



Photo by Kevin Peng

Techers show their love for Jimmy Eat World. Especially the student presumably familiar with ASL in the upper right corner.

Caltech Rocks Out

In Accordance with Approved Safety Procedures

By MARISSA CEVALLOS

What started out as a joke last year between a few members of ASCIT turned into a Saturday night rock concert and BBQ free to the Caltech community.

The four hours of free food and wailing guitars on Saturday night were only possible with 7 months of "coordinating meetings, finding last-minute funding, organizing volunteers, buying food, countless emails, office visits, and so on," said

Dima Kernasovskly, ASCIT social director.

The idea to bring a concert to Caltech began as a far-fetched idea hatched by ASCIT members Dima and Raquel "Rocky" Velez. According to fellow member Chris Gonzales, "Dima and Rocky sat down at the beginning of [Dima's] term to figure out what cool events we should try to do. The concert was on there as some ridiculous never-gonna-

happen event."

The joke turned quasi-serious when Chris, bored one night during third term, decided to "take it to the next step" and figure out a price estimate.

"I pestered Dima with this number, telling him to start raising money and to cancel every other social event on our calendar."

After a few more careful calculations, the trio figured

it could raise \$25,000 from a Moore and Hufstedler Fund (MHF) grant, and another \$5,000 from ASCIT's yearly budget. With a realistic budget, ASCIT looked at which bands it could afford. From a long list of bands, the group narrowed their options to about ten bands. According to Rocky, "anyone who cost more than \$35K, we hadn't heard of, or we knew couldn't put on a show worth anything,

we tossed."

ASCIT turned the filtered band list into a campus-wide poll last year, which Jimmy Eat World won by a large margin.

With the band in mind, ASCIT now faced the logistical problems of holding a big-name concert on a small campus.

"Everyone thought it was a good idea in principle, but in the beginning people were wary

Continued on Page 2, Column 3

Expert Declares: We're Oil Out of Luck

By JOSEPHINE SUH

How long will the world's oil resources last? What can we do to cope with its inevitable decline, especially in the short term range? These were the questions that Ken Deffeyes, professor emeritus of Princeton University, addressed in his lecture on Thursday, Dec. 1. Delivered to a full audience in the Beckman Auditorium, the talk was the third installment in the Lauritsen Memorial Lecture series.

Division Chair of Physics, Math, and Astronomy, Thomas

Tombrello, kicked off the evening by giving a brief account of Charles and Thomas Lauritsen's scientific legacy, and of past events at the Institute that focused on the topic of oil depletion. In particular, it was pointed out that Professor David Goodstein had written the book, "Out of Gas," and had given a talk on campus last year, on the subject. Professor Tombrello went on to introduce the speaker.

Dr. Deffeyes' first presentation slide, projected on the stage, showed a linear graph that

serves as the basis of his analysis. Plotted under the assumption that the fraction of actual oil discoveries to attempted drillings, is proportional to the amount of oil remaining, the graph predicts that the world's oil reserves will undergo a steep reduction in the coming decades. More specifically, production of oil will decline dramatically in the next few years, as we are living through its peak as of this moment, Dr. Deffeyes argued. According to his calculations, "Hubbard's Peak," named after the famed geophys-

Tim Chang Tells All: Turning Profits Amidst Towel-Tallying and Tardy Renovations

By DAVID CHEN

Housing Director Timothy Chang discussed the effects of the budget crisis as well as other issues that affect Caltech undergraduates. The Housing Office pays for its own operating costs from the rents, and in fact, returns a small profit to the Institute every year. In response to the budgetary demands, however, the Housing Office will be expected to return a higher profit stream to Caltech in the upcoming years. In fact, the budget

calls for Housing to return 10% of annual revenue to Caltech, more than \$1 million, from the half a million that the Housing Office currently produces.

Tim Chang stated that the Housing Office has approached such goals with multiple methods, by reducing expenditures and increasing rental fees. Undergraduates will be required to pay for the damages. Tim Chang described that the Housing office tends to pick up the tab cur-

Continued on Page 8, Column 3

Continued on Page 2, Column 1

Tete-a-Tete with Tim Chang

Continued from Page 1

rently. In addition, the Housing office previously would match at face value the \$10 housing assessment damage fee that each undergraduate paid each term. Combined with the fact that the Housing office largely paid the damages on their own, the houses essentially were receiving a free \$10 per student each term. These changes were started this academic year, but further reductions are planned.

Stating that bi-weekly room cleaning services will discontinued at the start of next summer, he also noted, "No other school in the country, that I'm aware of at least, does any room cleaning for undergraduates." There are currently 40 housing custodians for the undergraduates and graduate residences, but this number may be cut in half with the reduction of room cleaning services. The Housing office will purchase more vacuums and will continue supplying toilet paper and paper towels.

A little known fact, however, is that off-campus apartments, such as Chester, currently can obtain one free cleaning per term, and this policy will be utilized for on-campus rooms next year. "The model we're moving to is the Chester Model, and the Chester Model is that you can request one room cleaning per term for free. It's included and you don't have to pay for it, but if you want a second or third one, you'll have to pay for that. Typically, if you do it right, in the middle of each term, you can get it cleaned."

The linen service was also discontinued this year, due to large costs from sheets that were not being returned. "The people who used it [the linen service] tended to not return the sheets but returned the towels for whatever reason that was. We were getting all of our towels back, but we weren't getting all of our sheets back. And my guess is that people were using the sheets for other things like togas and signs, things like that." Tim Chang stated that they tried doing a towels-only service, but "all the linen companies we talked to said, 'No, we won't do towels only. Our money is on the sheets.'" Students that arrive on campus without such linens may purchase them from the Housing Office.

The linen service and the existing room-cleaning per term were largely unadvertised. Tim Chang explains, "They were freebies," but the IHC has been informed of the room-cleaning policy for next year.

The rents for Caltech housing will increase again for next year. Undergraduates will pay 3.5% more, graduate students 8% more, and faculty or post-docs may pay up to 60% more. "This is to keep in line with what our market rents are. We're finding that we charge lower than market for a lot of the faculty and post-doc locations."

Tim Chang also provided a rough update on the renovations. The contractors have stated that they will have difficulty finishing by the original deadline of fall 2006, in time for the next academic year. They claim a difficult time securing supplies and labor, effects of the hurricanes and other factors. If the

houses are not finished in time, residents will probably move in January 2007.

The North Houses will not be renovated next year, and Tim Chang explained that they are looking at 5 years down the line. This means that the Housing crunch will be alleviated, and the Chester apartments will become doubles again, for example. The mods will remain in their location on a 3-year contract and will be rented out to organizations who wish to use them.

He also talked about the addition of Avery House. "As is clearly evident here, we try to let the students do much as they can with the living environments on their own. There are certain things that we have to step in and take control over, but as far as Avery House goes, it's up to the Avery Council. We do still have some needs for Avery House spaces. For example, we don't have right now any other location that is a climate-controlled, allergen-free location... We will also still have a need to put some graduate students in Avery House."

Tim Chang mentioned that the off-campus alleys only exist because the houses fill themselves. For example, Pageboys obtained the Holly about 15 years ago, but the policy is that these off-campus alleys exist only as overflow. "We need to have students living in Page House, in Ricketts House, in Dabney House, and in all the other houses first, because I can not rent out the spaces in those houses to any other population. I can't rent it to graduate students or faculty; they wouldn't live there. But if I moved the people in the Holly back into Page House, I can rent the Holly out to graduate students. As far as a business model goes, that's why" the houses need to be filled.

