The CALIFORNIA Tech

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Number 4

The One and Only

Jim Mayer

by Rock Howard

It was a distinct pleasure to sit up in Dr. Mayer's spacious and decorous office once again. This room with its various "objets d'art" and low-slung chairs is a veritable oasis amidst the hustle and bustle and occasional trauma that is the CIT

undergraduate community.
Only Dr. Mayer himself seemed out of place. Constantly changing chairs or nervously pacing about, playing with his empty pipe, striding in and out of the room as he spoke; someone who didn't know him might deduce that his job had turned him into a nervous wreck. Those who do know him, however, know that these typical Jolly Jim antics are due to a hair-trigger mind which is always racing ahead of him at tremendous speeds leaving his body and vocal chords to fend for themselves. Here is my conversation with this engaging personality.

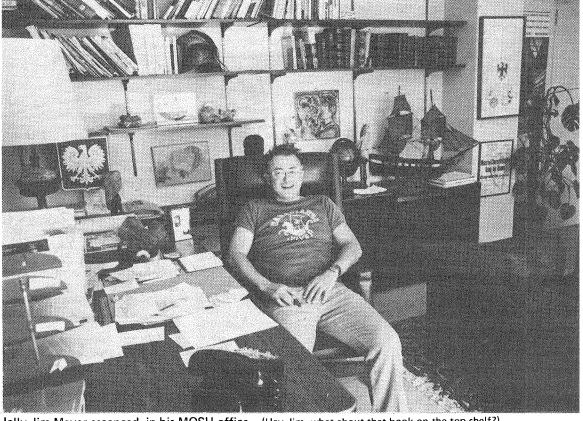
Rock: After three full years as Master of Student Houses what do you now feel are the important aspects of your job?

Mayer: My major concern is the quality of life of the undergraduate students. This can range from problems with the food service to conflicts between students and houses or houses and houses or difficulties caused by academic problems. Because of the environment at Caltech you can't separate emotional and social problems from academic problems. In addition I act as an ombudsman who can refer students with problems to people who can assist them.

R: What aspects of undergraduate life at Caltech surprised you when you took over as Master?

M: Many things. I thought the interaction between faculty and students would be much closer. Unfortunately this is not true except in rare cases. I suppose that the situation decayed in the sixties and no one has made any effort to reestablish ties.

Another surprise was the high



Jolly Jim Mayer esconced in his MOSH office. (Hey Jim, what about that book on the top shelf?) Photo by Yin Shih

conservative than you anarchists.

R: Don't be too sure. M: This trend, by the way, is not restricted to Caltech.

R: How's your relationship

with Food Service? M: Good because we're both

interested in the best food for the money for the students. Unfortunately, constructive feedback from the students is lacking. You know, for a lot of these students it's the first time they've lived without mother's cooking and their first shot at institutional food.

R: I see. How do you feel the Off-Campus Alleys and Apartments are working out?

M: Good in that the space is being used to help against the housing shortage. Bad in that the people tend to drift away from the houses although the students

seem happy enough.

R: How about the Rehabilitation program?

M: That started with Ricketts as we funded them for painting alleys with student labor. Ralph Kavanaugh, David Morrisroe, and Jim Mingus got the money allocated to rehabilitate the student houses. We're only one-third finished. There's a lot of work left to do in the new houses and the upperclass rooms in the old houses as well as some kitchens to redo.

R: Do you have any projects for this year?

M: Yes, one big program is the house tutoring and peer-counseling. You know students can often help other students more than professors or psychologists. In addition the tutors benefit because I've found out that one way to really learn something is to teach it to

Also I'm working on a replacement for ballroom dancing. I've been meeting with poeple from the Academy of Dramatic Arts about working up some sort of joint program. I don't know yet if it will work.

Caltech teaches you science, but doesn't really teach you about human interaction. I'm not sure what to do about it. I'll tell you, though, Carmela (Kempton) and Susan (Pramov) help me tremendously here in the office and we do a lot of work for you guys. Also we make great sympathetic ears if you have any problems.

see JIM: Page 3, Col. 3

questions in class. R: Have you noticed any changes in the new students in the last few years? M: Definitely. They are more concerned about grades and rightly so I think. They are more

number of students who take

Professor McDonald-Urban Historian

by Donald Korycansky Dr. Terence J. McDonald, professor of Urban History, is one of the newer members of the Caltech faculty. He is a Mellon Postdoctoral Instructor in History, and plans to offer his first course next term, called "Race, Class, and Power in the History of the American City." It will deal with the history of politics in the American city from colonial times until the present.

Dr. McDonald discussed his work and views of urban history in an interview last Friday for the Tech. He emphasized what he felt were several unique aspects of urban history in America.

Dr. McDonald hopes to offer future courses on basis of student interest. He has found a certain hostility toward humanistic studies on the part of Tech students, though.

surprisingly neglected field of Americans have also tended not study in America, according to McDonald. The history of the frontier and the westward expansion of the country has received much more emphasis. This is particularly ironic as the American population has been becoming concentrated in cities since about 1830, so that "the real movement and the everyday life" of Americans has been concerned with the cities for nearly a century and a half.

leaves or leave Tech altogether

during their undergraduate careers. For such an elife school

to have only 40% of its students

graduate in four years and 60%

graduate at all was surprising and

disturbing. MIT's graduation rate is 80% and others like Princeton

and Stanford graduate 90%. I found that this fact affects

student houses was another surprise that did not help the

Also there was a surprisingly large number of students who

were unhappy with their lives at

Caltech. Many felt internal or parental pressure or were flunked

in and felt they had to stay.

