

"No Blood For Oil"

by Steve Carson, Alex Densmore, Jim Radford, Pete Rogan, and Randy Stevenson

On Tuesday, January 15, at 9:00 p.m. local time, the United Nations' deadline for an Iraqi withdrawal from the Emirate of Kuwait was reached. Thousands of anti-war protesters rallied around the Federal Building in downtown Los Angeles throughout the day to express their dissatisfaction with the U.S. involvement in the Middle East.

While the protesters shared a common belief, they represented many different groups from the Los Angeles area. Several special interest groups were on hand to maintain their independent positions, but all were united under the simple cause, "No blood for oil."

Demonstrators made clear their conviction that President George Bush had sent troops to Saudi Arabia for no other reason than to protect Western oil supplies. Many also were angered by the fact that a U.N. resolution was being enforced not by the global community but by the military force of the United States.

Each special interest group also brought its own motivation for disapproval of military action to bear through scheduled speeches during the day and night. Among the groups appearing were ACT UP (an AIDS education and research proponent), the Green Party, Young Koreans United, and the LA Coalition Against U.S. Intervention in the Middle East. A common theme expressed was that money spent on a Gulf war could better be applied to domestic ills,

such as the proliferation of AIDS, homelessness, unemployment, and abuse of the environment. Through it all, though, representatives of the LA Coalition made clear their aversion to the use of violence in solving the present crisis.

Despite the efforts and hopes of millions, however, war broke out in the Gulf less than 24 hours later when the allied forces staged air attacks on strategic targets in Iraq and Kuwait.

The LA Coalition plans to continue its series of rallies this Saturday when thousands of protesters are expected at the Westwood Federal Building, 11000 Wilshire Blvd., from 11 a.m. to 1 p.m.

It is the opinion of these observers that the message conveyed by these protests is now more relevant than ever. The "liberation of Kuwait" presents a very real threat to all members of the Caltech community, and we urge those concerned not to stand by passively. We are interested in forming a group to discuss alternatives to armed conflict in the Middle East,



Michael Feinstein of the Green Party leads an LA Coalition rally.

Campus Reactions

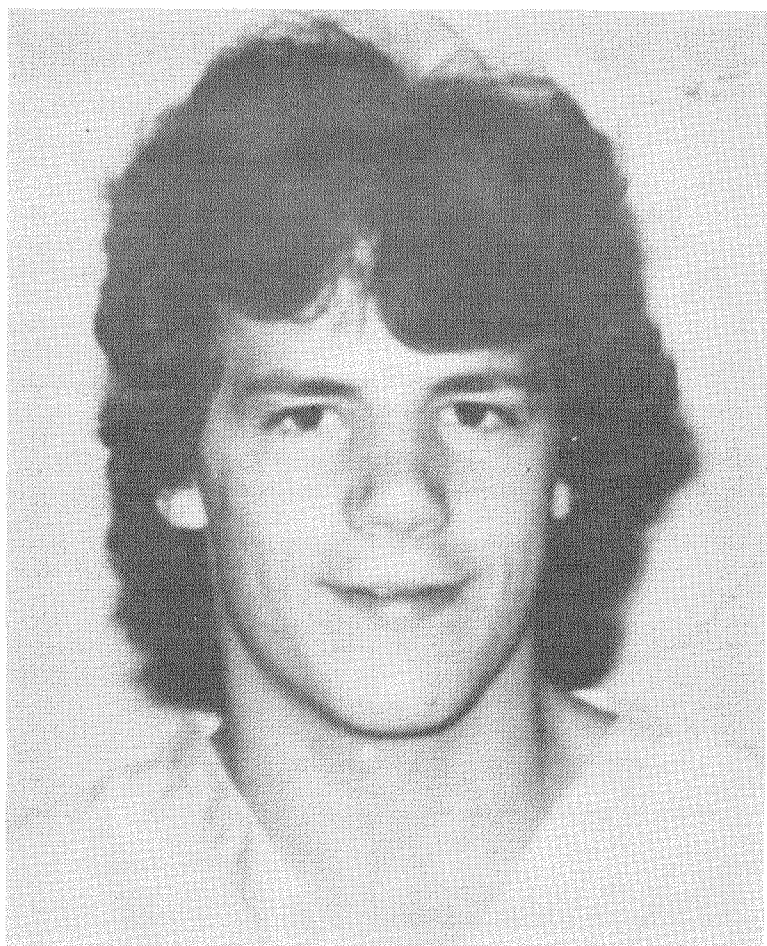
By Raif Majeed and Doug Peterson

[The allied forces in the Gulf area launched an attack on Iraqi forces in Iraq and Kuwait. Our reporters took a poll on campus to obtain some of the responses of *Techers.Eds*]

The results were between the undergrads, 75% were for war, 16% against, and 9% ambivalent. For graduate students, 40% were for war, 33% against, and 27% ambivalent. (Out of a total poll of 32 undergrads and 33 graduate students.)

Some of the comments included "I am not for war, but I think this was inevitable." (UG) "We can't just impose our will on the world" (G) "People are dying for oil—we wouldn't care if Iraq invaded a non oil-producing country." (G) "War is not good on any case. Saddam is a really bad guy but Bush is trying to defend this world. He was too quick to send

continued on page 2



Student Killed

by Scott Kister

Mitch Pravica, a senior and a member of Ricketts House was killed early Sunday morning after being struck by a car while walking on the 210 Freeway.

It is not known why Mitch entered the eastbound freeway at Hill Avenue. According to California Highway Patrol Officer Larry McGuire, "We're still trying to put it all together. He was (on the freeway) for minutes."

Evidently Mitch crossed several lanes of the freeway before being hit by a 1977 Ford Granada just after midnight.

The 6-foot tall, 200-pound Pravica was a fun-loving person who always seemed to be laughing about something. He enjoyed working on cars and playing music in his spare time and used to be a Guardian Angel.

and, to this end, we will attend this Saturday's demonstration in Westwood. Those wishing to get involved are encouraged to contact us at 356-6180 or 578-9294, or at Lloyd House, 1-54.

On his frosh-interest sheet, Mitch wrote his nickname as "Mad Mitch the Rockin' Scientist."

"Mitch was a blithe and independent spirit who brought joy, compassion and a sense of fun to all those who encountered him," said Chris Brennen, Dean of Students. "There seems little doubt that he would have gone on to become an outstanding engineer."

Mitch was very close to graduating and a posthumous degree is being looked into.

Funeral services will be held in Chicago next Saturday. There will be a memorial service at Caltech next Thursday, January 23rd at 4 PM at the MOSH's House, 355 South Holliston.

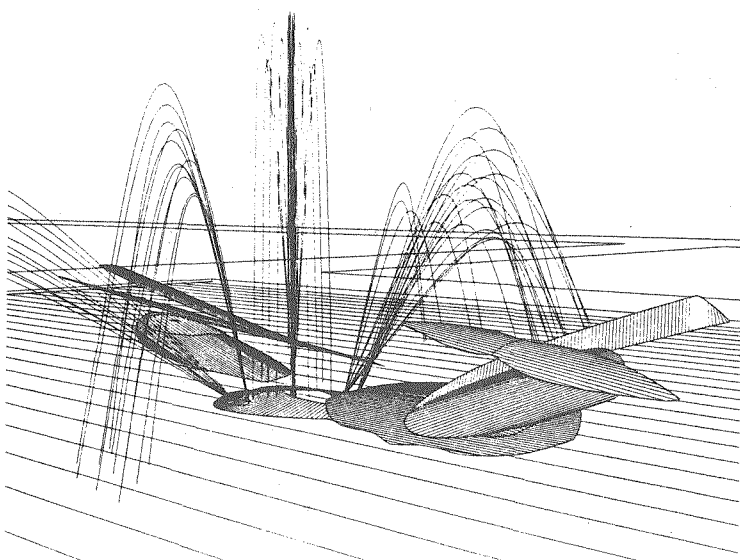
A Mitchell Mirca Pravica Memorial Scholarship is being created. Anyone wishing to donate should contact the Deans office for information.

Kinetic Sculpture Dedication

by Rob Ellis

The innovative centennial kinetic sculpture *Water Forms* is now under construction in Millikan Pond. Dedication of *Water Forms* occurs by Millikan Pond at 3:30 PM on Friday, January 25. George Baker, an artist from Occidental College, designed the water sculpture to achieve simple and effortless fluid motion.

The kinetic nature of *Water Forms* requires subtle mechanical balance, design, and construction. The sculpture has two rocking shapes driven by submerged low-energy pumps. Its four rotating shapes are delicately balanced so that the motion of the rocking shapes, and even the motion of the wind, will move them. A separate recycling system drives water jets that can be used during selected hours of the day.



CRIME AND INCIDENT BEAT

- 1/5 A student of Ricketts House found upon returning from Christmas vacation that his room had been vandalized while he was gone. Many items of clothes were missing and a mirror in the room was broken.
 - 1/11 A student of Lloyd House noticed that several items of food were missing from the house kitchen refrigerator.
 - 1/12 A student had parked and locked his bicycle to the iron gate located at the southwest entrance to the Dabney courtyard. The bicycle was removed overnight. The name Canondale is on the frame and seat.
 - 1/13 A Caltech staff member was working in her office within the Astro Library at 109 Robinson when someone unlocked the door and started into the room. When the suspect realized she was there, he slammed the door and fled down the hall.
 - 1/13 Bookstore personal noticed that there was obscene graffiti in a Winnett lounge restroom. Similar cases have been reported in the past.
 - 1/14 A FAX machine was taken from South Mudd room 250 when someone with a key apparently entered the room during the night and walked out with the unit.
 - 1/15 A small fire was reported burning just north of Lauritsen Lab. Security found a small pile of leaves ablaze and extinguished the remnants of the fire.
- Total value missing or stolen this week: \$3000

INSIDE

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letters

MOSH Prejudice

An Open Letter to the Caltech Alumni Fund:

I recently received a request for money from the Caltech Alumni fund. The request appeals to house allegiance, encouraging us to help meet the goals set for our houses by the Fund.

I find this quite ironic as current policy at the Institute is that alumni from certain of the houses (mine among them) are not allowed in the houses due to their ostensible bad influences on the undergraduates. This policy is, of course, enforced at the whim of the present Master of Student Houses.

Such a policy is repugnant for a number of reasons that should be quite apparent. First, it is hopelessly patronizing for the Institute to treat the undergraduates in such a manner. Second, the enforcement of this policy is entirely arbitrary, with absolute discretion given to one individual.

Even were this individual a fair and reasonable person (and all the information I have regarding him indicates that he is not) that sort of benevolent dictatorship would still be reprehensible.