In response to a reporter's question, Tim Chang briefly described the history of summer housing. Eight to ten years ago, two of the houses would be closed during the summer. "One house would go through and renovate and do painting and patching. The other house we would put all our non-Caltech SURF students." But the students who were forced to move each summer were obviously unhappy. The IHC decided at the time to spread the non-Caltech students each summer. Tim Chang suggested that the non-Caltech students be put into the mods for this summer, "but the IHC said no."

Tim Chang stated that the Housing office tries to help students, such as the turkeys he provided to the RA's over Thanksgiving. He also mentioned that the housing office budgets \$4000 every year for the ASCIT concert, stating "It's such a worthwhile event because it's one of the only events that all of our students go to at the same time. It's one of those really good things that we're trying not to cut." Housing also is helping fund the ASCIT concert, renting the Porta-Potties and helping pay for clean-up. "For the most part, from the budget crisis, we're trying not to affect the undergraduates."

Jimmy Eat World, Jimmy Spit Up CDS

Continued from Page 1

of having the concert on their grounds," said Dima.

There was also the problem of security.

"We had to strike a balance between hyping up the concert while keeping it under wraps," said Dima.

ASCIT only advertised in places that were visited by members of the Caltech community, as well as specified in their contract that Jimmy Eat World was not to advertise the concert.

However, the student organizers all agreed that the logistics were made much simpler by one thing--the administration.

"There were lots of concerns about security and non-Techers coming on campus. Everything became much easier once Denise was on board," said Dima of Denise Nelson Nash, Director of Public Events.

Also key to the success of the concert were Louis Lind, Technical Manager of Operations, Gregg Henderson, Chief of Security, and Hall Daily, Vice

Prepared to meet the full list, the ASCIT team was pleasantly surprised when Denise told them they didn't actually have to provide it all.

"She told us that we'd give them a hot meal, snacks, and pizza; everything else, they can just deal with. We would have spent over a thousand dollars meeting their list, but with Denise's help, we cut it down to about a hundred."

With administrative contacts in place and months worth of experience, social team members believe it's possible to have another huge event down the road.

"When we first got this idea, people thought we were crazy, we couldn't get the band, we couldn't get the funding, we couldn't get administration to let us go through with it, and if we did, we wouldn't be able to execute; we thought it was a long shot when the idea first came about. Now we know that we can do it, and do it well," said Dima.

Grounds Department did the clean-up for free, and Public Events donated their staff to run the concert," said Dima.

In addition, a team of about twenty student volunteers manned the front gate, ran an Alumni Booth, and kept an eye on the band's equipment.

Rocky said, "Definitely kudos to all the people who helped us out, including the administration. I think everyone was pretty surprised to hear that they finally went for it."

With respect to President David Baltimore's introduction of the band, Rocky adds "Baltimore definitely scored a couple of major cool points among the students."

"I think it's really important, especially in light of recent tensions from the budget cuts that [students know] that many administrators care about us and are eager to help us, and that we can all work together to organize something as awesome as the concert," said Dima.

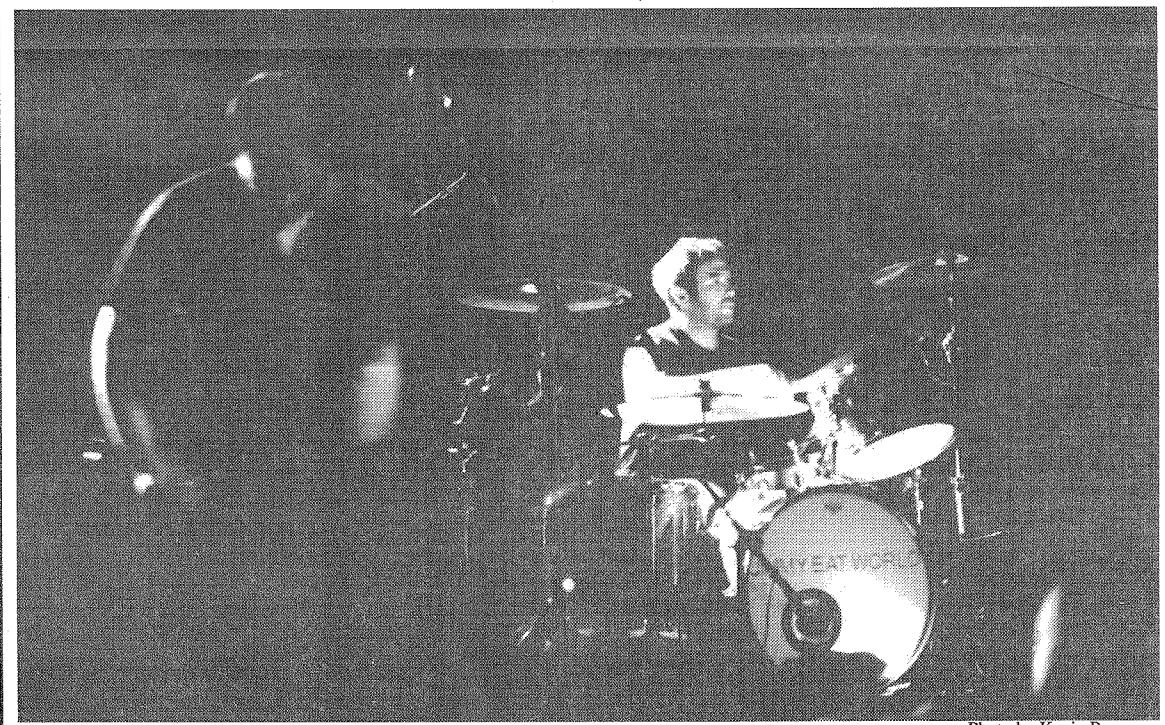


Photo by Kevin Peng

If you know the name of the drummer, you are a Jimmy Eat World fan.

President of Community and Government Relations.

"Without their help there is no way the concert could have happened," said Dima.

"They were definitely all really interested in helping us get this done in safest and most efficient way," said Rocky, "and they also had experience."

When the ASCIT social team first started planning the event, they had no idea about what performance groups expected. When they looked at Jimmy Eat World's contract, they initially balked at the list of requirements.

"They wanted like thirty things, including hummus, peanut butter and jelly sandwiches, and Coke--no Pepsi," said Rocky. "But apparently that's not very demanding. J Lo requires that she have 10 chocolate chip cookies, and each cookie cannot contain more than 15 chips."

However, the limiting factor to throwing yearly headlining concerts is funding. With a MHF of \$25,000, finding many sources of additional funding for Jimmy Eat World became an easier matter.

"The MHF is not really set up to do a yearly sponsorship like this," said Chris. "Basically, we need some way of getting around \$30,000 per year and this will become a yearly event."

"To be honest, I think that have a concert like this next year is definitely doable, assuming people are more willing to contribute money to it and MHF loves us again," said Rocky.

In addition to the MHF grant, the event received donations from ASCIT, Graduate Student Council, the Alumni Association, Caltech Y, Tom Mannion, the MOSH, and Housing.

"Additionally, Graphic Arts printed flyers for free, the

The California Tech
Caltech 40-58, Pasadena, CA 91125
editorial desk: (626) 395-6153
advertising desk: (626) 395-6154
editorial e-mail: tech@tech.caltech.edu

VOLUME CVII, NUMBER 10

Adam Craig Editor	Lisa Tran Business Manager
Alex Sheive Layout Manager	Robert Morell Circulation

The Tech is published weekly except during vacation and examination periods by the Associated Students of the California Institute of Technology, Inc. The opinions expressed herein are strictly those of the authors and advertisers.

