

General People

Lynette Saves

By H. N. I. Mayhem

One unfortunate result of the extent to which students at Caltech tend to concentrate on schoolwork is that many do not realize that there is a large group of people on campus working to improve student welfare. Lynnette Wilmot, one of the nurses at the Health Center, is a particularly good example of the kind of person who does what she can to improve life at Caltech.

Lynnette has been working in the health services field for the past several years. She received her registered nurse training at Riverside, and afterwards went to work at Kaiser Hospital as head nurse of the orthopedic floor. Lynnette joined the Health Center staff in January 1980, and is currently in internship for a Nurse Practitioner license.

Lynnette's particular area of interest is Health Education. Health education involves informing people what they can do to stay healthy and where they can go for help with any health problem. She felt that there was a particular need for such education at Caltech, where students tend to neglect their health to a great extent. [By the way, do you know where the Health Center is? It's on Arden, just south of California Blvd., second driveway on the right.]

In an effort to correct this problem, Lynnette initiated the "Body Shop" column. She feels that the column has succeeded in making students more health conscious, and she hopes that this trend will continue. In the future, topics such as birth control and drugs will be discussed in the column, and the scope of the column will be broadened as other members of the Health Center staff will be contributing.

Lynnette would like to stress the fact that the Health Center exists to serve the



Photo by Steve

This seemed to be "The Week of the Ex-Editors". Stuart Goodnick pondering the consequences of his new mantra. Note the novel tweeds. On a similar note, see the letter from G. Ollie G. on page eleven.

Heaped with Messages, Acclaim

by Durham Oliver

Stuart Elgin Goodnick, the ex-editor of the *California Tech*, returned quietly last Tuesday, nearly two weeks after his sudden disappearance.

His return was marked by a casual "hello" as he strode into the Dabney House lounge, at four that afternoon. He then retired to his room in Upper Seven alley, to an amazing plethora of messages posted on his door.

The following day, he registered for classes for the Winter quarter, and dropped into the *Tech* office the next evening to a throng of well-wishers.

In an exclusive interview with the *Tech*, he revealed that he had been living somewhere "in Altadena" during his hiatus with the full intention of returning to Caltech. The reason for the junket was that he had to "attend to certain long-term commitments," on which he declined to elaborate. It was apparent, though, of his change in lifestyle. No longer the morose, harried journalist of past, he now flashed a touch of class, a gentle unctuousness, based on his general change in attitude. Even his attire had metamorphosed. Cloth pullovers were replaced with derby, top-coat and cane. He emanated an aura of insouciance most com-

monly found about those who have been relieved of an immense burden.

Asked about his abdication, he conceded that it was true however he did such an extreme act, so he could "get

more money if [the new editors] are editors." His final comment on his new-found elevated state was characteristic of his ephemeral style: "Flock."

Dickerson Wins Award

(CNB)—The Upjohn Company has awarded Professor of Physical Chemistry Richard E. Dickerson an unrestricted grant of \$10,000 to support his x-ray studies of the structure of DNA and how it combines antitumor drugs used in cancer chemotherapy.

Although it has been known for many years that DNA, the basic genetic material of life, has the structure of a right-handed double helix, and that many antitumor agents act by binding DNA, little was known about the details of this interaction. Dr. Dickerson and his colleagues here at Caltech, in collaboration with Dr. Keiichi Itakura at the City of Hope National Medical Center in Duarte, have synthesized DNA molecules of known se-

quence and have solved the structures of three such molecules to see the details of their helices.

By shining an x-ray beam through the crystals and studying the resulting diffraction patterns they have been able to determine precisely how the atoms of these DNA molecules are arranged in space. Perhaps even more significant is their identification of the location at which "cisplatin," the most commonly used inorganic substance in cancer chemotherapy, binds to the DNA molecule. The team is currently studying the binding of DNA to the chemical

continued
on page 10

Bylaw Changes Voted Down

Salaries Nudged; Elections Creamed

by Tracy Furutani

Major changes in the bylaws did not fare well in last Monday's special election; the increase in publications' officers' salaries and the change in the ASCIT elections bylaws went down to ignominious defeat. However, the amendment to lengthen the term of office of the treasurer passed by a five to one margin.

The actual vote count showed the publications' issue being defeated by eight votes, while the bylaw changes were soundly drubbed.

The most unusual facet of the election, though, was the low voter turnout. Of the over 800 eligible voters, only 250 actually voted. Chris Kingsley, the ASCIT elections chairman, admitted this was low even for a bylaw election, and attributed it primarily to "apathy". He used the Winnett Student Center ballot box as an example of the low turnout. By the time the polls closed at 9:30 p.m., over ten hours after they opened, there was one vote inside the Winnett box, that only because the election chairman directed the voter there.

Kingsley noted that, though more publicity could have helped the voter turnout, generally it was a smooth election.

In a related subject, nominations for ASCIT elections closed yesterday and all campaign statements are due next Tuesday, the 26th. General elections will be held February the second.

Election Results

Article Four—Officers	For 205
	Against 41
Article Eight—Elections	For 88
	Against 165
Article Fourteen—Publications (Two-thirds majority needed)	For 164
	Against 86

SSO Needs Help

By Lee Sunderlin

The Student Space Organization is working on six experiments to be carried into orbit on board the space shuttle. The students are currently making project designs for a flight about three years from now. All six experiments concentrate on the effects of zero gravity on various physical, chemical, and biological functions.

One project is an attempt to make better permanent magnets by avoiding convection currents caused by gravity in crystal formation. On the other hand, a different group is trying to form stronger non-crystalline alloys by also avoiding gravity convection.

Two other experiments will deal with the dissolution of salt in zero-g and the study of movement in droplets at various temperatures by photographing suspended aluminum flakes.

The biological experiments will cover plant growth in a centrifuge at various speeds to determine their response to gravity. They will also see how fungi avoid barriers in null gravity. This will support or weaken the theory that they emit gases and sense their return on gravity-produced convection currents after reflection from objects.

The SSO needs workers, especially biologists and engineers. Credit is available for time spent. If you are interested, there are meetings at 5:15 Thursday in 210 Thermo.

Photo by Steve

Lynette Wilmot of the Student Health Center, always available.

students. If you have a health problem, or any sort of problem, Lynnette and the others on the staff will be glad to help out. Lynnette would also like to encourage anyone with questions or ideas for future "Body Shop" articles to stop by and talk to her or someone else on the Health Center staff. The Health Center is open around the clock from 8:00 am Monday to 9:00 am Saturday, and in an emergency, you can reach Dr. Katabgian or Dr. Manjikian at 796-0101 on weekends.

EDITORIAL

Another one bites the dust
—Queen

Due to technical difficulties within our control, Stuart Goodnick will no longer espouse some deep Eastern philosophy; instead, we've decided to write *comprehensible* editorials.

