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MOVING ON

Swaroop Hebbale's friends still trying to cope

**By Sarah Marzen
and Marissa Cevallos**

STAFF WRITERS

A memorial service for Swaroop "Swoop" Hebbale is being planned for the end of this week by some of Swaroop's closest friends, one month after the sophomore unexpectedly collapsed in his room while joking around with friends.

Friends say the memorial service may provide some closure for those at Caltech still grieving over his death. Soon after midnight of December 12th, 2007, Swaroop returned to Ruddock after working on the ACM 95 final exam. In the middle of a conversation with his roommate, Swaroop suddenly collapsed near the door. The next morning, Swaroop's death was reported, both in person to friends gathered in his R.A.'s room and via email to the rest of campus.

Autopsy reports are inconclusive at best but have ruled out heart attack and aneurysm, leaving friends guessing at the cause of death. Swaroop's friends say he appeared in excellent health; he had worked out every morning with friend Fabian Dias, missing

only two weeks in the last six months.

The sophomore majoring in applied and computational mathematics was the Ath man for Ruddock House and a member of Nate Lewis' research group. Swaroop was admired by friends for his ability to lighten heavy situations with a well-placed joke.

Swaroop's close friends and acquaintances agree the death was shockingly sudden.

roop's death, a group called "R.I.P. Swaroop Hebbale" was started on Facebook; now the group has 871 members.

Christmas break

As Swaroop's Upper Classmate Counselor (UCC) Ila Varma put it, leaving Caltech just days after the death for the winter break was "a double-edged sword."

"You go to a place where you're the only one who knows what's going on," said Varma. "But you're with family, and they know how to take care of you best."

Caltech paid for several of his friends to fly to his funeral in Detroit, Michigan. This was good for them, says Swoop's roommate Brett Kassof, because "the funeral gave us some closure." Still, as Anthony Chong puts it, "Swoop was... my best friend. After something like this, life never really returns to normal."

Swaroop's friends wrote a eulogy together, which Chong delivered at the funeral. They plan to frame it for his parents. Ruddock House is also preparing a scrapbook for Swaroop's parents.

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"We want to remember him like he'd want to be remembered"

"The initial shock took several days to get over," said Anton Shuster, a friend of Swaroop.

Efforts to comfort those affected by Swaroop's death were underway soon after news of his death spread across campus. Fleming sent Ruddock a card, and Avery baked Ruddock cookies and fudge. Alan Pezeski, a friend in Ruddock and high school classmate, compiled stories and pictures about Swoop for a scrapbook. Soon after Sw-



Photo courtesy of Ruddock House

Swaroop Hebbale, a sophomore in Ruddock House, passed away days before winter break. A memorial service is planned for the end of the week.

Upbeat tune in JPL suit

By Natalya Kostandova

STAFF WRITER

Although there is still a long way until the lawsuit comes to its conclusion, this week's legal action ended on a high note for the plaintiffs from JPL. On Friday, a panel of the Federal Appeals Court for the Ninth Circuit ruled to implement an injunction against Caltech and NASA's enforcement of the Homeland Security Presidential Directive-12 (HSPD12), which will remain in place until the end of proceedings.

"This is a tremendous victory and I think it is a correct ruling, consistent with the rule of law," said Dan Stormer, plaintiff attorney, following the rul-

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Caltech replaces loans with scholarships

Financial aid packages becoming more generous, keeping up with other schools

By Marissa Cevallos

EDITOR

Incoming students with family incomes less than \$60,000 will find their loans melted away into scholarships when they receive financial aid packages in a few months—a perk that keeps Caltech aid competitive with rival institutions like Princeton, although still trailing behind Harvard.

The change is expected to affect 12 to 15 percent of each Caltech class, who will now meet tuition costs through scholarships and work-study without incurring debt through the school. Caltech students already boast some of the lowest debts in the nation, graduating on average only \$5,000 in debt, compared to the national average of \$19,000. Over half of

Caltech's 913 students receive some sort of financial assistance.

To fund the new move, Caltech will initially dip \$350,000 from its \$1.96 billion endowment for the Class of 2012 through the Class of 2016. Director of Financial Aid Don Crewell said that Caltech is considering broader initiatives, but he wants to proceed cautiously to avoid "writing checks that can't be cashed."

Caltech's December announcement came one week after Harvard unveiled a dramatic increase in financial aid to middle-class families, courtesy of its \$35 billion behemoth endowment.

Harvard's plan guarantees that students from household incomes between \$60,000 and \$180,000 will pay no more than 10% of their incomes—what Caltech's

Please see LOANS, Page 4

Big T, little t not ready

Both ASCIT publications understaffed and over-ignored

By Gloria Tran

STAFF WRITER

Due to unexpected problems, both the 2007-08 little t and the 2006-07 Big T will be delayed in publication this year, said ASCIT board members at last Wednesday's meeting. The board intends to reprint little t content from a previous year, and has passed the editorship of last year's Big T to this year's editors. The events have drawn attention to a discussion of ASCIT's oversight practices and the possible need for a Publications Board, as well as the severe understaffing problems at the little t and Big T over the last few years.

The little t will not be ready for publication at the expected time because all copies of the finished manuscript were accidentally deleted over winter break, says its editor, sophomore Joe Salomon.

To remedy the situation, ASCIT is planning to reuse the content of either the '05-'06 or the '06-'07 little t while inserting the new ads the business manager sold this year. The ASCIT president and treasurer have already signed the contract with the publisher and the little t will be distributed "as soon as possible," says Craig Montuori, who serves as a "troubleshooter" for ASCIT.

In addition, the '06-'07 little t is featured online at the Donut website, though plans to update it are not concrete. The little t staff does not have a webmaster, but "hopefully, the little t editors will work with Donut to update the information," says IHC Chairman, Michael Woods.

Traditionally, the little t is distributed to the undergraduate student body sometime during the

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Japanese cuisine hits the spot

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OPINION

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THE CALIFORNIA TECH
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Pause to thank the admin: they do heed our whining

By Sarah Marzen

STAFF WRITER

Under Supreme Court law, in high school newspapers, the principal can stop an article from being published if he doesn't like it. At Caltech, students can publish mad rants in the newspaper claiming that Housing "owes" them donuts, and Housing will actually buy them donuts.

Do you have any doubt that the administration here is being particularly nice to the Tech?

Let's take a quick look at some of Tech's most recent opinion articles.

A while ago, there was a diatribe against the price of the Olive Harvest, which was followed by reassurances that students would not have to pay for the Olive Harvest meal.

A rant about the South House fire alarms, sent to a house mailing list, ended up on the humour page during a full-issue student complaint about the alarms; of all the complaints made in the various articles, the only direct request was this demand for donuts. The upshot of the affair? Not a complaint

from the administration, but instead 2000 donuts.

An entire editorial section was devoted to how bad Caltech teaching is. Throughout this beat-down, the administration hasn't murmured a word of complaint.

If you're cynical, you won't think this means anything. Maybe the administration just doesn't read Tech editorials, and therefore has no idea that they are being knocked around. Maybe, we (the people writing opinions) are violently punching air.

On the other hand, you don't get donuts from violently punching air. The administration is listening to at least some of what we say, and responding.

Sure, the donuts came out of leftover money in the Housing budget, and the Olive Harvest wasn't going to be paid for by the students anyway. Regardless, I'm going to thank the administration for paying attention to what Caltech students are saying. And students: if you have complaints to make about the administration (and I know you do, because I can hear you complaining all the time) write a letter to the editor and see what happens.

Get off-campus to enjoy Caltech to its fullest

Michael Forte

ALUMNUS

Now that I've graduated, I would like to share some final thoughts about student life. First of all this school is not nearly as bad as most make it out to be. There are a plethora of reasons to hate this place including uninterested professors and many administrators who probably only have jobs because their bosses have not yet realized how useless they really are. But even this should not be enough to make this place as miserable as many people say that it is.

The style of teaching of most professors is hard sets that require students to work together. This means that we must find other people to work with to finish and results in very long, fairly unproductive homework sessions.

We are left with little free time and when you do find that rare nugget, you often find that your time does not overlap with others. This causes many people to end up spending their free time sitting around playing video games and not helping the general social atmosphere of the school.

So next time you have free time, open your door and make a point of talking to lots of people, you'll like it, and if ev-

eryone does it, you are bound to find others whose free time overlaps with yours. Worst case scenario, you end up getting better at dealing with people with no social skills which will only help you if you pursue a career in science.

The average student has probably not spent much time off campus. Their only excursion past the borders of Tech is to find food on weekends which usually amounts to walking the whole two blocks to Lake. To help this along, we pay for each dinner whether we attend it or not so there is little incentive to ever do anything on a weeknight that might make us miss those dinners.

So if students can just ignore the fact that they are wasting money (which should be easy based on the amount that you all pay for board without complaint), then students should make a habit of tooling an upperclassmen with a car and going out at least once a week. Go see a movie, go see a play, go visit a museum, or even go window shopping just don't spend every day sitting behind your computer hoping things will get better without action.

In fact, if you spend a few hours away from the environment you see everyday, not worrying about work, and not being lame, you will be far more productive when you do actually put your pencil to the paper.

