



ARC-led Plan Aims For Caltech Rose Float

By JON FOSTER

Though ill-publicized, an ARC-led measure that would add a Caltech-prepared "float" to the local Rose Bowl parade and perhaps even grant academic credit to student participants has won broad support among ASCIT leaders.

ASCIT President Ted Jou '03 has proposed that Caltech enter a float in the Rose Bowl parade, probably an effort starting in the spring for next year's parade. The idea is still under consideration, with ARC chair Basit Khan '03 looking into the possibility of mechanical engineering credit for participants.

Jou has also discussed the issue with Hail Daily, vice president of Government and Community Relations and coordinator of Caltech's 1991 Centennial float. That float cost \$150,000 and a professional float-building company was hired to construct the bulk of the float.

So far, the project appears to have generated little buzz among Caltech students. Only three students showed up at an October 16 meeting for interested students. An informal poll of random students showed that most were not really aware of the idea, despite a corporation-wide ASCIT e-mail on the subject and several mentions of the event in the ASCIT minutes.

The Rose Bowl, a major college football game is played in Pasadena every year, is preceded by a parade through Pasadena which passes as close as two blocks to campus.

The last time Caltech appears to have taken any notice of the event was in 1991. In celebration of Caltech's centennial, coordinators commissioned a float for the parade. Based on design proposal by Caltech students, the float was supposed to feature a Rube-Golberg

machine which ended with an apple falling on Isaac Newton's head; however, the mechanism never worked as designed and the float participated in the parade without any moving parts.

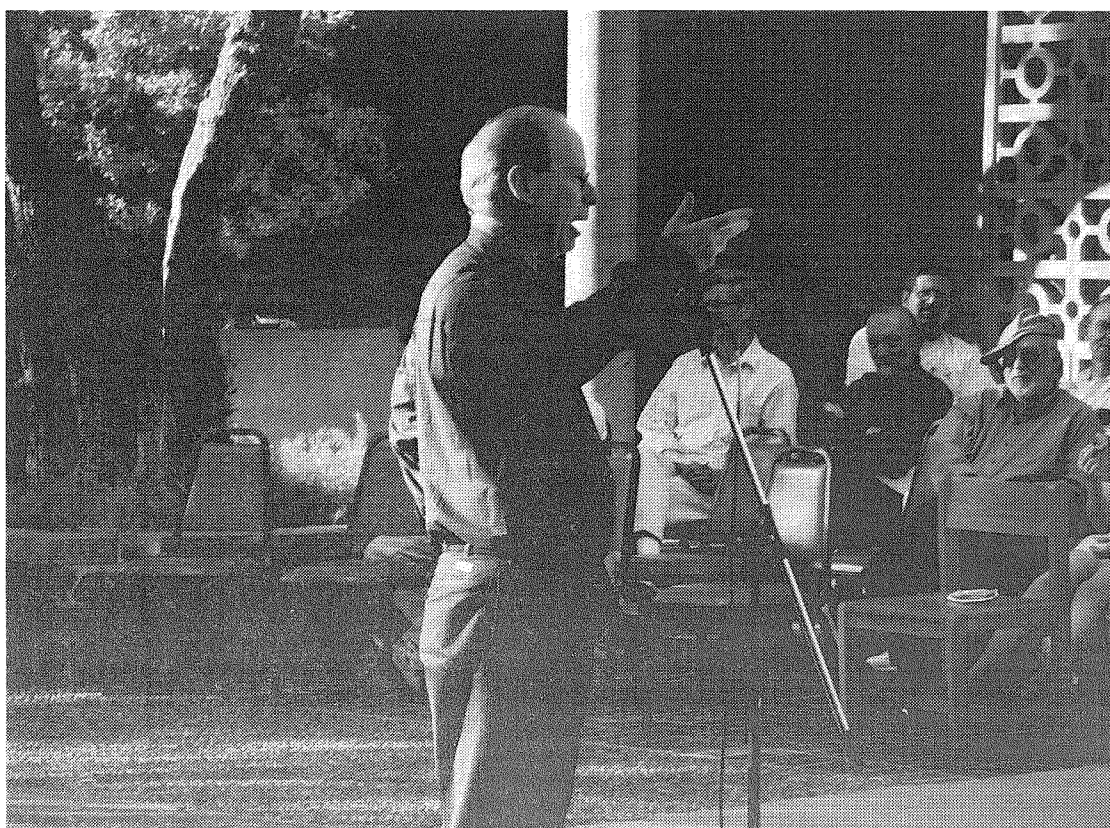
Since that auspicious event, Caltech has not had a float in the parade, although nearby California Polytechnic University at Pomona has always contributed a float. Jou believes this disparity is part of the reason Caltech is not very well known to the general public.

"A lot of Techers have the same story about Cal. Poly.," he said. "A stranger asks them which school they go to, they say 'Caltech.' The stranger responds, 'Cal. Poly.?' " Jou went on to speculate on the reasons for this disparity—and how Caltech students can work to reverse it.

"For some reason, the whole country has heard of Cal. Poly.," he said, "but not of Caltech. It may be the fact that they have a football team and a lot more students, but maybe it's because every year on New Year's Day, right through our backyard, on national TV, a Cal. Poly. float is in the Rose Parade but there's no Caltech float."

Jou remains an enthusiastic supporter of the plan, arguing that it would bring several benefits.

"The main goal of the Rose Float project is to create some positive publicity for Caltech," he explained, "and to increase the visibility of Caltech students on a national level. Boosting student morale and instilling school spirit would be an extra bonus. I think building a float and seeing it in the Rose Parade would give students something to be proud of and could make students happier and more proud of the fact they go to Caltech."



D. Korta/The California Tech

Instructor in Mathematics Gary Lorden reminisces about the time he lent a car to a student. Such trust, he said, is what he loves about Caltech.

Student Morale Takes Spotlight At 'What I Love About Caltech'

By KAYTE FISCHER

Organized by Jialan Wang '04 in conjunction with administrators and aimed at casting light on the question of student morale, "What I Love About Caltech" drew surprise, fascination and mixed reviews from attendees the Saturday before last.

"I've been at Caltech 40 years," said Instructor in Physics Steve Frautschi, "and I've never heard of an event like this."

Why did ASCIT sponsor such a

strange event? Wang, ASCIT's social director who initiated and organized the effort instead of a winter semi-formal cited the benefits of interaction.

"I thought it would be great if I could make it an event where students could interact with faculty, staff and alumni," she explained. "I began to want to do not just a social event, but an event with a positive effect on the community... the real reason I'm having the event is because students don't love Caltech

and I want to find out why."

Understanding that the first attempt at an event like this was not likely to be wildly successful, Wang entered with modest hopes. The goal was to show administrators that a morale problem exists and to open discussion on the issue with students.

How successful was the event? Nearly all of the 550 doughnuts were gone by day's end. According to Wang, the faculty and staff turnout was good—about 40 at the middle of the event—and the comments seen as entertaining and heartfelt. At any given time, about 30 students were in attendance, even if only to eat the doughnuts. Nearly a dozen students spoke during the open forum portion, voicing concerns and satisfactions about life at Caltech.

Speakers included Provost Steve Koonin, Instructor in Mechanical Engineering Melany Hunt, professional staffers Alan Cummings and Bill Tivol, Instructor in Mathematics Gary Lorden, Instructor in Geology Yuk Yung, Dean of Students Jean-Paul Revel, Student Affairs Vice President Margo Marshak and instructors in physics Steve Frautschi and Kip Thorne.

They rehashed anecdotes about personal encounters with students, reminisced about their own experiences as Caltech undergraduates, discussed their enjoyment in the environment, reminded others of the ease of interaction between students and administrators and advised students on how to handle the school.

Students spoke of what they love and don't love about Caltech. Though they cited as pluses opportunities for undergraduate participation in campus committees, the availability of a support network, the abundance of people of similar interests and the sunshine, they raised also several concerns: poor teaching quality; overburdened workload; extreme difficulty level; lack of immediate rewards for hard work; and the general morale slump among students.

"So much energy has been taken out of us that we don't have enough energy to have fun and plan

The Artist, the Engineer: Kohlhasse Links 'World of Math, World of Science'

By MARK POLINKOVSKY

"I am constantly seeking harmony between the world of math and science and that of art," mused JPL Engineer Charles Kohlhasse, asked about his artistic creations.

Since the 1960s, Kohlhasse has been creating graphics to popularize some of NASA's most important missions. And yet, his interest in art goes back even farther. From his teenage years, Kohlhasse has been interested in photography, winning several awards for his work—but the best was yet to come.

In the early 1990s, he was taking a class in conventional film photography at Pasadena City College when he heard about a new class offered in digital modification of photographs.

With Adobe Photoshop, he learned, he could manipulate the pictures he took in ways he couldn't imagine only months before, without the lingering chemical odor of the darkrooms. From there, all hell broke loose.

The end result is an award-winning digital photographer, whose work has graced countless comput-

ers, white boards and Web sites throughout the L.A. area.

Besides his work as an artist, Kohlhasse has worked at NASA for over 40 years. As an engineer, he headed mission design for several high-profile missions. Part of his responsibilities in the Mariner, Viking, Voyager and Cassini missions included planning physical paths for the famous space probes.

This work often involved eliminating thousands of different possibilities that would put too much strain on the fuel reserves or fail to meet the projects' scientific goals. The trajectories had to give the craft many opportunities to take pictures of the planets they were to explore.

Always up for the challenge, Kohlhasse became so immersed in his work that he could even solve problems in his sleep. "I often went to bed thinking about a problem and, when I awoke, the answer was there," he reminisced.

One of the skills that makes him so good at this type of work is the ability to approach problems from a new perspective. His artistic skills allowed him to conceptualize the geometries involved and to focus on the main parts of the mission. After this, Kohlhasse would use his knowledge of math and physics to find a solution. It was only natural that he would eventually discover the world of digital art.

