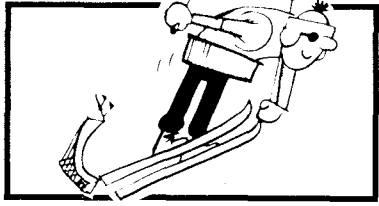
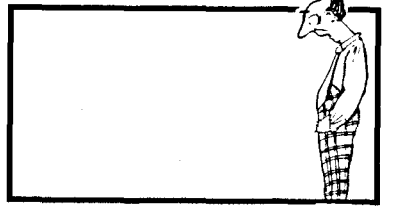


Happy Finals... Merry Holidays



The California Tech



VOLUME LXXXIX NUMBER 10

PASADENA, CALIFORNIA

FRIDAY 4 DECEMBER 1987

Bots Battle for Glory

by Jonathan Chow

On Thursday, December 3rd, Baxter Lecture Hall was invaded and occupied by an army of mechanical machines. These machines, to celebrate their victory, then took part in a contest of tug-of-war amongst themselves....

Outlandish fantasy or mere exaggeration of sensational news reports? In fact, it's neither. The story given above concern the Annual Caltech ME 72 Engineering Design Contest. This year, the object of the contest was to design and build the ultimate tug-o'-war machine. The arena of battle was a track filled with small white polystyrene pellets. The machines were connected to each other by a piece of rubber surgical tubing hooked around a pulley. The vehicles would race down the track dragster-style and the one which made it the farthest would win.

Professor Erik Antonsson, the instructor of ME 72 who presided at the contest, decided to have a contest at the end of the term because he believed this would give the students the environment and motivation to learn about design practices. ME 72 does not have any finals nor does it require a textbook, although one is recommended. The final grade depends on the contest device, though the contest results have little bearing. Antonsson got this idea from his experiences as a student at M.I.T. where they used contests as part of the learning process.

The students were each given a "bag of junk" from which to build their designs. This bag contained ball bearings, springs, Plexiglas, masonite and, for the first time in the history of the contest, two electric motors graciously donated by the Schlumberger Corporation.

Since the students were given

the liberty to choose how they would get their part of the tubing down the track, the designs of the machines ranged from tracked and wheeled vehicles to catapults and sleds. To do well in the course, many students found that they had to spend much of their free time working on their devices, more than the nine units of credit earned. Some of the students objected that while the electric motors made the design easier and allowed them to devise more ambitious designs, the motors were weak and should have been more powerful.

The contest itself was run as a double elimination competition which meant that each competitor had to lose twice before being knocked out of the contest. The contest judges were: Bob Bolender, a former teaching assistant in the class; Dr. David Lewis; and a representative from Schlumberger. The format of double elimination was used because it gave competitors a second chance in case their vehicle didn't work the first time. This led to a curious ending in the final rounds when the contest to determine the winner and first runner-up had to be run twice to fulfill the double elimination standards.

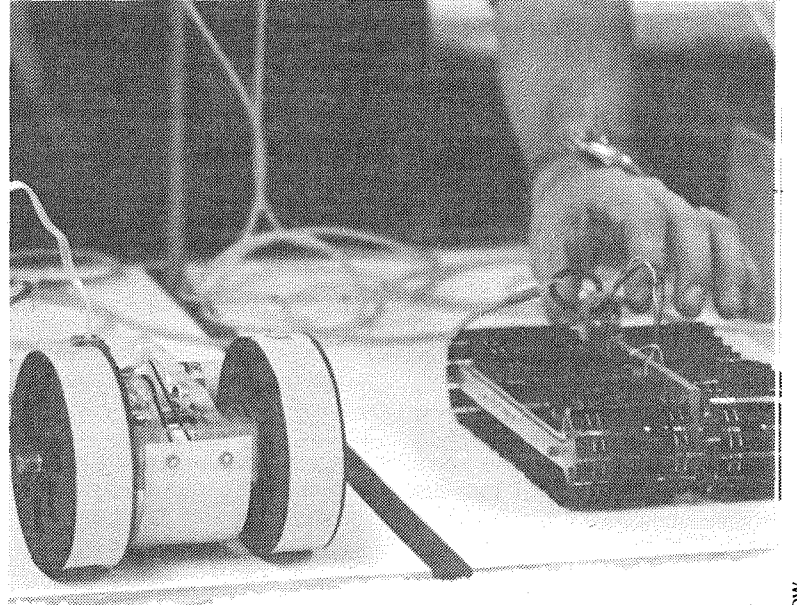
Leslie McCaffree won the first round, she would have won the contest outright. In the first round of the finals Owens beat McCaffree. This led to the dramatic finale where Owens' catapult again challenged McCaffree's self-laying track. Had McCaffree won the first round, she would have won the contest outright.

In the end Owens won the contest with his catapult engine while McCaffree and her extending sled came in second place. Won Hong and John Schuster came in third

and fourth places respectively. Owens spent approximately two hours a day every weekday since the start of the term on his brightly coloured catapult, working on a suggestion Professor Antonsson had made. McCaffree came about her idea for an extending-ladder style sled while brainstorming with her friends and spent the next two months designing and making it. The whole field, nineteen competitors, did a very good job in the design and construction of making the vehicles.

Deserving mention are Ray Hu with his scissor-mechanism/sled and John Lee with his "Placebo" tank. In general, the tracked and wheeled vehicles fared worse than other vehicles which employed different methods of propelling the tubing across the polystyrene chips. Since the polystyrene was loosely packed, the slightest pressure caused the chips to give

continued on page 4



Tensions rise at the starting line of the Annual Caltech ME 72 Engineering Design Contest. Contestants spent a term designing vehicles out of the contents of a "bag of junk".

photo by Jonathan Chow

Smog Control Presents Risk

by Marc Turner

A state-of-the-art pollution control device soon to be on-line at the Caltech Physical Plant may increase the cancer risk for people living nearby, claims a recent study.

The study made by Ala Nova Inc., a Massachusetts consulting firm, challenges an effort by the South Coast Air Quality Management District (SCAQMD) to require wider use of the technology known as selective catalytic reduction, or SCR.

SCR is a process that reduces nitrogen oxides found in the emission products of high-temperature combustion. When released into the atmosphere, these oxides may

later form nitric acid vapor and nitrated organics. This vapor is irritating to breath, and some of the organics are believed to be carcinogenic.

In SCR, high temperature emission products are passed over a vanadium-based catalyst in the presence of ammonia. This reduces up to 90% of the oxides of nitrogen. The study by Ala Nova suggests that the ammonia may react with other pollutants to form non-toxic diethylamines. In the daytime, diethylamines break down under sunlight, but at night they persist and if inhaled can form nitrosamines, which are potent carcinogens.

Politics often become involved when expensive pollution control measures are introduced, and a flurry of studies appear pointing out obstacles. Often, these concerns need to be evaluated on a case by case basis, which can be time consuming. Supervising air quality engineer at AQMD, Robert Pease, says the results Ala Nova found at one plant may not apply to other plants that may soon be using the technology, since some plants may burn hot enough to destroy the chemical precursors that form nitrosamines.

This study is important because the SCAQMD may soon adopt rules that would require the widespread use of SCR technology to help reduce the pollution created by many Southern California industries. Although SCR is in widespread use in Japan and Europe, there has been little assessment of the possible risks. Some developers have been trying to apply pressure to the SCAQMD, but it has appointed officers and an internal review board, so there is little influence that can be exerted against them outside of the court.

When Caltech requested a permit for the construction and operation of a new power-generation facility, it was required to include SCR in its proposal. The project

encountered many delays because of a struggle over permits.

Currently, the Caltech Physical Plant has three boilers. High pressure steam from these boilers passes through a one-megawatt generator before being supplied to the campus. The new system will burn fuel in a 6000 horsepower gas turbine, and its exhaust will be routed through a heat recovery boiler to make 24,000 pounds of steam a day, which is Caltech's base load. The turbine will drive a four-megawatt generator to produce 75% of campus power requirements. The SCR converter alone will be responsible for about 20% of the total system cost. It is not known exactly when the new system will go on-line.

