THE CALIFORNIA TECH To the shores of Trinoli

of Tripoli

Volume LXXXVII, Number 12

Pasadena, California

Friday, January 10, 1986

Martin Luther King Remembered

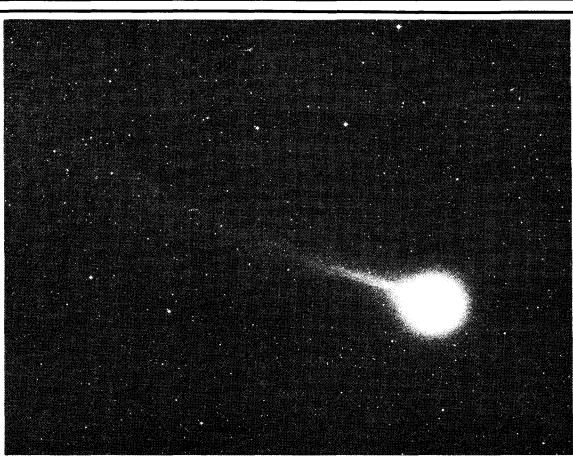
by William Lucy Monday, January 20th marks the first official observance of Martin Luther King Day by the federal government. Banks, schools and public offices will be closed in more than 40 states, and millions of Americans will enjoy an extra day off. Before then, it's worthwhile to take a minute to reflect on what this new holiday is all about.

On Martin Luther King Day we are honoring an American who rejected violence in all its forms, who fashioned non-violence into a potent weapon in the nation's neverending struggle for peace and social justice.

Trade unionists, and particularly members of the American Federation of State, County and Municipal Employees, have special cause to honor Dr. King's memory. In 1968 he was in Memphis, Tennessee to put his moral strength on the line for AFSCME sanitation workers who were struggling to achieve dignity as blacks, as workers, and as citizens. In Memphis, non-violence was met with an assassin's bullet, but the spirit of Dr. King's non-violence triumphed.

There are some who still see Dr. King as having been the leader of a narrow cause, as having been the spokesman for a single group, but this sadly misreads his life. Dr. King's message wasn't "black." It was resolutely American. He had an unshakeable faith in basic human goodness, and with exceptional courage he preached the spirit of love and reconciliation, preached his dream of racial and economic justice in the belief that injustice or oppression in any form, affecting anyone, is a threat to all.

For a time, Dr. King epitomized the civil rights movement. Under his leadership, the civil rights movement led to greater access to public facilities, housing, employment, and participation at all levels of society for blacks and other minorities. The protests and other events he organized began a trail that led to such landmarks as the Civil Rights Act of 1964, the Voting Rights Act of 1965, the Fair Housing Act of 1968, and the Educational Amendments and the



The Best Comet Yet

The most detailed photograph yet of Halley's Comet has been obtained by JPL astronomer Eleanor Helin with the 48-inch Schmidt Telescope at Caltech's Palomar Observatory. The photo shows heretofore unrevealed features of the comet's ion tail, the billowing stream of electrified gases, carbon monoxide, and water vapor pushed out by the solar wind. The comet's other tail, called the dust tail, is pushed out by the force of sunlight on the comet.

According to Ray L. Newburn of JPL's International Halley Watch, the photo taken by Helin at 7:54 Pacific Standard Time on December 13 shows for the first time the full range of features characteristic of a well-developed CO⁺ ion tail. These include tail rays, condensations, a kink, a general helical structure (which shows only as a waviness on the print) and perhaps a disconnection event. The print from the original 20-minute exposure shows about 6 degrees of a tail more than 9 degrees in length.

When the photograph was taken, the comet was about 118 million kilometers (74 million miles) from the earth, and about 18 million kilometers of tail showed on the photograph. Another photograph, taken with the 18-inch Schmidt Telescope at Palomar, revealed the full tail to be more than 25 million kilometers long.

Ingersoll on Venus

by Jim Bell

Every so often, either at 4:00 a.m. or some other similarly ungodly hour, I put down what's left of my homework assignment, stare into my cold cup of chamomile, and wonder what I am doing at this school. In this week's Watson Lecture,"Venus Exploration with the Soviets," Caltech Professor Andrew Ingersoll helped provide me with the answer once again: if you are into Planetary

story of four days last June when scientists from the U.S., USSR, and France collaborated on an exciting mission to probe the atmosphere of Venus. His story, presented in diary format [Dr. Ingersoll actually does keep a fairly extensive diary of his many travels and scientific endeavors], actually began in 1982, after, as he described it, the "roller-coaster ride" of the Voyager and Pioneer missions to Jupiter and Saturn had ended. He and several colleagues convinced NASA officials that the joint US-Soviet-French mission was worthwhile and obtained approval even though relations between the Soviets and Americans were shaky [recall the KAL airline disaster].

The U.S. role in the mission was originally planned to be minimal. Using America's Deep Space Network of radio antennae worldwide, we would help track two balloons, dropped four days apart from each other, into the up-per atmosphere of Venus. We would then supply this "raw bit stream" to the Soviets. They would then decode the stream and share the data with us and the French.

Previous missions to Venus, mainly by the Russians, involved either monitoring the planet photographically from orbit, or hurtling a projectile-like probe through the atmosphere, hoping that it would survive the intense pressures and temperatures. The idea of using balloons instead of

Award **Amnon Yariv** Honored by American **Optical Society**

The highest award of the Optical Society of America, for overall distinction in optics, is being given to Amnon Yariv, who, in addition to being an OSA fellow, is also the Thomas G. Meyers Professor of Electrical Engineering and Applied Physics at Caltech. His research spans 25 years and includes pioneering work in modelocking behavior in lasers, quantum mechanical noise theory, and phase conjugate optics.

The 1986 Frederic Ives Medal is being awarded to Yariv for his "numerous pioneering contributions to lasers, optoelectronics, and phase conjugate optics," as well as for his textbooks for optical scientists and engineers.

Established in 1929, the Ives award consists of a medal, a scroll, and a \$2,000 honorarium. The winner also gives the Ives Medal Address at the Society's annual meeting, which will be held Oct. 19-24 in Seattle.

Yariv attended the University of California, Berkeley, receiving his B.S., M.S. and Ph.D. degrees in electrical engineering. Upon graduating in 1959, he went to work for Bell Telephone for five years, then came to Caltech in 1964.

In addition to his work at Caltech, Yariv is chairman of the board and co-founder of Ortel, Inc. in Alhambra, Calif.

The Optical Society of America, headquartered in Washington, D.C., is a non-profit educational and scientific society founded in 1916. It presently numbers more than 9,000 members and is an affiliate of the American continued on page 3 Institute of Physics.

Science, Tech is where it's at. Dr. Ingersoll recounted to the large audience at Beckman the superstition. A show such as "The ing preached by self-styled by Wesley Boudville ministers up and down the cable-The Southern California Skep-Twilight Zone," he believes, "can TV spectrum. "What you see on be a very powerful weapon" against tics and the Caltech Y are please continued on page 5 the "obscurantism and illogic" beto present as their January speaker the award-winning author, essayist and lecturer Harlan Ellison, who will discuss "Writing Fantasy to Promote Reality." Ellison is a noted sciencefiction and screenplay writer. His books include Approaching Oblivion and The Beast That Shouted Love at the Heart of the World. Among his award-winning stories is "A Boy and His Dog," which was made into a (bad) movie. He wrote the script for several Star Trek episodes, including "The City on the Edge of Forever." Ellison worked for a while as

Equal Employment Opportunity Amendments of 1972.

Inspired by these examples, other disenfranchised groups have struggled to secure their own rights. Hispanics, Native Americans, women, the aged, the poor and the handicapped: all have challenged the prejudices and stereotypes that had deprived them of full participation in our society.

Certainly no other American more than Dr. King has so successfully wedded the American political ideal of equality in the eyes of the state with our religious belief of equality.

continued on page 3



Noted Author Harlan Ellison.

ASCIT Nominations

Nominations for ASCIT president and treasurer will be opened next Wednesday, January 15, and will close at 5:00 p.m. on Tuesday, January 21. Nominations should be sent to Lisa Cummings care of the Dean's office (102-31). Anyone who would like to know more about the positions of president or treasurer should contact Joy Watanabe (Ri 32) or Dave Bruning (Pa115).

problems.) According to one newspaper interview, Ellison is convinced that we are at a "particularly perilous time in our history," when science is under attack by the forces of fear and

the creative consultant to the new TV series "The Twilight Zone." (He recently quit over censorship

OPINION

LETTERS

To the Editors:

I am responding to the letter from Michael Keating appearing in the December 13th issue of the *Tech*. Mr. Keating was obviously unhappy with the situation with regard to student members of the Freshman Admissions Committee and I can assure you and assure I will not go over each of the factual errors in Mr. Keating's letter but I would like to point out that he is completely off base in the basic thrust of his argument. The number of students who may serve on a Caltech faculty committee is determined by the Caltech Faculty By-laws. The IHC had been informed last spring that it would be necessary to cut the number of

him that I share his unhappiness.

students down from the conventional five to four or less. In spite of this, six students were chosen to be members of the Committee. When the final size of the Committee was determined by the Faculty Board, the Chairman of the Freshman Admissions Committee, Professor Richard Dean, informed the IHC that the number of students would have to be reduced to three. The choice of the students and the informing the students of the decision is a process entirely in the hands of the IHC. Neither the Admissions Office, the Freshman Admissions Committee nor the Chairman of the Committee have any voice in the selection or informing of students

We look forward to having three students work closely with us this year and I very much hope that the alternative members of the Freshman Admissions Committee may also be of some service to the Committee over the spring.

