

# THE CALIFORNIA TECH



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VOLUME CX, NUMBER 5

PASADENA, CALIFORNIA

OCTOBER 27, 2008

## Caltech Continues to Improve With Grade of B on Sustainability Report Card

**By Natalya Kostandova**

STAFF WRITER

With the results of 2009's Sustainability Report Card in, Caltech has a reason to be optimistic. Receiving an overall grade of B in this study compiled by the Sustainable Endowments Institute, the college continued improvement in standing compared to the last two years. The 2007 report card gave Caltech a grade of C-, which was bumped up to a C in 2008.

Caltech's sustainability efforts were evaluated in eight different areas, ranging from involvement of administration to endowment transparency. Caltech received A's in the categories of Administration, Food & Recycling, Green Building, and Investment Priorities, with a low grade of F in Endowment Transparency.

According to John Onderdonk, Manager for Sustainability Programs at Caltech, the report gives a general idea of where the school's sustainability efforts stand in relation to other colleges. At the same time, the evaluation it provides is not entirely representative of Caltech's commitment to sustainability, especially in certain areas.

For instance, the grade of C in Climate Change & Energy comes not from lack of activity, but rather from the different approach that the Institute takes on the topic, said Onderdonk. Caltech, which has not signed the American College University Presidents Climate Commitment (ACUPC) citing its ambiguity, "takes a more pragmatic approach by trying to understand the issue before setting unrealistic goals," said Onderdonk.

With the recent establishment of a SURF devoted to understanding the extent of Caltech's carbon footprint and an upcoming committee meeting to review the resulting report and discuss appropriate measures to be taken, Onderdonk hopes that by 2010, Caltech can disclose its carbon footprints, set realistic goals for improvement of the situation, and receive some recognition for the work completed in this area.

Student involvement in the development of sustainable resources was given a grade of B after an increase in the last couple years. With more than five clubs on campus whose main goal is improving sustainability levels in Caltech and the outside community, students are involved in a variety of projects, from installing a solar panel on Watson to building and operating small biodiesel reactors.

At the same time, Mike Ferrara, President of Engineers for Sustainable World (ESW) feels that student contribution can reach a higher level. "It is easy to



### Caltech Alumnae Host Women in Information Sciences Tea

Leslie Fox (Portblue), Liz Fong (Google), Jessica Gray (Google), Cheryl Dartt (Yahoo) and Telle Whitney (Anita Borg Institute) discuss life after graduation in the first program of its kind in Avery Library on Oct. 23.

get caught in the Caltech bubble," said Ferrara. "99% of students know sustainability is important, but a lot of news about climate change, for example, just pass by the students without them noticing."

Perhaps the biggest bias of the report rests in the fact that it is compiled by the Sustainable Endowments Institute with endowment being the main focus of the study, said Onderdonk. Caltech, which received an F in Endowment Transparency, is not the only college that has difficulty disclosing its finances and investment priorities.

"It's a slippery slope," said Onderdonk. "When you disclose what you're investing in, it raises a lot of questions and there's a risk of running into such a stalemate that nothing productive happens."

With the ultimate goal of achieving financially self-sufficient sustainable developments, Onderdonk believes that progress is a long-term process that does not necessarily have immediately visible results. Among the exceptions to this rule is the Wilson parking structure, which has recently been converted into the largest solar-energy facility in Pasadena. The structure, which will officially open with a ribbon-cutting ceremony on Nov. 4, is a "visible, tangible example of what Caltech is doing, compared to other projects hard to see," said Onderdonk.

With several other projects in progress, including conversion of Robinson Lab into an LEED platinum standard building (the highest standard for LEED buildings), which has the potential of becoming the nation's greenest refurbished building, Caltech is continuing development in sustainability areas.

The Sustainability Report Card evaluated efforts of over 300 colleges in all fifty states of the US as well as Canada. Only fifteen schools total received a grade of A-, with no As or A+s. Stanford is the only college in California to receive a grade in the A range.

## Upcoming Events

### Monday October 27, 2008

Caltech VS. MIT Blood Battle  
11:00 AM - 5:00 PM  
Winnett Lounge

Amory Lovins, expert on energy independence, on profitable solutions to climate change.  
8:00 PM - 10:00 PM  
Beckman Auditorium

### Tuesday October 28, 2008

Caltech VS. MIT Blood Battle  
8:00 AM - 8:00 PM  
Winnett Lounge

Thomas L. Friedman, Pulitzer winner and author of *The World is Flat*, with Caltech George L. Argyros Professor Nate Lewis regarding the effects of the energy crisis on the economy.  
2:00 PM - 4:00 PM  
Ramo Auditorium

### Thursday October 30, 2008

Professors Kip Thorne, Jay Marx, and composer Andrea Centazzo celebrate LIGO with a discussion and a performance of "Einstein's Cosmic Messengers."  
8:00 PM - 10:00 PM  
Beckman Auditorium

### Friday October 31, 2008

Community Service Fair and House/ Graduate Student Pumpkin Carving Contest  
12:00 PM - 1:00 PM  
San Pasqual Mall

