



Deadline for DARPA Vehicle Project Nears

By CHRISTINE CHANG

With months of hard work behind them and a few more months of frenzy ahead, the DARPA challenge team races to the March deadline with a long list of tasks to accomplish and an optimistic outlook.

"They've really started to crank it up as far as getting work done, especially after the term," said Ben Brantley, who served as a technical advisor during first term.

The planning group, which writes the software, especially experienced new pressures after DARPA forbade them to use the Perceptor software from the Jet Propulsion Laboratories, the same software used in the Mars Rover. Even though DARPA approved its use last May, they decided to repeal their former decision since the software was not commercially available to other teams.

Useful in performing stereovision algorithms, the planning group, headed by Mechanical En-

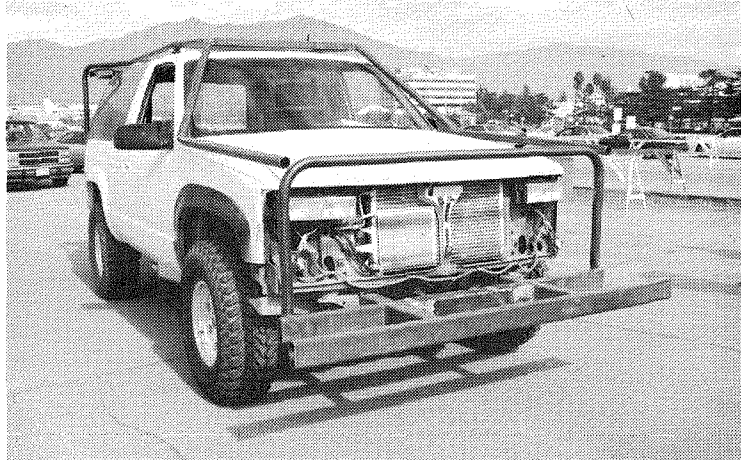
gineering graduate student Lars Cremean, faces the challenge of designing their own software to replace Perceptor and create three-dimensional maps from data input.

In response to this obstacle, the planning group obtained commercial software for geometric analysis and are working to integrate some extra features to imitate what Perceptor would have done.

Out of the four types of sensors which will be used on the vehicle, the team has made progress on all four kinds in the past few months. The LADAR bumper, which will be used to receive and send data to software which will detect obstacles and turn the wheels of the Tahoe, works, though fine tuning is necessary.

In addition, the stereovision hardware to steer the car away from obstacles functions, though it also is not completed. These simply must be altered to work

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Courtesy of team.caltech.edu

The DARPA truck, shown here in the Santa Anita parking lot where tests are conducted, can now move on its own.

Volunteer Group Travels to Local Schools to Read Children's Books

By JENNY IOFINOVA and ARTHI SRINIVASAN

Once a month, a small group of Caltech students joins hundreds of volunteers from around the LA area to participate in a volunteer program called Reading to Kids.

Reading to Kids pairs volunteers with local elementary schools, where children from 1st

to 5th grade are broken up into groups of three to five to listen to stories and then discuss them. Each month has a different theme, such as Women's History or Folk Tales and the books are chosen to reflect this theme.

The volunteers meet in the morning to read the books and discuss the main ideas with their partner. They then meet their

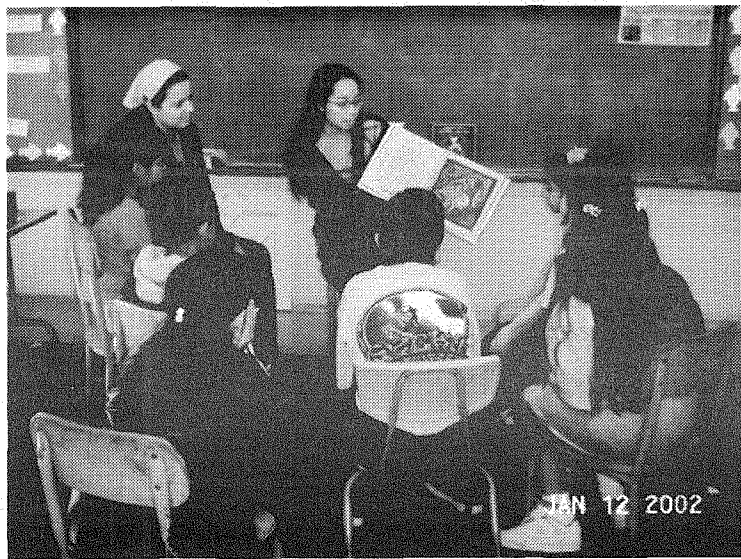
group of kids and read the book to them. In the afternoon, the volunteers help students with art projects.

The Reading to Kids program was started about five years ago by two volunteers who did a reading project at a local elementary school, then decided to make it a monthly project. They eventually turned it into their own non-profit organization. Now, about two hundred volunteers show up each month to work with six hundred kids from four schools.

Said Ali Husain, a Caltech grad student who is on the Board of Directors and has been involved with the program almost since its inception remarked, "I feel it should be about 800 kids per month, so we still have some work to do."

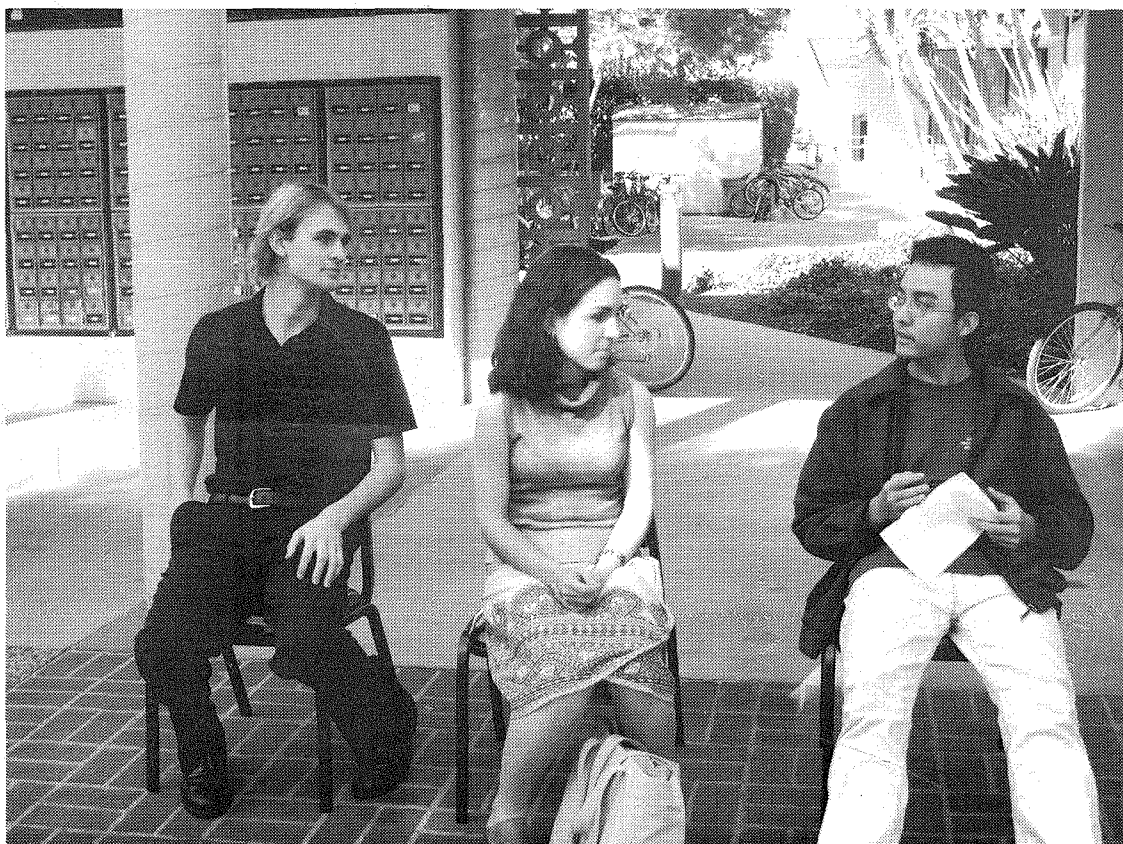
Most of the funding for Reading to Kids comes from grant applications and from companies that have community outreach programs. The rest of the money comes from the annual fund drive and from donations. As the funding chairperson, Husain commented that part of his job is constantly writing grant applications and looking at how the funding

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Courtesy of Reading to Kids

Two volunteers share a story with a group of elementary school students as part of the Reading to Kids program



L. Tran/The California Tech

The candidates for ASCIT President, Galen Loram, Andrea Vasconcellos, and Libin Zhang, discuss one of the questions during Friday's debate on the Olive Walk.

Presidential Election Approaches; BoC Chair Candidates Drop Out

By KEVIN BARTZ

All eyes towards today's election, the three ASCIT presidential nominees--Vice President Galen Loram '05, Upperclass Director at Large Andrea Vasconcellos '05 and pundit Libin Zhang '05--squared off in a debate last Friday on everything from ASCIT's budget shortfall to plans for renovating student housing and relocating computer labs.

The two candidates thought to be front-runners, Loram and Vasconcellos, drew on their ex-

perience in student government in offering what many saw as an extension on the present Board of Directors' progress, while Zhang, a self-proclaimed outsider who polled second in last year's presidential race, laid out an array of less conventional solutions.

Loram, who handily won last year's vice presidential race with a message of responsibility, focused his platform this year on streamlining ASCIT's club funding and on better coordinating the BoD's efforts with those of the Graduate Student Committee and other campus organizations.

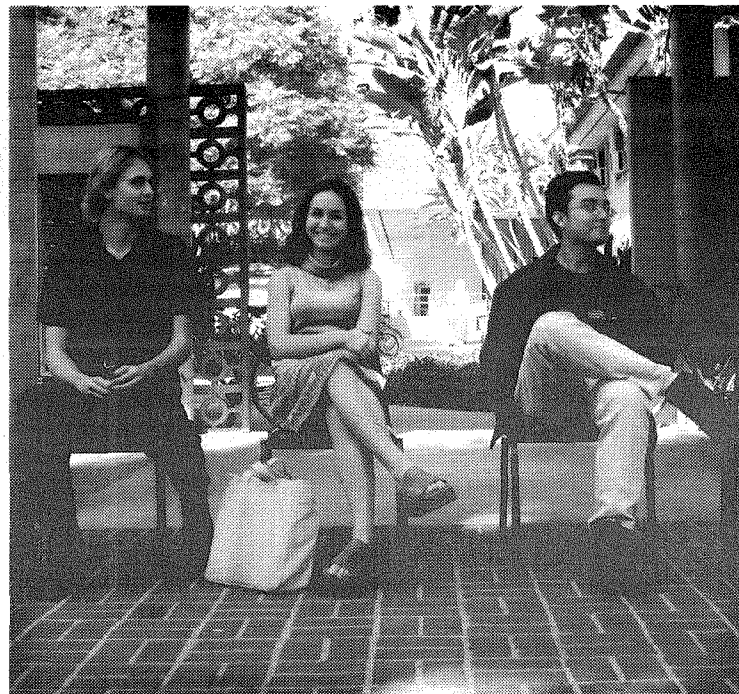
Vasconcellos, who based her UDAL run last year on simply "improving ASCIT relations with all publication editors and fostering a friendly, working relationship," again kept her message short and sweet. She promised to rectify "something lacking in student input" and emphasized her demonstrated enthusiasm,

two years of BoD service to her name, for making believers of those "who don't see the value of ASCIT."

