

RF's Stung By IHC

by Larry Friedrich
As most of you are aware, the end of October saw a sudden increase in RF's in the student houses. Flags, Fingles, and furniture disappeared from their normal haunts, causing a lot of angry feelings and creating a better role for Mike Pearson in the Interhouse play. The IHC quickly took the case. Little did we know that the trail of clues would lead us deep into the seamy world that is called "Caltech".

Several hours of clandestine meetings were held in an effort to cut off this latest crime wave before it could take root (It should be noted, as a aside, that an immediate consequence of this was a marked increase in the number of BOC meetings, proving once again that the IHC cannot hold a candle to the BOC when it comes to secrecy and intrigue). There was no telling how many innocent lives would be endangered if this new evil force got a stranglehold on the population.

With an urgency and singlemindedness never before displayed by the IHC [more often, they display nullmindedness—eds.], the following resolution concerning RF's was hammered out and approved by the IHC. Thanks to dedication, and undying faith in democracy, the Olive Walk is once again safe to walk on, and people everywhere can breathe a sigh of relief, because the IHC has made the campus a better place to live.

Resolution 1
1.) This resolution shall constitute the official IHC policy concerning RF's and shall be considered in effect immediate-

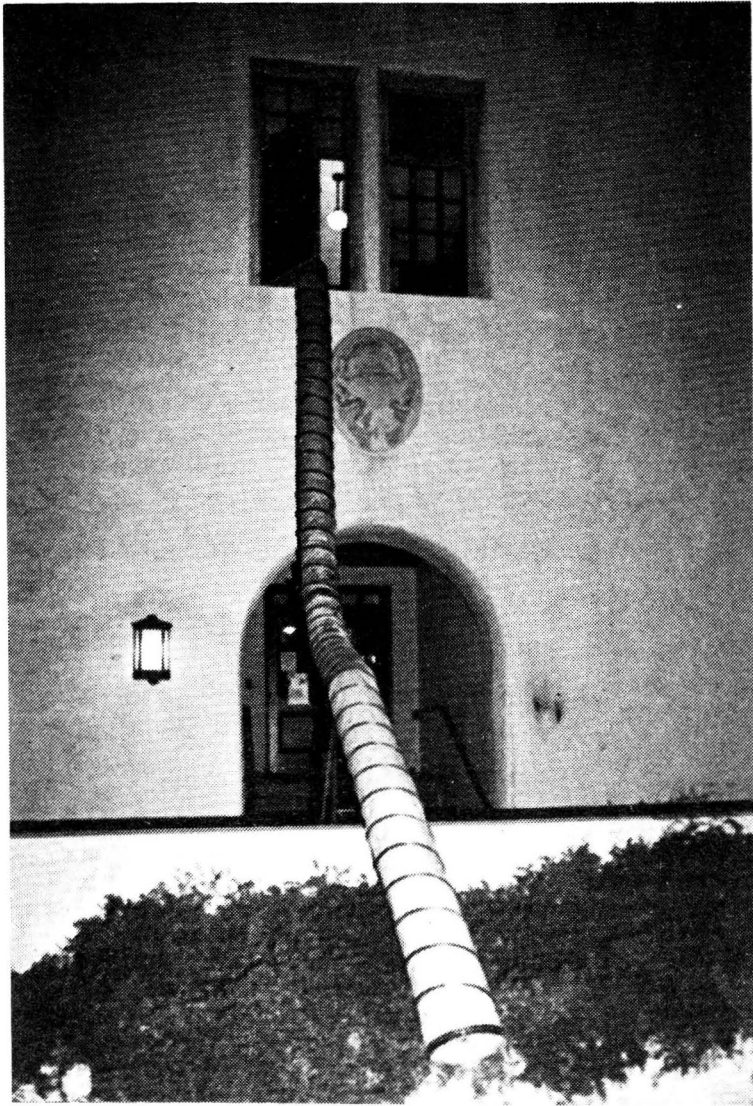
Festival of Lights

(CNB)—The Festival of Light, a Caltech annual tradition, will be celebrated this year at Beckman Auditorium on four occasions: Friday, December 5 at 8 pm; Saturday, December 6 at 4 pm and 8 pm; and Sunday, December 7 at 4 pm.

"And let there be light!"—the Star of Bethlehem—the idea of light as spiritual symbolizing—are but a few of the historic and cultural reasons for referring to Christmas as "The Season of Light" and to Hanukkah as the Jewish "Feast of Lights."

This year the two religious holidays will again be honored at Caltech in stirring pageantry and moving choral music. Over 100 performers, including the

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ON PAGE 4



News flash: the Horizontal Pillar was last seen climbing into a window in Kerckhoff to escape the power saw of Jud Fine.

ly upon ratification by the IHC.
2.) All RF's committed by one house against another house are to be signed by the house responsible for the RF. Any note claiming house responsibility left in a conspicuous place in the RF'ed house shall be acceptable for the purpose of this section.
3.) The president of the RF'ing house shall know about the RF in advance of the event, and shall approve of the RF

before it takes place.
4.) Institute property shall not be the object of an RF against a house.
5.) The IHC shall have jurisdiction over RF's between houses and is specifically empowered to act as it sees fit in matters concerning the RF'ing of one house by another. The IHC shall not have jurisdiction over, nor will it concern itself with, any RF other than RF's committed by one house against another.

* all the news that fits in print *

Now its Putnam time
The Putnam exam, a national math competition for undergrads, will be given in Baxter, Dec. 6, for 9-12 ad 2-5. Interested undergraduates show up on first floor of Baxter at 8:45AM There will probably be extra exams, so students who did not sign up can compete. Do not bring paper or calculators, only pencils and erasers. Scratch paper and extra pencils will be provided.

Space Cadets
If you know the value of non-contradictory definitions and/or have the courage to trust your own judgements, and want to see free enterprise get into space, contact us by calling 793-4922 or writing to 130 S. Meredith, Pasadena, apt 6. L. Johansen and P. Diffendaffer. Please respond by Saturday evening if convenient.

