fund. The Office of Financial Aid will recommend each candidate for a scholarship loan upon review of all completed application materials. The deadline for returning all completed applications and letters of recommendation for this program to the Financial Aid Office is Friday, May 1, 1981.

### Hughes' Fellowship Programs

Mr. Richard Remy, Manager of Hughes' Fellowship and Rotation Programs, will be on campus Tuesday, March 10, 1981 to give an introduction about these programs. All interested students are welcome to attend. The session is scheduled from 4-5 pm in 153 Noyes.

For further information, please consult the Placement Office, Room 8, Dabney Hall.

# CRG

**FROM SIX** would get little out of the time and money spent. It would result in **many same-type products available**, many groups upset at "life being patented" and the research companies coming out on the short end.

d) Say "yes" to both. This would insure that the researching group(s) would be entitled to full patent rights. If there is a demand for the product, the company will make a profit. Economically, it looks fair but now you have to deal with the moral questions. Can you patent life? And by *life* does that include altering existing life forms (which is being done) or creating new ones from scratch (not yet?).

Should altering and creating be in the same category. If the scenario had been with a *life* form being created instead of altered, would your answers have changed? Should they change?

P.S. This article sparked a three hour debate. Even longer than the Polish Invasion article of last week.

# Ath

**FROM ONE** tant. Athletic activities provide the sort of relaxation and release that makes it possible to cope with the intensity of the Caltech experience. It is long past time for the Caltech community to get behind the effort to build the new facilities and see that they get built. To fail to do so would be, in Professor Davidson's words, "simply irresponsible".

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Xicor is a 2½-year-old manufacturer of non-volatile memory ICs. Its non-volatile RAM was named "Product of the Year" by *Electronic Products* magazine for its major technical advances.

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Further information is available at the Placement Office.

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