VOLUME CIV, NUMBER 17 PASADENA, CALIFORNIA February 24, 2003

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By JENNY IOFINOVA and ARTHI SRINIVASAN

Last Friday, after weeks of intense rehearsals, director Shirley Marneus and the highly diverse cast and crew debuted the final TACIT production for this academic year, William Shakespeare's Twelfth Night.

Twelfth Night is a comedy whose theme, in the words of Dana Sadava '03 (Lady Viola), is "a theme of intense confusion, of being deceived by people and of being in love with love." In the kingdom of Elyria, a nobleman named Orsino (Frederick Farina) pines for Lady Olivia (Lavanya Vasudevan), who is in mourning for her deceased brother.

Meanwhile, a shipwrecked Viola arrives in Elyria and puts on man's clothes, calling herself Cesario. Unbeknownst to her, her twin brother Sebastian (Adam Burgasser) also survives the shipwreck. Viola finds work as a page to Orsino, who sends her to Olivia with the task of convincing her to accept his suit. Olivia, however, falls in love with Cesario, who is in fact Viola in disguise, even as Viola falls in love with Orsino. All the misunderstandings are resolved when Sebastian finds his way to Olivia's court.

Comic relief is provided by a set of rascals (Doug Smith, Noah Robinson, Nicholas Rupprecht '05, Lisa MacWilliams-Brooks '03 and Karen Kahler) who play a mean prank on Malvolio (Steve Collins) by tricking him into believing Olivia is in love with him and eventually managing to confine him to a madhouse.

Traditionally, Shakespearean plays are often transposed into a different time period. This produc-

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A recent ultimatum by Student Affairs Vice President Margo Marshak has left Ricketts members scrambling for ways to preserve their fire-centered traditions while at the same time maintaining safety amidst heightened safety tensions among both administrators and city

Set in motion by a city-mandated destruction of the fire pot-previously the linchpin of Ricketts' fire culture-tensions boiled to a head last week after a fire-related offense in Ricketts' annual initiation exercise led Marshak to issue a firm declaration of policy in a February 13 letter. The note both charged the house \$5000 for added security at its annual Apache inter-house party and threatened to disband the house if communal wrongdoing contin-

The fiat came in response to an alleged fire offense at Ricketts' February 7 initiation for new members. The recent destruction of the fire pot left members looking for new

tant, they argued, because it would provide an atmosphere in which house members could stay and chat as long as they liked.

Administrators obtained a permit to have a fire on North Field from 11 p.m. until one a.m., which, they told Ricketts, was the latest the city allowed large fires. There was some sort of miscommunication on this topic, as later inquiries showed that permits were easily available that would've kept the fire alive until well after that hour. Even without the added permission, however, the initiations continued until after two a.m., at which point some Ricketts members deemed it necessary to have a fire in their courtyard.

By this point, some members had lighted candles in the shape of a pentagram in the courtyard. The Ricketts House resident associate, Jessica Edwards, reminded the members they were not allowed to have a fire, further upsetting some. Shortly after her exit from the courtyard, members started a small fire in a barrel in the courtyard. Under the supervision of a few trained people, with several extinguishers and a water hose available, the blaze lasted for a little over an hour, with approximately half the house attending at some point.

During this time, one member chained shut the doors facing the Olive Walk possibly in an attempt to deter security and other unwanted students. Despite the loss of one entrance, several remained available, including the passage

Eventually, responding to a call from security, Edwards put out the fire and left. Security guards entered the courtyard shortly afterwards and took down the names of people who were there. It so happened that the city's fire department had been inspecting another location on campus at the time of the fire and then also became interested in investigating the situation itself. At the advice of some members of the security force, however, they agreed to allow Caltech to deal with the issue internally.

Still, in the wake of the now infamous fire-related deaths in Chicago and, more recently, Rhode Island, night clubs, administrators were highly concerned by fires in places with obscured exits. The behavior Ricketts exhibited during initiations threatened more than those specifically involved in creating and maintaining the fire.