Though this is our first real issue as editors (after many false starts), we have discovered that we do not know most of our staff, so, it probably is a good idea as any to reintroduce the *Tech* staff (in case you want to know whom to sue).

Among our prolific (and procrastinating) writers are: from Lloyd, Lee Sunderlin and Mike Walsh, from Fleming, John Krehbiel, from Ruddock, Peter Kaminski, Joe Balke and Charles Hershey, from Ricketts, Les Grate, from Page, Dave LePoire, and from Dabney, Margie Farrell, Lisa Grenier, James (His Name Is) Mayhem, Chuck Nichols, Richard Pogge, Bruce Sams, and Glen Swindle.

All is not roses, however. Purportedly illustrating the newspaper are our lackadaisical *Tech* photographers: first and foremost (always willing to lend a foot in the mouth) from Fleming House, the Head Photographer, *Ken Gant*. Among the mere mortals are: Paul St. Marie (a.k.a. Paul S&M a.k.a. Eraserhead), Dabney House; Mark Waggoner, Page House, Steve Swanson, Ruddock House, and oh, yes, another strange Flem, Grovel, is it, no, Grover!

The business manager is Gavin Claypool, an ex-Scurve, who takes care of all the business aspects of the *Tech*, while trying to find himself a suitable replacement.

No less important is the glowing circulation manager, Paul Eskridge (Dabney) who dutifully picks up the paper from the printers every Friday morning at three and inflicts it on the houses. He is also responsible for mailing issues to our subscribers.

FRIDAY
NIGHT

ASCIT MOVIE

7:30
10:00

TONIGHT:

The Dove (DE DUVA)

PLUS:

3 Original Films By Wayne Coe

50¢ ASCIT members Baxter Lecture
\$1.00 All others Hall

NEXT WEEK: Start the Revolution Without Me

THE CALTECH Y fly-by

Today, Friday, January 23: NOON CONCERT! Featuring "Da Camera Brass Quintet" playing music of the Renaissance, the 19th Century, and the 20th Century. Get a music history lesson in one hour! Bring your lunch out to the Quad and enjoy.

Saturday, January 24: SAILING TRIP. The lucky ten people who won the lottery for the yachting trip abroad an Ericson 35 must meet behind Winnett Center at 8 A.M.

Monday, January 26: A demonstration on SELF-DEFENSE and martial arts presented by "Women in Martial Arts," at noon on the Quad. This is a continuation of the series on "Violence, Abuse of Women, and Self-Defense."

Tuesday, January 27: A representative from Haven House (a refuge for battered women) will speak in Winnett Lounge at noon. Co-sponsored by the Organization of Women at Caltech.

A PHOTO WORKSHOP with Dr. A. M. Razum. The topic for this week is "Shutters and Apertures." Meet in Winnett Clubroom One at 4:15 P.M.

Behind the scenes in production is Nick Smith, an ex-editor, ex-Page person, now typesetter for the *Tech*, along with the usual rogues' gallery who try to layout the articles in subliminally aesthetic manner.

Our special consultant, Manny, is the foreman at News-Type Service (the printers). He and his cronies do the actual placing of ink on paper (*not* by hand, Ed).

Of course, we run into our share of problems; indeed, the major (and often fatal) flaw of the *Tech* is its perennial article shortage. To remedy this, we sometimes must draft ex-editors to submit random, spontaneous commentaries or reviews (which explains last issue's restaurant review). Among this select group of *ersatz* journalists are Dave Younge (now Dabney House president), and Alan Loh.

Finally, there are the semi-literate (but lovable) present editors, us, who claim responsibility for the *Tech*, and make sure it is dealt out on time, if more than a trifle inefficiently.

In conclusion, now that we (and you) know who is on the staff, we will endeavor to give the accustomed high quality, hard-hitting yellow journalism.

—Tracy Furutani, Dabney House

Ed Suranyi, Ricketts House
Roger Fong, Dabney House
(well, sort of)

P.S. Apologies to anyone omitted, advertently or not. Also remember that you too can be a layout troll, a prolific pundit, or even business manager. Sign up now at the *Tech* office.

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CALTECH STUDENTS: RUSH TICKETS, if any tickets remain, will go on sale at the Caltech Ticket Office at 10AM Friday, February 7. Price: \$3 each. Limit of two tickets per student; I.D. required.

Tickets are on sale at the CALTECH TICKET OFFICE, 332 So. Michigan Avenue, Pasadena (north of Beckman Auditorium, across the parking lot). Ticket Office Hours: Mon.-Fri., 10AM to 4:30PM; Sat., 10AM to 1PM. For information, call 356-4652.

DONATION WANTED

By Mike Meyer

Starting today, and continuing until Feb. 9, student "agents" of the Caltech Y will be scouring the campus, off-campus houses and soon, looking for the ever-elusive contribution.

When Y Excomm members come around with the blue donation cards, try to remember a couple of facts. First, the Y's program capabilities are a direct reflection of student, faculty, and staff participation and interest. Ideas are valuable contributions, as well as money. Have you ever complained that we aren't doing enough? Well, it's simple: money (and ideas) make programs, like decompression, noon concerts, and ski trips possible. Consider it.

Secondly, we're just not asking for that much, folks. If every grad and undergrad gave \$5, we'd bring in about \$8000. That would be super, since that's about a third of our program budget. We usually bring in only about \$3000, sometimes less. Five or ten bucks is so painless (over the course of a year), and it provides so much in the way of programming and services. Please help us to help you. And don't be shy about writing your ideas on the donation cards.

The California Tech

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OWC to Sponsor Defense

By Jeanne Nerbonne

The Organization for Women at Caltech and the Caltech Y will sponsor a series on "Women, Violence, and Self-Defense" during the winter quarter. The program will begin with a guest speaker from the Pasadena Rape Hotline and continues with a speaker from Haven House (a refuge in Pasadena for Battered Women) on January 27th, at noon in the Winnett Lounge. These lectures focus on women as victims, the hows, the whys, and the wheres of abuse as well as what to do and where to go in the event of a physical assault.

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teresting objects, a large proportion of which were initially discovered via their intense radiation at radio, x-ray, or infrared wavelengths."

These objects include distant radio galaxies, quasars, and clusters of galaxies.

"The sky survey conducted between 1949 and 1957 is widely recognized as being one of the most important astronomical developments of the 20th century," said Caltech Professor and Executive Officer for Astronomy Wallace L. W. Sargent, who will oversee the new survey.

"Without it, many of the most spectacular developments in contemporary astrophysics would have been either impossible or seriously impeded. The sky survey enabled swift optical identification of in-

continued on page 6

FREE VIKTOR BRAILOVSKY

To all who value freedom:

Dr. Viktor Brailovsky is currently in Butyrki prison in the Soviet Union. He has been held there for two months, no official charges have been made. His crime: wanting to leave the country to live in the land of his heritage—Israel.