Letters and submissions are welcome; e-mail submissions to tech@tech.caltech.edu as plain-text attachments, including the author's name, by Friday of the week before publication. Sorry the Tech does not accept anonymous contributions. The editors reserve the right to edit and abridge all submissions for any reason. All written work remains property of its author.

The advertising deadline is five p.m. Friday; all advertising should be submitted electronically or as camera-ready art, but the Tech can also do simple typesetting and arrangement. All advertising inquiries should be directed to the business manager at business@caltech.edu. For subscription information, please send mail to "Subscriptions."

Baltimore's Unbudgable Budget Behemoth

Brandy Cossairt

You might have felt concerned when Caltech announced budget cuts at the start of the year; you might have wished you had had some chance to participate in making the decisions, but it doesn't matter what you think, because the decisions have already been made without you. Caltech is facing a serious structural deficit on the order of \$28 million in its general budget. The Caltech administration has recently made many decisions in order to eliminate this deficit by 2008. All of these decisions were made without any student input, even though many of the cuts affect students directly. Of major concern to the undergraduates is a \$2000 increase in financial aid self help, in other words an effective \$2000 decrease in aid, a 4 to 5% tuition increase for current students and a 8-10% increase for incoming students, removal of health insurance from the cost of tuition to be charged separately, and cuts to Health Center services.

Curiously, while the general budget will be cut by 12%, Student Affairs is taking a disproportionate share of the cuts, as its budget will be slashed by 16%. Many other cuts affect students, including staff layoffs, such as the elimination of room cleaning services, the extension of the board program to seven days a week, cuts to the Women's Center activities, and the elimination of some Career Center services, like Resumania. On top of all these cuts, the Caltech auxiliaries,

including the Book Store, C-Store, and Red Door, must come up with another \$3 million, most likely out of students' pockets.

It's enough to boggle the mind that so many things that directly affect student life can be changed without any student input. It seems more and more that Caltech is putting the well being of students at the bottom of its list of priorities. In the minds of some Caltech administrators the ideal undergraduate is one that stays in his room, goes to class, gets perfect grades, and never questions the operations of the institute in which he lives and learns. Unfortunately for these administrators, we undergrads are not all so passive. We will not just sit and watch the place we once loved fall into a downward spiral in which student input, thought, creativity, and freedom are lost. I encourage you all to talk to the administration, especially VP of Business and Finance Dean Currie, Margo Marshak, Tom Mannion, Dean John Hall and Dean Barbara Green, and the provost, talk to your professors, talk to your houses, talk to the ASCIT BOD and the IHC, talk to the trustees, talk to your friends, alumni, and parents, talk to the local newspaper, talk to prospective students, talk to anyone who might care about the future of Caltech and make it clear that you care about undergraduate life at Caltech, make it known that you love this place as it has been and are worried about its future.

You Go Norway and I'll Go Mine

By MAYRA SHEIKH

To all geographically isolated Americans,

Hello and good luck with finals. Do not curse me for wishing you well on final exams because though UCL is not big on assignments, hard core memorization heavy, lengthy exams do await me next week. All the same, I did not write to whine about work, I can do that when at tech. However, I can not take weekend trips to different countries when at home. One of the greatest things about Britain is that though it is a small isolated island, it is very close to all of Europe, which has lots and lots of other countries, where they speak lots of other languages and have interesting customs. I decided to make use of the proximity and reasonably low air fares and visit a country in which I had not been before. I did not choose the more commonly visited Italy, France, or Spain, but instead decided to acquaint myself with Scandinavia and went to Oslo, Norway.

Oslo, the capital of Norway, is a city of maybe half a million that is located around a body of water. The city is small enough to be seen from a local mountain top and very clean. Like many European cities, it has a public transport system, which is useful since the main attractions of the city are scattered. The city is small enough to be seen in one day, if there is sunlight for enough hours. Norway is often referred to as the land of the midnight sun because for one day every summer the sun does not set. The winter days, on the contrary are quite short and often very snowy. Peak tourist season is in the summer and most locals would recommend visiting during that time. I would also suggest a visit, if you ever get the

chance.

However, Norway is ridiculously expensive. My atrophied arithmetic skills were built up again by continuously converted prices to USD and being appalled. A Cappuccino and 2" x 2" brownie cost about \$10 at touristy café. I guess Disney had to learn from somewhere. Besides the prices, Oslo is a nice city. It has lots of shops with Norwegian names I do not remember and more mainstream things like H&M or Friday's. The most bizarre shop I encountered was 7-eleven, located inside the equivalent of a mall. Better yet, 7-eleven was like more like a coffee shop than a mini-mart/liquor store, and they had a very frilly display of baked goods. It was definitely one of those cultural differences people are always speaking of.

On the topic of differences, Oslo has an interesting park called "Vigelandsparken." The park is named after a sculptor who made the many statues that line the main walkway and even the really large piece that is the centerpiece. Most of the sculptures are of familial scenes; father's playing with babies, mothers pretending to be horses, huddling children, and a famous crying baby. Of course, this doesn't sound too interesting, the Norwegians might just be very family oriented. The park is odd because all the statues are in the nude. Last I checked, most parents and children remained clothed when interacting on an everyday basis. Scandinavia has been known for its comfortable take on nudity and not making it a big deal. Even so, I did hear one local refer to the "park of the shameless" half in jest and half with sincerity.

In the center of the park on an elevated platform is the largest of

sculptures. It is compromised of 121 nude human bodies ranging from infants to senior citizens all kind of stacked on top of each while climbing a tower. Overall, the statue does look quite phallic, which fits in with the nudity otherwise present. Since nudity has come up, I might as well mention that the advertisement for their main shopping mall is also compromised of nude people. It is a mother breast-feeding her baby on one side and the same mother and child with the father all standing close to each other on the other side of the billboards. Even with all the nudity, most people on the street were fully clothed (probably because it was 0°C out), which is more than can be said for Los Angeles.

There are tourist attractions that do not involve naked people, like museums. There are lots of museums in Oslo. They even have a ski museum and a film museum. I particularly like my visit to the *Fram*, which is a museum dedicated to an old Viking ship. The original ship is housed in the museum and has been renovated decorated for visitors. The coolest part of the ship was the dungeon like prisoner-holding cell in the back. For all the Viking history buffs, there were lots of other cool animal hide and stone tool type objects. It was a nice change since most British museums focus on mainland Europe and UK history.

If you ever get a chance to visit somewhere new, do it. I have heard Canada is actually quite different from the U.S. Anyways, have a restful Winter Break and I will write to you and see you in January.

Almost Done with British Schooling -Mayra

UNIVERSAL STUDIOS HOLLYWOOD
WORLD'S LARGEST MOVIE STUDIO AND THEME PARK™

PREPARE FOR PULSE-POUNDING THRILLS!