Concerned about the allegations of this recent study, the Physical Plant is looking into their validity. Because this report is new, Physical Plant was not prepared to comment on this sensitive topic without further investigation. It may be pointed out that actual danger involved is difficult to determine because of ethical constraints on long-term studies on the effects of carcinogen inhalation by humans.

The new system will save Caltech a considerable amount of money as it will generate power more efficiently than the utility company can. This concept was well explained by Professor David Goodstein in a letter to the *Los Angeles Times*: "[energy]...once it is released, will ultimately wind up as heat, no matter what other use is made of it along the way. The wasteful inefficiency arises in not using it for any other purpose before it gets around to warming your house. The cheapest way to heat your house is to build it next to an electric generating station, so that you can make use of some of the waste heat that the station, according to the inexorable laws of physics, must inevitably produce and find some place to dump."

Health Advocates Promote Awareness

by David Lipin

Students helping students and increasing medical awareness - these are the bases of the health advocate program. The concept of a health advocate program is a simple one: although the campus health services are capable of dealing with most any problem, the people who provide these services don't live amongst the students and, as a result, often are not aware of the problems that exist.

Health advocates provide students with a link to these services. Otherwise, many students would not seek out the help they need. This arises for several reasons.

Many times a student will have a cold, headache, or a minor injury, but will not be concerned enough to spend the time and effort to seek medical attention. The health advocate, however, is a convenient alternative since his room is easily accessible.

Sometimes a student will want to talk about a problem or just ask some questions. It is often easier to

talk with a fellow student (especially a friend or someone that he knows) than with a stranger or a resident associate. This is particularly true when the situation is one in which someone "in authority" would be obligated to handle matters differently.

And occasionally a student might not be aware that help is needed, or might not know where to find it. Health advocates are trained to recognize even subtle signs of stress and depression, and so are likely to identify problems before they become serious. When a potential problem is seen, the health advocate can talk with the counseling staff, the student's friends, or the student himself. Health advocates do not provide counseling; they are simply there to talk to, to suggest alternatives, and to provide information.

The course curriculum necessary to become a health advocate generally includes advanced first aid training, listening and communications skills, evaluation and treatment of sports injuries,

and basic counseling skills such as stress and depression identification and management, crisis intervention, and recognition of drug abuse.

Students who register for the course must also go through a screening process. Students who want to take the course simply to learn the skills, or just because it sounds interesting, are not accepted. Only those students willing to make a commitment to and become actively involved with the program are allowed to participate. It is more than just a class; it is an on-going program designed to service all students.

Although the health advocate program exists in many universities, Caltech's health advocate program is a relatively new one. It was offered for a few years, but unfortunately was cancelled in 1986-87 due to some administrative difficulties. The Health Center is currently trying to resolve these problems so that the program may be offered again in the future.

features

Run of the Sunraycer

By Mark Huie and Stephen Lew

If you walked down the Olive Walk last Monday, you may have noticed many people gathered around a funny looking car parked on the lawn in front of the Winnett Student Center. The car, called the Sunraycer, and the fantastic race it competed in were the subjects of an Ae 150 lecture presented by Alec Brooks of AeroVironment.

AeroVironment is a Monrovia based company founded by Paul MacCready. MacCready is well known for his many innovative design concepts. A mechanical *pterodactyl*, a slew of man powered aircraft, and a man powered watercraft named "Mutiny on the Boundary Layer" are just a few of his accomplishments.

In the unusually packed Aeronautics seminar in 306 Firestone, Alec Brooks started off by mentioning numerous Caltech alumni who worked on the Sunraycer project. After some formalities he launched his talk into the history of the World Solar Challenge.

Though the Challenge was announced three years in advance, the news of it took its time to trickle its way down the GM hierarchy. In fact, GM spent less than seven months in the development and production of its entry for the race.

AeroVironment was hired as a subcontractor to test the feasibility of building a car to enter the race. The company engineers were given a week to come up with an aerodynamic model for the car. A preliminary model was built, tested and perfected in Caltech's ten foot wind tunnel. Coincidentally, the automobile testing platform AeroVironment scrounged up from the darkest recesses of Firestone for the test was one that General Motors built years ago to test their own auto models. In end, the design achieved the lowest coefficient of drag ever measured for an automobile in the wind tunnel while still getting as much use out of the solar panels as possible.

After convincing GM that they had a fighting chance to win the race, GM chose AeroVironment to actually build the car. This included building the frame out of tubular aluminum, making the kevlar-honeycomb laminate for the fairing, and applying bicycle tire technology to the wheels. GM's own people worked on the McPhearson strut suspension, the fiber optic rearview mirror, and motor. Hughes provided and installed the solar cells.

GM used its Arizona proving grounds to test the car. Since the previous world record speed for a purely solar powered car was only 24.74 mph and the estimated maximum speed of the Sunraycer was

over 45 mph, GM decided to take the opportunity to break some records. Although it was overcast the day of the testing, the Sunraycer was clocked at 35.22 mph.

At the competition were entries from many other companies: Ford, Mitsubishi; schools: MIT, DIT (Darwin Institute of Technology); and even a High School: Goodwood High. None of the other entrant were as well equipped as GM, however. In addition to spare parts, RVs for telemetry and general road support, and a spare Sunraycer, there was even a helicopter for air support.

The entries were as varied as the competitors. There was a solar steam powered car, a wind powered car, a multitude of cars with flat tops for solar cells and small bodies ("We were trying to minimize frontal area," quoted one person. "Oh, we just tried minimizing drag," replied Alec Brooks.), and then there was the teardrop shape of the GM entry.

The race itself was 1950 miles long, from Darwin on the north coast of Australia to Adelaide on the south coast, run on a "mostly-asphalt" highway which spanned the continent.

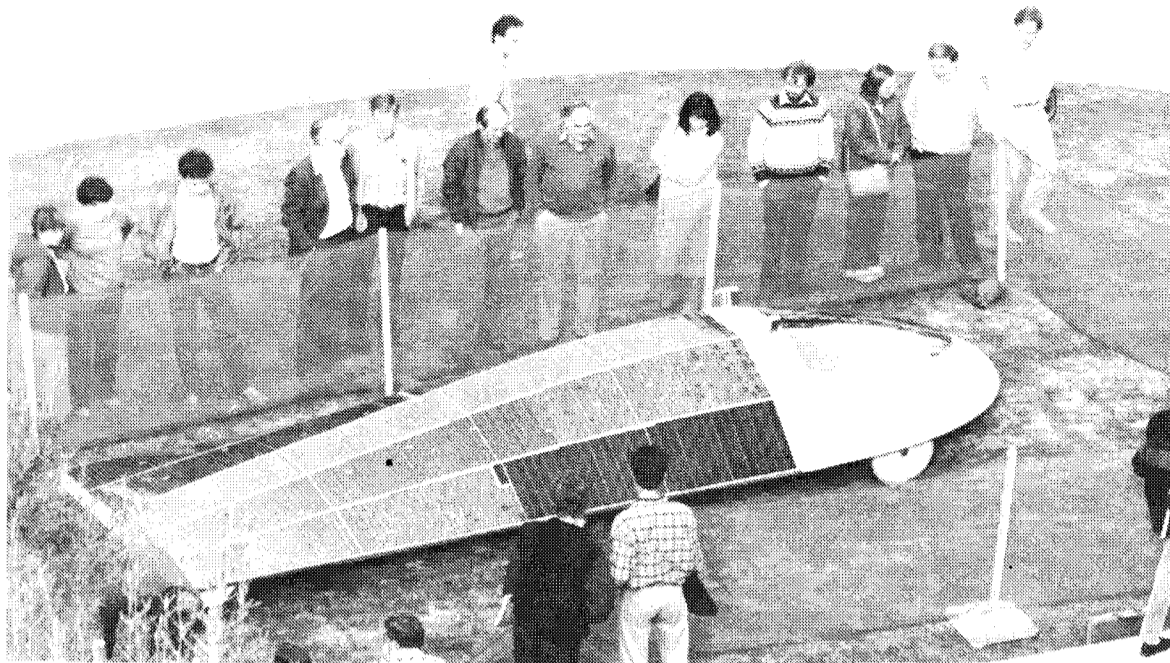
The GM entry earned the pole position in the qualifying test and dominated the race from the start [that is if you can dominate a race that stretches out almost two thousand miles]. The Sunraycer pulled out ahead in the beginning of the race, using up much of its batteries doing so, but never looked back. Later on in the race, it was so far ahead of the rest of the cars that it enjoyed good weather while the rest got caught in a storm, and fell further behind. The Sunraycer drove into Adelaide five days after it embarked with nearest competitor days behind.