A top computer scientist, Brailovsky was dismissed from his work and isolated from his Soviet colleagues. He subsequently assumed the leadership of the now famous Sunday Seminar, an unofficial group of scientists who like himself, have been unable to work and study in their respective fields.

For this and for his intense involvement in the Jewish cultural renaissance, he and his family have suffered unspeakable harassment.

All of us who value human rights share his captivity. For further information contact the local Hillel office.

sponsored by
L.A. Student Coalition for Soviet Jewry
Caltech Hillel

teresting objects, a large proportion of which were initially discovered via their intense radiation at radio, x-ray, or infrared wavelengths."

These objects include distant radio galaxies, quasars, and clusters of galaxies.

The new effort, which will take several years, will consist of photographing about 700 overlapping areas of the entire sky north of the celestial equator, in both red and blue wavelengths of light. The 48-inch Schmidt telescope at Palomar Mountain is the best choice for the survey because of its large size, wide field, and ideal siting. The project will

BODY shop

The appendix is a hollow, tubular organ about 10cm long and 5 or 6cm in diameter. One end opens into the first portion of the large bowel; the other end is closed. It is usually located in the right lower quadrant of the abdominal cavity. Inflammation of the appendix, or appendicitis, is common. I see an average of six cases per year at Caltech alone.

While appendicitis can be very tricky indeed, most cases show a rather typical pattern; something like the following:

Some innocent Tech, in perfectly good health, notices a severe pain around the mid-abdomen. At the same time,

there is almost always a profound loss of appetite. This frequently progresses to nausea and vomiting. After several hours, the pain becomes localized over the appendix, usually (not always) in the right lower abdomen. Often there will be fever, usually under 101°F. Also common is a feeling that the pain would go away if one could have a bowel movement, but even if one does, the pain persists. Diarrhea is quite uncommon.

If, at this point, the doctor sees the patient, he or she will usually notice localized tenderness and involuntary splinting of the abdominal wall

THE CALIFORNIA TECH

muscles in the right lower quadrant. There will often be tenderness high on the right when he does a rectal and/or pelvic examination. Through the stethoscope one will usually hear diminished bowel sounds. There may be evidence of dehydration, depending on the amount of vomiting, but this is not, as a rule, very severe.

The most common laboratory abnormality is elevation of the white blood cell count. Normal is 5-10 thousand per cubic millimeter. In appendicitis this will probably be up to 12-18 thousand and there will be an increased percentage of young white cells, which are called "stabs" in medical jargon. Urinalysis is usually normal, although white blood cells may be reported, especially if the inflamed appendix lies next to the ureter (a tube connecting the kidney to the bladder).

If no doctor is seen, the pain will worsen for something like 24-36 hours and then the appendix will perforate, spilling pus, feces, and other unspeakably deleterious things into the abdominal cavity. Needless to say, this is a grave matter (pun intended), and carries a mortality rate of around 3% even in the best hands. Non-fatal cases are very ill and long hospital stays are the rule. The treatment is unpleasant.

The remedy, obviously, is appendectomy before perforation occurs. This operation is relatively safe (mortality 0.1-0.3%), recovery is prompt, and once out, the appendix is gone for good.

Expense is not much of a problem at Caltech for most students because of insurance. If one had to pay out of pocket for surgeon, assistant surgeon, anesthesia, and three or four days in the hospital, I would

guess the cost at roughly \$3-4,000. For management of a perforation of the appendix the range would vary enormously, but I would expect figures in the tens of kilobucks at least.

The above, much simplified history of a typical episode of appendicitis omits much. For one thing, the progression of the disease is by no means inevitable. On the contrary, it is fairly common for appendicitis to cure itself, provided the progression stops before infection and gangrene set in. Thus, one often sees patients with appendicitis who give a history of past similar episodes which only lasted a few hours and then went away.

Typical appendicitis is easy to diagnose and, to most surgeons, easy to treat.

Non-typical appendicitis, seen perhaps 10-15% of the time, is treacherous and may deceive experienced surgeons.

My advice is this: any pain in the belly which lasts more than a few hours should be seen at the Health Center.

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



After 15 interviews with various companies, I finally found MITRE. And after 15 interviews I definitely knew what I was looking for when I saw it.

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Baxart

SITE

(BAG)—An exhibition of the work of SITE, the unique and highly acclaimed New York architectural and design firm, opens at Caltech's Baxter Art Gallery February 11 and continues every day through March 22, 1981.

"This exhibition documents the work of a controversial and innovative architectural firm in an appropriately innovative way," says Baxter Art Gallery Director, Michael H. Smith. "Rather than simply doing the usual (displaying photographs of completed projects), SITE designed this ten year survey of their work to include the realism and vitality of an actual construction site."

Within the gallery, people are part of the building process but stand protected—separated from the activity by a graffiti covered construction fence. Some windows enable viewers to witness the ongoing creation of new, brick walls for the gallery, while other "windows" display large, illuminated transparencies of SITE's architecture and design projects. The firm's only California building, included in the survey, is the "Notch" showroom in Sacramento for Best Products, Co., Inc. A corner of the building breaks away daily on a motorized track to become the main entrance for the retail store. At closing, the "notch" returns to seal the structure for another day.

Other projects included in the exhibition are "ghost parking lot," executed in a Connecticut shopping center where 20 cars are entombed in asphalt; and SITE's latest building, the "Forest" showroom (or "nature's revenge"), which is penetrated and enveloped by trees, in Richmond for Best.

SITE was founded a decade ago in New York City to bring about a "fusion of art and architecture." James Wines, a principal and co-founder of

CONTINUED
ON PAGE 5

* horseshit 'n' hee haw *

Ranting Raving

Throughout this year the musical tastes of the inhabitants of the Heaven and Tunnel alleys of Blacker House have left a lot to be desired. The Moles could be counted upon to blast such trash as the "Cars", the "Clash" or equally despicable sound at very distorted volumes.

However, an event of monumental importance occurred Saturday afternoon—a Mole actually played good music at high volume. I could not believe my ears when I heard the classical sounds of Boston's "Don't Look Back" album, followed by an album by ELP, no less. For a brief instant my hopes for improved musical tastes of my neighbors soared.

No sooner had two tracks of the Boston LP been played than Mr. Bruce Sams, a typical Darb who wears a single moth-eaten Grateful Dead T-shirt all week long, hurled his window open. Foaming with rage, he screamed down towards the window from which this fine music was emanating, insisting that it be turned off. He then continued to babble endlessly about the lack of musical competence exhibited by the musicians of Boston.

I cannot see how Mr. Sams (who knows all of the A, D, and G chords on the guitar) can pretend to discuss the musical proficiency and creative ability of any band. I would like to urge the Mole who showed such promise and good taste to ignore the moronic howling of Mr. Sams, and to continue to play the fine music that he chose to play on Saturday.