According to Hall Daily, assistant vice president and director of Government and Community Relations, if a spark were to escape the confines of the brick courtyard, it could easily ignite the structures of the South houses, which contain significant amounts of wood. Considering Southern California's dry climate, the start of that size of a fire is potentially dangerous for all of Caltech, as well as the surrounding areas of Pasadena.

An ad hoc committee chaired by Marshak investigated the incident and decided on a course of action Continued on Page 2, Column 2

## 'Rotating Art' Tops List Of Vectors Replacements

By MATTHEW WALKER

Three months after Caltech President David Baltimore's studentpleasing rejection of the "Vectors" proposal for public artwork on the Beckman Lawn, the leading plan to spend approximately \$66,000 mandated by the city for public artwork is a rotating exhibit in which works of public art could be displayed one

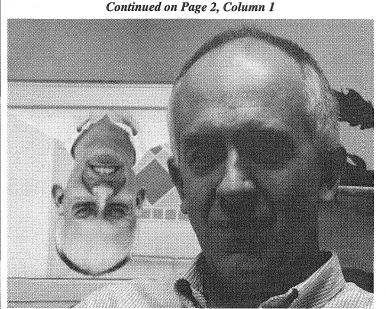
Most likely, administrators would call on "up-and-coming artists" to fill the exhibit, according to graduate student John Bender, the Institute Art Committee's graduate representative. Though its location is yet to be determined, one hope for the project is that it would generate enough publicity to induce a famous artist to contribute. The ex-

at a time for a couple of years.

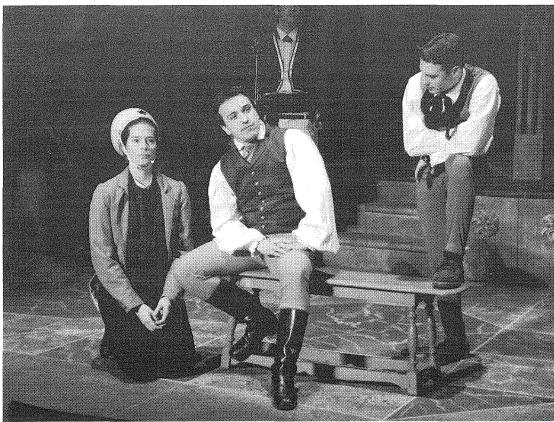
funds from other planned buildings, which is required by the City of Pasadena as part of the Master Plan.

University of California, San Diego, and UC, Los Angeles, both have similar programs of displaying a variety of sculptures, though at UCLA at least, the sculptures are permanent. Caltech's program would be on a smaller scale than either of these examples; UCLA's display spans five acres.

Another possibility for the money is to combine one percent—the amount from construction costs Pasadena law sets aside for public art from large building projectsfrom several buildings to purchase a single large project from a wellknown artist. Unfortunately, Pasa-



Known for his artistic prowess, Electrical Engineering Professor Pietro Perona leads the committee charged with finding \$66,000 worth of art.



D. Korta/The California Tech
The cast of Twelfth Night kicks off its performance slate for TACIT's final production of the year. The
Shakespearean play sets up multiple relationships complicated by gender confusion.

## CONTORDATO INCERNS

#### By SIDDARTH MADHAV

One of the highlights of the institute's calendar in the spring term will be the 2003 Student Faculty Conference (SFC) slated for April 16. The Academics and Research Committee (ARC) has planned the forthcoming SFC as the largest of its kind and hopes to involve as many students and faculty as possible in the activities leading up to the conference.