letter

No Junk for Jenijoy

To the Editors:

I would like to thank Chandra Tucker for the judicious review of my Watson lecture ("Women, Mirrors, and Literature," the *Tech*, 20 Nov. 1987). One small correction. I did *not* report that I took my examples from "poems and passages and other junk": I said I had been studying "poems and passages in many other genres."

—Jenijoy La Belle
Humanities

The GM Sunraycer parks in an illegal space in the quad in front of Winnett Student Center. Caltech Security quickly cordoned off the vehicle to prevent its escape, but were unsuccessful.

photo by Michael Keating

Holiday Glee!

by Ann Lewis

As finals and the holiday season rapidly approach, many people may be telling themselves, "It just doesn't feel like Christmas around here" or "I'm really dreading finals." A simple solution is to take a break and listen to the Caltech Glee Clubs' annual Holiday Concert on Friday, December 4th at 8:00 PM and Saturday, December 5th at 3:00 and 8:00 PM in Dabney Lounge.

In addition to Francis Poulenc's *Gloria*, the Glee Club will be performing other festive music of the season including a piece composed by Jeff Tseng, a Caltech undergraduate. Don't miss out this holiday season. Get your tickets from the ticket office now!

The Holiday Concert is only the beginning of the Caltech Glee Clubs' performances. This year Caltech is hosting the Pacific Southwest Intercollegiate Choral Festival. The Glee Clubs will be going on tour March 23 to 27 to Northern California. The Glee Clubs will also perform a Spring Concert in May. But wait—there's still more. The last chance to see the Caltech Glee Clubs for the 87/88 season is at graduation!

The Glee Clubs need more than an audience. Anyone interested in becoming a member of these dynamic groups for next term should contact Monica Hubbard, director of the Women's Glee Club at x6260 or Don Caldwell, director of the Men's Glee Club at x6197.

THE CALIFORNIA TECH

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entertainment

Baby Boom and The Hidden: a mixed bag

by John Haba

This week I'll be reviewing two movies: *Baby Boom*, which is currently very high on the box office charts, and *The Hidden*, which is one of the few movies I've been looking forward to seeing recently.

Baby Boom features Diane Keaton as a successful high-level New York business executive whose life is transformed by the inheritance of a distant relative's baby.

At the outset of the film, Keaton's character is known as "The Tiger Lady". She's an aggressive young businesswoman rising quickly through the corporate ranks who, by her own proclamation, is married to her work. She is almost a caricature at this point with her singleminded devotion to her career and her completely passive acknowledgment of other

aspects of life.

She shares an apartment with a young investment banker (played by Harold Ramis) who is also married to his work. The depiction of their "modern" relationship is one of the funnier points of the film.

As one might expect from the advertisements, the sudden unexpected inheritance of a baby girl throws The Tiger Lady's life and household into complete disarray.

Without giving away too much, she experiences various harrying episodes with her roommate, several nannies, an adoption agency and her employers before finally resolving to get away from it all and moving to rural Vermont with her inherited baby Elizabeth. At this point, the comedy slows down immensely, and an almost entirely new movie hits the screen.

The rest of the film centers

around a young woman's internal struggle over what she wants to do with her life. The conflict comes down to a choice between the New York money and lifestyle she had previously loved and the Vermont lifestyle with which she had experienced many ups and downs. At the end of the film, this choice is resolved, for better or for worse.

Overall, this movie rates one and a half stars on a standard four star rating scale. The early fast-paced comedy and the charm of Diane Keaton are the movie's saving points. Unfortunately, the transition from comedy to drama does not come off well at all, and the movie becomes an ordeal in its latter stages.

The Hidden has left Pasadena theaters for the time being, but it is playing in nearby Monrovia and in various megatheaters in Hollywood and Universal City. If you are an action movie fan, then *The*

Hidden will not be a disappointment. While the science fiction aspect to the movie borrows slightly from other SF themes, the performances in the movie more than make up for any predictability.

In this film, an alien cop (played by Kyle MacLachlan of *Blue Velvet* fame) is chasing an outlaw alien who is a creature of urges. If it wants something it takes it. The catch is that both these aliens are parasitic. They enter the bodies of any host, take complete control, and use the body until it falls apart or dies, then they find new hosts. While the alien cop honorably inhabits only one body throughout the film, the outlaw alien uses many hosts, all of which are interesting characters.

The best thing about *The Hidden* is the portrayal of the alien outlaw in its many human forms. It takes over many different types of people, and the exploits of these alien-controlled people is at times humorous, at other times powerful.

As for the movie's flaws, a couple of the movie's later scenes were a bit slow moving and there was

some predictability as far as some of the action scenes were concerned. However, the movie had enough surprise turns to keep you interested for the duration.

A few people who saw the film with me thought it was too long. I can see how they would think so, but I for one enjoy a manhunt movie (or alien-hunt as the case may be) in which there is a real sense of a long, tough chase as opposed to the TV series-like briefness of police operations depicted in most films.

In all, *The Hidden* rates a solid three stars out of four. While the film did not come out and blow you out of your seat by any means, it was a fast-paced, amusing action flick with solid performances all the way through. It has done fairly well at the box office but it is in danger of being shoved out by the glut of fall movies coming in.

My recommendation is to see it while you can. If you miss it this time around, don't worry: It is guaranteed to be a rental hit when it comes out several months down the road.

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An Impressive American Artist

by Josh Kurutz

"Fabulous" is the impression the art fan gets from "Memories," the twenty-three painting exhibit by American Impressionist Robert W. Jensen at Galerie Marumo in L.A.

Jensen's works epitomize the ideal of the impressionist school. They are quick glances at life, wrapping up into a fuzzy image the vitality, splendor, and emotion of the moment.

The show deals with serene and passive situations; there were people in gardens, along the beach, on the street, and there were still lives as well. All look as if they were visual reminiscences with emotional casts to them, hence the title, "Memories."

All the scenes depicted originate from locations in California, and as real situations, according to the artist.

Although Jensen's paintings are

"Californian," there is a French element in many of them, especially those involving street scenes. This observation was made by a couple of people in the gallery and was corroborated by Jensen, who commented, "Wilshire Boulevard looks very Parisian from the MOCA's (Museum of Contemporary Art) windows."

The quality of the show is high, but a few paintings stand above the rest. The most notable were: "Reverie," a large painting of a garden scene; "Rodeo Drive in Beverly Hills," a strikingly impressive street scene; "Room With a View," the artist's sole "statement" painting; and, "Bathers at the Falls," a Yosemite scene that emphasizes heaviness.

"Reverie" depicts a moment the artist experienced at the L.A. Arboretum in Arcadia. Jensen said of this encounter, "It was straight out of the nineteenth century. There was this woman walking around in just that kind of hat (he made a motion describing a broad-rimmed, round, floppy hat) and a pink chiffon gown. I followed her around all day." Some of Jensen's paintings not shown at the exhibition also include this woman.

