

Volume LXXXII

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the Serious tech california tech Pasadena, California; Friday the Thirteenth 1981







The New: Tim BrazyThe Old: Andy GellmanMisunderstandingCleared UpMarc'sStoryDave'sMarc'sStory

At about 2:30 am on Friday night, while playing foosball in Lloyd, I heard a large commotion in the direction of Winnett Student Center. Several students went to investigate and brought back news of the Fleming cannon. Naturally, curiosity brought everyone out to admire the spectacle.

Then, a large portion of the Flems went chanting through the student houses. Upon seeing them, the Lloydies started to chant back. Soon the Flems had returned to the cannon and I, alongside a dozen chanting Lloydies, had gathered in front of Lloyd hoping to see it fired. All of a sudden, I felt water from above and ducked under At that m some 20 Flems, led by Nick Gross, started toward the Lloydies. They (the Lloydies) retreated into the building and I moved off to the side to watch. Meeting a closed door, the Flems turned and saw me. Obviously mistaking me for one of the eggthrowing Lloydies (of which I had no knowledge til the next day), they grabbed me, giving me just enough time to scream that I was not a Lloydie. Not wanting to get caught or wet, I fought back and shouted "I do not want to be showered" as they wrestled me onto the grass.

Despite my struggles and protests, the Flems soon had me under control and on my way to the pond. Half way there, two of them exchanged the full nelson they had on me. Shortly thereafter (at about Thomas), a sharp tearing pain started developing in my left shoulder as the new hold was exerted. I cried out about my arm and struggled futilely to relieve the pressure. The Flems momentarily loosened the hold and enquired as to my agony, but to no avail. The pain continued to grow worse as I was carried the remaining distance to the pond, complaining all the way

At Baxter Pond, I was unceremoniously dumped in and was spared further injury thanks to a soft muddy bottom. Upon standing up, I flung an armful of mud toward the few remaining Flems and staggered out of the pond clutching my arm.

After a short distance a Flem made physical contact with me and started cursing me out. I, having already been unexplainably attacked once that evening, instinctively went into a defensive crouch. He responded similarly and we cautiously parted our own

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At about 2:30 am on Friday night (Feb. 6th) about 90 Flems returned to campus with the cannon. After we parked it, about 30 of us went singing through the other houses.

When we returned to Fleming we were hit with eggs thrown from the direction of Lloyd. About 15 to 20 members of the Fleming group turned and started toward Lloyd. The Lloydies at ground level who hadn't thrown eggs but had been chanting ran inside of Lloyd. The eggs had come from the roof.

Marc Buffet was in the area and had been watching but didn't know any eggs had been thrown. He thought the Flems had turned around because of the Lloydies on the roof who were using fire extinguishers. The Flems thought Marc was part of the egg throwing group. He was in fact innocent.

He only had time to tell us he was not a Lloydie before we grabbed him. To us it was totally irrelevant what house he was from. We didn't like being used as a backstop for flying eggs. We were convinced that Marc was part of the egg throwing group and had stayed outside as an act of defiance.

We wrestled him to the ground, got holds on him, (full nelson, stomach, etc) and then carried him to the pond. We did not stop when he declared he didn't want to be showered or ponded, because we were convinced of his guilt. The whole time he never declared his innocence because he didn't even know what he was being ponded for.

About halfway there he complained of discomfort and pain in one of his arms. When we loosened our holds he fought. We then assumed he was using a faked injury as a ploy to be able to break loose. He was actually struggling to (CNF)—In the final runoff election last Friday, Tim Brazy managed to pull out a narrow victory over Sue VandeWoude for the ASCIT presidency, but will not be able to assume office this term, due to an back injury he suffered while shoveling snow during the Christmas break at his home in Wisconsin.

Number 17

At the time, he felt it was a muscle pull. Not until last Saturday did he realize it was something more serious, and doctors confirmed that the back injury was affecting the motor nerves of his legs. Thus, he decided to go home to recuperate, which may include an operation and a month of traction, but he expects to be back by end of March. On the winning of the presidency, he felt that he "ran against excellent opponents," and because of the injury and his graduation this year, he has the "time and energy to spend on the office".

In Brazy's stead, ex-President Andy Gellman is expected to have his term lengthened until Brazy is able to return.

In other hotly contested races, Steve Chin defeated Juanito Villanueva for ASCIT Treasurer, John Quackenbush beat Evan Colgan for Educational Policies Chairman, Mara Freeman joined Barbara Turpin as the other Director-at-Large, and Scott Bloom/Greg Schenter was given the nod for ASCIT Ath Man.

For pictures and more, see page three.

relieve pressure on his left shoulder. When he continued complaining, we asked which shoulder it was that hurt but he couldn't come up with an answer. We continued to the pond convinced that he was faking an injury. At about 3:00 am we put him in Baxter.

I stayed about 15-20 feet from the pond after we put him in to see him stand up. At this point, I instantly became a target for the mud he threw with his uninjured right

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"The General" and Brian Dunkeld mount the protruding edge of the Fleming House Cannon. See page eight for details.

SSO

By John Whitehead

Academy in Colorado. Those

present included payload users

from other universities, com-

panies, and foreign countries.

Washington sent the two key

men in charge of the Small Self-Contained Payload Pro-

gram. The Techers exchanged

information with others at the

conference, establishing con-

tacts with groups such as

ERNO of West Germany, the

Swedish Space Corporation,

and the Royal Aeronautical

Society of England. For the

SSO, the conference was a

presented an overview of the

Caltech project, the SSO plan

for obtaining financial grants,

and a detailed description of

one of the planned ex-

periments. It became obvious

that the SSO is more likely to

produce solid scientific results

than any other university

group, both because of good

experiment ideas and because

representatives

NASA

huge success.

The SSO

headquarters



The events of last Friday night (as described elsewhere in articles by two of the people involved) are not an isolated incident, but are rather part of a continuing pattern of misunderstanding and mistrust between sections of the Caltech community. There has been a tendency on the part of many to ascribe to maliciousness actions which are due instead to other causes. This is exemplified by the fact that many would accuse the Flems of willful harm in this case, while in fact (see the other articles) what occured was due to lack of communication and errors in judgement more than anything else. This predilection to believe the worst is a contributing factor in the rapid spread of wildly inaccurate rumors throughout the campus. These rumors tend, in to enhance the atturn, mosphere of distrust in a vicious circle which persists until the whole thing blows over, leaving the community with a vague sense of ill-will and that much more divided.

The whole problem is aggravated, fueled even, by a tendency on many parts to equate arrogance with malice. Members of the community as a whole, as well as some Flems, have the mistaken impression that it's natural for there to be a continuing hatred between Fleming and the rest of the student body. This is not true. It is in fact natural for Fleming and Flems to maintain a posture of obnoxious arrogance toward the rest of the campus, as an expression of house pride and of the strong feeling of unity within the house. It is critically important, however, that the unity which draws the Flems together, and so tends naturally to exclude others, not lend to malice, real or imagined, on either side. Feelings of apartness and malice can easily damage the mutual trust which governs all interactions between students here. Such degradation of trust is the most dangerous aspect of the whole situation, as it strikes at the foundations of the entire community. We therefore urge people to think before assuming the worst, to work to eliminate malice, and to avoid degradation of trust, in view of the dire consequences.