Classes will be suspended from nine a.m. to four p.m. on the day of the conference to enable students and faculty to participate in the conference itself as members of various committees deliver their prognosis for what ails student life at Caltech. This year's edition of the SFC will be held amid an air of great expectation due to the enor-

Continued on Page 7, Column 1

## SFC AIMS TO | Prof. Hering Stresses 'ARTICULATE | Water Conservation

By ROBERT LI

As part of the Watson Lecture Series, Environmental Science and Engineering Professor Janet Hering addressed natural resources and reusable energy in her talk entitled "Clean Water: Oil of the 21st Century" last Wednesday in the Beckman Auditorium.

The title was a phrase first coined by former Vice President Al Gore. Whereas one normally associates oil with scarcity and a need for its proper management, according to Dr. Hering, we sense water as something that is powerful and abundant. In comparing water to oil, she wanted her audience to perceive water in the sense that it is in actuality something fragile that must be managed and conserved.

In her first point Dr. Hering stated that "accessible freshwater is scarce and unevenly distributed in space and time." Although the earth is more than three quarters water, which makes the name "earth" somewhat of a misnomer, over 97% of that water is unusable saltwater.

Of the remaining three percent, most is trapped either in glaciers or in the atmosphere, leaving available only 0.6% or two million cubic miles of readily usable fresh water. Nearly all—more than 99%—of the available freshwater is in the form of "groundwater" but this groundwater is distributed unevenly throughout the earth, leaving many countries, especially those in Africa and the Middle East, high and dry.

Moreover, water accessibility is less than consistent. Many regions such as southern California get water in a seasonal rather than stable manner. Finally, although the hydrological cycle says that all water taken out will be restored, some water resources such as deep and fossil aquifers can take years to millennia to replenish. In those ar-

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#### PAKISTANI EX-HEAD LAUDS DEMOCRACY, **IMPUGNS TERROR**

#### By IRAM PARVEEN-BILAL

Twice elected and both times dismissed before her reign ended, former Pakistani Prime Minister Benazir Bhutto spoke in the Pasadena Civic Auditorium this past Wednesday as part of the Distinguished Speaker Series. Ms. Bhutto spoke mainly on issues of international terrorism, Pakistan's current military regime and the accolades of her reign in the past.

Starting out with the religion widely misunderstood in the west-Islam-she said, "There is little in the precepts of Islam that differs from the Judeo-Christian beliefs. The word Muslim, inherently means, followers of Moses, Jesus and Mohammad."

She went on to say that indeed, suspects like Osama bin Laden and the terrorists who died in the September 11 attacks were fanatics who wanted to thrive in the "clash of the civilizations between the west and the Muslim world." The mere thought of coexistence scared them, she said.

It was, however, surprising to note how she spoke interchangeably of her former government's oppositions both as "terrorists" and as a "military regime," suggesting an inherent connection between the two. "As a woman, I was their enemy," she reminisced. 'As a democrat, I was their opposite.'

She mocked Pakistan's current president, General Pervez Musharraf, and questioned his intentions of restoring democracy. Although she conceded that he made the right decision to ally with the U.S. in the war on terrorism, she questioned his legitimacy, dubbing last October's round of elections "deeply flawed" and calling his rule very dangerous for the future.

"The military rule could make September 11 a horrible prelude to something worse because it is only democracies that do not sponsor terrorism," she said.

She further spoke about how the current regime in Pakistan was working to destroy the institutions that she helped to build in her regime. "The military regime is wrongfully using the teachings of Islam to bias judiciaries and to dismantle [non-governmental organizations].'

Watermarks of her regime include her con-

Continued on Page 8, Column 5

## Ultimatum Prompts Grievance, Negotiation

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revealed to undergraduates on the Thursday before last. They agreed to charge Ricketts \$5000 to hire two full-time security guards for 96 hours, from the Friday before Apache to the Monday after, in addition to the party's regularly hired guards.

Though they felt it crucial to keep guards on hand to deter negative reactions to the verdict and to stop potential fires at Apache, administrators felt that they could not afford the high fee for guards quoted to them by the director of Caltech's security force. Thus, the cost-sharing was an effort to allow Apache to continue as normal; otherwise, they felt, it would have to be cancelled.