Calendar Listing
Baxter Art Gallery
10 December, 1980
Opening Exhibition "Terry Allen (part of and some in betweens)". Drawings, prints, paintings, sculpture, video, and installation by the artist through 25 January, 1981—Open DAILY, noon to 5PM

9 December—Tuesday
12 Noon—Docent tour of "Terry Allen (part of and some in betweens)" led by Michael Smith, Director.
Baxter Art Gallery
5 to 8PM—Preview reception for the artist. Refreshments. Sponsored by the Pasadena Art Alliance.

*Special events scheduled
Every Tuesday throughout exhibition. Call x1371 for any further information.

Experiments Chosen for SSO

By John Whitehead
The Student Space Organization has fulfilled its first term goal. We have chosen six experiments to be done in two small self contain-

Update of Game Room on Cue

By Eric Korévaar
The Caltech Gameroom is located in the basement of Winnett Center. To get a key to the gameroom and Y Xerox room, see Theresa Meisling in her office in Winnett 105. Recently, new ping-pong balls and pool cues were purchased, so the gameroom is in better shape than it has been for a while. There are more ping-pong balls, and replacement tips for the pool cues in Theresa's office, so if anything needs to be replaced or fixed, this should be brought to her attention or the attention of one of the gameroom chairmen. There are four new pool cues in the gameroom presently. There were a number of slightly broken cues down there previously, and I have materials to fix some of them. Therefore, I would appreciate it if these are returned to the gameroom. If anyone has suggestions for improvements that can be done on a small budget, please see me or leave me a note [Sell some of the fifteen cans of shuffleboard powder and the over two hundred pieces of slightly used pool chalk—eds.].

ed payloads to be flown by the Space Shuttle. These experiments are described in detail in our recent status report which is available in the SSO office, 0014A Thomas. Also within the report is a long term budget proposal of over \$100,000. Ralph Weeks, the Project Manager, is working with people in the Development and Alumni Offices and President Goldberger, all of whom are helping him explore corporate sources of funding.

The main work second term will consist of further theoretical planning, and design, building, and testing of prototype experiment hardware. People on the experiment teams will receive academic credit through such courses as ME 100 and MS 100 (in the catalog you will find many similar independent courses with flexible definitions). All expenses incurred by students working on projects approved by the SSO Board of Directors will be covered by our funding.

SSO meets Thursdays at 5:15 pm in 210 Thomas. At the first meeting of second term (January 8), the experiment teams will be reorganized. Anyone interested in working second term should come to this meeting to discuss his/her interests with the team leaders. The team leaders will help arrange for academic credit by meeting with the appropriate professor(s). Further SSO news will be noted on the blackboards and bulletin boards in 0014A Thomas. Feel free to stop by the office at any time, but do not borrow anything without authorization, and respect the rights of the graduate students in the outer office.

CRASH
There will be a meeting of those people still interested in CRASH (the Caltech Redesigned Aeroplane with Student's Hindsight) at 9:00PM in Clubroom 2 of Winnet. There will be a discussion of the priorities and goals of the CRASH program. Those people who are already in CRASH should bring any material which they have researched, and be prepared to discuss it. People who are not in CRASH, but are curious about it anyways are welcome to attend. Remember, a man-powered aircraft needs men to power it.

Improve Circulation
Those on-campus Tech subscribers who have not yet returned their circulation update forms, please do so as soon as possible. I cannot make new circulation lists until the forms are returned.
Paul Eskridge
Circulation Manager

Personals
To the person who borrowed my AMA 95 notes as part of an alley challenge;
I WANT 'EM BACK!
Kathy Doughty
Ricketts 12

Boberto,
C'est magnifique...c'est bon bon...ze essence from Parea. Merci Beaucoup, monsieur.
Did you know that a Frenchman only has one egg for breakfast because only one egg is an oeuf?
Au revoir!

24-Hour Relay Lost and Found
If you are missing anything from last year's 24-Hour Relay, like a brown sleeping bag or a chess set, please see Eric Korevaar in Page 209.

EDITORIAL

COMMENTARY



As finals week approaches, many students find themselves in the position of having to complete a term's worth of work in only a few days. As a result of this, the consumption of coffee, cigarettes, and other stimulants increases dramatically. Rather than destroying one's body, one should follow this more successful technique. Fold the above Tibetan mandala and keep it on one's person. Periodically voice these two dharanis, eight times each, as an empowerment of Body, Speech, and Mind: (1) *yada-yada-yada-gana-mala-yada*, and (2) *zi-ma-zi-ma-sa-la-zi-ma*. This will guarantee high achievement on one's finals as well as general protection.

—Stuart Goodnick

A for the Term

To the Editor:

I disagree with Phil Albert's petty criticism of the editing of *The Tech* in the last issue. Adding one word in italics to an article is scarcely "irresponsible" or "thoughtless".

The general opinion of the *Tech* staff as expressed in class [Lit 15] is that the November 14 Interhouse article written by Albert was ridiculously biased. Fleming did have an impressive Interhouse, but it certainly did not outclass all of the others, such as Blacker and Ruddock. "...nearly the significance of a Broadway play."? Fleming's play was a crude comedy without a single point applicable outside of Pasadena. It

was meant to be funny, not profound. Rudock's luckless Loch Ness likeness was still as good as or better than the Cambodia scene; at least you could walk on the bridge.

Our responsibility is to write for the whole school, not just for our own house. The editors are there as guardians against distortion. I have had entire paragraphs castrated from my articles. A little dig at a pompous article is no reason to cry. The editorial staff is too overworked to do more than meatball editing, so if you want to protect your articles, you should join them instead of insulting them.