### Saturday November 1, 2008

Mark Nizer performs comedy, juggling, and more  
2:00 PM - 3:30 PM  
Beckman Auditorium

TACIT Film Festival presents Vertigo, The Searchers, Kiss Me Deadly, King Creole, and Dr. Strangelove.  
7:00 PM - Sunday  
Winnett quad

## In This Issue

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First-Ever Win  
Against Cal Lutheran  
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# OPINION

2 OCTOBER 27, 2008

THE CALIFORNIA TECH

## Letter from the Editor

# What if problems sets weren't turned in?

By Marissa Cevallos

EDITOR - IN - CHIEF

Imagine: it's midnight, and you've answered four out of five questions on tomorrow's problem set. The last one is kicking your butt. Do you stay up until 3 or 4 AM to get full credit, then wake up at 9 AM for lecture? Or do you admit defeat and hit the hay? Would your answer change if the problem set weren't graded? I think students would be healthier, happier, and just as educated if we didn't have to slave over the last point.

At the University of Edinburgh, where I've traded a term of my Caltech career for an adventure in Scotland, every science class has a weekly problem set on par with Caltech difficulty. Occasionally, one problem will be graded for a fractional percent of the final grade. But my week-to-week problem set routine doesn't involve watching the sun rise.

Each week, a two-hour tutorial--like a hybrid of recitation and office hours--is held with students, TA's, and the professor. Students arrange their desks in a group and work on the problems they couldn't figure out. When group collaboration fails, there are always TA's handy for hints or explanation. The professors are just as eager to help.

What this does right--and where

I think Caltech falls short--is encourage efficient problem-solving. The most clever students may never need to raise their hands, while the ones who struggle can get the help they need without wasting hours of sleep.

Because students only bother attacking problem sets if they need the practice--with the intention of passing an exam at the end of the year--there's no pressure to complete grungy problems once you've gotten the idea. Am I the only one who chooses between getting points on the problem set or reading the text for understanding?

The brilliant part of non-graded sets is the time you save in futile attempts at problems you're not going to understand. Time management would be much easier if you could throw in the towel after 4 hours, then ask your questions at a tutorial the next day. Honestly, how productive is banging your head against the desk?

I can already hear the pedants wailing that the long, grueling trial-and-error is the key to complete understanding. I think they should get out more. There are obviously downfalls to this system. You could skip tutorials every week, never complete a problem set, and fail the final. You can't really do that at Caltech without UASH noticing. Or it might increase test anxiety for students who enjoy the cushion that graded problem sets give them going into a final. Having a bad test day isn't a made-up phenomenon. But could the net benefit be positive? I think the "nose to the grindstone" mold that Caltech creates isn't a natural one for students who gained admission by breaking molds at their high schools. By selection, Caltech students are bright, eager, creative, and passionate about science. By "forcing" problem sets down our throats, Caltech

isn't fostering the drive that brought us here in the first place. I don't feel we're trusted to complete the problem sets on our own time.

That's why I don't think it would work without an institute-wide change of heart. If even a few classes still demanded weekly problem sets for a grade, it's probable students will neglect their "self-guided" classes in interest of short-term survival, making a bad problem worse. We all know that classes with long-term assignments tend to get the shaft.

To win the approbation of the faculty, any change would have to ensure the integrity and reputation of the world's most intense merry-go-round of math and science. That criteria goes for any idea up for grabs in the committee formed last year to re-evaluate Caltech's core curriculum. To make a strong case for change, you'd either need a guinea pig class of Caltech students willing to test drive the new approach, or a case study from another university like MIT.

Perhaps our reps on this summer's Student Experience Trip are in the best position to make such a case. I'll defer to their better judgment and years left to serve Caltech, but I think the Scots are on to something.

## The California Tech

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By Caleb E. Ng

COLUMNIST

"ASCIT sucks."

I hear this statement all the time. And it's true—in my three years here, ASCIT has not been efficient, nor has it been accountable to the student body.

A classic example of ASCIT inefficiency was the design process of the new ASCIT letterhead. This was a simple project to provide a mechanism for our official communications, including letters to Annual Teaching and Staff Awards nominees and winners.

Instead, for a month, the Board of Directors wasted time meeting after meeting discussing the design and sending it back for repeated revisions.

As for the lack of accountabil-

ity, one of the biggest controversies of the past academic year was the selection of the ASCIT Movie, for which we bought out a movie theatre. In this case, we ran a movie-selection poll without effectively explaining its advisory nature, instead implying that it was a binding vote. Due to scheduling considerations, we subsequently selected the second most popular movie, again without explanation.

The student body inherently confers and delegates authority to its leaders through the elections and voting processes. Our current setup does not allow for accountability mechanisms less drastic than a campus-wide recall vote.