"We never saw it as a fine," said Marshak. "The institute simply cannot afford to pay for the amount of security recently demanded by undergraduate behavior.'

The same letter threatened Ricketts members with the possibility of being placed on involuntary leave or dispersing the house if other violations of policy were to occur in the future. Additionally, the Conduct Review Committee began a separate inquiry into the event of the 14th.

According to Marshak, the point of the threats was to hold Ricketts' members responsible and students in control of modifying their culture to fit the bounds of legality. Although it is her last alternative, she further stated that if highly dangerous actions persist, the worst punishment would be to discontinue Ricketts.

"Living under an honor code also means taking responsibility for oneself and the house's behavior," said Marshak. "At some point the house gets held responsible for individuals' actions."

On February 13, Marshak informed the house's leadership of her decision. She promised that a legal document, the letter, would be available to present to Ricketts, providing a way to explain the administration's reasoning. Marshak also met with leaders from the Interhouse Committee and ASCIT.

After Juan Rodriguez '03, then the house's president, read the letter, members of the house were shocked and confused.

Newly elected President Natalia Deligne '04 remembered, "We felt the actions were uncalled for and were terrified by the implications. Not everyone even knew the doors had been locked.'

Additionally, the letter made no mention of the actual event. Not wanting to arouse further suspicion from the fire department,

the administration skirted the issue in the official letter. Although city officials presently permit use of the antiquated south houses primarily thanks to their historic status, administrators were concerned that increased attention might make city officials overturn that decision and force vacation of the dorms, wreaking havoc on the undergraduate institution.

After much discussion, ASCIT and IHC decided upon two courses of action. The security guard fee would come from Ricketts' damage fund as dictated by the administration. As for the remaining charge, each house president would request a donation from his house towards the fee and

ASCIT would pay the rest. As it turns out, a Ricketts alumnus donated \$3000 during Apache, relieving ASCIT of the remaining balance.

Additionally, student leaders decided to bring up other issues of student concern. The group thought that if the administration addressed other student life concerns, it would help to ease the burden of declining student rights and changes in policy. Issues included requests to use different fertilizer outside the undergraduate houses, to prevent faculty from holding classes during athletics, to keep finals week homework-free and to mandate that faculty attend the student faculty con-

Marshak expressed interest, but stated her limits. "It is my intent to make things happen to make undergraduate life better," she said. "[The requests are] not all under my iurisdiction, but I will certainly ask others and try to get things changed."

Additionally, Ricketts House may file formal grievances in response to the actions taken against them and the effects of the precedent on the entire undergraduate population. Their concerns include the magnitude and scope of the fee-and its lack of an educational component usually required for disciplinary action—the bypassing of the routing committee, the CRC, the BoC and the deans, the lack of an end date for the threats of dispersion or involuntary leave and the precedent and consequences of threatening to disband a house.

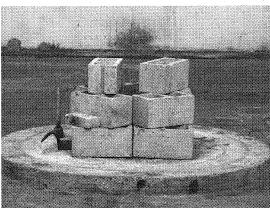
Said Rodriguez, "The actions taken will negatively impact students in the futurethat's our primary concern.'

But in reality, Marshak's threats represent simply the culmination of administrative response to a crescendo of perceived danger posed by the house's tradition of fire that first intensified in 1997, when then-freshman Roger O'Brient '01 got burned by a fireball.

Since then, the fire pot, the traditional centerpiece of the house's fire culture, has withstood almost constant scrutiny from campus safety and external law enforcement officials. Despite criticism, the fire pot has been essential in house traditions and culture, including initiations and Apache.

In November of 2001, administrators ordered Ricketts to cease having fires. Shortly after, another decision was made allowing fire in the presence of a firefighter. The house had about two fires per term for three terms under these conditions without incident.