As a personal note, may I assure Mr. Keating that I and the members of the Committee value most highly the input of undergraduate students. Since students have been members of the Freshman Admissions Committee their wisdom, maturity of judgment and conscientiousness have clearly equalled that of the faculty members of the Committee. I am sorry Mr. Keating assumes otherwise. Sincerely,

-Stirling L. Huntley Director of Admissions

To the Editors:

I would like to call attention to an error in this year's *Little t*. I am no longer the person to talk to to get a job as a student waiter at the Athenaeum. The people one should contact are Mark Laffoon 792-6550, Derek Ney x3772, Randy Brown 578-9562, Donna Evans 792-4493, or Brian Tsai 793-4627. Any one of these people would be more than happy to hear from prospective waiters. Thank you,

Write

, -Scott Rowland

Friday, January 10, 1986

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THE CALIFORNIA TECH Volume LXXXVII • Number 12 10 January 1986

MINUS

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THE CALIFORNIA TECH 107–51 Winnett Student Center California Institute of Technology Pasadena, California 91125

collegiate camouflage 0 x y M H T Y T S E P A N A R

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Can you find the hidden literary terms?

ALLITERATION ANAPEST ANTITHESIS COMEDY EPITHET EPODE HYPERBOLE IRONY LITOTES LAMPOON MALAPROPISM METAPHOR MOTIF

OXYMORON PARABLE PARADOX PARODY PLOT POETRY PSEUDONYM RHYTHM SIMILE SPOONERISM STANZA SYNECDOCHE TRAGEDY

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E 8:00 p.m.. \$12 (matinee) and \$15 (evening).

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 The Caltech Y Fly-by

Friday...January 10

Noon Concert with The Award-Winning Robin Flower Band. New Acoustic Music from Bluegrass to Rock. Lunchtime on the Quad.

te's little Necessities

Fantasmia: T. Daniel's spectacular mix of theatre, mime, illusion.

and lighting effects. Ramo Auditorium. Sat. Jan 11, 2:30 p.m. and

L.A. Philharmonic – Hear the music of Williams, Liszt, and Elgar. Concert starts at 8 PM at the Music Center. Y-Car leaves at 7:15 PM.

Sunday...January 12

"Writing Fantasy to Promote Reality." Lecture by awardwinning author Harlan Ellison. In Baxter Lecture Hall, 1 PM. Co-sponsored by the Y and The Southern California Skeptics.

Wednesday...January 15

"Commemorating Martin Luther King: American Politics and the Religious Right," presented by People for the American Way. In Winnett Lounge, at Noon. Co-sponsored by Hillel and the Y.

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ZARDOZ

Next Week—Pinocchio in Baxter Lecture Hall \$1.4SCIT members \$1.50 all others

Thursday...January 16

"Trekking the Continental Divide." A slide show and talk by Kirk Haselton, BS '84, who recently hiked 2700 miles from Canada to Mexico. Beckman Labs, room 24, 7:30 PM.

Friday...January 17

Noon Concert-The Paul Dresher Ensemble-Electronic Music on the Quad at Lunchtime.

Save Big Money on the Movies!

The Y now has discount passes for the Pacific Theatres! Good anytime, any day, any show, except special engagements! Passes are \$3 each.

> Any questions, comments, or ideas? Come see us in the Y office or call x6163

Phone: [818] 356-6154

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He shared that dream in a

remarkable speech of August 28,

1963 at a massive rally in Washington, D.C. for peace and

freedom. He told us he dreamed

that one day in Georgia, and

elsewhere, the children of slaves

and slave-holders would "sit down

together at the table of brotherhood," that the State of

Mississippi would be "transformed

into an oasis of freedom and justice," that one day in Alabama, white children and black children would join hands and "walk together as sisters and brothers." South Chester and 1170 East Del

If you reside in an On-Campus

Undergraduate House (North and

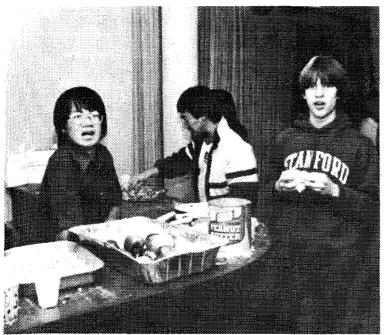
South Complex and Annex), you

should now call Physical Plant directly (Service Desk, extension

4717) with your maintenance concerns. Students who are reporting

from page 1

Mar).



The Caltech Y once again supplied the campus with food, drink and entertainment for the weekend commencing finals week. Here, Wesley Boudville dispenses the goods. photo by Kent Noble

Housing Office Denies Responsibility

tions and provide better tenance Department will continue maintenance service to the Caltech community, the following reallocation of maintenance resources is effective immediately. Physical Plant will now be directly resonsible for the maintenance of all On-Campus Undergraduate housing facilities (North and South Complex Houses

In order to streamline opera- and Annex). The Housing Mainto handle maintenance of the On-Campus Graduate Houses (including Marks House), the Catalina Graduate Apartment Complex, the Off-Campus Undergraduate Houses, all lease properties and the two Undergraduate Apartments (150

the Housing Office (x6175).

a maintenance problem in a student room are expected to provide Physical Plant with access to their room. If you live in an Off-Campus Undergraduate House, Undergraduate Apartment Complex, or Marks House you should continue to report maintenance concerns to

If you have any questions concerning these new procedures, feel free to call Housing Director Nancy Carlton (x6174) or Dick Barker in Physical Plant (x 4767).

He did not limit his dream to any particular group or place, for he urged that we let freedom ring ... from every village and every hamlet, from every state and every city.'

Now, 57 years after his birth, 22 years after the "I have a dream" speech, and 17 years after his death, the struggle goes on. Economic and social misfortune stifles the hopes of millions of Americans; human rights remain in jeopardy here and abroad, and the threat of war and conflict shadows the world

But at least one day of the nation's calendar is now set aside to honor the belief that non-violent struggle, on behalf of all peoplewhatever their race or creed or station-is a noble American cause.

[Mr. Lucy is an officer of the AFSCME, and was a close associate of Dr. King and worked with him during the 1968 Memphis strike. Our thanks to The National Forum for allowing us to reprint this commentary.]



Last term's Decompression entertainment included Gremlins, Ghostbusters, Beverly Hills Cop, View to a Kill. photo by Kent Noble

Ingersoll

from page 1

projectiles was the brainchild of Professor Jacques Blamont of the University of Paris. The balloons, weighing about 20 kg, were added at the last moment to the much larger Soviet VEGA mission to the surface of Venus and on to Halley's Comet. The advantages of using balloons are obvious: first, they are trackable from earth, thus leading to some understanding of horizontal wind fields. Secondly, since they float at about 54 km from the surface, the amount of "bobbing" by the balloon leads to direct inferences about the vertical wind fields. Thus, all three components of the winds on Venus can be fairly accurately determined for the areas the balloons fly over. Since Venus' winds rotate some 50 times faster than the planet below them, understanding the complete wind field will hopefully shed some light on the role of eddies and other associated atmospheric phenomena

in maintaining this superrotation. For example, there must be some mechanism which continuously pumps momentum into the atmosphere to account for the lack of significant frictional losses to surface features. Knowing the complexities of the wind field might this mechanism. reveal

Another aspect of the balloon mission was to learn more about the thermal profile of Venus' atmosphere. Accurate temperature and pressure profiles were obtained, and it was learned that Venus' carbon dioxide atmosphere and sulphuric acid clouds may act, oddly enough, as a "refrigerator" of sorts, extracting heat from the colder regions and somehow adding that heat to the warmer regions. Once again, this would require an extra energy mechanism similar to that alluded to above.

In the beginning of the mission, Dr. Ingersoll admitted that several other members of the American team, headed by Bob Preston of JPL, had doubts about whether the Soviets would indeed share the coded information with the U.S. However, these fears proved to be totally unfounded. Indeed, by the time the mission was underway, American scientists were being treated as near "full partners" in the project (even though NASA only contributed about 1 per cent of the the money for the mission). Initial transmitter tuning and radio tracking software problems were cleared up and the mission proceeded successfully. Data analysis is still being carried out, but one interesting fact has emerged immediately: both the Americans and the Russians came away with respect for each other's capabilities, and a renewed spirit of "building bridges" between the two countries- but political and cultural as well. It makes it just a little more worthwhile to reheat that cup of chamomile and trudge on...