- William Crowe President, Fleming House - Richard Willson Ricketts

- Today, Friday, February 13, is NOON CONCERT EXTRA-ORDINAIRE. P. Pat Productions, in conjunction with The Caltech Y, is proud to present, once again, THE NAUGHTY SWEETIES. Don't miss one of L.A.'s hottest acts at noon on the Quad.
- Saturday, February 14, is the ASIA MUSEUM TRIP. Spaces are available. Come on up to the Y and find out the details.
- Sunday, February 15, is the chance for you to see a Dodgers-USC workout. Again, spaces are available with limited transportation provided by the Y. Come on up to the Y office for further information.
- Monday, February 16, the sign-up begins for the February 21 SAILING TRIP. Sign-up will be on Monday and Tuesday, with a lottery at 4:30 P.M. on Tuesday. Winners will be posted on the Y office window. The price is \$5.00, but what a bargain!
- Tuesday, February 17, is another CAREER COUNSELING SEMINAR. This week's guest speakers are Willis Drake ('70), president of Teleproducts Corporation; and Glenn Hightower ('72), APh Technological Consulting. Their topic will be "Entrepreneurship." The program is at 7:30 P.M. in Winnett Lounge.
- Wednesday, February 18, is UPDATE time. Today's guest lecturer will be Dr. Charles Plott, professor of economics. Dr. Plott's topic will be "Economics As a Laboratory Science." Be in Clubroom One at noon.
- Thursday, February 19, is an EVENING SPOTLIGHT presentation. This program features political cartoonist Paul Conrad. It will be held in Baxter Lecture Hall at 8 P.M., and is open to the public.
- Friday, February 20, note that the Y office will be CLOSED. So if you need money for the weekend, and you need a Y loan, come on in before then.
- Saturday, February 21, is the tentatively scheduled SAILING TRIP. The winners will have been posted on the Y office window last Tuesday (Feb. 17) at 4:30 P.M. Pay by Thursday noon, or else. . . .

I don't know about you, but that question has run through my head hundreds of times. Do I really want to go back to Four members of the Student Space Organization, Ralph Weeks, Kirk Haselton, Mike McDowell, and John Caltech? The question is still running through my head today, but I'm afraid that the choice has been taken out of my hands. Dad has told me that the answer is no, as far as he's con-Whitehead attended the Third His reasons for this decision are due to his idea of "taking a Annual Small Self-Contained Payload Conference, February 3-6 at the U.S. Air Force

leave." I feel that I took the leave to evaluate myself and my goals. I wanted to know if taking classes at Caltech was really worth my while. In a sense, Dad agrees with me. He feels that a leave is the time for me to evaluate the past. Unlike his son Ollie G. III, Ollie G. Jr. feels that I need lots of help to "get my head straight." He feels that taking a leave is a sign that I require his guidance

Will Ollie G.

Return?

Uletiemaetum, n., a final, uncompromising demand. Dad gave me two choices:

A. I can return to Ohio and take classes at the college of his choice.

B. I can do as I please.

cerned.

I like choice B an awful lot, but I bet that you neglected to read the ultrafine print.

Well, did I really have a choice? When Dad says something, it's final, so I can never come back on my hands and knees asking for some sort of support. If I were brave, I would



have "stuck out on my own," but I hate to burn bridges behind me. Besides, there's still too much in this world that I don't know about. (My Aunt says that I am in the state of being naive. I prefer to think of it as being "pure in heart and soul and mind." [When you say those words, you can't think of them as coming from your mouth. Imagine a beautiful brunette, standing in sunlight shining between the branches of trees in a forest. She's wearing a white gown and the breeze is gently blowing her hair behind her. In her outstretched hand she holds a crystal ball. In it is the image of me, Ollie G.

(["Never before have I seen one so young and innocent," she softly says. "Let him remain pure in heart and soul and mind, forever."] or until we meet).

I may have been on local TV last Friday. They were celebrating San Francisco's birthday in the main library, and I went there, hoping to meet the mayor. As usual, I showed up for the free eats, starving. It was 3:30 and I hadn't had any lunch. They also had wine tasting. Unlike Grover and Stuart...uh, I mean, other Tech editors that I know, I was never drunk during last school year and still allow myself to occassionally "taste" alcoholic beverages. The mayor never came and I had to leave before they cut up that huge cake. It looked so good, and I was starving. Did you know that I never danced at an ASCIT party? If a party was on a weekend, I would skip dinner and pig out on the free eats. And when they had pizza on the quad ... I guess that I just forgot to to take pictures for The Tech, didn't I.

> CONTINUED ON DAGE 5

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of more apparent competence to carry them out. In particular, Clark Prouty and George Baker of NASA Headquarters approached the continued on page 10 The California Tech

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THE CALIFORNIA TECH

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On Lake Avenue 1/2 Block North of California Author Wiesel to Speak

Holocaust Possible?

"Is another Holocaust possible? I often asked my students that question. Most answered yes; I said no. By its dimensions, its scope, the Holocaust was a unique event; it will remain so. I explained to them that the world has learned a lesson, that hate and murder transcend those who take part in them directly: one begins by killing others only to massacre one's own in the end. Without Auschwitz, there might have been no Hiroshima. The annihilation of a people leads inevitably to the annihilation of mankind."

("Excerpts from a Diary": A Jew Today, E. Wiesel, 1978 Random House) Internationally acclaimed author Elie Wiesel will speak in Thorne Hall (Occidental College Campus) on Thursday, February 19th at 8:15 pm.

Wiesel, a survivor of both Auschwitz and Buchenwald, has written over a dozen books, all profoundly influenced by his experience in the Nazi nightmare of the Holocaust. He chairs the U.S. Committee on the Holocaust, and holds honorary doctorates from many academic institutions. He studied at the Sorbonne in Paris and currently is a professor at Boston University.

Wiesel was born in a Rumanian-ruled Hungarian town, Sighet; where he spent

THE CALIFORNIA TECH

today. New York writer and editor Morton Reichek says of Wiesel, "The essence of his philosophy is that despair can be transmuted into a positive force, and can be overcome through compassion and communal solidarity." "From this experience and this power and this despair," Wiesel said in 1973, "a Jew can draw more reasons, new reasons, to hope."

Wiesel is also deeply concerned about Soviet Jewry, Israel and anti-semitism today. He has said that the less attention paid to and the less significance attached to the Holocaust, the easier it becomes for anti-semitism to spread.

In Wiesel's work, he deals with many issues, from the ethical question of the victim becoming the executioner (his 1961 book, "Dawn," concludes that all murder is suicide), to the problem of a rational god who could permit the atrocities of the Holocaust (the his early years as a Talmudic student. At the age of 15, he was sent to the death camp Auschwitz. Among the horrors of his concentration camp years, the young Wiesel saw his father die at Buchenwald.

When the war ended, Wiesel sought to enter Palestine, but was sent instead to France with about 400 other Jewish orphans. He supported his subsequent studies at the Sorbonne by working as a Hebrew teacher and a newspaper correspondent.

Wiesel wrote a doctoral dissertation comparing Jewish, Christian and Buddhist concepts of asceticism, but never submitted it. After his health prevented him from being accepted into the Israeli army in 1948, he wrote for newspapers in Israel, France and the U.S., and became a U.S. citizen in 1963.

Wiesel often deals with the difficult reconciliation of the despair of the Holocaust and the realities of human survival

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autobiographical "Night," about the concentration camps) to international relations and the U.N. vote on Zionism ("For the first time in my adult life I am afraid the nightmare may start all over again.")

Wiesel now resides in New York with his wife and son, and is publishing a new book. The Testament (Summit Books).

A renowned literary critic (Alfred Kazin) has described Elie Wiesel "...as a writer who has come out of the extreme suffering of our time, but he has nobly and dramatically reflected its extreme solutions. For me, he is an incarnation in literature of the necessary conscience of our time."

- Stuart Meyer

Tech Prof Wins Prize

(CNB) – Dr. Gerald Wasserburg, professor of geology and geophysics here at Caltech, has been awarded the Arthur L. Day Prize and Lectureship by the National Academy of Sciences. The prize carries with it a \$10,000 award and an invitation to deliver a series of scientific lectures.

Dr. Wasserburg was awarded the prize "for his work in the use of isotopes in studying geophysical problems of the solar system, ranging from the early solar nebula to rock formation on the moon and in the earth's mantle."