Finally, I am personally offended that the Institute has decided that I am part of a group that would exert a bad influence on the current student body, were I allowed in contact with them. It is especially odious to me that, given this situation, the Alumni Fund would make an appeal to me for a financial contribution based on house loyalty.

As long as the Institute maintains its current paternalistic policies toward the undergraduates I will no contribute money to the Institute, or to any fund associated

with the Institute. Furthermore, I will actively discourage all other alumni with whom I am in contact from contributing money to the Institute.

Paul B. Eskridge
Dept. of Astronomy
David Rittenhouse Lab
Univ. of Pennsylvania
Philadelphia, PA 19104

Freedom of Speech

To the Campus community:

Last week I put up in my building an advertisement for the 'Teach-in on the Gulf crisis' which took place on Saturday January 5th in Baxter, and another anti-war sign urging Americans to let Mr. Bush know their opinion on the crisis.

I was astounded to find that within 24 hours someone had torn down both signs. How can someone be so bigoted as to not only bury their own head in the sand, but also force other people's heads to remain buried in it? There is meant to be free speech in this country! Universities are traditionally centres of free thinking. The Baxter event was supported by the Caltech Y and many diverse groups from the local community. Surely it is an honor code violation to destroy an advertisement put up by a campus group?

Whoever did this, I am not asking you to become anti-war, nor will I force you to call the White House with your opinions, though I do think both of these actions are wise. But please let us advertise our events and communicate our opinions to other people; we encourage you to do the same. It is only with open communication and respectful discussion that the world can advance towards peace and harmony.

David MacKay
139-74, x2805

King Day Observance

Members of the Caltech-JPL Community are invited to attend the annual campus King Day Observance on Monday, January 21, 1991 at 1:00 pm in Ramo Auditorium. Caltech President Thomas Everhart will host the observance.

The featured speaker will be Dr. Jewel Plummer Cobb, a Caltech Trustee and retired president of California State University at Fullerton. Dr. Cobb's address is entitled "Social and Political Reflections on the Occasion of the Birthday of Martin Luther King, Jr."

During her distinguished career, she served as a biology professor at Sarah Lawrence College, dean and zoology professor at Connecticut College, and dean and biology professor at Rutgers University. From 1974 to 1980, she was a member of the National Science Board.

Also speaking will be Dr. Peter Fay, Caltech professor of history. Dr. Fay, who is completing a book about India's struggle for independence, will talk about Gandhi and the Mahatma's brotherly relation to Martin Luther King, Jr.

Y News Y News

First of all: let's have a little math talk, kiddies—the Y spends 4-digit figures on things like Decompression and well, we're going broke. So—it's up to you to help us. Today—you can vote on the Y Autofee. Only \$5, only once a term, and you can say *no* at any time. So please, vote YES.

And, in other news, come help plan next year's Y Hike. If you were in this year's hike, come on

January 24th at 4 pm. Do you like Basketball? Go see the Clippers play on Feb. 22nd. Just stop at the Y for tickets—only \$11.50. And on a more classical note, ballroom dancing lessons will be held on Wednesdays from 4:30 to 6:00 pm in Winnett Lounge. Come to the first meeting on January 22nd for details. The lessons will last for eight weeks.

opinion

Hussein Must Be Stopped

By Shane Sauby

It is hard for me to understand the mentality that chants "No blood for oil," or that cries for peace. I cannot understand why people would want to sit back and let a military dictator invade another country and not even attempt to remove him. I will not listen to people who do not see that Saddam Hussien is a modern Hitler, with parallels beyond number. I do agree with those who say war is not what we wanted, but it was our last option.

There are protests going on around the country, protesting the war. This is both good and bad. It is good because it shows that we are capable of peacefully protesting the government. It is bad because it only helps the propaganda machine of Saddam Hussein. He is a cunning and ruthless leader who will use anything he can to enflame and aggravate his people to fight

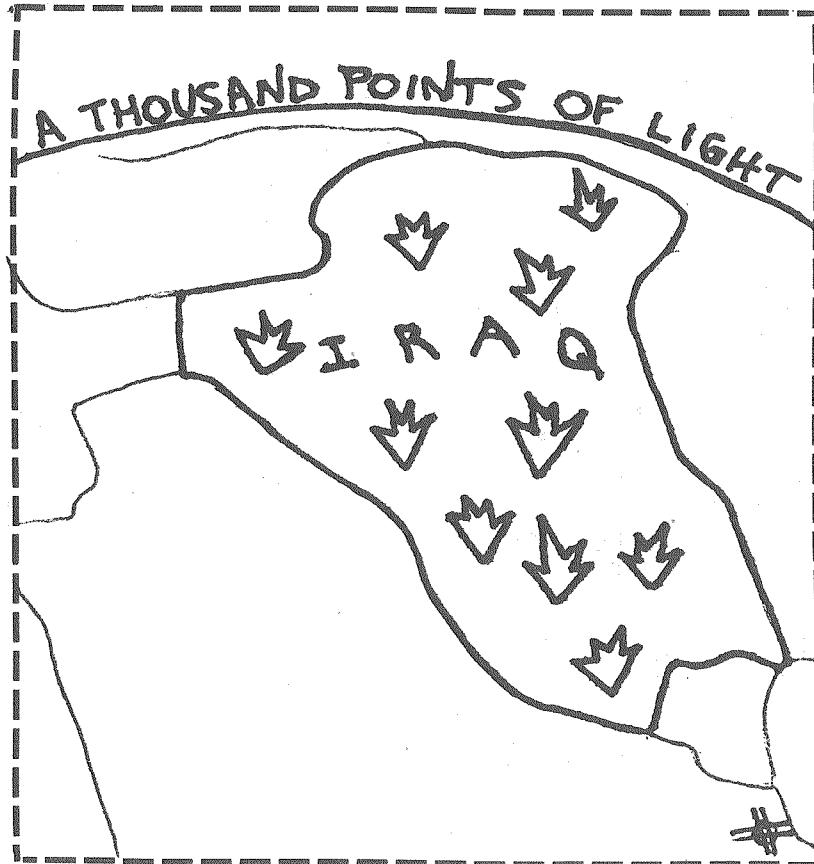
for him. Scenes of protest and division in the United States are the perfect tool for this purpose.

Many protesters chant "No blood for oil." I find this a simplistic view of a complicated situation. If we were defending Kuwait just for its oil, I would join the protesters, but we are not. The United Nations passed a resolution giving Saddam Hussein a deadline to remove his troops from Kuwait and President Bush waited until this deadline passed before he attacked.

Many people said President Bush would not listen to offers of peace, but this is not true either. President Bush refused to link the invasion of Kuwait with the Palistinean problem. Saddam refused to listen unless he could link the situation in Kuwait to the problems in Israel, thus fragmenting the alliance against him, since the leaders of the Arab nations would not be willing to support Israel's position on the Palistinean

problem. As I sat here typing this editorial, the radio reported news of an attack on Israel. I ask those who wish for peace, whether the actions of this madman should be stopped, or whether we should sit back and let him have his way in the Middle East? I ask those who say bombing and fighting will not stop Saddam, why they then think sanctions would work?

I think the best example I have to offer is part of a conversation with a good friend of mine. We talk often and have seldom disagreed on such national or global conflicts. She is much older than me and remembers Vietnam clearly. We spoke recently, before the war began, about our first major disagreement. She agreed that if things were handled well she would not protest and I agreed to join her if they were botched like they were in Vietnam. It looks like we're both staying home tonight and watching the news.



Poll

from page 1

troops and it would have been stupid for him to withdraw."(G)

"He should have used nuclear weapons instead."(G) "Better to deal with [Iraq] now that later."(UG) "The deadline had run out. Kuwait should really be returned to Kuwaitis."(UG) "Sooner or later we'd have to deal with them."(UG)

"I'm strongly opposed...War is not the way to solve any conflict...hits close to home...I can not think of killing anyone...don't think anyone is thinking about it...an incredible amount of apathy...don't understand how it affects

them."(G)

"I'm against using aggression against aggression."(G) "Justice has to be ultimately done...it is sad that it had to come to this...there was atrocities in Kuwait that have to be accounted for sometime."(G)

"Sanctions would take too long a time period to work."(UG) "It could have been handled better."(UG) "We talked ourselves into it and we didn't have a choice anymore."(UG) "In a sense, Saddam Hussein was created by the United States. So if he's a problem, we should deal with it."(UG)

"I want to support the troops once they're there."(G)

"We totally conquered them, dude."(UG)

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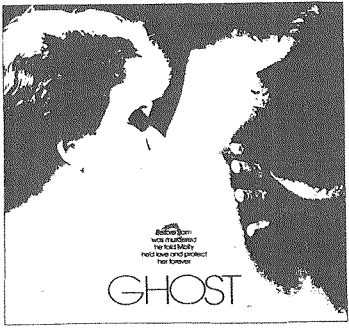
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opinion

Cost of The Persian Gulf War Enormous

By Chad Desai

The US seems headed for war in the Middle East. Why has our government chosen this course? The official line has bounced from stopping the butcher of Bagdad from his Hitlerite aggression, to protecting our oil interests, to restoring the "legitimate" government of Kuwait (the Sabah family), to neutralizing the Iraqi military threat and removing Saddam Hussein. Are these the true motives behind the actions of our government? Before I get to these questions, let me first deal with the official US rationalizations for its actions. Iraq is a developing country that imports most of its important weapons. Thus the comparison between Iraq with Hitler's Germany is not a good one. Furthermore, the presence of hostile Syria on one flank and Iran on the other makes it very unlikely that Iraq ever had designs on Saudi Arabia. Moreover, the initial 40,000 US troops deployed in the Persian Gulf were sufficient to stop Hussein. The US must have something else in mind to explain deploying ten times that number of men.

What about protecting our oil interests? There is no evidence that Iraq would have shut down oil production of Iraq and Kuwait. 95% of Iraq's export earnings are oil based. He may have driven up the price of oil, but it is unlikely he could have done so as effectively as the embargo has done. In fact, factoring in the cost of US military operations in the Gulf region that are designed to secure oil flow during peacetime, the cost of extracting oil from this region is somewhere between \$100 and \$300 per barrel. The pre-crisis cost was \$18 per barrel, the difference being paid by the US tax payers, a de facto oil tax if you will.

The reimposition of the ruling Saba family on the people of Kuwait may well be a goal of the Bush administration. The Saba family personally owns \$100 billion of the US debt and has additional \$ hundreds of billions in liquid assets in major US banks. That kind of money buys influence. Charlie Keating bought five US Senators for a few \$ million. And think of the repercussions if the Kuwaitis withdrew their billions from our already shaky banking system and deposited them in Japan or Europe. But consideration of the well being of the Saba family does not explain the role of the US in precipitating the crisis in the Middle East (see below).