During his time at NASA, Continued on Page 2, Column 1

PJC TO HOST SPEAKERS ON PROPAGANDA

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Alternative Media Figures to Address Corporate Control

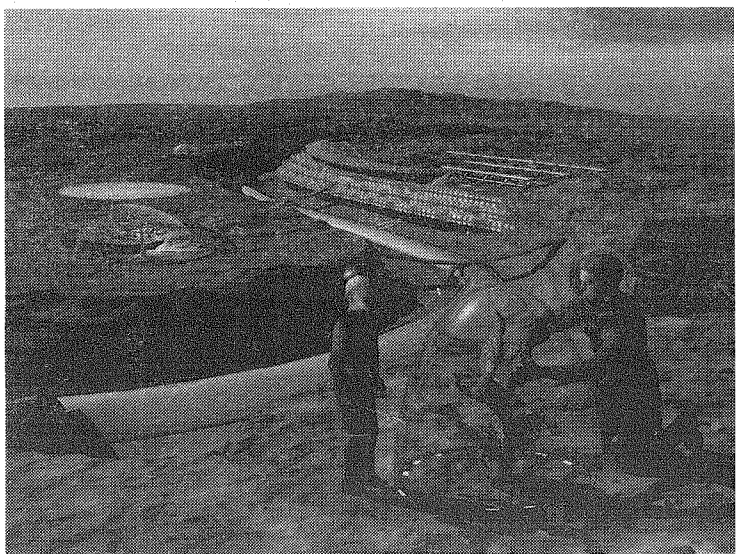
By ROBERT LI

A week from next Saturday, the Media Democracy Legal Project, the Free Pacifica Network and the Peaceful Justice Coalition will jointly hold the second in a series of lectures addressing the effects of propaganda and media control on American public opinion.

The event will held in Beckman Auditorium at 7:30 p.m. followed by refreshments and discussion. Speaking at the lecture will be David Barsamian, Sonali Kolhatkar and Nancy Snow, all figureheads of the so-called "alternative media."

Barsamian is the founder and director of "Alternative Radio," a one-hour radio show carried on many public radio stations that "presents information and perspectives that are ignored or distorted in the corporate-controlled media." He is also well known for his series of book-length interviews with Noam Chomsky.

Continued on Page 8, Column 5



Courtesy of C. Kohlhasse

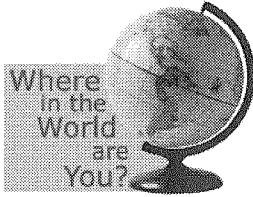
Canyon City, Mars embodies the interdisciplinary "bridging" efforts of artist and JPL Engineer Charles Kohlhasse.

World News: Ivory Coast Calmed, Zimbabwe Starved, Golfers Warned

By SAM HSIUNG

Terror on the Greens

Intelligence officials warned US senators last week that they may be targets of al Qaeda snipers at golf courses. Security officials have also been notified about the threat, but it is not known which agency notified them. However, FBI agents have interviewed a suspect from al Qaeda who boasted about al Qaeda training snipers. This news comes at a time when a sniper killed 9 people around the Washington, D.C. area during these past two weeks. The FBI has not yet confirmed any direction connection between the Washington sniper and al Qaeda terrorists.



France Welcomes US Offer

France has cautiously agreed to a US compromise offer on Iraq Friday, though officials say there are still some issues concerning the language of the offer that remain. French President Jacques Chirac said discussions of new Security Council resolutions were moving steadily ahead and that there is no longer any "opposition between French and American positions." These comments strengthen signs that the five members of the United Nations Security Council are moving ahead on how to handle the situation in Iraq.

Ivory Coast: Another Cease-fire

After a month of fighting and a broken stalemate government troops and rebels have again agreed to a cease-fire measure. France, who currently has troops in the region, said it would monitor the truce. The US State Department still urges all Americans to leave the Ivory Coast however.

Food Program Suspended in Zimbabwe

6.7 million Zimbabweans are in danger of starvation after the World Food Program has suspended all food aid responding to direct threats from ruling Zimbabwean party activists.

Indonesia Enacts Tough Terror Decree

In the wake of the Bali night club bombing last week, which killed over 183 people, Indonesia has enacted a new decree designed to combat terror. Indonesia, the most populous Muslim nation in the world, has finally responded to months of calls by the US to crack down on terrorist activities. The decree includes new restrictions that sentence anyone who commits an act of terror to punishment ranging from four years of prison to capital punishment, including one controversial provision calling for firing squads to publicly execute certain offenders. The use of any biological or chemical weapons would be punishable by death.

Polo Posts Trio of Losses, Track 11th in Regionals

By BRENTON REGER

Men's Water Polo

Caltech (2-17)	4
LA VERNE	16
Caltech	7
OCCIDENTAL	11
Caltech	6
POMONA-PITZER	12

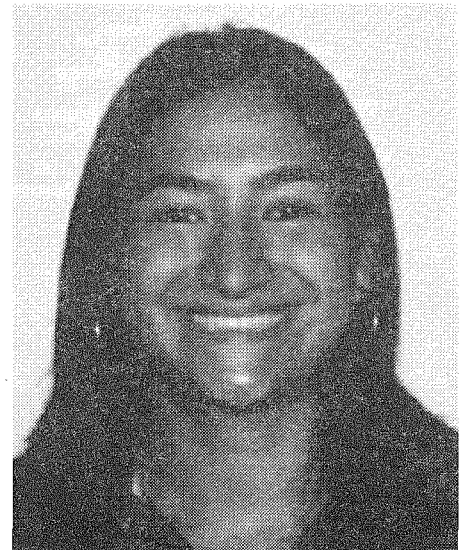
The Beavers finished up the season at the SCIAC tournament hosted by University of Redlands. The team dropped two on Saturday to La Verne and Occidental and added another loss to Pomona-Pitzer on Sunday to finish the tournament.

Cross Country NCAA Regionals

Under the guidance of coach Scott Jung, the men's and women's competed last week in the NCAA regional championships.

The men's team placed 11th overall. Gustavo Olm '06 came in 51st at 28:17; Eric Anderson '03, 53rd at 28:22; J.R. Heberle '04, 63rd at 29:03; David Gutschick '06, 78th at 30:24; Steve Berardi '04, 79th at 30:27; and John Yao '04, 87th at 31:52.

For the women, Tamara Becher '04 placed 43rd at 24:40; Andrea Vasconcellos '05, 45th at 24:47; Kamalah Chang '05, 79th at 26:11; Kim Poppendorf '06, 97th at 27:18; Tracy Janov '05, 100th at 28:23; Rachel Yohay '06, 101st at 28:26; and Kathleen Kiernan '04, 104th at 28:41.



Courtesy of caltech.edu

With her head-turning 24:40 in last week's NCAA Western Regionals, Tamara Becher '04 has earned the distinction of the athletic department's Athlete of the Week award.

Athlete of the Week

Becher is this week's athlete of the week. In only her fourth career race Tamara ran 24:40 in the 6k race at the NCAA Western Regional. Her time was the best of the day for the Beavers, leading them to 5th amongst the 8 SCIAC teams at the meet.

'Constant Learning, Love of the Natural' Epitomizes the Kohlhase Masterpiece

Continued from Page 1, Column 3

Kohlhase wanted the public to share in the excitement of space exploration. In the 1970s and 1980s, he wrote articles in widespread, semi-technical magazines such as *Astronomy and Sky* and *Telescope* to popularize the missions he was working on.

As an extension of his public outreach efforts, Kohlhase wanted to create movies of the probe fly-bys for the public to see. For this, he worked with James Blinn, a pioneer in computer graphics, to create three-dimensional models that could be animated to create realistic sequences. Later, Kohlhase and Blinn again worked together to create several special effect sequences for the PBS series "Cosmos."

All of this work increased Kohlhase's interest in art. In addition to photography, he now creates scenes of other worlds, as well as virtual sculptures, using three-dimensional modeling software. To this end, Kohlhase is working on "2004: A Light Knight's Odyssey," a fully digital "edutainment" film still under development.

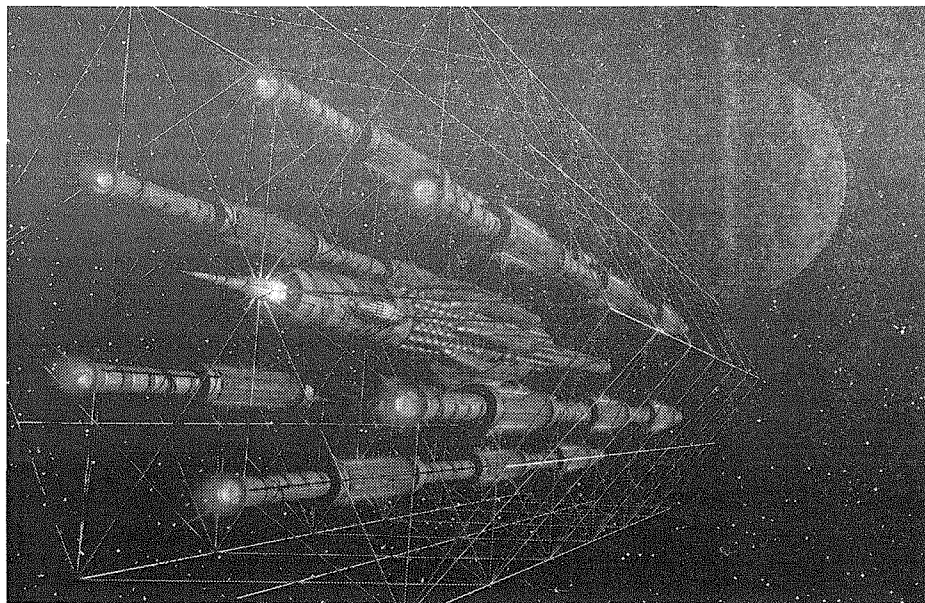
Kohlhase retired from NASA in 1998 to devote more time to art. Still, his mission-design and risk-management skills are in demand and he now works as a consultant for NASA and JPL on the Mars missions. Doing this only a day or two each week still leaves Kohlhase time to create artistic pieces.