The painting's colors are its main attraction. The canvas has a warm grey cast, which creates a misty, reverential atmosphere. The dominant tone of lavender establishes a setting from which gold and burgundy flowers blossom magnificently. The passiveness of the piece stands out in these colors and creates a warm, friendly effect.

Passivity is also a major theme of, "Rodeo Drive in Beverly Hills." The painting is composed of a woman in the canvas' center wearing an eye-catching red dress surrounded by bustling activity. Despite undertaking the seemingly difficult task of managing two large dogs on a busy street, the woman pays almost no attention to them. She doesn't even seem to show much concern for those around her. She just looks into store windows impassively with an expression of carefree contentment. She embodies passiveness.

Her indifference to the observer is indicated by a common theme in Jensen's works - the human subject faces away from the viewer. This woman turns her head enough so the observer knows her expression, but not so much that he associates an identity with her. "When you see a face on the canvas, you see that person. If you

don't see their face, the subject becomes a person," Jensen said.

The vibrant colors and cosmopolitan setting of this work give it energy and life not seen in the expressions of the players depicted. The simultaneous existence of these two forces makes this an exciting piece to behold.

A gem if interpreted properly, "Room With a View" is Jensen's only "statement painting" of the exhibit. It displays two people looking out of a window in a room in MOCA. Jensen explained, "Here you have this room full of great modern art. Where do people go? They go to the window! People simply flock to wherever there's light."

"Bathers at the Falls" is a scene in Yosemite in which a few people are dwarfed by gargantuan rocks and an enormous waterfall. "You know how, in Yosemite, you feel so small surrounded by these huge, heavy rocks. I really wanted to capture that heaviness," said Jensen. To achieve this effect, he incorporates black into this painting; "Bathers" is the only work in the piece with any black in it.

These four works point out that most of Jensen's works are taken from real-life experiences in California. For example, at the exhibition opening, someone recognized the woman in red in "Rodeo Drive." She brought up the point that the dogs' names were Alf and Ralph and that lady does, indeed, walk her dogs down the street regularly.

Jensen grew up in Carmel, an artist's colony on the California coast. He started drawing when he was very young. "I just drew everything around me," he said. This bias for depicting his surroundings has extended into the present, when he is noted for his California art.

His talent was recognized at an early age and was taken seriously. He may have had an advantage in this respect since he described Carmel as, "a place where it was better to be an artist than an athlete." Jensen held his first exhibit during his last year of grade school. By the time he was twelve, he was on the cover of *American Art*.

Robert W. Jensen's paintings will be on display until December 21, 1987 at the Galerie Marumo, at 8485 Melrose Place, L.A.

The gallery is open from 11 AM to 5 PM every day except Sunday.

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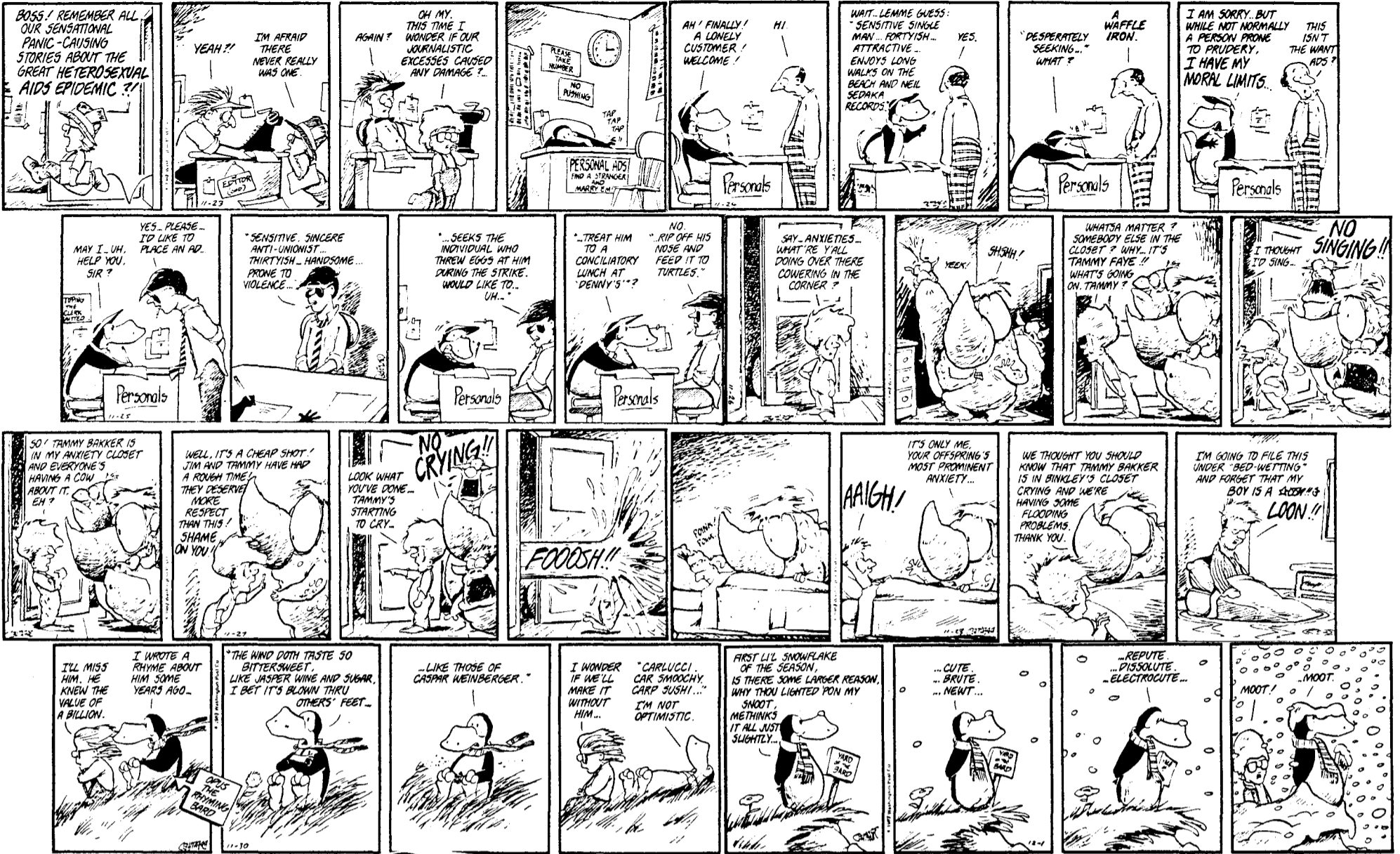
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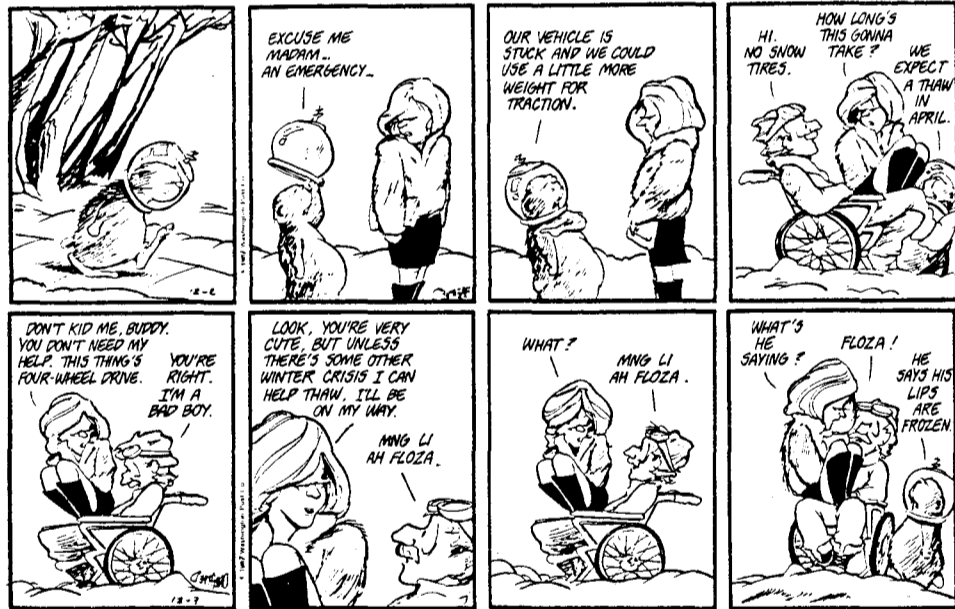
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Robots cont.

from page 1
way. This left many vehicles bogged down. Not needing a solid surface to go on, the sleds and catapults dominated the contest.