Finally we come to the "neutralization" of Saddam Hussein and the Iraqi military. Why now the change of heart? For ten long years the US has been building up the military might of Iraq. Neither the million deaths of the Iran Iraq war, nor the Iraqi use of chemical weapons and blowing up of the USS Stark have changed this policy. Early in 1990 the Bush Administration lifted the ban on US loans to Iraq (the ban was imposed for human rights violations) and became Iraq's largest trading partner. Two days prior to the invasion of Kuwait, US Ambassador to Iraq, April Glaspie, told Saddam Hussein "I have a direct instruction from the President to seek better relations with Iraq." Two days later the better relations turned sour. What then motivates US policy, and is war the only method of achieving these goals? An examination of the record will show that war is the method of choice and that distracting attention from the domestic crisis and maintaining control of oil production better ex-

plain the actions of our government.

The animosity between Iraq and Kuwait dates from 1922, the date that the borders of Iraq, Kuwait, Jordan and Saudi Arabia were drawn up by the British. Kuwait for centuries had been part of the Basra province of the Ottoman empire and it was not surprising that the Iraqis never recognized these borders. In fact the borders were drawn up to deprive Iraq of a seaport on the Persian Gulf. Iraqi military threats to Kuwait occurred in 1964, 1973 and 1976. After the Iran Iraq war, which in addition to the enormous loss of life, left Iraq with a \$70 billion debt. Furthermore, Kuwait was exceeding its oil production quotas, driving down the price of oil and eroding Iraq's ability to pay off the debt. To add insult to injury, Kuwait was pumping oil from the Rumaila field, which just reaches the Kuwait border (the wells were drilled angling northward). Thus, the Iraqi invasion sought to erase the never recognized border, \$40 billion in debt owed to Kuwait, oil overproduction and Kuwaiti pumping from the disputed field, and to secure a seaport on the Persian Gulf.

The actions, or inaction of various officials during the crucial days just prior to the August 2 invasion suggest that US policy was to encourage Saddam Hussein to invade. For example, in April the Assistant Secretary of State for the Middle East, John Kelly, testified before Congress that the US had no commitment to defend Kuwait. On July 25, with Iraqi troops already massed on the Kuwait border, the US Ambassador Glaspie met with Hussein and told him that Secretary of State James Baker had instructed her to emphasize that the US had "no opinion" on Iraq-Kuwait border disputes. On the same day Assistant Secretary Kelly killed a planned Voice of America broadcast that would have warned Iraq that the US was "strongly committed" to the defense of Kuwait. Although the CIA predicted the invasion at least four days before it occurred, on 31 July, Kelly again publicly testified to Congress that the US had no commitment to defend Kuwait. In my opinion these facts suggest that the US wanted Iraq to invade Kuwait and encouraged her to do so.

Why would the Bush Administration want Saddam Hussein to create a world crisis? In my opinion, the prime motivation is to distract attention from, and perhaps also to solve the domestic economic crisis by gaining military control over the oil reserves in the Gulf and leverage over Saudi Arabia and Kuwait which own upwards of \$400 billion of our national debt. These ends are best achieved by war. Deficit spending during wartime is a time honored US policy

to escape recessions and depressions. Perhaps the two countries mentioned above could be persuaded to "donate" to the cause. War requires the positioning of US military units in the Persian Gulf, a convenient pretext for establishing bases which would otherwise be unpopular in the Arab world. War would eliminate Saddam Hussein, and return control of oil production policy to the US. This control gives the US influence over the economies of Japan and Germany which are far more dependent on Gulf oil than is the US. War is also the most distracting action that the Bush Administration can take. When was the last time you heard of Neal Bush and the Silverado Savings and Loan failure? Or the 11+% unemployment in New England? Or the weakness of our whole banking system?

The alternative to war are sanctions and diplomacy. The record suggests that the Bush Administration effectively torpedoed any chance for a nonviolent settlement. While the rest of the world endorsed and enforced sanctions of unprecedented severity against Iraq, the US quickly built up an expeditionary force far in excess of what was needed to protect Saudi Arabia from an attack by Iraq. The cost of maintaining this army is so large that the US literally cannot afford to wait until sanctions work. The repetitious declarations of our President that there must be "unconditional withdrawal" from Kuwait and no negotiations leaves little doubt that Bush is not seeking a peaceful resolution to this crisis. Threats to prosecute Saddam Hussein as a war criminal and charge Iraq for the costs of enforcing the sanctions and sending military forces to the Gulf are likewise not designed to encourage an Iraqi withdrawal. President Bush also declares that there will be no "linkage" to other issues, such as an international conference on the Israeli-Palestinian problem or Israeli withdrawal from the occupied territories. What does Saddam Hussein have to look forward to if he agrees to Bush's conditions but a life in jail and poverty for his country? The record strongly implies that Bush's trigger finger is itchy - when was the last time you called him a wimp?

The costs of a war in the Gulf will be enormous and not thoroughly covered in the media. There will be many thousands of dead and wounded. The war experts guess around 20,000 US dead assuming all of the Pentagon's new toys work as designed. Undoubtedly there will be many times more dead Iraqis, but hey, foreigners come cheap, especially if they're off-white. The cost of Desert Shield so far is classified, but is commonly estimated to have cost \$10 billion in 1990, not counting

the \$7 billion in loans forgiven to Egypt and who knows what other bribes that greased the palms of other members of the "international coalition." If shooting starts the price tag may top \$1 billion a day, probably not counting the long term health care costs of the wounded, or the loss of their productivity. Nobody begins to guess the cost of the aftermath, or even what form it will take.

In addition to the human and financial costs, the environmental consequences may be horrendous. Hussein is known to have mined the oil wells in Kuwait. There are over 700 oil wells in that country, 343 of which spew out oil under pressure (without pumping). The total output of the active wells is around 3 million barrels a day. If this oil were to burn for one month it would create a black sooty cloud half the size of the US. A cloud like this could cause the monsoons to fail in Asia, putting the food supply of 1 billion people at risk. The heat generated by the burning oil would be sufficient to pasteurize large portions of Kuwait. As Kuwaiti oil is 2.4% sulfur, the region would suffer unprecedented acid rain and fallout. It is estimated that this many burning wells could take well over a year to extinguish. A year of burning would increase the CO2 production by 10%. In addition, large amounts of oil can be expected to flood the Gulf, with dire consequences for the marine life there. The firing of the oil wells would in fact accomplish one of Hussein's objectives; stopping the overproduction of oil by Kuwait.

The political consequences of a Middle East war are harder to gauge. If the US wins a quick "surgical" war, then who will replace Saddam Hussein? Will there be US troops of occupation? If Iraq involves Israel with a missile or two, Jordan has stated that overflights of its airspace by Israel will be consi-

dered an act of war. Syria and Egypt have pledged to defend Jordan. What will their troops now in Saudi Arabia do? At the very least we can predict that hatred of the US and Americans will flourish in the region. The Arab nations may finally unite in their opposition to Israel, and the region as a whole will be destabilized.

This war will not help people, although it may enable certain elites to maintain their privileges. I have heard people of draft age remark that a vaction to Mexico may be in order in the near future. Why are they worried? Our leaders assure us that 200,000 Iraqis will surrender and that war will be over in as few as five days. But to nip the possibility of a draft in the bud and to live your principles (those of you who want the beaches of Baja for moral and ideological reasons rather than merely self-preservation) oppose the war now. Go to vigils and demonstrations and write your reps. I hope that I have misread the situation; that Bush is just taking Brinkmanship to its limits; that Saddam Hussein understands this kind of posturing and will withdraw from Kuwait for the greater good. But I fear that war is fast approaching.

[Article submitted prior to war. Eds.]

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The Inside World

Jim's Journal

by Jim

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All Inside Worlds must include the author's name. Inside worlds can only be written by current undergraduates. The editors reserve the right to edit any or all parts of an Inside World, or to not print it at all. No libelous material will be accepted. It is the author's responsibility to check material written about a person to see if they consider it libelous.

This Week's Inside World was written by:

Lloyd: Jeff Hagen
Ruddock: Chris Martin

Table with 2 columns: Name and Count. Rows include Blacker (12 0 0 0), Dabney (11 0 0 0), Fleming (13 0 0 0), Lloyd (26 1 1 2), Page (21 0 0 0), Ruddock (25 2 2 4), Ricketts (15 3 0 3).

Lloyd

Well, it's happened. As our country heads into conflict, President Bush has authorized the use of our most devastating military force yet. Forget the B-2, you don't need Rambo, Arnold will be shaking in his boots. Yes, it's true. They're here, the Lloyd Patrol.

This elite, top-secret fighting force has been deployed around the world many times to support American interests abroad through the use of incisive military blows. Assassinations, sabotage, general mayhem, death and destruction. If the job needs to be done, and no one else can or will do it, the Lloyd Patrol is there. And here they are:

Point Man: Jack "Shadow" Prater. This man owns the night. He moves totally undetected through any terrain and conditions as long as he doesn't smile. His only disadvantage; it's hard to move quietly carrying all those magazines.

Weapons Experts: Emily "Terwenator" Wen and Shiyin "Wanna Fight?" Siou. These two can use anything from a plastic dinner fork to an M1A2 main battle tank to wreck havoc on an enemy.

Medic: Steve "The Clot" McLaughlin. When most doctors need a CAT scanner and an electrocardiac resuscitator, he gets by with an ace bandage and a stethoscope.

Triumverate: Tim Crowder. If it moves he'll fight it. Keith Akama. If it moves he'll listen to it. Pete Caylor. If it moves he'll sue it.

Machine Gunner: Melinda "Neck-Breaker" Au. The M60 machine gun she carries may be bigger and heavier than she is, but with it she'll set down a covering fire Satan himself can't get through.

Translator: Sam Webb. He speaks only English, but with hand gestures he can converse in a thousand foreign tongues.

Explosives: Scott "Jazzboom" Harris. He's so tough he chews plastique as bubble gum. And you thought the Verranzo-Narrows Bridge was a natural disaster.

Electronic Warfare: Curt Hagenlocher. This man has caused more destruction with a voltmeter than all the high explosives dropped in World War II combined.

Carl: This mysterious wraith has been spotted around the world numerous times, yet no picture or description of him exists. His role is so secret even he doesn't know it.

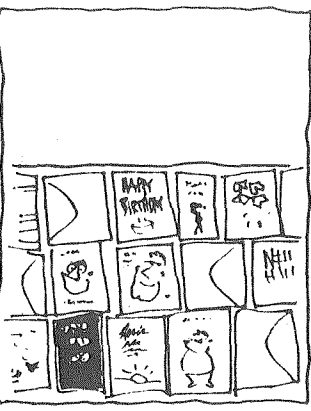
UnderSea Warfare: Dave Geraghty and Karin Johnson. Their favorite technique is to tangle the propellers of submarines with hair balls.