Among his many activities, Kohlhase also fosters a deep love of the natural world. A large number of his photographs focus on nature as their subjects. Further, Kohlhase loves the outdoors and is thus very concerned that humanity's activities are destroying Earth's bio-diversity. Some of his artwork has even been used to champion environmentalist causes.

Regardless of theme, however, Kohlhase strives to express the subject in novel ways. "In my art, I am constantly moving between reality and fantasy, between passion and objectivity and between out-of-the-box roaming and discipline. I conceptualize first, then try to get at the essence of the subject," he offered.

Charles Kohlhase has extraordinary skills. Not only is he an exceptional engineer, but also an amazing artist. One could say that he lives his philosophy: "constant learning, love of the natural world and maintaining an ongoing excitement for solving problems and creating things."

A TREASURY OF KOHLHASE LATTICE SHIP



SEPIA FLIGHT



SEISMOLOGISTS EXAMINE CAUSES OF ALASKAN QUAKE

By ROBERT TINDOL

Geologists just back from a reconnaissance of the 7.9-magnitude Alaska earthquake of November 3 confirm that rupture of the Denali fault was the principal cause of the quake.

According to Caltech geology professor Kerry Sieh, Central Washington University geological sciences professor Charles Rubin and Peter Haeussler of the U.S. Geological Survey, investigations over a week-long period revealed three large ruptures with a total length of about 320 kilometers.

The principal rupture was a 210-kilometer-long section of the Denali fault, with horizontal shifts of up to nearly nine meters, the equivalent of 26 feet. This places the rupture in the same class as those that produced the San Andreas fault's two historical great earthquakes in 1906 and 1857.

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'What I Love' Sets Sights on Morale, to Mixed Reactions

Continued from Page 1, Column 5

pranks," noted Andrea McColl '03, a 6th year senior. "Our souls are crushed."

Reactions to the event differed vastly. Protesters burned flyers along the Olive Walk. Many students felt that it was not an effective medium for problem solving. The event mainly confirmed the opinions of those who already enjoyed Caltech, they reasoned, while neglecting the truly bitter. However, others were satisfied.

"Rather than really being a 'love fest,' the goal was to foster interaction between students, faculty, administrators and alumni about what things we want to see preserved about Caltech and what things we'd rather see changed. I think it accomplished that goal reasonably well," remarked Joe Jewell '03, ASCIT secretary.

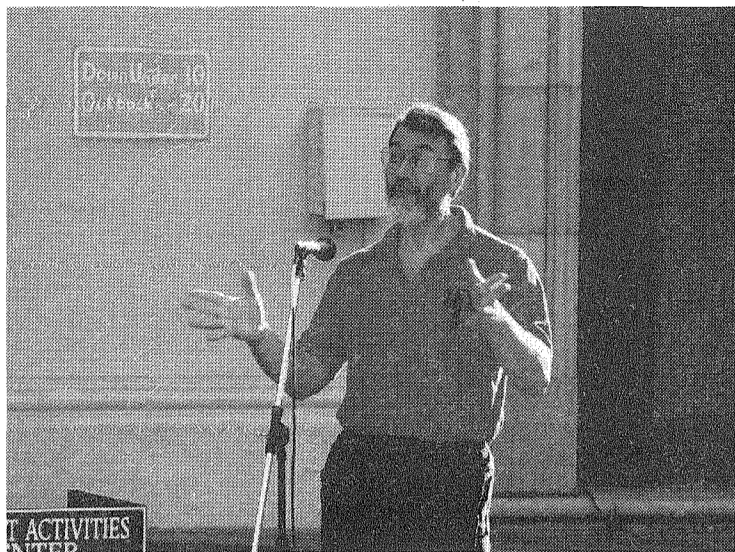
Faculty and administrators hailed the event as a good way to begin dialogue, though they were discouraged and surprised to hear complaints about students feeling broken and the quality of teaching.

Dr. Hunt said, "I think it was beneficial; any exchange between the students and the faculty-administration about Caltech undergraduate education and the environment is a positive step."

Tivol, an alumnus, identified two major issues plaguing student-administrator communication. First, the reality: when the administration makes decisions about student life without undergraduate input, clashes result. Second, the perception: when the students do not know that they have voices in the decisions made or do not know how to access that voice, they feel as though they have no voice at all.

"The most important part of this event is that real progress is made and communicated to the students," he noted.

Wang is unsure whether What I Love about Caltech will occur next



D. Kortz/The California Tech

Biology staffer Bill Tivol outlines the problems plaguing communication between students and administrators.

year, but she is already planning an event involving alumni for next term.

"As long as I'm here," offered Wang, "I hope to make this an ongoing initiative to improve student morale through communication between the different groups on campus."

In a larger sense, student morale has been on largely a decline since the 1970s. Tivol, who led the alumni organization for years, noted that alumni who graduated in the 1960s were generally happy to give time and money to Caltech. However, the desire to support the school dropped in graduates from the 1970s and 1980s, he said—possibly a morale-driven slump.

Others call the morale decline a more recent issue. "Morale was definitely better when I was a freshman," maintained Alumnus Daina Paulikas '02. "Policies got stricter, administration less trusting and caring of us and a lot of the perks and freedoms of the place seemed to be taken away from us."

Administrators remain unsure of the causes of bitterness in students.

However, Vice President of Student Affairs Margo Marshak has begun querying students to investigate the issue.

"[The event] was invaluable to me because I could hear lots of people stating their opinions at one time," she said. "I think we have to pull ourselves out [of the slump], but it'll take teamwork."

Since the conception of What I Love about Caltech, plans for improving morale have surfaced. Recent suggestions include forming a board to entertain academic concerns; organizing a new faculty orientation to alert them to Caltech-specific issues; requesting that professors reach out to dissatisfied students; and creating so-called "structural safeguards" so that communication lapses between students and administration are errors rather than the norm.

Additionally, Ms. Marshak plans to create formalized ways to maintain continual, honest dialogue between students and administrators. Already, she has arranged administrators to speak to ASCIT, IHC and other student leaders about the Caltech budget issues.

"It's crucial for students to understand issues and voice opinions," she said. "Everybody can be reasonable if he or she has the information. I want students to have the same information that I do."

GradPreview Hosts Prospective Students

By PHIL HARRIS

Jointly hosted by the Division of Engineering and Applied Sciences and the Division of Chemistry and Chemical Engineering, last week's GradPreview event saw hundreds of prospective graduate students converge on campus for tours, food and an overview of graduate study in chemistry and engineering at Caltech.

Coordinators aimed the two-day preview gathering at "high-achieving underrepresented minority students." Caltech footed each student's full cost: the meals, the tours, the accommodations, the travel—even the Office of Graduate Studies' \$50 application fee for candidates who ultimately end up applying to Caltech for graduate school.

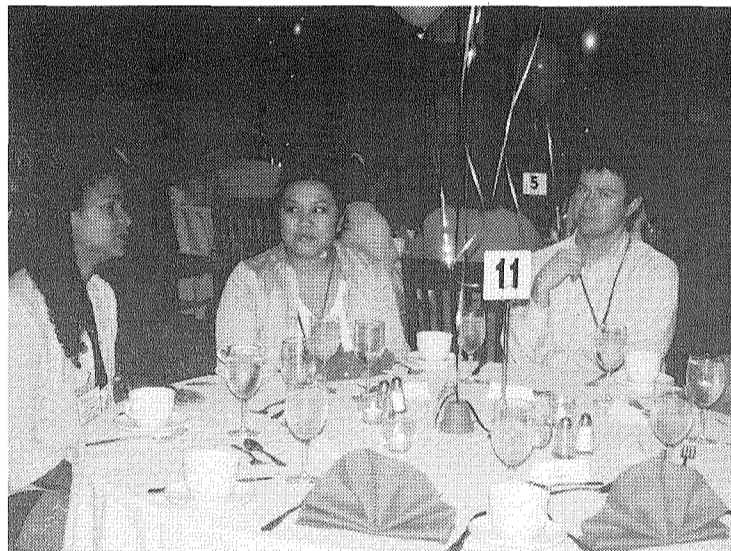
The admissions process itself for GradPreview was somewhat exclusive, requiring a full-blown application form, letters of recommendation and a minimum 3.5 grade-point average. Additionally, coordinators geared the event towards "African American, Latino and Hispanic, Asian Pacific Islander, and Native American sophomores, jun-

iors and seniors who are interested in pursuing graduate studies in chemistry, chemical engineering, engineering, or the applied sciences."

The end result was a well-received and honest glimpse into the life of a Caltech graduate student. On Thursday night, candidates mingled with faculty, administrators and each other for dinner in Chandler; and on Friday night, in the Athenaeum for a wrap-up session.

Over the course of the two days, the students—all current undergraduate sophomores, juniors and seniors—also enjoyed explanatory sessions on minority undergraduate research fellowships—otherwise known as MURFs—and financial aid options for graduate students.

The event was organized by Parandeh Kia, associate dean of Graduate Studies, Brandi Jones, assistant director of Minority Student Affairs, and several representatives from the individual departments.



D. Kortz/The California Tech

Prospective graduate students mingle at last week's two-day GradPreview event. Aimed at high-achieving underrepresented minority graduate candidates, GradPreview saw hundreds turn out for an all-expenses-paid stay that offered the students a glimpse into the life of a Caltech graduate student.

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'Tithe Cut': Zhang's Defense

Controversial Satirist Responds to the 'Offended' Masses

By LIBIN ZHANG

When I wrote my supply-side economics article, I expected some reaction and controversy, but I did not expect letters, phone calls and e-mails from Mormon undergraduates, graduates, alumni and faculty affiliated with Caltech. I never got such a response from Catholics, Republicans, illegal organ traffickers and other groups referenced in my other articles. I am impressed at how much I reduced campus apathy and facilitated ideological debate. For aspiring young writers who wish to receive helpful feedback, I recommend researching and writing about the history of the Mormon Church.

Some people believe I have a personal vendetta against Mormons; that is not correct. I am not in favor of any church institution, but I have friends from many denominations. Similarly, the Mormon Church strongly opposes homosexuality, but undoubtedly all Mormons have many homosexual, personal friends and do not hate individual homosexuals. Mocking the Mormon Church was never a central purpose of the article.