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New student center's success depends on the past's lessons

Before breaking ground, we need to ask ourselves what was best about the old SAC -- and what was wrong with Winnett

By Craig Montuori

CONTRIBUTING WRITER

With 90% of the students in Houses, all of which have lounges and a variety of places to hang out, how can a centralized student center succeed? Obviously, I'd like to see such a building succeed, with success meaning it will be frequently used for social purposes, but I'm not sure how this can be done. Furthermore, we already have one failure in attempting to create a student center. I call on the new Student Center Committee to look on the causes of this failure, as well as the faculty-student committee formed by the President in response to the students' initiative.

It has been around twenty years since it was first proposed that we build a new student center. Estimated to cost \$35 million, the Rosen Campus Center is described as a hub for "social, cultural, and artistic activity on campus." However, before we break ground, we should look at the problems with our current student center, the Winnett Student Center.

Yes, it's really a student center. On the positive side, Winnett provides a connection to the past,

being located on the former site of one of the old First World War barracks that used to dot campus. This building held Throop Club, the off-campus student association, which disappeared with the opening of the North Houses. The only remnant of this building is the wall of bricks on the south side of Winnett with the years and initials carved into them.

At some point in time, it is likely that Winnett was used by students, since haircuts used to be available a few days each week on the first floor, and there was a nifty jukebox and lounge on the second.

Unfortunately, today, it seems to me that Winnett is used more by staff for their meetings than students. Though the Caltech Y always hosts Decompression in the lounge, and a number of clubs meet in the space, much of the time it is empty, with chairs stacked up along the walls. It's nice that the basement has the jam room and space for UGCS, along with some offices scattered throughout, but what are we looking for in a student center, given a choice in the matter?

I think the biggest draw in the old SAC was the student-run Coffeehouse. Since the closure of the SAC, the Coffeehouse has eked out a living in Chandler and currently at the Red Door Café. It's

"Estimated to cost \$35 million, the Rosen Campus Center is described as a hub for "social, cultural, and artistic activity on campus." However, before we break ground, we should look at the problems with our current student center, the Winnett Student Center.

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certainly not the same, though, from what I hear, and I certainly don't go there much these days.

For that matter, even the development of the SAC was based on the failure of Winnett to catch as a student center. Around the time Winnett was built, the SAC started its transition from the "hall of infinite storage rooms" to the SAC that we knew before the South Houses went through their recent renovations. Just ask a senior if you don't know what that was like.

The ASCIT Screening Room is gone, as is much of the storage down in the old SAC. Various multi-purpose rooms were often

used by clubs or other groups of students. These were things frequently utilized by students. Will they return to the SAC? Will they be present in the student center? Or are they to be mere memories from here on out?

Yes, it seems that we'll have an art center to display works of art, music rooms, and perhaps a full auditorium for choral performances in the new student center. I'm not quite sure why, aside from getting donations from cultured individuals seeking to inspire a love of the arts in us science-minded students.

For sure, we know what was lost in the old SAC, though memories of that are fading among current students, as older students graduate. Additionally, it is unclear whether or not anyone has ever studied what went wrong with Winnett. Unless we know what led to Winnett for being a waste of space until the bookstore took over the first floor, how can we hope to avoid similar problems and underutilization by students in the new center?



The Tech's Election 2008 Coverage

no news, plenty of analysis, lots of mocking

In upcoming issues, The Tech will be offering its own take on the race: analysis of the candidates' attitudes toward science, education, and medicine, plus students' opinions on the people, the election, and what it all means. Watch for it in future weeks, and if you have something burning to say, e-mail tech@caltech.edu.

Scientists responsible for guiding the public

By Wesley Yu

STAFF WRITER

This past week, I was reading through The Little t and found a very interesting definition of the word "apathy." As the ASCIT publication cheekily put it, apathy is "A common voting strategy for techers." Pretty funny, huh?

But with the 2008 Presidential election in full swing, the tongue-in-cheek definition raises an important question: Should we, as scientists, care about politics? I think there are many important reasons we should care; I'd like to highlight two of them.

The first reason is purely practical. The single biggest supporter of scientific research is Uncle Sam. According to the Annual Report by the Caltech Office of Sponsored Research,

"Money that could have been spent on stem cell research, global warming, and space exploration, was instead spent on adding a couple more tanks to what is already the largest military in the world."

Apathetic Techers can't fairly blame Washington, though. After all, without your help, the politicians won't know any better."

been spent on stem cell research, global warming, and space exploration, was instead spent on adding a couple more tanks to what is already the largest military in the world.

Apathetic Techers can't fairly blame Washington, though. After all, without your help, the politicians won't know any better.

The second reason to care about politics is because we are at the same time leaders and servants of society. The skills and talents that we have cultivated at Caltech bear with them enormous responsibility.

Speaking on this campus in 1931, Albert Einstein said, "Concern for man himself and his fate must always form the chief interest of all technical endeavors in order that the creations of our mind shall be a blessing and not a curse to mankind. Never forget this in the midst of your diagrams and equations."

If there is anything I want you to take away from this article, that is it. *Science serves humanity.*

Therefore, we as scientists must be deeply concerned with the leadership and direction of society. It is our role to guide public opinion and make our knowledge available to the public.

One way to serve is to educate our leaders and the public so that they understand how science can serve them. I am going to address this in my next article.

For now, a simple way we can serve society is by simply participating in the next election. By paying attention and voting, you will make your educated opinion heard. You will be involving yourself in the public debate, and you will be helping to lead this generation to a brighter future.

By Evans Boney

STAFF WRITER

The first two major primary / caucus events surprised only the pundits. Who in their right mind would think that, with at least 3 serious candidates on each side, the race would be decided by now? Having now knocked pundits, I am going to join them in giving you a rundown of the candidates I think have a chance on both sides, and what I like about them.

My favorite person in the election is Iowa caucus winner Barack Obama (excuse my not using proper titles, because I don't really care about that). More about science policy can be found in a coming issue of the Tech, but I have to mention the one thing that really puts Obama over the top for me: he favors postponing manned missions to the moon and mars, and spending that money on education. Wait, I'm a scientist, and a collaborator with a NASA scientist, how can I possibly be against spending money on space exploration? Quite frankly, it's unnecessary and expensive. Aside from planting an American flag on the moon and having a big party on Earth to celebrate, there's not much a man on Mars could do that a robot on Mars couldn't, and hardly a Cold War to justify it. As a Democrat he's already got most of my love on domestic issues, and he's still got a sense of humor. He recently challenged my favorite daily news host Stephen Colbert to a grits-eating competition.

In that vein, let me run down the next candidate, winning the Iowa caucus for the Republican side, Mike Huckabee. Of course I can't support someone who doesn't "believe" in evolution, or anyone who even uses the word "believe" next to a scientific theory. I do have to say though, he's definitely got my vote for most hilarious Republican candidate...he replied to a question about whether or not he'd chase Osama bin Laden to the gates of hell with "And beyond. I will charge Hell with a water pistol, if necessary."

with a water pistol, if necessary". Of course he does have the upside of the promised Huckabee-Colbert ticket, but please, Techers, don't vote for him.

Swinging back to the donkeys, winner of the recent New Hampshire primary, albeit by 2 points, Hillary Clinton. Sadly I think media coverage is going to kill Hillary, because the press won't leave it alone that she's a generally stoic woman in a leadership role. In the wake of her New Hampshire win the pundits gladly chalked it up to her choking up in public in the days leading up to the election. She also acknowledges this as an important move, and so begins the sad commentary on the next election: who can manipulate the public into voting for them by means other than policy? Honestly, there's just not enough to distinguish the Democratic front-runners (Clinton, Obama, and Edwards) in the way of policy, so this race will devolve into either mud-slinging or a popularity contest.

Honestly, there's just not enough to distinguish the Democratic front-runners (Clinton, Obama, and Edwards) in the way of policy, so this race will devolve into either mud-slinging or a popularity contest.

progressive policies at all. Oh right, except Giuliani, but how can anyone even take him seriously? The Onion rightly nailed him as running for the President of 9/11, and by not enumerating any of his policies, he's the laughing stock of both sides, even more than Ron Paul in my opinion.

The last leading candidate for the Dems, finishing barely second in Iowa and a disappointing third in New Hampshire, is the young John Edwards, who looks about 20 years younger than his 54 years. His main distinguishing feature is being against corporate America. While this is appealing to the average voter and philosophically very nice, I can't

see this winning him any elections. Especially once some b o d y brings up that the US economy is nearing recession, and punishing big business seems a questionable move.

The current overall leader for the Red Team, taking the silver in both New Hampshire and Iowa, is Mitt Romney, who mentions his Wyoming caucus victory in every speech, much like Poland was part of our alliance in Iraq. As a democratic supporter, I really hope to see Mitt Romney as the Republican candidate, because he would lose miserably. If you haven't gotten a chance yet, download the Republican debate from last week and check out Romney getting nailed by absolutely everyone. Even Fred Thompson (the guy from Law and Order) and Ron Paul (the guy from ... where?) nailed him to the floor, and he didn't ever get back up. In the general debates he'd have to consider it a success to come out, like Nixon to Kennedy, losing 6% of the electorate.