—Lee Sunderlin

Recently there has been more talk of legislation aimed at forcing motorcycle riders to wear helmets. This self-righteous, fuzzy-headed preaching could only come from those for whom a helmet would be like a chastity belt on Xaviera Hollander. These misguided clowns seem to "think" along two main lines: 1) Bikers aren't smart enough to know what's good for them; and 2) they're damaging the economy. First, the economics. If about nine out of ten thousand riders die yearly when there are no helmet laws, and only three out of ten thousand die when helmet use is mandatory, then the economy loses about 500,000 dollars per rider in unearned wages. Not only is this argument grotesque because it ignores the *human* issues, but it is economically skewed as well. Consider the number of people who make money on motorcycle ac-

idents: Insurance companies keep thousands in jobs; lawyers make millions every year; and doctors, nurses, and medical supply companies profit from these deaths. And to make the whole thing even more ridiculous, compare this sum of money to the billions America spends every year on such things as scented antiperspirants and disposable douches.

Despite the inanity of the economic argument for helmet laws, the worst part is that it ignores the *real* question: Is there a justification for legislating against the harmless habits of any group of citizens? By harmless I mean that the danger is all to the person who has *chosen* to take the risk. Motorcycle riding is, indeed, a dangerous sport, but the danger is all to the rider. If a biker crashes into a car it is the cyclist who suffers. I ride motorcycles, and I wear a

helmet when I do, but I sure don't want some fat-assed senator in Sacramento (or Washington) telling me that I *have* to.

It's pretty clear that those who ride motorcycles do so for the joy of it and not because it's more convenient. Bikes may be a little bit cheaper to operate than a car, but they're no use at all in bad weather or for getting the groceries. Riding is the pure thrill of going fast: leaning the bike over into a turn—seeing and *feeling* the wind and pavement rush past. Aldous Huxley said that speed is the only twentieth-century sin, and he was probably right. But I don't care if it's sinful or not. In a society as complex and close packed as ours it's getting hard to find that kind of freedom, and we

CONTINUED ON PAGE 8

LETTERS

VAX: = PDP - 10

To: GRIPE
cc: THE CALIFORNIA TECH
Subject: VAX Reliability

One of the reasons cited while the PDP-10 was still around for getting the VAXen rather than some other computer system was the fact that the VAX has "modern peripherals." May I suggest that you have been had. The PDP-10 at its worst was no less reliable than the VAXen have

proven to be, and by far most of the down-time of the VAXen has been due to the failure of their "modern peripherals." If failures have, in fact, been due not to the hardware of the VAXen, but rather to operator error, then may I suggest that "modern peripherals" probably deserve modern, competent operators.

—Carl J Lydick

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THE CALTECH Y fly-by

Today, Friday, December 5: a NOON CONCERT with the Caltech Jazz Band. The concert will begin promptly at 12 noon and will end by 1 o'clock. Let this band jazz up your lunch time, and enjoy the company of Pretty Pat out on the Quad. Bring your lunch.

Saturday, December 6: the trip to the Kings vs. Islanders HOCKEY GAME leaves from behind Winnett Center at 5:30 P.M. Those 12 lucky people who won the lottery for tickets on Thursday are reminded to rendezvous with their transportation on time.

Saturday, December 13: DECOMPRESSION. Festivities begin at 8:30 P.M. and will go on until 1:30 A.M. Come and relax, detach yourself from the academic life, and enjoy the Caltech Y award-winning films starring Rocky and Bullwinkle. Remember the free munchies and intellectual games which will be available!

The California Tech

Friday, Dec. 5, 1980

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The Body Shop

Kissing, snuggling, ah... a great way to spend a chilly, crisp, clear evening. Inspiration Point, roof of Beckman Lab, wherever—intimacy sweet, sweet... what? You have what? Mono? Oh ---!

Unfortunately, mononucleosis is a disease that usually occurs in patients between 12 and 25 years old, and is not extinct in Techers. Mono is a self-limiting disease and in most cases does not deserve its notorious reputation. It is surrounded by useless, at times dangerous myths, which I'd like to get rid of once and for all!

MYTH: Mononucleosis is highly contagious.

FACT: It is rarely transmitted by casual exposure.

Mononucleosis has been traced to the Epstein-Barr virus, which is found in moist exhaled air and nasal-pharyngeal secretions. It is not as contagious as some other viruses, but may be transmitted by close contact. This explains the origin of mono's nickname as the "kissing disease". There is no known prevention for mono, and isolation is not indicated. You will not get mono by sitting in the same room with someone who has it. Careful investigations have repeatedly demonstrated that roommates of students with mono stand no greater chance of contracting the disease than does anyone else of the same age.

MYTH: Mononucleosis is a serious disease.

FACT: The typical case of infectious mono is not much more serious than a bad cold.

Because mono involves the blood-forming organs of the body, enlargement of the liver and/or spleen may occur. Involvement of these organs is part of the disease and not a complication. Few complications occur.

MYTH: Mononucleosis may be chronic or recurrent.

FACT: Recurrence of confirmed mononucleosis is rare.

Research has shown that lasting immunity occurs after recovery from mono and persists for life.

MYTH: There are medicines to "cure" mono.

FACT: Wrong.

There is no medicine to "cure" mono. As mono is caused by a virus, the treatment is "symptomatic". This means treating the symptoms you have, as you would any other viral upper respiratory infection. In approximately 20-30% of people who have mono there is a concurrent bacterial throat infection or strep throat. This is detected by a throat culture and indicates antibiotic therapy. However, antibiotics

will not cure or eliminate those symptoms caused by the mono virus.

Some of the symptoms of mono include fatigue, headaches, loss of appetite, sore throat, tonsillar swelling, swollen glands in the neck (enlarged lymph nodes). A low grade fever occurs at first and then rises to above 100°. If you are experiencing any of these symptoms or are worried that you may have mono, come on over to the Health Center and let us answer your questions. The diagnosis is based on a person's symptoms and physical exam, and confirmed by lab tests.

If you have any questions about mono, or any other topic, write me and I'll get you an answer.

—Lynnette K. Wilmoth, R.N.
Health Center 1-8

P.S. For your body's sake, don't stop kissing!

Up From the Well

In view of the fact that Thanksgiving has already passed by the time this gets read, it would be really inappropriate to talk about turkeys and so forth, so, being the inherently tasteful person that I am, I refuse to even bring up the subject.