You might be surprised at my public self-criticism. As I stated in this column two weeks ago, our community urgently needs to engage in free and open dis-

# YES! on Prop. 10

By Evans Boney

STAFF WRITER

Since the general election isn't worth writing an opinion piece about, let me implore you to vote yes on 10. This is probably the one area I disagree most with liberals about, so it may come as a surprise to most of you to hear me say it, but, for the next 10 years, natural gas is an excellent alternative to foreign oil. To me this is more of a foreign affairs issue than an environmental issue, but I want to start first with a comment to the democratic party.

Your pettiness is astonishing. You oppose (or refuse to support) a move to cleaner energy and away from foreign oil because it is funded primarily by T. Boone Pickens, well known republican donor and creator of the Swift Boat ads. The courage campaign nicknamed this proposition the "T. Boone Bailout". This sort of petty sniping is what I would expect out of Sarah Palin or John McCain, and it does not behoove the democratic party. Pickens is not a great man by any stretch of the imagination, but the Pickens plan is a good plan and should be judged on its merits, not its founder. Yes, T. Boone owns a lot of natural gas companies like Chesapeake Energy, but he also owns a ton of solar (First Solar) and wind (Trinity) stock, will democrats likewise oppose those initiatives? He's spending millions of his own dollars encouraging initiatives to connect windpower to the grid all across the central US, and he's also encouraging drilling for domestic natural gas. Democrats should be ashamed for being so petty about something so serious.

There is no doubt that Pickens is motivated entirely by profit. However, as he's advocating a great solution to our energy problems in the US, I stand by as an ardent supporter of the Pickens Plan, even with his conflict of interest in plain sight. The plan is simple: drill for natural gas and subsidize wind

and solar energy companies and research. The former, to me, is an issue of national security. While natural gas drilling, like oil drilling, is a dirty proposition, unlike oil drilling we actually have enough natural gas in our country to make a significant dent in our dependence on foreign oil. Recent discoveries of natural gas in areas of Pennsylvania, West Virginia and Oklahoma would enable us to reduce our reliance on foreign oil in the short run while we build our solar and wind farms across the southwest and central United States (bringing jobs back to the dustbowl, aside from the other benefits). These solar and wind corridors, like their natural gas counterparts, require adequate infrastructure to connect the power sources to the power outlets (gas stations and power grids). It is in that vein that we find proposition 10, which would subsidize the cost of the large scale distribution of natural gas, but it is also in that vein that Pickens supported millions in wind subsidies (also to a company of his) in Texas earlier this year, which is poised to make that state a leader in alternative energy production.

Pickens may be a terrible man, and natural gas drilling is surely dirty. However, I believe the amount of earth moved for pipelines and soiled by leaky drillbits is well worth the independence from foreign oil as well as the reductions of 20-30% per mile driven in emissions from NG cars, which are already on the road en masse in places like Europe and Brazil. Please, join me in voting yes on Prop. 10.

(These opinions are solely those of the author and do not reflect the larger views of Caltech, the Tech, or the Graduate Student Council)

# From the President's Desk...

What's wrong with ASCIT?

By Caleb E. Ng

COLUMNIST

"ASCIT sucks."

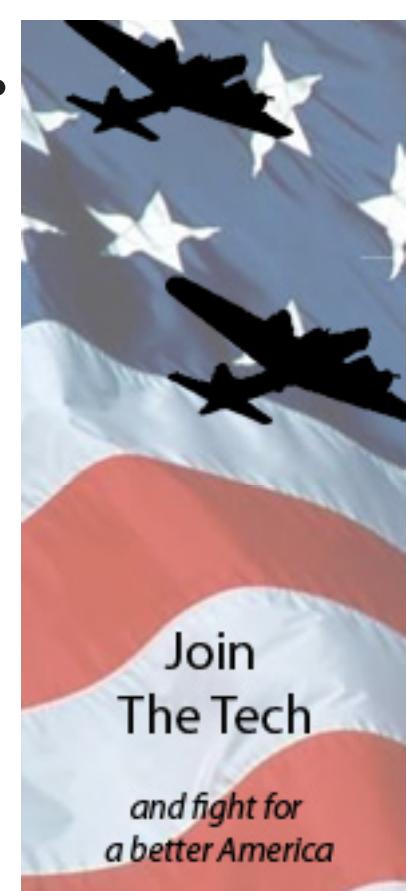
course. ASCIT can and should take the lead.

Inefficiency and lack of accountability are only two of ASCIT's weaknesses. The ASCIT leadership discussed these and many other issues during its off-campus retreat this past weekend.

Most importantly, we discussed ways in which we can improve ASCIT in these areas. One key to this plan is a bylaw and structural review that the Executive Committee has been performing over the course of the past year.

Check back in this space next week to find out more, or just ask anyone on the Board, Executive Committee, or President's Staff.

[pres@donut.caltech.edu](mailto:pres@donut.caltech.edu)



# NEWS

OCTOBER 27, 2008

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## The Outside World

### Election

Senator Barack Obama's chances of becoming the next President of the United States are being reported at 96.7% this week by FiveThirtyEight.com. Other sources have him pegged at a lower chance of winning but still with a strong lead over Senator John McCain.