That's it for the leading candidates (no love for Giuliani), but, if you haven't gotten a chance to check out the debates yet, don't bother watching the democratic ones. It's like watching someone debate themselves for 2 hours. Check out the Republican side, then you'll get to see some real fireworks. Whether it's Ron Paul trying to eliminate the IRS, Fred Thompson out-charisma-ing everyone, or their hilarious discussions of scientific theories that show most of them slept through high school, it's always a riot.

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or email club VP and instructor Joe Areeda
(joe@areeda.com)



ment, New Hampshire primary winner John McCain. He managed to gather more of the Christian conservative vote in New Hampshire, after Huckabee won that portion decisively in Iowa. In my opinion he's the only Republican candidate who would have any chance of winning the general election in November, because he's the only one with any

Friends remember the laughs and good times

SWAROOP, FROM PAGE 1

Swaroop's closest friends—a tight-knit band of four guys in Ruddock—said they had a tough time going back home.

Chong admits he was a wreck over the break. "I couldn't focus on anything, not even for five minutes."

Moving on

Kassof has to find a new roommate; Dias doesn't have a morning workout partner. Their cabin during last weekend's Ruddock ski trip had one empty bed. People still pause outside his room when they pass.

Kassof now lives by himself in the room, with a smiling poster of Swaroop on the door. Boxes filled with Swaroop's belongings are still on the floor, though his desk has been cleaned out. The bed across from his is empty. But Kassof keeps his door open now—he and Swaroop used to

keep it closed while working on homework or joking around, but Kassof says it's weird to be alone now.

"Eventually I'll get used to it. I'll never be able to get over it."

Those who have come to terms with his death focus on his fun-loving personality instead of the void that his death left. "He would want us to just move on and remember the good times we had with him," said Dias.

Varma says she's watching Swaroop's friends deal with the death the way she thinks he'd want them to—through humor. In her alley meeting last week, she feared sad silences would replace Swaroop's usual wit. To her surprise, Swaroop's friends jumped to the challenge, but joked they'd "lost the funniest member" of the alley.

"Eventually, we won't be sad every time we think of him," says Kassof, "but we'll think of how lucky we were to have known him."



Photo courtesy of Ruddock House

Swaroop Hebbale and roommate Brett Kassof at a formal dinner in Ruddock.

Chemist invents “cool” wires

Tiny silicon wires could chill laptops, reactors

By Marissa Cevallos
EDITOR

New silicon wires that convert excess heat to electricity could lead to longer-lasting refrigerators, more efficient nuclear reactors, and better computer chips, a Caltech team reports in this week's *Nature*.

The nanowires -- about one-thousandth the diameter of a human hair -- goad electrons to flow across silicon with 100 times improved efficiency. They take advantage of the thermoelectric effect, in which heat flow from a hot spot to a cooler one creates an electric current.

Chemist and lead author Jim Heath says it's a surprise that silicon turned out to be an impressive thermoelectric—after all, silicon

traditionally takes a backseat to exotic compounds, like alloys of bismuth, when it comes to cooling beer cans and propelling JPL satellites.

"You'd never think of using silicon as a thermoelectric," said Heath. "It's horrible!"

But the power of the new wires lies in the physical phenomena that happen at the nanoscale. At small scales, the ultra-thin wires act like one-dimensional waves; tiny sound vibrations stretch the wires like a rubber band. When "phonons," the carriers of sound vibration at the quantum level, are out of equilibrium with electrons, "phonon drag" pulls electrons along the wire. This effect increases the heat-converting efficiency—not just for silicon, but also for any semiconductor.

"It's a fundamentally new way

to make better thermoelectrics," says Heath. "It's a big solution to the energy problem."

Instead of using exotic materials, the wires are just composed of silicon and oxygen, the two most common elements on Earth. They're also non-toxic—put them together, and you have the chemical composition of sand. So although the new silicon wires lag behind the best thermoelectrics in efficiency by a factor of two, they are still cheap and simple enough to have near-term applications. If placed in computer chips, the thermoelectric wires could convert waste heat back into electricity. The wires could also be used to create long-lasting commercial refrigerators, which currently break down because of moving parts.

Harvard's plan more extensive than Caltech's

Caltech can't compete with Harvard endowment, but doesn't need to

LOANS, FROM PAGE 1

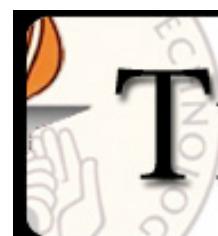
Director of Admissions Rick Bischoff calls a "pretty fundamental change" to the way financial aid is offered.

Though Crewell says that Caltech's timing was a coincidence, it underscores a national trend among elite universities to axe loans from the financial aid package. The University of Pennsylvania, Pomona, Swarthmore, and Haverford all announced plans to eliminate loans shortly after Harvard's announcement. Princeton mixed loans from aid packages in 2001 and has since doubled the number of low-income students.

Harvard may be pressuring elite institutions into offering

beefier financial aid packages, but Bischoff says that the immediate effect on Caltech will be small. Only about 10% of admitted students at Caltech are also offered admission at Harvard, and even if Caltech lost every one of those students—which Bischoff assures never happens—the class would still be "very strong." It's when MIT has to upgrade its financial aid to compete with Harvard that Caltech will have to fret about the 40% of admitted students who have MIT acceptance letters.

As Crewell cautions, "loans won't make or break the deal." No matter how far Harvard can afford to drive down its sticker price, some students won't matriculate simply because they'd prefer to go somewhere else. Says Bischoff, "Money isn't everything."



THE CALIFORNIA TECH

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ASCIT leaders call for more oversight in publications mess

BIG T, FROM PAGE 1

first term of each year. The little t is a collection of local shop and restaurant reviews, Caltech "how-to's", available campus services and facilities, and various Caltech "traditions". All campus publications including the California Tech, Big T and little t are funded by ASCIT.

The Big T, the undergraduate yearbook, also typically comes out during first term, but is also experiencing some delays. "The editor [senior Angela Chang] hasn't responded to requests to finish it," explains Woods. The BoD was notified of problems with the Big T in mid-November.

After failed repeated attempts to get concrete answers about the Big T's progress from the current editor, ASCIT has reassigned responsibility for the '06-'07 Big T to the '07-'08 Big T editor, junior Ekta Bhojwani, who is also currently ASCIT Director for Social Activities. Bhojwani will be asking each House historian to assemble pictures and help with the Big T and believes it will be ready for distribution at the end of second term or beginning of third term.

"I think the ball was dropped in various places and the mistakes

had a domino effect. We didn't pick up on the problem early on," says Bhojwani. "The problem is that there is no established system to oversee progress with each publication."

Apart from asking the Tech to publish ASCIT minutes and candidate statements, ASCIT exercises very little regulation over student publications. However, there has been some discussion of forming a Publications Board on ASCIT in order to oversee staff selection as well as regular progress for each publication. This board, say proponents, would be responsible for ascertaining that editorship passes smoothly from each year's staff to the next.

"I like the idea. Not much can be lost from trying, and a lot can be gained," comments Michael Woods. "[As of right now] ASCIT holds a very long leash and provides essentially no oversight."

"I believe that a separate publication board or some other form of increased oversight and accountability for publications is necessary to prevent these sorts of problems in the future," says Benjamin Steele, the business manager of the little t.

Over the years, Caltech's student-run undergraduate publications have experienced numerous problems. In 1989, the little t acci-

dently signed contracts with two publishers, which almost resulted in ASCIT getting sued. In 1991, the little t accumulated about \$7000 in debt. Last year's little t sold only one ad and, consequently, accumulated a \$5000 debt. While usually the little t staff consists of a three-to-four person team, the past few years have seen the responsibility shouldered by a single editor and sometimes a business manager. "Though the Sherman Fairchild Library suggested that the editors increase recruitment, it never happened," says Montuori.

In previous years, people have complained about the quality of the yearbook. However, Bhojwani emphasizes that it is because the Big T, too, is increasingly short-staffed. Last year, the Big T only had one editor who was responsible for the entire publication. "It is impossible for one person to finish the entire thing, but it's hard to get new people involved."

The Board of Directors controls the selection process – which is usually by election – and staff workers are offered stipends. "If people want to help out with any of the publications, they should let the BoD know," says Bhojwani. "Sign-ups for the '08-'09 Big T staff are in a couple of weeks."



Write or take pictures when you can.

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Join us Monday or Friday at noon for lunch at Broad Cafe, or send tech@caltech.edu an email if you're interested in being a part of the Tech.



What do we think of the olive oil?

FIND OUT NEXT WEEK

New ruling bodes well for JPL suit

NASA can't enforce "unconstitutional" invasion on JPL

Hearing will continue on February 15

JPL, FROM PAGE 1

ing. "It shows that courts are not going to allow the Bush Administration to use fear to conduct overly intrusive investigations."

The panel upheld the plaintiffs' concern over the terms of SF85 and SF85P forms, which JPL employees are required to sign in order to receive an identification badge required to enter the buildings. In particular, the plaintiffs argue that a section of the form giving government agencies a permission to conduct unconditional and unlimited background investigations for a period of two years is unconstitutional.

"It is an affront to democracy when hard-working people are reproached because they want to enjoy the benefits of the Constitution," said Stormer.

Earlier last week, Judge Otis D. Wright II, who presides over the lawsuit in the District Court, ruled to dismiss Caltech from the case. However, the status of the dismissal remains unclear,

given contradictory language in the opinion issued by the Federal Appeals Court.