Anyway: what were you grateful for this past Thursday? For most of us, it was a welcome break in the trolling routine. (Dear Faculty: we oughta get together and do this more often). It also meant no food service, lots of sleep unless you had to do gobs of work, and for many a chance to get away from Tech.

Alright: so you stayed awake continuously from Wednesday to Sunday, you are still 200 hours behind schedule, you didn't eat anything the whole time except 4 boxes of Pop-Tarts, you didn't speak to a single person, and the world is getting fuzzier every minute. Betcha think I got a lotta nerve talking about gratefulness... and you're so right. Compared to the folks who originated the custom of

Thanksgiving, you and I and every single person here are living high in the sky (that's *not* a drug reference). Each of you lives in an optimized environment; each has the totally unlimited opportunities available at Tech, and if you really didn't like it here you could easily transfer to the place of your choosing. I am not saying that anyone who doesn't like it here should go away; I am merely pointing out the control over your destiny that you have; personally, said control may be one of the most valuable things I will mention.

Enough on that subject. The other thing I wanted to talk about is being "on time." More and more today, people worry about being "on time." Doctors collect money from worry—induced ulcers of these people. Ad men spend incredible sums and make incredible profits by convincing you and me of what is "current", "today", "modern", or "in season". How many of you notice the Christmas tree lots opening up before Thanksgiving? Talk about gross... I

Scholarships For Engineers Offered

Approximately \$30,000 in upper-division college engineering scholarships will be awarded in state and national competitions announced this week by the Consulting Engineers Association of California (CEAC).

Robert E. Randall of Randall/Lamb/Associates, San Diego, chairman of CEAC's statewide Scholarship Committee, said CEAC's Fifth Annual California Scholarship Competition is open to all engineering majors scheduled to enter, next fall, their final or next-to-

final year in 26 California schools accredited by the Accreditation Board for Engineering and Technology.

Applicants, Randall said, will be judged on scholastic as well as extracurricular attainment and must have an interest in the private practice of consulting engineering as a possible career.

CEAC will announce up to \$7,000 in numerous state awards next March, and then enter the winners in a national competition where they will compete for one \$4,000 scholarship and approximately \$20,000 in smaller awards to be made by the American Consulting Engineers Council, Washington, D.C.

Applications, available in all engineering schools—as well as at CEAC's headquarters office, 433 Airport Blvd., Suite 303, Burlingame, CA 94010—must be in CEAC's office by February 20, 1981. State winners will be announced in early March; national winners, in April.

Implementing the California scholarship program is the CEAC committee of 26 owners and executives of CEAC member firms, who provide personal liaison with the state's colleges and universities.

.....
would like to diffidently suggest to the whole world that, were more time devoted to quality and less to being prompt, and were less significance attached to the promptness of any process, life would exist on a more comfortable plane, with fewer ulcers (All you profs out there—can you here me?) Today, sit down, slow down, unwind, and take a little time out to enjoy now, rather than worrying about how you will cope with the future in every little phase of existence.
The snowline is currently at 17,000 feet. See ya there!
—the realist

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ENTERTAINMENT

MOVIES plays SPECIAL EVENTS

Springsteen's River Runs Smooth but Dry

The *River* doesn't have enough material for two full records. As a single disc it would have been a tribute to Springsteen's great talent, but as it is, complete with picture liners, lyric sheet, and loaded down with several dead weight songs, the two record set seems self-important, and mildly pretentious. "I'm a Rocker", "Cadillac Ranch", "You Can Look (But You Better Not Touch)", and "Crush On You" have none of the imagery or simple, direct beauty that are Springsteen at his best. *Ooh, ooh I gotta crush on you Ooh, ooh I gotta crush on you Ooh, ooh I gotta crush on you tonight.*

This sort of mindless garbage would seem fitting from the Bay City Rollers or some other such teenbeat, heartthrob band, but from Springsteen it's a shocking waste of his fine talent. At his best, the Boss is a true lyric poet with driving musical rhythm, but—with the exception of "Sherry Darling"—his attempt to write 50's style ya-ya's fails. Too many "little darlin's", "little girlie's", and boom, boom, booms.

Well, that's certainly enough bitching about what's wrong with the set, because there's plenty right with it. "Ramrod" moves like a runaway truck: fast, and with backbeat drums that mesh perfectly with a farfisa organ and the Boss's deep, growling vocal delivery. The band gets a good chance to show off here, as it seems everyone is playing hell-bent balls-to-the-wall boogie. Clarence "Big Man"

Clemons plays sax like a demon while Bittan and Federici run wild on the keyboards.

"Sherry Darlin'" is the one fifties style song in the set that really succeeds. It would be easy to convince people that it is, indeed, a remake of some long-buried oldie and goldie. It just has that "classic" sound to it. Springsteen's been playing "Sherry" in concert for quite some time now, and I'm glad to have something better than my "microphone-hidden-in-a-garbage-can" style bootleg recording. The sheer enthusiasm of the concert performances make it very hard for a studio job to compete, but in "Sherry", it happens with flair.

In "Stolen Car", the lyric imagery is singular and direct: he says enough, but not too much—leaving an aftertaste that lingers long when the music is over. This allows us to discover something new in it each time, and in this way the song can grow, rather than get worn out. It is much like Thomas Hardy's "Faintheart in a Railway Station"—

*And I'm driving a stolen car
On a pitch black night
And I'm telling myself I'm gonna be alright
But I ride by night and I travel in fear
That in this darkness I will disappear*

But the heart of this record is "The River". The Boss has always been champion of the overworked and trapped hardhat/blue-collar life—his songs are those of hope and defiance when there is no cause for it, monuments to those

who work in factories and steel mills: born to run. Quite naturally, his great symbols of freedom have been the beautiful girl and the Hemi-head Dodge. With *The River*, he expands these metaphors into something more subtle; the discovery of love and freedom to escape from

*Down in the valley
Where mister, when you're young
They bring you up to do like your daddy done.*

The longing in his voice lets us know that he was there, and that this is oh, so real. *But I remember us riding in my brother's car
Her body tan and wet down at the reservoir.*

*At night on them banks I'd lie awake
And pull her close just to feel each breath she'd take*

But now the River is dry, and we hear the soul of an older, and perhaps wiser, man.