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THE CALIFORNIA TECH

The Inside World

Blacker: Chapter 6: The Growing Insurgence Continues.

The week hit an all-time low Tuesday night when several innocent plastic candy canes were brutally murdered and then cut to small bits wich were subsequently spewed about the courtyard. Several boxes of small squiggly styrofoam packing material could not be reached for comment, but they had been seen earlier frequenting the Hill Ave. area. Greedy selfishness and smelly fish were cited as motives.

On the lighter side, rumors that the Lloydies wouldn't dare accept an unprecedented second term alley rugby challenge in Hell were laid to rest amid scenes of desperate cheating and paying off the referee. Plus Nicole drugged the ball when she was outside. However, one might think that the spirit of fun and friendly competition was lost—on the contrary, this was exactly the case. Oddsmakers in Las Vegas give 3 to 1 against the yellow-clad Lloyders rechallenging the Big Black Machine on *their* home turf. More on this as it probably never develops.

Without using a proper transition phrase, this weekend should be hop-hop-hoppin for moles everywhere. We're partying with the (can it be true?) Flems Saturday night, so put on your girl and grab your favorite Zoot suit and dance to "Restless" (they played at the Ath Formal two years ago; 4 stars!!). Also there's a something-load of sign-up sheets in the Lounge for camping, skiing, seeing a play, playing in the snow, and surfing the coast of Rhode Island. If you're a social member, sign up, or go see Dave and become a social member and then sign up. Dave says if we get four more social members we'll have more than even Ruddock House! But you know Dave...

-Go Patriots!

Dabney: A loud crackling sound awoke me from my slumber. My investigation quickly yielded results: a holiday tree roasting with a fire resembling those found in the toasty depths of Hell itself. Inquiring as to the purpose of this combustion, my attention was directed toward a blue car, possibly a Peugeot 504 diesel. The fire, I was informed, was an obscure religious ceremony to rid the decent beings of this world of improperly parked cars.

It failed utterly.

The evening turned into a whirling panorama of increasingly potent "cures" for the unspeakable evil that pervaded our lives. Oranges by the ton were hurled by brave young hat check clerks, but this effort proved futile. A series of butane-based devices also left the evil frighteningly intact. Even violations of sections 403 and 417 of the Strange Sketch Act ("...wilfully engaging in a Strange Sketch while in possession of ... (403) Durabeam technology ... [and] (417) two-way FM communications gear ...") failed to solve our embarrassing problem.

Suddenly, in a flash of insight, we found a risky but promising solution: we recalled that we'd recently changed our House slogan from "Dabney House-try our thick, creamy shakes" to "Dabney House, whose sun-drenched Alleys grow the world's richest coffee." Almost immediately upon this recollection, the troublesome auto dissolved into the starstuff from which it was made, leaving only a California license plate on the ground.

"What's the number, for the love of God!" someone asked. "Got it right here," I replied. "Just in case we should need it again."

Fleming: Yes, it's back, bigger, better and weekly (I hope), you're right, I'm talking about the Fleming Inside World. I hope everyone had a simply marvelous winter break. This weekend we've got a volleyball game against the Scurves. Ask your neighborly ath-team member for details. Interhouse track and field is coming up, so start training.

The impromptu social event for the weekend is a Fleming-Blacker party (Blacker, that's right), Saturday night in Dabney gardens (not Dabney House courtyard). *Cats* tickets are also in, so if you ordered them get them before you end up in the parking lot.

I'm sure all the house would like to thank all the waiters for the culinary masterpiece that they so gracefully served Wednesday night. All I want to know is who the new head waiter is.

-Al Fansome Lloyd: Whereas Blacker House having issued a challenge most sterling and Lloyd House having marched onward in acceptance, this can be said. Namely, that both forces acquitted themselves with honour (albeit of a dubious nature, perhaps), and having retired in time with valour. It is for such therefore that Lloyd, House of the Arcane Sports, does invite Blacker House to a tournament, the nature of which will be conducted most rigorously in the tryst of kickball. The time determined as next Friday at 10:00 p.m. on the court O' Man.

Welcome back, gents. This is your last ski reminder. You leave this afternoon, so pack your socks. Garrett had better still do those dishes!

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	OUR GUIDE to) THE MODERN	CALTECHT	TYPES	NANCY DREHWING
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DEHI-GOD SLASHER 6	A PLUSES	MORE A PLUSES (EVEN IN TMS/FAIL CLASSES) 275 WINS PER TERM	CARRIES BLOD- DRIAPING INIVES, HAS STEELY GLEAM IN EYES	"MLL MY G.P.A. DROP BY A HUNDREDTH THIS TERM?"	Say: DIDN'T YOUR G.P.A. DROP BY A HANDREDTH THIS TERM?
COMPUSLIME OF	HAS NOWE	OCLASIONAL OT- BURSTS OF MACHINE CODE GIBBERISH TENDS TO SAY, "FROOR ERROR, CANNOT COMPUTE."	BLOODSHOT EYES ROOM IS FILLED WITH COMPUSCRATCH MULWUTRITION FROM BATING TIMUKIES AT 8 A.M.	"DOES THIS HUNK OF WRES AND METAL REALLY UNDERSTAND ME?"	SAU: T'M SORRY- T WAS TRAYING ROGVE AND DELETED ALL YOUR FILES.
INVISIBLE STUDENT	IS NEVER SEEN	15 SURMISED TO BE DEAF, DUMB & MUTE	HAS SYEAR ROOD SUAPLY IN HIS ROOM NOBODY KNOWS HIS NAME	" DO I Exist?*	TAKE PICTURES OF HIM AND SHOW THEM TO YOUR FRIENDS
APATTHETIC OF	NON-MOTIVATION	COMPLAINS BUT DOES NOTHING LETHARGIC NO FUN !	PERPETVALLY BORED LOOK ON FACE IS NEVER SEEN AT PARTIES, MOVIES, ETC.	"ISN'T THERE ANYTHING TO DO HERE?"	ACT EXCITED ABOUT ANYTHING YOU'RE DOING
FLAMER May In J	LOOKS HAPPY	15 HAPPY HAS LOTS OF FUN TENDS TO ATTRACT MOTHS (THE BRIGHT LIGHT, YOU KNOW)	MELTS RLASTIC AT TOUCH DOESN'T DO HOMEWORK, EXAMS, OR ANY CLASSES IN GENERAL	" WHY ARE PEOPLE USW6 ME TO TOAST MARSHMALLONG?	DOUSE WITH WATER OFTEN TO PREVENT FLAMES FROM STREADING
REMALE TECHETTE DE	15 A GIRL	MUST BE CONSTANTIL REASSURED OF LOOKS, BRAINS & MARAL WORTH THEN TURNS AROUND AND VISCIOUSLY ANSULTS YOU	CONSIDERS BEING A	"NHY DIDN'T I GO TO SCENTS LIKE ALL MY FRIENDS?"	ST IN HER ROOM FOR 5 DAYS STRAIGHT WHILE SHE GOES INSAME TRYING TO MAKE YOU LEAVE

* - NOT TO BE CONFUSED WITH A CARTOON IN THE L.A. READER BY MATT GROENING, SMILLARLY TITLED.

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-J.P.

Page: Who'da thunk it. Interhouse is getting cleared away...destructed. Doors are poppin' up all over. And we're all thrilled to be back at Page House.

Sign up to call wealth alums. See Devin for that. Free pizza, beer, soda, and 10 per cent of all the donations you get alumni to give. Honest.

Parkinson's new year's resolution: to tolerate a new person each day of 1986.

-Pervis Ellison

Ricketts: Welcome back Kori, John Wheeler and anyone else I forgot. I just got jubjubbed playing that game with the little men!! Next time I'll watch the ball instead of talking about Dimatapp.

The bad news is that Ricketts House will be closed this summer for total demolition and reconstruction. Please give your helpful hints to Dave Nice. My suggestion is to move all the bathrooms into LD and rotate one of the bathtubs 90 degrees to eliminate the EW advantage in bridge. Also, let's turn the Piano Room into either the Diner's Club or an aquarium.

This term's room pick went very well. The seven double broke up and Josh opted for moral decadence by moving into LD and allowing Dan to live across the hall from Laura. Kori took my room, but I got the Mustard Potato room as a single (and the computer sleeps outside, Blob!) Charles and Jason move into Crud, and Stephen moves into the Shingle room (I hope he doesn't grow a mustache).

This week's philosophical discussion is on pajamas-Yes or No.

continued on page 5

What I Did Over Christmas Vacation

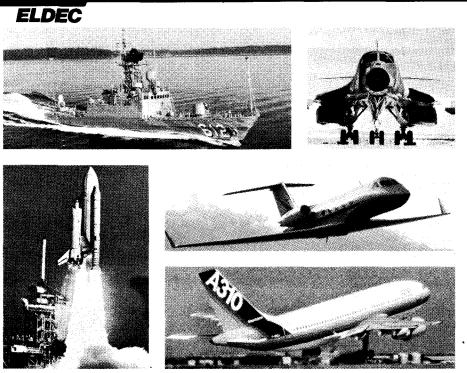
by David Hull

From the land of dead, frozen wheatfields and ice skating ponds, cold, clear air and wind; from the land of the Jayhawks, the student ghettos and the ghetto lords Lynch, Limasoni and Ling (from whom I took physics, and who looks like Doctor Seuss); from the land of Big Bob's Used Carpets, User Friendly Nutrition Services and Boots Williams Ford (before which even Cal Worthington must tremble); from the snow-swept plains punctuated by the occasional cow or cow by-product, greetings.