Still, a fire inspection the following November ended in a legal order issued to Caltech last January 9. This ultimatum held the insti-



D. Korta/The California Tech

Stone bricks now grace the grave of Ricketts' illfated fire pot.

tute responsible for getting rid of the fire pot, which, it said, made for "a very hazardous condition." The document also mandated a flame-free courtyard except for fires started by means approved by the city.

Ricketts House agreed to destroy the fire pot by February 7 and to stop staging fires until the issues had been resolved. Also, administrators agreed to help Ricketts pay for changes to the courtyard and for a legal alternative to the fire pot.

In early January, Ricketts had some massive internal conflicts including pending decisions about the destruction of the fire pot. Eventually, the house decided to tear down the fire pot as a private event, including the house and some alumni, but refused offers for catering and requests by administration to be present at the event.

Because administrators did not allow them to hold one last bonfire, the night before the scheduled demolition, the house took a trip to the beach and had a bonfire there. While most of the house was away at this event, a member of Ricketts attacked the fire pot, partially destroying it. This further split the house, since some members chose to stand up for the responsible party, despite the fact that his actions could be construed as vandalism, a criminal offense. Then delayed, house members finally destroyed the pot on January 18.

Between the time of the fire pot's destruction and the February 7 initiations, at least one illegal fire took place in the courtyard. In each instance, security took down the names of the involved members, submitting them for disciplinary action. Administrators never punished Ricketts communally, how-

But after Marshak's letter, the threat looms more clearly than ever. That in mind, Ricketts is currently working on plans for their courtyard with members of the administration, hoping to renovate the area before Rotation next year. They will have to get the ideas approved by the fire marshal before the administration will fund changes.

Meanwhile, ASCIT President Tom Fletcher '04 is working with administrators to come to a mutual solution. "Unfortunately, the administration's course of action was hasty and has had unintended consequences," he said. "The discussion of disbanding houses and charging for security has worried many students unnecessarily. I've spoken with Margo Marshak about doing something to check this fear... It remains to be seen if [negotiations] will be fruitful."

## IAC Opens \$66,000 Art Hunt

Continued from Page 1, Column 5

ted within six months, so Caltech would have to come to a decision quickly to submit a plan in time. Other options for the money include do-

nating it to some local group dedicated to art such as the Pasadena Symphony or sponsoring some sort of public event such as a concert or theatrical production.

Feelings on the possibilities were mixed. ASCIT President Ted Jou '03 expressed support for the rotating exhibit plan, citing the breadth it would offer. "I think a rotating exhibit would be a great idea," he said. "It has the potential to expose the campus to many different kinds of art and perhaps it might help us find some sort of large-scale art that we could agree on in the future

Bender, however, disagreed. His opinion is that "this seems like a cop-out to me, because we're not getting great art or an original idea; they would be original pieces, but the idea is not novel and the art would have to be cheap.'

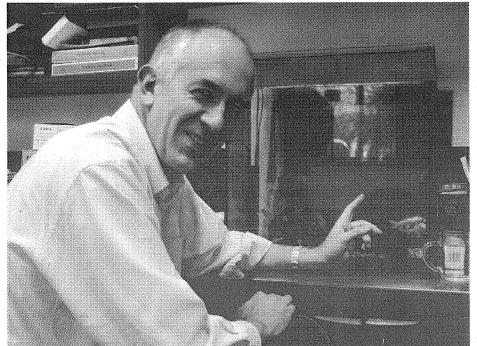
Though he further admitted that it is unlikely that a better plan could be implemented with the meager funds available, Bender added that "the administration, I think, would like the \$60,000 to go away with the least amount of fuss possible." He would prefer to see something of which Caltech can be proud, he said.

Indeed, students' reaction to any potential artwork is a foremost concern. After vehement student protest, President David Baltimore finally caved to detractors last November 15 and announced that Caltech would not accept Richard Serra's "Vectors" proposal, which would have cut a lightning-bolt-like wall down the center of Beckman Lawn. He called the move "not a judgment about the quality of the proposal but rather a judgment about the needs of the campus.'