—Bruce Sams

Lights

from one

Men's and Women's Glee Clubs, the Apollo Singers and the Chamber Choir, will harmonize the season's deep-rooted feeling in glorious music symbolizing centuries of communal ritual and spirituality.

Tickets are available at all Mutual and Ticketron agencies, and at the Caltech Ticket Office, 332 S. Michigan Avenue, just north of the Caltech campus. For further information, phone 793-7043.

Sushi OR NOT Sushi

If you like Japanese food then it's probably a little disappointing to be in Pasadena. If you want real food, it's hard to avoid driving, but if you're one of those few Caltech students who either a) owns a car, or b) likes to run long distances through traffic, you should definitely enjoy going to Hanabishi in downtown L.A. for some hot sake and a delicious platter of sushi.

Sushi are a Japanese *hors d'oeuvre* made of sweet rice rolled into a ball and overlaid with some sort of raw seafood. Although the uninitiated may be a bit squeamish at first, they'll quickly find that whether the topping is shrimp, fish roe, tuna, or octopus, the taste is uniformly fantastic. There's some spicy green mustard between the rice and the fish, so watch out. If you don't like horseradish, ask them to make it without—then you can spice them up as you please. Although I just called them *hors d'oeuvre*, sushi are an excellent light meal, and they're not too outrageously priced, either. Six dollars will get you a good bit of food, including a soup, and that seems quite reasonable in these days of spending five at Burger Continental for something of an unaesthetic nature. The sashimi (raw fish) is rumored to be excellent, but they were sold out when I went (which lends strength to the claim).

The shrimp tempura was average, neither too greasy nor too much of it, and the beef teriyaki was about the same. Clearly this is a good place to go for relaxing, and having some sushi, but I wouldn't recommend their other dishes.

Hanabishi is open till 11 Friday through Wednesday, and they're in Japantown, so it's fun just to walk around. A very healthy break from Caltech, Saga, and Pasadena.

—Bruce Sams

The Fat Man Cometh

Pallid, blotchy carp slide through murk like motions of thoughts upon the surface of an evil mind. Tendrils of cloud clutch at the sickly moon. A shimmering net of reflections draws tight about the sole, dimmer light. The light goes out. The moon drowns. The carp scatter into darkness. The fat man is here to feed the fish.

Suddenly, a neon comet lights the sky with a commercial message written in squeem, leaving but a growl of thunder. The ensuing pause of silence is even more dramatic.

The fat man's faithful European vegetable bat lands on his molten shoulder and nibbles affectionately at a bloated ear. He gestures theatrically across the water. Breadcrumbs fly from his fingers and attract a black koi who deigns to scoop up a mouthful. His followers finish the remains.

"Hear me!" he croons, as more crumbs, Doritos now, fall from his puffy, yellow-mottled fingers. "You twisted, disgusting carp, you treacherous, fallen koi, you false sons of the One-Below-All-Whose-Behind-is-Everything, accept this offering with my compliments!" He flings a loaf of stale pumpernickel, which falls to the bottom like a rock, but the fish go mad, so eager that they pile up to the point where their slimy backs rise out of the pond, glistening in self-luminescence. The bat sneezes.

"Batburps! Znats! Frog-gods of the world unite!" Producing a mildewed clasp envelope crawling with the dreaded Spanish dancer ants, he casually brushes the insects away. At the sight, the bat chitters nervously. To calm it, he throws into the air, a marshmallow soaked in loquat-rhubarb juice.

"I now will enable you to fulfill your mission, free of the suspicion your present appearance brings you." He uses the secret decoder ring on his left pinky to pry open the clasp and shakes a little of the yellow, waxy powder on the dark waters. Where the powder

continued on page 5



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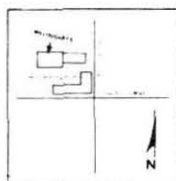


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Next Week

THE SEVEN-PER-CENT SOLUTION

The Iconoclast

Nearly every member of the Caltech community knows that the school motto is "The truth shall make you free." For those who have never wondered, the quote can be found in John 8:32 of the Bible (mine's a Revised Standard Version). The implication of the quote, associated as it is with a rather secular institution, is that somehow the student might find ultimate freedom through the textbook and classroom. If we read the surrounding biblical context of the quote, however, we learn that the 'truth' refers quite strictly to God's word as taught by Jesus to his disciples, and 'freedom' refers everlasting life and freedom from Satan's control. Sidestepping the sensitive issue of Caltech's seeming intent to equate its course material to the teachings of Jesus, I would like to discuss the nature of truth as seen from the scientific perspective.

I shall assume we all understand truth to be an absolute. Truth is irrefutable. Truth is reality, the way it is, the very stuff of existence. It would be wonderful indeed if one could incorporate truth into one's son or daughter by sending them to Caltech for four years. It would be a genuine bargain at \$32,708, seasonally adjusted for inflation.

What form does truth take here at Caltech? Aside from bull sessions at dawn, which might actually bear a significant relation to truth, the pillars of truth are of course the sciences. The grandfather of sciences, from which all lesser sciences spring forth, is physics, the science of physical existence. The roots of all sciences are anchored on the bedrock of physics. Well then, how do you know physics is true? Is it based on some more fundamental science? Mathematics, you say? Wrong! Mathematics is not even a science. The Feynman Lectures on Physics (Vol. I, p. 3-1) tell us that. They tell us that "the test of all knowledge is experi-

ment" (p. 1-1). They go on to tell us that we do not know all the laws, and that, philosophically, the physics we are taught is almost certain in some respects to be totally wrong.

If we can't deduce physics from true principles, how do we know any of it is true? Perhaps experiment can serve as the final arbiter of truth as well as the test of knowledge. Perhaps the scientific method can certify the truth of a proposition or law of physics. But the laws of physics keep changing! Besides, how do we even know the scientific method is true? Perhaps the test of the scientific method is experiment? That leads us in a circle. It involves the type of reasoning of "given that A is true, can we use that information to prove A is true?" I wish to state here in unequivocal terms that the scientific method is not true. It cannot in principle be proven. It is an article of faith.