The National Academy of Sciences, chartered by Congress in 1863, is a private organization of some 1300 leading scientists, who advise the federal government on sciences and technology. The Day Prize was established as a bequest of the late Arthur L Day to advance the studies of geophysics.

Dr. Wasserburg, who hold a B.Sc. in physics, an M. Sc. in geology, and a Ph.D. in geology from the University of Chicago, came to Caltech in 1955.

He has specialized analyses of meteorites, moon rocks, and terrestrial material to study the evolution of the earth, moon, and solar system. From Dr. Wasserburg's famou "Lunatic Asylum" at Caltech has come important information on the age of the earth and the moon, and how the solar system was formed when a gigantic supernova, or exploding star, began the process of coalescing into the sun and planets.

Dr. Wasserburg is a twotime recipient-1972 and 1978-of NASA's Distinguished Public Service Medal, NASA's highest award for scientists outside the agency. He is also the recipient of the 1970 Arthur L. Day Medal of the Geological Society of America and the V.M. Goldschmidt Medal of the Geochemical Society.

He is a member of the National Academy of Sciences, and is a Fellow of the American Academy of Arts and Sciences, the American Geophysical Union, and the Geological Society of America. He has served on numerous government advisory panels on planetary exploration, including those that oversaw the Apollo missions to the moon.



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If you have (or soon will have) a degree in Engineering, Science or Computer Science, we would like to talk to you on campus.

We're doing some very interesting things.

Like contributing to the development of space communication systems using a single laser beam for transmission. For NASA, we have evaluated concepts for large geostationary, synchronous space platforms. Some of the concepts we're developing won't be used until the 21st century.

What you'll be doing.

That depends on your background and professional



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Friday, February 13, 1981

Campaign Statements SIF Election

The primary objective of the SIF is, according to the donor, to provide an opportunity for students to learn, in practical way, how to manage investments. Since that's just what I'm interested learning, and since I'm in graduating next year, naturally want to be on the SIF Board this year.

The reasons I'm qualified are these: I've attended all but a few of the meetings of the Board since the start of the school year, so I already know how the past (very successful) Board works and what the principal considerations have e.g., advice from been, knowledgeable advisors, review of corporations and industries, personal perceptions of the U.S. economy, activities of the Federal Reserve to affect in-terest rates, etc. I've studied the basics of economics and will have completed, in March, a course entirely on investment portfolio management.

I'd very much appreciate your support in the elections today.

-Mark Altobelli

Alright, alright. So you're tired of reading all those other statements. Just give me a break and listen. All I'd like to do is learn the inner workings of investment decisions. That's all. I'm not asking for a pound of flesh, or for someone to help post Y flyers, or not even for Y donations (although it's never too late). No, all I'm asking is for this opportunity to observe and participate in command decisions.

But you may ask, why am I reading this? Who are these crazy people? Wait...let me explain how I got this insatiable notion to be on the SIF Board. After talking to several friends of mine currently serving on the board, I got to thinking. Maybe something like this is what the doctor ordered. Just maybe, mmmmm.... Well, that's it. I've decided to commit myself. That's one less looney running around this campus. Now to complete this master plan, all I need is your vote. Thanks,

-Joe Garcia

Hello. Some of you may know me as the kid who puts a lot of time into Ph 12, some of you may know me as the lineman who plays opposite Charlie O'Neil on the football team, some of you may know me as the nice guy over there at Lloyd. I'm Brad Evans and I want to tell you why I want to be on the Board of Directors for the Student Investment Fund.

My main reason is to learn about how to make the bucks. Learning how to make successful investments in the economic world is an opportunity too good to pass.

My experience in investing or for that fact in economics from that of the varies, economics courses here at Tech to being on the Industrial Relations' Committee with Grace Mah. I hope to learn more about the economics and policies of Caltech and corporations by being both on the IRC and the Student Investment Fund next year.

What does my election have do with the Caltech undergrad body? How does the SIF affect your life here at Tech? Personally, I can't answer these questions, but please tell me if these questions may be on your mind. I'm open to your suggestions.

Lastly, I would like to say that seeing some of my friends on the ballot and being on the Board with them would make the SIF a bit more fun.

Please consider your vote. Thank you.

-Bradley Evans

I'd like to ask you today for your support in electing me, Dave Khoe, to the Student Investment Fund BOD.

I'm very much interested in making money, and I would greatly appreciate the opportunity to contribute to the fund's success. I'm willing to put out a decent effort into it, and since I'll probably be doing a lot of investing in later life, it's worthwhile for me to spend the time for it. I hope you'll place your confidence in me when you vote today.

- David Khoe

THE CALIFORNIA TECH

General concern over lack of interest in the Student Investment Board has induced several Board members to recruit candidates. Though I was indeed approached by a present Board member, no recruiting was necessary. I have been interested in the Board since I first heard of its existence last year. I am now tak-ing the BEM 100 series on financial statement analysis, have attended several Board meetings, and am seriously considering business school for graduate study (sound too sincere to be true?-well, I drink milk too). I would greatly value the practical ex-perience of Board membership, and I look forward to serving an active term. Thank you. - John "Chip" Meiling

Hi, I'm Les Poltrack and I'd like your support in today's elections for the Student Investment Fund Board of Directors. Most of my experience with the subject of money has been in BEM and Economics courses I've taken here and elsewhere. Although I only have a little "real world" experience (mostly managing my bank account) in pecuniary matters, I think I have gained a reasonable understanding of money and investment in my academic pursuits.

I can't give you a list of reasons why I'm much more qualified than any of the other candidates or why you're making a big mistake if you don't vote for me. I can honestly tell you that I'm interested in investment and will certainly try my hardest to make some money for Caltech students. I'm asking for you to help give me a chance to do something for you. Thanks a lot.

-Les Poltrack

Hi! I am running for SIF Board-of-Director because (you may not believe this) I think it's fun playing with money-especially if it isn't your own. And, honestly, I can't think of a better way to get into the investment game than to join the SIF. Would appreciate your support. Thanks.

-Bim Wadhwa

As a current member and former chairman of the board of directors, I feel that my past

There are few restaurants

within walking distance of

Tech which offer food to

satisfy the gourmet and gour-

mand alike for a reasonable

price. However, the most re-

cent addition, 'Chan's Place at

355 S. Holliston Ave., does

this admirably and even has

entertainment. On the day 1 was there (February 1) the entertainment consisted of the

KCCB quartet, Michael Kong,

Michael Casassa, Eve Cohen,

and Samuel Batchelder. This

very new group played quartets

by Haydn and Mozart deftly

and with a great amount of

talent. During the intermission,

lunch was prepared by the pro-

prietor, Dr. Chan himself, and

proved that he is a master in

things other than student hous-

ing. Dr. Chan chatted with the

customers as they sampled his

delights and made sure that

everything was perfect. After

Why Consider , Teradata ?

Restaurant Review

board experience is a valuable asset to the Student Investment Fund. I am rather proud of my recommendation to last year's board to buy Tandem Computers. The stock's value more than doubled during the summertime and we made a handsome profit from it. Whether I will be able to duplicate this performance is somewhat unlikely, but I do feel that I have an excellent chance in continuing to pick successful stocks.

- Wally Walter

CHAN'S Diner

the meal, we relaxed while listening to the final work on the program, Schubert's String Quarted in A minor. The KCCB's performance upheld the standard that they had set earlier in the day. But the best part came when Dr. Chan picked up the bill himself! What more could you want in a restaurant? Chan's

Place features musical entertainment about once a month on Sundays. Chan's Place is open to Caltech students and faculty and requires reservations in advance. Dr. Chan is eager to let the Caltech public know about his little establishment, so walk down to the Master's Office and talk to his maitre d', Carmela, right now. Chan's place rates three stars for excellent music, food, and service.