Sergeant: Randy "Ace of Spades" Stevenson. His leadership skills are matched only by his ability to turn his ever-present guitar into a unique death-dealing tool.

Bad-Ass-Mother-Fucker: Dave Jeitner. 'Nuff said.



I looked at greeting cards today.



It was just something to do.



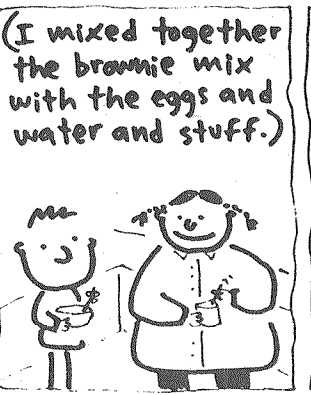
Some of the cards were kind of funny.



Today Ruth needed to make some brownies for a friend's birthday party.



I helped her make them.



(I mixed together the brownie mix with the eggs and water and stuff.)



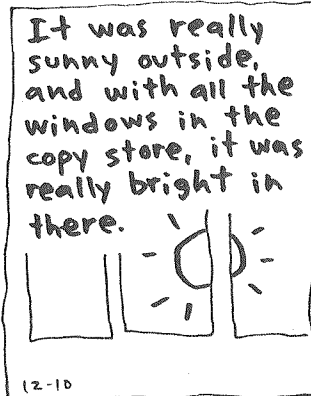
Ruth told me all about her friend—she said she's known her since the third grade.



At the copy store today I was just cleaning up stuff around the floor.



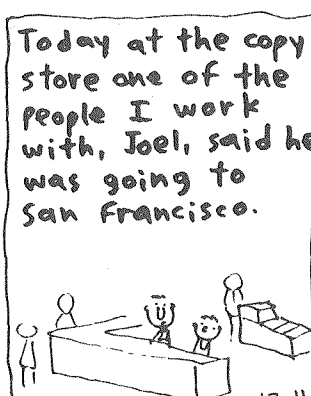
I had to empty the trash, too.



It was really sunny outside, and with all the windows in the copy store, it was really bright in there.



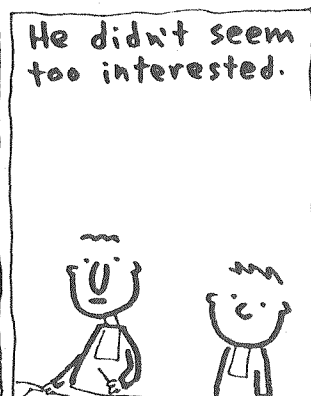
I looked at Hal, who was helping a customer, the sun was shining onto the back of his head and his ear looked bright orange.



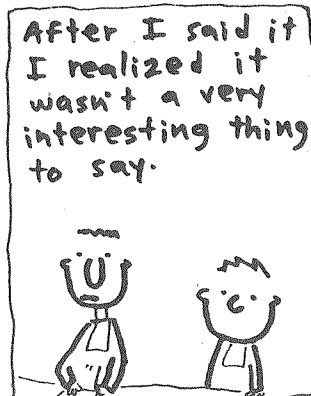
Today at the copy store one of the people I work with, Joel, said he was going to San Francisco.



I told him my mom just went to San Francisco for a piano-teacher's convention.



He didn't seem too interested.



After I said it I realized it wasn't a very interesting thing to say.

Ruddock

It's war! That's right, the most exciting media event of 1991. Twenty-four hour coverage on all the major networks. But you don't have to just watch. You can participate! Just take this simple test to see if you're eligible. Rate yourself in the following categories:

- Language Skills
Level 1: Can understand Ali
2: Can understand Ali when he's drunk
3: Can get the maids to clean your room
4: Qualify for a Math 1 T.A.
5: Can keep them from putting peas on top of your spaghetti at lunch

- Survival Skills
Level 1: Live in Braun or Marks House
2: On Board
3: Live in Dabney House
4: Can handle the Tommy's Triple Threat
5: Live with Chris Dically for a week

- Combat Skills
Level 1: Funnelated revelers on New Year's Eve
2: Veteran of Blacker's Idaho Lounge water attack
3: Veteran of Alley 3 Sing Along
4: Snagged a cold drink at a house meeting
5: Jumped off of Firestone

If you scored 10 or higher on this test, you can go to Saudi Arabia and be on CNN. What fun! But if you failed, don't worry. You can still be part of the action by getting in on the mass hysteria here at home.

Amy has agreed to give up the women's lounge for a while so we can use it as Ruddock's own personal concentration camp. If you see any suspicious looking Arabs lurking around, they've probably come to steal some food from O'Dom's and blow up the house. Beat them into submission and lock them up! Remember, just cause you're paranoid doesn't mean somebody isn't out to get you.

There's a couple Eastern-looking people hanging around who I'm real worried about. One guy I've seen in Keith Langer's room, and Keith is missing. Did he kill him? Is Keith's body stuffed under the sink in there? Is that what the smell from the room is?

There's another short guy with beady eyes and curly hair wearing a green Army jacket that I've seen lurking around. If any of you frosh catch him around the house, just put him in a trash can, turn it upside down, and sit on it till the FBI gets here.

Just in case we are the victim of a nuclear attack, I nominate Hans as the Radiation Frosh. He usually looks like he's been through a war, and he knows as much about war stuff as Dave Rischer did. He needs to keep a geiger counter and a flashlight handy at all times.

I also nominate Steve Mast as the Assistant Radiation Frosh in case Hans loses the geiger counter and flashlight. We can time Steve as he soaks up the rads until he glows, and then we can use him for the flashlight!

Just in case we aren't the victim of a nuclear attack, the social event for the week is the Icehouse Comedy Club and we'll have some more Sex and Violence on Monday night.



This morning Tony asked me to come over and listen to what happened to him last night.



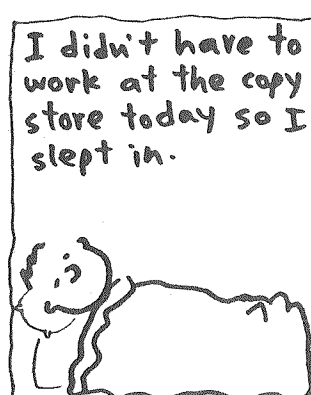
It was complicated, but centered around his almost getting arrested in front of a bar.



"I met this awesome girl, too—damn, I wish I'd got her name!" he said.



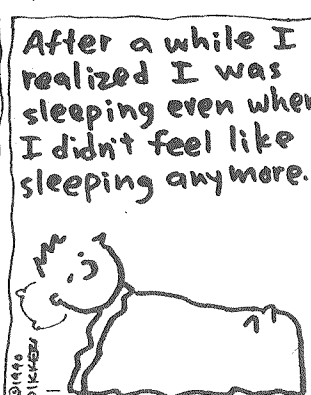
His voice was low and gravelly because of it being so early in the morning.



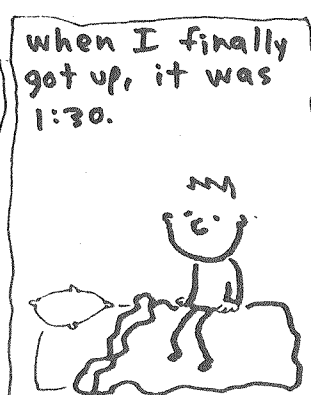
I didn't have to work at the copy store today so I slept in.



I wake up a few times, but never felt like getting out of bed.



After a while I realized I was sleeping even when I didn't feel like sleeping anymore.



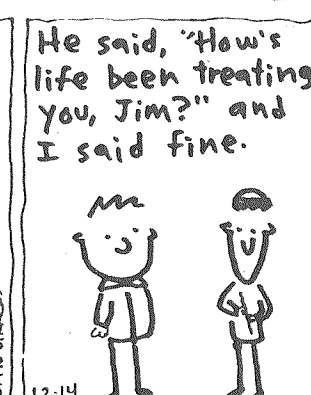
When I finally got up, it was 1:30.



I saw Steve today.



I asked him how it was going and he said he was fine.



He said, "How's life been treating you, Jim?" and I said fine.



He was peeling the bark off a stick while we talked.

Centennial Timeline

by Celia Ng

How did Interhouse start? What was the first Caltech prank to receive nationwide notice? What does R.F. really stand for? How did Caltech decide to take on the Honor System? What's the real story behind DEI and FEIF? Where did each House's initiations originate from? Who started Ditch Day?

Most of the upperclassmen, and even sophomores, can identify with the feeling, "##!& House isn't the same as when I was a frosh!!" Some alumni are probably thinking "##!& House is more like &!*# when I was a frosh at Caltech!!" The changes in the 'Caltech undergraduate experience' would probably shock us all!

To celebrate Caltech's ONE HUNDRED YEARS of existence, some of us students (including Lan Smith, Taletha Derrington, Celia Ng, Larry Cheng, Jen Jungkuntz, Catherine Hafer, Sam Dinkin, Pam Abshire, Erike Moilanen, Jerri Martin, and Ari Kaplan to name a few) and Executive Director of the Y Lucy Guernsey, were thinking that it would be totally cool to be

able to answer those itching questions about undergraduate traditions, where they came from, what's happened to the crazy people who graduated from this place twenty years ago, etc.

If you're dying to know some dark hidden secret about Caltech's history, keep reading...

A group of us have formed to try to put together a kind of huge collage-type-time-line of the past twenty years of undergraduate life. This banner could map out the history of each of the Houses and where their seemingly life-long traditions originated from. It could include the first appearance of women at this school (and the different, ahem, reactions).

It could have picture clippings from the *Big T* with interesting stories tied to them. Other topics people have showed interest in are Ditch Day, pranks, sports, professors, and initiations. Basically, it could be anything YOU wanted it to be!!

We hope to put the banner up along the Olive Walk for all curious souls to check out sometime next quarter. Also, we're trying to

get alumni to come back and tell us *their* version of life at Caltech. Of course, in the end we'd have a party! One idea for the party has been to have music dating back twenty years ago, and proceeding to the present.

In addition, Diana Barkan, Assistant Professor of History, is offering a course which will cover topics on Undergraduate Life. This course would be under "directed studies", a 3 unit pass/fail class. It could be your chance for research experience in an area that you're interested in.

Basically, this is our way, as undergrads, to celebrate the Centennial. A lot of the Centennial activities are focussed on technical speakers and generally very serious matters. Let's do our own thing to celebrate, stuff that's fun for us! If you're interested in this project, please contact Taletha Derrington at 1-57 and come to our weekly meetings, Friday noon at the Y lounge. (There will be sign-ups placed next to each of the mailboxes of the seven houses.) See ya there!!