The case will now proceed in the District Court, with the next hearing scheduled for February 15. The hearing will address the discovery plan as put forth by the lawyers. Meanwhile, while Stormer is hopeful about the outcome of the lawsuit, he does not have high expectations for negotiation or litigation prior to the hearing.

"There's a tremendous amount of inertia in their position," he said about the government. "They would rather be told by a court what to do than negotiate."

According to plaintiff Susan Foster, a technical writer and editor at JPL for more than 40 years, many JPL employees view the requirements of HSPD12 as a "bureaucratic overlay that is expensive, unnecessary, insulting, and unconstitutional."

Ninety-five percent of employees required to fill out the forms hold what are classified as low-risk positions and had to undergo limited background checks prior

to their employment.

"These are people who've dedicated their lives to science," said Stormer. "Just because a government agent gets a political agenda, they should not have their lives ruined."

The twenty-eight scientists and engineers of JPL who filed the lawsuit against NASA and Caltech in August of 2007 have seen both support and setback throughout the legal proceedings. After an initial dismissal by the District Court, the Appeals Court reversed the decision and issued a temporary emergency injunction. With the newest development, the case will go on to a full trial in the District Court.

Throughout the lawsuit, the plaintiffs have also received support from employees of other organizations associated with the U.S. government. Notably, not all federal agencies choose to implement HSPD12.

With the parties involved in the suit having a right to appeal, there is a possibility that the case will advance to the Supreme Court.

Have you seen our website yet?



Photo courtesy of Michael Ortiz

Prof recognized for work in mechanics, physical modeling

"It's like winning gold at the Olympics"

By Tina Ding

STAFF WRITER

Michael Ortiz, Caltech's Hayman Professor of Aeronautics and Mechanical Engineering of the Graduate Aeronautics Laboratories has been chosen early January to be the inaugural winner of the Rodney Hill Prize in Solid Mechanics.

The international prize is newly established by the International Union of Theoretical and Applied Mechanics (IUTAM) and sponsored by Elsevier Limited, to be given every four years to an individual who has majorly contributed to solid mechanics over the past 10 years.

Professor Michael Ortiz's contribution to solid mechanics is his work in the development of mathematical computational models of material behavior, including the quasi-continuum method for multiscale modeling. Developing these models

that predict material behavior under extreme conditions involves working in other fields such as mathematics, material science, and computer science. Ortiz works to develop computational simulations to predict conditions difficult to test in the laboratory such as how to deploy large 100 meter telescopes into space.

"It's like writing a computer game," said Ortiz, "but instead of being fictional, it is real."

The use of computational modeling in science has been impacting the scientific community.

"With the growth of computers in our society, physical models are complementing experimental science," said Ortiz.

Some conditions such as high temperatures or high velocities cannot be simulated in the laboratory, which leads to reliance on mathematical models to predict material behaviors. For example, today when designing an engine, engineers must conduct tests in a lab and also tests on computers.

The recognition took Ortiz by surprise but he is nevertheless very pleased with the achievement. "It's like winning gold at the Olympics," said Ortiz.

Michael Ortiz achieved his B.S at the Polytechnic University of Madrid and his Ph.D at University of California, Berkeley. He came to California Institute of Technology in 1995 and is a current faculty of the Graduate Aeronautical Laboratories, where he has done his research in solid mechanics for the last decade.

He teaches mostly graduate level mechanics and aeronautics courses, but also the undergraduate course Me35 Statics and Dynamics.

Ortiz will be presented with the prize this August by the 22nd International Congress of Theoretical and Applied Mechanics in Adelaide, Australia.

Aeronautics professor Michael Ortiz won the first Rodney Hill Prize for work in mechanics.

ASCIT minutes: Jan 9, 2008

Publications in hot water, student center gets admin nod

Present: Chris Gonzales, Mike Grinolds, Andrea Dubin, Angela Zah, Mike Woods, Ekta Bhojwani, Patrick Herring, Daryl Coleman, Zack Higbee

Absent: Caleb Ng

Guests: Ben Steele, Craig Montuori

*Student Center Committee -Anneila Sargent told Mike Woods that Jean-Lou Chameau is planning on starting up a committee of faculty and Undergraduates to look into the student center. She suggests combining forces between our committee and theirs to work on this. Sign ups will go up today and we will be looking for roughly 3 people to serve. Interviews will be this weekend at the same time as the honor keys meeting

*Honor Keys -Daryl is writing the MHF proposal. It is due on Friday, and Mike Woods and Craig will help him out.

-The meeting to discuss points systems and such will be at 1:00pm on Saturday in the SFL Multimedia conference room.

*Publications -The Big T still hasn't come out from this year. We need to make sure that it gets published this year in order to keep a reputation

for our ads, since parents have paid for ads and other people have bought ads. We have decided to start from scratch. Ekta needs a staff in order to be able to handle getting the '07 yearbook out. Ekta thinks we need 3 or 4 people to work on it, Mike Woods suggests getting house historians to help out. Ekta will find someone to be a new editor for the '07 yearbook and will get house historians to help out working on it. We'll also ask the IHC to help out. Historians should forward on their pages on to Ekta. We also need people to take or submit pictures. Ekta says that this will take at least a month to do. She says that they are aiming to have it out by the first week of 3rd term, since it takes 4 weeks for publishing. She will try to get each historian to do 10-12 pages. Sign ups will go up today for other people who wish to help out. Ekta suggests allocating a certain amount money per sets of pages to encourage people to work on it.

-Ben Steele reports that the Little T is not finished for this year. The check was already submitted to the publishers. We have sold ads for this year and we still have the manuscript from previous years. Internal Caltech ads have been cashed but no other ones have been. It was decided that we really need to publish something to keep

our reputation with ads, so we decided to republish last year's Little T with very minor changes. Unfortunately the only copy we have is a file posted online as PDF. Ben will work on putting the new ads in. Sam Levine might also be able to help. We could also email Dima. Patrick will work on it with Ben to get something publishable.

*Elections

-An alumnus contacted Andrea to suggest that the elections chair NOT be a member of devteam. We need someone not running not on devteam or Excomm who is familiar with the bylaws. Gonzo said he would do it. Vote to have Gonzo serve as the new elections chair: approved.

*Retreat

-We don't have time to go anywhere since it's the end of our terms. Andrea suggested just having a nice dinner at Tom Mannion's. The BoD agreed that this is a good idea. We decided that Friday or Saturday nights are best. Gonzo will talk to Tom to figure out a good night.

*VPSA meeting

-The meeting with Anneila Sargent will be next Monday.

News Briefs

Research funds for undergrad women

The Dean's Office is accepting proposals for the Monticello Foundation and the Robert and Delpha Noland Summer Internships, which gives three to five Caltech undergraduate women (current freshmen, sophomores and juniors) a \$6,000 stipend to participate in research outside of Caltech for ten weeks during the summer.

To apply, students must identify a sponsor for their experience at a research facility for a ten-week period. In a short essay, they must describe their project and submit it to the Dean's Office, 210 Center for Student Services, along with two faculty recommendations. All arrangements with the principal researcher will be the responsibility of the student. Proposals are due Friday, February 22, 2008.

Students will get free access to The Nation

The Nation, America's oldest weekly magazine, will be offering free digital subscriptions to students starting Jan 10. Both undergraduates and graduate students are free to sign up for the electronic subscriptions at StudentNation.us.

Free ARTS bus fare for February

Caltech students, staff, and faculty can ride the Pasadena ARTS bus for free during February by showing the bus driver their ID.

Mike Brown subject of children's book

New children's book *The Planet Hunter: The Story Behind What Happened to Pluto* tells the story of Professor of Planetary Astronomy Mike Brown's childhood, interest in extrasolar planets, and the discovery of Quaoar, Sedna, and finally the Pluto controversy.

Reviewers call the story, which comes with a current solar system poster, "fascinating" and Mike Brown "infinitely likeable". The book, by author Elizabeth Rusch and illustrator Guy Francis, is available at the Caltech bookstore.

“Curious” to air in 60 more cities

By ZeNan Chang
STAFF WRITER

“Curious,” the layperson-friendly documentary about research at Caltech and JPL, will now air widely throughout the nation in the coming months. Within the next few weeks, friends in Flint, MI, relatives in Rapid City, SD, and relaxed gamblers in Reno, NV will all be able to turn on their televisions and watch a quick parade of select topics explored in Pasadena.

“Curious” is planned to air—or re-air in the case of New York, Boston, and Los Angeles—in roughly 60 cities across the nation. Even those in St. Paul, Missouri, population 1,634, will shortly be able to view the acrobatics of a fruit fly taking off.

However, those in Los Angeles and 27 other cities still looking forward to satisfying their curiosity may need to await reruns, as “Curious” has already aired in those cities at the beginning of January.

Nevertheless, previews and clips can be found at the program website (<http://www.thirteen.org/curious>), and the producers have promised full episodes online by the end of the month.

The two episodes currently released are titled, respectively,

“Mind/Brain/Machine” and “Survival”. “Mind/Brain/Machine” interviews a man born without a corpus callosum, plus the Dickinson lab at Caltech, fMRI behavioral biology studies, and a large number of robots. It even tackles the difficult and therefore often disregarded question of roboethics, and what’s being done about the problem of how humans and robots should interact. “Survival” follows two labs at Caltech on major research projects: Mark Davis’s lab and the creation of the first nanoparticle cancer drug,

and then Sossina Haile and Nate Lewis as they work to create an artificial leaf.