-Don Benton

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FEB 15

THE CALTECH BOOKSTORE

Announcement

from the Bookstore

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Plan to buy Winter Quarter texts SOON!!

sonally through the pride of accomplishment, of working on a top-notch team; professionally through career advancement potential only a small company can offer; and financially through stock participation.

If you are graduating in June (or sooner) with any degree in EE, CS, or a related field, see the Placement Office to arrange a visit on campus with the people from Teradata.

Teradata will be visiting Caltech on Tuesday, February 24.

WHEN?

WHO?

Page Six

Political Internship



By Kent Daniel The Beckman Fellowship is

awarded annually to a Caltech student for the purpose of allowing him to work, for ten weeks of the summer, somewhere within the American political system. The fellowship, sponsored by the Beckman Instrument Corporation, consists of a \$2,000 cash award which is to be used for the recipient's expenses during the summer. I was awarded this fellowship last year, and consequently was able to work during the summer as an employee of the Senate Foreign Relations Committee in Washington D.C.

Washington, through the summer months, is filled with students from all parts of the country. It is traditional for each U.S. Senator to have about ten interns working in his office. These interns generally come from the Senator's home state, and work without pay. Each of the 435 members of the House of Representatives also has five or so interns in his office, and many government agencies, such as the Department of Justice and the DOE, also take on interns for the summer months. So on Capitol Hill alone, there are better than 2,000 students running about.

Despite the fact that intern positions generally come without pay, there is a good bit of competition for each spot. As an example, Senator the Democratic Cranston, from Senator California, receives better than 100 requests for unpaid summer positions on his staff each year. Unfortunately, a Congressman's office space is very limited, and it is impossible to squeeze in any more than a few of these applying for these spots

My position in Washington was somewhat different than the typical intern's. Rather than work for any specific Senator, I worked in the offices of the Senate Committee on Foreign Relations. Each of the Senate and House committees has a staff, separate from any congressman's, which is responsible for running the committee. The staff is responsible for scheduling hearings, briefing niembers of the committee on important issues, and otherwise organizing committee business.

As my position differed from that of most congressional interns, so did my responsibilities. Most -interns are involved with everyday

each week, and much of the staff time is devoted to responding to these queries and comments. Interns in the office
help to ease this burden.
As I worked on a committee staff, I was faced with none
of the office work that interns
typically deal with. I was instead assigned to several
research projects. Most important of these was an analysis of

THE CALIFORNIA TECH

business of the Congressman's office, Their duties generally

involve such things as answering mail from constituents. Both California Senators

receive thousands of letters

tant of these was an analysis of the Comprehensive Nuclear Test Ban Issue. The Comprehensive Test Ban Treaty (CTB) would ban all nuclear explosions for weapons testing purposes, and, it is hoped, for all purposes as well. The form of this treaty

was, up until a few months before the election, under negotiation in Geneva. It is now known when negotiations will be resumed.

My research for the Committee covered all issues of the CTB, but focussed on the problems of verifying this treaty. When and if the treaty goes into effect, the parties compliance with its provisions will have to be verified. This verification will be carried out primarily with seismic means. There are many technical factors which influence the detections of a seismic signal from a nuclear explosion. My research considered the effects of these factors.

13 .

SPORTS Golfers Slice Up La Verne

 \mathbb{N} e ce ce ce ce ce ce ce ce ce ce

The Caltech golf team pulled an astounding come from behind upset victory over La Verne College at the prestigious Sierra La Verne country club last Friday to even their record to .500.

Spearheading the attack was the tenacious 1-2 combination of Terry Thomason and Doug MacKenzie, who outscored their two opponents 12-6 on the championship course. With the help of birdies on the first two holes, they rolled to a one-over-par 37 on the front side. Thoroughly stunned, La Verne was unable to overcome the deficit.

The second group of John Sidorowich and Rod Thompson were able to add 6 points to the hefty margin. Bringing in 11 insurance points were Jack Belliveau and Tom Remmers, who easily outmanned their opposition.

When the smoke had cleared, the last putt had dropped, and the points had been tallied according to the complex scoring system, Caltech had won, 29-25.

Swimming Beavers Nudged

Last Saturday the Caltech men's swimmers missed upsetting last year's Conference Champion (and 8th place finisher in the Nationals), Occidental, by a score of 59–54. The women swimmers lost to Occidental by a score of 70 to 41.

The men amassed their points mostly by way of winning the relays, setting a new school record of 3:20.78 in the 400 Free Relay. That team was made up of Arley Anderson, Steve Rogers, Dave Huff, and Chris McKinnon. The individual leaders were Chris McKinnon in swimming and Terry Thomason in diving. Chris set a school and conference record in the 400 Individual Medley at 4:17.83, which puts him in the top 12 in the nation. He later set another school record in the 200 Breaststroke at 2:16.32. Terry won one diving event and placed second in the other.

This Saturday Caltech will play host to Pomona-Pitzer, so come by and help out by timing, or just plain cheering. Timers should be there at 9:45. The meet starts at 10:00.

CAREER COUNSELING SEMINAR OFFERED

By Mark Maier

Not all Techers disappear into corporate corridors or the halls of Academe after graduation. Some strike out on their own in classic American fashion as entrepreneurs. The alumni lists contain many people who have made it as leaders of their own companies. Two of these people will be here for a Career Counseling seminar on Wednesday, Feb. 17 at 7:30 in the Y Lounge.

One of the speakers at this seminar is known to many Techers, he is Glenn Hightower of APh Technological Consulting. Many students are familiar with APh through summer jobs or part-time employment during the school year. The other speaker will be Willis Drake, president of Teleproducts Corporation.

The rapid growth of the microelectronics industry in recent years has been largely fueled by the burst of entrepreneurial activity in that field. This seminar will certainly be an interesting window into a fast growing industry. And you never know what a Horatio Alger story might do for you.

All-you-can-eat dinner for 5.95! Colonel Lee's Mongolian Ban-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.

Tandem Is Coming On-Line

Landem is the first computer company dedicated solely to the rapidly growing market of on-line transaction processings. In the last five years we've developed a computer system that is uniquely fault-tolerant. The landem NonStop¹⁹ system is the first commercially available system that operates without failure, without destroying data, and without changing software, even when expanding to a distributed data processing network.

Tandem representatives will be conducting scheduled interviews on campus, **Monday, March 2nd.** To arrange for an interview, please sign up through the Placement Office.

Tandem offers an informal, creative environment for self-directed individuals who desire challenge. Our exceptional work environment includes new recreational facilities within our modern corporate headquarters complex, located in Cupertino, California. Beyond a full range of insured medical benefits, there is a stock purchase plan, continuing educational assistance and a 6 week paid sabbatical after 4 years in addition to normal vacations.

If you're an Electrical Engineer or a Computer Science major about to receive a Bachelor's or a Master's degree, consider the opportunities that our phenomenal growth, profitability and approach to research and development offers you. You may also write to us direct at **Tandem Computers**, **Dept. 500-600**, **19333 Valleo Parkway**, **Cupertino**, **California 95014**. An equal opportunity employer.



BODV shop

Everyone is convinced that exercise is essential for good health and well being. But do you know what type, frequency, and duration of exercise is correct? How do you know that the amount of exercise you are doing at the present is adequate and safe?

If you are under 40 years of age, have been exercising two or three times weekly for years, and constantly remained in good health, then you may continue. However, if you have heen inactive for a period of vears, or you have been having any symptoms associated with heart disease (to be covered in the future), you should be checked by your physician and have a treadmill stress test before you start on an exercise program.