R: Enough of that, Jim. What
do you think of this year's

M: They impress me as eager.

Also many more are going into

Engineering and Applied Physics.

I've noticed that they ask more

The rundown condition of the

student life drastically.

quality of life.

freshmen?

McDonald also said that the neglect of American urban history has been surprising in that the cities of Europe have long been recognized as being important centers for centuries.

He felt that this sprang from a traditionally 'anti-urban viewpoint" of Americans who have had a "hard time

ech students, though.

Urban history has been a character of American society. to identify with the problems of cities.

The anti-urban tendency has existed from early times in American society, said Dr. McDonald. The Founding Fathers did not wish to establish a society on the European pattern. They (and Americans generally) wanted to show that America was unique, and emphasized the frontier and the individualistic personality. This was contrasted with the problems and inconveniences associated with

McDonald himself was born and raised in Iowa, in a small town. He went to Marquette University, in Milwaukee. There he was exposed to urban life, particularly in his capacity as a reporter for the Milwaukee

papers, the Journal and the Sentinel. In particular he covered the civil rights marches in Milwaukee at the time. At Stanford University as a graduate student he decided to concentrate in urban studies, a field which he feels is relatively fresh and fast growing.

McDonald's current research involves the econometrics of American cities in the 19th century—that is, he wishes to determine which factors were most important in city growth and spending during that period.

As for contemporary urban life, Dr. McDonald was of the opinion that things were actually somewhat better nowadays than in the past. He said that "there never was a 'golden age'. Urban life has always been difficult.' McDonald felt that the problems of our cities are not new and not necessarily worse. Urban life is important to society-it contains elements of the best and the worst in America.

Ex-Tech Editor makes good Roger Noll New HSS Chairman

Dr. Roger Noll, once an undergrad here and one of the few people with a safe strategy for editing the *Tech* (he never had fewer than six co-editors) was recently named Chairman of the Division of Humanities and Social Sciences.

Noll, who at 38 is now a professor of economics here at Tech, took ovea his new post October 1. The position was formerly held by Dr. Robert A. Huttenback, who resigned in January to become chancellor of the University of California at Santa Barbara.

[Those of you who have completed your HSS requirements should note that this former undergrad, a founding member of Page House, has an office that is conveniently close to Baxter Pond.]

Expressing his pleasure at the appointment, Dr. Goldberger said, "Dr. Noll shares my own views about the importance of the humanities as well as the social sciences at Caltech. I am confident that he will provide vigorous and enthusiastic

leadership in both these areas."
Dr. Goldberger also gave a vote of thanks to Dr. Rodman Paul, Caltech professor of history, who has acted as division chairman since January.

Noll has been a member of the Caltech faculty since 1965. He has also served as a senior economist at the President's Council of Economic Advisers, and as the co-director of Studies in the Regulation of Economic Activity at the Brookings Institution.

Noll received his BS degree in mathematics from Caltech in 1962 and his AM and PhD in economics from Harvard. His early research was concentrated in the areas of public policy analysis and government regulation of business. Recently he has also undertaken research on applications of economic analysis in political science.

He is the co-author of Economic Aspects of Television Regulation, which received the 1973 book award of the National Association of Educational Broadcasters as the outstanding book that year on some aspect of communications policy. His other recent publications cover such diverse topics as the effects of regulation on natural gas pipelines, the economics of professional sports, the performance of safety regulatory agencies such as the Consumer Product Safety Commission and the Occupational Safety and Health Administration, the theory of political campaign strategy, and the benefits and costs of earthquake building

Noll has served on numerous other government committees and as a consultant to other government and private organizations. He is currently a member of the advisory councils of the National Aeronautics and see NOLL: Page 4, Col. 2

Random Numbers

Well, you can't say I didn't warn you. I told you at the outset that this column would cover just about everything, from humor to pathos. Maybe this week we'll get back to humor. Struggling through Math and Physics is no fun but it is just an added hassle considering all the work I have to do on my room before I move in. Considering the disrespect with which the former inmate seemed to have had for electricity, it is surprising that he was not removed on a stretcher. I have never seen more bare wires anywhere outside of a double E's workroom. It took over an hour just to buy the parts I needed. Let's not mention installing them. And of course I have to paint. My roommate says he's never painted before-he'll learn fast. \$150 is a lot of money and we are fortunate to have any money from the housing office at all but it simply won't cover all the repairs some of the rooms need. Of course, B&G could do some of the work but then again, I find it hard to trust people who put flat white paint over brass door knobs. Seriously, B&G are good guys. They are just slightly snowed under by the never ending task of replacing the baling wire and chewing gum that holds Caltech together. I have spent two summers doing that kind of work and I know how it is. Everybody and his brother thinks that his problem is more important than the boiler which just exploded. Well, it usually isn't. But enough of that. I really don't have too much to say this week. It has been fairly dull. If you think you're bored reading this, just think how I feel writing it. Just in case you have been trolling since Thursday night and haven't stuck your head out of the door,

last weekend was fix-it weekend. Our whole alley repainted and carpeted and moved and generally made a great deal of noise. No one on earth seems to like the light green that we slopped on our walls, besides my roommate and myself. But that's OK, it might cut down on the traffic in this area. Actually, we are at the end of the hall and we don't get much company (hint,

I may have to get a stereo to compete, either that or earplugs. The noise level isn't bad until 11:00 pm, but then everybody turns on the noise so they can vibrate their brains back into a state of wakefulness for a few more hours of trolling. So much for more than five hours of sleep a night. Have all these upperclass revelers forgotten the pain of getting up for an eight o'clock chem lab? I know that it's only for one term, but still . .