Prediction market Intrade has shares of Obama winning the Presidency trading at 88 cents each. This indicates a belief among market participants that Obama has an 88% chance of winning.

### Steven Hawking to Retire

Professor Steven Hawking of Cambridge University in England will become Emeritus Lucasian Professor of Mathematics. All professors are forced to retire from their posts at age 67 by institute requirements. Despite the change in title, Hawking is expected to continue his research

### Philadelphia Phillies lead World Series 3 - 1

Despite the National League's losing record in interleague play this year, the Philadelphia Phillies have taken a commanding lead in the 2008 World Series.

Historically there have been very few 3 - 1 comebacks in baseball. Only most recently has the task been accomplished by the Red Sox in the 2007 & 2004 ALCS.

### UFO's Spotted Over Texas

Residents of Steenville, a small town in Texas, have reported sightings of UFO's. Residents claim that the object they saw was not standard military aircraft but rather a flying disk. Talk of the UFO has drawn attention from both the media and UFO seekers.



**oh god how did this get here  
I am not good with computer**

**Are you good with computer?  
Join the tech !**

## The Siemens Competition in Math, Science and Technology is coming to Caltech!

The Siemens Competition takes great pleasure in inviting the students, faculty and staff of Caltech to the following events:

### Reception and Viewing of Student Research Projects: (refreshments will be served)

**DATE:** Friday, November 21, 2008

**TIME:** 5:00 pm – 6:30 pm

**LOCATION:** Dabney Lounge

### Student Oral Presentations:

**DATE:** Saturday, November 22, 2008

**TIME:** 9:00 am – 2:00 pm

**LOCATION:** Ramo Auditorium

We look forward to seeing you!

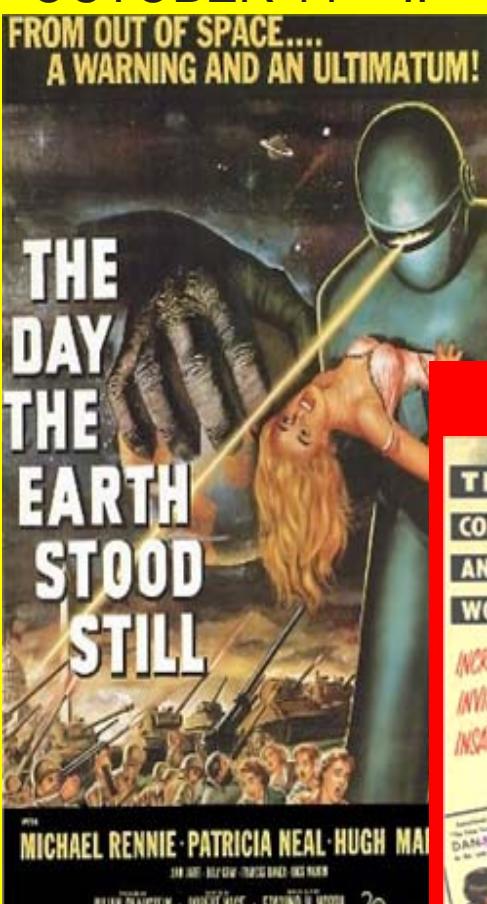
The Siemens Competition in Math, Science and Technology is the nation's premiere math and science research competition for high school students. The Siemens Foundation provides more than \$7 million annually in support of educational initiatives in the areas of science, technology, engineering and math in the United States. By supporting outstanding students today, and recognizing the teachers and schools that inspire their excellence, the Foundation helps nurture tomorrow's scientists and engineers.

[www.siemens-foundation.org](http://www.siemens-foundation.org)

**SIEMENS**

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THE CALIFORNIA TECH

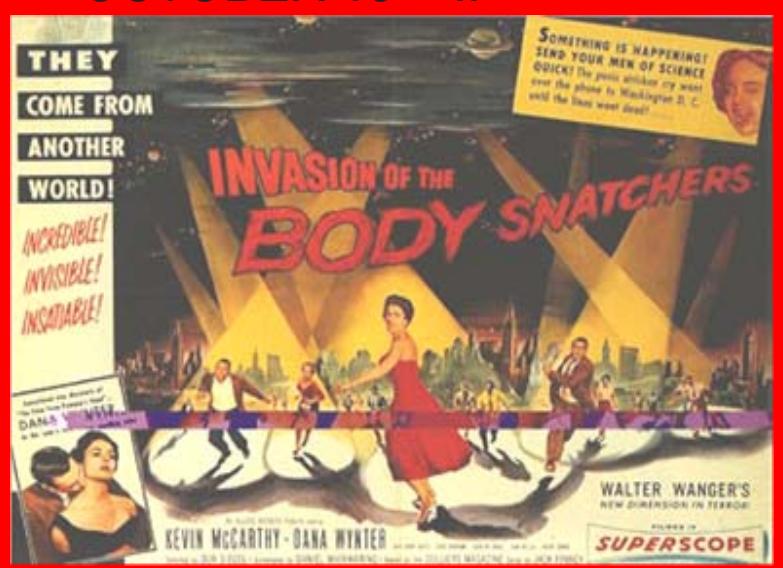
OCTOBER 11<sup>TH</sup> !!

free shows!!

free food!!