But perhaps the best place to start is in the middle...

I awake in the Sehon family basement, on the Sehon family hide-a-bed, nearly dressed. The situation is bad. I want only to return to (relatively) blissful unconsciousness, but with a headache like this, how could anyone sleep? This, I recall, is the part where you find out about the "toxic" in "intoxicate."

So I get up, and head upstairs for *water*, oh God yes, *lots* of water! That done, I drag myself to the living room for my only possible source of salvation --- cheapo Japanese cartoons. I turn on the TV, and immediately turn down the sound.



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Inside World Continued

Please remember—it's all right to wear anything (or nothing) to bed as long as you won't be embarrassed if there is a huge fire and you have to run outside with just what you have on while you're asleep. Jammies are fine, especially if they are fire retarded. I, personally, sleep in my swim suit, in case of flood or tidal wave. Although I don't wear pajamas, I still think they can be pretty fun and exciting, but monogrammed toiletry cases are definitely bad for one's karma.

Hello everyone. This is Dave Parkinson again...

Ruddock: Latest from the Budd

Newsflash!!! Richard enters new maid pool. How long is it going to take you guys?... Rumor also has it that Richard has taken up wrestling—look for an Alley 4/Alley 5 Sumo Wrestling Challenge. (Watch out, Biff!)...Bonzo says 7365412...Social Event over break: Mom & Dad finally have a party—a formal one at that!...Happy 21st Kathy Miro H-bar. Hope the bubbly was worth it & good luck on the mural...Also in the art news: the Alley 5 Art Gallery is drawing rave reviews from almost the entire house—i.e. the horny ones...This week's social event—ice skating tonight with Page...Sam says: Alan you're a wimp...

Welcome back, y'all...& Smile Sophomores-you're on grades. P.S. So how's the room smell, Taney?

-Christopher & Butch

-Saxy

I can find Donahue, football, and a commercial singing the praises of Aquafresh toothpaste, which I will need soon enough. I sit down to wait for the commercials to end, and the Sehon family cat stomps by unmercifully.

Mind you, I've had worse. Once, when I had a room directly on the Blacker courtyard, a fellow (since graduated) mole saw fit to see how many sounds he could get out of a cowbell --- right outside my window, to no particular rhythm, and for a long time. Not the best way to start any day, much less that one.

But this was bad enough. As I sat waiting for commercials (and time in general) to pass, I remembered the previous night, New Year's Eve. It had been a quiet evening of George Carlin, Whoopi Goldberg, Steven Wright and other comics, blitz chess on an incomprehensible ornamental set, the inevitable Busch and the inimitable Bacardi. With unerring instinct born of three years of practice, I had managed to find what one hopes was the only party like it in town --- one consisting of a swarm of "intelligent" guys and one smart girl. The only thing to do was drink steadily and excessively, watch the TV people say funny things, and have Scott (the Sehon family Harvard philosophy major) drive me home.

Back in the real world (a terrible thing to face just now) the commercial ends, and cuts into peoplelined streets covered with floats and marching bands. *OH NO*! I think, not *the Rose Bowl*!

Let me put it this way, with a little analogy: A nice warm shower is one of life's simple pleasures. Watching the Rose Bowl Parade with no sound other than the throbbing of one's head is one of life's **continued on page 7**

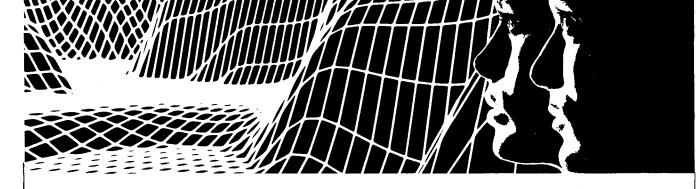
Harlan Ellison

from page 1

television for the most part is to keep people stupid. You can go for months and never hear anything about the human condition dealt with sincerely. And I ask myself, 'Is this really a responsible use of the public airwaves?' " The problem, more now than ever, is "businessmen in charge of an art form," Ellison said. "They succumb to whatever pressure group gets on them, so almost anything that could have any value for us in terms of edifying our existence has to be watered down and ameliorated to the point of where it's bland homily."

According to the Washington Post, Harlan Ellison is "one of the great living American short story writers." Tom Snyder of the NBC "Tomorrow" show said: "An amazing talent; meeting him is an incredible experience." In a career spanning almost thirty years, he has won more awards for his fortytwo books, over one thousand stories, essays, articles and newspaper columns, two dozen teleplays and a dozen motion pictures than any other living fantasist. He has won the Hugo award

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CORPORATE COLLEGE RELATIONS see on television, for the most part, is to keep people stupid."

seven and a half times, the Nebula three times, the Edgar Allan Poe award of the Mystery Writers of America, the George Melies fantasy film award twice, and most recently was awarded the Silver Pen for journalism by P.E.N., the international writers union.

Ellison will be discussing the reasons he left the new "Twilight Zone" series. The lecture will take place January 12th (Sunday) at 1:00 p.m. in the Baxter Lecture Hall.

ENTERTAINMENT

by Berke Breathed

. IT WASN'T SECRETIONS ?

GEORGE

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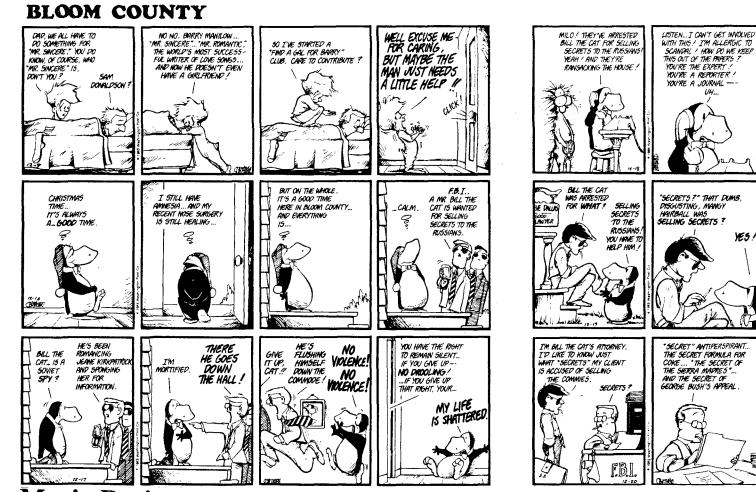
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THE SECRET OF

GEORGE BUSH'S



Movie Review Everything You Wanted To Know About Sting

by Doug Gray Bring on the Night **Beverly Cineplex**

On the back of the jacket for his The Dream of the Blue Turtles album, Sting writes, "The contribution and commitment of all those involved made it far less an indulgent and personal statement than a statement about how well people can work together without diluting or compromising ideals. We also had a lot of fun." That is the essence of the recent film, Bring on the Night, directed by Michael Apted. I hesitate to call it a documentary because they are so often such ho-hum affairs. This is not just a film about music; it is a very musical film. And it's a lot of fun.

Having declared that racism had killed popular music, Sting decided to try to break down the barriers set up by rigid classifications such as "rock," "jazz," and so forth. He assembled a group of black jazz musicians (drummer Omar Hakim, saxophonist Branford Marsalis, bassist Darryl keyboardist Kenny Jones. Kirkland, and backing vocalists Janice Pendarvis and Dolette McDonald) as the band on his "solo" project, with the idea that it would be a real band, run democratically.

The film is set in Paris, where the band is staying in a 17thcentury mansion as they iron out their parts for the first concert on their tour. There's lots of music and pretty scenery, amusing comments from everyone involved, and yes, even a rendition of the Flintstones theme.

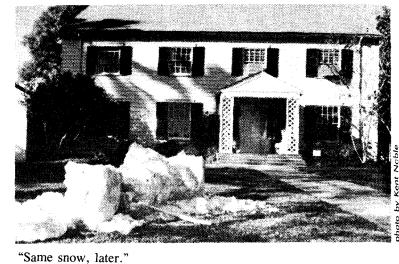
There are two things in the film I cannot call pleasant; one is manager Miles Copeland and the other is the segment showing the birth of Sting's son Jake. The audience is spared little of the gruesome reality, and don't say I didn't tell you so. I'm sure Sting thought it was beautiful and "profound," as he called it (surely they

wouldn't do this to change the film's rating), but I don't think most people are prepared to view childbirth and not be taken somewhat aback. Otherwise, the film is a pure pleasure to see and hear.