The same can be said for the sciences in general. The laws of biology, chemistry, the social sciences, *et al*, are subject to change without notice. They are mythologies. They are the best we have, but they are far from being true. They offer a hodge-podge of statements about reality which are possibly true and possibly not. Our sacred truth is not a reliable absolute at all, merely a momentary triumph to be dismissed when it suits us.

If science is not true, what is? We cannot rely on deductive reasoning to show us the truth until we have at least one known truth from which to deduce others. Nor can we rely on inductive reasoning until we can be absolutely positive we have a means of obtaining provably correct data about something. The depth of our dilemma is illustrated by the philosophy of solipsism. It states that one cannot know anything but experience and, as a corollary, that nothing can be known of reality, even that it exists. It will be left to the reader to discern that this

philosophy is self-consistent and cannot be disproven. Not only is science not true; neither is conscious reality. Nothing is absolutely true except your experience, your sensation.

In John 8:32 Jesus tells us that there is a higher truth, God's Truth if you will. Study science at Caltech if it pleases you, but never forget that a higher truth exists and that only it can free you. It is not a truth of facts and figures. It is a truth of warmth and fellowship, of ideals and humility. It spans the ocean of humanity, whatever their beliefs, and makes them human. It is a quiet truth, a truth within, and it offers to each of us the only true freedom—freedom in spirit.

—Chuck Nichols

Fats

from four falls, a Vision appears of the present future illusion...a gentle green forest growing in the clear pond inhibited by shy little koi darting about...

"Surely the existence of the three-headed mirch is no longer in vain!" With the agility of a drunken rhinoceros, he lunges onto the rim and throws vast handfuls of the stuff onto the water. The fish swirl maniacally. The fat man dances insanely. The bat flies in lunatic patterns. Lightning strikes the nearest nine-story building in precisely the same spot as before. The steaming pool rolls about in its bed, splashing the fat man's stamping feet. The bat chooses exactly the wrong moment to land on his neck, upsetting his delicate lack of balance, and he lurches with a spasmodic squeak into the murk.

The fish churn the pond in their excitement. The water turns darker than ever, then calms, and returns to its original sliminess and sullen silence. A single carp breaks the stillness. The bat breaks wind.

—Didai Wraight Dhiss

**TOO MUCH
TOO REAL
TOO FAST!!!**

The following communication was received mentally from an entity identified only as "Flakey" and transcribed by its alter ego at an immense, though purely physical separation.

"I got into hard drugs when I was in high school—you know, acid, dust, downers, speed. For awhile I was pretty messed up, but then I started to straighten out—stopped using much, got a job, got accepted to this institute of higher learning. Wanted to make something out of myself—I guess I wanted to study science, or maybe engineering and get a good job somewhere. So hard to think...remember.

"Thought this school would be real serious, intellectual—boy was I wrong. After a while, I fell in with the wrong crowd...drinking, partying, smoking, at first I thought I could handle it. So confused—did I really think I could stop anytime? I just fell back into my old habits so easily.

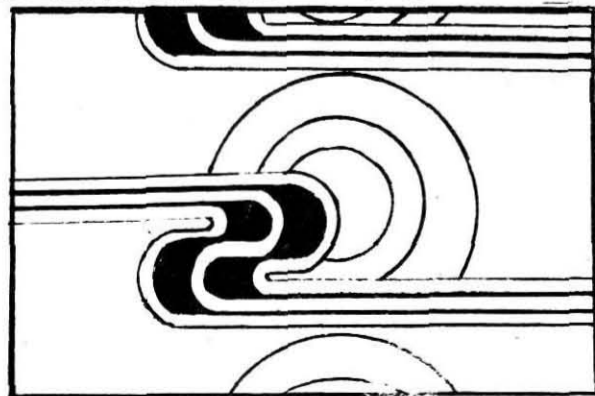
"Although I was determined not to mix drugs and studying, I noticed I was gradually losing my motivation. Must of been all that dope I was smoking. Trying to be straight for lectures and exams got harder and harder, but I clung to my old ideals. Then my favorite class, Physics 2 (Intro to Waves, Quantum Physics, and Statistical Mechanics), started getting into quantum mechanics, and I guess it was just too much for my drug-dope-dulled mind to cope with.

"One morning—was it only a few days ago—I was getting heavily into a phys lecture...slightly stoned, but that was no big deal for me. I thought I had everything under control. Suddenly I realized that for the past several

minutes nothing the lecturer had said or wrote seemed to make sense. Hardly a novel sensation for me in Phys 2...but this time seemed different somehow. There had obviously been a jarring discontinuity in my recent awareness—I couldn't go with it, my mind was just randomly generating thoughts. I was so confused, disoriented...was I really here, or lost in my imagination? I felt everyone could see my confusion, and looked around in panic. I felt the prof was addressing me directly, that beneath the absurdly simple Schrodinger equation (which I alone in the class was too stupid to grasp) lay allusions that he had geared to my life. He was making veiled references to the purpose of my life, to the meaning of all life, of the universe, of everything that is—and it was passing me by! If I could only comprehend why the second two terms in the matrix expansion of the conjugate momentum commutator cancelled out, I would have the secret of the universe within my reach. The meaning of life would be intuitively obvious! So I started to copy the equations on the board...but my perceptions turned around again, something was stopping me—the chalk—was it really different colors, and if so, why? Perhaps a carefully designed color code, addressing and instructing each group of cells in my brain by differential retinal stimulation, for optimum learning? Perhaps the choice of what color to write each equation in was carefully correlated to some vital property of those formulas, that I was as yet ignorant of...oh wait, I see now, the white chalk means

continued on page 8

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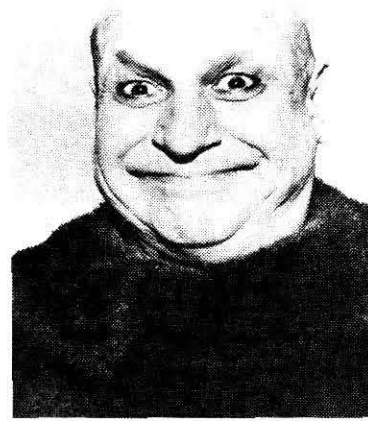
The Festering Wound

The trap of any fine journalist is to fall into a rut, and with this in mind, I must offer an explanation for this week's column. When embarking on the solemn quest of exploring the world's wonders, one invariably finds that most of them are viscous. Pus, bile, diarrhea, and countless other constituents of the grotesque are fluid, and the reader is warned not to dismiss this article on mucus as a simple reopening of pus. Mucus is *not* pus; there is a universe of difference between them, and to confuse the two is to deny their respective philosophical identities.