Many vehicles were knocked out due to mechanical problems and plain bad luck. Such was the case with Ted Rogers' catapult which had a tendency to shoot for the edge and thus get disqualified. But all worked well at least once before the highly-charged crowd of spectators who got behind all the competitors. It was a thoroughly enjoyable event.

Because of their total preoccupation with the contest, the machines were caught by surprise and quickly captured by forces friendly to the building management. They are right now being kept in holding cells on the first floor of Thomas Laboratory. Visiting hours are between 9am and 6pm.....



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sports

KELROF!



photo by Michael Keating

Some seventy-two runners and at least as many helpers, pacers, timers, and supporters came out for the 10th annual KELROF. The twenty-four hour relay was run from 9am to 9am, November 21-22 by nine teams. Above, Ken Kelly, Dave Jeitner, and Curtis Ling show different styles for handling the race. The "Dumb Frosh," a team of nine won with 223 miles. "The Amazons," the three-woman team consisting of Bibi J-N, Carmen Shepard, and Pat George may have set a new World Record with 135 miles set by either two- or three-woman teams since 1980.



The Inside World

South Ricketts: First of all there is no such place you arrogant Scurves. Let it be known that on the morning of November 30th, Sam "Leave it to" Weaver was spotted without, repeat, without a beer in his hand. To his credit there was a strong odor of beer on his breath. In addition, the following poem was submitted for inclusion in this week's Inside World:

let's throw potatoes at blacker hovse
and abstract their women
and throw pool balls through their lounge windows
then let's buy all their cokes
and fill their courtyard with water
ha ha blacker hovse
ha ha blacker hovse

—Revolting Moles for a free Blacker Annex

Blacker 1: "That which makes me stronger is killing me." For proof I offer an assortment of moles who braved the dreaded K.E.L.R.O.F. Bibi "amazin amazon" J-N and Carmen "one track mind" Shepard, for their part in the world-record setting debauchery of the Ughdeath Amazons. Other wonderful performances came in from Clifton "hour per mile" Kiser and Mark "which foot comes after the right one? .4469 m/s" Vaughan, members of the first walking K.E.L.R.O.F. team. Look for the Silly Walking team next year.

Two more young froshlings, Ben "now we'll never get a fourth" Holland and Pete "logoff" Wenzel were taken to meet their Master, dispelling all rumors that the Black Hand had contracted arthritis. 7 to 4 is a nice ratio, juniors. Speaking of juniors, 200 days is today. Warm up your throats. Diet Coke equivalents don't count. Screw over Suman "proud to be a wimp / senior" Chakrabarti by sharing the 200th beer.

Gift exchange Sunday. I hope most of you have a Merry Christmas. Take all your finals now, frosh.

—Rutabaga rutabaga ombudsman

Dabney: Win big cash! Take the pinhead quiz...

1. What is EMBO doing on the face of San Pasqual?
2. In ten years will all Flems look like Kevin Luster?
3. Where do the Rudds get enough money to hire all those bands?
4. Is Sue Berkeley really married?
5. Why is a pinhead's tea 81.6 proof?
6. Why do you take drugs?
7. Find the order of magnitude of the scalar that multiplies 6 in a 3-0-6 class.
8. Why don't you take drugs?
9. Why do trustees look at walls?
10. Would Dawn Sumner ever go out with a Darb?
11. Can you smoke a variable resistor?
12. Why does the food service pay 10% of gross to housing?
13. Why do all the equations in Ma2 look like they were stolen from Ma5?
14. Will H. Doug Bloomer ever nevermind?
15. Do organisms other than Darbs read the Dabney Inside World?
16. Will Einstein come back this year for another bizarre colloquium?
17. What is 859•3•\$3667?
18. How many on-campus cats have been tie-dyed?
19. Did Miriam Myjak really hit her head on a stack of pumpkins at Ralphs?
20. You can't speel gEEk without what?

Send all answers to Dabney House 1-58 c/o Bill W. Goat. 10¢ per legitimate or vaguely humorous answer. Remember, we're DabniFarms.

—Bill W. Goat

Lloyd: HAPPY HOLIDAYS.

—The King of Spin and Dark Foot.

Page:

Dear Cal,

Well, I guess it's that time of year again when people are running around secretly giving each other gifts, thinking of new and interesting things to do on New Year's, and contemplating suicide while scribbling furiously in their blue books. Some things never change. Of course, we're doing that "Secret Santa" thing again. It's kind of difficult to buy a cheap gift for someone you don't know, unless you really don't care whether it's something they really want or not. Fortunately, this is usually the case, so no one gets too stressed, and most people wind up with a couple of one-pound bags of Hershey's Kisses. Food pleases just about everyone. So do audio equipment and sexual favors, but anything along that line that you get for under five bucks is generally not worth it.

We've had a few complaints about a certain female barefoot person attracting certain non-female unwashed barefoot people into our house, but because these generally come from frosh or frosh-like people who complain for about the same reason that the non-female unwashed barefoot people come to visit so often we feel there is no cause for alarm. In about a month I expect that we'll get complaints from unwashed barefoot people about frosh and frosh-like people invading their territory.

You know Page strongly respects tradition. We're going to have our traditional Christmas tree decorating party. Usually, there is about as much enthusiasm for putting up decorations as there is for cleaning up Interhouse, but somebody's got to do it, and Steve Lodge is too involved with his new career as a Coffeehouse waiter. Since the powers-that-be have stomped on some of our old traditions, we'll soon initiate our new tradition of throwing Paul Searcy off the Pantry roof 17 times. On New Year's Day we'll be sitting around watching the traditional football game after the Rose Festival. That should be real fun.

Your pal,

—Knifeman

continued on page 6

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sports

Fencing Gains New Teammate,
Meet Teams UCSD, Fullerton

by ME

Wow, imagine, one third of the '87-88 academic year is over. More important, however, is the fact that the '87-88 fencing season is half over. The third and final meet saw the Caltech fencers facing UC San Diego and Cal State Fullerton.

The men's foil team had the best day out of the four teams, winning a total of four out of the eighteen bouts. Steve McLaughlin and Robert Coker each won one bout against Fullerton, while team captain Paul Rubinov won two of his bouts against Fullerton.

The epee team also had a good day against Fullerton, with each of the team members, captain Jeff Greason, Allen Pierce, and Joe Dadek each winning one bout. Although none of the fencers won their bouts against San Diego, each fenced well.

The men's sabre team boasted the only win against San Diego for the men. Captain Matt Himmelstein took one bout from each of the two opposing schools while the left-handed fencing sensation, Ray Sidney, fenced well against two of

the strongest teams in the league.

The continually growing women's foil team added another fencer to its ranks, and what better time than with a victory, as each of the three women posted against San Diego. Celina Mikolajzak, the newest member of the team, also won one bout against Fullerton, while captain Miriam Myjak and Kitt Hodsden each gained valuable experience to be applied in the second half of the season, as well as future years.

A special note to pass along regards our graduate student and JPL supports, Nghia, the driver of our booster bus, Andrew Mutz, a doctoral fellow in material science and a mystery sabre fencer from Case Western who shows up on occasion. At the Long Beach free weapon meet, an event sanctioned by the U.S. Fencing Association, Andrew Mutz reached the semi-final round of twelve in foil, while Biff took second place in sabre, losing a tough fence-off for first place. See you all at the January 30 meet.