The Target Zone

There is an amount of exercise which is enough to condition the muscles and cardiovascular system leading to physical fitness, but not overly strenuous. That is, a target zone in which there is enough activity to achieve fitness, but not too much to exceed safe limits. You can find your target zone on Figure 1. The crucial part of a workout is the duration one stays at the target zone. Usually 20 to 30 minutes in the target zone will provide a significant conditioning effect on the cardiovascular system. This period should be preceded by warm-up of 5 to 10 minutes so that the heart and circulation are not suddenly taxed, and also it is beneficial to joints and muscles to prevent injury and soreness.

As shown in Figure 2, there should be 5 to 10 minutes of cool down in which the intensity or strenuousness of the effort is lessened before exercise is stopped.

To determine whether you are in the target zone, learn to count your pulse. Usually it is easy to obtain an accurate count over either one of the large arteries at the side of the neck, at the wrist on the thumb side, or inside the bend of the elbow. It is important to count the pulse immediately upon stopping exercise because it changes very quickly once exercise is slowed or stopped. Find the beat within a second and count for 10 seconds. Them multiply by six to obtain the count for a minute. Count

your pulse at the intervals indicated on Figure 2. If your heart rate is below the target zone, exercise more strenuously. If it is above the target zone, exercise less vigorously either by exercising slower or less forcefully.

Type and Frequency

Only those exercises which significantly increase the continuous flow of blood through the heart and large skeletal muscles will help cardiovascular fitness. These are rhythmic, repetitive and involve motion, and are called "isotonic" or dynamic. They also have to be capable of being sustained, or aerobic. Aerobic exercise is the type which steadily supplies enough oxygen to the exercising muscles for as long as the exercise is continued. Jogging, running, bicycling and swimming are some examples of this.

Dynamic, aerobic exercise must be carried out three times weekly with no more than two days elapsed between workouts or gains will begin to be lost.

200

190

180

170

160

150

130

120

110

100

BEATS PER MINUTE

HEART RATE IN

After two to three weeks of regular exercise, you will begin to be able to carry out the exercise more easily; it will take more exercise for you to reach your target zone and your resting heart rate may be less. Once you attain physical fitness, you must maintain it by regular workouts. Exercise training should become part of your lifestyle. If you cut back to exercising once a week, half of your fitness increase will be lost in a mere 10 weeks. If you discontinue your program completely, all your gains will be lost in five weeks.

HAVE FUN AND KEEP EXERCISING! Next, we will cover warning

symptoms while exercising and what to do about them.

-G. Ketabgian, M.D. Health Center 1-8

Marietta In Denver

The Martin Marietta Corporation (Denver branch) will be on campus Wednesday, February 25 to recruit students who have (or are about to receive) BS, MS/EE (Especially those interested in power conditioning). If you are interested in making an appointment to interview with them, please contact the Placement Office, room 8, Dabney Hall.



MAXIMAL ATTAINABLE HEART RATE AND TARGET ZONE

MAXIMAL ATTA

AGE IN YEARS

Fig.1

This figure shows that as we grow older, the highest heart rate which can be reached during all-out effort falls. These numerical values are "average" values for age. Note that one-third of the population may differ from these values. It is quite possible that a normal 50-year-old man may have a maximum heart rate of 195 or that a 30-year-old man might have a maximum of only 168. The same limitations apply to the 70 per cent and 85 per cent of maximum lines.

ABLE HEART BATT

Ollie G.

There was something else

ROM TWO

that I thought you guys (and gals) might be interested in. I can't seem to remember...well, here's something for the books. I just got three bills from Caltech. One of them was a 70 buck Watts Line bill! I wonder if Student Accounts would believe me when I say I haven't used the Watts Line since November 4th. That's it! Twists of Fate. Is it true that Stuart Goodnick is running around with top hat and cane? I died laughing when I heard about that. Coincidentally, I was thinking about buy-ing a hat. (Not a top hat, of course!) Especially since I got (what I think is) a terribly short haircut. I'll still need a Triple

X-tra large to fit over what's left of my 'fro, though. I guess that's the only thing that has always stopped me from buying one.

Well, it looks like I've reached the end of another commentary. One of these days, like soon, I'll be on campus so that I can send the rest of my stuff to Ohio, but I still have to make up my mind which day it will be. Any ASCIT parties coming up? -Ollie G.



Wednesday, February 25th could be the day you begin fulfilling your professional ambitions. If you're about to graduate with a degree in

Computer Science, Engineering, Mathematics or Physics, you owe it to yourself to talk with the LOGICON representatives here on campus Wednesday, February 25th. It could prove to be the beginning of a career to last a lifetime. Logicon.



College Relations Manager (213) 831-0611 255 W. 5th Street, San Pedro, CA 90731 Equal Opportunity Employer M F

Travel Lane Billie und Ich

"...sparkling along Fifth Avenue, the people moving on bicycles." – Bernard Fischman The Man Who Rode His 10-speed Bicycle to the Moon

I am sure that a lot of you have come here from outside California. This is also true for Billie and I. We are from THE CITY, the New York City. I met Billie in the City and we have done a lot of riding within the city as well as in the surrounding suburbs. As one may imagine, biking in L.A. is very different from biking in the City. I thought it may be interesting to compare these differences this week.

First, there is an outstanding difference in the traffic laws of the two cities. As Woody Allen once pointed out, "the only advantage for living in L.A. is that you can make

right turns on red lights." This is quite true and can affect your riding style. In N.Y.C., you usually stop and wait on the extreme right lane at a red light. If you do that around here, you will either get forced on to the sidewalk or crush your toes. This means that you should stand left of the right turn lane at a red light. If you remember to get out of the way of the car behind you past the intersection, it is not too bad.

Riding in the city traffic can be fun if the drivers have any respect for the bikers. In N.Y.C. this is generally true unless one is dealing with "Jersey drivers". It is not an uncommon sight to see bikers racing cars down Manhattan streets. These usually occur on the odd numbered avenues as they are all one way traffic and

are going downhill. (Note: Uptown is actually higher than Downtown in N.Y.C.) The best street of these is the 7th where the traffic is faster in general. On this street, you will see bikers in the middle of the street, racing ahead of two taxis and beat them to the light after several blocks. I have seen one guy that points out the changing of the light with his arm while beating out his competition to the same light.

THE CALIFORNIA TECH

his arm while beating out his competition to the same light. Believe it or not, track bikes are popular on the New York streets. These are the kind which are superlight, fixed into a single high gear, and do not have brakes or freewheels. They allow these guys to go faster and also to "jockey", or stand without your feet, at red lights.

In California, it seems that bikers are not appreciated and at most tolerated. While riding around my home in New York, I noticed that most were giving me an average of four feet of clearance when passing me. Some would even wait until I waved them on or go on to the wrong side of the double line when passing. They would also wave and greet you sometimes. Compared to this, California drivers seem to think of bikers as a nuisance or something. There is this one old P.C.C. prof or something that honked and cursed me out even though I was doing about 20 mph and the passing lane was open. There have been many similar incidents occurring to me while riding in Pasadena but I thought what he did was the worst.

For those people who can not believe that any driver can be appreciative of bikers, allow me to tell you of an exceptional show of appreciation. While riding one late afternoon on the service road for the Long Island Expressway, a blue Chevy Custom passed me with a pair of feminine kneecaps projecting out of the window. At that moment I said to myself, "No, it can't be." I do not remember whether I started going faster, the Chevy slowed down, or both, but I was soon within a foot of those beautiful kneecaps. No, she was anything but kidding.

We Don't Hire Analytical Instruments... We Make Them.

You've got a mind full of great ideas. But sometimes fitting your ideas into a large company's rigid structure is like trying to fit a cube into a round hole. Because so many large companies are concerned more about the product they make than the people who make it, great ideas are sometimes sacrificed. Without creative ideas, a successful product goes down fast.

We at Perkin-Elmer Aerospace Division ought to know what makes success. We're a world leader in the field of analytical instrumentation. We strive to give you as much room as you need, as many curves and corners as you want to develop and use your own creative ideas.