Rather, it was to express my perspective on the Reagan-Bush economic policies. Besides, since most Mormons vote Republican, supporting tax cuts for the rich, what can be so unacceptable about a similar tithe cut for the rich? Some of the tithe money is used to help the poor, but the same claim can be said for government tax money. If anyone can think of another major church at which paying tithes is required to attend church services in temples or equivalents, please let me know so I can use that church for comparison instead.

There have been some complaints that the *Tech* is a serious newspaper that has no place for satire. Like any good newspaperman since

William Randolph Hearst, I believe the goal of a newspaper is to educate readers, entertain readers and have a large readership to satisfy advertisers. Many faithful readers learned more about Mormons, Kurds and illegal organ trafficking after reading my articles.

Additionally, people with a good sense of humor find my writing enjoyable and amusing and for some they are the sole reason they even read the *Tech*. If only serious news belongs in the *Tech*, I can think of at least one regular *Tech* feature by a veteran writer that features much more opinion than news. The *Tech* editors place my articles under the Commentary section, where they rightfully belong.

Many people are uncomfortable with my statement of Mormon doctrine concerning blacks. While Joseph Smith may profess to believe in the equality of all mankind, blacks were not considered equal until a sudden reversal in Mormon policy in 1978. They suffered discrimination and could not have leadership positions, among other things. While no Mormon may have openly said that blacks were "subhuman," which would sound too much like Nazism, it is very likely that blacks were considered inferior human beings to deserve systematic discrimination by the church.

I never claimed that modern Mormons are racists or polygamists. The American military once discriminated heavily against blacks, but no soldier today would scream libel if the past racist events were mentioned, nor are African-Americans uncomfortable being friends with a soldier. It is unfortunate that some Mormons would prefer to hide the

more embarrassing parts of their church history.

Since quoting scripture seems to be a favorite pastime, let's read the Book of Mormon again.

2 Nephi 5:21: "For behold, they had hardened their hearts against him, that they had become like unto a flint; wherefore, as they were white and exceedingly fair and delightful, that they might not be enticing unto my people the Lord God did cause a skin of blackness to come upon them."

Alma 3:6: "And the skins of the Lamanites were dark, according to the mark which was set upon their fathers, which was a curse upon them because of their transgression and their rebellion against their brethren, who consisted of Nephi, Jacob and Joseph and Sam, who were just and holy men."

As to the content of the article, I stand by my diction and choice of satirical information. They served

"I believe the goal of a newspaper is to educate readers, to entertain readers."

to illustrate a point. Neither Flaubert nor I regret writing *le mot juste*. People who find the article's tone offensive do not have to read it. I find articles in the *National Review* and other conservative periodicals "offensive" sometimes, but I am not required to read what I dislike. The articles might mislead other people, but they are intelligent people and can come to their own conclusions without my interference and censorship. Unfortunately, not everyone believes in the same amount of paternalism.

There have been some claims that I plagiarized the Joseph Smith picture. It is acceptable under fair use laws for parody purposes. Unfortunately, the caption was changed due to space limitations, without my knowledge. Originally, the caption was "Mormon church founder Joseph Smith discovered and translated gold plates engraved with the Book of Mormon in 1830. The Book foretold the coming of a prophet who turned out, coincidentally, to be Joseph Smith."



Courtesy of L. Zhang
"Didn't Voltaire write something that offended many religious groups?" asks Zhang.

Some individuals have been presumptuous enough to state that since the majority believes in some sort of God, there must be some truth to their side and I have no right to speak against their beliefs. The same threat has been made many times in history. I'm an atheist; I don't believe in Zeus.

However, there are people in this world who are impressionable and gullible and they may not have realized that my articles are satirical in nature (I hope that nobody believes Canada is really planning to invade the United States). In the future, my articles will be accompanied by a disclaimer, warning that they are inappropriate for readers less than 18 years of age. For now, I am stating the following things for the record in order to appease some complainants. To the best of my knowledge,

- The Mormon Church never had or planned to have, a tithe cut.
- The Mormon Church does not have a budget deficit.
- Some Mormons vote for the Democratic Party.

Continued on Page 5, Column 1

Icelandic Sigur Ros's () Over-Reaching

Music Critic Jonathan Chang Describes Sigur Ros's New Release

By JONATHAN CHANG

Album: ()
Artist: Sigur Ros
Label: MCA Records

Ah, good old Iceland, land of cold, ice and Bjork. Scandinavia seems to be exporting two kinds of music these days. The first is the retro punk of the Hives or the Sahara Hotnights or one of the other MTV2 darlings. The second is a kind of ethereal post-pop electronica to which Sigur Ros squarely belongs.

Sigur Ros is one of those bands that has a penchant for being enigmatic. The guitarist plays with a cello bow. The lead singer croons in a completely made-up language he dubs "hopelandic." The album is divided into two distinct halves, with thirty-six seconds of silence at

the end of track 4 separating the two. The booklet is nothing more than a set of semi-transparent sheets that look like they were lifted from a monochromatic Pollock work. All of the album's eight tracks are untitled, although there are reports that the tracks were given titles prior to the release of the album and the titles were subsequently erased.

All of that being said, this third album from the Icelandic band is not half bad. Even at first listen, it draws immediate comparisons to that other Icelandic electronica band, Mum. You might even liken it to some of Bjork's work—think Frosti on *Vespertine*. Its sparse use of piano and xylophone conjure images of the frigid landscapes of their homeland, while the atmospheric strings and synths go a long way to adding warmth and texture.

It's sonically accessible enough, but you'd be wise not to mistake this for a pop album. With a couple of tracks surpassing the ten minute mark, you'd be hard-pressed to find anything resembling standard song structure. And with hopelandic lyrics, there is no narrative to be found. Now, some pundits may claim that this sort of abstraction and atmosphere allows you to extract a more personal and introspective experience from the music. But it should be clear to anyone who has given this album even a passing listen that this abstraction is really more the result of laziness and pretension than anything else.

And lead singer Jonsi sounds much like Thom Yorke with a Scandinavian accent, *a la* Jocke Berg of Kent. In the first four songs of the album—the "sweet" half—this works pretty well for him, as his light falsettos give the perfect accent to the background muzak. However, by the latter half of the album, his voice becomes absolutely excruciating, serving as just another annoying instrument in a horrible cacophony.

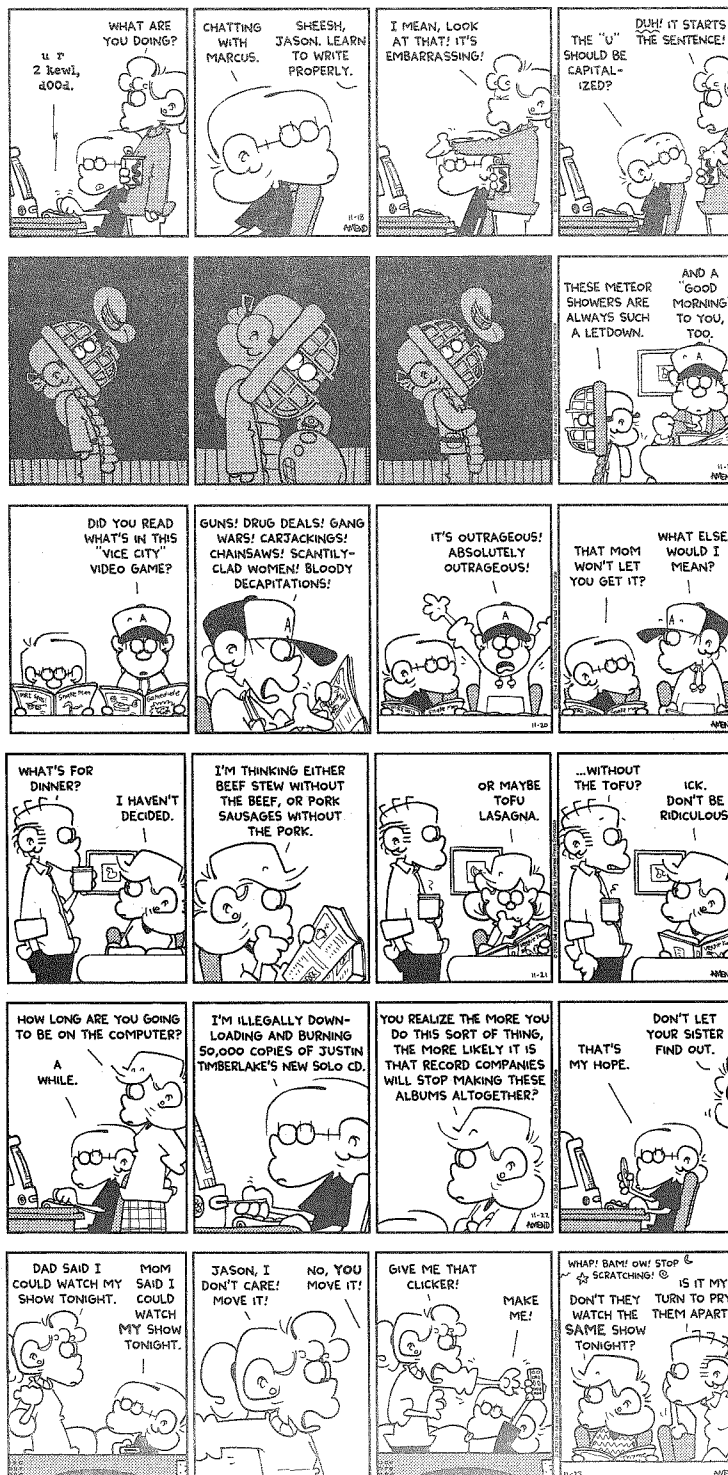
And that is the problem which plagues this entire album: Sigur Ros tries too hard. With the packaging and the ostensible lack of titles, it seems that Sigur Ros is trying far too hard to insert () into the pantheon of great arty concept albums. The underlining subtlety of the first few tracks, especially the third track, hints at a band with considerable promise, but towards the end of the album, Sigur Ros just piles on layer after layer of superfluous instrumentation, eventually overwhelming the listener.