A few short notices. In case anyone does decide they like the green paint in our room...there's plenty left. Was green it drafty in your bathroom this morning? Can you see more than the feet of the person in the next stall? Well, if your walls are missing, I know one is on the roof of that octagonal thing in front of Millikan and two more are in the Blacker courtyard. At least that's how it was on Monday the ninth. Since this column is published Friday, the walls are probably back. But I'll bet we'll still have all that

leftover paint! While I think of it, many thanks to the editor for editing my horrid grammar and worse spelling into legibility without corrupting the flavor of this column-too much. I'll start a "Dear Abby" type section if there are any questions out

there. Just leave them with the nice friendly people in the newspaper office. [What friendly people in the newspaper office?-ed.] Or, if you're feeling particularly energetic, truck on over to Blacker House and leave submissions in the M section of the mail box, addressed to me. Remember, I am still accepting poems, jokes, riddles, (see how desperate I am?) or limericks. And for all those of you who get bored in class or who have a great deal of time on your hands, remember that you too can become a writer like me. I understand that the newspaper still needs features but the Graft and Corruption is no longer quite as good. [The latter statement, and only the latter statement is merely a scurilous rumor.-ed.] Just in case you're worrying that this may never end, you're right, it might go on forever. It will go on until I run out of either time or paper. Or until I get tired. My handwriting is so bad that the editor will only let me put one word on a page. What looks like a short, quick column to you looks like a novel when I deliver it to the office. A noted lecturer once said "Nice guys finish FAST". Good thing this isn't a lecture. Seriously, if you had to sit and listen to all this, would vou? Would it get a turkey? My apologies to everyone for a substandard column this week. I

-Duncan G. Mahoney (Duncan: our typist wimpers when he sees your column; how's your printing?-ed.)

promise to try some Vaughn and

Zern next week-if I have to

steal some style, I may as well

start with the worst! If you like

anything you see here, speak up.

No one else will and I need

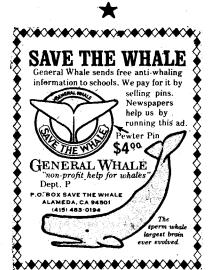
encouragement. Of course I'll

write this junk anyway. It

removes the garbage from the

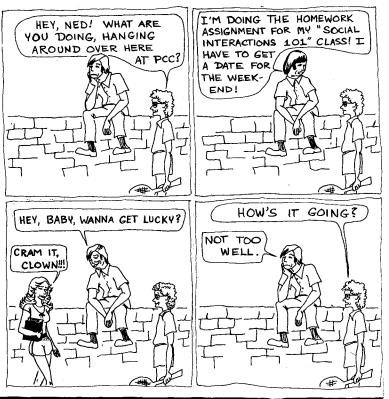
brain, but I may as well give you

junk that you like.



Thuncan

by P.M.



The View from Outside

A calendar of events prepared by the Caltech Committee for Community Involvement (CCCI) is now posted inside the Winnett Student Center next to Flora's Office. The time, place and name of upcoming events are listed on the Calendar. Additional information concerning these events is kept upstairs in the CCCI notebook on a table outside the Y office.

If you should know of an upcoming event which may be appropriate for the Calendar, submit it to the CCCI Calendar of Events box next to the CCCI notebook. One such event which may interest Caltech students is the Human Rights Conference to be held at Pomona College, October 17-19. CCCI meetings are held on Wednesday evenings at 7:30 pm in the Y Lounge.

The Caltech Committee Against the Briggs Initiative meets on every Tuesday from now until the November 7th election. The Caltech group is a branch of the Student Outreach Committee of CABI/LA, which has helped set up similar CABIs at Long Beach State, UCLA, USC, Cal State LA, Occidental, the Claremont Colleges and PCC.

Our major upcoming activity will be to publicize and plan for the De Longpre Park Rally in

Hollywood on Saturday, October 21. This rally is to be the focal point of a day of united effort to distribute almost 1,000,000 brochures and buttons in Lo Angeles County to defeat Proposition 6. Thousands of people from all walks of life will gather together to be energized in a festive celebration of political consciousness-raising and leafleting. The Caltech CABI is sending a contingent of eager Techers who will be proudly waving the "Beaver" banner. It is certainly an occasion which promises to be very exciting for us all. We will be arranging ca pools. Contact me at x2803 Even if you can't attend, donation will be greatly appreciated. CABI is sorely in need of money to print brochures.