—Glen Swindle

SITE

FROM FOUR

SITE, will discuss this sometimes difficult ideal in Caltech's Baxter Lecture Hall on Tuesday evening, February 10, at 7 p.m. Immediately following at 8:30 p.m., the Pasadena Art Alliance will host a preview of the exhibition in the Baxter Art Gallery.

On subsequent Tuesday evenings at 8 p.m. in the Baxter Lecture Hall, Coy Howard, architectural designer, (February 24); John Pastier, architectural critic, (March 10); and Tony DeLap, artist, (March 17) will discuss SITE's controversial position in the worlds of art and architecture.

This circulating exhibition was organized by and initially presented in June 1980 at the Virginia Museum in Richmond. The project was conceived and developed by SITE, New York, New York and sponsored by Best Products Co., Inc., Richmond, Virginia.

Prior to Pasadena, the exhibition was also presented at the Laguna Gloria Art Museum in Austin, Texas. After Caltech, the show will travel to the Crocker Art Gallery in Sacramento, California and then to the Spenser Museum at the University of Kansas, Lawrence.

Several days past a Mole (who in the interests of mercy shall remain nameless) undertook to give all of Dabney House a lesson in musical aesthetics. "What brilliance" I thought as the first cacophonous chords of Boston rang through the courtyard. "He's starting the lesson by showing us how bad music can be—then we'll appreciate the good music that comes later." But when full volume-distorted Emerson, Lake and Palmer followed I realized with a shock that he liked the sounds made by these three misguided genetic throwbacks.

Finally, I could stand no more—it seemed best to help this poor fellow lest he embarrass himself any further. No sooner had I made myself heard than Glen Swindle reared his misshapen head.

The product of generations of intense inbreeding, Mr. Swindle was pleased by this vacuous drivel masquerading as music. He stood at his window yelling for more and foaming at the mouth—quite clearly out of control. "Does he have rabies?" I wondered (I knew he had a girlfriend), "or has too many hours of Led Zeppelin finally driven him over the brink?"

I tried to convince him of his error, but unable to speak his native tongue, I soon found argument useless, and broke off in frustration like a trainer dealing with a recalcitrant baboon.

Insanity seems the only answer—either that or Mr. Swindle is trying to broaden his musical horizons—in Glen's case this is much like trying to stretch a soggy paper towel—to include other kinds of "music". As I walked past his door this evening I heard the sounds of "Shake Your Booty". "It's hopeless," I muttered....

—Bruce Sams III

Behavior Studied

Recent advances in evolutionary biology have completely restructured our understanding of non-human social behavior. Eleven eminent experts will examine this approach to the study of animal behavior on the weekend of

January 31 and February 1 in Ramo Auditorium during a series of lectures and panel discussions entitled "The Evolution of Behavior: Theory and Evidence." These lectures will be technical.

Reservations for this sym-

posium, sponsored by the office of the President of Caltech, with the cooperation of the L. S. B. Leakey Foundation, may be made at the Caltech Ticket Office, 332-92. There will be no charge for tickets, but early reservations are recommended as seating in Ramo Auditorium is limited to 400.

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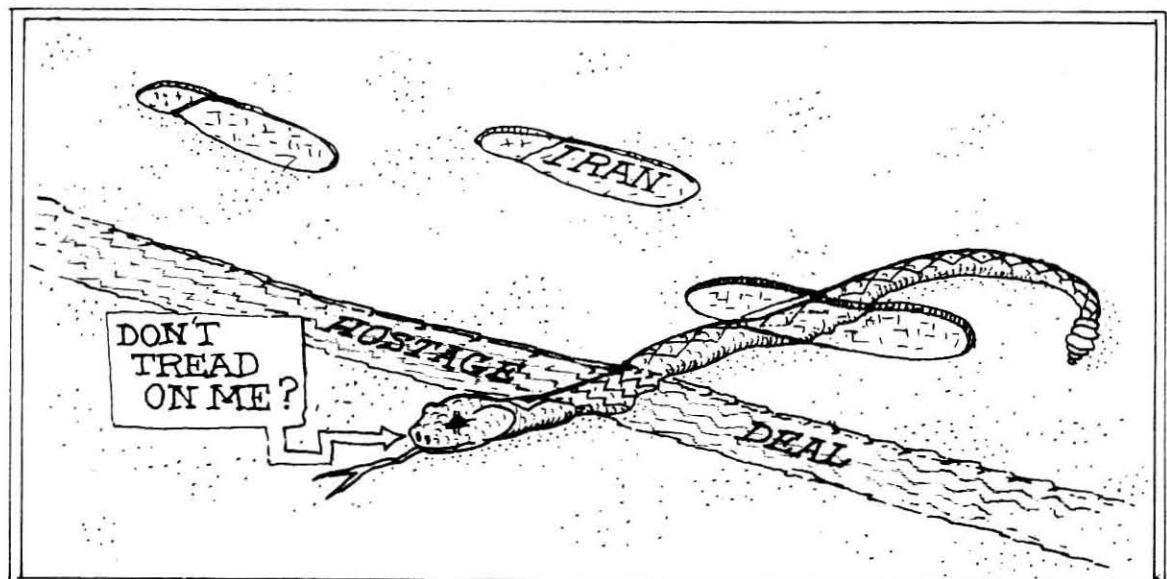
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STC will be interviewing on-campus January 28



Fulfilling the promise of technology



This Month



Christopher Robbins

By now everyone's into the second term swing, settlin' down and gearing up. For most people it's a turning point. This is where they decide if they want to go into self-motivated success or self-inflicted depression. You most likely fit into one of three categories:

1) Ahead in everything, plenty of time to do the things you want to do;

2) Makin' it. You're getting by, handling things in on time, with a little time left over for fun;

3) Work piling up, behind, no incentive to do work.

If you are a 3er (or a 2er sliding down fast), then look out. You've got to start digging

up some self-motivation fast! You've got to get back in the swing. The work's just gonna sit there till you do it. It's easy to say "I don't feel like working" and do nothing. The hard part is finding the motivation necessary to get the job done. I don't have to tell you "You should do the work", "Stop avoiding your responsibilities", "You're wasting time doing nothing". These things might be true, but it's not right for me to say them, nor should you say them. You shouldn't be saying those things to yourself. They're almost self-defeating. You should be attacking the problem from the roots. Find ways to become more interested in the work. That's not as dumb or as simple as it sounds. Try new things. Study in a new place, work at different times, play music, rearrange your room, anything! Try not to make Tech so monotonous. Believe it or not, studying can be fun, if you know how to do it. You've got to get up for it, get psych-ed. A little spontaneity wouldn't hurt either!