Though “Curious” is currently a two-episode stand alone documentary, it is intended by WNET, a major producing stations for PBS, to be the first of a series organized around various institutions. At the moment, there are no rumors about the content of any future productions.

To find out when and where “Curious” will air, please visit www.thirteen.org/curious/episodes/local-air-dates-for-2008.

Overcoming Procrastination

Kevin Austin, Ph.D.

FREE LUNCH PROVIDED

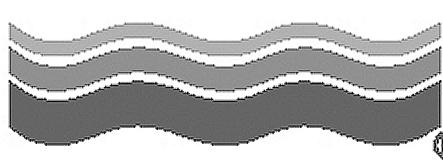
When: Thursday, January 17th, Noon – 1:00 p.m.
Where: Winnett Lounge

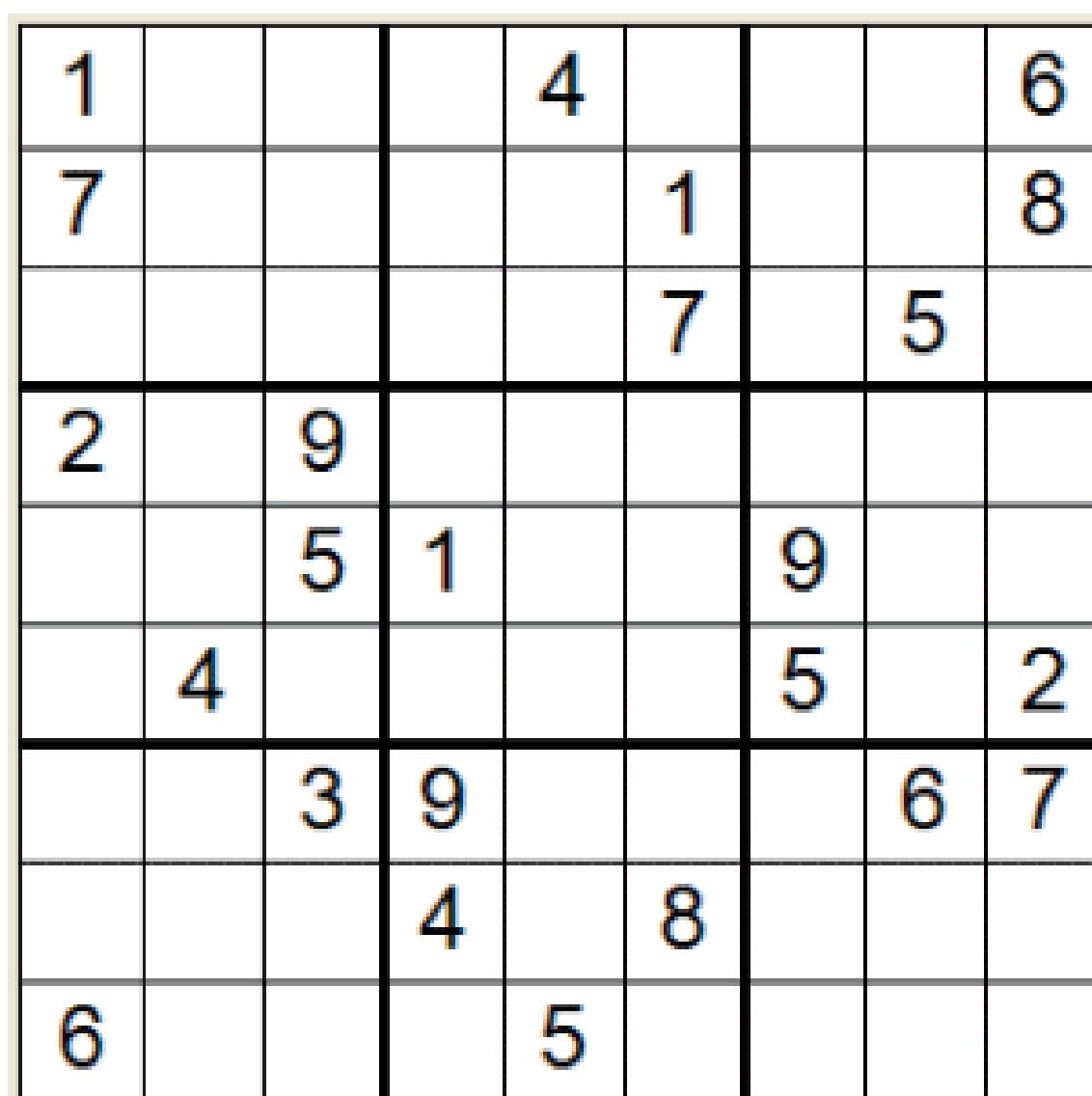
What is procrastination?

- It's the problem set that doesn't get done on time (again!), or the experiment you don't get started...
- It's the drop card you don't turn in on time...
- It's the continuing battle with yourself to do what you know you should... and your inability to change.

This program will help students in attendance have a different, possibly better, way of understanding their procrastination and what to do about it.

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Japanese Cuisine:

by Andrew Freddo and Dannah Almasco

Introduction: Besides having a great lunch deal (and a 10% discount for Caltech students), Hanabi, located by Trader Joe's, is a spot for authentic Japanese food, ranging from sushi to hot entrées.

Goal: To check out a tucked-away sushi place a passerby would normally overlook.

Stockroom Options: There is a fully stocked sushi bar (with its own menu). Not in the mood for raw fish? Don't worry, there's a plethora of appetizers, combination plates, and entrées of traditional Japanese fare.

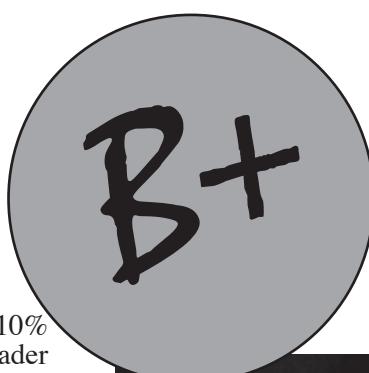
Materials and Cost: For dinner, we had the Sushi Combination Plate A (\$14.99) and the Two Combination Platter with grilled chicken breast and shrimp and vegetable tempura (\$12.99). We couldn't resist dessert, and splurged for green tea and strawberry Mochi Ice Cream (\$3.95) and vanilla Tempura Ice Cream (\$4.95).

Observations:

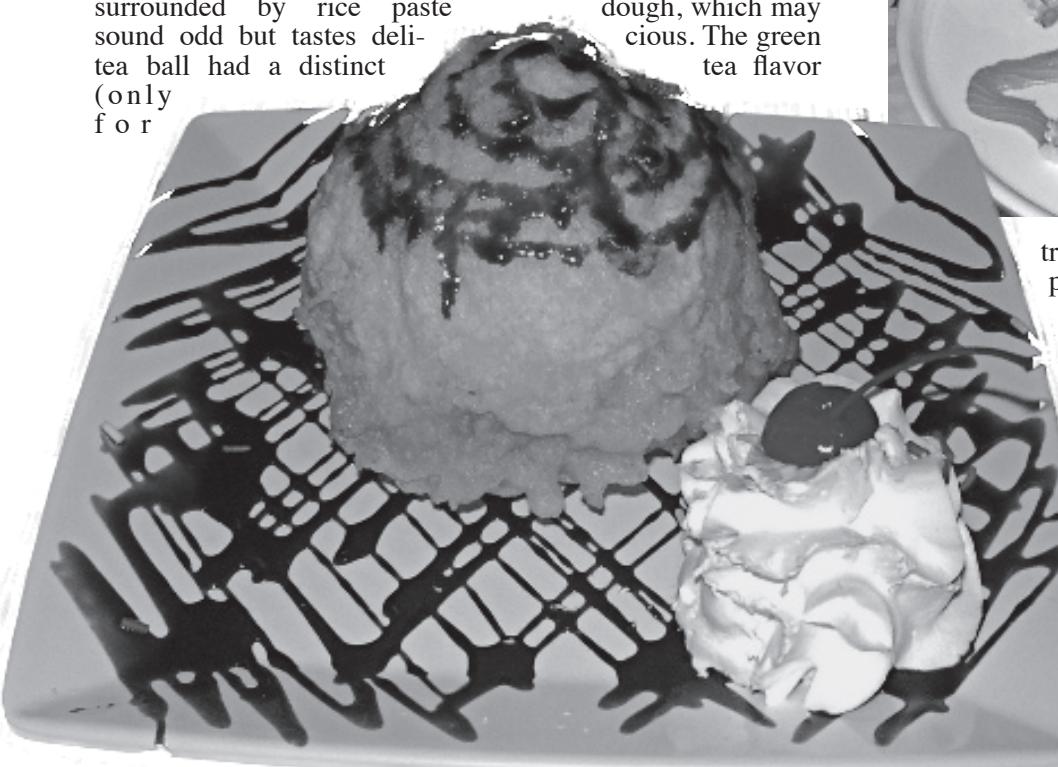
The sushi combination plate A was served as a beautiful 16-piece spread, including tuna, salmon, yellowtail, whitefish, crab, albacore, octopus, and California rolls. The California rolls were refreshing, and the sticky rice had a good texture. The favorites were the crab, salmon, whitefish, and albacore selections because they were light on the stomach and flavorful. The other choices were heavier and bland. Still, all the fish was fresh.