-Robert Tajim

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Today Friday, October 13, Harry and Leslie and Erson Illusion and Prestidigitation, At noon on the Quad. Wednesday, October 18, UPDATE, NOON DISCUSSION SERIES Dr. Norman Davidson, Professor of Chemistry speaking on "Recombinant DNA Research." Clubroom 1 in Winnett at noon. Bring a lunch. Thursday, October 19, DRACULA, at the Music Center Sign up in the Y for tickets, \$4 (includes transportation) Deadline for sign up is Wednesday, October 18 Friday, October 20, ALISTAIR ANDERSON, Traditional music from Northumberland. Northumbrian bagpipes and concertina. At noon on the Quad. REMEMBER-First Philharmonic signup is on the 19th.

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Next: Week:

"LITTLE BIG MAN"

Science and Society

This is the first in a weekly series of essays for the Tech. These essays will deal with various technical issues of the day, examining the ethical, moral, social and economic questions associated with recent scientific controversies. It will be a column of opinions rather than a journalistic reporting of facts, and it will be written in a mixed first-person/third-person format.

In a column of this length there is often no room for a detailed mass of facts; rather I will try to outline clearly the which I philosophy with approach a problem, the assumptions I use to guide my thinking, and the lines of reasoning which lead me to my conclusions. I don't expect to be "right" all the time. These issues have no simple solutions, and I expect that readers will often draw dissimilar conclusions. I would appreciate hearing other opinions and comments about these issues.

In many ways, science (and the scientist) can be called the 'tragic hero' of the twentieth century. It posesses all the qualities necessary for greatness, for unparalleled achievements, and yet it has often spawned in its wake pollution, war and dread for the future. Certain thinkers have demanded an end to scientific advance and a return to simpler pre-industrialized ways. This point of view, though acceptable on an individual basis, is untenable on a large scale. Humanity always progresses, and not a single society throughout history has willingly renounced advancement. Still, man is as a child-king: he holds power, but he does not know how to rule. Massive amounts have been learned concerning the natural world, yet man's grasp of psychology and morality is rudimentary, and his social consciousness and ethical maturity have not kept pace with his technical advancement. Is it not time to pay particular attention to fostering such a humanistic maturation?

The number of ways in which man can topple his fragile

structure is awesome; one marvels at the diversity: nuclear war, radioactive wastes, carcinogens, pollution, food shortages, terrorism, destructive biological mutations. However, a scientist remains basically an optimist, and I retain my hope for the future. Obviously, the next 50–100 years represent the most crucial period in man's history. Progress must continue, but it must be patiently nurtured and closely monitored.

My basic axioms for public policy decisions are as follows: (1) society constantly changes; (2) with the imperative nature of its problems, society must be willing to devote itself to a comprehensive and lasting program of change over the next generation or two; (3) with that in mind, progress should be such as to minimize immediate disruptive effects on society.

The dichotomy between science and humanity has always been more illusionary than real. No longer can scientists allow themselves to ignore the social consequences of technical advancement. It seems to me that Caltech is uniquely capable of contributing to this effort.

-Patrick Frantz

JIM from Page 1

R: I hear your APh 3 class attracted 150 students.

M: Yes, it's just an elective so I don't overload my students with work. There is some work, however, and I hate to see students spend too much time on this and flunk math or physics.

R: I also heard you managed to whittle your class down a little.

M: Yes. It's interesting. A few of them were offended by my approach to life [Any who were, have to be the most unmitigated lowlifes I've ever heard of—ed.]. I didn't realize they would be so sensitive.

R: What are you doing in your research these days?

M: Three things. I'm using ion beams to modify the outermost micron or so of surfaces. This relates to ion implantation in semi-conductors, sputtering, and the like. Second, I'm using nuclear techniques to analyze the properties of solids. Third, I'm studying the growth of epitaxil layers with no melting. This could have applications in new semi-conductor structures for integrated or optical electronics.

The students don't realize I do much research. In fact I co-authored or co-edited three books last year. I don't mind, though, because I would prefer the students not to think of me as a doctor or professor, but just as their friend, Jim.

R: What activities outside of

Tech interest you?

M: Scuba-diving, reading matter with no social value, i.e. science fiction, and my family life. My wife, Betty, is so wonderful. I couldn't do without her. She's cooking large dinners throughout the year so students can eat and talk with us and I can try to get to know all the students personally.

By the way, you asshole, you shouldn't spend too much time working on the *Tech*. I've seen too many people flame out that way.

R: Good idea, Jim.





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The Physicists: Off & Running

The world-renowned play *The Physicists* by Friedrich Duerrenmatt opened last Friday night to a fair sized crowd at Ramo Auditorium. The proverbial opening-night mishaps were remarkably absent from the performance; in fact, the only incident was a minor delay before the play began.

Although dubbed a comedy, The Physicists is anything but lighthearted. Duerenmatt's masterpiece is a synthesis which suggests various aspects of science's and scientists' relationship to mankind and man's governments. While the situation is amusing (an insane asylum with three very unusual physicists as inmates), the viewer soon becomes too engrossed in interpreting the play's message to laugh very frequently.

The acting was generally very satisfactory and helpful in exposing the play's theme. However, John Conrad, who

plays Police Inspector Richard Voss, was very stilted and uninteresting. On the other hand, Virginia Cannon, the Matron Marta Boll, was absolutely superb. The play was well organized and directed and it flowed well.