As a Prelude to the  
World Premiere of  
*Rocket Girl*  
TACIT Presents:

Films from  
The Nuclear Age:  
Paranoia, Communism  
and  
*Fast Cars*

OCTOBER 18<sup>TH</sup> !!OCTOBER 25<sup>TH</sup>

DOUBLE FEATURE!!

SATURDAY NIGHTS

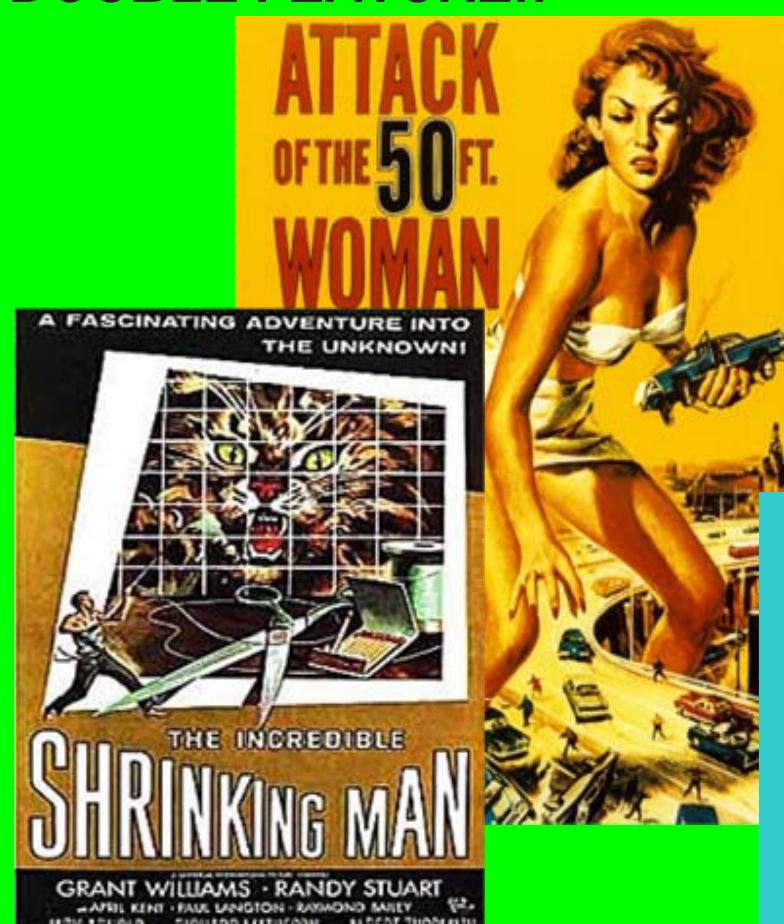
Sherman Fairchild Amphitheater,  
October 11 and 18 at 8 pm

Winnett South Wall,  
October 25, and the All-Nighter! on Nov. 1  
from Sunset to Sunrise

Bring your blankets, lawn chairs, and sleeping bags!

NOVEMBER 1<sup>ST</sup> ALL-NIGHTER!!

Sunset to Sunrise!



This Festival is open to all Caltech students, staff, and faculty as well as all JPL employees, families and invited guests. The purpose of this Festival is to introduce the community to TACIT, the Theater Arts program on campus, and to prepare for and promote the world premiere of *Rocket Girl* Nov. 7, 8, and 9 at Ramo Auditorium!!

For More Information  
contact Brian Brophy,  
director of TACIT at  
brophy@caltech.edu



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Come experience  
the true story of  
America's first  
female rocket  
scientist.

Directed by  
Brian Brophy

Written by  
George Morgan

THEATER ARTS  
AT CALTECH  
presents the  
WORLD PREMIERE  
of the play  
*ROCKET GIRL*  
Ramo Auditorium  
California Institute  
of Technology

Friday, November 7th at 8:00 pm  
Saturday, November 8th at 8:00 pm  
Sunday, November 9th at 3:30 pm

\$18 general admission  
\$9 Seniors and students 18 and over with ID  
\$5 Caltech students and children under 18

# The Editors Picks

The Editors of the Tech Present their personal favorites in food and entertainment.



## Hollywood Movie

*Oceans II*: The 2001 remake to a classic film offers a star studded cast and all the glitz and glitter of Las Vegas. Makes the Editor's Picks for its fast paced plot and humor.

*Schindler's List*: Not only recognized by the American Film Institute as one of the top movies of all time, this Steven Spielberg is, in this editor's opinion the best portrayal of a flawed hero in Hollywood.



## Internet Distraction

*Orisinal.com*: Picked for its beautiful pastel colored flash games. This simple yet elegant site is home to over 50 games and provides hours of distraction.

*Sporcle.com*: Home to hundreds of brain-teasers, Sporcle.com is the ideal site to make you and your friends feel absolutely ignorant. Tests your knowledge of everything from television to geography.