Chris Habecker (Fleming) takes a breath during the 50 yard breaststroke for the qualifying heats for Interhouse swimming last Tuesday. Results for Interhouse from Thursday's finals from first to last are: Fleming, Page, Ruddock, Lloyd, Blacker, Ricketts and Dabney.

photo by Michael Keating

More Inside World

from page 5

p.s. If you have any integrals or derivatives that defy normal methods, send \$5 with a SASE to:

Super-Operators
1-53
etc.

"Any lesser operator is just a special case."

Ricketts: Cookie has a bit too much to do this week (awww), so I had to get a replacement. Not quite as tall, longer hair, some other notable features but she'll kill if I put them in print. Writing this week is going to be fun.

Propose to Su-Lin day was a rousing success. Over twenty would be suitors popped the question. Josh frosh was the clear favorite, but his hopes were dashed when he discovered Su-Lin had somehow acquired a pair of Cookie's shorts in her bed. No details on that, but we're trying.

Mother Brian was seen sticking his fingers into Miss Piggy's nose. He'll do it again upon request. (It doesn't make much sense to me either. —Brian)

A message to all Blacker Moles: You shouldn't deface signs at national monuments. The "Sea Level" sign at Badwater in Death Valley was viciously vandalized by the Moles sometime in 1985.

We hope that Samer has better luck on his next driving trip. Having to rent a car in Northern California at twenty cents a mile to drive to Washington is not the best way to spend Thanksgiving. He did say, however, that he met three really great looking girls. One is eighteen which is okay; but Samer should be careful, fourteen is a bit young and seven years old is much too young, even for him.

Other Naughty Bits: Jerry has finally realized his full potential. First Hovse Stud, now Hovse Tool, who knows what's next. Diamond David Lee has an interesting repertoire of impersonations. His Mr. Universe is not to be missed but my personal favorite involves a nun's habit and leather gloves. Classes are done for this term and we're sure that all of you are done for, too. Have a good New Year.

—The Great Neck Strangler and the Charming Jaws of Venice Beach

Ruddock: Hello, we are two Pig Burgers (everybody wants some ... big chunks of pizza). Today's opener is Top Ten Functions of Lloyd House:

10. Someplace safe to keep Haba
9. Free satellite dish hook-up
8. Comic relief
7. Courtyard trashbin
6. Something to take up space between Ruddock and Page
5. A place to put the Master's office
4. A place for frosh to go when they feel like showering people
3. A place for people on Ruddock's waiting list to stay in temporarily
2. Something to walk through when it rains
1. A scrub team for soccer practice

Well, now that that's out of the way, let's get down to the inside world. Biff says there's no steam on the 12th and 13th, but that's OK because there is no water on the 13th anyway! Gloat time!! We finished 2nd in soccer!! Had the athletic department seen fit to schedule the best game last, we might even have given Page a run for the money. Swimming looks promising thanks to the women's events. Way to go, Yayoi and Robby!

Sign up for the secret Santa list today, but be a devilish secret Satan instead and buy a five dollar gift from hell. Here are a few suggestions: lots and lots of baklava (it's cheap), a subscription to Analog, any Air Supply album (you'll dance to anything), or a case of Lucky Lager. The possibilities are endless!

Joe and Munir finally have some common cents, about ten dollars worth I'd say.

Nominations are going to be on the 2nd Tuesday after we get back from break. Elections will be a week from the Friday following nominations. Think about running for an office over break. Think harder about giving plenty of important house offices to someone you love (or hate).

Sign up for the ping pong tournament and next term's ski trip (January 8 - 10).

Rumor of the week: Kleber "Cassanova" Camacho is supposedly tutoring a high school gal; he's titrating her acid with his personal buret!

Quote of the week: "Ooop, aack," says Bill the cat. (Kind of gets you right there doesn't it, Paul.)

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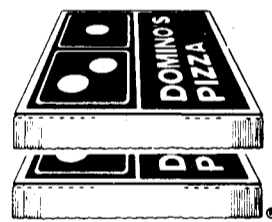
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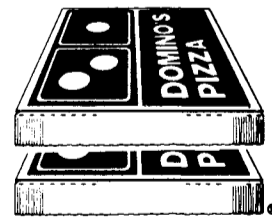
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One large 16" cheese pizza plus one regular 12" cheese pizza. Extra toppings just \$1.50 for both pizzas.

Expires: 1/3/88

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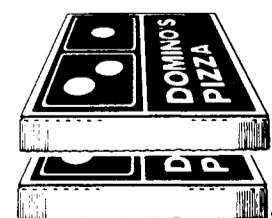
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We double dare you to consume this much delicious pizza in one meal!

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Just ask for THE DOUBLE DARE!

Coupon not required. Not valid with any other coupon or offer.
At this location only.

what goes on

from page 8

Fast Pitch Softball Team

Fast-pitch softball team forming to compete in the Pasadena city winter league. Season begins around 1/10/88, registration by 12/24/87. We have room for a couple more good players. If interested, contact Steve Eppley at 577-0365.

Microelectronics Money

The Microelectronics Center of North Carolina is currently accepting applications for graduate fellowships in study areas related to microelectronics at the following five universities: Duke, North Carolina A&T State, North Carolina State, the University of North Carolina at Chapel Hill, and the University of North Carolina at Charlotte.

Each graduate fellowship provides a stipend of \$15,000 and up to \$6,000 for tuition and fees, with possibilities of summer employment with MCNC. Write or call for application by December 15: MCNC Education Programs, P. O. Box 12889, Research Triangle Park, NC 27709, or (919) 248-1838.

JFCS Grants

The Jewish Family & Children's Services is offering grants of up to \$2,000 per year for students through age 21 who are working towards an Associate's or Bachelor's Degree. They are also offering loans of up to \$5,000 per year to students enrolled in any academic or vocational program. In order to qualify, the student's primary residence must be in the JFCS service area, which includes San Francisco, the Peninsula, Marin and Sonoma counties. For further information please contact the Financial Aid Office, 515 S. Wilson (2nd floor).

Want Money?

Second term is drawing near. This means that frosh are allowed to work on campus. The Athenaeum is looking for waiters and waitresses to work part time. No work-study is necessary. If you are at all interested there will be a reception held at the Ath on Monday, Dec. 7 at 4:00 pm. Refreshments and hors d'oeuvres will be served. Anyone interested is welcome to attend. Signups should be posted in all of the houses, so sign up. If you have any questions please feel free to call Barry Lind at 578-9735.

Summer In Scenic Buffalo, NY

Roswell Park Memorial Institute, at 666 Elm Street in Buffalo, New York (14263) is sponsoring a summer research participation program for college juniors. In addition to other qualified students, they are actively seeking applications from minority students of Black, Alaskan Native, American Indian, Hispanic or Pacific Islands origins. [If this sounds nebulous, it's because their cover letter didn't say much.] Application deadline is March 11, 1988. Write to them for information, or call (716) 845-5706.

Hunter Rouse Fellowship

The University of Iowa College of Engineering is sponsoring the Hunter Rouse Postgraduate Fellowship in Hydraulics and Fluid Mechanics. Recipients must have earned a B.S. or M.S. by the 1988 academic year. Stop by the Career Development Center, 08 Parsons-Gates, for more information.

International Leadership

The International Leadership Center is seeking applicants for the second session of its summer-long leadership development program. Fifty outstanding men and women from campuses across the country will be selected to spend 10 weeks strengthening their leadership skills. This non-partisan program takes place between June 10, 1988 and August 18, 1988.

Leadership America includes one week in North Carolina, one week in the Rocky Mountains, and three weeks in Dallas, Texas. It also includes a four-week internship in business, government or community service followed by a closing session in Washington, D.C.