(), for the most part, makes for good, easy listening on a cold rainy day or a lazy weekend afternoon. But dragged down by their own overreaching attempts at fey artsiness, this album will never be anything more.



The cover of Sigur Ros's new release, (), is "a set of semi-transparent sheets that look like they were lifted from a monochromatic Pollock work," in the words of critic Jonathan Chang.

FoxTrot by Bill Amend





WANTED! ASCIT seeks new temporary treasurer for the first half of the winter term. Duties include processing payment and check requests, submitting purchase orders, preparing and presenting monthly budget summaries to the Board of Directors and attending weekly BoD meetings. ASCIT membership and a desire to represent the best interests of the students are essential. Accounting experience preferred but not required. This is not a paid position. Signups are outside SAC 33. Please direct any questions to the current treasurer, Janet Zhou at janet@caltech.edu.

Library Alert: There will be no direct access to HSS books from Monday Nov. 25 to approximately Tuesday Jan. 2, 2003. Please plan ahead for end of fall term HSS research. Items from the HSS book collection will be available only by paging request between Nov. 25 and Jan. 2, 2003. Requests will be made during working hours at the Millikan Circulation Desk or at any time online at: <http://library.caltech.edu/services/annexform.htm>. During this period, the new compact shelving will be installed in the basement of Millikan library and the books will simultaneously be in transit to the new location. The basement space will not be accessible to library users until the installation and move are complete. Students need to be aware that they will not be able to retrieve books quickly at night and on weekends. All books requested will be held for pickup at the Millikan Circulation Desk.

The Monticello Foundation and Robert and Delpha Noland Summer Internships 2003. The Deans' Office is accepting proposals for the Monticello Foundation and the Robert and Delpha Noland Summer Internships. Three to five Caltech undergraduate women (current freshmen, sophomores and juniors) will be given an opportunity to participate in research projects outside the Caltech-JPL community for ten weeks during the summer. Each student will receive a \$5,000 stipend. Applicants are required to identify the projects in which they wish to participate. All arrangements with the principal researcher will be the responsibility

of the student. Interested? Identify a sponsor for your experience at a research facility for a ten-week period. In a short essay, describe your project and submit it to the Deans' Office, 210 Center for Student Services, along with two faculty recommendations. Proposals are due Monday, March 3, 2003.

World AIDS Day - December 1, 2002. Around the globe, this day is set aside each year to commemorate the work accomplished concerning HIV/AIDS and to raise awareness of the remaining work that still needs to be completed. On Monday, December 2, Caltech will remember World AIDS Day by distributing red ribbons for faculty, staff and students to wear. Baskets of ribbons will be in Chandler, the Red Door and Broad cafés and throughout the Center for Student Services building. The AIDS Service Center will be on campus and available to answer questions and pass out literature and other prevention materials outside the Red Door Café from noon to two p.m. In the surrounding community, All Saints Episcopal Church and local HIV/AIDS organizations will have informational tables from 9 a.m. to 1 p.m. at the church on Sunday, December 1 and a candlelight memorial at 7 p.m.

Caltech Library System Presents: The following session is approximately one hour of formal instruction in the Sherman Fairchild Library Multimedia Conference Room (328). Preregistration is preferred.
December 3, Noon: "Copyright for Researchers in Academia"
You may register for this class at: <http://library.caltech.edu/learning/>. For further information, please contact Kathleen McGregor at x6713 or kathleen@library.caltech.edu.

Caltech Division of the Humanities and Social Sciences presents a **Seminar on Science, Ethics and Public Policy**. Dr. Dominic Murphy, Assistant Professor of Philosophy at the California Institute of Technology will speak on 'War Crimes: The Question of Individual Responsibility.' Baxter Building, Room 25. Friday, November 22, 2002. 4:00 p.m. Seminars are on the Caltech campus and are open to the community at no charge. For information, contact Heather Guyett at (626) 395-3829 or heather@hss.caltech.edu. For a complete list of SEPP seminars and Harris Lectures scheduled for this academic year, please visit our Web site: <http://www.hss.caltech.edu/ses/SEPP.html>.

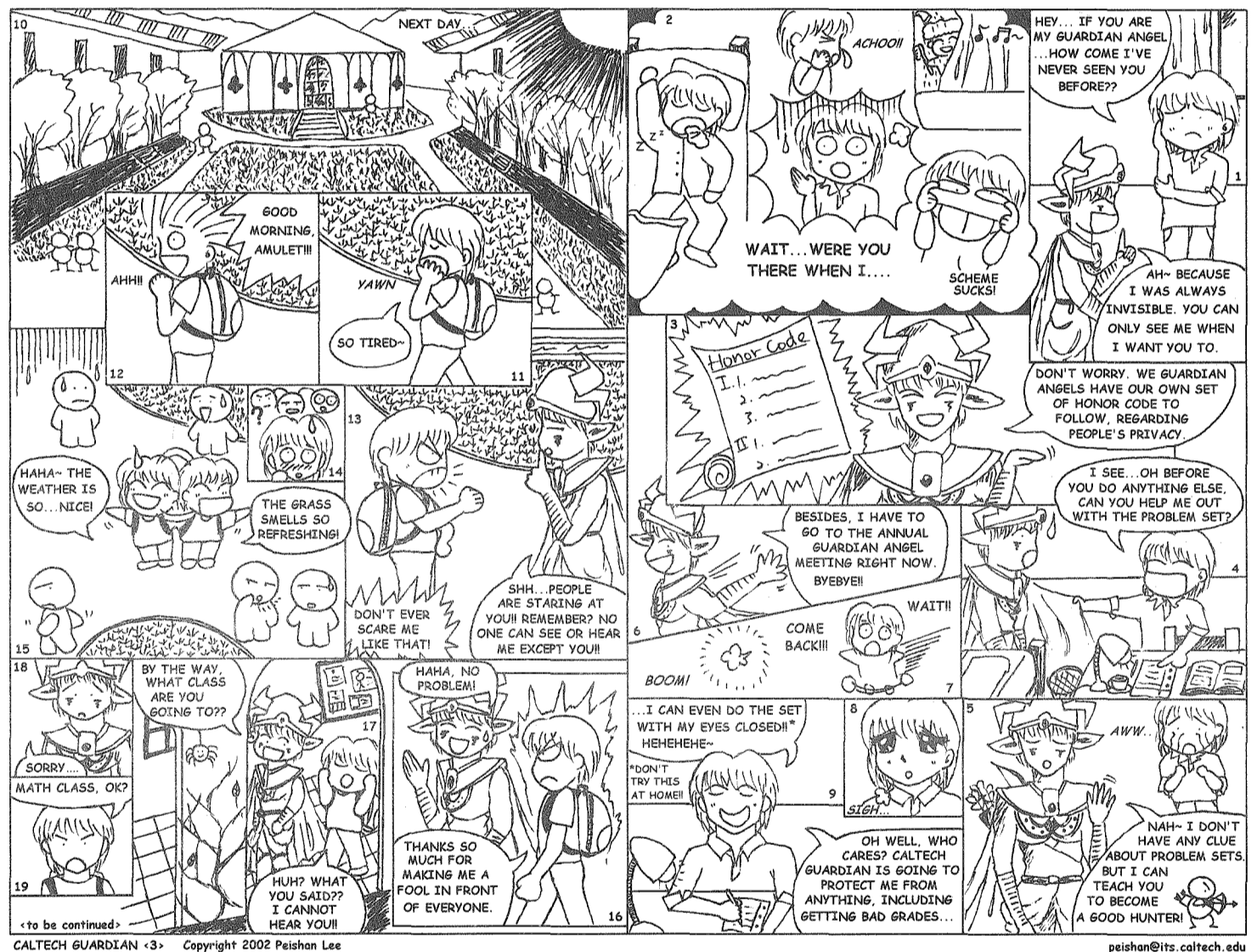
Author's word: Caltech Guardian was postponed last week because PS was lazy. Sorry to all the impatient CG fans!

CALTECH GUARDIAN
By: Peishan Lee

**CLARIFICATION:
LDS RELIGION,
SATIRE ARTICLE**

Continued from Page 4, Column 5

- The Mormon Church does not plan to build a temple in Pasadena that looks suspiciously like a Disneyland castle.
 - Prophet Hinckley and two counselors are members of the First Presidency and lead the Mormon hierarchy. They are not currently active in politics.
 - There are no official plans to change the national anthem to "Onward, Christian Soldier."
 - While non-Mormons cannot attend Mormon temple ordinances, I believe they are normal church services and do not involve reeducation and brainwashing.
- I apologize to anyone who may have been misled by what I have written. If my future articles are not as ridiculous and unbelievable as I initially imagined, I will note in the text that the piece should not be taken seriously. This article, for example, is sincere, but should not be taken too seriously.



Star Trek Actor Wil Wheaton Graces Ruddock Formal Dinner; Damon Next

By BING HUO

So last Tuesday was Ruddock House's first formal dinner. My hasty preparation started with profusely begging a Lloydie to borrow a suit and then digging up my entire room looking for a tie that I must have lost during rotation and going to CS lab in between. I showed up fashionably late around 6:15 with four layers of black clothing and no tie, to find a darkened, packed lounge with too many people in too little space wearing too much clothing.

There had been a lot of talk about Wil Wheaton, who was signed up as one of the guests. At first, I was pretty sure that it was a joke, but then some people there pointed me to a person who looked impeccably like Wil Wheaton. Now Wil Wheaton, for the geekiness-challenged, is famous for playing Wesley Crusher on *Star Trek: the Next Generation*. I'm not a huge Star Trek fan, but I knew who he was and I didn't expect him to actually show up at our humble little dinner.

To my surprise, he was very sociable, easy-going and agreeable, almost as if he were just a normal human being. We talked about everything from *Star Trek* to *Weakest Link* to stand-up comedy. I might have made a phaser joke that was completely uncalled for, but it was

all in all a very enjoyable time.