From the design and production of medical gas analyzers for hospitals, to tape recorders and signal processors for reconnaissance applications, Perkin-Elmer Aerospace Division offers diversity; with diversity comes the room to expand on your own great ideas.

We're a creative company with a line of creative products...and that's why we're continuing to look for the most creative graduating engineering and technical people we can find.

Reliability Engineers (BSEE)

We need creative Electronic Engineers and Engineering Science graduates to be a part of the design team that ensures today's complex electronic devices will meet the exacting mission requirements. Longer, more complex missions require higher reliability; a single component failure can cause space system and mission failure. Space system success is based upon reliable component design and reliable "front end" controls and analysis.

Be a part of the team that translates design concepts into precise real world operational systems.

Reliability Engineers are involved with:

- Design verification and support
- Designing reliability, safety and maintainability into the product
- Design applications and stress analysis
- Investigation of component failures
- Corrective and preventative measures
- Vendor technical liaison
- Specification and definition of the complex electronic components to be utilized in space systems.

Friday, February 13, 1981 Symbol of Virility

Flems Cannon

by Aluvial O. Fansome

It was 1:15 am on Saturday morning, February 8th. Eighty Flems were congregated about an old French artillery piece at Southwestern Academy in San Marino. The wheels let out their first creak and the cannon began its hour long, three mile trek to the Caltech campus.

The cannon has a long history. It was originally cast for the Franco-Prussian War but was completed in 1878, long after the war's conclusion. The French decided to give it to the Americans, so it was shipped to Florida. The United States wanted to use it in the Spanish-American War and so decided to rebore it to fit American cannon balls. By the time this was completed the Spanish-American War was drawing to a close. The United States then shipped it to Santa Barbara, where it soon became obsolete. It was then given back to the French. They had no need of a cannon in Santa Monica with a range of two miles and a need of seventeen horses to pull it, so they gave it to Maurice Veronda, founder of Southwestern Academy and collector of historical objects. It was brought down to L.A. on a railroad flat bed in 1925, accompanied by much pomp and circumstance. For the next forty-seven years it resided in front of Southwestern Academy where it wasted away into disrepair. It soon fell prone to high school kids who got a kick out of painting it (barrel and all) different colors.

In 1972 Southwestern wanted to move the cannon from the front of the school, partly because it had become unsightly, and partly because they wanted to dispell the military image they had acquired. The Flems naturally volunteered to move it. They rebuilt the wheels and rolled it all the way to Caltech. Here they removed all the layers of paint and restored the firing mechanism. It resided here for three years until one incident in which the Flems responded overzealously to a Lloyd House prank. This greatly concerned the administration and thus the cannon was returned in early 1975. Over the past few years an increased interest in its return prompted a couple of Flems to talk to Ken Veronda, current director of Southwestern Academy, and a

Perkin-Elmer offers a competitive salary structure and a comprehensive benefit program. Benefits include company paid dental, medical, life and travel insurance, optional supplemental life and income protection insurance, liberal vacation schedule, ten paid holidays, retirement plan, credit union, and a company profit sharing program.

Company representatives will be on campus Tuesday, February 24.

If you believe you can make your ideas shine at Perkin-Elmer Aerospace Division, please sign up for an interview with your placement office.

THE PERKIN-ELMER CORPORATION AEROSPACE DIVISION 2771 N. Garey Avenue Pomona, California 91767 (714) 593-3581



few campus administrators. The atmosphere apperared favorable for its return. The troops were organized, the cops humored and a towing service notified (in case of technical difficulties). The cannon returned once again, proving that the thundering herd is real.

Job Interviews

Sohio Petroleum Co., a division of Standard Oil Co., will be on campus Thursday, February 19, 1981 to interview students with: BS or MS in ChE or ME; MS or PhD in Ph or Ma. To arrange an interview appointment, please contact the Placement Office, Room 8, Dabney Hall. Friday, February 13, 1981

Lit 15

Meeting

Today

DAVE

shoulder and arm. As he left, I

grabbed him from behind and

shouted at him. He thought I

was going to hit him so he

backed up and took a defensive

stance. I thought he was going

to hit me so I also took a

defensive stance. After about

10 seconds of standing there he

suffer torn

that night.

ways

THE CALIFORNIA TECH

Page Nine

up just isn't a total human being. Seniors complain tht their enthusiasm for their majors is insulted by those who think it is sophisticated to act burned out.

This is stupid. Caltech was meant to be a haven from antiintellectual nihilists, not a place to be one on a higher level. The fact that someone has a strange haircut or edits the Tech should not be grounds for contempt. The word "nerd" should be restricted to its proper use.

After all, Caltech was not meant to be a nerdist colony. -Lee Sunderlin

trip members would sail for about two days along the island. The two groups would meet again in the city of Avalon and rejoin for the sail back. More news on this trip will appear later.

If you are interested in the sailing trip on the 21st, sign up in the Y office on Monday, Feb. 16 or Tuesday the 17th. The boat we take out on the 21st will be the same boat that we plan to take over spring break. If you have any questions just come up to the Y

Have you ever been accused of wearing a "nerd watch"? Do you have a "nerd calculator"? Have you ever bought a "nerd eraser"?

Caltech seems to have come down with a case of nerdophobia. At least one house has rules against going into the steam tunnels. Semi-normal activities such as D&D are looked down upon like playing in mud puddles. Anyone seen near Jorgenson runs the risk of be-ing labeled a "compunerd." The word "nerd" is grossly

overused. Instead of being applied to anti-social or obnox-



ious behavior, it is applied to activities that are neither, with the justification that "that nerd down the hall does it, so it must be nerdly."

Like too much of the world, many Techers have a negative attitude towards their own strength. Applied use of knowledge (translation: using scientific terms for anything

besides homework) is called "blazing" and is a sure sign of nerdism. One is supposed to flick indefinitely and then frantically cram at the end of the term; it is chic to brag of the all-nighters one has pulled bacause of watching "Charlie's Angels" the niight before. Anyone who can't or won't drink three zombies and throw

ticipate day sailing on the third weekend of every month. The signup for last month's trip indicates much interest in sailing on the Caltech campus. Future trips will include further day sailing as well as weekend trips to the Channel Islands.

There will also be a much more ambitious trip over spring break. Right now we plan to sail to Catalina and possibly meet other boats at the first night's stop. Then, after some students go ashore

Y Sail Again

The second in a continuing series of sailing trips will be held on Saturday, Feb. 21. Like the last trip, we will leave Caltech on Saturday morning and drive to Marina Del Rey in West Los Angeles. At the Marina we will pick up our boat, a Cal 39, and, with Don

the ocean. We anticipate about six hours of sailing and, depending on the wind, may get up to ten miles offshore. As implied in the first

paragraph, weekend sailing is

by Mark Maier Skelton at the helm, set sail for

grabbed his left shoulder, turned and began walking away. Errors in judgment and poor communications had led to a great deal of misfortune for one individual. Marc did strained or ligaments in his left shoulder-

- Dave Dowling

from one

FROM ONE

Then, I staggered back to Lloyd where the waiting crowd

MARC

quickly assessed the situation and took me to Huntington Memorial Hospital for proper medical care. (The injury was later diagnosed as a sprained shoulder.)

-Marc Buffet

As can be seen from the above narratives, we are in essential agreement on the facts of this matter, though we see them from different view-points. They are presented here in the hope of dispelling groundless rumors and of preventing recurrence of such incidents in the future. We have reached a fairly amicable settlement of our differences and now seek to help others to do the same.

-M.B. & D.D.

[On Wednesday night, the IHC reached a decision banning the use of the full nelson in showering anyone not member of a house that customarily uses that hold in showering its own members. Currently, Page and Fleming are the only two houses that use the full nelson.]