## Hollywood Movie

*Oh! The Places You'll Go*: This book has been a favorite among both children and adults alike. Its simple yet profound message makes it a beside and graduation favorite.

*The Little Prince*: Another childhood favorite, this book was chosen not for one particular reason but rather for the "warm fuzzy feeling" it bestows on its readers.



## Luxury Expense

*Cold Stone Ice Cream*: If it is the simple pleasures that make life so enjoyable then ice cream has to top the list. Cold Stone is delicious, affordable and conveniently located.

*Diamonds*: The sparkly stone is a favorite world wide. Beautiful and robust this one is likely to remain a favorite for decades to come. Maybe even forever.



## TV Series

*Family Guy*: Sure this show is stupid. But it is an impressive amount of stupid. Despite being offense to most audiences it is right on target with the college crowd for which it was written. Hilarious.

*CSI*: The eight year old series has grown predictable in its years. Despite this fact, it manages to keep up a high level of interest.



## Miscellaneous Hobby

*Eating*: A time honored classic. Eating is enjoyed by people in nearly every country of the world. Whether you like sushi or steak, eating offers something for everyone.

*Pretending To Be a DJ*: I am not talking about serious DJ'ing here. I am talking about blaring your songs at 3 am in no particular order. Fun for you. Fun for the neighbors.

## Comics



# Soccer nets upset victory with last minute goal

**Yang Yang**  
SPORTS EDITOR

With 24 seconds left in the game, junior Tyler Volkoff found himself wide open.

"[My teammate] Grayson Chadwick lobbed me the ball," Volkoff recalled. "I stopped it about 25 yards from [the opposing] goal and just lobbed it. The ball hit the far post and began to roll slowly towards the other side. I didn't think it was going in."

But the ball managed to sneak across the goal line to give Caltech its first win over Cal Lutheran in team history. Volkoff's sixth goal of the year also set a Caltech record for most goals in a season.

Volkoff went into the game with extra motivation.

"I played my worst game of soccer against Cal Lutheran my freshman year," he recalled. "It was an away game and they stomped us by eight goals. I

didn't touch the ball the whole game and got a yellow card. They were just a mean team."

The win avenged the Beavers' Sept. 27 loss to the Kingsmen, when Cal Lutheran scored four goals in five minutes to break a 0-0 halftime tie.

The rematched seemed to be headed in a similar direction in the first half as the Kingsmen had 13 shots on goal to Caltech's one. However, freshman keeper Marcus Lucas pulled off eight saves to keep the game tied 0-0.

The Beaver defense ramped up in the second half as Cal Lutheran was only limited to four attempts. The offense picked up as well - the Beavers had five shots on goal in the second half.

The win pulls Caltech (1-15-1 overall, 1-11 SCIAC) to a seventh place tie with Whittier in conference play while dropping Cal Lutheran (8-9 overall, 6-6 SCIAC) from fourth to sixth place in SCIAC standings.



Photo by Mandy Gamble

## Upcoming Games

**Oct. 25**

Men's Soccer at Whittier

7:00 P.M.

**Oct. 28**

Women's Volleyball vs Occidental

7:30 P.M.

**Oct. 29**

Men's Water Polo vs. Redlands

7:00 P.M.

**Oct. 30**

Women's Volleyball vs. West Coast Baptist

7:30 P.M.

**Nov. 1**

Cross Country at SCIAC Finals

8:00 A.M.

Men's Soccer vs. Pomona-Pitzer

11:00 AM.

Men's Water Polo at Cal Lutheran

11:00 A.M.



## The Weekly Scoreboard

**Oct. 21**

Women's Volleyball at CMS

L 3-0

**Oct. 22**

Men's Soccer vs. Cal Lutheran

W 1-0

Men's Water Polo vs CMS

L 22-5

**Oct. 24**

Women's Volleyball at Cal Lutheran.