It's cool that we can actually get a celebrity—granted, he's no Patrick Stewart or William Shatner—to come to our dinner. You should definitely check out his version of the dinner at www.wilwheaton.net—look under November 19—which is worthwhile to read just to get some tidbits about a certain former crush of our lovely RA. Go read it. You know that you want to.

So after all the excitement, we actually start dinner. Doubts filled my mind about not being able to strike up a conversation, so I desperately dashed for the only seats left that weren't next to professors or important-looking people.

But of course, another group came down the row and cut off my escape route and I ended up not just close—not just near—but directly across from President David Baltimore and his wife Dr. Huang. Sheepishly sitting down, I did my best to exhibit the best etiquette. I tried hard to keep my elbows off the table and to remember which fork was supposed to be used first, thinking that they were going to slap me with their lace gloves at my first misstep.

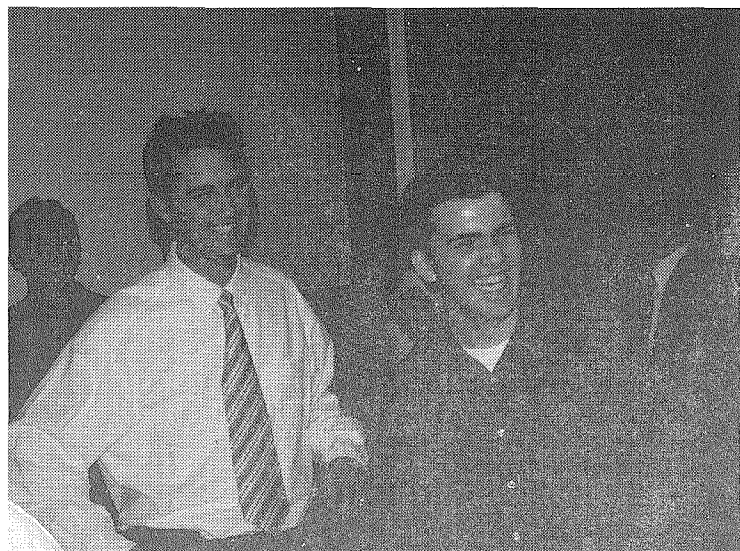
But again, to my shock, I got along just fine with them. Dr. Huang and I shared a Chinese background, which provided for some good chatting material. I even

whipped out some mad Chinese skills, blatantly violating Ruddock's "no foreign languages" rule. And we were able to talk about a variety of things by the time the dinner was over, from his job as president of Caltech to China to Iraq and back again. I might have made a math major joke that was completely uncalled for. It's kind of nice to know that Caltech's the kind of place where you can have a nice dinner with the president and be able to strike up a conversation with him, just as you would Wil Wheaton or anyone else.

That learned, my first formal dinner was already pretty memorable. The food was quite excellent. There was almost too much celebrity-filled excitement for me to handle. And I got along fine without a tie. I will definitely be looking forward to my next formal dinner, especially if our invite-Natalie-Portman-and-Matt-Damon-fund goes according to plan.



Courtesy of V. Sok
Star Trek actor Wil Wheaton stands proudly at Ruddock's most recent formal dinner, flanked by Ruddock president Robert Kern '03 on the left and Ruddock pundit Abe Fetterman '05 on the right. House representatives contacted and invited Wheaton to their term-ly dinner—and, to their surprise, he accepted!



Courtesy of V. Sok
Actor Wil Wheaton, left, and Michael Priolo '05 look on at the reception prior to Ruddock's term-ly formal dinner last week. Known as a local Wheaton look-alike, Priolo also serves in the house leadership responsible for inviting Wheaton.

Forgive 9/11, Says Peace-loving Reader

Forgive 9/11

Dear editors,

Please read this letter with the understanding that it was written from the heart, with love and sincere sympathy for those who have suffered profound losses. It is not intended to be religious or aggravating, disrespectful or unpatriotic.

Forgiveness always alleviates anger and brings refreshing solace, peace, healing and clarity. Costs of not forgiving: The costs of not forgiving are immense. The anger and humiliation we feel appear to be eroding the values that make our country great. Our suspicion may destroy our privacy. Our fear may cause us to voluntarily trade our democracy for a dictatorship. Our insecurity may compromise our economic prosperity. Our lack of self-efficacy may cause us to blindly follow our biased news sources. Our xenophobia may cause us to forgo justice. Our rage may bring us into an unnecessary war.

Benefits of forgiving: fortunately, the benefits of forgiving are equally immense. If you, personally, will make this change of heart, you will feel a renewed sense of power, trust and optimism. As a country, we can undermine terrorism with forgiveness. This is how we can win the generic war on terrorism. We can heal. We can overcome. We are a resilient people in a free country. Our power is not in our military defense; it is in our citizen's willingness to defend our nation's values of democracy, independence and justice.

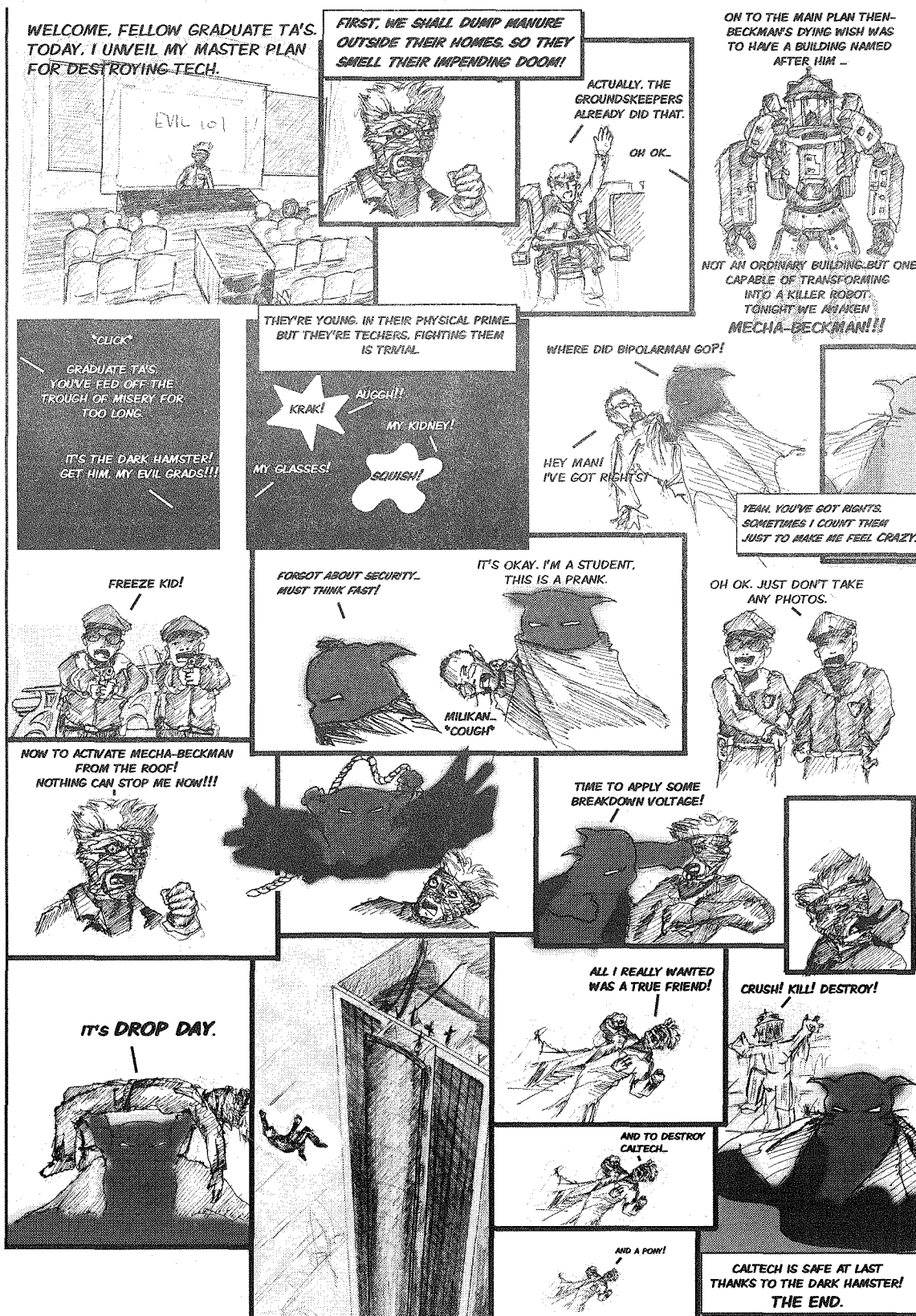
Forgive now: It is time to forgive 9/11 now. We live in an accelerated world and we don't have the convenience of withholding our forgiveness on an extended schedule. We can trade rage and indignation for peace and clarity. Forgiveness is the key, forgiving 9/11 now is the answer.

Randolph Sill
forgive911@aol.com

CRIPPLING DEPRESSION THEATER

www.CripplingDepression.com

By Eric Kelsic, Ben Lee, Mike Yeh, Tim Wan



Lunch at the Athenaeum, Anyone?