The two combination platters also had a beautiful presentation in a Bento Box. It came with a salad, which was cool and crisp, but a bit watery. The teriyaki sauce was sweet and tangy, though the chicken was a bit dried out. The vegetables used in the tempura were string beans, carrots, bananas, and sweet potatoes, and the shrimp was not over-cooked. Fortunately, they were not greasy at all, and had a flaky, light crust.

To round off our meal, we had two items from the dessert menu. First, we sampled mochi ice cream in two flavors: green tea and strawberry. These little balls have the ice cream surrounded by rice paste dough, which may sound odd but tastes delicious. The green tea flavor (only for



Hanabi



true green tea lovers), while the strawberry ball tasted like a piece of candy, sweet and enjoyable.

A new experience for both of us was the infamous vanilla tempura ice cream. Simply put, it was a big, deep-fried ball of ice cream. The crust smelled and tasted like funnel cake, and complemented the ice cream well. It was a challenge to eat, though with teamwork, it was devoured.

Atmosphere: Hanabi is a quaint, well-decorated restaurant. Everything felt authentic, down to the bamboo place-mats. Don't feel intimidated, the atmosphere and service are both definitely welcoming.

Conclusion: Definitely head to Hanabi for an enjoyable meal, especially with lunch combos starting at \$7.99. It's definitely one of Lake's hidden treasures. Make sure to save room for dessert, and try the tempura ice cream!

Feynman's Rainbow: Uninspiring

by Mark Eichenlaub

Next time Caltech has you feeling like you're drifting through a dark and incomprehensible terrain, remember: the people in charge feel that way, too.

"Do not worry about your difficulties at Caltech. I can assure you mine were still greater." This is, in abbreviated form, the message of Leonard Mlodinow's Feynman's Rainbow, a short memoir about his time as a new member of the Caltech faculty in theoretical physics in 1981.

At that time, Mlodinow was a highly-touted young researcher in quantum mechanics, just finishing his PhD work at Berkeley. Here he tells the story of how his insecurities as a new member of Caltech's physics faculty drove him to smoke pot with his garbage man neighbor while watching "Columbo", and then to write screenplays.

Mlodinow eventually wrote for MacGyver and Star Trek: The Next Generation. If that isn't awesome enough to convince you to go find a copy right now, the book has some Feynman quotes in it, too.

Feynman's Rainbow appears to offer everything a Caltech student would want: a message that life in science can and should be fun, anecdotes about our heroes, and most of all a very short time to read. So it's unfortunate that Mlodinow's book is an atrocious butchering of good story.

The cliché that smothers the book's first page continues straight through, until in the final paragraph we read, "Richard Feynman always knew how to get the most out of what the world had to offer, and how to get the most out of the talent with which God – or mere genetics – had blessed him. That's all we can hope for in life, and in the years since he's passed on, I've found it to be a valuable lesson."

The characters paraded out are overblown stereotypes. Murray Gell-Mann "appeared to have an inferiority complex and seemed anxious to show off how brilliant he was." Which might be true, but that's all we ever learn about him, except that he makes Mlodinow feel bad about himself.

Mlodinow's young researcher colleague is a pure hedonist, seeing the surface of everything and the depth of nothing as he solves physics problems on his computer in possibly-unethical ways. By setting a bad example, he makes Mlodinow feel bad about himself.

Mlodinow's previous mentor is a stodgy old professor stuck in the past, whose only goal is to deride Mlodinow's career choice and make him feel bad about himself. The only undergrad appearing in the book is a thin kid who

keeps hundreds of spiders in paper cups covering his entire dorm room and fears the light of day. "He'd have been just as well off in a cave," was Mlodinow's assessment. After visiting the guy, Mlodinow still felt bad about himself.

People in Feynman's Rainbow do not have personalities – only attributes impressed on them by the author. It happens even to Feynman, although at Caltech, where Feynman worship runs rampant, Feynman is instead the great savior.

In the preface, Mlodinow writes that he "combined and altered events and...names and personalities in order to best portray my experience." Significant chunks of the book quote Feynman, and these are "based on" notes and recordings of Mlodinow's conversations with Feynman during Feynman's later years, as he worked on unsolved problems in quantum chromodynamics.

Even these Feynman quotes, which ought to be the gems of the book, seem to have been impressed into Mlodinow's service. They are polished too smoothly to be direct transcriptions of what Feynman said, and together they are too coherent and focused to be a full picture of Feynman's advice.

The seeker of Feynman lore has many options to choose from, especially since the publications of Feynman's letters in Perfectly Reasonable Deviations, which was published three years after Feynman's Rainbow.

Despite my misgivings, I'm glad I read the book. Not long after coming to Caltech, I learned that many undergrads here are worried and confused about their futures in science. Some time later, I learned that plenty of grad students feel that way, too. But somehow it's reassuring to be told that the feelings of pressure to perform, and of judging one's self-worth based on the quality of his scientific mind, continues up to the next rung of the ladder.

Finally, of course, there is still Feynman under it all. Feynman talks here about physics and about life, and we get some snippets of wisdom not necessarily seen in "The Pleasure of Finding Things Out" or the Lectures, because Feynman's audience was different in talking just to Mlodinow.

If your Feynman-cravings weren't satisfied by just *Surely You're Joking, What Do You Care What Other People Think?*, *The Meaning of It All*, *The Character of Physical Law*, *QED*, and the various biographies and commemorative tomes, then Feynman's Rainbow won't satisfy you, either, but you'll still want to give it a look. Otherwise, perhaps we can let the man rest.

Norton Simon Museum A Well-Kept Secret



After finals last term, my roommate and I decided to take a break and explore Pasadena. I had heard of a good local museum, the Norton Simon, so we decided to visit, not knowing what to expect. What we discovered was mind blowing!

The Norton Simon Museum is a treasure trove of classical European masterpieces and modern art jewels. The collection includes representative works from every period between the 14th century and the 20th century. Among its collection are one hundred works by Degas, several portraits by Rembrandt, a Madonna by Raphael, and choice selections from modern masters such as Van Gogh, Monet, Cezanne, Warhol, and Picasso. For the art lover, the Norton Simon Museum is an absolute must see.

But don't be intimidated if you haven't had any experience with art. For people without any art background, the



Jacopo Bassano's Flight into Egypt, c. 1544-45 is one of the pieces the Norton Simon will loan to the Frick Collection in New York.

museum is a wonderful introduction to a variety of works. Next to each piece of art is a panel which gives a basic historical background and teaches viewers to look at art critically. In addition, visitors can rent an audio tour for only \$3. I rented the tour and learned a lot from it. It isn't boring or long-winded, and intersperses art explication with interesting stories.

Recently, the Norton Simon made news in the art world. For the past 30 years,

the Norton Simon has nearly always refused to loan pieces from its collection to other museums. As a result, the Norton Simon collection has remained pristine, but static. Now, that strict policy has changed. The Norton Simon decided to loan significant pieces to the Frick Collection in New York from October 28, 2008, through January 18, 2009. Included in the loan will be Jacopo Bassano's Flight into Egypt, c. 1544-45; Peter Paul Rubens'

Holy Women at the Sepulchre, c. 1611-14; Guercino's Aldrovandi Dog, c. 1625; Francisco de Zurbarán's Still Life with Lemons, Oranges and a Rose, 1633; and Bartolomé Esteban Murillo's Birth of Saint John the Baptist, c. 1655. In return,