The announcement came to the relief of many at Caltech, after several months of debate. Dr. Baltimore pledged to "consult with the Caltech Art Committee regarding the best path to take in implementing the City of Pasadena requirement to apply one percent of the Broad Center project cost toward a public art project."

Now, in a community that in Dr. Baltimore's own words "cares deeply about the quality of its environment," it is widely expected that continued deliberation will be necessary to produce an outcome that is acceptable to Caltech's varied community.

The head of the Institute Art Committee, Electrical Engineering Professor Pietro Perona, was not available for comment.



D. Korta/The California Tech Institute Art Committee chair Pietro Perona heads Caltech's search for a \$66,000 plan to exhibit public artwork to replace the recently rejected "Vectors" proposal.

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## ASCIT President-elect BoD, IHC Present Open Starts 'Fireside Chats'

By TOM FLETCHER

First in a series of

weekly columns by

ASCIT president to

the student body to

run in the Tech.

tion that ... ASCIT [is]

The new ASCIT BoD whom you elected over the previous weeks will be installed on Friday. While none of us have yet officially assumed our roles in ASCIT, many of us have already started our jobs. As ASCIT President, I've been meeting with the administration numerous times over the last two weeks to discuss student issues. Today, I want to open a discussion forum with all of us, the student body. This column is the first in a weekly column in the Tech where I keep the student body as informed as I can on the issues I have been working on. Until I can think of something more clever, I've decided to call them "fireside chats," an homage to Franklin Delano Roosevelt's radio broadcasts during the Great Depression that were designed to educate and assure the American population that the government was working to make

their lives better. Along those lines, I promised, during my campaign, to increase transparency in ASCIT and to do a better job of keeping students in the know of what is going on and what ASCIT is doing for you. This weekly "chat" is just the first step in fulfilling that promise.

Now, enough with the introduction, I'm sure you all get the point. Now, what did I do this week? In this issue of the Tech, there is a printed copy of a letter drafted by the IHC, Ted Jou, Galen Loram, and myself directed to the administration. In the wake of the Ricketts incident that I'm sure you've all been talking about, we decided that the trust between the students and the administration had been badly hurt by members of both sides. Processes remain underway to bring closure to this incident, but as a whole, we (the IHC, Ted, Galen and I) felt that we needed to provide an opportunity to repair the trust between

The letter is a list of positive policies that we recommend the administration make all due effort to implement. It can be understandably difficult for the administration to ascertain what exactly will improve student life. Acknowledging this, we brainstormed over last weekend and presented this preliminary list on Tuesday morning. It is our hope that

the administration will act on these suggestions and start sending the student body good news instead of warning letters.

There are a few things about the list I'd like to resolved to make progress emphasize. First, it is preliminary. This is not in- with the administration." tended to be the last such

letter. In our brainstorming, we talked to some house members, but by and large, these were recommendations we came up with on the spot. We were a group of only eleven students; there are over 900 of us in total. I am confident that many of you have insightful and clever suggestions for improving campus life, and I would love to hear them. That way, we can keep the administration informed about what we want done.

Second, keep in mind that this letter lists only actions of the administration. Dealing with the faculty is a different matter entirely, one that the ARC specializes in. We hope to make strides in improving quality of life there too, and if you have suggestions related to academics, please talk to your ARC rep or the new ARC Chair Kathryn Hsu. You can also start to get your voice heard on these matters by posting your comments on academic matters on the Student-Faculty Conference newsgroups on donut.caltech.edu. The information in those newsgroups will be read by the committees preparing for the conference and will help them shape their findings and recommendations.