GENERAL ADMISSION

\$34 PER PERSON
ONLY

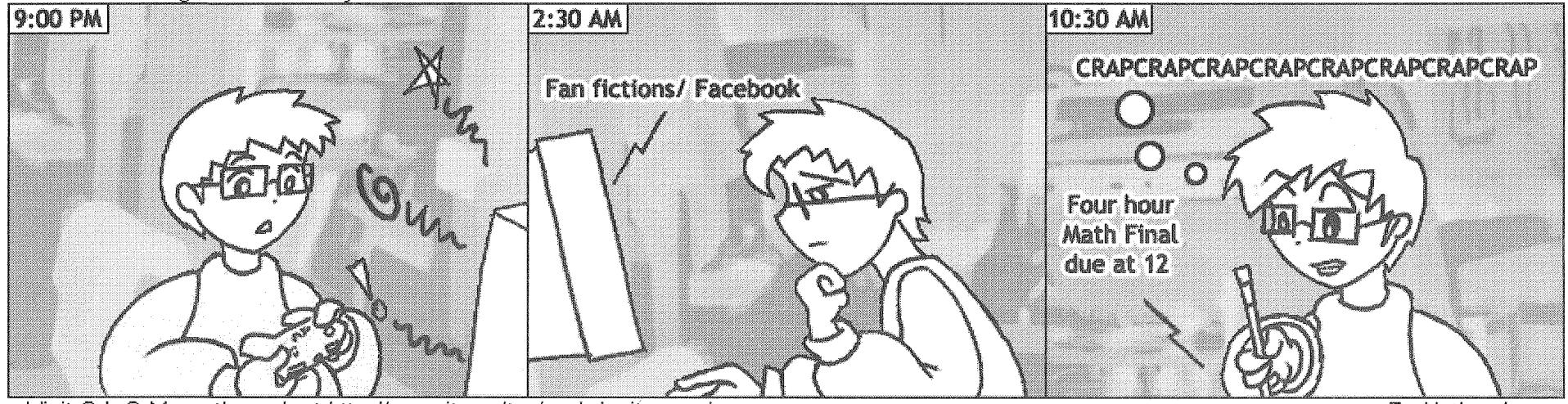
Offer valid through 1/31/06

To Purchase Tickets or for more information Contact:
CALTECH BOOKSTORE, ext: 6161
or visit us at www.bookstore.caltech.edu

www.UniversalStudiosHollywood.com

Regular General Admission price: \$39. Offer expires 1/31/06. Offer valid only at Universal Studios Hollywood. Tickets must be purchased in advance. Offer not available at the Universal Studios Hollywood box office. This offer cannot be combined with other offers or with per option sightseeing tours. Offer subject to change. No exchanges or refunds. The Mummy © 2005 Universal Studios. War of the Worlds © 2005 by Paramount Pictures and DreamWorks LLC. All Rights Reserved. Jurassic Park TM & © 2005 Universal Studios Inc. and Amblin Entertainment Inc. © 2005 Universal Studios. All Rights Reserved. US LOC 9615

G.L.O.M. - Greg's Life of Misery

Visit G.L.O.M. on the web at <http://www.its.caltech.edu/~citcappy/>

By Nathan Lau

G.L.O.M. - Greg's Life of Misery

Visit G.L.O.M. on the web at <http://www.its.caltech.edu/~citcappy/>

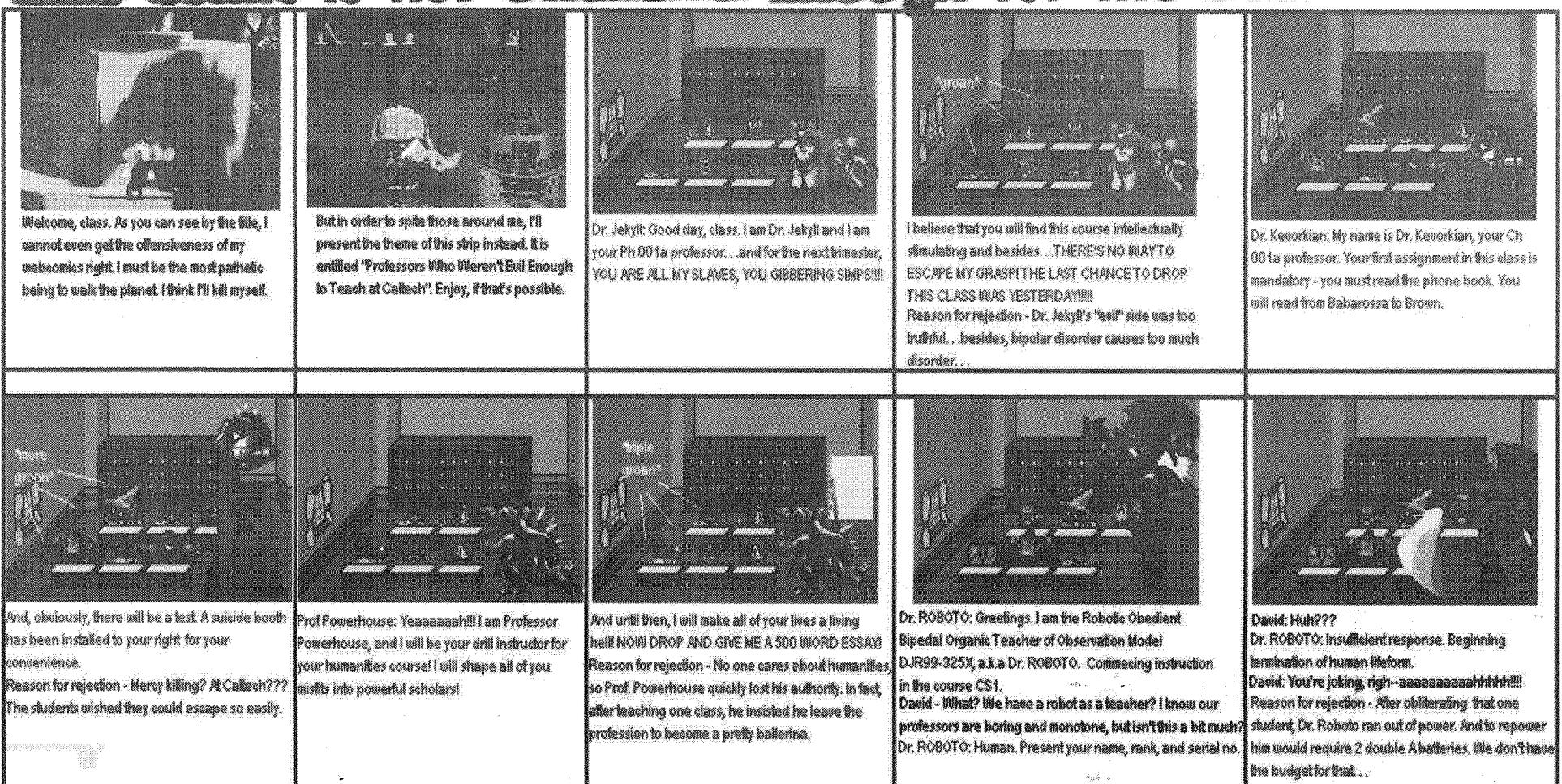
By Nathan Lau

Irrational Exuberance

Zhiyun Guan



This Comic is not Offensive Enough for the

Composed By:
David J. Rosenman

Rantings From That Drunk Guy in the Corner #2: Avery the “House”

By JOSHUA GUTMAN AND JON SENN

A certain sequence of events has led us to believe that Avery is the administration's favorite child. Everything Avery wants Avery gets. Over the past couple of years this treatment has led Avery to become a bratty house. In a May 2004 undergraduate poll, only 61 of the 442 students responded ‘yes,’ while a whopping 363 responded ‘no’ to: “Are you in favor of the proposal to allow freshmen to live in Avery in 2005?” When a few vocal people in Avery wanted to become a house against the will of the vast majority of students, the administration caved. But, as with similar issues in recent history, they chose the incredibly deceptive method of pushing the date back one year. No longer satisfied with the idea that “no” means “no,” the administration has adopted the policy that no means “yes, but in one year.” It’s as if administration is trying to fuck us

in the ass without even the courtesy of a reach around.