TAKE CHARGE AT 22.

In most jobs, at 22 you're at the bottom of the ladder.

In the Navy, at 22 you can be a leader. After just 16 weeks of leadership training, you're commissioned an officer, part of the management team. And you're given the immediate decisionmaking authority your responsibilities demand. On your first sea tour, you'll

be responsible for the work of up to 30 men and the care

of literally millions of dollars worth of highly sophisticated equipment. You're a Division Officer, so you're in charge.

It's a lot more responsibility than most corporations give a man of 22. As a Navy Officer, you encounter new challenges, new tests of your skills, new opportunities to advance your education. You grow.

Don't just take a job. Become a Navy Officer and take charge, even at 22.

NAVY OPPOR INFORMATIC P.O. Box 5000, I'm ready to about the Navy	N CENTER Clifton, NJ 0 take charge."	Tell me
Name	(Please Print)	Last
Address	11.16.036 1.1.1117	+
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Date of Birth		
Graduation Date	¢ GPA_	
AMajor/Minor		
Phone Number. (Area This is for general recru- to furnish any of the ir more we know, the more of Navy jobs for which	itment information A formation requested we can help you deter	Of course, the

CERS GET RESPON SIBILITY FAST. Page Ten

THE CALIFORNIA TECH



Peter Ruga

History

by Pliny the even Younger More interesting tidbits of useless information gleened from the history of Caltech as seen through the eyes of the collective staffs of the *California Tech.*

10 February, 1949

In a change from their present losing streak, the Beavers Basketball team battled against the team from the University of Redlands for the Second place in the S.C.I.A.C. The game was lost to a very close 50-48 score in the last seconds of fourth quarter...oh well, sic transit gloria mundi. 7 Echnergy 1062

7 February, 1963 Six members of Blacker House relieved their destructive tendencies, and set a new record for reducing a standard class A upright piano for passage through a 20 centimeter aperture of 11:38.1. A class A piano is one which has at least 83 functioning keys, in this case, a Hallet & Davis upright formerly owned by Mr. J. Durante of Beverly Hills. 11 February, 1971

Caltech reeled beneath the might of the San Fernando Earthquake (geez, when those Geology people want more money they don't kid around). Throop Hall was the worst damaged of the buildings on campus, and was later con-demned and torn down. The Gates Chem Lab was closed of due to spills of reagent bottles in the frosh labs making the air unsafe. Also put out of commission was the Millikan Library, which was thoroughly trashed by books forcefully removing themselves from thier shelves. Otherwise, the campus got off with little more than minor plaster damage to most of its buildings, as well as numerous undergraduates who were forced out of bed at 6 a.m.



Food Service Worker Dies

By Kevin Mulcahy Peter Ruga passed away

early last Friday morning, the 6th of February, at the age of 69. For those of you who don't recognize the name, Pete was the thin gentleman with the big smile on his face who served on the main steam table every day in Chandler.

A native of the Phillipines, Pete arrived in the United States in 1951 and began his association with Caltech

association with Caltech. For the first nine years he worked for the Institute at what was then known as "the Greasy". After Chandler Dining Hall was built in 1960, Pete moved into the new facility and

served the Caltech community daily until this December, when he took a leave of absence due to health reasons.

Pete's genuine love of people, and the enthusiasm and professionalism with which he worked, helped to make the day a little more enjoyable for his customers and his fellow workers.

He will be sadly missed. Funeral rites will be on Saturday, February 14th at 9:00 am from the Angelus Funeral Home, located at 39th St. and Crenshaw Blvd. in Los Angeles. Burial will be in Holy Cross Cemetery.



FROM TWO

Techers after their presentation and said that the SSO representatives really knew what they were doing. Over the next few months the SSO will be in touch with George Baker to arrange the Launch Services Agreement for the first payload, which will contain the plant geosensitivity and crystal dissolution experiments. This payload is expected to fly on the Space Shuttle in 1983.

-the naturalist

The Student Space Organization is having a seminar to inform the faculty of its status and plans at noon on February 18 in 365 S. Mudd (Salvatori Conference Room). All faculty and staff are invited to attend.

GRADUATES:



YOU'VE ARRIVED!

You've worked very hard for that degree you're about to receive, and you're ready for a rewarding career in engineering or technical management.

If you graduate with a technical degree in the top half of your class, and if you have had leadership experience, you can now match your talents and technical vitality with our advanced technology to, well, make a difference in the world!

PACIFIC TELEPHONE,

A GIANT IN THE TELECOMMUNICATIONS INDUSTRY,

OFFERS

IMMEDIATE OPPORTUNITIES TO SUPERVISE IN THE EXCITING WORLD OF SOLID STATE TECHNOLOGY!

> Our representative will be on the Caltech campus on February 24, 1981. Please see our sign up schedule in the Career Planning and Placement Office.

EQUAL OPPORTUNITY EMPLOYER

Pacific Telephone

Friday, February 13, 1981

I'm lying on the floor waiting. I should be studying, but it's taking all my energy just to be here. I'm cold, but I don't have a blanket. I don't have any furniture either. The only thing in the room is petrified cat turd. I feel bad. I feel as empty as the room, There's a couple of bags of groceries in the next room. They're waiting too, but they look happier than I do. Everybody else has left. I was supposed to have left an hour ago. I could be working, but all I do is wait.

riday, February 13, 1981



Below, California Tech Editors: Roger Fong strangles the distinctly annoyed Tracy Furutani, as Ed Suranyi looks on



Y Presents

Paul Conrad

by Robert Hill

hat goes through the mind of ruggle to summarize the days events in cartoon form day in jects that may be touched on and day out? Well, if you have

Have you ever wondered mal presentation, using slides at goes through the mind of and chalkboard to illustrate political cartoonist in the how a political cartoonist goes about his daily business. Subinclude motivation, methodology, working to a deadline, a personal analysis of the current political situation, and, of course, his views on the creative process. Throughout the past few centuries, the political cartoonist had been irregularly a powerful political force. William Hogarth (English, mid 18th century) and Francesco Ceoya (Spanish, early 19th century), both important artists in their own right, had profound effects on their respective societies by virtue of their pointed cartooning. In an age when few could read a visual

THE CALIFORNIA TECH

More ASCIT Pix



Above, Joint ASCIT Ath Men: Greg Schenter/Scott Bloom Left, Directors-at-Large: Mara Freeman grins, as Barbara Turpin fends off photographers.

ELECTRONIC ENGINEERING & COMPUTER SCIENCE GRADUATES:

IN TODAY'S WORLD OF TEST SYSTEMS TECHNOLOGY, MOST PEOPLE PLAY FOLLOW THE LEADER

MEET THE LEADER

We're the Fairchild Test Systems Group, and we're the pacesetters in an industry where changes in technology and the market place can happen overnight. That's why we don't simply maintain our products, we constantly update, improve, and originate new products to solve the very latest industry dilemma.

As a result, we need people who want their careers to be full of technical challenge...and at a pace that is fast moving, because as an industry leader, we won't settle for anything less than the best. For you, this will mean greater career growth opportunities, coupled with an environment where creativity is encouraged, and rewarded.

This philosophy is further advanced by our commitment to a strong research and development program. As a part of the Schlumberger family of companies, Fairchild Test Systems will continue to follow the successful pattern that is indicative of a company that breeds ideas, technology, dedication, and talent.

OUR COLLEGE REPRESENTATIVE WILL BE HERE ON CAMPUS: MONDAY, FEBRUARY 23rd.

IF YOU'RE AN EE OR CS GRADUATE, ready to enter a fast-paced industry where you can apply your talents and ideas to the fullest, then meet our representative on campus to discuss the exceptional opportunities awaiting you.