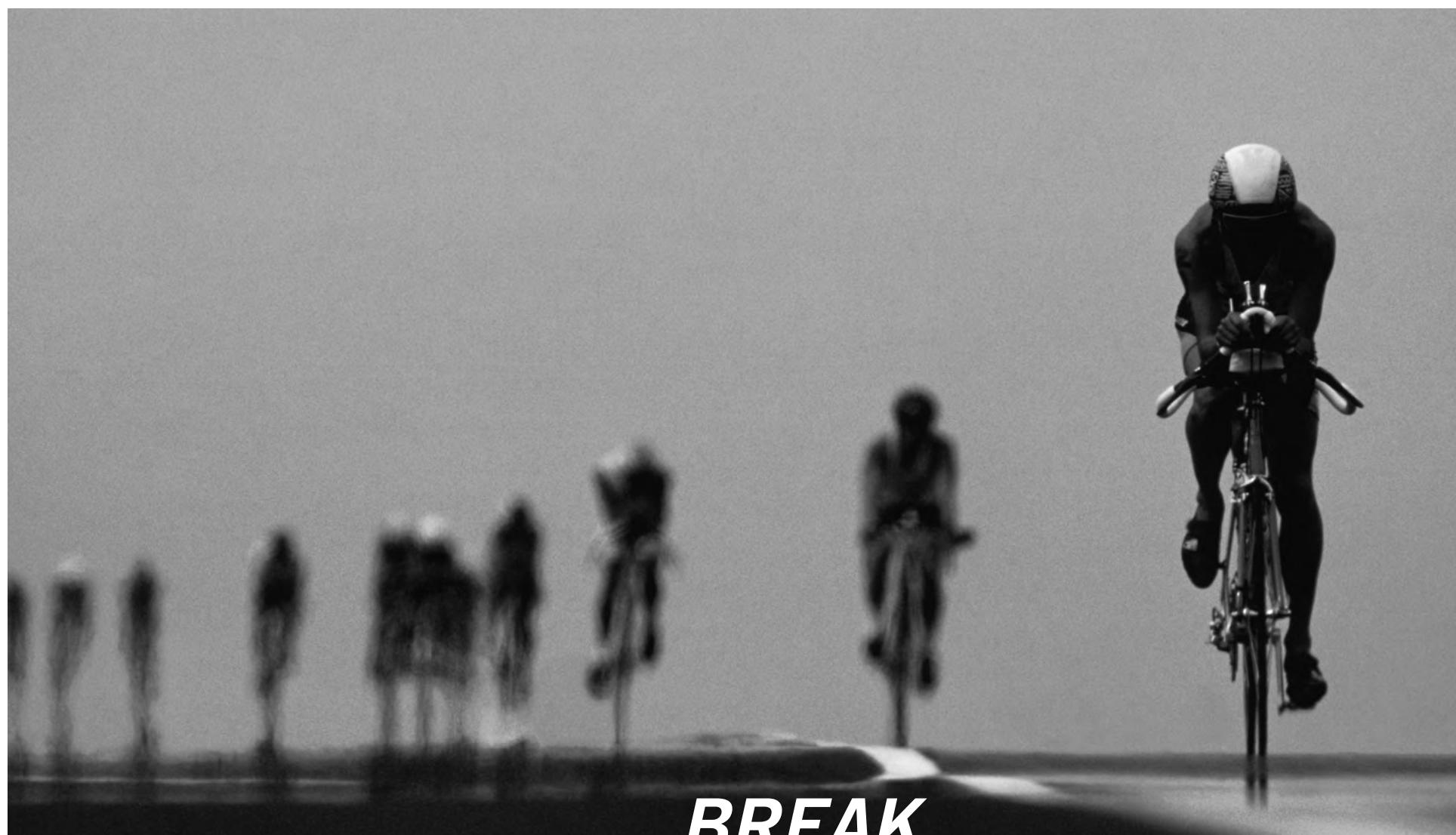
museum patrons can expect to see excellent pieces from the Frick displayed at the Norton Simon in the near future. With this new policy of loaning, the Norton Simon collection will only be improved.

So take a break from those problem sets and spend some time at the museum. It's only a 30 minute walk down Colorado Blvd. and admission is free for students. Visit their website (www.nortonsimon.org) for more information.



Little Dancer Aged Fourteen, 1878-81, is representative of the Norton Simon's extensive collection of sculpture by Edgar Degas. The collection consists entirely of first casts.

BY WESLEY YU



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Senior sets new scoring record

**By Yang Yang
and Stephanie Wuerth**

STAFF WRITERS

As she cuts to the baseline, a crisp pass delivers the ball into her hands. She feels around for her smaller defender, quickly turns around and shoots. In.

Although the Beavers are still down by double digits, wild cheering erupts from the bench. Senior team captain Lindsay King just became the first Caltech women's basketball player to score 1,000

points.

The thousand-point mark for King is not just an individual milestone, it's a sign of a rising women's basketball program.

"It is cool to achieve it," King said. "But the record says a lot more about our team now because we're more competitive [to a point] that didn't seem possible before."

One look at the scores from the 2003-2004 season, the first under current head coach Sandra Marbut, would depress almost anybody.

The average margin of loss was over 50 points, five times that year the Beavers failed to break double-digits in scoring, the worst loss that year saw San Diego Christian beat the Beavers 101-7.

How do you go from that to being even more competitive?

[When I was still in high

school] I didn't really think I would play in college," King recalled. "After talking to coach Marbut, I could tell she had such a passion about where this program would go. I thought it would be really great to be a part of turning around this program."

During her freshman season, current seniors Rene Davis, Meghan Kelleher, Raquel Martinez and redshirt junior Jessica Roberts joined King in hopes of transforming Caltech women's basketball.

That nucleus, according to Marbut, has brought the team from being "completely hopeless" to being competitive every game.

But for the past four years, Marbut says King has been "the heart and soul of the team."

Going into the game against Fontbonne on Dec. 27, King had totaled 994 career points. Scoring, however, was not at the forefront of her mind.

"We had three games left until we played MIT," King said. "I was more concerned with the team playing better, figuring I would get the points."

Although she did score the six points necessary to reach the landmark, King was more concerned about the team's poor play as they lost to Fontbonne 81-55.

In addition to her prolific scoring, King contributes to almost every facet of the game. She averaged six rebounds, 1.7 assists and 1.29 blocks per game last season.

But despite being in the SCIAC top 15 in scoring, rebounding, assists and blocks, King has yet to be named to the 12-member all-conference team.

"Lindsay is the most overlooked player in our conference," Marbut commented.

Part of that may be due to King's lack of "flash," as most of her skill is something oft overlooked from the bleachers because it is executed without possession of the ball. Defensive rebounding, baseline jumpers and solid defense may not garner much attention, but they are all crucial parts of winning a game.

Fellow team captain Rene Davis may join King in the thousand-point club this year. However, she was sidelined for the early part of



King scored her 1000th career point against Fontbonne on Dec. 27

the season and need to score significantly higher than her current 9.1 points per game to do so.

King is confident, however, that current sophomore Lisa Yee will.

"Lisa'd better break my scoring recording," she said. "Or else I will get mad at her."



Senior forward Lindsay King

Upcoming Games

Wednesday, January 16

Swimming and Diving at Chapman 6:00 PM

Men's Basketball at Occidental 7:30 PM

Thursday, January 17

Women's Basketball at Occidental 7:30 PM

Friday, January 18

Swimming and Diving at Mills (women) 3:00 pm

Saturday, January 19

Swimming and Diving at Cal Lutheran 11 a.m.

Women's Basketball vs. Cal Lutheran 5:00 PM

Men's Basketball vs. Cal Lutheran 7:30 PM

Men's basketball wins first game

The men's basketball team garnered their first win of the season against Gallaudet University 72-58 at Cal Lutheran's Gilbert Arena on Dec. 17.

Down by only two at halftime, the Beavers found themselves down by 10 points at the 13:39 mark. But Caltech slowly chipped away the lead until a couple of lay-ups by senior captain Bryan Hires and a technical on head coach Roy Dow spurred a 15-0 run to finish the game.

Defense was the key to victory for the Beavers, as Gallaudet finished with only two field goals in the last eight minutes of the game and 23.1 percent shooting in the second half.

The Beavers, dressing only nine players due to various injuries, had all five starters play more than 30 minutes in the game.

Junior point guard Matt Dellatorre led all scorers with 23 points, including 4-of-9 from the three. Hires finished with a double-double of 22 points and 11 rebounds while making 8-of-10 shots. Junior Travis Haussler also had a double-double with 18 points and 10 rebounds.



Senior Bryan Hires goes up for a layup during the Beaver's game-clinching 15-0 run



The ball takes a strange bounce as redshirt junior Jessica Roberts drives towards the basket during Caltech's 59-40 loss against Whittier on Tuesday



Men's Basketball

Dec. 17 Gallaudet W, 72-58

Dec. 19 North Central (Ill.)

L, 100-62

Dec. 27 Fontbonne L, 65-47

Dec. 31 Rivier L, 66-56

Jan. 2 Dickinson @ L, 74-47

Jan. 5 Grinnell L, 137-84

Jan. 8 Chapman L, 76-53

Jan. 12 at Redlands L, 97-36

The Weekly Scoreboard

Men's Basketball

Dec. 16 Montana St. Northern L, 75-51

Dec. 27 Fontbonne L, 81-55

Dec. 29 Rockford L, 74-52

Dec. 31 at Fisher W, 63-44

Jan. 2 at MIT L, 61-40

Jan. 5 Grinnell L, 76-71

Jan. 10 Whittier L, 59-40

Jan. 12 at Redlands L, 73-41

Women's Basketball

Dec. 16 Montana St. Northern L, 75-51

Dec. 27 Fontbonne L, 81-55

Dec. 29 Rockford L, 74-52

Dec. 31 at Fisher W, 63-44

Jan. 2 at MIT L, 61-40

Jan. 5 Grinnell L, 76-71

Jan. 10 Whittier L, 59-40

Jan. 12 at Redlands L, 73-41

Natalya says: start off the new year the weird way

Kidnapped dummies and disappearing bridges, all made possible by magic

By Natalya Kostandova
COLUMNIST

The new year started off with its share of excitement in the criminal world. Aside from the common, though unfortunate, crimes there have been several cases of unusual nature, demonstrating both the variety and, more often than not, absurdity of the world we live in.

1. Kidnapping and holding hostages in the United States is considered a heavy offense and abduction for money has a special priority on the FBI list of crimes. While in many cases the victims of crime are high-profile persons, Trevor, the victim of a kidnapping that took place in Lacey, Washington, was an unlikely candidate for the crime.