This column will deal with the mucus which is the gel-like material secreted by the body's mucus membranes,

but particular attention will center around nasal mucus. Mucus varies in color from clear to light green, and in some cases to opaque red, and it exists in two primary forms: the viscid or mucilaginous form found in the upper nasal passages, and the dried, solidified form that clings to the lower nose. The former we will refer to by the Russian term "Soply" (*S_o' pl _e*), while the latter will be called by its American name, "snot." The alert reader will have immediately seen that the contrast of hard and soft, of positive and negative, indicated with snot and soply actually implies the Taoist doctrine of Yin and Yang. Snot is the yang concept, the active, rigid, immutable reality; and soply is

the passive yin, pliable and adaptable, matter without form. This analogy does not stop here, however, for within each of our own polarities, we find this same dichotomy. Soply, being a sort of sticky, greenish jelly, can be thought of as oscillating between formlessness and rigidity. In context with its own reality, soply is rigid and unchanging, but when acted upon by an external entity, it assumes the passive role and conforms its shape accordingly. Snot, on the other hand, is well defined, but implicit in its structure is the ability to transform itself. As anyone who has rolled a piece of snot between his or her fingers, the delicate form of snot can be altered with proper stimulus. Thus both the yin and yang of mucus, respectively, imply the entire Taoist system, and this is the fundamental balance, the primordial symmetry crucial to understanding any philosophical system. This synthesis is best illustrated by



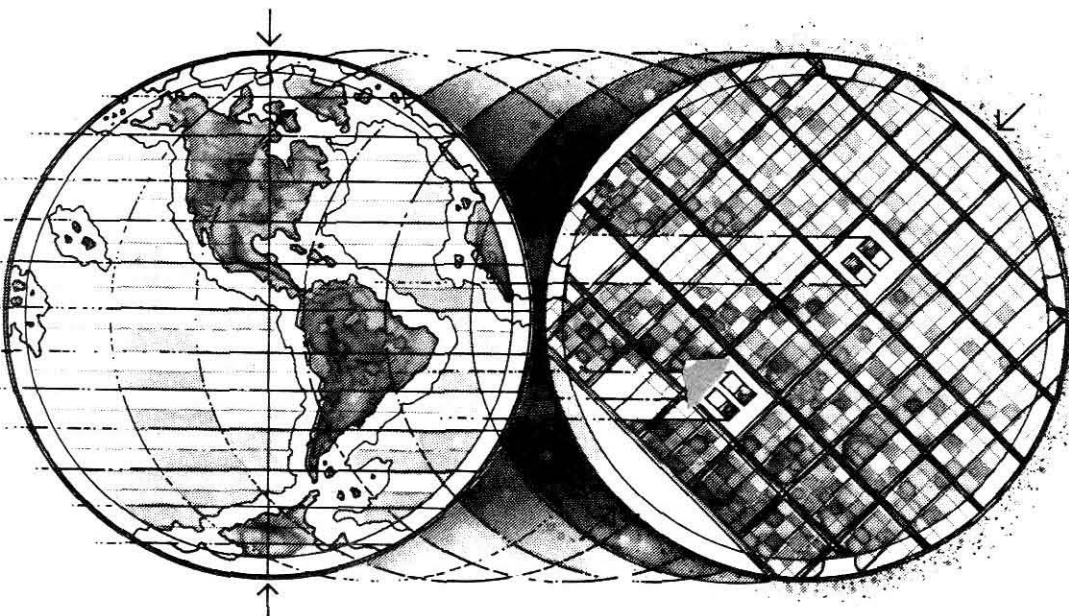
that form of mucus extracted from the nose in which half is snot and half is soply. When one examines this material on the end of the finger, one sees the extremes vary as the mind sifts through different experiences.

Snot and Soply also unify many of the early Greek schools of philosophy in terms of the elementals: earth, air,

water, and fire. When air and fire are mixed with soply, snot is the product, and snot results when snot is mixed with water and fire (since soply is warmer than snot). Earth, being independent of these processes, serves as the interface or focus of the ongoing transformation of yin into yang and yang into yin. Within the dynamic equilibrium of universal reality focusing on earth, we must ask the eternal philosophical question: what is the role of man in this scheme? Man is at the focus of reality; within him flows the standard from which existence assumes meaning. In this sense man's purpose in life is to be a vessel for mucus. While pus is the active renewal of life, mucus is the passive consequence of this, the life and being without form.

Humanity is generally obsessed with spiritual salvation, and to understand one's identity with mucus is to reach this nirvana. The eating of snot serves as an apt communion for it continues the change of snot into soply. The blowing of the nose onto the body likewise initiates the process of soply becoming snot. The synthesis of these two polarities provides the basis for the equilibrium that insures a healthy existence.

—Stuart Goodnick



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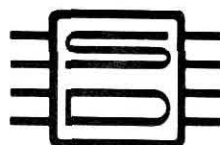
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Too Much Too Real

FROM FIVE

you need relativistic mechanics to derive it—orange refers to modifications in the equations required by quantization—yellow chalk means E-M radiation is involved.

"But that can't be right, I'm fucked again, right then one of the equations just changed color—How? That's weird, the pigment must contain unstable molecules, but I never heard of.