Join The Jam Room

by Frank Fillipanits

If you are musically inclined but are not yet a member of the Caltech Jam Room, here is what you're missing!

The Caltech Jam Room serves many purposes: it provides students with the opportunity to use musical equipment they could not otherwise afford, it allows students to try various instruments before investing in one, and it provides a decent-sized practice room for Caltech bands.

The equipment available includes a drum set, bass guitar and amp, electric guitar and amp, keyboards, microphones, mixer, 4-track recorder, and speaker cabinets. In addition, the Jam Room is host to the ASCIT PA system, a top-of-the-line Carvin system available when not needed for ASCIT events.

Future plans include recording capabilities and equipment upgrades. The Jam Room is funded almost entirely by membership dues, so the more members we have, the better the equipment we can provide.

If you play an instrument or have a band, you should become a Jam Room member. Dues are \$20 for the initial quarter, \$5 per term after, with a \$5 refundable key deposit. Membership is open for all Caltech undergrads and grads; others must be approved by the ASCIT BOD and Jam Room manager. Contact the current manager, Frank Fillipanits, at 564-1465 if you would like to become a member or find out more about this valuable musician's resource.

Help The Jobless

by Golda Bernstein

Hey, Buddy, Can You Spare a Dime?

You're leaving the supermarket, having just bought a week's groceries. A man approaches you and asks, in a voice that's already asked about a hundred other passerby today, "Got any spare change? I'm hungry, man..."

Behind him is a sign, "Help Wanted. Inquire within."

Give the man a bagel, or a dollar, and wonder why the hell he doesn't go inside and ask for work. Could he get the job? Does he want to?

Some don't want a job, or can't handle one. Drug and alcohol abuse are primary reasons for staying unemployed. Homelessness makes it hard, but not impossible, to get a job. A non-drug-user who wants off the streets does have somewhere to go for help, at least in Pasadena. Last week I interviewed the director of Hill House, a shelter for homeless employable men in Pasadena.

Hill House solves the problem faced by many homeless: where to go after work to prepare for the next day. But men who go there had better be serious about finding

a job: Hill House requires them to spend all day searching, and to fulfill a minimum number of applications, phone contacts, and interviews each day.

I visited the place at 10 AM, and not one of the fourteen current residents was there - they were all out working or looking for work. Bruce Erikson, the director, told me that practically all residents who fulfilled the requirements found a job - not necessarily ideal, but a job within the allotted three weeks.

When a resident does find a job, he isn't kicked immediately back onto the street. But while he stays, he must turn in 70% of his wages to the Hill House savings account. Then, when he leaves after a maximum of 3 weeks, he has a nest egg of around \$1000 to help him get started. In the meantime, Hill House provides free food, shelter, and some advice.

Another network, called WORKNET, provides counselling and some job search assistance. But most jobs are landed, according to Erikson, through the paper or an in-house case worker's contacts with employers. (Caltech has employed some Hill House

graduates.)

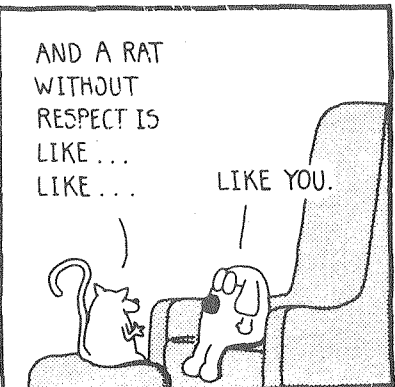
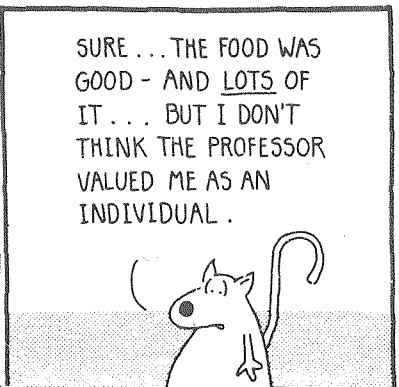
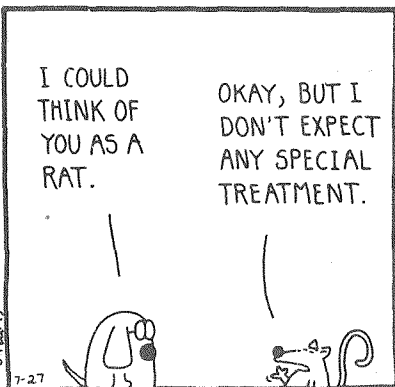
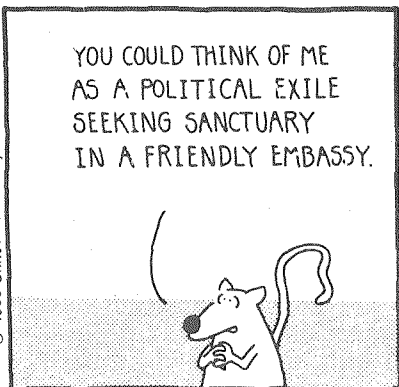
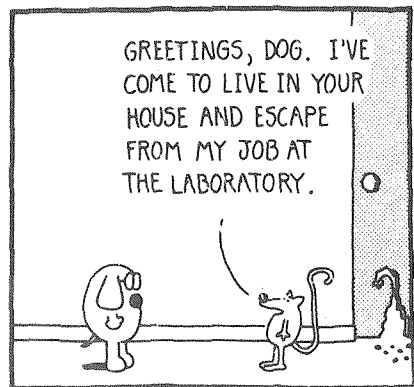
Though free food and shelter for three weeks seems like a good deal, Hill House has only a two-week waiting list at present. They refer many callers to drug and alcohol treatment programs, and in turn accept successful graduates of such programs - so long as they have been 'off' for 90 days. They serve about 125 clients per annum, including a few repeats from past years.

Some homeless bounce through different shelters and programs as a way of life, spending a few weeks here and there, learning how to work the system. But others Erikson has stayed in contact with have been working and on their own for several years.

There is no band-aid or cure-all for the problems of the homeless, but at least there is a stepping stone. In case you find someone who would be interested, the phone number for Hill House is 792-5415. For more general information about where to get different kinds of help, call INFOLINE, (213) 686-0950.

P.S. Prevention is better than cure: We still need volunteer tutor!

DILBERT™ by Scott Adams



(OPR) Nobel laureate Carl David Anderson, Board of Trustees Professor of Physics Emeritus at the California Institute of Technology, died in San Marino, California at 7:00 AM on Friday, January 11, 1991, after a short illness. He was 85 years old.

Discoverer of the positron, the first particle of antimatter shown to exist, Anderson was awarded the Nobel Prize in physics in 1936 when he was only 31 years old. Anderson, a long-time resident of San Marino, is survived by two sons - Marshall, a mathematician and computer analyst, and David, an engineer - and two grandchildren.

Anderson was born of Swedish immigrant parents in New York City on September 3, 1905, and in 1912 the family moved to Los Angeles. He graduated from Los Angeles Polytechnic High School in 1923, and enrolled at Caltech, intending to become an electrical engineer.

During the third term of his sophomore year, however, Anderson took Professor Ira Bowen's class in modern physics, a course he found so inspiring that he changed his major to physics.

He received his BS in 1927 and stayed on as a graduate student, working with Nobel Prize-winning physicist Robert Millikan, then head of the Institute. Millikan was a pioneer in cosmic-ray research, and had already measured their enormous penetrating power.

What he wanted Anderson to do was to measure the energy of the electrons they produced, and the best way to do that at the time was in a cloud chamber. Anderson designed and built an apparatus consisting of a giant electromagnet wrapped around a cloud chamber.

An arc-lighted camera was focused on the window of the chamber to record the visible vapor trail of electrons or other charged par-

ticles passing through. Anderson earned his PhD in 1930.

During the early 1930s, scientists had identified only two elementary particles of matter - the electron, with its negative charge, and the positively charged proton. Anderson realized that he had found something new when his cloud-chamber photographs showed what appeared to be a positively charged electron.

This particle was eventually named the positron, and its existence was the first confirmation of the concept of antimatter developed by the British physicist Paul Dirac.

Anderson served as a research fellow at Caltech starting in 1930, and in 1933 he was promoted to assistant professor. By the time he received the Nobel Prize in 1936, he and his first graduate student, Seth Neddermeyer (now deceased, formerly professor of physics at the University of Washington), had identified two more of the fundamental particles of matter, which have variously been called the positive and negative mesons, the mu-mesons, or the muons.

These studies made use of cosmic rays, which are far more abundant at higher altitudes. Part of the work was done at the top of Pikes Peak in Colorado. Later, Anderson conducted research in Panama, in the White Mountains of California, and in a B-29 airplane that operated at altitudes up to 40,000 feet.

Anderson was awarded the Nobel Prize in 1936, but he had to borrow \$500 from Millikan to pay for his ticket to Stockholm. That year the physics prize was shared by Anderson and Viktor F. Hess, the discoverer of cosmic rays. Anderson received \$20,000. He was promoted to associate professor in 1937 and professor in 1939.

The outbreak of World War II changed Anderson's activities, when teaching and research took a

continued on page 6

Need for Nuclear Power

By Mephisto

Wednesday night, despite the fact that the first reports of the war were still being broadcast, Dr. Hans Bethe was able to draw a capacity crowd to Beckman Auditorium to hear his talk, "The Need for Nuclear Power". Dr. Bethe, a Nobel laureate in Physics, has done extensive work in the theory of nuclear reactions and in nuclear power.

He began his hour-long talk by listing the chief reasons to revive nuclear power in the U.S. — the greenhouse effect, pollution and acid rain, and a dependence on unstable countries for oil supplies. Since the 1950s and 1960s, high hopes for nuclear power have faded dramatically. No nuclear power plant ordered since 1973 has been completed and many plants ordered earlier were cancelled.

A major reason for this is an immense increase in the costs of building such a plant — by a factor of almost 30, compared to an increase of about 2.6 in the consumer price index.

Also, when the Nuclear Regulatory Commission (NRC) tightens its safety standards, plants under construction must comply

with the new standards, even if extensive on-site redesigning is needed.

The biggest obstacle that he feels nuclear power faces in the United States is public misinformation. According to Dr. Bethe, nuclear power is quite safe. If all electricity in the United States were generated by nuclear power, only about a day would be removed from the average life expectancy. This compares with one day for dam failures and 2000 days for remaining unmarried.

An accident such as the one which occurred at Chernobyl could not occur in Western reactors, due to their design. With the new reactor designs, accidents such as the one which occurred at Three Mile Island would occur once in every 100 million years of use. These reactors are similar to the ones in use in France, which generates over 70% of its electricity using nuclear energy. The United States, by comparison, only generates 20% of its electricity this way.