Third, we felt that this letter was an important gesture in the dialogue between the students and the administration. I am committed to finding ways to engage and compromise with the administration to get things done. Over the weekend that the letter was being drafted, the tone on campus was getting confrontational and angry. We did not feel that this was a productive way to start our terms, and decided to make the first move to repairing the trust. This letter is an indication that the IHC and ASCIT are resolved to make progress with the administration. Despite past misunderstandings, we, and I hope that all of you will following our lead, are reaching out to the administration to say, "Trust us. We want to work with you to make our lives better." In this little prisoner's dilemma of Caltech student life, we've made the move to trust and cooperate. Ideally, the move will be reciprocated.

Now, enough about the letter. I figure I've explained it enough to let you draw your own conclusions. I do want to mention one exciting development in student life that came out of Housing last week. In a letter to the IHC, Housing explained a new "party cosponsorship" policy that will give houses \$500 for Interhouse parties, given some conditions. To qualify for the \$500 cosponsorship, the party must be cleaned up by the second Monday after the party (about 9-10 days). As I'm sure you've all witnessed, parties have a way of lingering in courtyards as ugly decrepit hulks

for weeks after, to the annoyance of all parties. Housing incentivizing (not a word, but one I will use a lot in the coming year thanks to Prof. Camerer) us to clean up these parties in a timely manner. In return, we get to throw bigger and cooler parties. I'm very pleased

by this announcement; I promised in my campaign to get more money for House parties and events. While this is obviously not ASCIT money (and also not in any way my doing), I'm happy to see that I am not the only one that feels strongly about making our parties as fun as possible. To all the houses with second and third term parties: I encourage you to take advantage of this stipend and throw an awesome party!
In the future (when I have less news of

meetings and such to report), I plan on discussing aspects of student life not directly related to policies and budgets. Over the weekend, I reread an old George Orwell essay called "What is Science?" It's a three-page essay that you can read here (http:// www.kirkwood.cc.ia.us/faculty/ryost/hist201/ Science/orwell1945.doc) that I would like to one day discuss in this column. Since I've already gone on long enough in this column, I'll save this for later and just let you peruse Orwell's essay at your leisure. Instead, I'll

close off with a fairly well "This letter is an indica- known (to be truthful, almost clichéd) quote of Robert Kennedy's. My vision and goal for this year as ASCIT President is to keep this quote in mind at all times, to try and encourage innovative solutions to the problems we

face and to inspire us to really live up to our promise of improving student life here. I hope that it can inspire all of you too to help in whatever faculty you can.

"There are those who look at things the way they are, and ask why... I dream of things that never were, and ask why not?"

-Robert Francis Kennedy

Peace out, Tom Fletcher

P.S.: How do you all feel about the title "el jefe" instead of "president?" Is it worth amending the bylaws over?

#### TODAY IN CALTECH HISTORY-



The California Tech Archives Here, Liz McLeod is sworn in to her new position of ASCIT President in 1974. This week, our new BoD officers will be in-

# Letter to Administration

volving Ricketts has cast the

administration and student

body in adversarial roles."

February 18, 2003

Dear administrators,

Two weeks ago, Vice-President Marshak asked student leaders for suggestions for positive improvements to life on campus. Recently, the situation involving Ricketts has cast the administration and student body in adversarial roles, as evidenced by the outrage in the California Tech of Feb. 17 and by the tone of student conversation on campus.

We consider this turn of events to be unfortunate "Recently, the situation inand not conducive to progress on the issue we hold paramount: the improvement of student life on campus.

In light of this, we are presenting you this preliminary list of sugges-

tions for improving Caltech student life. We wish to emphasize that Caltech has made itself unique in the eyes of prospective students by offering a different lifestyle that no other university can offer. It is this lifestyle, far more than any student-faculty ratio or promise of research, which has attracted the current Caltech student body. By acting on the items on this list, we hope to improve and nurture this student life. We also hope these actions, when taken by the administration, can repair the damage in trust between students and administration that has occurred as a result of the actions of the last week. Beyond this, we hope that this letter and your actions can set a precedent for student-administration cooperation that adds to the quality and uniqueness of Caltech student life.