Anyone who has a genuine interest in science will probably enjoy probing Durenmatt's thoughts about science and society. The play runs through October 21 on Friday and Saturday evenings at 8 pm. The play is Spectrum's 17th production.

Christopher R. Juten

NOLL from Page 1

Space Administration, the National Science Foundation, and Caltech's Jet Propulsion Laboratory.

In May of this year Noll was appointed by Judge Paul Egly of the Superior Court of Los Angeles as chairman of the Los Angeles School Monitoring Committee. The committee was created to report to the court on the implementation of the desegregation plan of the Los Angeles Unified School District.

Balalaikas are Best

While they are billed as the Odessa Balalaikas, the name doesn't encompass all of what they do. The group of five, all former UCLA students, also tell stories, sing, and play a variety of instruments. The most spectacular instrument is the contr-bass balalaika, played by David Lieberman, who is dwarfed by its great bulk. The remaining tour, Peter Rothne, his brother Jonathan, Linda O'Brien and Judy Sherman play either the balalaika or the domra, both stringed instruments similar to the lute.

All the members of the group are of Eastern European descent, and are very occupied keeping their grandfathers' music alive. They have acted as hosts for Russian musicians touring our country and in this fashion have been able to learn first-hand from some of the finest folk musicians in the Soviet Union during odd moments of concert tours. (They hope to be able to travel to the USSR to study in the conservatories there for several months in the near future).

Their program Saturday at Beckman consisted of folk music from Russia. A number of their

pieces are quite familiar sounding, for example Polynshko, polye, the theme of the Red Army Chorus, or two songs from Romany Vano and a Gypsy lament. Two members of the group performed vocal renditions of a Dukabohr hymn. (The Dukabohrs are a Russian Christian sect in Canada.) Perenand David performed several folksongs on guitar and domra. After the intermission there was a number on pan pipes and balalaika from the Volga region (no, not "The Song of the Volga Boatmen"!). Peter Rothne's enchanting Russian Folk Tale, featuring a little girl lost in the woods, a basket of pastries and a "male chauvinist bear" left the audience roaring with laughter.

The performance was very 'polished (though at times it seemed forced) and overall was quite good. The sing-along encore was fun for everyone. The only visible fault of the group is that they don't look Russian—indeed they look exactly like UCLA students dressed in Russian peasant garb. (Or as the man sitting behind me said "They have such good American accents for foreigners.")

-J. Copeland

HEAVY DATE

Appointment With The Future For Engineering Grads

Engineering opportunities exist at Hughes Aircraft Company, Culver City, California, in its Electro-Optical & Data Systems Groups, for graduates with the following degrees:

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Structural Dynamic Analysis
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On Lasers

Watson Lecture Series Starts

by C. R. Juten

The annual series of Watson Lectures opened last Wednesday with "The Laser as a Catalyst of New Technology." William B. Bridges, professor of Electrical Engineering and Applied Physics at Caltech, gave the speech at the virtually full Beckman Auditorium.

Bridges, developer of the Noble Gas Ion Laser, explained that "laser" is a term describing the conversion of chemical, electrical, or thermal energy into optical energy. A variety of substances can be used to supply this energy: gases, semiconductors, minerals, organic materials, and other inorganic materials.

Caltech's laser expert exploded several common misconceptions concerning lasers. Some people believe that a laser creates energy; in fact, at least ninety percent of the energy in the original source is lost in converting the energy into a laser beam. Because of this inefficiency, lasers are not likely to be used for military purposes since the laser would dissipate more energy in the vicinity of the weapon than it would deliver to the target! Another myth is that a laser appears to be bright due to its high energy. Although some high energy lasers have been developed to cut metal, a laser appears bright because laser light is extremely monochromatic and can be tightly collimated.

The fact that lasers can form small beams of light has lead to their application in a wide variety of fields. Lasers are used in surveying, road grading, laying sewer pipe, calibrating resistors, punching holes, and in cutting cloth. Lasers read universal product code labels on groceries. Lasers were almost utilized as a basis for one communication system until fiber optics revolutionized the industry. In the future, lasers will read special "records" which are analogous to recording tape. The technique will be used in a video tape recording system. And, of course, hydrogen fusion, a potential energy source, may be dependent upon laser excitation.

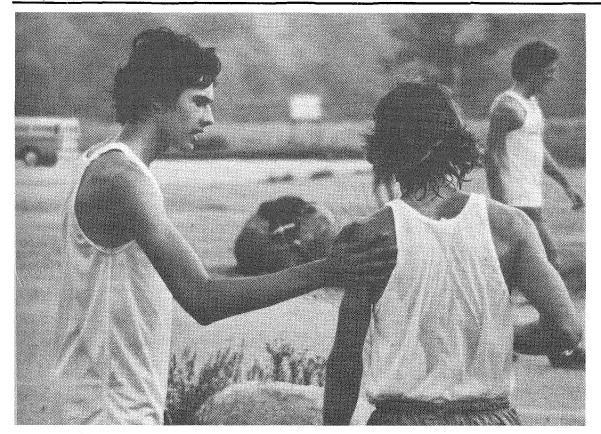
The Watson Lecture series continues Oct. 18th with "Shape and Movement: The Soft Cell" by Elias Lazarides, assistant professor of Biology. The program begins at 8:00 pm in Beckman Auditorium.