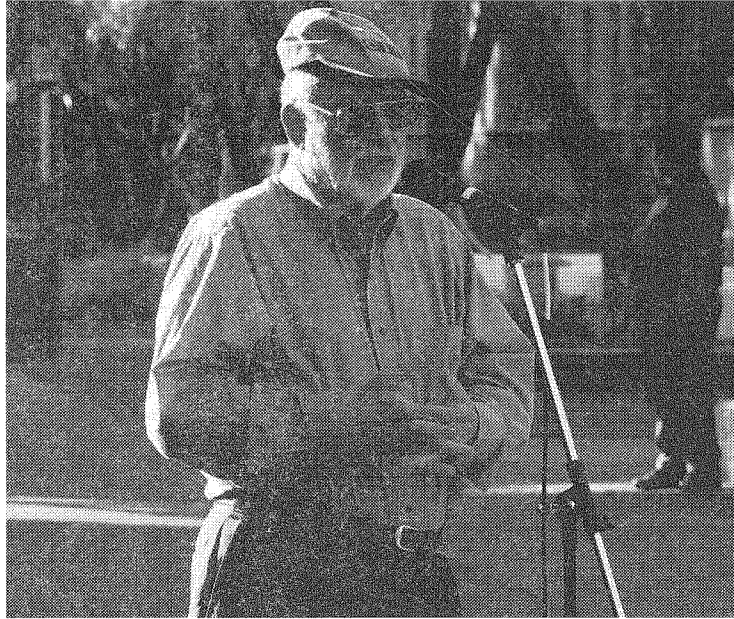
By JEAN-PAUL REVEL

Saturday a week ago Jialan Wang '04 organized a meeting to rhapsodize about Caltech. There are many things to love indeed, even with all the many areas in which we need to improve. Some things are givens. We are what we are because of the extraordinary stature of the faculty and the quality of our students, but these very attributes bring inherent problems. The professors are not hired for their teaching ability. While we have some superb expositors, some of us approach lectures more as one would a research seminar delivered to an audience of peers than a summary of salient results intended for *Scientific American*, that vaunted paragon of accessible scientific presentation. At least the lecturers are all faculty and not graduate student teaching assistants!

As for the undergraduates, they are part of a cohort of intellectual equals perhaps for the first time in their life. That is mostly a plus, although having a student body composed of the best of the best has its down sides too. A ranking develops with the Absolutely Superiorly Excellentissime Students—*summa cum laude*, as they say in English—at the very top and the students that are only excellent at the bottom. So the excellent students lose heart comparing themselves to the ASES acers.

That does not mean much since, in life after school, the students at the bottom may well outdo those at the very top—but go tell that to the downtrodden. They will not believe you; no, all the proofs of inferiority they need is right there in the results of the latest midterm. Heads up, all: don't you love the many chances of doing research on exciting projects? Don't you also feel the good will extended by the staff, by everyone, to the students? Have you noted the extraordinary degree to which the student body can make its voice heard, even though it does not always look that way?

One of the surprising things that afternoon was the number of speakers who said they love our beautiful campus. And I thought that our hard-boiled, slide-rule-toting... not anymore, but in the pre-computer days, every self-respecting student



had a slide rule dangling from his belt and our hard-boiled students would rather be called in by the dean than be caught admiring the flowers, the green grass and the spectacular views on clear days.

But maybe I am wrong. There were signs of aesthetic sense before, as when Throop Hall had to be demolished after the '71 earthquake and there were plans for a monumental staircase going from the level of Guggenheim and Thomas to that of Millikan library. The result of the outcry against the steps was the gurgling brook and frogs and crayfish ponds, the rocks for turtles to sun themselves on, the benches for people to eat their lunches on and so forth.

"My grandfather said the ice used to leave in June. Now it goes out in March."

It was a beautiful afternoon, with piles of cheeses and salsa and gallons of lemonade to help wash down piles of doughnuts so high that even the students could not consume them all. If truth be told there were not that many students there, but those that were sure paid steady attention to the doughnuts I do not exaggerate. It was a beautiful afternoon, unseasonably balmy

in fact, pushing the nineties, in November yet. The banter was of having been transported to the southern hemisphere, to Australia.

The unusual weather might well have to do with global warming of course, which leads me to a recent article in *Harvard Magazine*, discussing "Changing Our Climate, Causes and Choices." The talk about an apparent change of latitude of fair Pasadena was echoed in J. Shaw's article by the observations of the inhabitants of Little Diomed Island in the Aleutians who told a visiting climate researcher that "My grandfather said [the ice] used to leave in June. Now it goes out in March." The article goes on to discuss the likely role of the changes in carbon dioxide concentration over the last century and a half in causing the ice "meltdown."

But, they point out, it was not the melting of sea ice that was going to cause troubles, except to the food chain. Sea ice already displaces its weight in water. The problem lay with melting of ice on land, which would add its water to the oceans. New York could have five to six feet of water standing in the streets if there should be a storm surge. That's another thing that we can be glad of at Caltech; Pasadena is high enough on the hill that we will surely be spared that kind of fate. Even if, as so many believe, we become beachfront property in the next quake that won't mean that our feet will be wet, only that we'll have a nice view of the sunset over the Pacific.

There was something a very peculiar statement in the article however. It explains that of the carbon dioxide released into the atmosphere by human activities, "a quarter is taken up by land plants [by photosynthesis] and another quarter is taken up by the oceans, with carbon dioxide dissolving into the sea water." A sidebar in the article explains that several "factors determine the rate at which the seas take up carbon dioxide. One is the availability of carbonate, which comes from huge deposits of calcite shells [of calcium carbonate] in the upper levels of the ocean."

"These shells must dissolve in ocean water in order to be available to aid in the uptake of carbon dioxide but the rate at which they dissolve is controlled by the ocean's acidity," it continues. In summary, "there is no hope," in the words of Harvard professor McElroy, that "this process will take place fast enough to help control the buildup of carbon dioxide."

Right on, professor: it will take a long time. I bet that even Caltech freshmen could explain why and that's another thing I love about Caltech: our students' ability to solve problems. When you finish your homework sets, see if you can find what's so peculiar. An Athenaeum lunch for the freshmen and two friends who tell me what's wrong.

A biontot.

Our Self-Governance: Meaning, Implications

By TED JOU

At the "What I Love About Caltech" event last week, one student described the onus of the Honor Code, vividly describing the painful experience of policing yourself to fail an exam. Only at Caltech do students commonly find themselves having to enforce their own time limits and close their textbooks, knowing that their actions are driving down their grade-point averages. As difficult as this may sometimes be, you'd be hard-pressed to find a student who would trade the Honor Code for proctored exams.

In surveys in which I asked students and alumni, "What is the best thing about the Caltech experience?" and "What aspects of the Caltech undergraduate experience set it apart from other universities?" the Honor Code was among the most prevalent responses. Caltech students don't tend to shy away from challenges and are certainly willing to take full responsibility for the Honor Code in exchange for open collaboration and take-home exams.

This willingness to take responsibility for themselves is a common theme throughout Caltech student history and the privileges it affords us are the things we value the most. In 1913, the students formed the Board of Control to act as a disciplinary body on campus. In 1922, the students even created a Board of Traditions to enforce various campus-wide customs. In 1931, students took responsibility for student housing assignments and dinner etiquette, laying the foundation for the student house autonomy and traditions that persist today. When ASCIT incorporated in 1935, its stated purpose was to conduct, manage and control the business and affairs of the student body.

With this charge, ASCIT often took responsibilities reserved for the school administration: in 1973, ASCIT started evaluating courses and instructors—the administration still doesn't do this in a centralized manner today. When student telephone service was first established in the late '70s, ASCIT ran the switchboard and collected student phone bills. Rather than simply petition the administration to make changes, students of the past administered themselves in the tradition of Caltech undergraduate self-governance.

Just as with the Honor Code, taking on extra administrative responsibilities often comes with a little bit of pain. Every house secretary

takes on responsibilities, without pay, that would generally be done by a campus housing office. Each house president is the recipient of innumerable complaints that normally would be directed toward administrators.

The Board of Control deals with issues usually reserved for a dean. The ASCIT Treasurer, without pay, does a job very similar to those of many full-time Caltech employees. The ASCIT Web site provides many services that are unique among student-administered operations. The list of student administrative responsibilities is very long; this year's *little t* lists 215 separate students as holding an office in House or school-level government—that's 23% of the student body!

Each one of those students takes on a duty that may otherwise be reserved for a Caltech employee. By doing his job responsibly, each student officer plays a part in making sure the administration doesn't tamper with Rotation rules, restrict house traditions or decide what gets printed in the yearbook.

And in many cases, students do a better job than the Institute might. An online student directory, a restaurant guide and an undergraduate research journal are a few recent examples of high-quality student creations.

I hear many complaints that Caltech should do X, that Caltech should have Y, and wondering why doesn't Caltech provide Z. Instead of simply complaining, it might be more constructive to think of how students themselves might be able to help solve the problem. Self-governance is a two-way street and if we don't want the administration meddling in our affairs, we should try to do as much as we can on our own.

At this time of year, many students are thinking about running for office somewhere in the student government. I hope that those of you looking to get involved are not just after room-picks, but are willing to take on real responsibility for your position.

When conflicts arise, I hope your first instinct will not be to go to an administrator, but to work it out among students. That may not be the way it works at other schools, but as I hope most of you know, Caltech is not other schools. We enjoy the unique privilege of self-governance and the best way to protect that privilege is to do our jobs well and to serve other students responsibly.

TODAY IN CALTECH HISTORY

BELLY DANCERS RETURN TO TECH

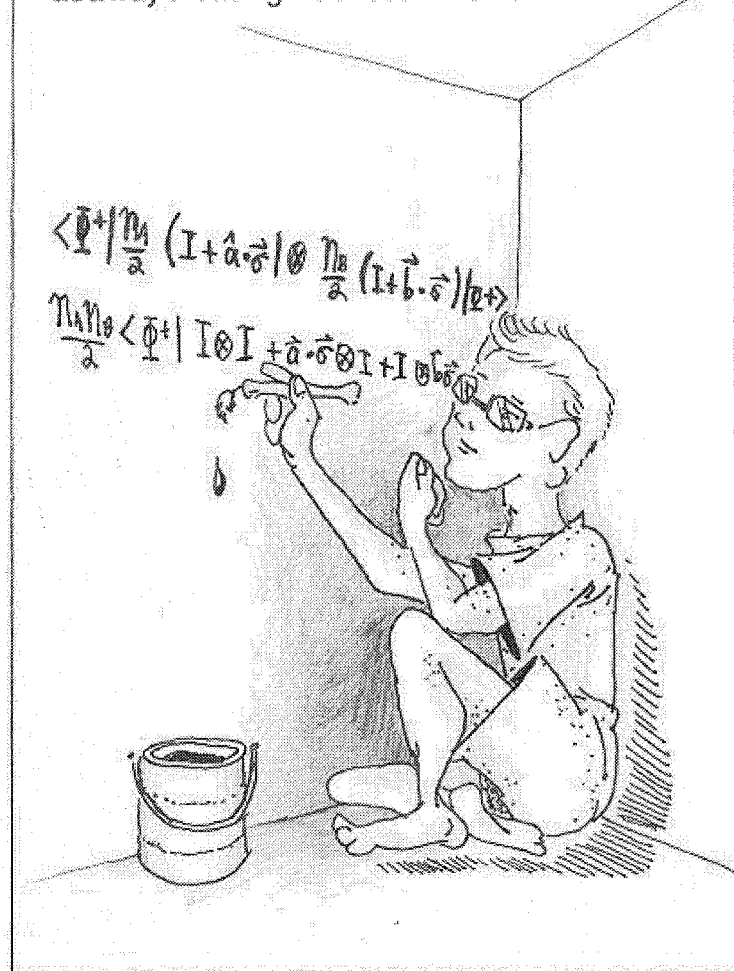


By
Belly dancers They will display on the Quad. The 20 dancers costumes, include veils. At least, their props include scimitar, which parts of their be one hour. Diane Weber her dancers are Y Director Wait them belly dance although they an He also said that and past perform For the past tradition for 6 Caltech each sp year, due to lack complaints, the sponsoring them demand, the Ca

The California Tech Archives

Rather than doughnuts and open-forum sessions such as "What I Love About Caltech," among ASCIT's primary instruments for improving student morale, according to this 1977 article, was an annual belly-dancing event.