Similarly, nuclear waste presents no serious problems. When spent fuel rods are removed from the reactor, they should be chemically separated into fission products and transuranic elements.

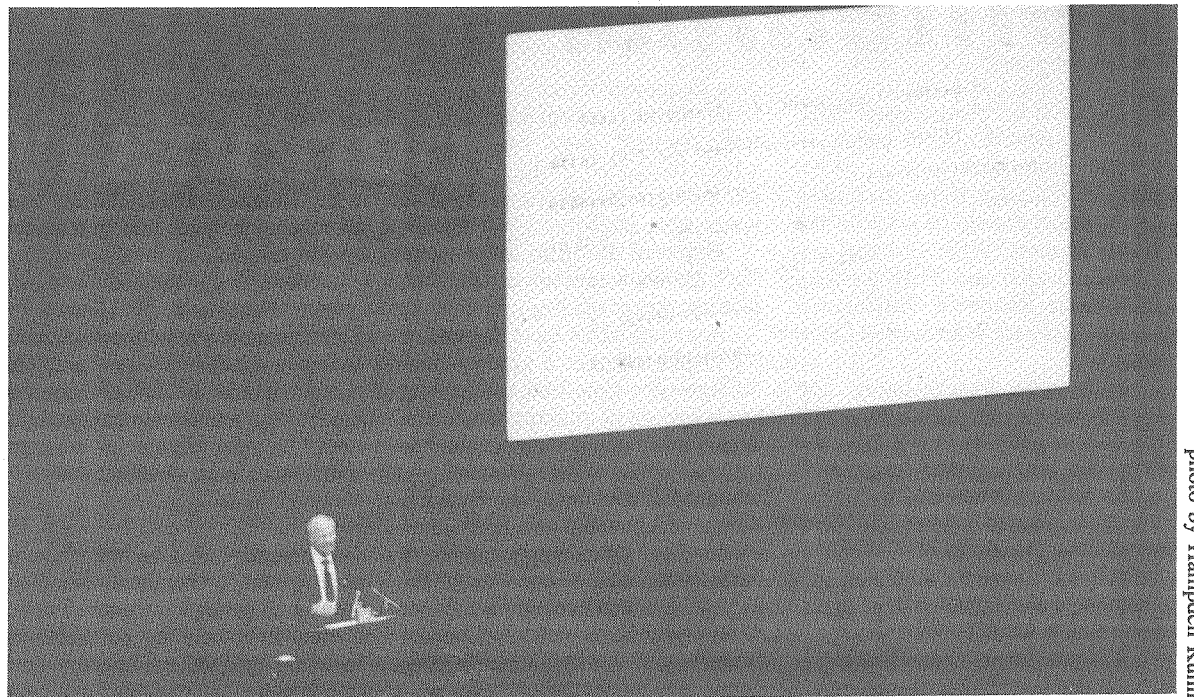


photo by Hampden Kuhns

Dr. Hans Bethe gave a Watson Lecture on "The Need for Nuclear Power" last Wednesday.

The transuranics, such as plutonium, can be used in breeder reactors to generate more power, finally being converted to fission products. The fission products have half-lives of about 30 years, and could be safely stored in deep mines until they are harmless.

Anderson

from page 5

back-seat to war-related efforts. He was asked to direct the development of the atomic bomb, a job he turned down. The job eventually went to J. Robert Oppenheimer.

Instead, Anderson spent time working on the solid-propellant rocket headed by Caltech physicist Charles Lauritsen. Specifically, his work dealt with how to fire these rockets from aircraft, and this effort was successful enough that he was flown to Europe in 1944 to supervise the installation of the first aircraft rockets on Allied planes.

In 1946 Anderson married Lorraine Bergman. (Mrs. Anderson died in 1984.) At Caltech he resumed his studies of cosmic radiation. His research group included Robert Leighton and Eugene Cowan, both now Caltech professors of physics emeritus. It also included Donald Glaser, now a professor at the University of California, Berkeley, who won the 1950 Nobel Prize in physics for the invention of the bubble chamber, another device for detecting atomic particles.

In the course of his research, Anderson and his group took literally tens of thousands of pictures,

Dr. Bethe concluded his talk by stating that "What we need is public education against a lot of misinformation which has been spread and a lot of political will to do it."

After his talk, Dr. Bethe answered questions from the audience concerning cold fusion (nope), solar energy (good for heating

water), breeder reactors (great new type being designed at Argon National Laboratories), hot fusion (more expensive than fission, doesn't work yet), and the safety of eating Norwegian and Swedish fish due to possible irradiation by the Chernobyl accident (go eat your sardines).

each of which they methodically examined in the hope of seeing interesting particle tracks. Although this was quite tedious, it paid off with evidence for many new fundamental particles that came to be known as "strange particles."

By the late 1950s, Anderson's kind of cosmic ray studies was beginning to be supplanted by work done on huge high-energy accelerators. He became chairman of Caltech's Division of Physics, Mathematics, and Astronomy in 1962, a position he held until 1970. He retired in 1976 and was named Board of Trustees Professor of Physics, Emeritus.

In 1979 Anderson recorded an oral history for the Caltech archives. Asked if he felt that society should spend huge sums on scientific projects, Anderson replied, "If you ask how many millions or billions of dollars a fundamental particle is worth, the answer is that I don't know. Doing science is a matter of faith. You just have to explore the physical world. Curiosity is a part of human nature, and there will always be science for the sake of science — for the sake of pure understanding."

Basketball Statistician

The basketball team needs a statistician for next season. If you are interested, you should talk to Emerson Tongco in Page rm. 107, x3774.

what the admissions office LOOKS for in grad school applicants.

WADDLE

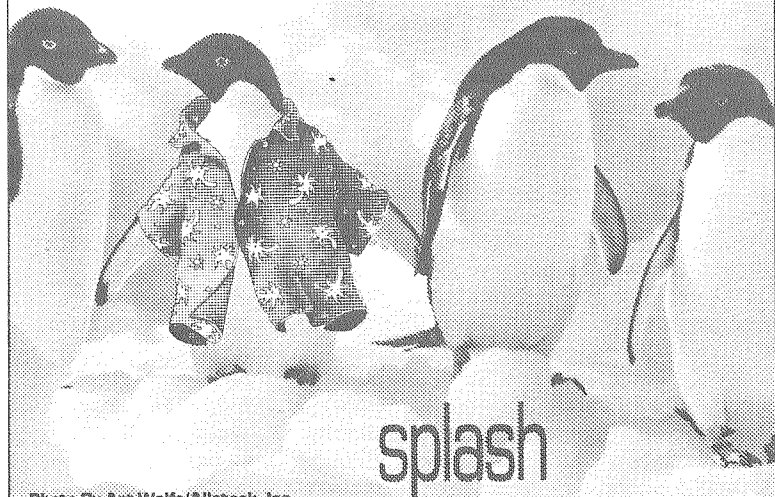
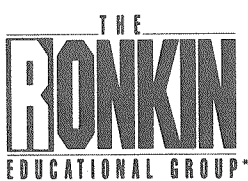


Photo By Art Wolfe/Allstock, Inc.

flap Obviously they want the best and the brightest, which would explain the Hawaiian shirt. They want the students who stand out—the kind of students who have attended The Ronkin Educational Group's Grad Bound program. The graduate school prep program that not only teaches you how to score high on the LSAT, GMAT or GRE, but shows you how to write academic resumes and personal statements that get you noticed. If you want to be the kind of student who gets noticed, call now about Grad Bound's free diagnostic test.

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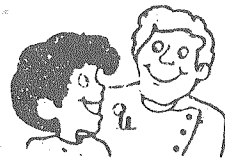
if you want to get in, you've got to stand out.



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(Formerly Janet Ronkin's College Bound)

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expires June 1991

When you party remember to...



Don't get wrecked. If you're not sober—or you're not sure—let someone else do the driving

A message provided by this newspaper and Beer Drinkers of America



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Costa Mesa, CA 92626
714/557-2337
1-800-441-2337

*Beer Drinkers of America is a non-profit consumer membership organization open only to persons over the age of 21.

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what goes on

Submit announcements for *What Goes On* on forms available outside the *Tech* office (SAC room 40A) and in the copy/mail room (SAC room 37), or use a plain piece of paper. Send announcements to 40-58, or put them in the IN box outside the *Tech* office. Indicate the date(s) the announcement must run. Announcements for the current issue *must* be received by 5 pm Tuesday and should be shorter than 75 words. Announcements will be published as space becomes available and will be chosen according to size and interest to the Caltech community. Announcements for commercial events unrelated to Caltech will not be published.

Y Hike 1991 Meeting

If you would like to play a vital part in planning this year's Y Hike, stop by the Caltech Y Wes Hershey Lounge at 4:00 pm on Thursday, January 24, 1991.

Grand Canyon

The Caltech Y is planning a Spring Break trip to the Grand Canyon from March 21-28. If you are interested in attending this camping trip, stop by the Y and sign up today.

Badweather Shelter

Twice a month on Saturdays, the Caltech Y is on standby to work at the Badweather Shelter locally. This shelter provides for the needs of the homeless during inclement weather. If you would like to volunteer your time, please sign up at the Y today.

L.A. Philharmonic Tickets

The Caltech Y has tickets for Friday, March 12, 8:00 pm (a recital by Maurizio Pollini, piano) and Friday, April 12, 8:00 pm (Bach, *St. Matthew Passion* [in German]). Tickets are \$5.00.

German Film

Monday, January 21 at 7:30 in Baxter Lecture Hall. Second film in the Third Reich and Its Legacy Film Series: *Murderers Are Among Us* (East Germany, 1946—Wolfgang Staudte). This film, shot in Berlin, in total postwar rubble, is the story of an ex-soldier's struggle to bring his commander, who committed atrocities during the war, to justice.

Learn How To Fly!

Come fly the friendly skies with the Caltech/JPL Flying Club (A.A.C.I.T.). We have just expanded our fleet to 6 aircraft. Our newest addition is a 200 horsepower retractable gear Piper Arrow, cruising at 165 MPH (that's 100 MPH over the speed limit!). All our aircraft are fully equipped for visual and instrument flight, including our two training aircraft (Cessna 152's) for student pilots. If you want to learn how to fly or just want to fly our airplanes, contact Bob Ferber at JPL (354-3463) or Thomas Buettgenbach at Caltech (356-3740).

Online Schedule of Classes

The Caltech schedule of classes, as published by the Registrar's office, has been added to the online INFO system, accessible via CITnet. A write-up on using the INFO system is available from the CCO Consulting Office, 162 Jorgensen.

Service League Offers Money

The Caltech Service League now has a fund request form. All campus organizations requesting financial aid from the Service League must use this form. The forms are available at the MOSH's office and at Lydia Matthew's office in Parsons-Gates, x6315.