"You Can't Turn Me Into . . . Ribbit!"

Yes, you too can be turned into a frog by a hostile wizard, or a host of other glorious achievements may be yours in an evening with the Caltech Gamers, playing D&D or other games. All this and more goes on Friday and Sunday evenings in Clubroom 1 of Winnett, at 7:30 pm. Beginners and enchanted princes welcome.

Fellowships

Seniors interested in Watson, Danforth, Luce, Churchill or Marshall Scholarships should obtain application information in the Deans' Office. Graduate students are eligible for Danforth and Churchill Scholarships and should also enquire in the Deans' Office, 210 Dabney. The deadline for completion of applications is October 20.



Upset

Lutheran & L.A.P.D.

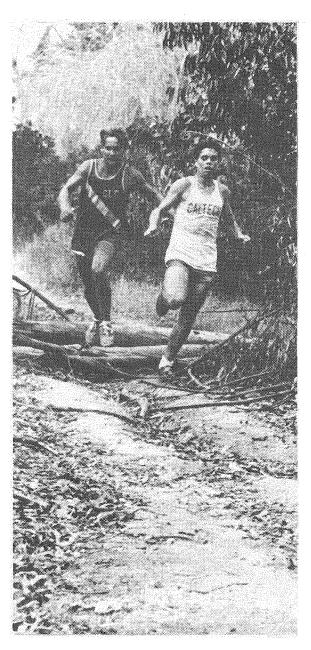
C.C. NOW 9-2

by Thor Feat

Caltech's cross-country team scored a major upset Friday. They beat a very strong Cal Lutheran team 26–29 on Caltech's course in the Arroyo Seco. Tech also beat the L.A. Police Department's team 17–40. This puts the team's record at 19–2

The upset was a team effort, as everyone raced exceptionally well on the 44-mile hilly home course. Glen George was very consistent and finished second to Cal Lutheran's Nichols in 26:55, which was his best time on the course by 20 seconds. Rob Bourret started out very fast, battled Nichols for the lead and finally finished third in 27:03, nis second fastest time ever. Victory came when Caltech's middle runners broke up Cal Lutheran's pack. Rich Ĥolmes was in there the entire race, and finished fifth behind Cal Lutheran's Mena in 27:37. Bill Gould caught and passed many on the hilltops witchbacks to finish sixth in 7:40, his best time by 44 econds. Eric Korevaar ran a 8:39, his best time by 45 econds, and finished twelfth ehind more Cal Lutherans and wo policemen.

Coach Neal attributes the eam's strength to experience; he five fastest runners are pperclassmen. What's more, hese returning runners each put a over 650 miles running in the lummer. "Having our people in hape is making the difference or us." Tomorrow the harriers tavel to Pomona to race omona-Pitzer and defending III champion ccidental, both very strong ams.



EE, ME, ChemE, Material Science, Physics (PhD Candidates)

DON'T GRADUATE

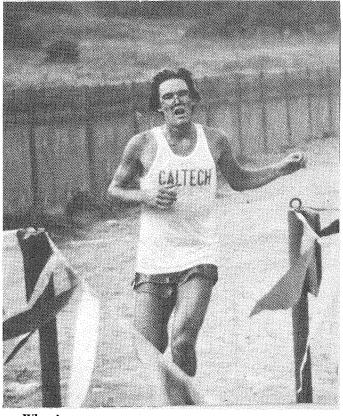
without talking to the Hughes Recruiter visiting your campus soon.

Contact your placement office for interview dates.

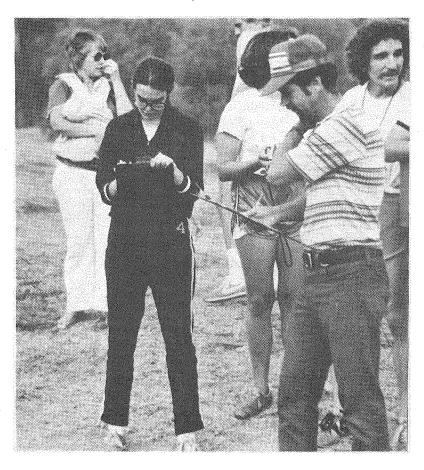
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Photos by Dave Wheeler



Could you be a nuclear expert?

(If so, you could earn more than \$685 a month your Senior year.)

Even if you're a Junior engineering or physical science major, it's not too early to start thinking about your career. And if you think you've got what it takes to become an expert in nuclear power, the Navy has a special program you should look into right away.

Why right away? Because if you're selected, we'll pay you more than \$685 a month during your Senior year. (If you are presently a Senior, you can still join the program.)

What then? After graduation, you'll get nuclear training from the men who run more than 70% of the nuclear reactors in the country — Navy men. And an opportunity to apply that training in the Navy's nuclear-powered fleet.

Only about 200 men will be chosen for this program this year. So, if you're interested, call us.

Be someone special in the Nuclear Navy. Lt. Norrbom—(213) 468-3321 On Campus—Placement Center October 13, 1978

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IDA Jobs

The Institute for Defense Analyses, Arlington, Virginia, is interested in hiring Juniors and up in Engineering (Computer Science) for summer work in Princeton, New Jersey.