Although all the band members are highlighted, this is still mostly a film about Sting. After all, he is perhaps the most charismatic figure in pop culture. He knows it, too, and if his ego bothers you, then you will probably hate his guts by the time the film is over, even though he does have a few moments of near-modesty. On the other hand, if you like his music at all, I'm sure you'll like it better afterwards.

There is a lot of talk about jazz surrounding this project, but Sting claims, "What we have made... has nothing to do with jazz." True, there is more to the project than that, but this strikes me as a very strange thing for him to say. He is a jazz musician himself. Whatever one cares to call it, though, I happen to think the music in Bring on the Night is great. As one of the backing singers put it, the music works because it is "both cerebral and visceral" (Sting is not the only former English teacher in the band).

After seeing Bring on the Night, I'm really kicking myself for having missed Sting at the Greek. If you missed out too, then do not miss this film. It's energetic; it's entertaining; the idealistic spirit runs high; the musicians are all talented, and the music is sublime.



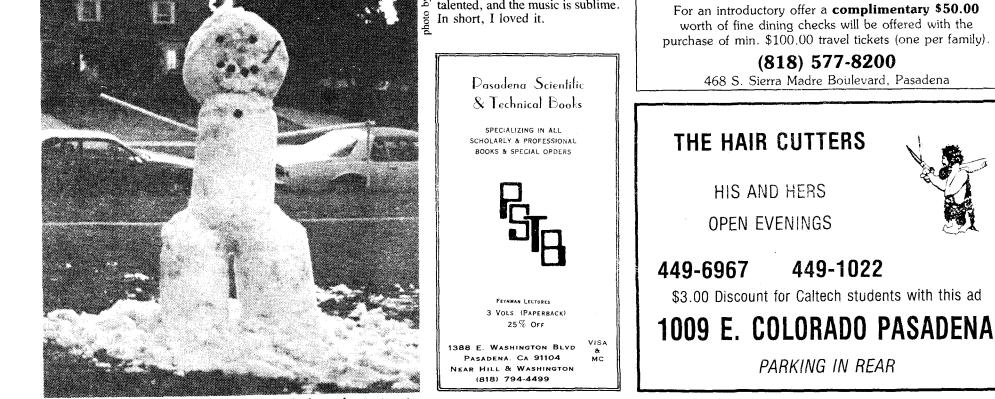
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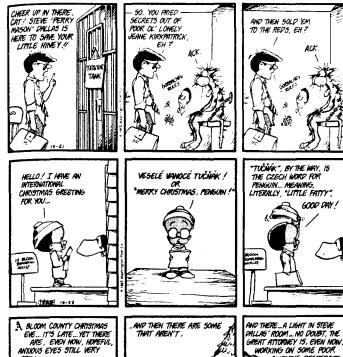


"A bunch of Lloydies were bored during finals week, went up to the mountains, got some snow, and put it on the Master's lawn.

Friday, January 10, 1986

THE CALIFORNIA TECH

ENTERTAINMENT







IN REAGAN'S

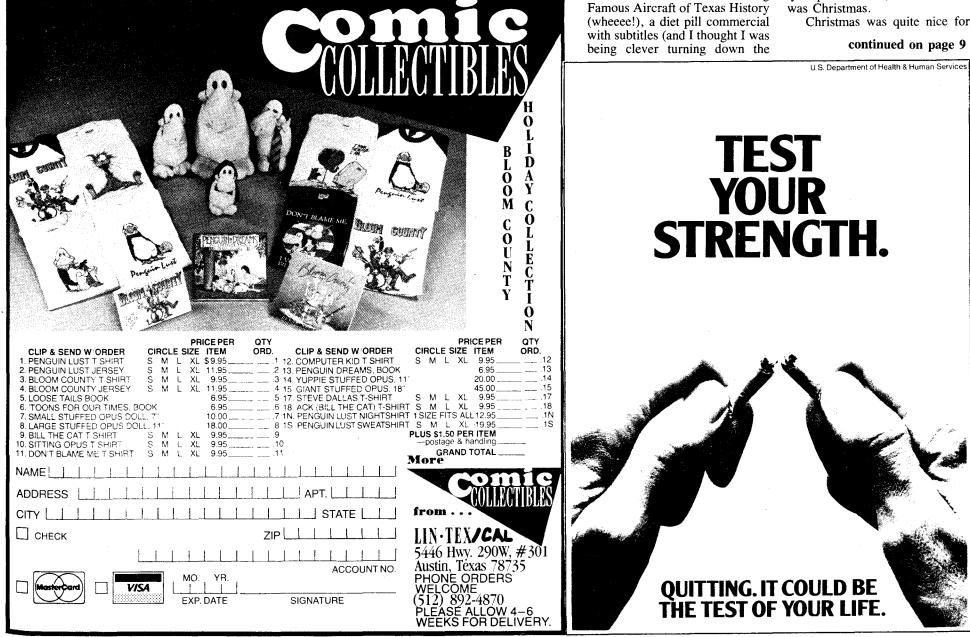
AMERICA ?!?

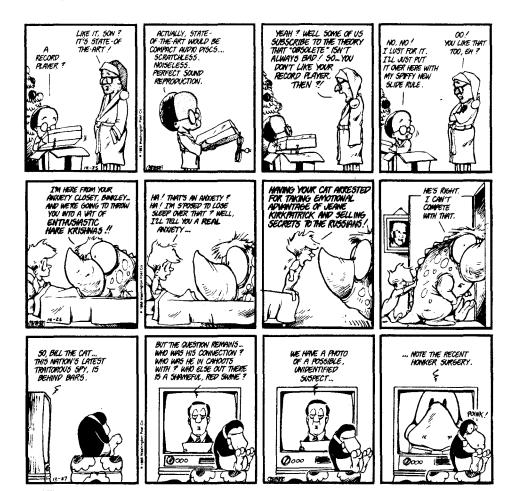
THPTH





A member of the Pasadena City Council told a member of the Caltech Amateur Radio Club that "it sure would be nice if some Caltech students made this [hideous rose at left] disappear. I'd even write a note saying it was OK." Just in case you were wondering.





Vacation

from page 5

simple somethings, but it sure ain't pleasure.

It didn't help that it was actually the Cotton Bowl, though it explained why I hadn't recognized any of the buildings. I didn't really recognize much when the Rose Bowl Parade did come on, for that matter, but then, I didn't really care

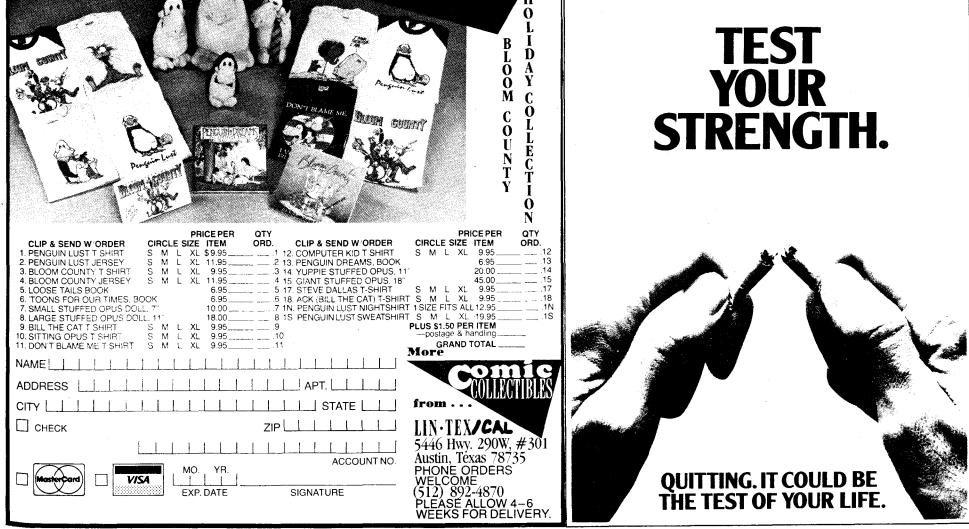
Things got better. Scott came by and removed the empty beer cans from my sight (these were from before the party). The Sehon § family mom came and fixed breakfast and dispensed aspirin. Scott was even nice enough to cover up his "Stroh's Weighlifting Team (12 oz. curls)" T-shirt.

We saw a float memorializing

sound), and, of all things, the Topeka High School marching band (of course, Lawrence's is better, but none of you care anyway, do you?).

Then the Tom and Jerry cartoons came on, and life was beautiful again.