Do you think you're putting enough into Tech? Getting enough out? Maybe you should be re-evaluating your priorities. It's never too late to change your life, especially for the better.

— Christopher Robin

Sky Survey

FROM THREE

complement a similar survey of the southern sky now underway at the European Southern Observatory in Chile and the UK Schmidt telescope in Australia.

Reproductions of the photographs will be made available to astronomers all over the world.

The basic reason for the new survey is the development of new films with finer grain emulsions with a higher storage capacity. Another survey of the sky will be carried out simultaneously in the infrared region of the spectrum.

The new survey will be used to aid several other major astronomical efforts over the next decade. It will help guide the use of the Space Telescope to be launched in 1986, and will be used to optically identify objects detected by ground-based radio telescopes, and infrared- and x-ray-detecting satellites.

To fund the effort, the Alfred P. Sloan Foundation has granted \$350,000, the National Geographic Society \$300,000, and Eastman Kodak \$90,000, plus all the necessary photographic products. A portion of these funds will be used to modernize the 48-inch Schmidt telescope. Caltech will contribute the cost of using the 48-inch Schmidt for the approximately 700 nights of observing required.

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While most of our openings are of a technical nature, we encourage you to contact us about non-technical opportunities which exist from time to time in Finance, Sales, Administration, Personnel, Material Control, Marketing, Production, and other Support Functions.

We'll be on campus Wednesday, January 28.

Where you start your career is extraordinarily important. Your first job—and what you do with it—will shape your future for years to come. Take time to review the Signetics Recruitment Binder which you will find in your Placement Center. You'll learn about our opportunities in California, Utah and New Mexico. Or, write to Signetics College Relations, Opportunity CP-81, 811 East Arques Avenue, Sunnyvale, CA 94086. We are an equal opportunity employer. Permanent residency visa preferred.

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ENTERTAINMENT

MOVIES plays **SPECIAL EVENTS**

Goldie Giggles

Private Benjamin is a showcase for Goldie Hawn's talents. Unfortunately, Goldie Hawn's talents are limited to giggling and looking cute.

Hawn plays Judy Benjamin, a dizzy Philadelphia socialite who has just achieved her childhood dream—marrying a professional man and living in a big house. Tragedy, or tragi-comedy in this case, strikes when Judy's husband dies on their wedding night and she realizes that for the first time in her life there is no one to take care of her.

Dazed and confused, Judy enlists in the Army after a devious recruiter convinces her it will be like a country club. The idea of a pampered rich girl in the Army is a good one, but *Private Benjamin* doesn't use it to full advantage.

When her parents try to get her discharged so that she can go home with them, Judy decides the Army might not be

such a bad place. From here the movie becomes slow and humorous as we watch Judy make good. She becomes the star of boot camp war games and is assigned to an elite fighting unit. She is then assigned to the world headquarters of SHAPE while always remembering to smirk or pout for the camera.

Private Benjamin has been promoted as a women's lib film in which a helpless little "girl" is transformed into a competent woman, but it's not. Despite her Army adventures, at the end of the film Judy seems no more capable of taking care of herself than at the beginning.

—Lisa Grenier

House Fellow Program

The Master's Office, at the suggestion of several members of the student body, is launching a program to promote greater interaction among the Caltech faculty and undergraduates.

Dubbed the House Faculty Fellow Program, it involves some faculty members who have agreed to be formally associated with a particular house for one term in order to become better acquainted with students. They are invited to eat lunch or dinner as often as they wish at the student houses, and are encouraged to do so on a regular basis. Various faculty/house events may also be arranged during the term.

It is hoped that this program will be successful in enabling students to obtain more than a passing acquaintance with a professor or two and thus improve the overall tone of faculty-student relations.

The participating houses and their faculty fellows are:

Blacker:	Bruce Cain
Dabney:	Tom Tombrello
Lloyd:	Ricardo Gomez
Ricketts:	John Bercaw
Ruddock:	Chas. Hamilton
	Jerome Pine
	Philip Hoffman
	Ray Owen

Aural Excitement at Tech

Watson Lectures

The winter-spring 1981 Watson lectures have been announced, as follows:

February 4, Dr. Edward C. Stone, Voyager Project Scientist, JPL, and professor of physics at Caltech, on "Voyager 1 at Saturn." This will be an illustrated review of the detailed observation and information sent one billion miles back to Earth by Voyager 1 on its Saturn flyby.

February 18, Dr. Paul B. MacCready, president of AeroVironment, Inc., creator of the airships Gossamer Condor, Albatross and Penguin, on "A Perspective on Gossamer Aircraft: Doing More With Less." This lecture will deal with the design concepts used in the huge, fragile,

70-pound Gossamer airplanes that fly on less than $\frac{1}{2}$ horsepower, derived from human muscle or solar power. He will tell about how these concepts are being applied to a class of ultralight surface transportation vehicles, which may turn out to be very practical in our world of limited resources. Dr. MacCready's presentation will include a film of the Gossamer Albatross' flight across the English Channel.

April 8, Dr. James J. Morgan, professor of environmental engineering, on "Acid Rain: a Local, Regional and Global Phenomenon." Dr.

CONTINUED
ON PAGE 10

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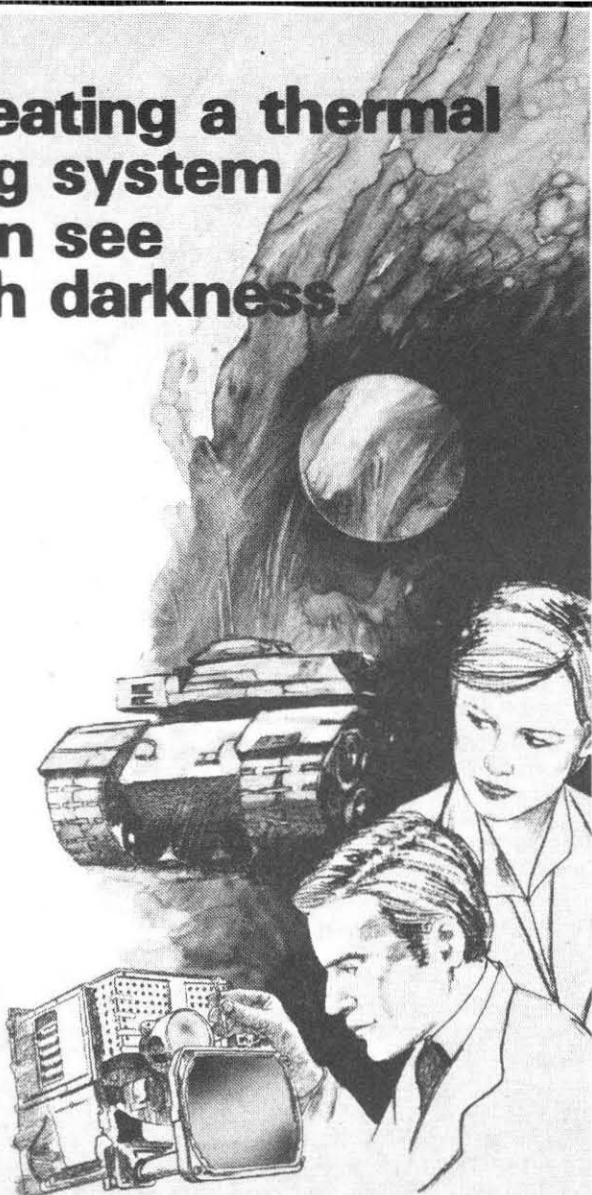
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SPORTS