Freshly equipped with the privileges of housedom, Avery has joined the other houses' meal plan, partakes in house traditions, has joined into the overall social atmosphere of Caltech, and appreciates the same quality of life found in other houses, or so Avery wants you to think.

Avery still has its same, old, much superior meal plan. Many students here believe that this difference is because Avery pays more for their board plan. In reality, Avery pays the same as the other houses for board. It's for their rooms that they are charged more. But we're not against this meal plan, and we wish that all of the houses shared the same quality and freedoms. Students under Avery's plan are provided enough declining balance to eat in the houses every weekday for dinner and still have an extra \$.50

more left over per day than students on the other houses' board plan. They also have the extra dinner option of superior food served in the Citrus Bistro, as well as the extra flexibility of not being charged over \$12.50 when they don't like what's for dinner or aren't on campus for dinner.

Earlier this term, two upperclassmen living in Avery planned a fake Ditch Day, a common and enjoyed tradition in all of the houses in past years. As thanks for their efforts, these seniors received a multitude of complaints from students who were woken up early and subjected to loud noises. Some of those complaining students were polite enough to at least thank the upperclassmen for treating Avery like a real house. Among other rumored responses on the Avery house mailing list were that in the future seniors perform fake Ditch Days at 9:00am or

later and rather than pounding on doors just slip notes under doors that say “Ditch Day” on them. Apparently, for the residents of Avery, 8:00am is much too early to have notes slipped under their door. They certainly don't want to have to open their door and let in all the cold air of their housing provided air conditioning.

Speaking of opening doors, we suggest the students of Avery take a break from diminishing the world's supply of tissues and Vaseline and begin to meet their fellow housemates. A friend of ours made the now regretted decision to live in Avery this year. Last month we were in Avery visiting this friend, and got about the same feeling as we would walking through any other house at 4:00am: it was deathly quiet. The only difference was that it was 10pm on a Friday night, understandably far too late for the birds to be awake.

As Avery does not charge house dues, but instead is given a social budget from the administration, we think students should all be a little more open to exploring the use of Avery's courtyard for beverage consumption. Beware though, those Averites have itchy dial fingers and like to call security upon the slightest hint of fun. Still, it seems that the four houses that have been exiled to the lifestyle of the outdoors and mobile could make good use of a full-sized court-

yard. The key point here is that in order to make use of outdoor space one must spend time outside of one's room.

Some students have made efforts to make Avery feel like a house. Avery now competes in Interhouse, when they show up to their games. Avery's bastardized introduction into the house system is now being legitimized by amending the so-called out of date ASCIT bylaws and by giving the house rumored to have approximately half of all BoC cases in past years their very own BoC rep. Too bad you can't BoC someone for lying, or we'd have to BoC every student in Avery who claims Avery is a house.

As we conclude our first article about Avery, we are reminded of the following quote from the Caltech Rotation Rules:

“There are a lot of gay Booty Housers,”

“All Booty Housers are chain-smoking necrophiliacs,”

“Everyone from Booty House is a Literature major Heroin addict...and they have bad teeth, too.”

Rantings from that Drunk Guy in the Corner is a weekly column of rants written by a variety of pissed off Pageboys. Look for more rants on Avery in coming weeks. Send comments, article ideas, or hate mail, to senn@caltech.edu

Read
The Grand Unified Theory of Physics
by
Joseph M. Brown

Discover the connections among relativity, matter waves, and magnetism

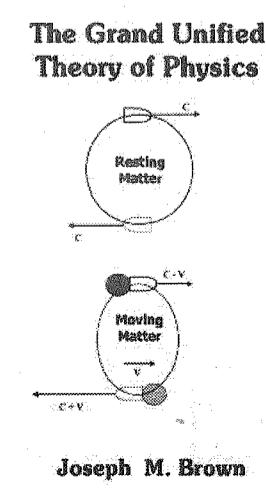
- Photon mass captured by a matter particle is always captured eccentrically to conserve angular momentum.
- The eccentric mass always makes the matter particle charge undulate since its center of mass takes a straight path. The wave length λ is h/p where h is Planck's Constant and p is the matter particle momentum.
- The undulation produces an inverse square force of attraction with a similar moving charged particle.
- The force is $(v/c)^2$ times the electrostatic force. It is the magnetic force.
- If an observation frame moves at the same velocity as the charges the force is still the same but the acceleration measured in the moving frame changes by the factor $1-(v/c)^2$ so that the magnetic force is masked.
- Newtonian relativity produces magnetism and de Broglie Waves.

For more information and to access the book, visit www.physicsunifiedtheory.com

Get Your Copy
of **The Grand Unified Theory of Physics**
Amazon.com
BarnesandNoble.com
CampusBookMart.com
Order from Your Local Bookstore

Also available at most U.S. College Libraries
Published by Basic Research Press
Starkville, MS 39759 Ph (662) 323-2844

ISBN 0971294461
\$29.95
©2005 Basic Research Press



INVENTORS & ENGINEERS:
Have a product?
Started a company?
Need funding?
Contact us.
We fund, merge, or acquire.
www.RDIsource.com

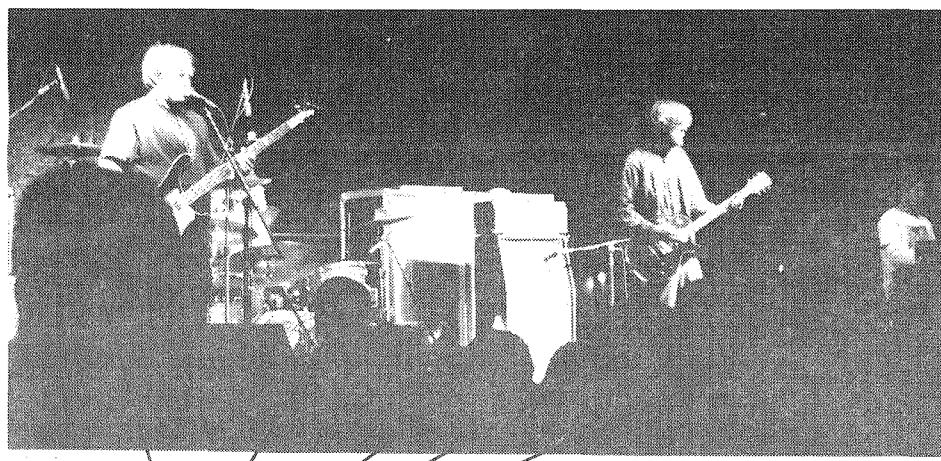
**Tired of CDS lunches
and dinners?**

**\$2.00 Burger, Fries, and Drink
EVERYDAY**
for all Caltech students, staff, and faculty

Burger Continental
535 S. Lake Ave.
Pasadena
(626) 792-6634

Always 20% off for all Caltech students, staff, faculty

Cover Campus Events for The Tech

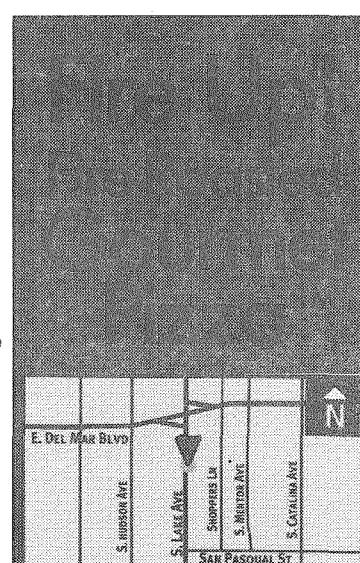
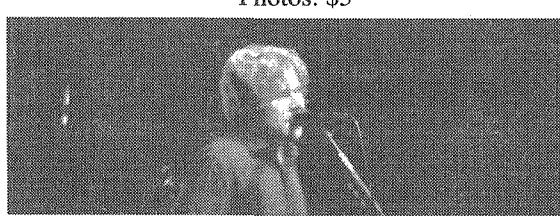


We can only pay
for the opinions
in here if we
print them!