L 3-0

**Oct. 25**

Men's Water Polo vs La Verne

L 17-10

Men's Soccer at La Verne

L 6-3

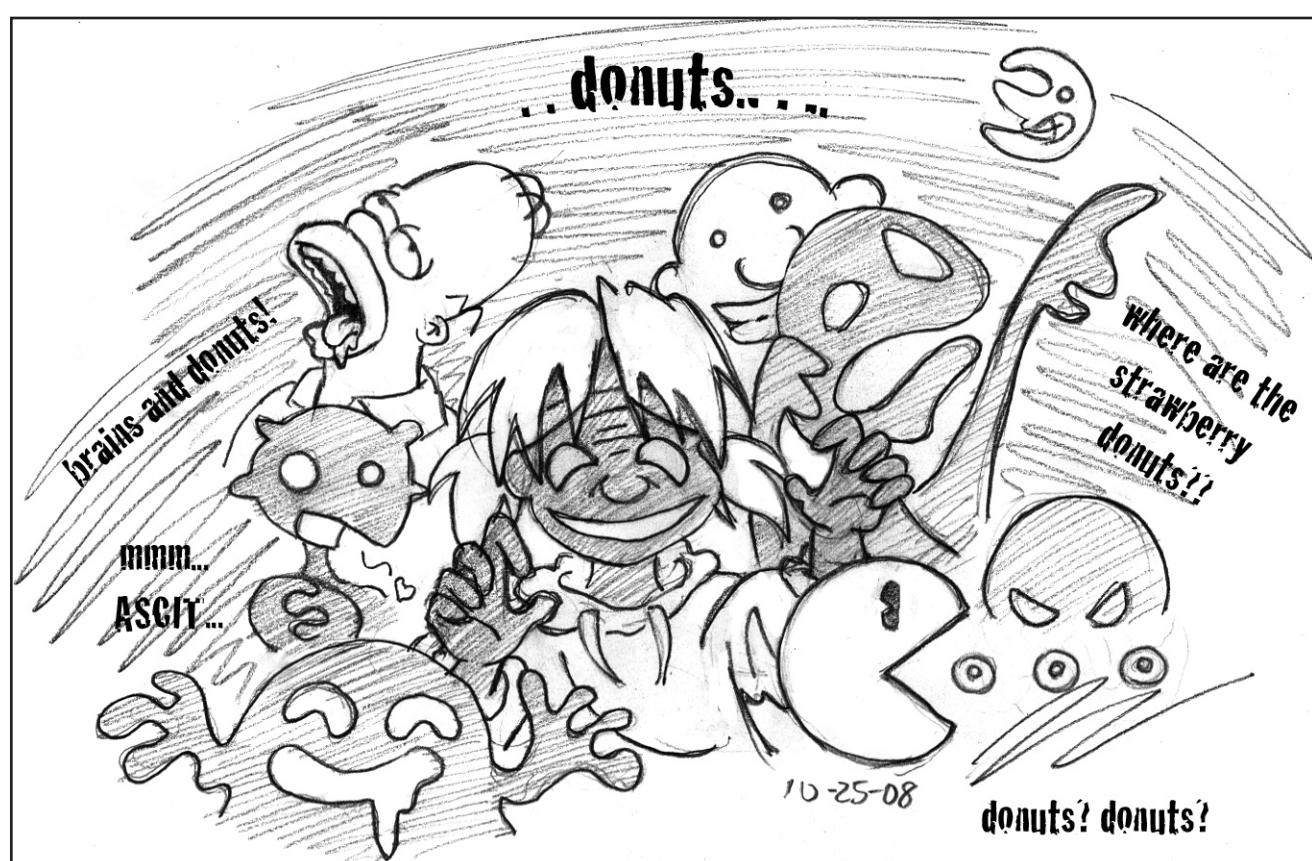
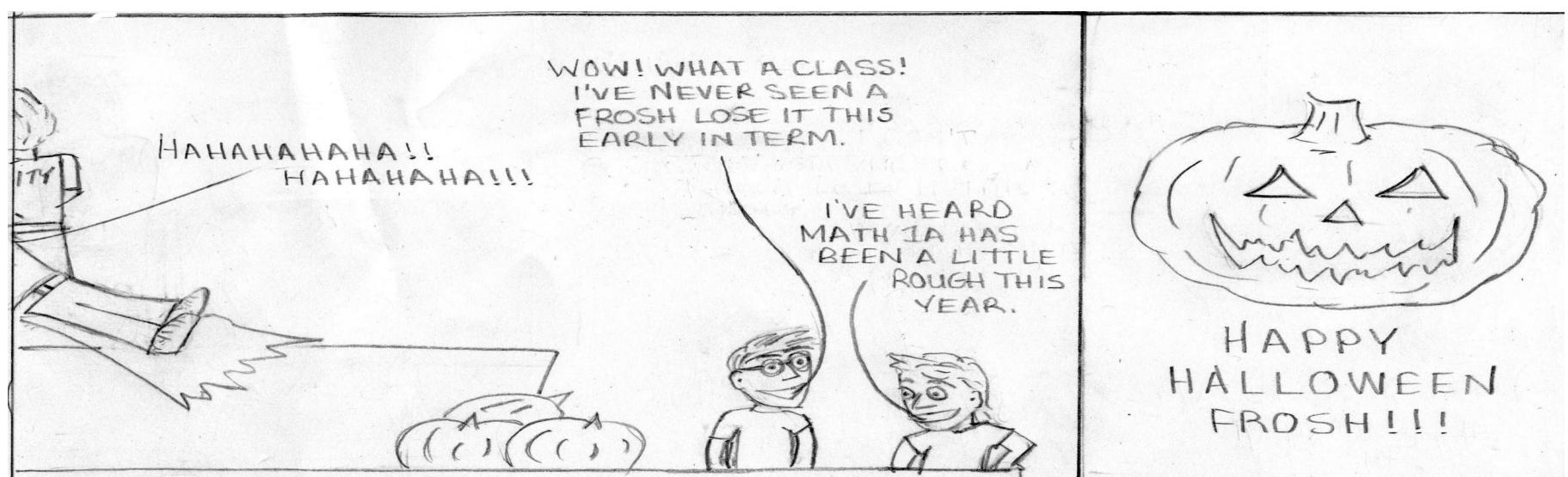
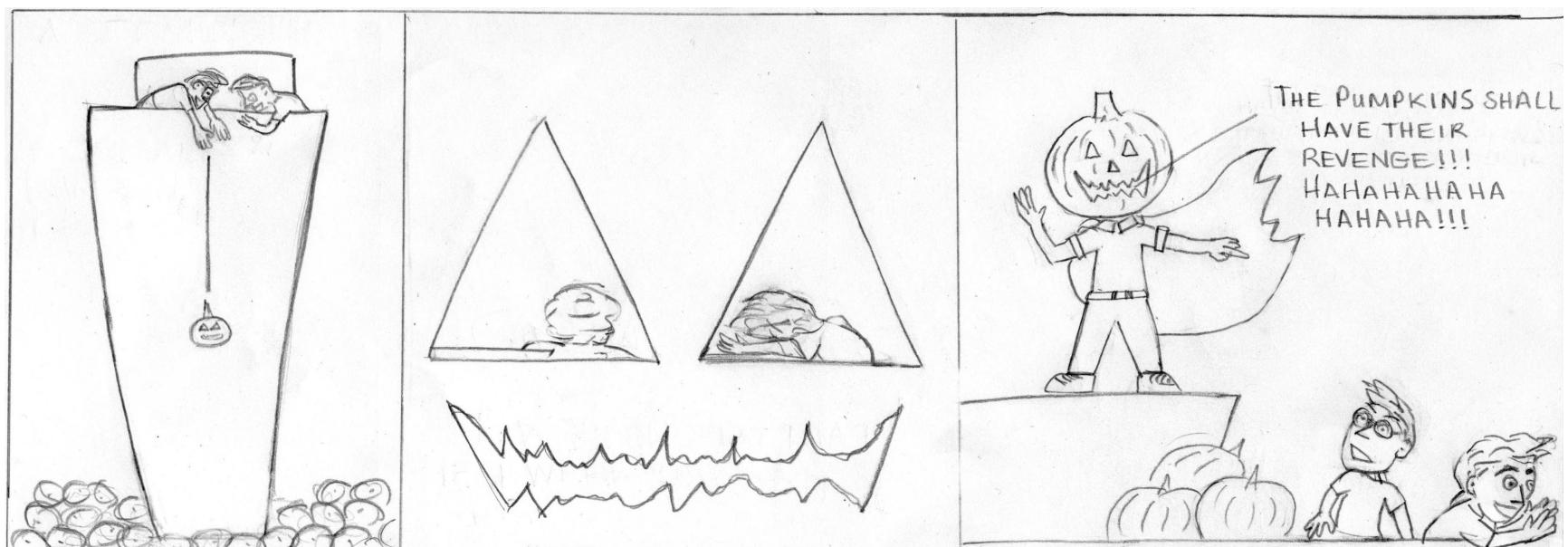