B-Ball Shoots Load, Loses Anyway

By P. G. Hepzibah

The Caltech Beavers threatened, but came up short, losing 61-48 to Cal Baptist in varsity Basketball last Wednesday. The Beavers, who had earlier lost to Cal Baptist by 40 points, were prepared this time around. Dave Smith, who scored 29 points for Baptist before, was held to 4 in this game, but the Techers allowed center Dave Fitzgerald to rip out the guts of the Beaver defense for 27 points. CIT countered with 17 points from Pat McMurtry but could never get closer than 5 points.

Caltech, shooting a whopping 63% in the second half, stayed within five or seven points the whole half but missed crucial baskets to prevent the possibility of catching the visiting Lancers. When the Beavers tried to catch up in the last 3 minutes of the game, Cal Baptist pulled away and created the final margin of victory. Frank Janeczek scored 10 points and Gary Tornquist and Glen Sigler had 8 points each.

Earlier in the week, Caltech lost to L.A. Baptist, 80-42. Frank J. scored 12 points on a night when the whole Beaver team seemed to be "out of it".

Coming from behind was the order of the day in a pair of other Beaver contests. Against Claremont, the Techers fell behind 18-4, but ferocious defense and clutch shooting from Frank Janeczek and Pat McMurtry helped close the gap to 28-21 at the half. It appeared that we might actually squash the Stags like the bugs they are, but the bugs bit back in the second half to win it, 67-46. Frank finished with 16 points and Pat had 10.

The JV Beavers had by far their best outing of the year despite losing 94-64 to L.A. Baptist. Perhaps the fact that the junior Beavers had lost by 72 points to this same team a little over a month ago had the Techers a bit wary as they fell behind, 32-20. But Tom Heer cranked out a few baskets and the Beavers came on with a fury to pull to within three points, 38-35 at halftime. The rally was climaxed by a sensational 30-foot bank shot by Perry Walker at the buzzer.

The J-Vees scored the first six points of the second half to take their first lead of the year, 41-38. But the Beavers ran out of gas and the Beaver Fever which led to one great comeback was never to be caught again. Stewart Peebles and Doug MacKenzie scored 12 points each; Tom Heer added 11, Howard Kong 10, and Perry Walker 8 as the team,

Soft But Deadly Hands

On January 26th at noon, there will be a demonstration on "Self Defense and Martial Arts" by representatives of "Women in the Martial Arts", presented on the Quad near Winnett Center.

Haven House

On January 27th at noon, there will be a program presented in Winnett Lounge by a speaker from Haven House, a refuge for battered

despite the absence of leading scorer Scott Gordon, had its best day offensively. Both teams will be in action tomorrow night as they play host to Redlands. JV action starts at 6 pm and the varsity starts at 8 pm.



Two Techers of the feminine persuasion tangle together in the timeless tussle of soccer. The soccer team has played quite well this season and holds portents for the future.

Photo by S. Swanson.

DAN GAVIN, 3 MONTHS OUT OF COLLEGE AND ALREADY A PROJECT LEADER.

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DAN GAVIN DID IT.

He became part of a new-product development project team his first day on the job. A UC Davis graduate in electrical engineering, he teamed up with Larry Wong, another recent UC Davis electrical engineering grad; Alan Harper, recent UC San Diego mechanical engineering grad; and

Donna Lightfoot, UC Berkeley computer science graduate. Cubic said, "Here is the problem. You find the solution." And they're doing it. After their START program, they'll be ready for bigger and more exciting problems, gaining confidence and recognition as one of the top R & D teams in the industry.

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William B. Gordon, Manager
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9333 Balboa Avenue Dept. CT-185
San Diego, California 92123 (714) 277-6780

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Math Contest

The Mathematics Department has announced new, improved, and more monetarily rewarding versions of their two prizes for Caltech undergrads. The prizes are financed by funds accumulated by Caltech teams that have participated in the William Lowell Putnam Competition over the last few years.

First is the E. T. Bell Undergraduate Mathematics Research Prize—a cash prize of \$500 awarded for the best original mathematics paper written by a Caltech junior or senior.

Contestants for the Bell prize must be nominated by a faculty member familiar with their work. Students who wish to be considered for this prize should contact a member of the Mathematics faculty prior to the end of the second term to discuss the nature of the research. If the entry is sufficiently worthy the faculty member will nominate the contestant and act as sponsor. Each student is entitled to only one entry. All contestants nominated must submit their papers in final form to their faculty sponsors by the end of the fourth week of the third term. A faculty committee will then judge the papers and announce its decision before the

end of the third term. The committee may award duplicate prizes in case of more than one outstanding entry. The name of the winner (or winners) will appear in the commencement program.

Second is the Morgan Ward Competition. Any Caltech freshman or sophomore may enter this contest. An entry may be individual (submitted by one student) or joint (submitted by a group of two or more students). Each student is entitled to at most three entries, of which at most two may be individual.

An entry is to consist of a mathematical problem, together with a solution or significant contribution toward a solution. The problem may have any source, but this source should be stated in the entry. The entries will be judged on the basis of the nature of the problem and originality and elegance of the solution. Any outside references used should be indicated. (It is the stated belief of the Department of Mathematics that the Honor System applies here.)

Entries from each contestant or group must be placed in an envelope and delivered to the Mathematics Office, 253 Sloan, during the fourth week of the third term. The name of the contestant, or the names of all participants in the case of a joint entry, must be written on the envelope only, not on the entry. The Judging Committee will consist of three volunteers, approved by a vote of the Caltech Mathematics Club.

Each judge will select a group of finalists and submit their entries to the Mathematics Department faculty who will make awards to the winners. Prizes will ordinarily be awarded for the 2 to 4 best entries, the value of each prize being \$75. Prizes for individual entries will be limited to at most one to a contestant, and no group may receive more than one prize.

So get to work on those entries!

Upjohn Award

FROM ONE

netropsin, which is too toxic for medical use but which will help to illuminate the binding of other drugs to DNA. The Upjohn Company has provided Dickerson's group with still another substance, so new that it is designated only as CC-1065 (cancer culture No. 1065), which shows promise as an antitumor drug.