If unable to meet our representative, please forward a letter of interest to one or all of the following facilities:

> Fairchild Subassembly Test Systems, College Coordinator, 299 Old Niskayuna Rd., Latham, New York 12110

and even if you haven't, but are still interested), the Caltech presents PAUL CONRAD speaking on "An Idea a Day: The Creative Process" (Baxter Lecture Hall, 8:00 pm, Thurs-day, February 19).

Mr. Conrad, the often controversial cartoonist for the Los Angeles Times, has kindly agreed to speak on campus, and suggested the topic above. The cartoonist is more deadline-conscious than perhaps any other artist, but Mr. Conrad indicated that he believes that there are great similarities between the creative processes needed in both carlooning and in writing. He hopes to give a relatively infor-

CONTINUED ON PAGE 12

Fairchild Test Systems Group College Coordinator 1725 Technology Drive San Jose, CA 95052

Fairchild Xincom College Coordinator 21300 Van Owen Canoga Park, CA 91303

As an affirmative action employer, we encourage women, members of minority groups and the handicapped to apply.



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stuff that didn't fit anywhere else

Political Internment

The Dean's Office is pleased to announce that the Beckman Internship will be available for the summer of 1981. This internship, supported by friends of Dr. Beckman, pays a stipend of \$2000 for a period of up to 12 weeks plus travel expenses. It allows a selected Intern to spend the summer working in the office of a politician and seeing the process of govern-ment from the inside. The Intern is expected to make arrangements with the appropriate political persons. It is open to any Caltech undergraduate who intends to be a Caltech undergraduate next year. If interested, contact either David Wales or Chris Wood in the Dean's Office, 210 Dabney, x635.1.

Deadline: February 27, 1981

Are You Sociable?

Anyone interested in becoming an Executive Social Committee (ESC) Rep. at Large, sign up on the sign-up sheet on Theresa Meisling's door (105 Winnett) or talk to Gloria Badilla (65 Fleming) by Friday, February 20.

Math With Cookies

There will be a Math Club lecture on Tuesday, the 17th, in room 351 Sloan. The subject will be "Arranging Elements Into Sets", given by professor Richard Wilson. Refreshments will be served whenever the lecture is (the Math Club forgot to tell us the time, so bug them about it, not us).

Video Art

Art-namely Video Art is being offered for the first time in the spring quarter. This course was inadvertently left off the course schedule for preregistration. If you are interested in this course, or think that you might be, contact Dr. Rosenstone (x4069). We hope to have further information on this course in next week's Tech, but don't take any chances. You know how our writers are.

Pugwash Conference

Students interested in participating in a Pugwash Conference June 15-21 at Yale University should see Chris Wood or David Wales in the Dean's Office for applications. The topic this June will be "Moral Dilemmas of Technology & Democracy". The Conference holds daily discussions.

Women In Science

A career workshop for women in science has been planned for March 21, 1981 by The Aerospace Corporation. The workshop is a day-long session that will explore issues confronting women in science, career planning strategies, opportunities in science and networking with other women in science. Completed application forms, with \$5.00 registration fee (includes lunch) are to be returned by February 20, 1981. The application forms are available in the Placement Office, Room 8, Dabney Hall.

Summer Johs!

Stop by the Placement Office, Room 8, Dabney Hall and talk with Lynne about summer work experience possibilities!

Wanna Work For Ma Bell?

There will be a Pacific Telephone Orientation Meeting on Monday, February 23. The session will be held in 153 Noyes from 4-5 pm and a short film regarding employment opportunities will be shown. For information about making an interview appointment, please stop by the Placement Office, Room 8, Dabney Hall.

Lights! Camera! Action!

Are you interested in filmmaking, cinematography, special effects, set design and on the USC campus. construction, costume design, lighting, writing, or directing? If so, then the Caltech Film Workshop is for you! Meetings are held Wednesdays at 5:00 pm in the Master's Office. Be there! [Cut!]

Use It Or Lose It! The fiscal year for ASCIT

ends on February 28. This means that if you had money budgeted from ASCIT for your club or organization, you must pick it up by this date, or kiss it goodbye. Talk to Dan Per-nich, 231 Lloyd, or phone 796-1698.

Attention Senior Class!

There will be a meeting for all interested (read: not too burnt out) seniors to discuss a clss gift this year. The meeting will be held on Wednesday, February 18th at 4:00 pm in 147 Noyes. Underclassmen, don't bother spying-Ditch Day will not be discussed. (Besides, you need to get prepared since it will definitely be tomorrow!) If you have any questions, get in touch with Jeff Derby, Ruddock 112, 796-7817.

Harvester Fellowships

International Harvester has announced the availability of six dissertation fellowships in Engineering and Applied Science. The fellowships will be awarded for a period of up to two years and will provide funds for tuition and support of research costs. The maximum funding for each of the fellowships is \$25,000. The application deadline is April 5, 1981. Application information and procedures are available from the Placement Office, Room 8, Dabney Hall.

International Career Faire

The Office of International Students and Scholars of USC will sponsor an International Career Faire on Thursday, March 26, 1981, from 9 am to 4 pm in Towm and Gown Hall

The faire is designed for foreign students who seek employment in their home countries upon graduation in 1981. The faire is free to students. For further information contact Suzanne Traeger (743-2666).

The Rotary International Club is sponsoring the annual International Rotary Fellowship Awards for students doing graduate work. Winning students are eligible for up to \$15,000 per year of travel and living expenses in foreign countries. For the past several years no one has applied for this prestigious award, but this year should be different. For information, go to the Placement Office or call George Cassat at 449-1240. Application deadline is March 1, 1981, so please hurry. Winners must re-apply each year that they intend to continue in the program.

Rotary Fellowship Awards





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Conrad

from eleven

message was all important; Thomas Nast's cartooning led directly to the downfall of the corrupt New York political machine of the 1870's, with Tammany Hall's boss William Tweed complaining Marcy about "them damn pictures". As accomplished artists, Ceoya and Hogarth were particularly powerful influences because of this visual aspect.

In North America and Western Europe today, where literacy is high, a punchline is now perhaps as important as visual impact. Oliphant, Trudeau, and Feiffer are current masters of the cartoon with dialogue. This is not to say that dialogue is all important; Herblock's famous cartoon of then Vice-President Nixon emerging from a sewer, and Conrad's Nixon in a spider's web, for example, need no message other than the obvious visual one.

So where does that leave the cartoonist today? Come along on Thursday, and hear Paul Conrad express his viewpoint.

Caltech 107-51

PASADENA, CALIFORNIA 91125



The Board of Control would like to thank all those who attended the recent Hono System forums held in each o the houses. We felt a ven valuable exchange of information tion and understanding tool place at these meetings. A sun mary of some of the main topics of discussion and issues raised will appear in futur issues of the Tech.

As an aside, the Board recently selected two new reps at-large. They are Sekho Nick Gross Chivakula and They were selected fror among thirty-four candidates in a sixteen hour selection process.

-Bryan Dunkela

Classified Ads WANTED

DIGITAL TECHNICIAN experienced with microprocessors. Audie equipment manufacturer. Lin Electronics. 850-0741.

VOCALIST WANTED: Caltech rmv band needs Caltech undergrad to sing sizzling, screaming rock & roll. Must be able to practice some weeknights in the Jam Room and make occasional concerts at the Forum. Dial 793-7882/577-8377

SERVICES TYPING Lexitron word-processing service Call Marie at 449-3838. Twentyfour-hour service. A Neil Hickey Shal Farley Enterprise.

PIANIST with degrees from Indiana University and the Vienna State Academy for the Arts offers piano instruction (beginning through advanced). Call Raymond Berney 255-7375.

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Buying or selling something? You, too, can take out an ad in The California Tech! The cost is \$2 per inch plus 30c per extra line for Classifieds. Bring ad copy to the Tech office or call 356-6154. OK1



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