Frustrated about school work, Bob turns to painting as a way of easing the stress in his life.



D. Lee/The California Tech



Jeremy Pitts '04 pieces together his device for the upcoming annual mechanical engineering contest. Courtesy of M. Yang

Alaskan Fault Ruptured Eastward, Seismologist Ji Finds in Excursion

Continued from Page 2, Column 5

These three ruptures are the largest such events in the Western Hemisphere in at least the past 150 years. Like California's San Andreas, the Denali is a strike-slip fault, which means that the blocks on either side of the fracture move sideways relative to one another.

Over millions of years, the cumulative effect of tens of thousands of large shifts has been to move southern Alaska tens of kilometers westward relative to the rest of the state. These shifts have produced a set of large aligned valleys that arch through the middle of the snowy Alaska range, from the Canadian border on the east to the foot of Mount McKinley on the west.

Along much of its length the great fracture traverses large glaciers. Surprisingly, the fault broke up through the glaciers, offsetting large crevasses and rocky ridges within the ice. At the crossing of the Trans-

Alaska pipeline, approximately in the center of the 320-kilometer rupture, the horizontal shift was about four meters.

Fortunately, geological studies of the fault prior to construction led to a special design that would have allowed for shifts greater than this without failure of the pipeline. The earthquake shook loose thousands of snow avalanches and rockfalls in the rugged terrain adjacent to the fault.

Although most of these measured only a few tens of meters in dimension, many were much larger. In some places enormous blocks of rock and ice fell onto glaciers and valley floors, skidding a kilometer or more out over ice, stream and tundra. The team of investigators included geologists from several organizations, including Caltech's Division of Geological and Planetary Sciences, the U.S. Geological Survey, Central Washington

University and the University of Alaska.

The rugged range is traversed by just two highways and so the scientists used helicopters to access the fault ruptures in the remote and rugged terrain. Before departing for the field, the geologists had learned from seismologists the basic character of the rupture.

Within a day of the quake, Caltech seismologist Chen Ji had determined that the shift along the fault was principally horizontal, but that the initial 20 seconds of the eastward-propagating crack was along a fault with vertical motion. This fault was discovered midweek, near the western end of the principal horizontal shift. Along this 40-kilometer-long fault, a portion of the Alaska range has risen several meters.

Perhaps the most surprising discovery in the field was that the fault rupture propagated only eastward from the epicenter and left the western half of the great fault unbroken. Several members of the team wonder if, in fact, this great earthquake is the first in a series of large events that will eventually include breaks farther west toward Mount McKinley and Denali National Park.

From 'Bags of Junk' to High-powered Machines, Student-engineers Plot Bots

By MARIA YANG

The 18th annual Caltech Engineering Design Contest will take place a week from next Thursday, starting at 2:00 p.m. in Beckman Auditorium.

The culmination of scores of student projects for the popular ME 72 course, the contest aims to provide students with "a real-world opportunity to learn about the design of new things and the solutions of open-ended, ill-defined problems." Based on the premise that engineering is primarily the process of creating new things to solve problems, the student participants are at the start of the term given a design task, 10 weeks and nothing but a "bag of junk" to design and fabricate a device.

The task is a competitive one, different each year. Each participant, working as part of a team of two, must design, prototype, fabricate, assemble, test, debug and tune a device to compete against pairs of classmates' devices. Only the materials provided in the "bag of junk" are permitted.

"Junk" in a typical year includes: Plexiglass, aluminum, a few ball bearings, shafting, brass tubing, a few pulleys and rollers and other miscellaneous surplus "junk" that can be found in sufficient quantity—needless to say, a spartan supply. In fact, 15 years ago, modernity was in even shorter supply; before the annual Schlumberger contribution, which began in 1987, the power source supplied to the students was rubber bands.

Since then, rules have adapted, but the tradition persists. This time, cushioned with an array of gener-

ous donations from industrial sponsors, coordinators provided contestants with no fewer than two electric motors apiece, so students have enjoyed a somewhat higher quality of junk.

The display case in the middle of the first floor of the Thomas building holds the best of past students' creations, the annual trophy and a display of the contents of this year's "bag of junk."

Also on display is past creativity. Among previous years' creations is everything from devices to collect golf-balls from a trough and deliver a pre-loaded collection of ping-pong balls to a drain to machines that gather golf-balls into a central drain, moved hockey-pucks, golf balls and hose-

washers across a ridge, gathered ping-pong balls from a central bar into soccer-like goals, attached plastic shapes to a vertical Velcro-covered wall and transported variously shaped magnetic objects to a vertical wall.

Last year the devices, built by teams of two, pushed hockey pucks up increasingly sloped steps. The contest this year promises to take on an entirely different character, this time challenging paired students to design and build individual devices that compete together.

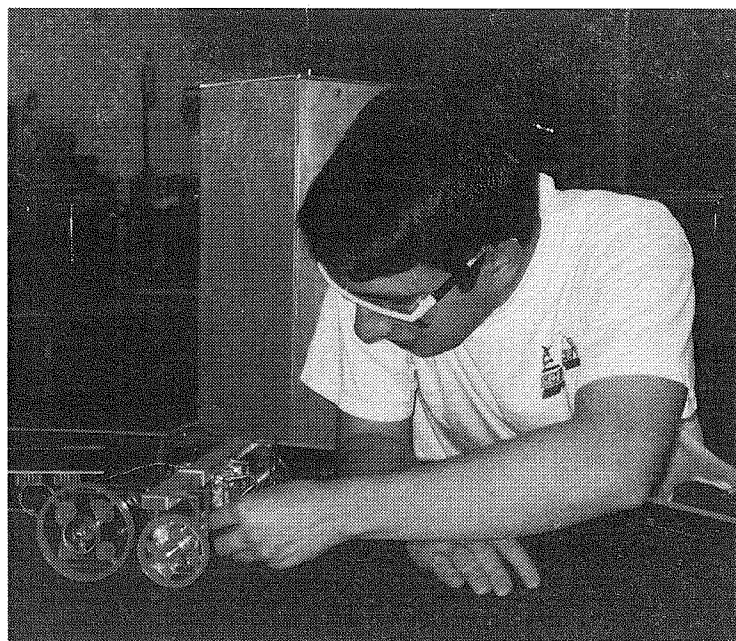
And the challenge is endless. There is an attempt each year to provide a real-world engineering atmosphere. There is a limited amount of time. The hardware re-

sources are limited. Team members must negotiate over size, weight and task constraints. There are many competing requirements and overall strategy is a crucial initial decision.

Coordinators make every effort to make the contest scrupulously fair; all students start with exactly the same raw materials and time and access to tools and machine tools. Ideally, the only variability left over is each student's individual learning, talent and expertise.

Participants cite, as most beneficial, the perceived lessons of the class, including: working in design teams; management and planning of time in the design cycle; decision-making in an uncertain environment; the benefits of prototyping and testing; the benefits of modular easy-to-repair designs; the interaction between design and manufacture; and an experience with open-ended problem solving.

The tournament begins at 2:00 p.m. and lasts about an hour and a half.



ME 72 student Salomon Trujillo '04 labors over a self-moving robot for the popular upcoming mechanical engineering contest. Courtesy of M. Yang

RADIO HOST, MISSIONARY, PROFESSOR

EXPERTS TO ASSESS 'PROSPERITY'

Experts to Analyze Propaganda From Corporate Media

Continued from Page 1, Column 4

Kolhatkar is the president of the Afghan's Women's Mission and popular host of KPFK radio's daily program, "The Morning Show."

Snow is an assistant professor at California State University at Fullerton and adjunct assistant professor at University of Southern California. She is an expert on propaganda in the US and argues that "peace, prosperity and democracy have become coded propaganda terms."

Peace, according to Snow, means American military domination of the world. Prosperity means helping American corporations expand at the cost of US taxpayers and people in other countries. Democracy means a system in which political decisions are made by corporate interests and not the public.

The event is designed as a fundraiser. A \$5.00 donation is suggested but no one will be turned away. The three organizations sponsoring the lecture are non-profits.

Question of the Week

Who and what will emerge victorious in this year's Mech.E. 72 contest?

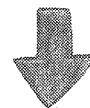
CALTECH CONVENTIONAL WISDOM WATCH



Mars Attacks: Art may be his *Kohl*-ing, and he doesn't even have to name it "Vectors" to win the Caltech crowd. So make *Haste* and support our home-brewed artist.



Show Me the Love: ASCITeers whip together a lovefest for student morale. Dozens showed, but the jury's still out: was it the doughnuts, the celery or truly the love?



A Tiger in the Woods: The next wave of Al Qaeda snipers zeroes in on America's posh golf greens. Congressmen will now need another way to dodge committee sessions.

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