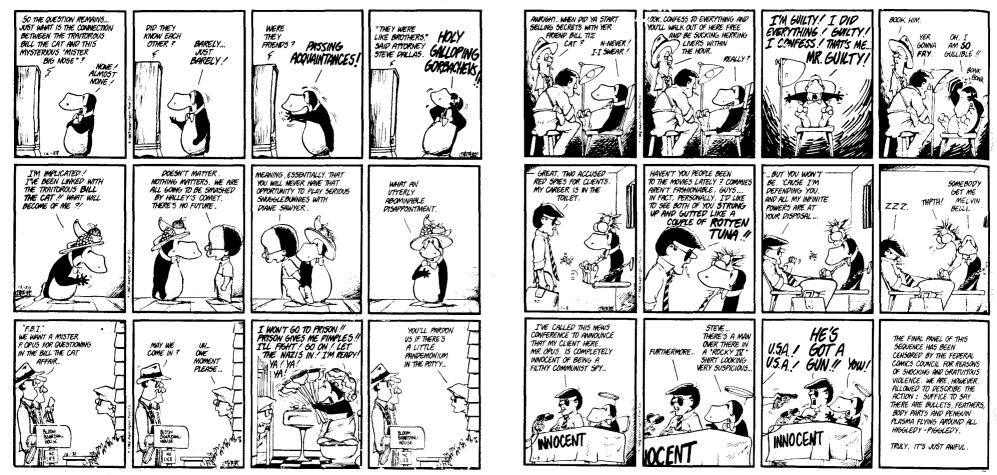
But I have digressed. Other things happened. I put my ice skating course (1st term P.E.) to good use by going skating with an old friend. In the line of work, I was introduced to one of the newer, friendlier personal computer, one that tries to make you enjoy being ignored, abused, and thwarted at every turn. Two other guys from work and I captured the high score on a Trivia Whiz vidgame at a local bar, category of sex. There was other drinking, carousing, hell-raising and generally stupid behavior, and then there



THE CALIFORNIA TECH

Friday, January 10, 1986

ENTERTAINMENT-



Review Barbara Allen

by Mike Pettersen Students who were lucky enough to have returned early from winter vacation might have had a hard time finding seats at the performance of Barbara Allen in Dabney Lounge on January 5. A crowd of over 200, predominantly blue-haired, spilled over the balcony, ransacked classrooms for chairs, and finally sat on the steps outside the hall.

Who induced so many people to sit swinging their legs, precariously balanced atop the stack of platforms at the back of the hall? Ms. Allen, a native Pasadenan, has taught on the faculty of Stanford and UC Santa Cruz, and is currently a Resident Tutor at Harvard. A finalist in the 1983 Artistic Ambassador Piano Competition, she also spent a year in Munich on a piano fellowship.

Ms. Allen's program began with the *Italian Concerto* of J. S. Bach. Is it possible that since the appalling act of wanton destruction last summer the tone of the Dabney piano has become muddy? Ms. Allen valiantly played with great brilliance, but I missed the perfect clarity this piece has on a harpsichord

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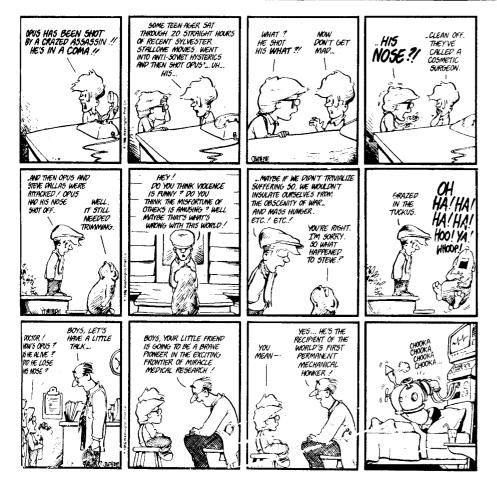
The second selection was Beethoven's *Waldstein Sonata*. Ms. Allen's presentation of the first movement brought applause from the audience, but in the third movement she gave her best expression of Beethoven's power.

The climax of the program was Modest Moussorgsky's *Pictures at an Exhibition*. Here Ms. Allen truly demonstrated her expressive abilities, painting Victor Hartmann's pictures and Moussorgsky's love and grief with her tone colors. Even the little old lady from Pasadena had to smile at the Ballet of the Chicks. I saw her. The Great Gate of Kiev brought the audience to its feet, and Ms. Allen played a Schubert waltz for an encore.

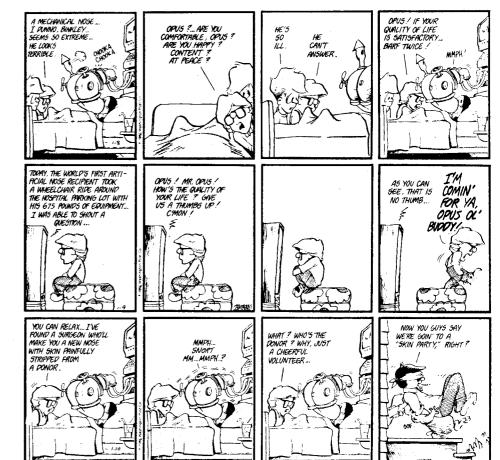
The Dabney Chamber Music series regularly brings a wide variety of talented performers to campus. The Lounge is only a few steps from home (or lab); don't miss this opportunity to enjoy a Sunday afternoon. But come early.

THE CALIFORNIA TECH

ENTERTAINMENT



ITRE'S AI CENTER



Vacation from page 7

me, but most of it makes pretty boring copy. Perhaps the highlight was receiving the Gillette "Brush Plush Shaving System." Not only is this one of the more bogussounding merchandising ideas of the year (a "shaving system" with no razor?), it has fun instructions. At one point, one is instructed to (I paraphrase, having misplaced the original) squeeze the tube with the fingers to work the cream loose. Yes indeed.

Through a serise of contortions reminiscent of Charlie Chaplin or

Movie Review

to make the damned thing work, and immediately began to cultivate the Don Johnson look. But even this was hopeless. Don, it turns out, has resolved to

Buster Keaton, I was finally able

Don, it turns out, has resolved to carry a razor with him at all times so people will stop giving him grief. This is from USA Today's weekly newspaper insert which devoted at least two whole pages to celebrity New Year's resolutions. It turns out that Cybil Shepard resolves to "wear less underwear more often" (she makes decisions better that way).

Garrison Keillor resolves to lavish affection on his new wife. A continued on page 10

he MITRE Corporation has established an Artifiial Intelligence Technical Skills Center to serve as tecorporation's central AI research, development ind technical consulting resource. MITRE engiters and scientists were pioneers in automatic imbol manipulation 20 years ago and today we rerecognized as one of the nation's leading lorganizations with a staff of over two dozen aperts utilizing multi-million dollar resources aturing 15 Symbolics LISP machines networked pour VAX 780s.

MIRE serves as C³I Systems Engineer for the U.S. irForces' Electronic Systems Division and other pvernment clients. Our AI programs range from imary research such as developing tool sets to utomatic programming, automatic repair and dundancy and to expert systems. Expert systems ITRE has developed include NASA space shuttle elloading and scheduling systems for crew tivities and payload preparation; a naval maneuessystem for the Navy; and aircraft mission ganization for the Air Force. Other expert sysms under development involve intelligence nalysis, situation monitoring and fault detection nddiagnosis for applications such as target anning and scheduling, new weapons, mid-air fueling and troop allocations.

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Expert Systems Planning Systems Knowledge Representation Intelligent User Interfaces

by Nick Smith A Chorus Line

Ghandi It's Not

Director Richard Attenborough I will freely admit that I am one of the 47 people in Los Angeles and New York (combined) who never *tried* to see *A Chorus Line* on stage. At the time, the idea of a musical about people auditioning for a musical seemed a bit too circular, and besides, the tickets were expensive. However, a *film* of a musical about people auditioning for a musical somehow seemed more interesting. After all, look what Bob Fosse did with *All That Jazz*, and that was just rehearsals. dancing, which made up the bulk of the film. The choreography and execution that he bothered to show were done marvelously. It's just that he didn't show enough. The wrong characters were played up. The ones who were supposed to be great were never shown to be great. The ones that were losers were shown to be losers, but that didn't help. The one "hit" song from the musical, "What I Did For Love," was given a strangely clumsy rendition. The only thing that came through really well was "the thrill of victory and the agony of defeat" in each round of the selection process. The winners and losers of the audition made the audience feel along with them. The only emotional moment that failed was when one dancer was injured. For some reason, that scene lacked the impact that it deserved. The music and dancing that are permitted to wade through Attenborough's style are very good, and those who like the musical genre will probably enjoy them. The finale is flashy enough to make any old musical fan drool. There are a few very good moments, both dramatically and musically. I just wish that there had been more of them. Overall, A Chorus Line is worth seeing if you are interested in the theater or musicals, but may not be worth your money as a drama, and is only so-so as a showcase of dance. Let the ticketbuyer beware.

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Well, not *just* rehearsals, but that's another movie.