Students incur few expenses in Leadership America since most costs are underwritten by corporate sponsors. In addition, participants receive a \$2500 scholarship. To be eligible for selection in Leadership America, a student must be currently enrolled at a qualifying school (Caltech, for instance), and have completed the junior year of his or her studies by June 10, 1988. The primary criterion for selection is that he student have an "outstanding potential for leadership." Selection will begin in February 1988, and invitations will be extended in mid-March.

For additional information about Leadership America, contact the Deans' Office, 102 Parsons-Gates, x6351. Applications for this program must be completed no later than January 29, 1988.

Spam and his gang:

IHC Maxi-Minutes

IHC minutes 24 Nov. 1987

The meeting opens at 10:30PM.

1. Bob's Corner:
 - a. Thanks to the Dabney frosh for the thank-you letter.
 - b. The MOSH residence on S. Holliston is almost set-up. Conrad will move in and stay there until he can find another place.
 - c. Page House is still ironing things out with the Pantry [read: they have not paid them yet].
 - d. The Beckman Institute claims six undergraduate residences and nineteen students will be left homeless. There will be a meeting Monday Nov. 30 to see what to do with them. We will find out by the next meeting. Stay tuned.
 - e. The KELROF music was too loud, Arden St. residents were not pleased. Bob will get more facts, more next week.
 - f. There are still too many cars parked on the Olive Walk. Somebody suggests that the posts by Winnett be replaced. Maybe new locks will be placed on them.

g. The 150 S. Chester party was closed down by the Pasadena Police at about 12:30—Oops! Since the Pasadena Police was called and it was off campus, there is not much the IHC can do about it except to encourage foresight in future off-campus parties.

h. More on the Page-Invite-Incident-That-Wasn't:

Tony Witry claims no one passed out any cards and "it's not that big of a deal." He passes the buck to Dwight who isn't there. Wayne Lukens moves to drop the whole Page incident and talk about general party policy in the future. Somebody suggests printing a party policy in the illustrious *Tech*. The consensus of everyone is to put it off until next year (when they will not be on the IHC anymore).

i. What about the food service contract going out to bid? Put it off until next term. [Apparently there is a lot of bureaucratic infighting and somebody is full of it.]

j. The house presidents are invited out to dinner and they can see the newly renovated MOSH residence beforehand. That's Thursday Dec. 3.

2. There are no Discobolus challenges left until next term.

3. What about this inter-office memo from the VP for Institute Relations, Ted Hurwitz, to the special events administrator with the Office of Public Events, Lydia Matthews, the assistant director of Development, Nancy York, and the events coordinator for Corporate Relations, Linda Mathews? The one that says "Dr. & Mrs. Everhart strongly prefer that no alcoholic beverages be served at any events that include undergraduates...let us now make our policy." Apparently the house presidents received xeroxed copies of this memo anonymously through not entirely legitimate sources. No one seems too concerned.

4. People are still wanted for the TQFR planning committee. Sign up for it. Meeting closes at 11:35PM.

From the Makers of Lite Shrooms: ASCIT Minutes

ASCIT minutes 24 Nov. 1987

Meeting opens at 10:08PM

1. CLAGS lost the check for the party they threw—way back when? They will get another check minus the cost of canceling the previous check.

2. The Space Weapons Group wants \$100 for a symposium[?] they had the previous week. "How many undergraduates were there?", "One." The BOD wonders whether to fund it since there were no undergrads there, so they shelve it.

3. Maybe undergrad dues for first term will come in soon.

4. The ASCIT formal will be Friday, May 13 (1988, stupid).

5. Ellen Labgold asks for \$100 for uniforms for the cheerleading squad. [I forget, but I think they got it.]

Meeting closes at 10:21 PM.

ASCIT meeting of 1 Dec. 1987 Meeting opens at 10:10PM.

1. James Shih wants \$200 dollars for Cinematech second term. ASCIT graciously donates the money.

2. Amazing Jeff wishes all a Happy Christmas and a Merry New Year.

Meeting closes at 10:17PM.

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what goes on

Announcements for *What Goes On* should be submitted on an announcement form available in the SAC copy/mail room (Room 37) or on a plain piece of paper. Please indicate the date(s) you want the announcement to run. Send announcements to 25-58, or put them under the door of Room 40A of the SAC. Announcements must be received by the Tuesday prior to publication.

Welcome to Decompression

Want to relax before exams? Then come to the Winnett Lounge on Saturday and Sunday, 5 and 6 December, from 8 pm till midnight. We will be having free food, movies and a 'Dating Game', plus possibly a magician, for your enjoyment. This is brought to you by the Caltech Y.

Stranded Students Party

Stuck on campus over the winter break? Come to the 5th annual Stranded Students Party, courtesy of the Caltech Y.

This will be from 2 to 6 pm on Friday, 18 December, in the Y Lounge, which is upstairs in Winnett Student Center. If you want a relaxing way to end first term, then be at this party.

Need A TV and/or VCR in SAC

The Student Activities Center now has a mobile TV and VCR on a cart. This equipment is here for use only in the Student Activities Center. Please see Nancy Matthews, Student Activities Coordinator if you would like to use this equipment (room 64 SAC, x2935). Reservations will be done on a first come, first served basis.

Letter Jacket Orders

If you are interested in ordering a letter jacket, please contact Brad Scott, Blacker #6, by December 6.

CLASSIFIED ADS

HELP WANTED-

MALE STUDENTS WANTED!

University students as sperm donors by California's largest sperm bank. Earn \$70-105/week. (213) 553-3270 California Cryobank, Inc., 2080 Century Park East #306, Los Angeles.

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SUM, 7 Kyu seeks experienced partner to play Go. x6173, x6790 Clark.

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Major Problems

SWE (Society of Women Engineers) is sponsoring a "panel of majors" so that frosh will know what they're getting into when they select their majors.

Here's the plan: one night early next term, there will be two one-hour sessions; the first being devoted to the various engineering fields, and the second to the "pure" sciences.

At this point, it would be appreciated if anyone (like juniors or seniors who have had most of the courses) interested in talking about his/her major would contact Carol Mullenax in Lloyd House. Also, any freshmen who have specific suggestions (i.e. what options you want to hear about) are welcome to voice them to the same person.

Get Yer Souvenirs Here!!

Caltech-Hollywood sign posters, postcards, and T-shirts are on sale now. Call 356-9111 or see Dwight Berg in room 138 Page. Supply is limited so buy now. Posters \$4.50 (\$4.00 with Caltech ID), postcards 25c, and T-shirts \$8.00. Great Christmas gifts!

Get In The Holiday Spirit

The Caltech Men's and Women's Glee Clubs will hold their annual Holiday Concert tonight, Friday Dec. 4 at 8:00 pm and Saturday, Dec. 5 at 3:00 and 8:00 pm. Francis Poulenc's "Gloria" will be performed, as well as other festive music of the season. The concert will be held in Dabney Hall. Seating is limited, and the glee club forgot to tell us what the tickets cost, so call 1-(800) 423-8849 for information.

KELROF!

No, we're not going to run again...yet. But we do have T-shirts, and there aren't many left. So, if you want one, hurry over to room 27 in Blacker House with \$7.50. (This offer is good only while supplies last.)

Okay Guys, Bring 'Em Back...

This is a friendly reminder to note that the Coffeehouse comics and other reading material are meant to be read in the Coffeehouse or in the courtyard. We have not established a lending library and would appreciate any "borrowed" comics returned ASAP. Thanks.

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Free Video Games

In light of upcoming finals, the Student Activities Center (basement of the South Undergrad Houses) will be offering free video games in the game room (#65) from 4 pm on Friday, 12/4 thru 4 pm on Sunday, 12/6. About half of all current machines will be so adjusted. Enjoy!!

Gay/Lesbian Discussion Group

The next meeting of the Gay/Lesbian Discussion Group will be Thursday, December 15 at the Young Health Center lounge from 7:30 to 9:45 pm. Refreshments will be served. For more information please call Bruce Kahl, x6393. All members of the Caltech community are welcome.