In contrast, Zhang emphasized his status as an outsider, comparing his run to that of President Tom Fletcher '04, whose campaign of "transparency" was seen in some circles as radical. At the heart of Zhang's ideology is "minimalism and devolution. Minimalism means I will do as little as possible and devolution means I will shift as much responsibility as possible to other student organizations."

The question most prominent at the debate was the widely anticipated renovation of student housing. "A big issue looming on the horizon is what to do with the student houses," explained Fletcher. "The swing house idea turned out to be a pipe dream and the current plan is to use grad. housing in the

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L. Tran/The California Tech

The ASCIT Presidential Candidates listen on as moderator Kevin Bartz poses another question to them during Friday's debate. The three will face off in an election today.

ASCIT Presidential Candidate Statements



Courtesy of L. Zhang

Libin Zhang

Individuals who are outsiders (John McCain, Abraham Lincoln, Tom Fletcher) tend to be considered good presidential candidates. They are not captured by vested interests and can bring new ideas to an organization. Their idealism and bravery, to challenge the incumbency, outweighs their lack of experience. I will bring a different, diverse perspective to our student government.

The other candidates have been on the BoD for one or two years. Why have they not already attempted to implement any of their new proposals (raise ASCIT dues, whatever)?

- Fiscal responsibility - I will try to exercise some fiscal restraint with your dollars. This year's BoD took \$3000 out of the ASCIT Budget, mostly the Social Director's funds, to pay for the Totem, which was originally budgeted at a third of that amount.

I believe in practicing actual transparency and accountability, such as letting you know which heads should roll for spending abuses and egregious cost overruns. [ASCIT Minutes 6-4-2003, 6-12-2003, 10-7-2003]

- Less Anal Retentive - Government at a small school should be flexible; Requests for ASCIT money will not be denied due to silly technicalities. As Caltech Y Secretary, I am familiar with the effort put into funding proposals.

- I will adjust standing requirements to discourage frivolous

candidates from running in ASCIT elections.

- Devolution and federalism- I will shift authority and responsibility to more responsive local governments, such as the IHC. More autonomy will be granted to affiliated organizations, ranging from the California Tech to the Student Faculty Committees. This will improve relations and reduce infighting between student governing bodies.

- Initiative - ASCIT officers do not have a monopoly on new ideas. I will make it easier for regular folks to field ballot initiatives (propositions), referendums and recalls.

- ASCIT dues - Rather than enduring an ASCIT dues crisis every few years, the ASCIT dues should be tied to the rate of inflation. Dues would increase annually by around 2%, or currently 70 cents a term. Moreover, reduced Publications costs (see Totem above) would mean more funds available for clubs and campus activities without drastically raising dues.

- Less Commentary - I'm tired of writing for the Tech. Weekly Tech reports on ASCIT activities will be called the ASCIT Minutes. The President will publish personal opinions only as often as the other ASCIT officials.

Thanks for reading and don't forget to vote!

Federalism. Fiscal Conservatism. Friendlier Government.

Andrea Vasconcellos

ASCIT: I care. There appears to be a fragmenting of students among various interest groups, committees and task projects, while we need to focus our efforts into servicing the entire student body.

Communication is central to this goal and I am passionate about turning the individual parts of our student government into a united purpose- that of meeting needs and not egos. Knowing what those needs are comes through increased participation and actively reaching out to all students.

I want to bring back ASCIT BoD dinners at the various houses once a term and hold a meeting afterwards to encourage each house's representation and participation. This was done two years ago and was one of the most successful means of student input.

ASCIT: I understand. As a corporation, ASCIT has its own legal rights and part of the definition is "a group of people combined into or acting as one body." We can have a common interest and a common purpose.

Last time there was a Corporation meeting was in 1967 when 400 students met in Beckman Auditorium and passed several important resolutions. Together they asked for a reduction in the

number of required courses and student representation on faculty committees that were relevant to students, which were immediately accepted by the faculty board.

It is impressive to see what ASCIT accomplished in the past. It effectuated positive change on the campus as a result of students voicing their opinions cooperatively and in a constructive way.

There is no reason why ASCIT cannot do this now! Caltech is unique in its small student body size and its direct access to administrators. Few schools are as proactive, few are allowed as

much student representation on student-faculty issues.

Therefore, above all, there is only a need for unification. So let's unite! Future plans could involve organizing the second Corporation meeting since the existence of the Associated Students.

ASCIT: I need your vote. With my two years of ASCIT experience, I continue to be passionate about Caltech and enthusiastic about ASCIT. I have worked to build a good rapport with staff and administrators and I know the power of dynamic, united students. Help me help you. Vote!



L. Tran/The California Tech

Galen Loram

It seems that ever since I've gotten here (and, from what I hear, even before then!) Caltech students have been moving from one tumultuous event to another. Whether the issue du jour is Vectors, the Ricketts Firepot or a huge tide change in the personnel in Student Affairs, it seems that some crisis is always looming.

Now we are faced with the ren-

ovation of the South Houses (a proposal to the trustees is forthcoming Tuesday!) and it seems that the event that is perpetually 'a few years away' could actually be just a year or two away.

This means that, for the first time since the settling of the North Houses, it will affect current students. In order to accomplish this smoothly we'll need to be able to work comfortably with graduate students (with whom we have had historically tense relations), the faculty and the administration. I can get along with and work with most anyone and thus would be well suited to this task.

Finally - after far too long - it seems like relations with the GSC are thawing; during my tenure as BoC chair I've had a chance to work with the heads of the Graduate Review Board (the BoC's graduate counterpart), John Murphy and Ted Harder, in ways that I think has made both bodies stronger, while Tom has forged a much healthier relationship with Marissa and the rest of the GSC folks over the past year.

This thaw in relations has not just occurred at the level of individuals, but also had actual policy affects: students to check out DVD's from the ASCIT library, which will hopefully accelerate the growth of the library. I would work to continue this trend.

I'm also not afraid to try ideas that seem off the wall. In stark contrast to years gone by, we have had no cases involving freshman before the Board of Control this year. Part of this is due to the BoC talk that Harris and I gave at frosh camp that really got people talking.

Right before we broke into small groups to discuss the honor code we ran a series of skits; the final one involved me (actually) being lit on fire, which got every single person in the room talking.

If I'm risking third degree burns and permanent disfigurement, what won't I try?

When you come up with a exciting and radical idea, who will be the most easy to spot? An albeit cute and friendly, but above all, small Andrea? An admittedly thought-provoking and witty, but now Mohawk-less, Libin? Or a towering, black-clad monolith with a blue and green homing beacon on top ;)

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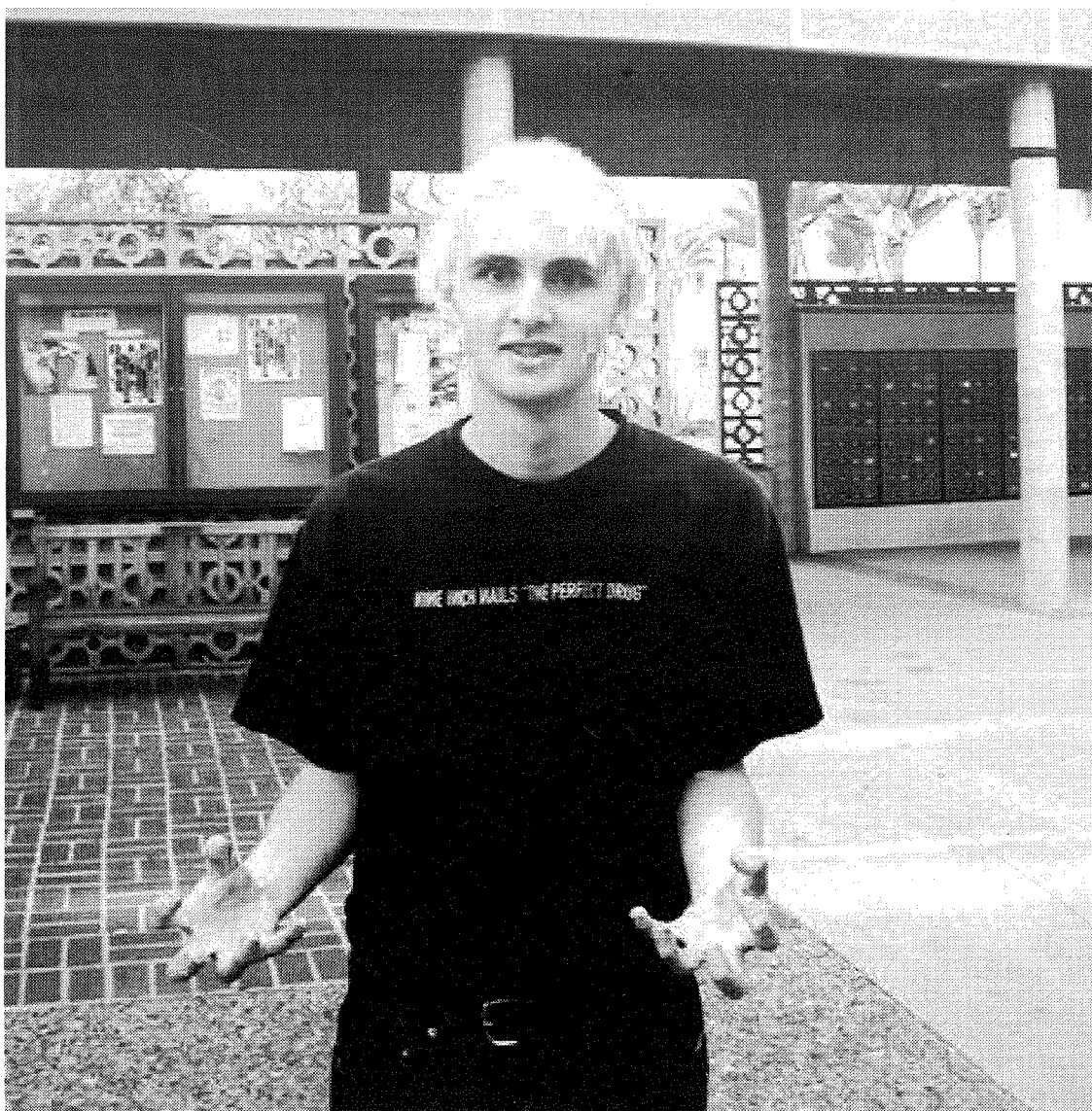
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Courtesy of G. Loram



(From left to right) Steven Youra, KC Cole, Kip Thorne and Lord Robert Winston grace the stage with stories and writing advice.