"This is one medical problem that is definitely molecular in nature," says Dickerson, "If we can understand in detail how DNA folds, and how these anticancer drugs bind to the DNA, then perhaps we shall be able to design improved drugs which are more effective against tumor cells but less toxic to the patient."

Watson Lectures

FROM SEVEN

Morgan will report on his research on the chemistry of rainfall in the Los Angeles Basin, the causes of acid rain, its variations with time and location, possible environmental effects, and approaches to control.

April 22, Felix Strumwasser, professor of biology, on "24-hour Clocks in the Brain." Dr. Strumwasser will talk about the specialized nerve cells which have 24-hour clocks built into them that control such cyclic functions as sleeping and waking, food and water intake, hormone secretion and ovulation, and the abnormalities in such cells that may eventually explain some forms of mood disorder in humans and the effect of lithium medication.

This lecture series is named for the late Ernest Watson, who was, during his more than 40 years as a faculty member at Caltech, also chairman of the physics division, dean of the faculty, and administrative director of research and development.

P.Proton:

Beat me, hit me, please don't stop. That quotation can be directly traced to a certain person known to haunt the recesses of the pool. Well, so be it.

Your progress report:

- a. The food (i.e. oranges, cookies, cake) has finally been disposed, after a three week aging period. C-
- b. The weird acts (i.e. sock rolling lessons, back and forth hip swinging) have decreased substantially, to the point where now you appear normal. A
- c. The hours you keep have become akin to that of a nun. Stop waking at five a.m. to go swimming. D

So cheer up; it could have been worse. Oh, yes, hurry up please, it's time.

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On-Campus Interviews

Friday, February 6

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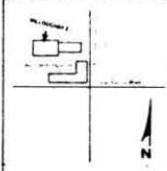
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***** EPISTLES *****

Ollie G.

A View from the North

What is going on back there??!

Is it true that Stuart "wrote" an editorial in which a major portion of the text read: "Dork"?

This is terrible!

Who is running the show? How is it that Freshmen managed to make fun of an upperclassman on the front page of the *California Tech*? Why is it that I have not received a single copy of the paper in two months?

Yes, I guess that it has been two months. Two months away from Millikan Library. Two months away from the *California Tech*. Two months away from everybody at Tech. Has it been worth it? Am I really "getting my head straight" by being in the real world? It's hard to say.

You see, I guess that I'm not sure. If it's not one problem, it's got to be another. If it's not studying for Ma 2a, then it's people pushing you in the subway. If it's not people pushing, it's listening to the boss yelling. If the boss isn't yelling, then the subway won't run. Life in "the real world" can be the pits.

At first, things weren't so bad. I rode on BART to downtown and sat by the fountains. Then, I'd take pictures and go to the beach. The air was cold, so there were only a few people there. People like me, people who wanted to think and write and solve their problems.

After awhile, I could see that being by myself wasn't the best thing for me to do. I was beginning to feel lonely. I started looking for an easy, "grundgy" type job. I didn't really want any money. I just wanted to meet some people. Then I saw a 'help wanted' ad for the McDonald's. I tried for it and started working that week.

"Beep!...Beep!!..." "That's when you turn the hamburgers...No, the pickles are always after the mustard...I said 'two cheese', not 'three'..." "Beep...Buzz...Bahhhnn..." "Why didn't you put the buns in for the fillet when the hash brown timer went off?"

Ollie G.!

I became fed up with that job pretty quick. I started looking for a new job. There was a certain ad that caught my eye. "General Office Wizard Wanted," it said in capital letters. I had to try.

"How much telephone answering experience do you have?"

"Well, when I was editor of our college paper I answered phones fairly often."

"What college was that?" "Caltech."

"Come on down. We may have a better job for you. You don't mind using a computer do you?"

"Not at all."

police would stage a raid, but somehow, it's legal to do it in public transit.

Then came the New Year's Eve party. By accident, I opened the door to a bunch of people smoking pot and snorting. You know, it really didn't bother me, but if I had seen this last year, I might have called the cops or something. It's interesting how people can change and never know it. I wonder if my changes will help me any.

Oh, and while I'm thinking about Tech again: just before I decided to take a leave, I was going to do a photo story on an exhibit sponsored by the Baxter Art Gallery. The exhibit was out on the desert. We all had a really nice time, the air was clean, the sky was blue and the art was terrific. During the trip to the desert, our caravan of art critics took a detour and got stuck in the sand. I'm not sure why, but I promised that I would thank the EE librarian for getting us out of the mess...but the next *California Tech* was only four pages long, and my pictures had to be

trashed. So here it is...I thank you, EE librarian, for getting us out of that mess.

Well, I guess that I've said enough. Now, it's your turn. Want to say "Hello," to an Ollie G? You can, if you write to:

The Ollie G.
364 Fair Oaks St.
San Francisco, CA
94110

A View from the Past

Street Ramp' ended with the dedication of the David R. Smith Memorial Ramp. This final version of the ramp was constructed by students out of steel reinforced concrete to prevent it from being torn up by B&G as befell its predecessors. The ramp was dedicated by then MOSH (Dirty) Dave Smith in Monday morning festivities.

21 January, 1960

Plainclothes Vice Squad officers from the PPD raided a Tech casino party in Throop Hall Saturday night. The officers gave themselves away when they tried to use real money to buy chips at the bank (the legal tender of the evening was monopoly money). Apparently no arrests were made, but the games were shut down (They didn't have very good journalists back then either).