Art Classes Available

Art classes in silkscreen/airbrush painting (S/AP), painting/drawing (P/D) and ceramics will continue to be offered second term. Classes meet Monday, Tuesday and Wednesday nights, 7-10 pm respectively. Monday (S/AP) and Tuesday (P/D) night classes are held in the Student Activities Center (Rooms 22 and 23). Ceramics is held at the Polytechnic School. There is no fee for any of these classes. If you are interested in taking one of these classes, please sign up in the Dean of Students' office. Undergrads and graduates are encouraged to sign up. P.A. credit is available for undergrads only. Maximum number in each class is 12, so sign up soon. Please see Nancy Matthews, Student Activities Coordinator (x2935), mailcode 64-58, if you have any questions.

H131: History Through Film

This course, taught by Prof. Rosenstone, will have a focus different from previous years. The central question of this year's course will be one that is highly important in our increasingly visually-oriented culture: Can You Really Put History On Film? (Or: If You Do Put History On Film, Is It Still History??)

To begin to seek answers, we will view one feature-length movie a week—some dramatic and some documentary—and then attempt to analyze how (and if) such films convey a sense of the past. The course will include three films on pre-revolutionary France, three on Twentieth Century American labor and radicals, one classic Russian film, one from Africa, and two highly-acclaimed, visual works.

The class will meet twice a week—W 7:30 pm for screenings in Baxter Lecture Hall, and Th 1-3 in Baxter 125. The screenings will be open to the campus community.

The Big T's Are Here!!!

Yes, the *Big T's* have arrived. If you were an undergrad last year, a yearbook has been reserved for you. See your house RA's or Nancy Matthews (room 64, SAC) to pick up your copy of the *Big T*. Enjoy the yearbooks!

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Coffeehouse Closes For Break

The Coffeehouse will be closed from Saturday, 12/5 through Friday, 1/1/88. We will be open tonight, so come on down and get the best shakes in town before winter break! There may be a reduction in price, our way of saying happy holidays! (Okay, so we *have* to get rid of perishables...) The Coffeehouse will resume its regular hours (8 pm to 1 am) on Saturday, 1/2/88.

Holiday Open House

All students and faculty are invited to a Holiday Open House sponsored by the Alumni Association. The place is the Alumni House, 345 S. Hill Ave. and the time is 5:00 to 8:00 pm on Monday, December 7. Refreshments will be served.

Caltech Road Hockey Club

The road hockey season is underway. New players are always welcome. Games are held every Saturday beginning at 9:30 am in the parking lot north of Beckman Auditorium. Contact Sheldon Green (796-3813) or Jeff Hall (796-9232) for details.

Dabney/Fleming Storage Room

All students who have belongings currently stored in the Dabney/Fleming storage room in the South Complex basement should remove those belongings no later than last Monday. [Yes, the Housing Office forgot about Thanksgiving.] Items can be stored in the main student trunk room in the South Complex basement. Entry keys for both areas can be obtained from House Presidents, House R.A.s or checked out from the Housing Office.

Clearing of the storage room is necessary to accommodate housing department furniture and supply storage needs. Items not removed by December 11 will be removed and disposed of by Housing Department staff. Thank you for your cooperation.

Desk Chairs For Darbs

Students living in Dabney House may check out balans chairs from Custodial Supervisor Javier Mora, South Complex Basement. These chairs are available to Dabney House residents only as an option for a desk chair and were purchased for the House as part of the recent rehab program. Unfortunately, these chairs are not available to any other Houses.

Starstruck Faculty Member

Ann Boesgaard, Visiting Professor of Astronomy at Caltech, will present the third lecture in the OWC series designed to introduce Caltech's women faculty members. Her talk, entitled "New Insights About Stars From Mauna Kea and Palomar Observatories," will provide a welcome opportunity to learn some up-to-date astronomy at a relatively basic level and also to observe that rare species at Caltech, the female faculty member. Please bring your lunch and join us at 12 noon, Wednesday, Dec. 16 in 114 E. Bridge.

Folk Music This Sunday!

Take a study break with the Caltech Folk Music Society this Sunday, Dec. 4 at 3:00 pm in Winnett Lounge. Kim Robertson and her Celtic harp will soothe any jangled nerves or frustrations with lyrical improvisations on classical, folk and original music. The other half of the concert will feature acoustic guitarist Chris Proctor, a young finger-picking wizard with a strikingly delicate touch. Tickets for Caltech students are \$3.00 in advance and \$4.00 at the door, thanks to the Caltech Y and the Graduate Student Council. For others, the tickets are \$6.00 in advance, \$7.00 at the door.

Joy In Christ—A Celebration

Come sing, celebrate and discover the true meaning of Christmas. Millikan Board Room, 8:00 to 10:30 pm this Saturday, 5 December. Sponsored by Inter-Varsity Christian Fellowship and the Caltech Y. We will be collecting canned food items for donation to the Door of Hope Family Shelter. Any and all contributions welcome.

Do Rolling Stones Gather Cash?

To the highest bidder: *Rolling Stone*, most 1975-1983 issues in near perfect condition. Please contact Janet Jenks, Millikan Library, x6419.

Imitate Hemingway

Did *Totem* reject your most brilliant prose as being too literary, too derivative of Ernest Hemingway? If so, have we got a contest for you. Harry's Bar & American Grill announces its eleventh annual International Imitation Hemingway Competition.

What is Imitation Hemingway? It is writing. It is writing like Ernest Hemingway. It is parody. It is funny. The best entries will be very funny.

The whole point is to write one page of any type of prose in the style of Ernest Hemingway, and to mention Harry's Bar & American Grill (nicely). It must sound like Hemingway, read like Hemingway, and it must be funny.

The prizes are simple: fame, immortality, and dinner for two at Harry's Bar & American Grill in Florence, Italy—plus the plane fare there and back for two. Closing date for the contest is February 15, 1988. Send entries to the "local" Harry's: Harry's Bar & American Grill, 2020 Avenue of the Stars, Century City, CA 90067. Winner will be announced in April, 1988.

S.T.D. Hotline

The County of Los Angeles Department of Health Services announces the availability of its Sexually Transmitted Disease Hotline. The Hotline provides confidential telephone information about sexually transmitted diseases such as gonorrhea, syphilis, herpes, venereal warts, and chlamydia, to name a few. The Hotline also provides referrals to low-cost health facilities where diagnosis and treatment is available. These facilities are located throughout Los Angeles County. To speak with a Hotline "listener" call (213) 588-5221. The Hotline operates 8:00 am to 6:00 pm Monday through Thursday and 8:00 am to 5:00 pm on Friday. All calls are confidential.

Computer Swap Meet

If you're here and coherent that day, there will be a computer swap meet at the Pasadena Convention Center on December 19.

More than 100 exhibitors will offer discount pricing on hardware and software for various microcomputers at the Center, 300 E. Green St. (about a mile from Tech). The exhibit and sale will open at 10 am and close at 5 pm. Adult admission is \$5, and children under 12 who are accompanied by an adult are admitted free. For more information call the Pasadena Center at 792-2122.

San Francisco Mime Troupe

Tonight at 8 pm in Beckman Auditorium, this group of political satirists examines the U.S. role in Africa in their new musical spy thriller, "The Mozambique Capers." The San Francisco Mime Troupe recently won a special Tony award for excellence in regional theatre. Caltech student rush tickets: \$6.00. CIT faculty and staff TECHTIX: \$7.50-6.25-5.00, on sale at noon today in the Ticket Office. Call x4652 for details.

Klezmer Conservatory Band

Tomorrow night at 8 pm, this amazing band will perform their Jewish bop renditions of Beethoven, Mozart and Chopin in "Oy! Hanukkah." [Honest, that's what they told us!] Caltech student rush tickets: \$6.00. CIT faculty and staff TECHTIX: \$10.00-8.75-7.50, on sale today at noon at the Ticket Office. Call x4652 for info.



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