Freshman Vivian Yang (2) goes up for the spike against two Southwestern defenders during West Coast Baptist invitation last weekend. The Beavers matched up twice against Southwestern, losing both times 3-0.

Also pictured: freshman Teri Juarez (9) and Erin Hoops.

photo by Aimee Gillespie

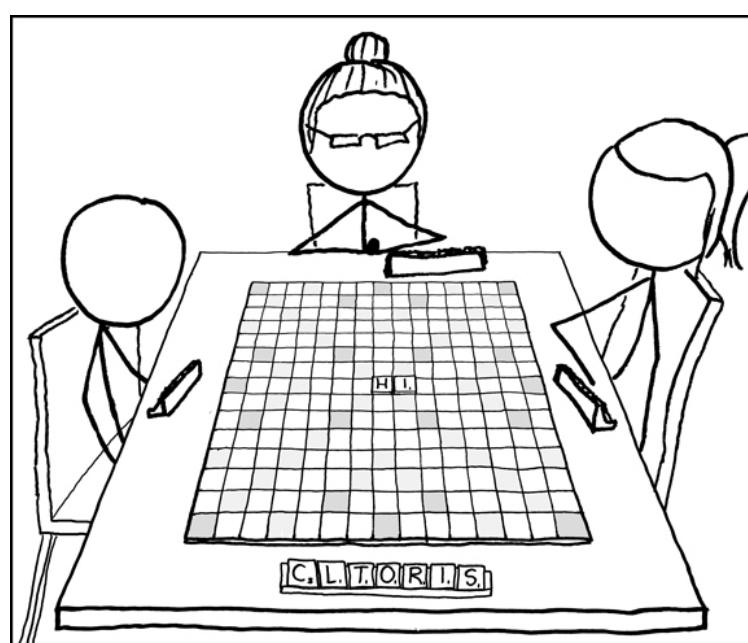
## Comics



Never Too Late to Transfer

Submit your  
comics to the  
Tech!

We pay \$5 -  
\$15 for original  
student comics  
email:  
[tech@caltech.edu](mailto:tech@caltech.edu)



xkcd by Randall Munroe

The California Tech  
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