Words Matter Brings Famed Writers to Tech

By TAMMY MA

Why worry about writing at Caltech? Dr. Steven Youra, director of the Hixon Writing Center opened Caltech's second Words Matter Science Writing Symposium with this question. Words Matter, held this past Wednesday in Ramo Auditorium at 8 p.m., featured panel speakers KC Cole, Kip Thorne and Lord Robert Winston.

Caltech is infamous as Dr. Youra described, "a temple to quantitative knowledge," and writing is not often emphasized during the course of an undergraduate education. However, Youra cited the importance of effective communication for our scientific careers—from interacting with colleagues and bosses to writing funding proposals to recording results in laboratory notebooks to submitting articles for professional journals. Students enrolled in the required Core 1 science writing course were required to attend.

The first panelist to share her advice was KC Cole, author of *The Universe in a Teacup*, *Mind Over Matter*, former writer for the *L.A. Times*, the *Washington Post*, *Newsweek*, former professor at UCLA and Yale, and winner of the Pulitzer Prize while at the *L.A. Times*. Cole told students to think of themselves as "ambassadors to the realms of the exceedingly strange." It is an obligation of scientists to the general public to explain their research and share their scientific knowledge. And while the specialized research that goes on inside the lab may seem very complex, it is possible to communicate it in very simple language, even if "sometimes you just need to lie a little," she said.

One of the most important aspects of science writing, Cole commented, was the necessity to be clear in our communication. If telling a small falsehood, such as "a great new trend," that in fact has been recognized for years among the scientific community will pique the interest of readers and make comprehension among readers easier, we should not hesitate to do so.

Allow yourself to be astonished and enthusiastic about the science you are writing about, and the excitement will be transferred through your writing, and probably engage the reader far more.

Kip Thorne, one of Caltech's hailed physicists and faculty members spoke second. He is well known for his numerous awards in physics and astronomy, his over 200 published papers, and a number of books, including *Black Holes and Time Warps*, written for the layperson. He started his talk by posing a series of questions and answers: "Why am I famous? I can communicate a lot better than most of my colleagues... Why did LIGO get built? Why did the NSF buy

into it? Why is the headquarters for LIGO at Caltech and not MIT? Because I can communicate better than many other people."

Thorne advised writers to incorporate diagrams and pictures into articles as a means of explaining the science. The mental pictures they invoke will help readers to understand, and writers to express the difficult meanings of string theory, quarks and quantum physics.

"Writing for colleagues is very different from writing for the general public," Thorne remarked. With colleagues, who already have a basic understanding of our work, all we aim to do is get the message across in the tersest form possible. However, the public needs a different medium to stay engaged in what they are reading. Parallel sentence structure is boring, as is technical details. Also, when writing for the public, compromises need to be made in the citation of work. Citations are boring and unnecessary to the lay-reader, so how do we give due credit without

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Fireside: Vote Today!, Honor Code Surveys

By TOM FLETCHER

Fireside Chat for 1/26/04
Elections Today! VOTE!

Elections for ASCIT President are today. I trust you all will vote and exercise your rights as you see fit. The only thing I ask is that, while you vote, you take a few minutes afterwards and fill out the surveys on-line pertaining to computer labs and the honor code. These are very important surveys: the Honor Code survey will help correct the concerns raised in their report on the state of the honor code amongst graduate students. The computer lab survey will be used to help make decisions regarding the moving of ITS and UGCS. Plans are being developed right now for relocating them, so giving the administration this information by the end of the week is crucial.

If you care about these issues, please take the time to complete the survey so we have the best possible data we can present.

Whom I Met With Last Week

I met with Margo Marshak this week to discuss the usual business facing students. She will be presenting a plan to "fast-track" the renovation of the houses to the trustees this week. The plan, developed by faculty and the IHC over the second half of first term, was developed when Marshak felt that the houses just weren't getting enough attention and that the issue was falling to the wayside. Now, if the trustees accept the plan completely, renovations on the south houses could begin as soon as the summer of 2005! We should thank both her and Jeremy Pitts for getting this process back on track.

I also met with the Alumni Asso-

ciation last week to help them dole out their Student-Faculty-Alumni-Relations money. Applicants will be notified soon, but I think a lot of good clubs got a little extra money that ASCIT and the GSC just didn't have to give them. The Alumni Association was a little disappointed by the lack of applicants, and are concerned that too many clubs just did not know about them as a source of funding. If your club has a big event coming up, try stopping by the Alumni House on Hill, as they still have some money to give out to clubs holding events with alumni involvement.

Fireside Chat

Closing thoughts

I was very glad to see Rumi's article in the last week's *Tech*, and I think she shed some light on the issue that Avery House has many upsides worth considering. I'd be curious to hear more people from Avery write in about what they consider worthwhile and what sets Avery apart from the other seven houses; as well as what makes it similar.

I suppose this is also my last column without a successor. Before I close, I'd like to thank everyone that reads to the end of the column for staying informed about what's going on around campus, humoring my ideas, and contributing to a vibrant student government. I hope the successor you elect today will continue working to keep in touch with the student body, forging connections with other bodies on campus, and doing their best to improve student life. It's been interesting, Tech...

Peace out,
Tom Fletcher

PS: VOTE!! I mean it!

ASCIT Minutes: BOD Juggles Full Slate of Activities, Elections, Surveys

January 14th, 2004, 12:01 PM, Olive Walk

Present: Joanna Cohen, Tom Fletcher, Kathryn Hsu, Galen Loram, Jeremy Pitts, Anna Sczaniecka, Andrea Vasconcellos, & Corinna Zygourakis.; Absent: Abe Fetterman

1. Call to Order
2. Sign-ups for ASCIT president and BoC Chair have been posted. They will come down at 5 pm on Tuesday, January 20th.

3. Surveys regarding the honor code and computer lab usage are currently in the works.

4. A large number of DVD's are not returned to the Coffeehouse on time, so the BoD is planning on instituting late fees that will increase exponentially from week to week. Students will be given advanced warning before these fees are enacted.

5. The BoD will have lunch with Margo Marshak, on Thursday, January 15th.

6. The Alumni Association wants to encourage interaction between students and alumni, so they are planning on giving the houses money so that they can hold more events. They are also planning a party for sophomores after this term to celebrate the end of core.

7. The GSC wants to publish course reviews and make teaching evaluations public in order to better inform graduate students about classes. Hopefully Scott Fraser will put together a web-based feedback system.

8. The IHC submitted a finished report on House Renovations to Margo Marshak. So far one million dollars have been raised.

9. The *little t* has yet to submit an impact report to the Moore-Hufstedler Fund.

Meeting adjourned at 12:46 p.m.

January 21st, 2004, 12:05 PM, Olive Walk

Present: Joanna Cohen, Abe Fetterman, Tom Fletcher, Kathryn Hsu, Galen Loram, Jeremy Pitts, Anna Sczaniecka, Andrea Vasconcellos, & Corinna Zygourakis.

Guests: Kelly Lin, & Ryan Witt.

1. Call to Order
2. Sign-ups for ASCIT president and BoC Chair came down at 5 pm on

Tuesday, January 20th. Galen Loram, Andrea Vasconcellos, and Libin Zhang are running for president. *Note* All of the BoC Chair candidates dropped out of the race after signing up. The BoD is petitioning the Executive Committee to repost sign-ups for BoC Chair. Sign-ups for the remaining BoD positions will go up at 8 am on Wednesday, January 28th.

3. Joanna is waiting for ASCIT dues to come in before distributing club checks. Also most of the new DVD's have been ordered. Since labels and jewel cases cost less

than expected, ASCIT will be able to purchase a few extra DVD's.

4. Philip Wong is the new president of Blacker House. Haluna Penelope Gunterman is the new Lloyd president.

5. The *little t* has yet to submit an impact report to the Moore-Hufstedler Fund, but they have finally competed their errata sheet. The BoD will see to it that the sheets are distributed. The *little t* should also make sure that they distribute copies to all of their donors and the Caltech administrators.

6. Abe is also hoping to get Dr. Drew and Adam to visit sometime. "We Are Scientists" are coming to play at 10 pm in the Coffeehouse on Tuesday, February 17th.

7. Clubs are continuing to post their events online.

8. Mudeo took place on Monday. *Note* Apparently the event received much publicity; over eight million viewers tuned in to watch Caltech students drag each other through the mud.

9. The administration is continuing its search for a provost. The BoD will send a letter asking them to consider selecting a provost who is willing to work with students and with that a list of recommendations.

10. There is some concern that undergraduates may not have access to the student retreats that were promised at their beginning of year, when the decision to sell Capra was being made. More to come on this.

CUE COMMITTEE MEETING REPORT

SCHEDULING, MENU COURSE ORGANIZATION MAIN FOCUSES

By KATHRYN HSU

The Council on Undergraduate Education convened January 14th to discuss its plans for the upcoming term.

The CUE first dealt with a minor issue concerning course scheduling. There are currently 15 courses scheduled in hours traditionally reserved for student sports and activities (six of these are language courses, most of the others are graduate-level courses). Since there have been few complaints so far this term, Professor Alan Weinstein suggested that a list of courses in these hours be obtained by a member of CUE from Linda King each term. Any problematic conflicts in student schedules that arise due to classes between 4 and 7 PM will be handled on a case-by-case basis.

CUE chairman Dr. David Goodstein reported that Professor Nathan Lewis, who teaches the Aph/Ch 2 menu course, has contacted the other professors teaching menu courses to discuss menu course organization. Faculty were concerned that students would select a menu course based on its grading scheme, work level, or lecture hours, instead of its content. The menu courses will now meet at the same hours, have workloads comparable to one another, and employ similar grading schemes.

Larger issues are still being examined. Possible changes to the undergraduate science writing requirement, Core 1, are being investigated. Currently Core 1 remains unattached to any particular academic division of the Institute, but there is a possibility of bringing it into the Division of Humanities and Social Sciences. Jean Ensminger, Chair of the HSS division, has appointed a committee with Jim Woodward as chair, to formulate an improved version of the course.

Professor Andrew Ingersoll reported on continuing work of the Academic Policies committee to improve the advising system. Suggestions for improvement include requiring the Registrar to send advisors full transcripts of their advisees through the web or through mail. Advisors should also perform Academic Audits for each advisee at the beginning of each academic year, so both the advisor and student will be familiar with current graduation requirements. The Academic Policies committee will report on its recommendations at the faculty board meeting.

The Core Curriculum Steering committee, chaired by Professor Scott Fraser, is planning on implementing a web-based feedback form to solicit teaching evaluations. Both undergraduate and graduate students are planning on meeting with Professor Fraser about these efforts. Professor Weinstein will lead the Curriculum committee in investigating the uniformity of course uniting and grading across the Institute.