So get off your ass and go to a concert, party, lecture or whatever. If anyone wants to here about it, we do. Also feel free to express interest in other types of sub-missions.

We pay the following rates for content we print:

News Articles: \$15
Non-news Text: \$10
Comics: \$7
Photos: \$5



Fake Cult Tea

Vy JEFFREY PHILLIPS

Caltech has always prided itself on its world renowned faculty, but Caltech has never been famous for its teachers. Every day I hear stories about terrible lectures dense as lead, TA's who skim over questions, tests written, delivered, and graded without a shred of humanity. Brilliance glimmers in our classes, but it twinkles against a darkened heaven; too many profs turn their brilliance to matters beyond methods for inspirational teaching.

With my classmates I have filled out a course evaluation for every teacher, good or bad, since freshman year. These are forwarded to department heads who, so they tell me, evaluate the responses and make their decisions accordingly. Since freshman year, I have noticed a dramatic change, and the persistence of this condition leads me to two possible conclusions: either the department heads do not know, or they do not care.

I am not willing to accept that the people in charge of deciding who teaches what and where would not care about the results of those decisions. Rather, I think it's a matter of information flow. Depending on who is talking, students either "do not" or "cannot" accurately communicate their experiences to faculty and administrators. Students do not fill out course evaluations rig-

orously because Teachers do not perceive their efficacy; this in turn can cause depart-

ment heads to pay little heed to the evaluations, at which point they are indeed ineffective, further enhancing students' perceptions. The logical escape from that cycle is direct communication with the professor, but that is where the Teachers' "do not" becomes "cannot."

No one likes to hear how to do his or her job, especially from a lowly serf-student in the kingdom academic. Profs surely appreciate feedback like, "Great lecture today," or, "Could you cover some more examples of Bessel functions tomorrow?" but this is not the feedback that corrects chronically poor teaching. Profs can be as obtuse as Teachers sometimes, and they cannot learn clarity without some very

not learn clarity without some very direct feedback. But that's as awkward and intimidating as telling the Pope he said "Jeebus" in his last pronouncement. The only route to honest feedback is to circumvent the student-teacher relationship in a direct and dynamic way.

Until the 19th century, University professors used the hoods accompanying doctoral robes to collect tuition directly from lectured students. Indeed, direct student contribution was widespread in the days of Ancient Greece. It would be a pain to bring a checkbook to every lecture, but I suggest instead that an internet lecture rating system be set up to give students the option of anonymous feedback at the end of every lecture. This would allow profs to see how effective their

past lectures were before giving the next, and furthermore allow them to experiment with new teaching techniques over the course of a term. Department heads would get a more accurate view of faculty performance which might offer more concrete suggestions than would a few final ratings on a post-mortem course evaluation. Having an automated system would give students the freedom to respond whenever and however much they like. Students will respond more accurately and powerfully if they can register their freshly minted impressions on this morning's lecture before the ink is dry on their notes.

Improving student-faculty communication is to our mutual benefit, as is the goal of making the uncomfortable as comfortable as possible. All Teachers have a desire to be pushed to our limits by great teachers; it's why we came here. I would like to think that even the profs who came here primarily to express their scientific genius in the lab still relish the idea of fanning that spark of genius in their students. We don't always want to go to class, and neither do our teachers, but we're stuck with each other, so help me help you teach me.

Note: There are many fine teachers at this Institution, and more than a few without whom I would not be here today. You know who you are: thank you.

**YOU'RE IN
GOOD COMPANY**

**CALTECH EMPLOYEES
FEDERAL CREDIT UNION...**

The Smart Choice for People with High Expectations!

With one of the nation's foremost scientific communities as our membership base, it's not surprising that Caltech Employees Federal Credit Union provides some of the smartest financial choices in the nation.

Our superior values — including higher rates on savings and lower rates on loans — are available exclusively to our unique membership. This is your chance to join us!

You'll also enjoy unparalleled convenience, with an on-campus branch...on-campus, fee-free ATMs...online access...low-cost VISA...revolutionary, money-saving home equity lines...and the highest savings rates in the country (higher than many certificates!).

So, go ahead. Expect more from your Credit Union. Come into our on-campus branch or any other convenient office to join today and *Share the Success* at CEFCU!

**CALTECH
EMPLOYEES
Federal Credit Union**

CAMPUS OFFICE: 515 S. Wilson Ave. • (626) 395-6300
CAMPUS ATMS: Winnert Center & Keith Spalding Building
FOOTHILL OFFICE: 528 Foothill Blvd. • (800) 592-3328 • (818) 952-4444
JPL OFFICE: 4800 Oak Grove Dr., Building 218 • (818) 354-3280
WEB SITE: www.cefcu.org

NCUA Your savings federally insured to \$100,000 by the National Credit Union Administration, a U.S. Government Agency.

 Equal Housing Lender.
 Equal Opportunity Lender.

On-Campus Branch

On-Campus ATMs

Caltech's Own Little Axis of Evil

By PAULINE KU

Over the past year or so, the administration has blatantly shown us that they just don't care about the student body, at least not enough to inform us about certain changes until, of course, it's too late. This has occurred with less consequential services such as the now non-existent linen service. Most recently, this has occurred with the infamous Caltech Dining Services and the inevitable advent of 7-day board. And how could anyone forget the campus-altering decision to make Avery a house? A decision in which neither the seven original houses nor Avery had any say.

So why did some people feel it necessary or even fit to make Avery into an eighth house, and who exactly was behind this capricious action? The answer, it appears, is much more complicated than at first thought. And behind it all are two self-interested key individuals in a global plot involving fame, money, and none else but world-domination!

The first of these masterminds is none other than our current retiring president, whom some deem D-Ballz. In a final effort to secure his immortal spot in Caltech's presidential history, D-Ballz has, unbeknownst but to a select few, started implementing his master plan for Avery and the greater good for Caltech and Caltech's Asians.

His plan involves the conversion of Avery into an irresistible Asian-Magnet that will eventually turn this newest house into a modern-day internment camp, the insidious nature of which will trick the majority of future inhabitants to enter

unwittingly, yet at least at first voluntarily.

What advantages could possibly lay in segregating Asians on campus, and how would this win fame for both Caltech and our retiring president? By turning Avery into a SUPERASIAN FUN HOUSE, replete with future advertisement made with alternating classical piano music and clips from Korean comedy shows and concerts, complete with audience reactions and Asian laugh tracks, Caltech gathers the most easily appeasable, productive, and passive aggressive ethnic group in one location, already replete with gates and unmanned guard towers.

Once fully converted according to the outlines of D-Ballz's prescient plan, Avery will become a logical campus tourist attraction and the extolled brainchild of Caltech with constant exposure in carefully phrased propaganda and publicity events. The other seven houses will then become the bane of, disobedient children ignored completely in public, and recognized in private only to dole out more restrictions, admonitions, and punishments. Thus Avery will solve Caltech's budget and Asian inefficiency problem in one ingenuous stroke.