SWE Engineering Competition

SWE Technical Presentation Competition (paper related to engineering). Must be undergrad SWE student member. Winners get free transportation to SWE national student conference. Applications due by March 1, 1991. Interested? Contact Celia Ng, 1-55, 578-9923.

Pre-Frosh Weekend Looms

This year's Pre-Frosh Weekend will occur Thursday, April 18 to Sunday, April 21. Look for further details in this section about Pre-Frosh Weekend in upcoming *Tech* issues.

Faculty-Student Shabbat

Faculty, staff and students are invited to Caltech Hillel's Shabbat celebration at the home of Shirley and Marshall Cohen on Friday evening, Jan. 25 at 6:30 pm. There will be a short service, a delicious Kosher dinner, and much singing and socializing. The cost is \$8.00 for faculty and staff and \$4.00 for students. Reservations please! Call Louise Lorden: (818) 447-2003 for information and reservations by Jan. 21.

Flight Team Needs Members

The Caltech Flying Team needs members for the 1991 competition season. The team competes against other schools in ground events and precision flying (not races). Non-flying events include aircraft identification, aircraft preflight, and general aviation knowledge. This year the major competition will be held at Brackett airport in La Verne. These events are always lots of fun. An organizational meeting will be held on Tuesday, Jan. 22 at 7:30 pm in 150 Watson. Pilots, student pilots and non-pilots are welcome and encouraged to attend. For information contact Barry Sheehy (x4848), Thomas Buettgenbach (x3740) or Kevin Condroski (577-6645).

L.A. Clippers Tickets

The Caltech Y has tickets for Friday, February 22 at 7:30 pm as the Los Angeles Clippers take on David Robinson and the San Antonio Spurs. Tickets are \$11.50, discounted from \$14.00.

S.P.E.C.T.R.E. Meets Tripods

The Caltech Science Fiction Club will be having a "Full Moon" Festival on Saturday, January 19 (TOMORROW) with Season One of *The Tripods*, based on John Christopher's novel *The White Mountains*. We will begin at 7:00 pm in Rm. 35 of the SAC. We also have a copy of the manuscript to the first part of David Brin's latest novel, *Stratos*. Show up early if you want to be among the first to read it. Questions? spectre/cobalt or call Eric (564-8949) Be seeing you...

Let The Games Begin

Every Friday night, the Caltech Gamers meet to enjoy role-playing and board games. Friday meetings are in Winnett Clubroom 1 or in Rm. 33 of the SAC at 8:00 pm. Meet others who share your interests. All welcome! Most common Friday games are fantasy role-playing, but it's a good time to find players to share whatever games you like.

Folk Dancing On Campus

The Caltech Folk Dancers invite you to come and join us for folk dancing on Tuesday nights in Dabney Hall Lounge. Dances are taught from 7:30 pm to 9:00 pm, with dancing from 9:00 until 11:30 or midnight.

Attention Aero Students!

Applications for the AIAA/Industry Scholarship program are now available. These are \$1000 renewable scholarships. Last year odds for getting a scholarship were 1 in 2! Check the AIAA table or call 792-1513.

U.S. Attorney To Speak

Lourdes Baird, the U.S. Attorney for the Central District of California, will give an OWC lunchtime talk on Wednesday, Jan. 23 at noon in Winnett Lounge. To quote the *L.A. Times*, "She came late to the legal profession. Now she'll head the biggest federal judicial district in the country." Bring your brown bag lunch to the talk of this ground-breaking woman. Everyone is welcome.

Mexico Trip

Wanna go to Mexico for Spring Break? Rancho Milagro, the orphanage we visited in the past, can't take us, so we are planning another project in Tijuana or Ensenada. Please come to the first meeting on Tuesday, Jan. 22nd at 1:30 PM at the Y. Or call Golda x6163 and say you are interested - we'll get back to you!

Phys Club Rises Again

Once again, the Caltech Society of Physics Students is holding a meeting/study session/pizza party this Sunday 7:30 P.M. in 201 Bridge. We will discuss the Second Annual High School Science Field Day and other memorable events to come. Bring your phys homework to get help on after the meeting - diff eq's solved free of charge...

Be In The Top Ten

Caltech juniors are invited to participate in *Glamour* magazine's 1991 Top Ten College Women Competition.

Glamour's prestigious competition honors college juniors of outstanding achievement. This year's winners will be selected from five distinctive categories: Creative arts/Communication/Humanities, Science and Technology/Health, Politics/International Relations/Business and Economics/Entrepreneurship, Public Service. [A special award should be offered for turning that punctuation into five categories.] Candidates will be judged on academic excellence, involvement in community or campus activities, and personal interests.

Ten winners will receive national recognition in *Glamour's* October 1991 issue and a cash prize, plus an all-expenses paid trip to New York City to meet with top professionals in their field.

Contact the Dean of Students Office for information. Deadline is February 15, 1991.

Bulgarian Folkdancing

The International Folkdancers meet in Dabney Hall Lounge every Tuesday evening all year round. Folkdance classes start at 7:30 pm each Tuesday. Open dancing starts at 9:00 pm. On Tuesday, January 22nd, famed Bulgarian dance instructor Jaap Leegwater will be our guest teacher. On Tuesday, February 26th, Greek dance instructor Joe Graziosi will be teaching, so put that on your calendar now! No experience is necessary. All are invited to attend.

Guitar Classes at Caltech

Guitar classes for winter quarter will meet on Tuesdays starting Jan. 15th in Rm. 1 of the SAC as follows:

Beginning class: 4:30-5:30 pm
Intermediate class: 3:00-4:00 pm
Advanced class: 5:30-6:30 pm
Classical and flamenco repertoires are explored but techniques transfer to other styles of guitar. The beginning class includes a jazz/folk chord system. Classes are free to Caltech students and other members of the Caltech community (space permitting). Undergraduates can receive 3 units of credit if they choose. Private instruction on any level can also be arranged. The instructor, classical guitarist Darryl Denning, has an international background in performance, recording and teaching and can be reached at (213) 465-0881.



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Health Center Spouse Costs

In response to student demand, the Health Center and Counseling Service will make their 1990-91 Spouse Programs available to all students' spouses regardless of their insurance coverage. The fee will be \$50 each term—charged to the student's account—for each program, Medical or Counseling. Therefore, if your spouse enrolls in both programs, it will be \$100 each term. Registration forms for these programs will be available at the Health Center. You may call for details at x6393.

Ride Board

Need a ride home after exams? Want to go to San Francisco for the weekend? Feel bad about driving alone? Want to save gas and help others as well? Now you can, with Caltech's new ride board, set up by the Caltech Environmental Task Force and the Caltech Y. Come by the Board, just outside the Y Office on the second floor of Winnett, and use the provided cards to offer a ride or look for a ride. Save money, hassle, time and gas! Reduce smog—use the ride board!

Assembly Fellowship Program

The California State Assembly is sponsoring the Jesse Marvin Unruh Assembly Fellowship Program. It is one of the oldest and most prestigious legislative fellowship programs in the nation. Up to eighteen individuals are selected nationwide to spend 11 months in the Assembly as legislative aides and committee consultants. Stop by the Career Development Center, 08 Parsons-Gates, for more information.

The College Women's Club of Pasadena

is offering scholarships for 1991-92 to full-time undergraduate students. You may apply for a \$2,000 award which may be used for tuition/fees. Full-time graduate students may apply for fellowships of \$3,000. Application forms and instructions are available in the Financial Aid Office. Completed applications, including an academic transcript, current course list, and three recommendations are due in the Financial Aid Office by February 1. One graduate and one undergraduate will be selected from the applicant pool and then submitted to the College Women's Club by their February 15 deadline. (Note revised date)

The American Electroplaters and Surface Finishing Society (AESF)

has scholarship awards available for undergraduates in at least their junior year in a chemistry, chemical engineering, environmental engineering, metallurgy, or materials science program and graduates enrolled in a program leading to a master's or Ph.D. degree. Award selections will be based on, but not limited to: career interest in surface finishing technologies, scholarship, achievement, motivation, and potential. Awards are not necessarily based on financial need. Applications must be postmarked by April 15, 1991.

CLASSIFIED ADS

HELP WANTED—

TEACHING ASSISTANTS NEEDED to tutor students by phone. Teaching Assistants needed in Computer Science and Computer Engineering and Electrical and Mechanical Engineering. Tutor students by phone at your convenience to supplement your income. Send resume & transcripts to Carena del Uno, Kennedy-Western University, 28310 Roadside Dr., Agoura, CA 91301, 1-818-889-8443.

RECEIVE \$20 FOR PARTICIPATING in a study on work and marriage. Dual-earner couples wanted in which at least 1 spouse is a graduate student. (213) 326-6869.

FUNDRAISING—

FAST FUNDRAISING PROGRAM \$1000 in just one week. Earn up to \$1000 for your campus organization. Plus a chance at \$5000 more! This program works! No investment needed. Call 1-800-932-0528 Ext. 50

RATES: \$4.00 for first 30 words; .10¢ for each additional word. Send written ad with payment to 40-58. Deadline is 6 p.m., Monday before issue. No charge for on-campus lost & found.

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Scholarship Listings

The Financial Aid Office has applications and/or information on the following scholarships. All qualified students are encouraged to apply. Our office is located at 515 S. Wilson, second floor.

The Josephine de Karman Fellowship Trust has announced the availability of ten fellowships of \$6,000 each for 1991-92. The fellowships are available to students entering their senior undergraduate year and graduate students entering the terminal year of graduate school in the fall of 1991. The deadline to apply is January 31, 1991.

The Society for the Advancement of Material and Process Engineering has two undergraduate scholarship awards programs. One program is for the engineering student and the other is for the engineering technology student. Applicants must be full-time students and recommended by their department head or advisor. The deadline to apply is February 1, 1991.

The American Society of Naval Engineers has available scholarship awards of \$2,000 each for the 1991-92 academic year. Undergraduate awards are limited to a student's final one or two years of undergraduate education. Graduate support for studies leading to a master's degree are limited to one year. Applicants must be U.S. citizens and demonstrate a genuine interest in naval engineering. Deadline for application is February 15, 1991.

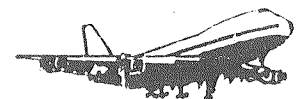
The Society of Women Engineers (SWE) is pleased to announce their 1991 Spring Scholarship Program. All qualified women engineering students are encouraged to apply. There are several scholarships with different qualifications. The deadline to apply is February 1, 1991.

The Marin Educational Foundation is offering Marin Educational Scholarships for undergraduate study for the 1991-92 academic year. Applicants must be Marin County residents and must be complete a FAF or SAAC. Deadline to apply is March 2, 1991.

If you have any questions, please come by the office or call x6280.