The next CUE meeting will be held on February 27th.

11. Another idea that the BoD is currently working is an undergraduate film festival. It would most likely involve a campus-wide competition for movie shorts and include a monetary prize.

Meeting adjourned at 12: 54 p.m.

Respectfully Submitted,
Anna Sczaniecka
ASCIT Secretary

President Bush's State of the Union Misrepresents Truth

A Liberal Critiques George W.'s Conservative Policies and Last Tuesday's Speech

By PARAG BHAYANI

President George W. Bush gave his annual State of the Union address to Congress last Tuesday night. During his hour-long speech, Bush praised the war on terror and the overthrow of Saddam Hussein's regime in Iraq. He also lauded the 2001 and 2003 tax cuts for helping spur economic growth, and spoke highly of the "No Child Left Behind" act and the prescription drug benefit passed through the legislature. Finally, he suggested further reforms that appealed primarily to his conservative base. Overall, the president painted a rosy picture of the outlook for this nation. However, a closer look at Bush's reforms shows that things are not as picturesque as he would like the nation to see them.

George Bush's main appeal to voters is his apparent strength on matters of national security. His seemingly no-holds-barred approach to tracking down terrorists tends to generally please people who are extremely concerned with the safety of this nation. However, his initiatives and reforms leave a lot to be desired. In a statement greeted excitedly by Republicans, Bush urged the Congress to renew the Patriot Act, passed shortly after September 11, 2001. It allows federal law enforcement to better share information, to track terrorists, to disrupt their cells, and to seize their assets. But this legislation should not be renewed if it is being used to imprison American citizens as enemy combatants without due process of the law. This bill has trampled on the civil liberties of many people who merely look like those evildoers of 9/11, and terrorism can be fought without such an abrogation of an American's civil rights.

Many people will argue that such measures need to be taken in the time of war, but we must ask ourselves whether such legislation will really help in countering terrorism. Bush even said that similar provisions were employed in years past to catch drug traffickers and embezzlers, although these were much less controversial. And law enforcement can be made to communicate better without such a law being passed.

Aside from this argument, though, it is clear that the administration has not done all it can to make our lives safer. For example, former New Jersey governor Thomas Kean, a Republican who chairs the bipartisan commission created to investigate the circumstances surrounding 9/11, stated on *Nightline* in December that he believes a terrorist attack will happen again. Additionally, the House Committee on Government Reform has given the Department of Homeland Security an "F" grade in 2003 for protection of information on computers from cyberterrorists, and the federal government received an overall "D." Domestic terrorism also remains unchecked: two potential bombings of buildings by Americans have been luckily foiled by alert citizens; a list of ten meeting places for white-supremacist terrorist groups was discovered by a Tennessee state trooper over a year ago, but was unknown to authorities in those ten locations until very recently.

The Bush administration has repeatedly proclaimed that the removal of Hussein's government has been a great boon for the Iraqi people. If Saddam were still in power today, then "Iraq's torture chambers would still be filled with victims, terrified and innocent.

The killing fields of Iraq where hundreds of thousands of men and women and children vanished into the sands would still be known only to the killers." Most people are in complete agreement with this humanitarian rationale, but Bush knows as well as anyone that this was not the real motivation to go to war against a nation that proved no immediate risk to American security.

A primary reason given for invading Iraq was the putative link between Iraq and al-Qaeda, the terrorist organization that executed the 9/11 attacks. Thus far, not one major association between Hussein and al-Qaeda has been substantiated. Late last year, Bush even conceded that there was no connection between Iraq and 9/11, although he maintained his belief that Saddam and al-Qaeda were somehow linked. However, it would make more sense that Saddam and his secular Ba'ath party would not want to let religious fundamentalists make inroads into his country. The problem is, though, that since the invasion there have been Islamic fundamentalists in Iraq and all over the Middle East exploiting the hatred of American arrogance in young Muslims, and recruitment prospects for terrorist groups have improved considerably.

Meanwhile, Osama bin Laden, who really is an imminent threat to American soil, remains on the loose somewhere in the hills of Afghanistan or Pakistan, and the resources being used to chase him have largely been diverted to Iraq. The Taliban are also starting to regroup, killing soldiers and aid workers whenever they get the chance.

The other major reason for invasion of Iraq was the supposed possession of stocks of weapons of mass destruction. Let us backtrack to January 28, 2003, when, during last year's State of the Union, the president boldly asserted that Saddam had the means to produce over "25,000 liters of anthrax, 38,000 liters of botulinum toxin, [and] 500 tons of sarin, mustard gas, and VX nerve agent." He went so far as to claim that "Saddam Hussein recently sought significant quantities of uranium from Africa"—a claim based on faulty or unverified intelligence. But this is to be expected from a government that removes most filters between the agents in the field and the authorities, so as to prevent any vetting of the information upon which the most significant government decisions are based.

To this day, not one claim of WMD presence has panned out. The Carnegie Endowment for International Peace just published a report stating that "Iraq was not an imminent threat, that UN inspections were working far better than realized and, most importantly, that war was not the best or only option."

On Tuesday, all Bush could say was that, "[CIA Inspector David] Kay identified dozens of weapons of mass destruction-related program activities." Knowing the White House's penchant for overstating the facts, this is more than likely gussied-up language to refer to a few labs in which progress was minimal at best, and it is a far cry from the stark figures laid out for the public in 2003.

The most ludicrous part of Bush's discourse on foreign affairs was probably his attempt to demonstrate that he had built a broad-based coalition to invade Iraq. He rattled off the names of a motley assortment of countries that supported the military strike,

including the United Kingdom, Spain, Australia, Japan, Denmark, South Korea, Italy, and many others. According to Bush, there were a total of thirty-four nations joined in the war effort. Republicans enthusiastically applauded this display, but let us not be fooled. Aside from the UK, Spain, Australia, no country devoted more than a few hundred soldiers and very little in the way of resources. It seems like most of these militarily weak countries were acting in their own special interests, deciding to hedge their bets by supporting the war of a powerful, hard-line government rather than be looked upon unfavorably should the Bush administration continue its aggression elsewhere.

Meanwhile, traditional allies like France, Germany, Russia, and the U.S.'s number one trading partner, China, were all opposed to the war. Many conservatives will basically chalk this up to cowardice, especially on the part of France, which has unfairly earned the contempt by many warhawks from around the nation. But is it not possible that these countries are simply taking a stand against a government that has repeatedly proven its disdain for multilateral agreements? It is important to consider, also, that out of those thirty-four countries, the majorities of the populations in nearly every one have been against the war. Blair has lost popularity in Britain, and Jose Marie Aznar of Spain has the support of about one-third of his nation. So while Bush has thirty-four countries on his side, he most definitely does not have the support of the people of the world. His father got UN approval to send troops to Kuwait in 1991. Bill Clinton got NATO approval to send peacekeeping troops to Kosovo in the Balkans in 1999, a move much maligned by Republicans everywhere. So why couldn't Bush do the same? Maybe it is because he knew what the Army War College, a leading military strategy academic institution, has recently stated: that the Iraq war was unnecessary.

Moving on from foreign policy, there were plenty of other statements and assertions in the State of the Union that can be taken issue with. The administration's assessment of the economy is, to say the least, a bit troubling. The basic premise of the Bush economic policy is tax cuts that he urged Congress to make permanent. According to the president, giving back money to rich people and corporations is the correct way to stimulate growth. And in part, he is right. The gross domestic product (GDP) grew at a blistering 8.2% during the third quarter of 2003. The S&P 500 has grown by 25% in the last year, the Dow Jones industrials by about 18%. Inflation is low.

However, this good news comes with several caveats. For example, in the last three years, our country has seen a net job loss of over 2.4 million, the worst job creation record for any president since Herbert Hoover. Since November, Treasury Secretary John Snow has predicted that jobs would grow at the rate of 125,000-150,000 per month. Unfortunately, for the month of December, he was off by a mere 124,000-149,000. Only 1,000 net jobs were gained last month; what's more is that the estimate for November was revised downward to 43,000 jobs gained, from the original 57,000. This may seem like a vast number, but keep in mind that during the Clinton administration, there was average GDP growth of 3-4% per quarter,

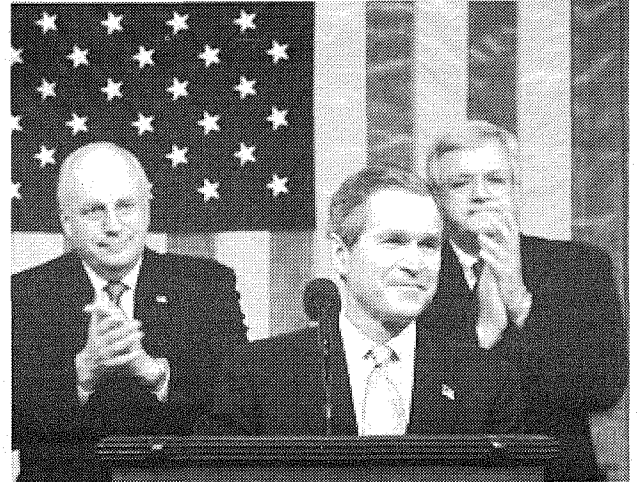
and an average of over 200,000 jobs gained per month. This jobless recovery, while good for shareholders and executives, means that it is getting harder and harder for the Average Joe to make ends meet.

On top of this, health care costs are escalating and we currently have over 44 million people in this nation without health insurance. To offer a bit of anecdotal evidence of the government's fiscal policy, sales estimates for this past holiday show that spending at working- or middle-class stores like Wal-Mart or Target stayed constant or decreased over previous years, while spending at high-end shops like Nordstrom's or The Sharper Image increased. This is yet another case of the rich getting richer and the poor getting poorer.

As disturbing as a jobless recovery is a federal budget deficit that is spiraling completely out of control. Indeed, it is noteworthy when a conservative institution like the Heritage Foundation criticizes Bush and Congressional Republicans for unrestrained spending, as it did in a report published in December. According to latest figures for the current fiscal year, outlays will be \$400 billion more than inflows. Deficit spending for the short term is not considered to be a great problem, and many economists think that if the administration can put a cap on spending or increase revenues, then there should not be a conflict. Bush resolved to limit growth in discretionary spending (spending that excludes entitlements like Social Security and Medicare) to 4%, but it is unlikely that this promise will be kept. With the addition of the recently-passed \$400 billion prescription drug plan for senior citizens (which is in essence a giveaway to pharmaceutical and insurance companies) and the burgeoning costs of the Iraq occupation, worst-case estimates put the long term U.S. national debt at several times the current \$7 trillion level.