Trevor was sitting in a car when the perpetrator broke the driver side window and dragged him out. The victim has not been

seen since then. While the actual technique of the abduction is not all that uncommon, the profile of the victim is. Trevor is a police dummy, dressed in the uniform and complete with sunglasses, used by the Lacey police to encourage drivers to slow down in selected areas of the town.

The criminal mastermind behind Trevor's disappearance will face felony charges for disabling a police vehicle, if he or she is ever found. The real mystery behind the crime, however, lies in the motifs behind the abduction. After all, there are only so many things that can be done with a mannequin of a man in blue.

2. Yet another instance of kidnapping left authorities puzzled. A 19-year old Australian citizen admitted last week that he was responsible for the disappearance of two crocodiles and a monkey from a wildlife park in Darwin, Australia. At the time of the crime, the teenager must have thought it was a good idea to steal and sell

the three animals for profit, only to discover that it was harder than expected to find a buyer for the Aussie version of Curious George and Captain Hook's tick-tocking nemesis.

Perhaps he should have stolen an owl or a sloth. Both seem like slightly more adaptable pets than the crocodiles. At least they're fuzzy and don't tend to eat people.

Meanwhile, the teen claimed that at the time of the crime his judgment was muddled by marijuana. Hm. Never would have guessed that was possible.

3. When a statue disappears, somebody usually notices. When a person slips and falls on his or her butt, everybody always no-



ME 277 Final - Make a 200-ton bridge disappear in 24 hours without any witnesses. Extra Credit: do it with people on it.

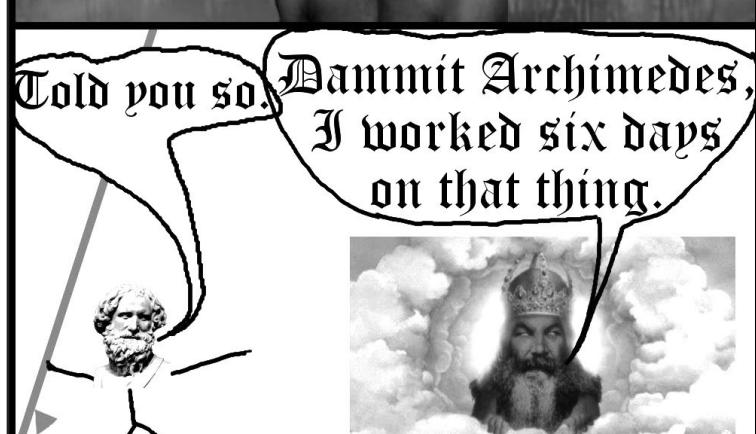
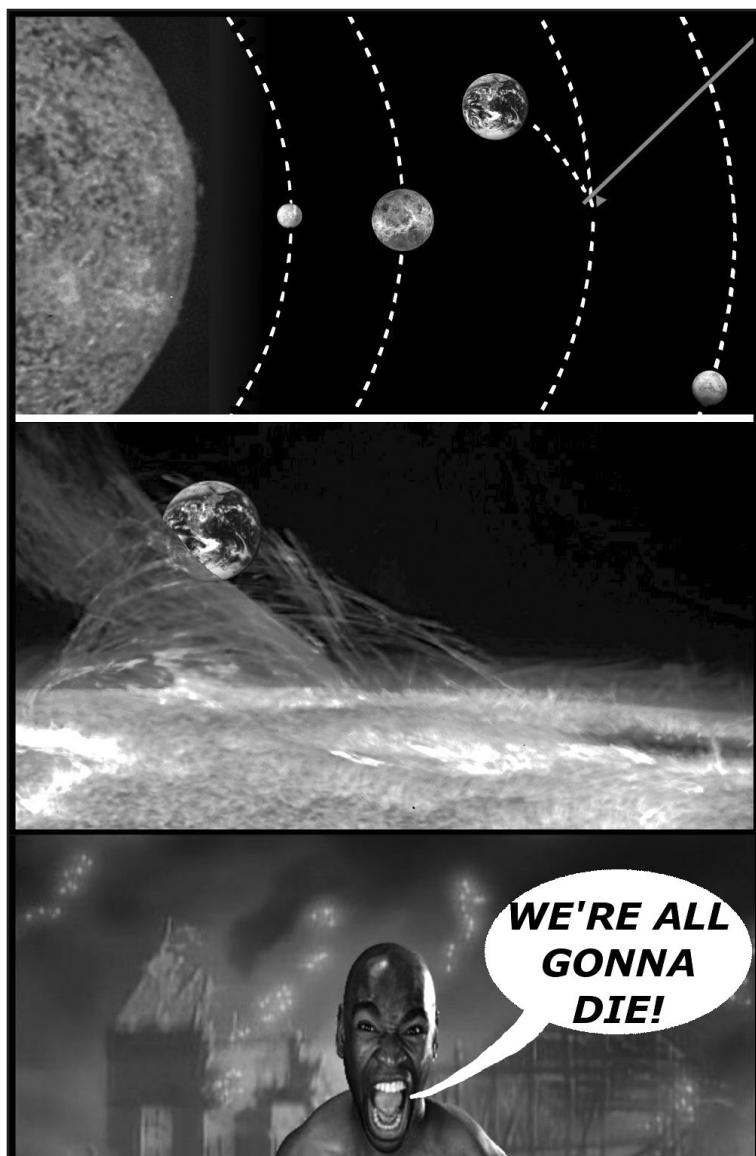
tices. And laughs. When an entire bridge goes missing overnight, nobody sees or hears anything.

The 200-ton, 37-foot bridge, which was a part of the only road leading to a local heating plant in Khabarovsk, Russia, was definitely there before the nightfall and definitely not there in the morning. The puzzled residents and local police are sure that the

bridge was taken apart for scrap metal during the night, yet there are no witnesses or any information pertaining to the theft, not to mention a clear explanation of how this logically difficult feat is even possible.

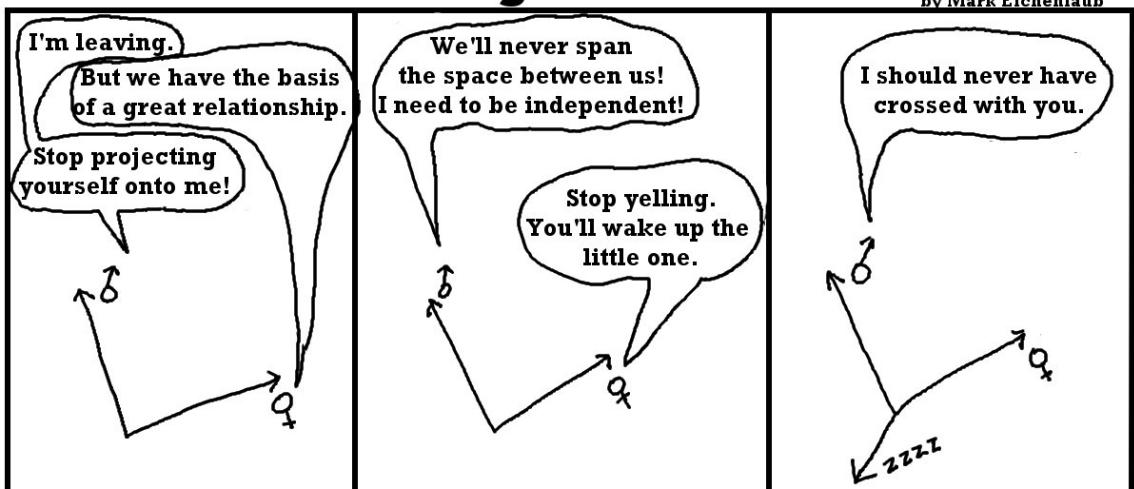
It appears that there is, however, a perfectly logical answer to a question of how exactly the bridge disappeared. It's magic.

Comics



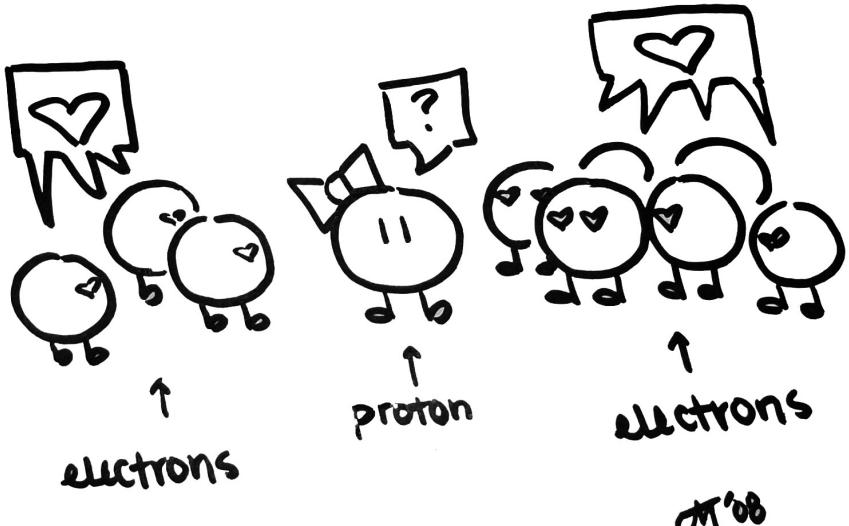
WGP by Mark Eichenlaub

WGP "Divergence"



by Mark Eichenlaub

Atomic-Level Glomming



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