"My brain was abruptly wrenched back again (and didn't I love it) this time a force was pulling me back to reality, it was almost like a voice, a conversation, —yes! —I hear you.

"Hey stupid, that was really just an incredibly brilliant deduction, typical of your Saturday morning cartoon mentality towards physics. Now if only you'd studied the assigned reading, instead of snorting speed last night—"

"Who the fuck are you and how did you get into my mind?"

"I felt total panic—mind racing, Shrodinger equation forgotten for the moment, I awaited a reply.

"Haven't you ever heard the term "psychometric drug" before, moron? Your blundering attempts at chemical self-enlightenment have given you nothing more or less than a full-blown, classic case, honest-to-god split personality."

"I ignored the voice, believing it to be that of a lying

telepath. Impossible, I thought, that I could be having an acid flashback...it always happens to someone else. Back to the lecture—

"Oh wow man check out those angular momentum expressions—real cosmic—seeing them grow to intense psychedelic flower power mellow hippy 60's whirlygigs than slide and flow off the board to lie in molten pools of color and meaning at the prof's feet, and he doesn't even notice, just goes on writing more.

"Wait shouldn't there be a minus sign there? Negative numbers aren't real anyway. What is "real", though? Is physics real? Am I real? Maybe the minus sign was deliberately left out to test me! No one else is saying anything—obviously a conspiracy. I've gotta do something before it's too late.

"I seem to vaguely remember at that point trying to yell, 'You left out a sign', but somehow it came out 'Peace and love, get rid of the partials because they don't relate to the cosmic constants we are all seeking.'

"Two real grad students attempted to escort me out. The sight of the calculators on their belts drove me to a berserk frenzy. The last thing I remembered, before lapsing into unconsciousness, was screaming at them 'Relate to the cosmic unity and oneness of all minds by using lots of approximations—number crunching is unnatural!'"

* * * * *
This account of an actual mind-altering drug "flashback" represents only one of many recent drug-related crises, according to a physician at the

university's medical center. The psychologist, who wishes to remain anonymous, stated, "Thrill seeking youths ingest 200-1000 micrograms of the powerful hallucinogenic drug LSD with no thought of the dangers involved. We have seen many cases of accidents, bad "trips", and anti-social behavior. Confusion, delirium, psychotic violence, and suicidal behavior are some of the common side effects. Accidental death, murder, and permanent brain damage, are also frequent. We must educate our impressionable young students as to these dangers."

* * * * *
"I saw a headline in the paper the day after it happened. "Drug-Crazed Youth Disrupts Lecture at University". I couldn't even relate to it. Then my roommate, a truly hardcore specimen, came in and started talking to me.

"What's a flashback like? I've never had one, I don't think."

"It was just totally bizarre. I'll have to tell you all about it later though, because I'm supposed to see the school shrink now."

"Definite bumner. At least they're not going to press charges against you for creating a disturbance or trashing those grad turkeys."

"Yeah, it was an obvious case of temporary insanity."

"Oh, while you're at the medical center, you should try to rip off some intense chemicals for that party we're going to tonight."

"Right on, man. Much later."

"The session with the shrink went down like this:

He: You seem to have a problem. Care to talk about it with me?

Me: I have an addictive personality and I come from a broken home. My dad was an alky, my mom OD'ed on tranquilizers, my older brother died of hepatitis from a dirty needle, my little sister became a streetwalker to support her habit, and now I'm turning into a nutcase.

He: You kids are all alike. You think you're so tough and smart but when you finally realize how "messed up" you are you blame everybody but

yourselves. Why can't you get high on life?

Me: It was the oppression of the society that made me turn to drugs.

He: You think you know everything. You just won't believe anyone older and more experienced could know everything about life.

Me: I don't trust anyone over thirty.

He: You just need help, that's all. You can be cured. Why won't you let me help you? To prevent a recurrence of your flashback, you must abstain from all drugs from now on. Withdrawal from LSD is painful, I know, but with willpower, determination, and a firm moral character, it can be done. You must get a haircut, throw away all your faded jeans, stop listening to that acid rock music—

Me: If you straights were less uptight, your karma would be a lot better and everything would be mellower.

He: We seem to have a communication breakdown. Look, I'm sorry I put down your generation, but sometimes I get frustrated that you people just won't listen or even consider taking advice.

Me: If you took acid, man, you would be attuned to the universal oneness and be able to communicate with rocks and flowers and dogs and cats and cockroaches and stars and—

He: Let me appeal to your intelligence—

Me: Hey, like, are you being sarcastic or something? Like, saying I have no intelligence? I don't have to take this shit!

He: Oh dear, paranoid-hostility reaction. Very rare in chronic LSD addiction. Usually the victims tend to become introspective and passive—I believe the slang term is "laid-back"—oh I'm sorry to be discussing your case in front of you like this. By the way, before you run off, I have to tell you one thing—if you take any more LSD in the next eight hours—listen to me you fool this is really important—it will be an overdose, do you understand, *overdose*, and you'll get PERMANENT brain damage, do you hear me, I said permanent—wait a minute and listen, this is really a matter of life and death—. Stupid hippies."

To be continued. Any resemblance to actual institutions or living persons is purely coincidental.

—Flakey's Alter Ego

Cycle Helmets

FROM TWO

must treasure it. That feeling of freedom—to have been on the edge and to have come back—sends the blood rushing, the heart tachycardic, and lets the brain break on through.

Oh can you still recall the times we tried

To break on through to the other side

—Doon

The risk of riding is a risk that every cyclist knowingly takes. Everyone falls off, and everyone gets hurt. Anyway, I guess I'm wandering here but what I really wanted to say was "Screw off" to those pompous S.O.B.'s who are trying to take away another freedom in the sanctified and holy name of "Safe and Sane".

To demand that motorcycle riders wear helmets is to require that everyone "Watch your Step" or "Use Handrails". Helmets should be (and are) readily available at a modest cost, and for those who wear them they offer cheap insurance against the next bozo who runs a stop sign. But those who ride without find a vibrant life that is fast disappearing.

Are we children to be kept from dangerous toys?

—Bruce Sam

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