The problem is that the Bush administration is pursuing a very short-sighted strategy, spending huge sums on credit and hoping that the tax breaks will encourage growth to a point that tax revenues increase dramatically despite the lowered rates. There has been very little sign that this is going to happen in the near future, and the debt will have dire repercussions if not dealt with quickly. Domestically, many businesses will not be able to borrow money if the federal government also must do so. Therefore, interest rates will spike, since the government can pay these high fees for borrowing money, and businesses will be "crowded out" from borrowing, causing anemic growth or recession. The International Monetary Fund recently published a report that a few more years of the current trends will cause great global economic instability.

President Bush cited another do-



courtesy of www.usembassy.state.gov/
President George W. Bush smiles out at the crowd during his State of the Union Address last Tuesday.

mestic issue that has been making headlines recently, the ambitious "No Child Left Behind" Act, passed with wide bipartisan support in December of 2001. President Bush's key accountability act for America's public school system would set up a series of standardized tests to ensure students' success in schools. Those schools deemed to be failing would be deprived of federal funding and eventually shut down. While this seems like a noble goal, you must beware of Greeks bearing gifts. As it turned out, NCLB, or, as some public school officials call it, "No School Left Standing," came as an unfunded mandate, as the administration has deprived national public schools of \$7 billion worth of funding. The schools have been run into the ground because of it. Many are simply ignoring the guidelines, and state legislatures are enacting their own accountability standards, shirking those of the federal government.

As if that was not enough, it was recently discovered that the model school district for NCLB had falsely represented its improvements. Current Education Secretary Rod Paige was superintendent of Houston public schools when Bush was governor of Texas. During Paige's tenure, the schools saw a dramatic rise in test score averages on a statewide standardized exam, making them a model for reform everywhere. Bush had hoped to duplicate this success on a national level. Unfortunately, according to a December 3, 2003, New York Times article, numbers had been fudged left and right and scores were much lower on a nationally-implemented exam. Another interesting point to consider is that NCLB may have been purposefully passed as an unfunded mandate. Thereby, children would have their public schools shut down, making way for GOP-favored voucher programs to be enacted (a trial plan of which has already been passed for Washington, D.C.). With the Bush administration placing undue importance on the role of religion in government, it would not be surprising if he strongly encouraged the use of vouchers to attend evangelical Christian parochial schools.

I am going to quit my criticism of the speech for now. I could write a lot more about issues that I have mentioned in passing or not even touched upon yet, but I have rambled on long enough. There is an ACM 95 set and a bed that are calling my name; I had better respond quickly. If you would like to respond to this article, positively or negatively, please feel free to e-mail me at parag@its. I will leave you with one final thought: President Bush frequently talks about regime changes in other countries. Isn't it about time for a regime change here at home?

Movies at the Bottom of the Barrel

Critic Harrison Stein Evaluates the Worst of 2003

By HARRISON STEIN

2003 was a bizarre year for movies. Of the 40 or so movies I saw in 2003, I enjoyed about 30 of them, as most every Hollywood release was entertaining in its own way. At the same time, I only loved one film *Lost in Translation*, which was #1 on last week's Top 10 list. Nonetheless, like any other year, 2003 had its share of bombs led by the gruesome twosome of *From Justin to Kelly* and *Gigli* (the voters on the Internet Movie Database currently rate those films as the 2nd and 10th worst movies ever). I was fortunate enough to avoid both of these train wrecks, but I was unlucky enough to sit through five films that were almost as bad as the Cubs' collapse in Game 6. This year was considered the year of sequels and superheroes, so appropriately, my Worst 5 List has two sequels and one superhero film. If you've watched any of the following films, I feel your pain. Otherwise, avoid these stinkers at all costs.

5. *Swimming Pool*

Last week, I recommended a little-seen, foreign, psychological thriller called *He Loves Me, He Loves Me Not* because it was intelligent, shocking, and consistently interesting. This week, I rebuke a truly awful little-seen, foreign, psychological thriller because it is a pretentious, irrational, and tedious disaster. *Swimming Pool* is a story about a middle-aged female writer who moves into the summer home of her boss's promiscuous daughter. Of course, the daughter is a lying, manipulative scoundrel who spends half the film sans clothes. Critics lauded this garbage as a "sexy thriller," but it is not the least bit exciting and is far more disturbing than titillating. Add these faults to an absurd ending and a mediocre ensemble and you get one of the worst foreign films of the new millennium.

4. *The Hulk*

From the little I know about comics, the Hulk is the most interesting Marvel Superhero because his superpowers are more of a curse than a gift. While *The Hulk* is probably a very touching comic book, it makes a horrible transition to the big screen. I don't believe in star Eric Bana's pain for one second and Jennifer Connelly (who gave a fantastic performance in her Oscar winning role in *A Beautiful Mind*) overacts more than anyone else in 2003. The special effects look cheaply done and director Ang Lee's film is terribly

paced. Also, the most tense action scenes, like the Hulk's fight with mutant dogs, are so preposterous that they evoke more laughter than excitement. In addition, the conclusion to a pretty captivating plot is completely indecipherable as it's really unclear what actually happens to the main characters. *Spiderman* and *Batman* showed it's possible to make a comic book into a movie, but *The Hulk* shows it's not a particularly good idea.

3. *Charlie's Angels: Full Throttle*

During orientation week, we were lucky enough to view a movie on an especially large screen outside beautiful Beckman Auditorium on a beautiful autumn night. Unfortunately, we were treated to one of the most unwatchable films of the year. While I was smart enough to avoid the first *Charlie's Angels*, I had a lapse of judgment in viewing this schlock. No one has ever confused Cameron Diaz, Drew Barrymore, Lucy Liu or Demi Moore with being good actresses, but even with lowered expectations they can't begin to make this film entertaining. The story is understandably dense but the actions scenes, the supposed meat and potatoes of this pathetic film series, fall spectacularly flat. Joey from *Friends* provides some genuine comic relief, but by that time, the film is so far lost that it can't be salvaged. Someone really needs to put this series to sleep.

2. *The Matrix Revolutions*

Although I didn't appreciate the legendary original as much as the general public, I enjoyed the non-stop action and philosophical arguments of the first two *Matrixes*. The Wachowski Brothers did a fantastic job of juggling a complex plot while maximizing action and minimizing Keanu Reeves' lines. Regrettably, they make a major misstep with an atrocious final chapter marred by moronic dialogue, robotic performances, pedestrian action scenes and a



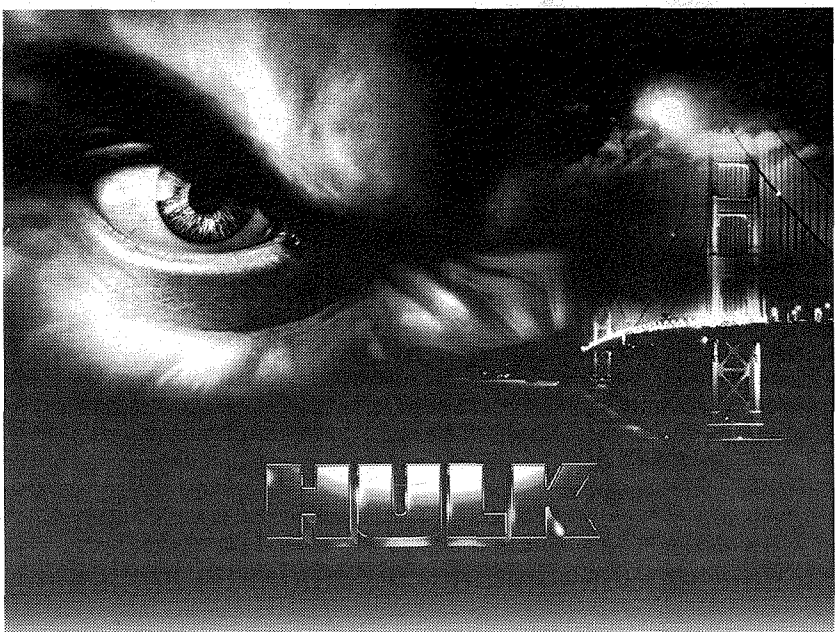
courtesy of www.kelwick.karoo.net

The Matrix Revolutions, which ASCIT treated us to, was but a mediocre movie.

confusing, unsatisfactory conclusion. Making a parallel between Neo and Jesus is pretty offensive and the final scene is completely overblown. The action scenes that defined the original and saved *The Matrix Reloaded* look very plain in *Revolutions*, partially because little of the movie actually takes place in the Matrix. The massive fight between the sentinels and humans drags on way too long, and the human's inefficient machinery is designed almost poorly as the movie. Plus, can a movie with the exchange, "You can't die," "Yes I can," "No, you can't," "YES, I CAN" possibly be taken seriously? How can anyone end a wildly successful trilogy like this? What a debacle!

1. *Dreamcatcher*

As disastrous as the third leg of the *Matrix* trilogy is, it cannot begin to compare to the ineptitude that is *Dreamcatcher* (I still don't understand the title). The latest movie based on a bloated Stephen King novel is about as bad as it gets, and because the first forty minutes are actually promising, the despicable final hour is that much worse. The picture starts as a fine psychological drama about four friends with psychic powers who meet for their annual camping trip in the snowy woods. Suddenly, a number of bizarre things happen and the suspense reaches an apex. Then, for no reason, *Dreamcatcher* introduces slimy, obtuse aliens that resemble a certain forbidden body part and the film turns into an alien carnage vehicle ala *Independence Day*. The story is so incoherent and outrageous that a character actually shoots down a Helicopter 100 feet above him with a handgun. Morgan Freeman's performance as a go-for-broke army colonel who left his acumen on some other planet is one of the single worst acting jobs by a respected actor. Writer and director Lawrence Kasdan has made good films before and will make good films again, but the uninspired mess *Dreamcatcher* will always be on his resume. All *Dreamcatcher* catches is your eight dollars.



courtesy of www.thehulkmovie.com

Although other comic book-turned movies such as *Batman* and *Superman* have turned out well, *The Hulk* was a huge flop..



Submit to the Totem! The *Totem* is now accepting submissions for the 2004 edition the literary magazine. Anyone in the Caltech community can submit their poetry, short stories, artwork and/or photography to the *Totem*. Please send your work by email (totem@its.caltech.edu), or by campus mail (MSC 292).

Caltech YESS Program. "The Young Engineering and Science Scholars (YESS) program is looking for Caltech postdocs and graduate students to serve as Instructors for the summer session taking June 27th to July 16th. The program, which is housed in the Office for Minority Student Education, brings together talented high school juniors and seniors from across the United States, in order to expose them to the many facets of scientific investigation. For further information and an application, please contact yess@caltech.edu. Applications are due Friday, February 6th, by 5:00 p.m."

NASA Public Meeting to discuss NASA's Jet Propulsion Laboratory groundwater cleanup plans and area drinking water quality issues. Tuesday January 27, 7:30 to 9 p.m. at the Charles W. Eliot Middle School, 2184 N. Lake Ave., Altadena. Co-hosted by NASA and Lincoln Avenue Water Company of West Altadena. NASA and Lincoln Avenue Water Company officials, as well as government regulators, will be present to provide information and answer your questions.