A Chorus Line was done by a strange combination of people, and seems to have suffered for it. Michael Douglas is an excellent actor, and he carries through very well as the director who is running the audition. The individual dancers are very good, portraying different facets of life in the big city, among those crazy enough to compete for the very few jobs on Broadway. The problem seems to be Richard Attenborough himself. He likes directing impressive, powerful films (Gandhi was one of his), and I don't think he saw the basic material of A Chorus Line as being quite worthy of him. Therefore, he did something different. He tried to make it a powerful emotional drama about the successes and failures of the characters. He focused on the characters to such an extent that he failed to focus on their singing and

ENTERTAINMENT

CLAGS Sponsors Romanovsky and Phillips

by Josh Susser

Tonight, at 8:00 in Dabney Hall, The Caltech Lesbian and Gay Society will welcome the singingsong writing team of Romanovsky and Phillips. Ron Romanovsky and Paul Phillips are something new both for the Caltech community, and for the entertainment world. They defy convention by being both openly gay, and successful performers. They have been performing since January 1982, and in early 1985 released their first

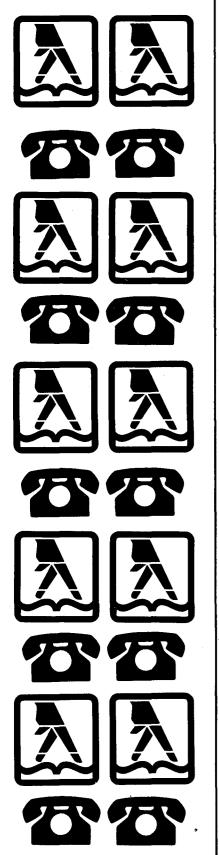
Vacation

from page 9

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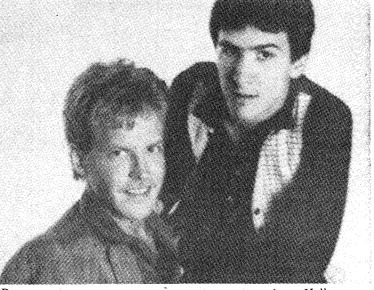
Prairie Home Companion, for those of you who've never heard it, used to be a fine show. Then Garrison went and fell in love, and there went the neighborhood. Still, he has a nice sign-off line, which my mother paraphrased thus in our Christmas letter:

That's the news from Camp Overdrawn, where the women are strong, the men are good-looking, and all the children are above average.

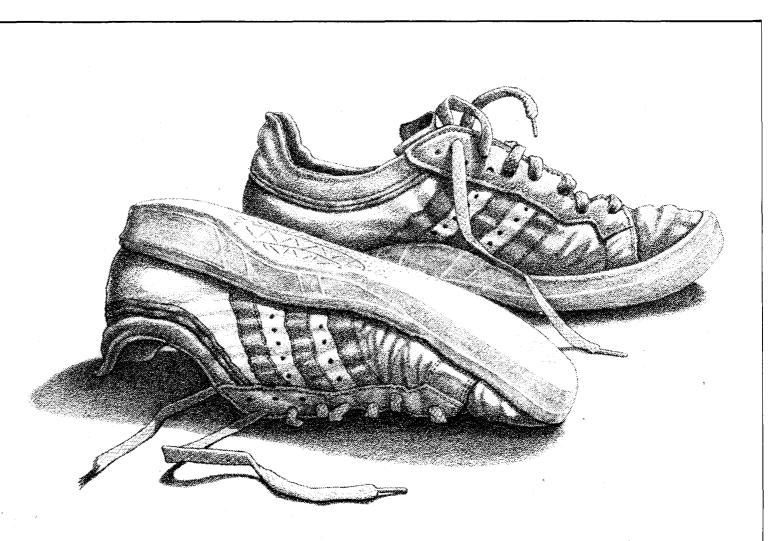


album, *I Thought You'd Be Taller!* on their own lable, Fresh Fruit Records.

Romanovsky and Phillips' musical talent and witty humor have garnered them rave reviews throughout the United States and Canada. They sing of experiences common to us all, as well as of the joys and frustrations of being gay. Their creativity and enthusiasm transform what could otherwise be just funny folksongs into funny folksongs with real meaning. While Romanovsky and Phillips' main following is in the gay community, their music is certainly enjoyable to straight audiences as well. They have achieved such popularity simply by singing about their lives openly, honestly, and with humor. This uncompromising quality combined with their diverse musical backgrounds makes their performance an inspiring and entertaining experience for all audiences.



Romanovsky and Phillips will play tonight in Dabney Hall.



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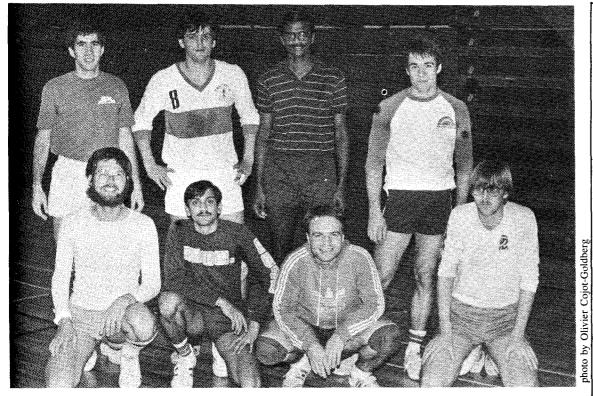
To succeed, we've got some very big shoes to fill. Check with your Career Development Center to learn more about our opportunities for engineers. We'd like to see you and your résumé when we're on campus recruiting: Friday, January 24th. If you're unable to see us while we're on campus, send your résumé to: Apple Computer, Inc., College Relations, Dept. CIT/86, 20525 Mariani Avenue, MS9-C, Cupertino, CA 95014.



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SPORTS



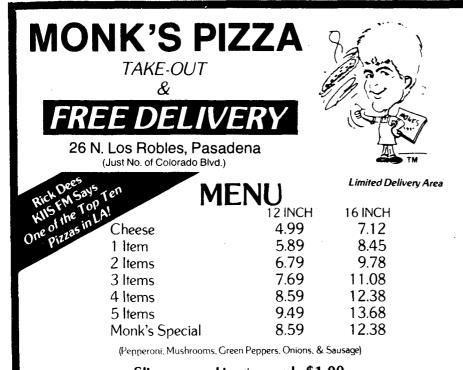
Volleying Champs-Pictured here are members of the Upsetters volleyball squad, winners of the Caltech Volleyball Tournament. The Upsetters defeated the Jetsetters 15-7,15-0 in the tournament final, which was played prior to the holiday break.

WEEKLY SPORTS CALENDAR

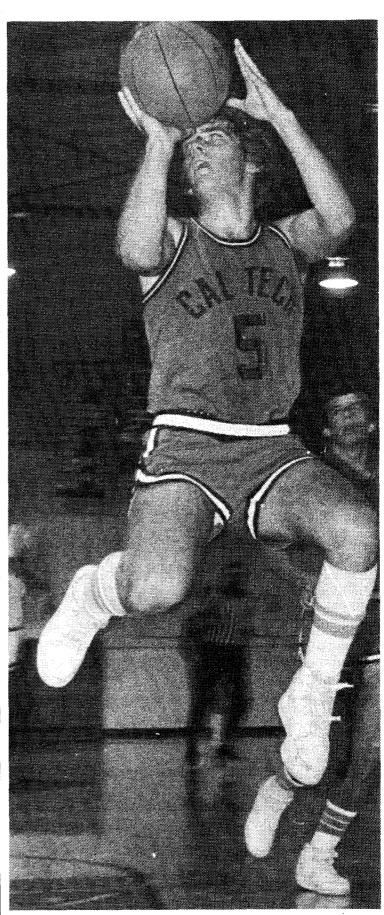
Date	Time	Sport
1-10	4:00 pm	Swimming (W)
1-11	10:00 am	Wrestling
1-11	7:30 pm	Basketball
1-11	TBA	Swimming (M/W)
1-12	ТВА	Swimming (M/W)
1-15	7:30 pm	Basketball
1-15	7:30 pm	Wrestling
1-16	11:00 pm	Hockey Člub
1-18	10:00 am	Wrestling
1-18	10:00 am	Swimming (M/W)
1-18	7:30 pm	Basketball
	1-10 1-11 1-11 1-12 1-15 1-15 1-16 1-18 1-18	1-10 4:00 pm 1-11 10:00 am 1-11 7:30 pm 1-12 TBA 1-15 7:30 pm 1-15 7:30 pm 1-16 11:00 pm 1-18 10:00 am

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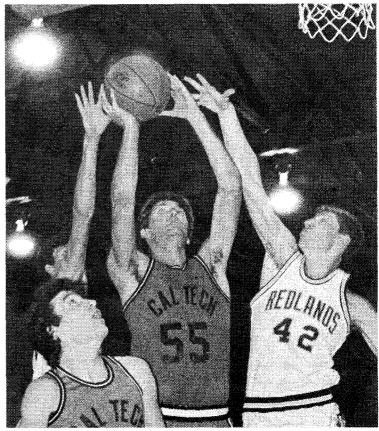


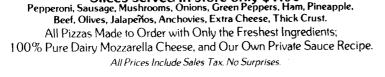




Basketball-Caltech's Brad Scott lays up two points in a basketball game versus Redlands University on Wednesday night. Tech's Beavers lost a 67-49 decision.

photo by Rod Van Meter







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by Rod Van Meter photo

Brett Bush goes up against Redlands opponent while Adam Slovik watches in awe.