Resumes should be submitted to the Placement Office, 8 Dabney Hall, no later than November 1, 1978. Citizenship required.

Student Shop

If you missed the cleanup meeting last Saturday, you can still get a key for this term by coming to the shop between 1:00 and 2:00 pm Saturday, October 14. For additional information, contact Dave Sivertsen, x2173.

Folkdancing

A beginning folk-dance class is being held Monday afternoons at 4:00 pm in Dabney Hall. Dances from Serbia, Macedonia, Romania, Israel, Bulgaria and other countries will be taught. If you can walk on two legs and have the slightest interest in music or dance, or even if you're just curious, you're welcome to come by and join in. For more information, contact Stanzi Royden at 449–9952 or x2173.

Attention, MEs!

The Caltech student section of the American Society of Mechanical Engineers will meet on Thursday, Oct. 19 at 4pm in 210 Thomas. The purpose of the meeting is to discuss section plans for the year. All interested students are welcome. Are Your Affairs Diplomatic?

Interested in diplomacy and international affairs? The Model United Nations of the Far West gives interested students an opportunity to discuss these issues during its annual conference. The Caltech MUN will hold an organizational meeting on Tuesday, Oct. 17 at 7:30 pm in Clubroom 1 (second floor of Winnett). New members are welcome. For more information, contact Tad Hogg in Blacker, x2170.

Art For Lunch's Sake

Baxter Art Gallery Director Michael Smith will hold a discussion on art on Wednesday, Oct. 18, at noon in the Gallery.

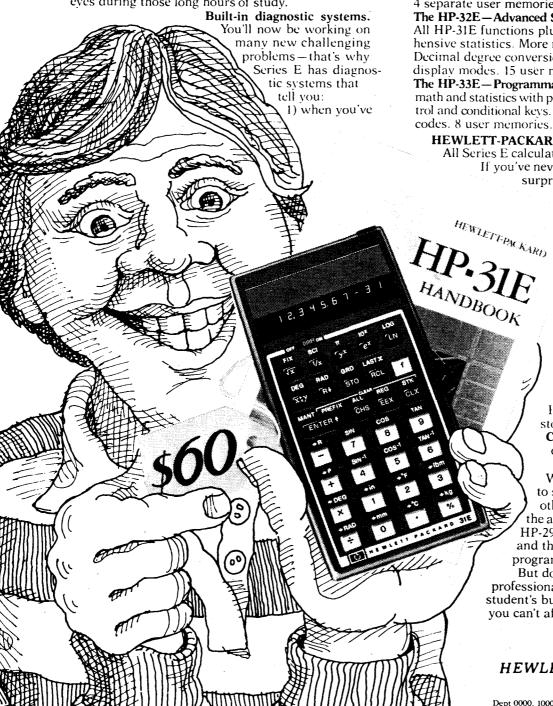
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616/71

Football Season pens

by David C. Younge The CIT football team began their regular season Saturday, October 7, with something of a whimper, losing to the Valley Freelancers, 46-12. Valley's powerful defense capitalized on the Beavers' weaknesses, giving them a total of five turnovers to Caltech's two.

The Beavers started the action early, scoring on a 60-yard pass play only two minutes into the game. The Freelancers advanced slowly off the kickoff return and after three first downs, scored their first TD and took an 8-6 lead after a successful conversion. Caltech began to do the same with their return, but fumbled on third down, with Valley recovering the fumble and scoring again as the quarter closed.

The start of the second quarter saw CIT's first turnover when Valley fumbled on their third down after receiving a punt from Caltech. Again Caltech had to punt, but got the ball back on a Valley penalty. Six plays later, the Beavers scored a touchdown but lost the conversion, making the score 14-12, Valley. The Caltech defense prevented the Freelancers from making any progress from their kick return until half-time. The Freelancers began second-half action early, with a 90-yard kickoff return for a TD. The Beavers progressed from their kickoff return slowly but surely with a ground game, but were intercepted when they took to the air after completing a first down. With a long pass play, a goal-line touchdown, and a failed conversion, Valley advanced the score to 26-12. Caltech's second fumble came on this return; the Freelancers recovered the fumble in the third quarter's last play.

As the final quarter opened, Valley turned that fumble recovery into eight points with a 65-yard pass play and a successful conversion. Again, Caltech was thwarted in the air, as Valley intercepted a pass on CIT's second down after the kick return. The Beaver defense held, though, and the Freelancers punted on their fourth down. For the third time, Valley picked off a Caltech pass, and for the second time, scored off the interception, widening the gap to 40-12. Caltech was unable to get a first down after this kickoff, and kicked on fourth down. After earning a first down, Valley added insult to injury with a 25-yard TD pass. Caltech foiled their conversion attempt, putting the score at 46-12, where it remained until the game ended a few minutes later.

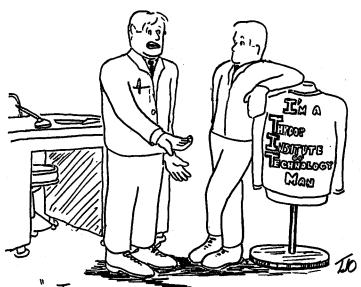


THE HAIR CUTTER\$

449:6967

449-1022

1009 E. COLORADOS BE T. PESALA NEXT TO THE ACADEMY THEATRE PARKING IN READ



IT IS AN INTERESTING DESIGN FOR THE NEW SWEATSHIRTS, JOE, BUT SOMEHOW I DON'T, THINK THEIR ADMINISTRATION WILL LIKE IT!