A second public meeting, primarily for Pasadena residents: Wednesday Jan. 28, at 7:30-9 p.m. at Joh Muir High School, 1905 N. Lincoln Ave. in Pasadena. Co-sponsored by NASA and Pasadena Water & Power. For more information on the water cleanup: <http://JPLwater.nasa.gov> or call (818) 393-0754.

Richard L. Taylor will give the **22nd Annual Leonidas Alaoglu Memorial Lecture in Mathematics** Tuesday, February 3 at 4:15 p.m. in room 151 Sloan. The title of the talk is "Elliptic curves and modular forms."

Caltech Ice Skating Night, organized by Caltech Ice Skating Club. **Come join us for a night of ice skating fun and hot chocolate!** When: Sunday, February 8, 8:30-10pm. Cost: FREE admission and rentals. Where: Pasadena Ice Skating Center, 310 East Green Street, 626-578-0801, www.skatepasadena.com. (The rink is across Green Street from Paseo, same building a Civic Auditorium, but enter in the back around the northwest corner of the building). If you want to drive, you can park for free at the parking meters on nearby streets or in Paseo parking lot (\$1 if you validate parking at Gelson's - with a small purchase).

If you have questions or want to join the Caltech Ice Skating Club mailing list, please email skating@caltech.edu.

The first 2003-2004 **Everhart Lecture**, "**Cancerous Stem Cells: Insights into the Origins of Human Brain Tumors**" will be given by Houman David Hemmati, a Caltech-UCLA MD-PhD student in Biology. The lecture will be held in 101 Guggenheim Lab (Lees-Kubota Lecture Hall) on Wednesday, February 18 at 4 p.m. Refreshments will be served at 3:45p.m. For more information on the lectures, see www.its.caltech.edu/~els. Sponsored by the Graduate Student Council, the Graduate Office, Campus Life, and Graduate Housing.

The Monticello Foundation and Robert and Delpha Noland Summer Internships 2004. 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 1, 2004.

Upcoming HPS Lectures:

30 January 2004 (4:00 pm 25 Baxter) Munro Seminar Jorge Canizares (History, SUNY Albany) "demons, knights, and nature in the early modern colonial expansion to the new world"

6 February 2004 (4:00 pm 25 Baxter) Munro Seminar William Reddy (History, Duke University) "The Rule of Love: The History of Western Romantic Love in Comparative Perspective."

13 February 2004 (4:00 pm 25 Baxter) Munro Seminar Robert Esick (UC Riverside) "Information and Knowledge on the Internet: The Case of the William Blake Archive."

*** 19 February 2004 (8:00 pm Beckman Auditorium) *** Larry Principe (Johns Hopkins) "Stories and Histories of Alchemy from Nicholas Flamel to Harry Potter"

20 February 2004 (4:00 pm 25 Baxter) HPS Seminar Larry Principe (Johns Hopkins) "Revisiting the Academie Royale des Sciences: Wilhelm Homberg and his Chemistry"

27 February 2004 (4:00 pm 25 Baxter) HPS Seminar Sabine Brauckmann (Konrad Lorenz Institute, Altenberg), The morphogenetic field and the epigenetic landscape 5 March 2004 (4:00 pm 25 Baxter) HPS Seminar Nico Bertoloni Meli (Indiana University) "From Pappus and dal Monte to Galileo and Newton"

12 March 2004 (4:00 pm 25 Baxter) Munro Seminar Justin D'Arms (Ohio State) "Objectivity in Taste and Emotion."

One Act Theater (OAT) has received funding from MHF to produce evenings of one act plays this term. We need directors, actors, technical staff, and anyone who is interested in helping. If you are interested, particularly in directing (the play of your choosing), please email oat@its.caltech.edu and check the website <http://www.its.caltech.edu/~oat/>.

Dance Classes

Beginning Bellydancing

Saturdays, 12:45-1:45 PM, starts 1/10, 8 classes. Professional instructor: Leela. Trial class fee: \$5 for students, \$8 for others. Caltech students full term fee: \$20 (\$2.50 per class!). Other Caltech community members full term fee: \$50 (\$6.25 per class!) CLASS SIZE IS LIMITED so RSVP to Kathy.Kelly@caltech.edu Class meets in the Braun Gym multipurpose room. No special clothing or shoes required.

Intermediate Jazz

Thursdays, 9:30-11 PM, starts 1/8, 8 classes, all held in the Braun Gym multipurpose room. Professional instructor: Collette Sibal. Trial class fee: \$5 for students, \$8 for others. Caltech students full term fee: \$20 (\$2.50 per class!). Other Caltech community members full term fee: \$40 (\$5 per class!). We will also be working on choreography for a piece to be performed in the Caltech Dance Show (March 12 & 13).

Continued on Page 6, Column 2

WORDS MATTER WRITING SYMPOSIUM DRAWS CROWD

Continued from Page 3, Column 2

losing the reader's attention?

Lord Robert Winston, a guest from the Imperial University in Britain, and third and final panelist, is also one of the foremost experts on fertility. He credentials include being on the team to produce the first test tube baby in 1978, a pioneer in the methods of genetic diagnosis, and author of over 300 scientific articles. Lord Winston has also served as a scientific advisor to the World Health Organization, and has taught at Harvard, John Hopkins and UCLA. He is world renowned for his ability to communicate science to the public through film and media, and is best known for Infinite Universe-Human Body, a television series that showcased the body's inner workings.

Winston shared with the audience that his reason for getting involved in communication and intelligence programs was because he believed that people understood science and were interested in the benefits science could bring. As important as communication is, communication isn't the entire answer. Evidence shows that the more people understand, the more people mistrust science.

Winston spoke about the problem of ownership: Scientists are all employed by society, not masters of society. Science is paid for by grants, government funding, and scientists need the support of society. Commented Winston, "If we forget that, we run a dangerous course indeed." He gave an example that if in Britain, people decide genetically modified crops are not to continue, it is not in the interest of science to overly persuade people. Further, we need to consider the ethics of what we are doing. How we gain and use the knowledge that we gain is incredibly important to society. Again and again scientists have shown a lack of understanding of ethics and the sensitivities of the public, and it is time for us to take responsibility for our actions and the knowledge that we acquire.

Winston wrapped up his talk by advising the audience that communication has to be more than just lecturing or writing about science to people, its also about the need to listen to their responses and responding to their responses.

The symposium was concluded with questions to the panelists from members of the audience.



Continued from Page 5, Column 1

Scholarship Announcements

The Financial Aid Office has applications and/or information on the following as well as additional undergraduate scholarships. All qualified students are encouraged to apply. Our office is located in the Center for Student Services M/C 110-87. Please see our website for more information: www.finaid.caltech.edu/news.html.

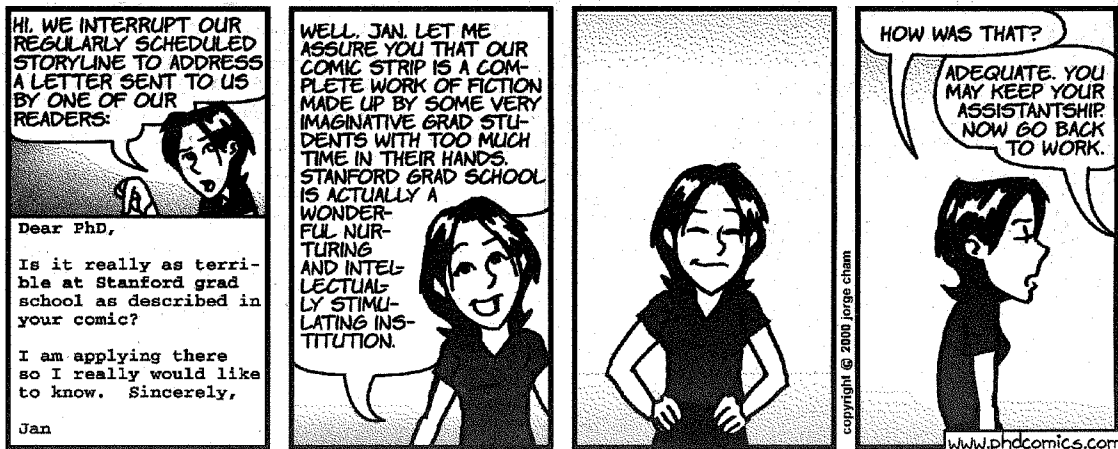
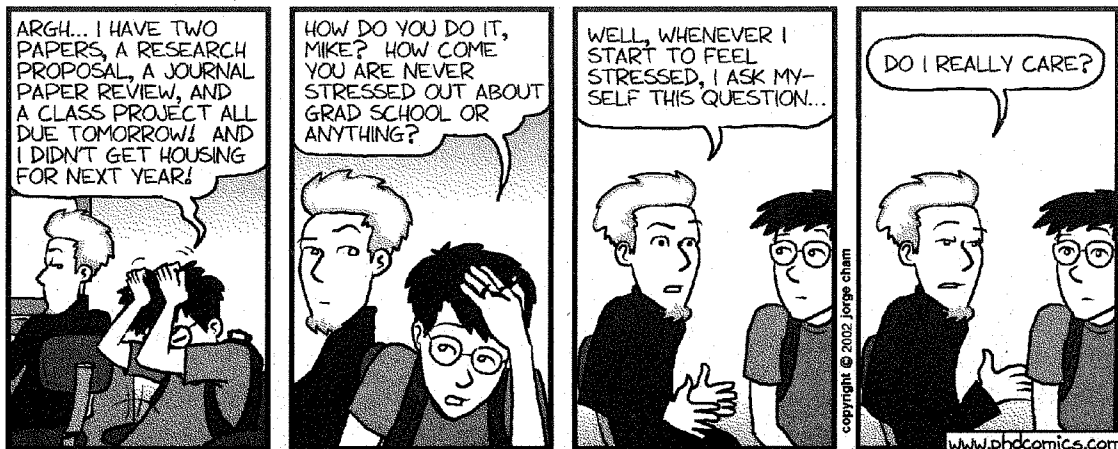
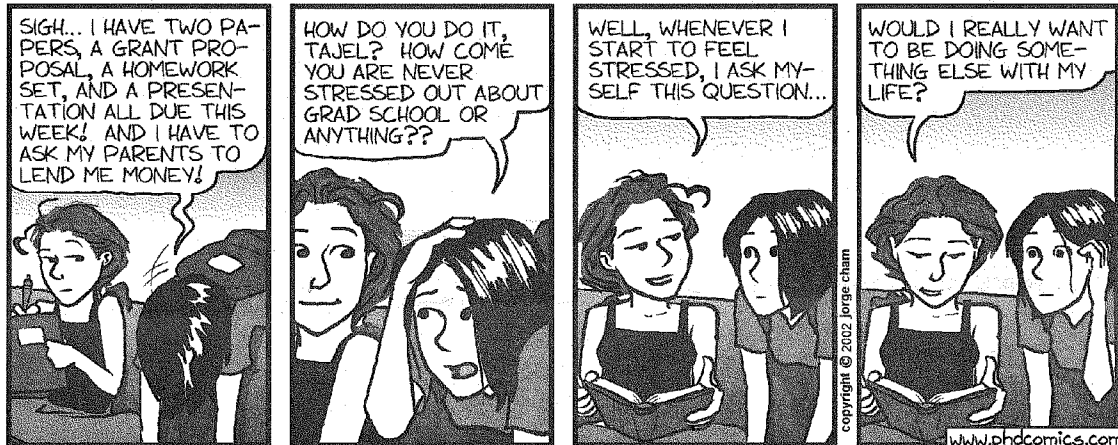
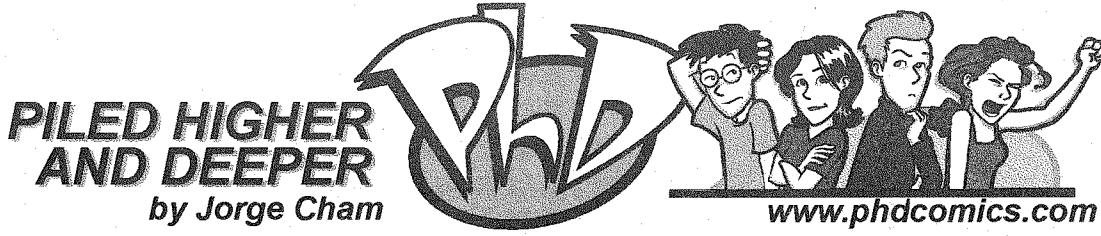
National Academy for Nuclear Training