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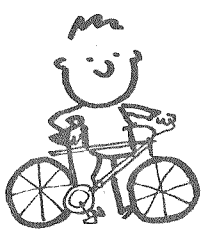
Where did we come from?
Why are we here?
Where are we going?

Formerly religious truths were intuitively perceived or taken wholly on faith as dogmas of the church. Today a growing class demands that immortality and kindred matters be proved to the intellect, deductively or by observation. They desire religion as much as their fathers, but want the ancient truths in modern dress, congruous to their altered intellectual condition. To this class the Rosicrucian Fellowship addresses itself with a definite, logical and sequential teaching concerning the origin, evolution and future development of the world and man. It is as strictly scientific as is reverently religious; a teaching which makes no statements not supported by reason and logic, which satisfies the mind by clear explanations, and offers a reasonable solution to sanction what the intellect believes, and solace of religion to give peace to the troubled mind and heart.

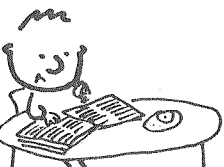
An introductory class in the Rosicrucian teachings is offered on Wednesdays at 7:30 P.M. There is no fee; it is offered on love-offering basis at the Pasadena Center, located at 1609 E. Walnut St. To register or for further information call 796-9755.

sports

I decided to get my bike out today.



The Homeboy Biathlon was listed as coming soon in the tech and I wanted to be ready.



Tony said he wanted to do the biathlon but couldn't run very well.



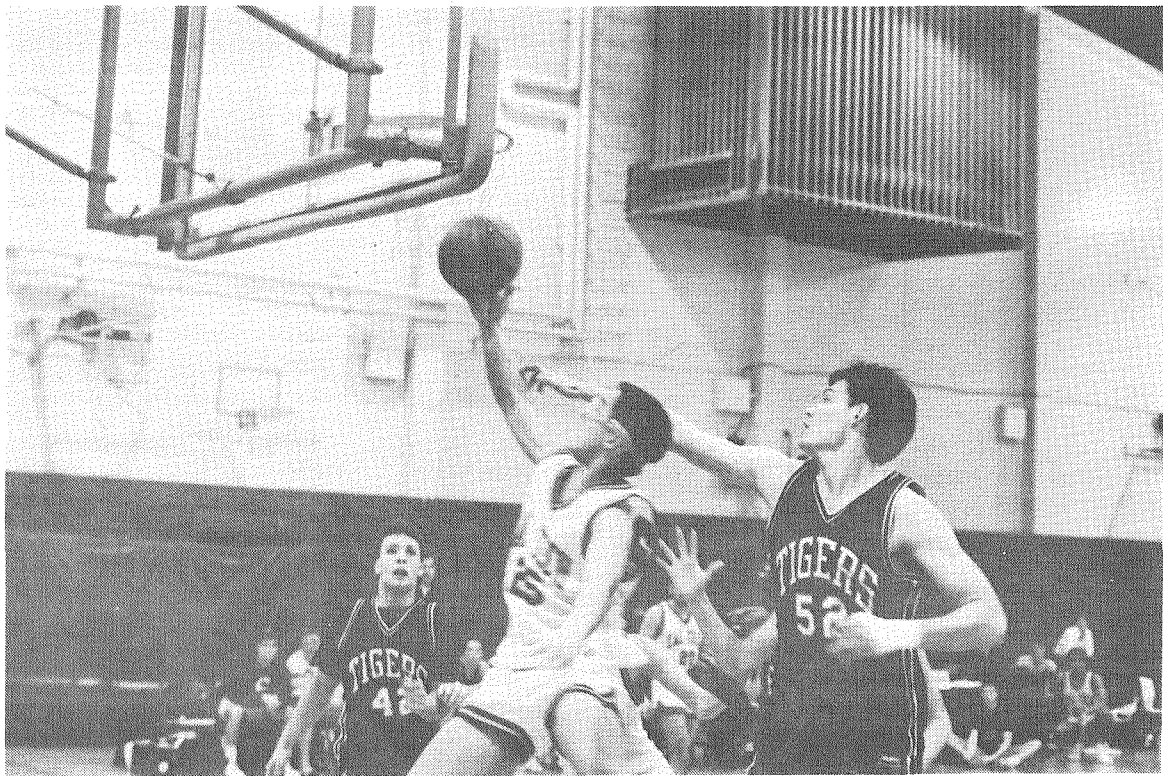
I told him Steve would be happy to be his relay partner.



MR Peterson says: The 2ND Caltech Club Homeboy Biathlon IS COMING ON February 2ND.



Free Food, Prizes, and special mountain bike division. Be there.



Varavut Limpasuvan scores a layup after a backdoor cut against the Occidental Tigers. Oxy won the game 109-50.

Photo by Hampden Kuhns

Caltech Skates Past USC 10-1

by Jim Caron

Coming off a six week break the Caltech hockey team easily beat the USC Trojans 10-1 Wednesday night at the Pasadena Arena. Caltech looked a little sluggish and their passes and plays were not clicking as they once did in early December.

However, considering they only had one practice in preparation for the game, the team did not look bad. Fortunately, the Beavers have another practice before they take on UCLA next Wednesday night in Pasadena at 9:30 PM.

Standing out for Caltech against USC was freshman Max Heitz-

mann. Heitzmann scored three goals to help push Caltech past USC. His third and prettiest goal served as a heartbreaker with a minute to play in the game. Heitzmann stole the puck and left a USC defenseman flatfooted and went in alone on the goaltender to score.

Bridge By Sam

by Sam Dinkin

- ♦ AT63
- ♥ T85
- ♦ 4
- ♦ A9842
- ♦ Q72
- ♥ AJ3
- ♦ AQT92
- ♦ J6
- ♦ 4
- ♥ Q94
- ♦ KJ763
- ♦ Q753
- ♦ KJ985
- ♥ K762
- ♦ 85
- ♦ K5

Vul: Mr. Bennett

Mr. Bennet 1♦
Pass
Opening lead: A♦

Mr Hoffman 2♦
Pass

Mrs. Bennett 4♦
Pass

Mrs. Hoffman Pass

On the evening of September 29, 1929, Myrtle and John Bennett invited Myrna and Charles Hoffman over for an evening of rubber bridge. After the score against the Bennetts mounted up, this fatal hand was dealt.

After going down one in four spades, Mrs. Bennett called John a "bum bridge player." Mr. Bennett came right back at her, reached

across the table and slapped her several times. She repeated, "Nobody but a bum would hit a woman," and her husband jumped up and shouted, "I'm going to spend the night at a hotel. And tomorrow I'm leaving town." (John was scheduled to leave on a business trip anyway.)

Mrs. Bennett told the Hoffmans that they had better go. As they were leaving, Mrs. Bennett went to her mother's room and got a loaded automatic revolver. She then shot Mr. Bennett four times while he was packing.

Mrs. Bennett hired a three time Senator from Missouri to represent her. The jury deliberated for eight hours and it was rumored that three members of the jury learned bridge in the jury room. Mrs. Bennett was acquitted and collected \$30,000 on Mr. Bennett's insurance policy.

This Saturday you can see the Bennett murder hand (or at least a reconstruction because none of the players were good enough to remember the hand) on the tournament t-shirts. In Chandler at 1:00 PM, tomorrow, several local professional bridge players will play here along with the UCLA and Caltech clubs. This is a great opportunity to kibitz.

Making a debut for the Caltech was Curt Stephens. Stephens was recently playing Junior AAA hockey for the Ottawa Rugmunchers which serves as Caltech's secondary team. Coach George Yates gave him the call to play in Wednesday's game because he needed a feisty, hard-nosed right winger with quick moves that can score goals.

Stephens, who can barely speak English and speaks with a thick French-Canadian accent with five missing teeth, scored two goals for the Beavers and has seemed to have earned a spot on the team. Yates admitted after the game that he was taking a chance with Stephens considering his past record of violence on the ice.

Stephens had previously been suspended for slashing a referee

and verbally and physically assaulting two spectators. In general, Stephens name reads like rash over every post game score sheet for penalties.

Also scoring was Jim Bower, a very physical and defensive minded defenseman. His goal came late in the third period when Haj Sano fed him the puck at the blue line after a face-off. Bower wasted no time in blasting his 130 m.p.h. slapshot into the top right corner of the net.

Caltech is in second place so far this season behind U.C. San Diego. The Beaver have only one more home game on January 23 at 9:30 PM against UCLA before embarking on a four game road trip. Caltech has not yet played UCLA this season and it should prove to be a good game.

WEEKLY SPORTS CALENDAR

Day	Date	Time	Sport	Opponent	Location
Fri.	Jan 18	5:00 pm	Basketball—JV	Claremont-Mudd	Claremont-Mudd
Sat.	Jan 19	11:00 am	Swimming	Pomona-Pitzer	Whittier
Sat.	Jan 19	5:30 pm	Basketball - JV	Whittier	Caltech
Sat.	Jan 19	7:30 pm	Basketball	Whittier	Caltech
Wed.	Jan 23	5:30 pm	Basketball—JV	La Verne	La Verne
Wed.	Jan 23	7:30 pm	Basketball—V	La Verne	La Verne
Wed.	Jan 23	9:45 pm	Ice Hockey	U.C.L.A. #2	Pasadena Ice Center
Thu.	Jan 24	3:30 pm	Swimming	Colorado College & Oxy	Caltech
Sat.	Jan 26	11:00 am	Swimming	Redlands	Caltech
Sat.	Jan 26	1:00 pm	Fencing	UCSB	Cal Poly Pomona
Sat.	Jan 26	5:30 pm	Basketball—JV	Cal Lutheran	Caltech
Sat.	Jan 26	7:30 pm	Basketball—V	Cal Lutheran	Caltech
Sat.	Jan 26	10:00 pm	Ice Hockey	U.C. Davis	Stockton
Sun.	Jan 27	7:00 am	Ice Hockey	U.C. Davis	Stockton

WEEKLY SPORTS RESULTS

Day	Date	Sport	Opponent	Results
Sat.	Jan 12	Basketball	Pomona-Pitzer	29-67
Wed.	Jan 16	Ice Hockey	USC	10-1
Wed.	Jan 16	Basketball	Occidental	50-109

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Ballroom Dancing
Starting this Thursday, Jan. 24, the Caltech Y will be sponsoring free ballroom dance lessons. Back by popular demand, students will be given lessons in waltz, foxtrot, cha-cha, swing, and rhumba. The classes will be taught by intermediate/advanced-level Caltech students Sonny Arcilla and Jessica Barnett, along with several assistant instructors. Classes will be held from 7:00-8:30pm on Thursday nights in Winnett Center, though the first one will be held in Dabney lounge. There is no sign-up, so get there early to secure a spot.

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