22 January, 1948

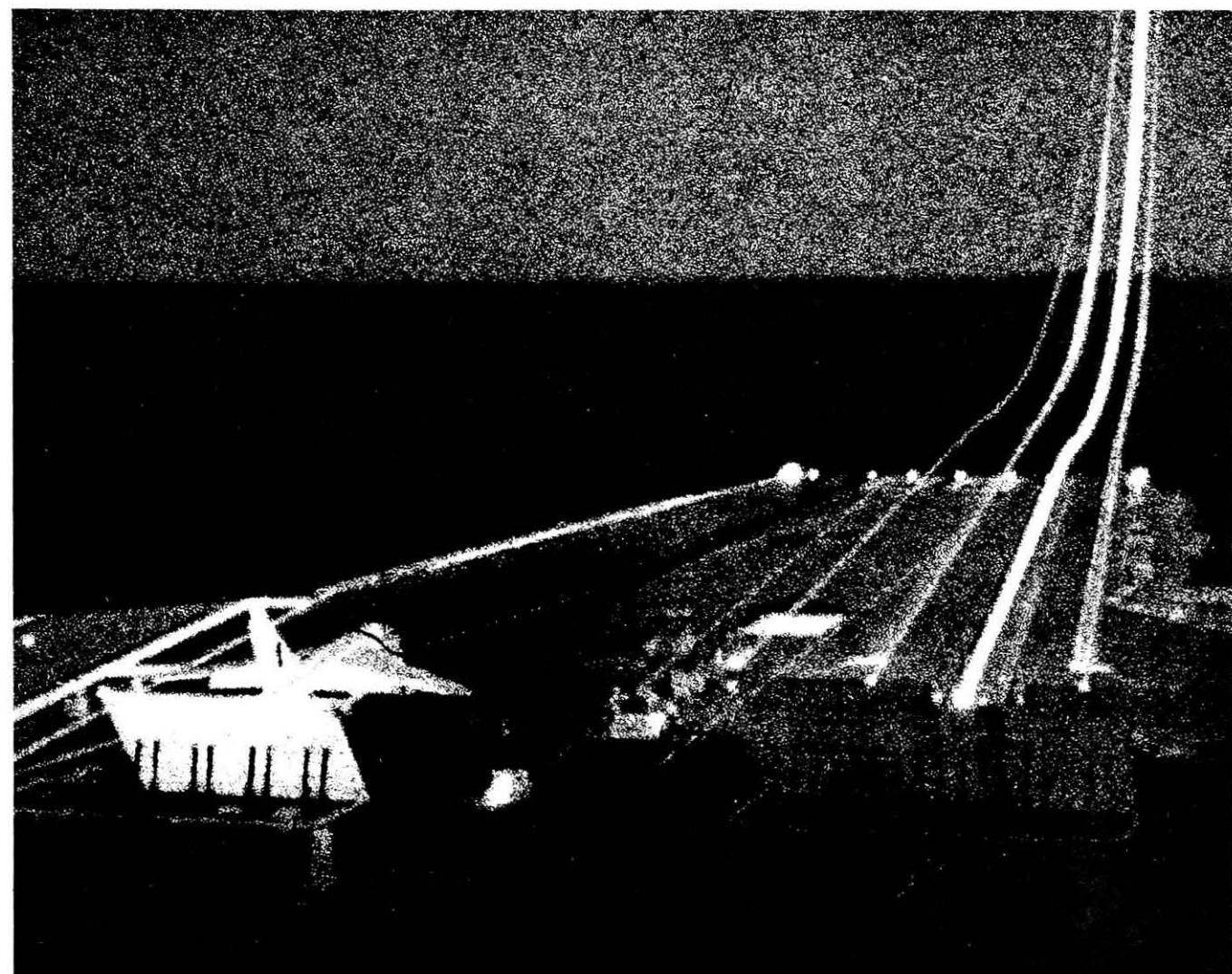
Nothing of real note appeared in the *Tech* except a Chesterfield cigarette ad featuring none other than our new president, Ronnie Raygun...seen any packs of Chesterfields in your favorite supermarket lately?

HISTORY

This column explores an often overlooked facet of undergraduate life at Caltech, our extensive and sometimes colorful history. Selected articles from this week in history have been gathered from back issues of the *Tech* stored in that publishing empires voluminous archives.

23 January, 1970

The fourth and final round in the 'War of the Greasy



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stuff that didn't fit anywhere else

Totem Is Risen From the Grave!

Material for this year's literary magazine has been collected and edited and is now ready for printing. Help is needed for organizing materials and printing. If you are interested, please contact Ben Luisi at x6009 or 795-0052. It is not too late for last-minute contributions, but they must be submitted immediately! Any member of the Caltech community (loosely construed) may submit prose or poetry, no novels or epics please.

Space Fund-Raiser

On Tuesday, January 27 at 8:00 pm, well-known science fiction author and futurist Ray Bradbury will be giving a lecture entitled "Beyond 1984, Back Into Space". The lecture will be held at Sexson Auditorium, on the PCC campus (about a ten-minute walk from Tech). Tickets are available in advance through Ticketron (and thus at the Ticket Office, we hope), or at the door on the evening of the lecture. Ray Bradbury's lecture is a benefit for the World Space Foundation. Tickets are \$7 at the door, \$6.50 in advance. For more information call 642-5700.

Caltech Financial Aid

Applications for Caltech financial aid will be available in late February. Every student will be sent a memo in mid-February with instructions. The deadline will be, as always, April 15.

"Like to get paid for talking with Caltech Alumni?"



Contact the Alumni Fund office, extension 6286, for more information.

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End of Between

This will be the last weekend to view the "Terry Allen (part of and some in between)" exhibition at the Baxter Art Gallery. The Gallery has already sold out of the Terry Allen record album entitled "Lubbock on Everything", although another, "Juarez", is still available, and shipments of his latest release, "Smokin the Dummy" are expected any day, along with restocks on the other two. The exhibition catalog is expected to be completed and available for sale at the gallery next week.

Student Loans

If you have applied for a Guaranteed Student Loan or a Federally Insured Student Loan, and have not received it—don't worry. All the lenders are WAY behind schedule because they were not prepared to handle such large numbers of borrowers (already 100,000 in California). If you HAVE received your check, and it was sent directly to you rather than to the Financial Aid Office or to Student Accounts, please send the Financial Aid Office (mail code 208-40) a note telling them how much you received, and when. That's an order!

Want To Reduce?

There will be a weight reduction program to begin soon. Anyone interested in losing weight, call John Adler at the Health Center (x2393) or leave a message.

Move Your Bod!

A Body Movement class which includes work on strengthening, flexibility, endurance and coordination exercises, is held at 4:00 every Tuesday and Thursday in Dabney Lounge. Instructed by Liz Oberstein, this class, as well as a 5:00 Modern Dance class, offers an exploration of techniques for efficient body use. The goals of these classes centers on the sense of exhilaration, energy and well-being which result from an increased perception of how your particular body moves. Both classes are open to students, staff and their spouses. No background is required and there are openings in both classes.

Pre-Solidified?

The plans for another Pre-Frosh Women's Weekend are now being solidified. An open meeting for all students wishing to help is scheduled for Thursday, Jan. 29 at noon in 024 Beckman. The Weekend will be April 23-26 and we'll need a lot of help for planning activities, tours, and housing. Any suggestions? Come on Jan. 29 or call Kathy Crandell, x6341.

Eligibility Report

If you haven't received your Student Eligibility Report (SER) from the people at Basic Grants, send them a postcard requesting a duplicate. The postcard must include your name, permanent mailing address, social security number and date of birth. Send the card to: BEOG, P.O. Box T, Iowa City, IA 52243.

Cal Grant Holders

If you currently hold a Cal Grant A or B, you should have received a renewal application from the California Student Aid Commission. RENEWALS must be postmarked no later than March 27, 1981. The forms were sent to your permanent address—i.e., the one you use on aid applications.

Lights! Camera! Action!

Are you interested in filmmaking, cinematography, special effects, set design and 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. An organizational meeting will be held on January 29 at 5:00 pm. Be there! [Cut!]

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