is offering scholarships of \$2,500 each to eligible sophomores, juniors, and seniors majoring in nuclear engineering, power generation health physics, electrical or mechanical engineering, or chemical engineering with nuclear or power option. Scholars who maintain eligibility may receive renewed funding for up to three years. All materials must be received no later than March 3, 2004. Applications are available on their website: <http://www.nei.org/nantscholarships>

Educaid is offering their "DoubleTake" Sweepstakes. Win two \$2,500 scholarships - One for you and one for your school. Applications are available in the Financial Aid Office, or on Educaid's website: <https://www.educaid.com/doubletake>

The American Physical Society Scholarship for Minority Undergraduate Physics Majors

is available to encourage minority students to major in physics and graduate with physics degrees. The scholarship consists of \$2,000 for new recipients, and \$3,000 for renewal recipients. The hosting department receives \$500 and is asked to help APS identify a professional physicist, who will serve as the scholar's mentor. Any African-American, Hispanic-American, or Native American high school senior, college freshman or sophomore may apply for the scholarship. Students must also be U.S. citizens or permanent legal residents majoring or intending to major in Physics. The deadline is February 6, 2004 Applications are available in the Financial Aid Office, or on the website <http://www.aps.org/educ/com/index.html>



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Courtesy of the Caltech Y

Last year's Mexico group poses outside one of the buildings that they painted.

Undergraduates Assist in Organization Of Y's Alternate Spring Break Opportunities

By JENNY IOFINOVA

With the addition of two new trips and The Caltech Alternative Spring Break program is revving up to this Year's service trips to San Francisco, Owens Valley, Utah and Mexico.

The goal of the program is threefold: to interact with an unfamiliar culture, to meet and bond with other Techers and, of course, to make a difference in the community.

In addition to last year's trips to Tecolote, Mexico; the Navajo Nation, Utah; and San Francisco, the Y is adding two more trips: a trip to Ensenada, Mexico and an environmentally focused trip to Owens Valley, where the City of LA got much of its

water. The new trips have been created in an attempt to reduce the overall group size to about 10-15 students per group, while keeping the overall number of participants the same or slightly larger.

Caltech Y Student Activities and Community Service coordinator Greg Fletcher feels that the small group size is crucial to maintain a good atmosphere and unity within the groups. In addition to keeping the group size small, the coordinators will continue to focus on keeping the groups together. For instance, the coordinators require that all participants not make alternate travel arrangements for coming up to their destination, or for returning to Tech, which has been an issue with the San Francisco trip last year.

Another change this year is the use of student coordinators. In the previous years, coordinators have been faculty/staff members and/or graduate students. This year, each trip has at least one undergraduate student coordinator, who will not only go on the trip, but also be actively involved with the trip's planning.

THE TRIPS:

Tecolote and Ensenada, Mexico (Sun-Wed): Both South-of-the-border trips will focus on helping out in small projects around their location, such as carpentry work and painting of locals' houses. For cultural enrichment, students will eat local food and visit local points of interest.

Trip Coordinator Sindharth Jaggi remembers: "a moving moment was going to the Mexican side sea-wall at the US-Mexico border; a skull was painted on it for every person who'd been found drowned attempting to swim across and it was a horribly large number."

The two trips will be very similar: one of the main goals of adding the Ensenada trip is to accommodate the disproportionately large number of interested students who want to travel South of the border. Accord-

ing to Fletcher, "those who haven't already been on the [Tecolote] trip will probably not have a strong preference over which of these two they go on."

Navajo Nation, Utah (Sun-Thurs): The trip, which is coordinated by Jerry Houser of the Caltech Y, takes students to a small desert town. Last year, the work mostly consisted of painting houses and for cultural enrichment the volunteers interacted with children at a local boarding school.

Jessica Edwards, one of last year's trip coordinators, describes the trip "an amazing experience and one that I plan on doing again." In addition to the community service, the volunteers saw and participated in Native American dancing and visited old Native American ruins.

San Francisco, California (Sun-Thurs): this trip focused on HIV/AIDS and the homeless in the city. According to Jaggi, volunteers participated in "Rebuilding Together, fundraising activities at the SF AIDS foundation and demonstrating science projects to primary school kids from disadvantaged backgrounds at a faith based organization."

The trip was a moving experience for Jaggi, who describes his experience at the homeless shelter, where some of the homeless had Walkmans, but could still not afford to rent even a modest apartment.

Owens Valley, California (Sun-Wed): this trip will focus on environmental issues. In the past, the LA area got much of its water from the area, which was sucked dry. Most likely, much of the work will be dealing with improving the conditions of the region, but the details are up in the air.

Students interested in attending one of the trips should attend the Alternative Spring Break information meetings at noon or 4 PM on January 28. At the meetings, students will be able to sign up for the trips. Trips have filled at meetings, so attendance at one of the meetings is essential.

Candidates Share Opinions

Continued from Page 1, Column 5

Cats."

Loram teed off with his support for temporary undergraduate housing on Catalina Ave, noting its proximity to popular Lake Ave. stores and pointing to the \$12 million savings the plan offers.

"The Cats are really no farther away [from campus] than the South Houses are and they're closer to Baja Fresh and Panda Express," he said. "It would save \$12 million and the donations we get towards the houses are the ones that could conceivably go towards student life." Vasconcellos echoed support for the idea.

Zhang, while agreeing in principle, introduced the additional possibility of ceding Braun's 40 single rooms, now reserved for graduate students, to undergraduates.

With final housing plans still in limbo, Loram also tagged the student housing committee as the group most in need of student input. "It's important right now in particular, because housing affects students so much, that we have a huge amount of student input onto that committee," he said. He further added a note of caution against a measure that would open Avery House to incoming freshmen, explaining that "we must first consider it very, very carefully."

Zhang and Vasconcellos took a somewhat more guarded tone regarding students' roles on campus-wide committees. Citing the well-represented food and freshman admissions committees, Zhang held that student influence in such organization is already sufficiently proportional to importance. Vasconcellos likewise couldn't name a committee on which lack of student input is a problem.

But while the candidates may have differed on just how and where to focus undergraduate opinion, all three conceded that there's little room for student say in the appointment of the next provost. A Loram or Vasconcellos administration would go no further than to offer faculty a list of student recommendations, while Zhang said he'd wait to find out who's running.

As far as particular candidates, Loram mentioned Marianne Bronner-Frasier and Kip Thorne as two who are "well-respected academically and yet still have some connection to students," and Zhang called interim provost Ed Stolper "a good man." All agreed, as Vasconcellos said, that "it's somewhat of a moot point whether to put students on the selection committee--that's non-negotiable."

Another point of commonality was the best recourse for the soon-to-be-closed ITS and UGCS computer labs, whose weight all agreed would be best shifted towards expanded computer facilities in the houses and libraries.

"I think we could extend those house labs and get as many computers as possible," said Vasconcellos. "Extending the computers we have in the libraries could also be a good solution." Loram concurred that "house labs are hands-down the things that are most used," but also pushed for more wireless access points as a means of freeing up space. As an extension to his theme of devolution, Zhang advocated constructing a range of smaller-scale labs.

The candidates also traded similar ideas on how to raise funds for ASCIT. All agreed, for instance, that the time has come to raise ASCIT's longstanding \$60 annual

membership fee and promised not to cut money from the annual ASCIT Formal.

"I think the dues should be raised because it's been the same dues for 30 years now," held Vasconcellos, "and I think that there's a lot more that could be done with just a few dollars more." Loram set a target increase of \$15--enough, he said, "to fund many more clubs and even increase the multihouse budget."

Zhang, meanwhile, supported a cost-of-living-adjustment measure that would link ASCIT dues to the rate of inflation. He also pressed for more "oversight and responsibility" in the BoD's disbursement of publications money.

"One thing I noticed reading the ASCIT minutes was that the BoD was \$3000 over budget, some of which came from the social director's budget for the Totem," he recalled. "Even though the BoD practices transparency and accountability, I think there could be more oversight."

By the same token, all offered reserved applause for last year's BoD. Despite his financial qualms, Zhang lauded what he called "a great job overall." Loram praised Fletcher's weekly "Fireside Chats" and the weekly BoD meetings' move to the Olive Walk from the basement of the Student Activities Center, but promised also to smooth out what he called a "lurchy" transition after last year's elections. Vasconcellos added that she'd like to restore a tradition Fletcher ended, the BoD's weekly dinners in the houses.

In fact, approval for one's predecessors is a relatively new phenomenon in the history of ASCIT presidential elections. Fletcher won last year's election partly on a wave of student agitation against a Ted Jou '03-led BoD whose proceedings many saw as too secretive. Janet Zhou '04 and Jialan Wang '04, the two candidates with BoD experience, polled third and fourth, behind Fletcher and even Zhang, whose offbeat campaign was pinned to his now-defunct aim to open a Krispy Kreme franchise on campus.

This year's crop of candidates, however, has proven less divisive. With such similar sentiments, what sets them apart?

For Loram, it's his knack for management. "I've managed to get along with a lot of people--a very diverse group of people, whether it's students from the various houses or whether it's faculty," he explained. "I really think I could help build consensus and enlist other people to help us out and make student life happier here."