Before this year, Avery's status caused troublesome obstacles since Avery still had nonconformist, mainly white/non-Asian members with other house memberships living there either voluntarily or involuntarily. BUT D-Ballz's plan deftly takes care of these bothersome noncompliant while inge-

niously hiding behind the screen of normalization.

With several years of experience observing house culture and student interaction, it was not difficult for D-Ballz to construct a plan carefully and stealthily exploiting the predictable behavior of each house, social, and ethnic group on campus according to the proven, emerging new science of psychohistory.

To the uninformed Tech eye, all these changes appear to be if not logical and justified, just the latest constrictions from an administration that is slowly but surely squeezing the life out of its all too helpless student body. However, to the trained psychoanalytic eye, D-Ballz's supreme design becomes all too painfully clear in every single subtle manipulation.

Even this year's trailer design has been carefully factored in. With such a close proximity to Avery house, clashes between the long-standing houses and the newest reluctant addition have been clearly evident in such events as the multihouse tour of Avery after the Dabney Drag Show.

Other seemingly unrelated conflicts will soon present themselves, such as the enraged outcry from Flemings about the placement of the DDR machine in a multipurpose trailer on their otherwise quiet Westside. After much flamboyant feigned contention the IHC decides to move the machine to its logical home in Avery House, and Fleming once again creates a private house gym sans DDR machine.

Slowly but surely events such as this will further D-Ballz's plan and

further fractionalize Avery and other houses such that after a repopulating cycle, the houses will be even more solidified into their respective characters, Avery included.

But here lies a final dilemma, which has not quite been resolved yet. If the characters of the other seven houses become more solidified, wouldn't there be a substantial opposition to the Avery design? How would the administration keep revoking student privileges while ignoring student desires?

My fear is that Avery may not be the end but rather a means to an end, a model for the rest of Caltech. Avery will of course be the first to change, but what are the renovations really for? All we hear are snippets of what may or may not be changed, built, or replaced.

Gates with card access may be put in, but to keep intruders out or occupants in? They're eliminating the beloved SAC and Coffeehouse for the dubious creation of a separate outside Student Center? With Caltech's current budget crisis, I THINK NOT! But most terrifying is the possible creation of additional apartments in the South Houses not to house faculty but a terrifying new breed of RAs intent upon assisting the end of Student Life as we know it.

So gradually not only will Avery be repopulated by an insane new breed of Tech characterizes by qualities mainly found in the typical Caltech Asian: a strong dedication/obsession to working and succeeding intermixed with non-deleterious or uncompromising hobbies such as piano, go, and

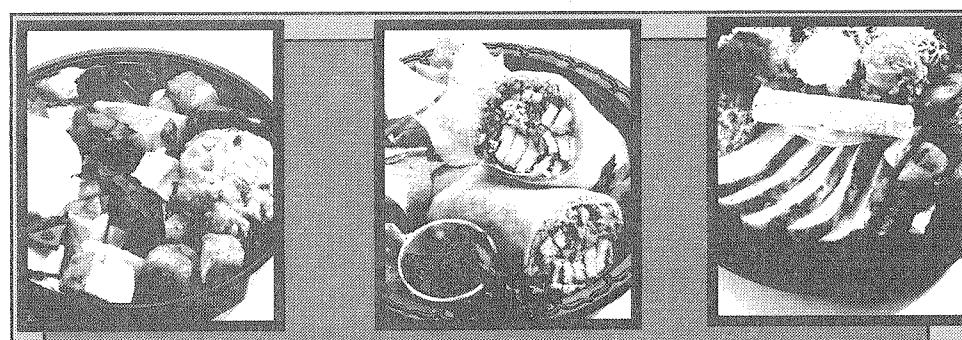
moon cake/tea/pocky parties.

But how did our esteemed president come up with and implement such an extremely well-strung plan all by his lonesome? The fact is he didn't. He had an unlikely co-conspirator in the form of the half-demon, freedom-stomper of a Housing Director, a Mr. Timothy Chang, otherwise known as Timmy C.

His plan, much more malicious than the selfish dealings of D-Ballz has the classic underlying design of world-domination. It is really quite simple: making Tech more Asian and efficient is good for North Korea. With more Asians, more Korean spies can be accepted into Tech where they'll be trained in technology, technology they can bring back to their native country and thus assist Kim Jong-II in his plan to take over the entire world.

The changing Tech would be the perfect place for these closet communists with its perpetual loss of individuality, creativity, and individual/group privileges. With the implementation of 7-day board, CDS can become an even better model of the rationing food system in communist countries.

As one can see, this diabolical plan reaches far beyond anything at first suspected, extending to God only knows how many people, the President, the Housing Director, Director of Dining Services Andre Mallie, to name but a few. And there doesn't seem to be any easy prevention of this institutional apocalypse. It's clear that the best one can do is transfer or convert to communism and concede, concede, CONCEDE!



\$5.00 OFF ANY CATERING ORDER

Sharky's WOODFIRED MEXICAN GRILL

10% OFF ANY MEAL WITH CALTECH ID
CANNOT BE COMBINED WITH ANY OTHER DISCOUNTS OR OFFERS

NOW SERVING KILLER FOOD
AT THE FOLLOWING LOCATION:

Pasadena Collection
841 Cordova St.
(626) 368-3100

841 CORDOVA ST.

SHARKY'S SALAD Underground Parking Available

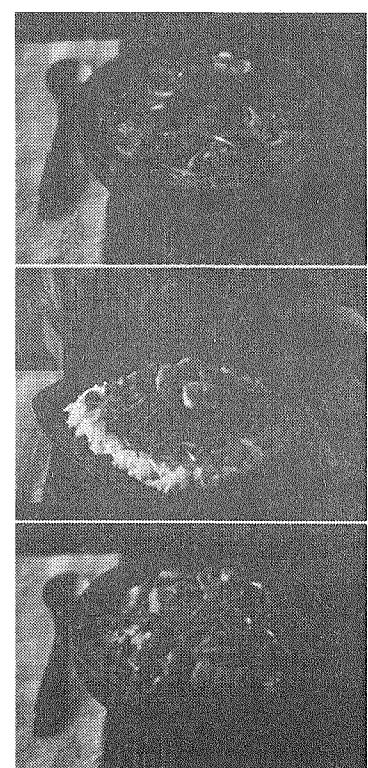
BBQ CHICKEN PIZZA

HANA
GRILL
GOURMET
JAPANESE

851 Cordova Street
Pasadena

626.578.1862
(FAX) 626.578.7507

www.hanagrill.com



WE DELIVER/CATER

Hours: 11am-9pm Daily • WE VALIDATE UNDERGROUND PARKING

50%
OFF
ANY ENTREE

With the purchase of another
entree of equal or lesser value.

25%
OFF
ANY
ENTREE

One per visit per person. Cannot combine with other offers.

1/2 OFF
ANY
ENTREE
With the purchase of any beverage.