WHAT GOES

Faculty Photos

Time is running short for faculty members to submit their favorite photos of themselves to the Big T (107-51). Photos should be black and white (any size) preferably on glossy paper. Please include your name and department. Remember: if you don't find a photo, we will!

Free Money for Seniors

This is it, seniors-time to turn in your senior photo to the Big T office (first floor, Winnett). Photos are due no later than Feb. 7. They should be black and white (any size), preferably on glossy paper. Please include your name, option, and hometown. Call us at x6154 if you need a photographer.

Yearbook Class

The Yearbook Class (PA 15) will meet in Baxter 127 on Tuesdays at noon. Please come if you are interested in any aspect of the Big T. Feel free to bring your lunch. The class is worth 3 P/F units.

CLASSIFIED

HELP WANTED-

RESEARCH TECHNICIAN with experience in molecular biology. To study DNA and RNA tumor virus transcription. College degree in chemistry or biology and at least 3 years experience. Competitive salary and benefits. Send resume to: Dr. Richard Gaynor, UCLA School of Medicine, 11-242 Factor Building, Los Angeles CA 90024.

FEDERAL, STATE AND CIVIL SERVICE jobs now available in your area. For info. call (602) 837-3401 Dept. 1373.

COMPUTER ENGINEERS. Full time contract and permanent positions at JPL and other Valley locations. BSEE or Computer Science or equivalent experience. Execuserve Personnel Service. 1756 Manhattan Beach Blvd., Manhattan Beach, CA 90266 (213) 376-8733.

REALTY-2 BEDROOM/1 BATH CONDO

Cal Grant Deadline

February 11, 1986 is the postmark deadline for both new and renewal Cal Grant applicants. Current Cal Grant recipients should have already received a SAAC and renewal supplement from the California Student Aid Commission. New applicants (and students who applied in previous years but were ineligible) can pick up the Cal Grant Supplement at the Financial Aid Office.

Korean-American \$\$

Scholarships are being offered to full-time students with Korean heritage. Students may be undergraduate or graduate students. Application forms are available from The Korean American Scholarship Foundation, Western Region, 20281 Running Springs Lane, Huntington Beach, CA 92646.

Application deadline: January 31, 1986.

Indian Fellowships

The United States Department of Education offers Indian (Native American) Fellowships. If you are interested in receiving a fellowship, please obtain the application and brochure from the Financial Aid Office, Room 10, Parsons-Gates. Application deadline: January 15, 1986.

Grad Furniture

The Housing Office is in the process of reviewing furniture options for the new Catalina Graduate Apartment Complex. Any Graduate Students interested in becoming involved in the selection of furnishings are encouraged to contact Linda Chappell in the Housing Office at 356-6178 immediately.

Guitar Classes

The Beginning Guitar Class (no experience necessary) has been reformulated to include not only classical repertoire but a new jazz and folk chord system as well. This will give the student a strong classical technique and enable him to branch into other forms of guitar if he desires. For further studies in classical and flamenco, Intermediate and Advanced Guitar Classes are also offered. Classes are free to Caltech students (and other members of the CIT community, space permitting). Undergraduates can receive 2 units of credit if they choose. Classes will be on Tuesdays starting

Amateur Radio Exams

This Saturday, January 11, 1986, from 10 a.m. to 3 p.m., the Caltech Amateur Radio Club will administer the FCC Amateur Radio Exams for Novice, Technician, General, Advanced and Extra Licenses. The examinations will be given in Clubroom 1 of Winnett Student Center. Everyone who is prepared to take the exams is welcome. For those who are not prepared, but would like to become licensed, classes are available.

Regular club meetings are scheduled the 1st and 3rd Tuesdays of each month at 8 p.m. and are held in the Y Lounge. Code and theory classes and help sessions are held on all other Tuesdays at 8 p.m. in the shack or nearby. People who cannot make the meetings should call the club secretary to schedule classes at their convenience. Further information about the club may be obtained from Dave Hodge, the club president, at x6825 or from Dave Ritchie, the club secretary, at 449-7371. Membership is open to all members of the Caltech community including undergraduates, graduate students, staff, faculty, alumni, jpl-ers, and hangers-on. Anyone interested is encouraged to get in touch with Dave Ritchiedemonstrations and tours can be arranged at any time.

1986-87 Aid Forms

1986-87 Financial Aid application packets are available at the Financial Aid Office. If you have not picked up a packet, please stop by and get yours now! In order to receive priority standing you must complete the proper forms and meet the deadlines. **DEADLINES**

Feb. 11-Cal Grant (new & renew) Feb. 11-Student Aid Application for California Feb. 11-Business/Farm Supplement

April 15-Foreign Student's Financial Aid Application April 15-Parents' & Student's signed tax returns April 15-Draft Registration Compliance Statement April 15-CIT Supplement Upon Receipt-Student Aid Reports for Pell Grant-All Pages

If you have any questions please call or drop by the Financial Aid Office, Room 10 Parsons-Gates, 356-6280.

Present Student I.D. For

SPECIAL

DISCOUNTS!

HONDA



Varsity athletes who want to order award jackets should contact Engineers is awarding scholarships Michael Keating (Rm. 104, Page; x3774) before 2:00 p.m. Friday, January 17 (that's next week!). The price is about \$75. Eligible athletes receive an ASCIT subsidy of one half the price. See the *Little t* for eligibility requirements.

Grad Housing Probs?

The Graduate Student Council is interested in problems graduate students have experienced with Caltech-owned properties or with the Housing Office itself. We are especially interested in maintenance and repair problems because it has been suggested that Physical Plant should perform maintenance and repairs of graduate properties now done by the Housing Office. Comments on waiting lists, Housing Office policies, custodial services, or other matters would be a help in analyzing and alleviating problems. Positive comments are also welcome. Please provide the information as completely as you can and include your name, address, and phone number. Replies will be kept confidential if you ask for it. Send replies to Tony Stirk 1-87.

Money For Women

The brochure A Partial List of Resources for Women is available for your use in the Financial Aid Office. The brochure gives helpful hints to women applying for aid. It also has a selected list of scholarship, grant and loan programs. It also has a list of financial aid welcomes resources.

Philosophy Course

205 Dabney; James Woodward, Dabney to sign up.

Caltech Bridge Club

7:00 p.m. on Monday nights, Red Door Cafe. Everybody welcome. cellent opportuni-ACBL sanctioned. And watch for the upcoming Charity Game ty to break out of (Prizes! Prizes!). For infor-mation call Jeffrey Pugh (x4543), the Tech nerd (Prizes! Prizes!). For infor-Jeff Stern (x6627) or Jennifer Stern (x4476).

UUUScholarship\$\$\$

The American Society of Naval of \$1,750 for the 1986-87 academic year. The renewable scholarships are for junior and senior undergraduates. There are also 1-year, non-renewable scholarships for graduate students. Applicants must be U.S. citizens. Financial need is not a requirement but may be taken into consideration. For additional information contact the Financial Aid Office, Application Deadline: February 15, 1986.

More New Courses

Hal Fairchild, a visiting professor from UCLA, will be offering Psy 10-Introduction to Psychological Development, on MW 10:30-12:00.

Jeff Strnad will be offering a course (SS 216-Interdisciplinary Studies in Law and Social Policy-Advanced Stochastic Methods). The course will focus on advanced stochastic methods that find significant applications in economics and finance. For a more detailed course description see the Economics Department.

KISMET

The annual Caltech Musical needs basses, baratones, tenors, and, of course, hands willing to build, sew, and paint. Call Deena, x2158.

The Tech all those who would Philosophy 1: T 2-4, Th 3-4; like to contribute 205 Dabney; James Woodward, professor. See Secretary in 211 articles, reviews, photos, or art-It's back! Duplicate games at work. "An exmold."



with fireplace and built-ins. Pool, spa, and recreation room. Security parking. Near Caltech. Agent (818) 357-0057 \$79,500.

GENERAL --

INSURANCE WAR! Will beat any price, or don't want your business! Sports cars, multitickets, good driver discount. Request "Caltech Plan." Call (818) 880-4407/4361.

FEYNMAN AT HALF-PRICE! Feynman lectures-Vol. III-Quantum Mechanics, hardcover edition at 1/2 price. Supplies limited, hardcover is now out of print. CALTECH BOOKSTORE.

RATES: \$2.50 for first 30 words; Each additional word, 10 cents. Payment must accompany ad.

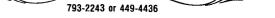
January 14 in Fleming Music Room as follows:

Beginning, 4:30-5:30 p.m. Intermediate, 3:30-4:30 p.m. Advanced, 5:30-6:30 p.m. Private instruction can also be arranged on any level with instructor Darryl Denning, who has an international background in recording and performance. For further information call Mr. Denning at (213) 465-0881.

New Literature Course

Lawrence Rainey will be offering a Literature 180 course-Intellectual Texts of the Continen-Renaissance on tal TTh 10:30-12:00 in Baxter 210. The course will survey the intellectual life and history of ideas in the Renaissance. Authors will include Petrarch, Thomas More, and Erasmus.





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