For Vasconcellos, it's a love of the job. "Since I was a freshman I've always enjoyed ASCIT, I like being there, I like organizing things," she said. "I like being part of the meetings and I'm just really enthusiastic. Not many people appreciate what ASCIT does but that just motivates me to try to do even more more."

And for Zhang, it's a fresh, forward-thinking ideology. "I'm the only person running who's not a member of the BoD; that brings a unique perspective," he maintained. "Students want new things, new ideas and I think that can bring in a unique and interesting view change to the BoD."

Polls are open until nine p.m. today in the student houses and Avery and online at ASCIT's Web site, donut.caltech.edu.

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Magnolia Elementary Visited by Volunteers

Continued from Page 1, Column 3

structure of other non-profit organizations works.

He also commented on the possibility of getting a celebrity on board to get a higher profile for the program. However, he mentioned that he has reservations about the idea, since having a celebrity on board might distort the program's focus.

At Caltech, the program is coordinated by the Caltech Y, which organizes a trip once a month throughout the year and the organizer of the trips is Caltech grad student Dan Feldman. He has been involved with Reading to Kids for about a year and has organized the trip to Magnolia Elementary School most of those times.

Typically only about four or five Caltech students who go each month, which Feldman believes is largely due to the fact that they leave before 9 AM each time. The volunteers who go do, however,

get free food.

The volunteers find the experience to be generally very rewarding, both in working with the children and in meeting other volunteers. Said Husain, "As a Caltech grad student, [Reading to Kids] has allowed me to meet intelligent, interesting people, who are non-science people and that interaction is very nice."

Feldman liked December's event in particular, commenting, "It was a lot of fun, because they brought in Santa Clause, Mrs. Clause and some elves; they also had a raffle and gave out prizes." Feldman also discussed his interactions with the kids, saying, "I work regularly with the first graders and I can see them remembering me and changing a little each month."

Reading to kids is always looking for fresh volunteers. Those interested should contact the Caltech Y.

Northrop-Grumman Provides Scanner Pod

Continued from Page 1, Column 2

reliably. Utilized to plan out the terrain in front of the car, the LADAR scanner has not yet been tested, but will be this weekend.

While the planning group has been handling the problem posed by the loss of the Perceptor program, the embedded systems team, headed by Professor of Mechanical Engineering Richard Murray, faces a task list which includes integrating the state estimator to allow for the best approximation as to the vehicle state, enacting an e-stop sequence so the vehicle stops completely when commanded and finishing the message transfer architecture for communication between different software threads running on separate computers.

Under the supervision of Project Manager Dave van Gogh, the vehicle team has completed the installation of the actuators and mounted the generator, among many other accomplishments, but they still need to strengthen the actuator systems and design the sensors for the top of the cab. This only begins the long list of tasks the team must work on before the March 7th deadline.

Significantly aiding the team, Santa Anita race track has permitted the team to use their parking lots for testing, which saves them from having to drive one and a half hours into the desert.

Even with so much work left to be done, Van Gogh remains optimistic that the Caltech team will complete their vehicle.

"Our goal is to design the sys-

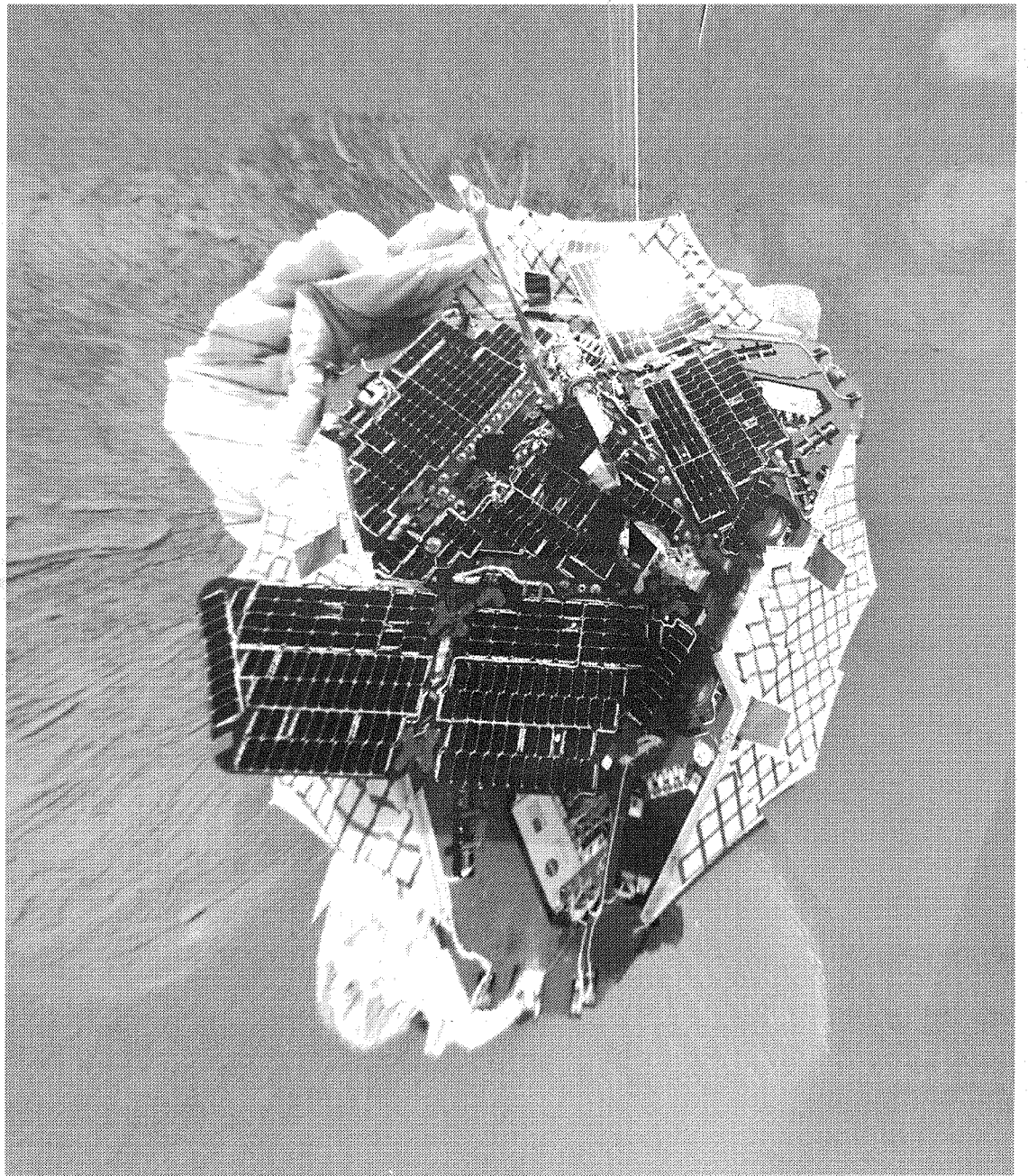
tem so that we can be at the starting line. This is no easy task. To answer your question, yes, I think we'll reach this goal. Whether we'll complete the 210 mile course within ten hours, that's debatable," said Van Gogh.

However, as Van Gogh implied, even just reaching the starting line is a challenge. In order to be eligible for competition, the team must pass the Qualification Inspection and Demonstration (QID) on March 8th at the California speedway.

During this test, the vehicle will drive through a pre-defined corridor, traverse rough terrain and avoid obstacles such as ditches and officials will check safety features. Each of the twenty-five teams will be given two opportunities to complete the course and only the fastest twenty will compete the following week on March 18th.

"I am confident we can get past that," Murray said, stating that since they knew what to expect at the QID, the team would be able to prepare for the test. He, too, however, voiced some doubts as to whether the vehicle would be able to complete the DARPA challenge successfully, but also said he doubted that any team would be able to win in the first year. If no team wins this year, the challenge will be extended to next year, giving the participants more time to perfect their entries.

The DARPA challenge will reward one million dollars to the winning team. In order to win,



Courtesy of marsrovers.jpl.nasa.gov

The Mars rover Opportunity sits in the Meridiani Planum after its successful landing on Saturday evening. Governor Schwarzenegger and former Vice President Gore were on hand to congratulate the jubilant JPL staff.

Opportunity Landing Successful; Progress in Diagnosing Hurt Spirit

By GUY WEBSTER

NASA's second Mars Exploration Rover successfully sent signals to Earth during its bouncy landing and after it came to rest on one of the three side petals of its four-sided lander.

Mission engineers at NASA's Jet Propulsion Laboratory, Pasadena, Calif., received the first signal from Opportunity on the ground at 9:05 p.m. Pacific Stan-

dard Time Saturday via the NASA Deep Space Network, which was listening with antennas in California and Australia.

"We're on Mars, everybody!"

JPL's Rob Manning, manager for development of the landing system, announced to the cheering flight team.

NASA Administrator Sean O'Keefe said at a subsequent press briefing, "This was a tremendous testament to how NASA, when really focused on an objective, can put every ounce of effort, energy, emotion and talent to an important task. This team is the best in the world, no doubt about it."

Opportunity landed in a region called Meridiani Planum, halfway around the planet from the Gusev Crater site where its twin rover, Spirit, landed three weeks ago. Earlier today, mission managers reported progress in understanding and dealing with communications and computer problems on Spirit.

"In the last 48 hours, we've been on a roller coaster," said Dr. Ed Weiler, NASA associate administrator for space science.

participants must design and build a fully autonomous ground vehicle to drive over a 225 to 250 mile course between Los Angeles and Las Vegas. This vehicle must be the first to cross the finish line and must also complete the course under ten hours.

"This kind of project is unequalled at Caltech," Brantley said, praising it for its large, broad scale which reflected that of a real-world software company. Through this, Brantley feels that students gain valuable experience which will aid them when they find employment in the future.

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"We resurrected one rover and saw the birth of another."

JPL's Pete Theisinger, project manager for the rovers, said, "We are two for two. Here we are tonight with Spirit on a path to recovery and with Opportunity on Mars."

By initial estimates, Opportunity landed about 24 kilometers (15 miles) down range from the center of the target landing area. That is well within an outcropping of a mineral called gray hematite, which usually forms in the presence of water. "We're going to have a good place to do science," said JPL's Richard Cook, deputy project manager for the rovers.

Once it pushed itself upright by opening the petals of the lander, Opportunity was expected to be facing east.

The main task for both rovers in coming months is to explore the areas around their landing sites for evidence in rocks and soils about whether those areas ever had environments that were watery and possibly suitable for sustaining life.

CALTECH CONVENTIONAL WISDOM WATCH



Second Mars Lander Arrives: The landing of the second Mars Lander this month gives scientists a second opportunity to search for life on Mars.



ASCIT Elections Today: A strong field competes for the office of President, but the candidates for BoC have all mysteriously disappeared.



Contact Lost with First Lander: JPL scientists scrambled to restore contact with the first Mars Lander this week, but their broken spirit was assuaged by the success of Opportunity.

The California Tech

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