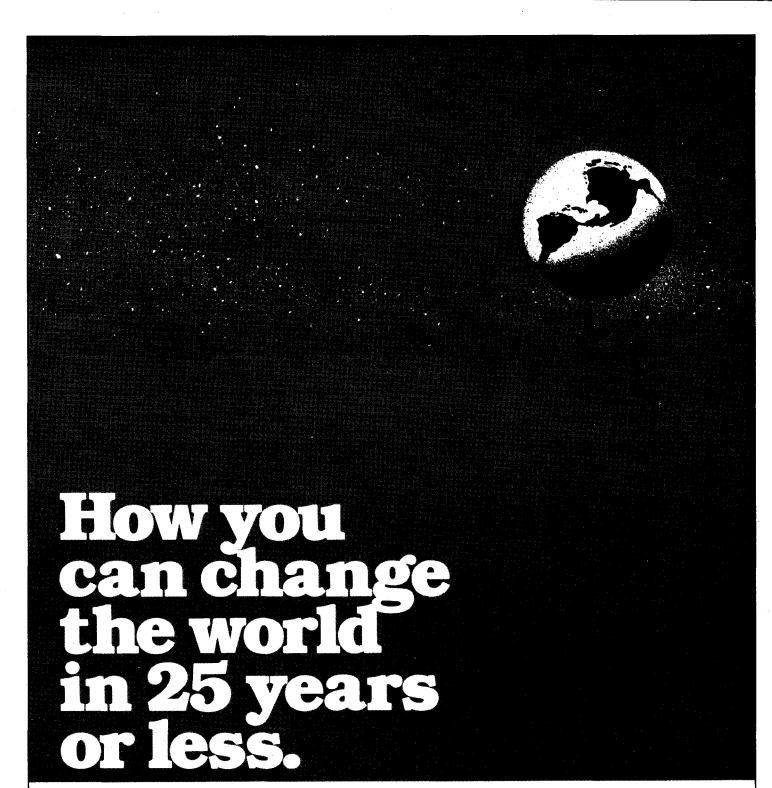
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continuing the important search world-wide for

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FOOD:

for Body, Soul, and What-Have-You

Besides the several oft-frequented eating places nown to all Techers, there are many other fine restaurants in the area which are considerably less well-known. Here is an introduction to a few of them.

For Barbecue: Gus', 808 Fair Oaks, South Pasadena. Open daily 10 am to 1 am, closed Sunday. Gus' is a small-hole-in-the-wall near the Rialto Theatre. It serves barbecued ribs and chicken, steaks and sandwiches. However, the rib and chicken dinners are the specialties. They include salad, hot bread and baked or fried potatoes and run from \$4 to \$5. Everything is exceptionally well prepared and it is striking that all the food is prepared to the proper degree of doneness. Personally I would say that they have the best barbecue I have found outside of Kentucky.

For Italian: Pellegrino's, 101 South First Avenue, Arcadia. 446–0155. Open daily 11 am to 10 pm except on Friday and Saturday when they are open until 11 pm. Closed Monday. Reservations are recommended for Friday and Saturday nights. Pellegrino's offers a wide selection of pasta dishes and all are excellent. The pasta served with cream sauce is especially delicious. The service is outstanding, and the decor is very pleasing. The main dining room features a beautiful fountain. In addition to all this, the prices are very reasonable. Pasta dinners run between \$4.00 and \$4.75. Veal dinners are

around \$5.00. I highly

recommend their canneloni.

For Late Night Food:

International House of Pancakes,
3521 East Foothill, Pasadena.

Always open. IHOP has a wide
variety of pancakes, waffles,
crepes, sandwiches, and
hamburgers. The management is
usually willing to allow
substitutions. There are smoking
and non-smoking sections.

Compared to similar places such
as the Salt Shaker and Denny's,
their prices are reasonable. The

break from studying.
For Mexican: Acapulco, 2936
E. Colorado Blvd., Pasadena.
Open daily 11-10 except on
Fridays and Saturdays when it is
open until midnight. Reservations
are not accepted. The Acapulco

relaxed atmosphere is a welcome

has an immense menu featuring a wide range of appetizers, complete dinners and a la carte items. They have several types of wine and imported Mexican beer. The prices are a bit high, but the food is exceptional. Often there is a wait before you may be seated because of their volume of business; however, this volume speaks well for the place.

Also For Mexican: La Nueva Posada, 2835 E. Foothill Blvd., Pasadena. Open Tuesday-Friday 11 am to 10 pm; Saturday and Sunday 12 noon to 11 pm. The selection is less than at the Acapulco, but the food is nearly as good and the prices are less. Also, they are less likely to be busy when the Acapulco has a long wait. Another attraction is that they usually run a coupon in the San Gabriel Classified Ads (L.A. Times) which is good for two dinners for the price of one on Tuesday, Wednesday and Thursday nights. Needless to say, this is a real bargain. The atmosphere is more relaxed than at the Acapulco and usually the bar TV is on whenever there is a baseball game.

−Eve Bennett

... back to the shadows again ...



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