Sharky's
WOODFIRED
MEXICAN GRILL

One coupon per guest per visit. Cannot be combined with any other offer. Valid at Burbank and Pasadena locations only. Expires 12/31/05

100% CERTIFIED ORGANIC & GMO FREE 100% CERTIFIED ALL NATURAL BEEF
Black Beans Pinto Beans All Grain Fed No Artificial Ingredients
Long Grain Rice No Added Hormones or Chemicals
100% NATURAL GROWN CHICKEN BREAST
No Added Growth Hormones
No Added Preservatives
100% PREMIUM GRADE FISH
No Added Phosphates

Always Natural, Always Fresh!™

Free-flying Frisbee Frolics with Caltech's Fabulous, Frisky Females

By MARISSA CEVALLOS

Caltech has a new sport that can take itself seriously in the collegiate arena, and it only involves a rotating plastic disc and a lot of estrogen.

The Caltech Women's Ultimate Frisbee team, Snatch, achieved a 4-2 win-loss record at the So-Cal Warm-up on Nov 19 and 20, the pre-season frisbee competition for southern California schools. This is the first year Caltech has ever fielded a women's ultimate team.

Snatch brought an 11-person team for a game that has 7 players on the field, giving Snatch a somewhat comfortable pad of 4 subs; several schools had enough subs to rotate out entire sets of 7-player teams. The team consisted of mostly graduate students, though Snatch has several undergrad members. The roster included: Sarah Payne (captain), Michelle Farkas, Mary Dunlop, Minh Huynh, Suzanne Golisz, Carolyn Brinkworth, Katherine Poulin, Rosie Jones, Margaret Pan, Laura Fishman, and Marissa Cevallos.

Game 1: UC Santa Barbara

Snatch started out the morning with a tiring match against UC-Santa Barbara's team, The Burn-

ing Skirts. While Snatch had just arrived on the fields, the Burning Skirts had already warmed up in a previous game. Despite the feminine prowess of a well-established UC team, Snatch managed to score 3 points against the Burning Skirts for a final score of 3-13. However, the Burning Skirts remained undefeated until the finals, so Caltech's loss was far from shameful.

Game 2: Cal Poly

In the second game, however, Snatch grabbed confidence by narrowly beating Cal Poly's Slo-Motion, a team in its 18th year

running. After trading points more-or-less equally until half-time, Snatch stepped up its game and beat Slo-Motion 13-9.

Game 3: UC San Diego

The host of the tournament, San Diego split up its large team into two equally matched teams of veterans and rookies. Though a varsity San Diego team may have beaten the new Caltech team by a larger margin, their mixed team was an equal match for Snatch. The score remained close the whole way, with a final score of 10-8. However, Caltech momentarily panicked when Margaret suffered an ankle injury, reducing the number of subs from 4 to 3. In an afternoon game under the scorching San Diego sun, the loss of a sub was a test of Snatch's endurance.

Game 4: Claremont

Caltech played a fourth game, though not an official game in the tournament, against Claremont. The 'scramble' game as it was called, didn't count for standings. Despite playing this game right after a tough loss to UCSD, Snatch pulled out against a fairly young Claremont team (3 of whose best veterans were out injured). The

Oil be Home for the Holidays

Continued from Page 1

cist whose methods are used in its derivation, occurred approximately on the last Thanksgiving Day, with an uncertainty of three weeks.

"Some people say Hubbard was wrong, because he predicted a peak [in world oil production] at around 2000 and the year went by and it didn't peak...well given that the peak is around 2005, his prediction was damn good for his time," Deffeyes said, stressing the credibility of the methods he based his own predictions on. He compared the news in March 2003 that Saudi Arabia had told American and European governments that it had "maxed out" in its capacity, to the Texas Railroad Commission's announcement in 1972, that it would not place any limits on oil production in its wells, relating both incidents to oil peaks. "There was a U.S. oil peak in the early 1970s, and it looks like the same thing's happening again [for world oil production]," he said.

In the latter half of his lecture, Dr. Deffeyes painted a gloomy picture of a post-oil-peak world. As production in existing reserves goes down, no discovery of new reserves will be enough to compensate for the trend, and the price of petroleum will become increasingly volatile, he asserted. Moreover, alternative energy solutions that are currently in development cannot be expected to play a significant role in solving the crisis, as they won't be com-

mercialized any time in the near future. Instead, "we must rely on conservation, and well-engineered solutions that are available to us right now," Deffeyes said. As examples of solutions, he offered building more nuclear power plants and using technology to burn coal without emitting as much carbon dioxide into the atmosphere.

Some tension could be felt in the auditorium during the Q & A session, when people asked Deffeyes a variety of questions that sometimes directly challenged him. One guest touted his use of a solar-energy powered car with batteries charged from solar cells in a different city, to which Deffeyes responded by saying the process of charging the battery would be generating pollution, despite in a distant location. The guest argued that the total amount of pollution generated would be less than if he were using a petroleum-powered car. Another person questioned Deffeyes' plotting of his graph, asking "Why aren't you using logarithmic graphs? The [linear] graph is misleading." Deffeyes said he likes his current graph "because it gives me a straight line." A third man asked whether soaring gas prices might be more beneficial than dangerous, as people would start conserving energy. Deffeyes replied, "Economists like to believe that prices are everything, but I believe the decrease in supply will have se-

rious consequences...I worry about the Kenyan farmer, people who would start starving as a result of not being able to buy oil." Asked what he thinks of forecasts made by other geologists that place the peak much farther down the timeline, he said, "I don't see anything that's making me back off."

Many in the audience lamented the lack of political initiative on the part of current U.S. politicians. Agreeing with the need for political action, Deffeyes said "I think we're desperately in need of another Winston Churchill or John F. Kennedy to stand up and say 'We need to do something,'" receiving a round of applause.

ASCIT Minutes

By PARVATHY MENON

November 30th, 2005

Present: Warner Leedy, Peter Foley, Dima Kornasovskiy, Wendy Xu, Parvathy Menon, Michelle Wyatt... Jeremy Leibs

Guests: Mike Turk-meister and Scot Med-dawg-ling

1.Three students have applied and been selected to serve on the Exit Survey Committee.

2.The Committee for Undergraduate Presidential Search (CUPS) will be meeting after winter break, during 2nd term.

3.Warner Leedy on his heroin problem: "Really. It's not a problem."

4.Michael Wood and Karen Wang announce the Caltech Ping Pong Tournament and request \$150.

Vote: 5-0-0 passes

5.On his way to the Ath, Dr. David Baltimore breaks into a C-Walk just for the BoD. Peter tries to respond but fails miserably, breaking his pinkie in the process. Michelle notifies him that he just got served.

6.Dima dazzles the BoD with his Jimmy Eat World posters. Everyone should come party it up on December 3rd in front of Winnett... but contain your excitement as crowd-surfers and rowdy spectators will be personally spanked by Dima.

7.Scot Medling and Mike Turk toddle in but are suddenly trampled by the strapping young CRC Chair Jeremy Leibs as he sprints in before the meeting closes.

8.Professor Henry Lester is the coolest. Ever.

"I have seen the True Path. I will not warm myself by the fire. I will become the Flame." – badass Necromancer, Lim-Dul

Love! Parvathy



Caltech's first women's ultimate frisbee team Snatched several victories during their debut pre-season competition

The California Tech
Caltech 40-58
Pasadena, CA 91125

beginning of the game was close, and involved a lot of turn-overs, but when Snatch started playing more consistent offense the team took the second half more decisively for a final score of 13-8.

SUNDAY: Having gone 1-2 in the pool on Saturday, Snatch ended up in the C-pool on Sunday. They played two games, both of which were clear out wins. University of Northern Arizona (Giants in the Trees) and Oxy (Heroine) were two fairly young and in-experienced teams. Nevertheless, Caltech beat Arizona 13-3, and Oxy 13-2.

Photo by Sarah Payne