• Establish an endowment for each of the undergraduate houses, using interest from the Moore Fund. Each house would have a claim to the interest on \$100,000 that they may use on improving student life within the house. This solution creates a way for student houses to do more on a local level to improve quality of life. The additional benefit of this is that projects funded from this money will inevitably improve the physical condition of the houses, reversing their decay.

• Have administrative decisions published in the Tech. Many students are unaware of administrative actions and the motives behind such actions. A greater knowledge of such actions would improve communication on campus, a boon to both parties.

Cancel the proposed revision to the damage fund. The way that the damage fund currently works is effective for many reasons. It gives incentive for students to treat the houses with a great deal of respect and allows them to use the money left in the damage fund to improve on other aspects of life. If this system is revamped as planned, there will no longer be that incentive to be respectful of house belongings and damage will most definitely increase.

 Have all of professional bartending costs be paid for by Student Affairs, and budget such costs for many years into the future, in light of changes to the alcohol policy.

• Include student input during the future restructuring of Student Affairs.

• Act to require attendance of faculty at the Student/Faculty Conference. The hard work of the students in planning the conference is for naught if there are no ears to hear our grievances. While this falls out of the purview of Student Affairs, we trust that you can

try to influence the proper parties. · Lobby the faculty to enforce guidelines for the following:

No homework given during midterms or finals week (unless no midterm or final).

No tests outside of given test period

Give extensions for house events

- Returning midterms to students before drop day

No scheduling of classes during sports. For the most part, these policies already exist; they are simply not enforced.

• Use fertilizer near the undergraduate housing that is not noxious. Every time that the campus is fertilized, students are miserable while inside their own house due to the terrible fumes from the fertilizer. It would be very simple to select a fertilizer that does not smell, even if it is only used near the houses, where students primarily reside.

• Update students on progress of new plans for the student houses and the student activities center. The students previously involved in these decisions have graduated. Students are anxious about the future of campus and would like to be informed of progress and be able to give their feedback, by a permanent mechanism.

· Maintain Houses. Many things in the houses are deteriorating due to age, and often the problems are not fixed because maintenance says "the houses will be torn down soon, it's not worth it for us to fix it." The houses are not being torn down any time soon, and the use of things (showers being the most egregious example) is required in the meantime.

• Create a damage/theft fund for summer students. Every summer, visiting students damage the undergraduate houses. Valuable house items are frequently stolen. If the summer students paid money to a damage/theft fund, that money could be used

to guarantee that the quality of the house is not permanently damaged during the time in which the temporary residents are present.

We would like to thank you for your consideration, and would like to remind you that the situation is pressing. The bond of trust between the students and the administration has been greatly strained by both parties in the past, and needs immediate attention. We have, as you have asked, talked to our fellow students and presented a list of preliminary improvements. This is only a starting point. We trust that you will act to take the next

Sincerely,

Ted Jou ASCIT President Galen Loram ASCIT Vice-President-elect Jeremy Pitts IHC Chair-elect Jessie Kneeland Dabney President Kristen Zortman Lloyd President Michael Lammers Page President-elect Natalia Deligne Ricketts President-

Tom Fletcher ASCIT Presidentelect Marcus Williams IHC Chair Michael Davenport Blacker President Tom Vanderslice Fleming President **Eugene Cheung** Page President Juan Rodriguez Ricketts President Jason Schadewald Ruddock President Elise Kleeman IHC Secretary

#### TECH PROFESSOR LENDS INSIGHT: RACE RELATIONS

PROFESSOR OF RACE RELATIONS IN HISTORY

Writes About Affirmative Action, Course On Subject History

By J. MORGAN KOUSSER

By enrolling at Caltech, you've chosen to reside in what is currently perhaps the most ethnically diverse metropolis in the world, but to attend the college with the smallest proportion of African-Americans and one of the smallest proportions of Latinos of any elite university in America. Has it ever occurred to you how strange this is?

Have you ever wanted to escape this tiny intellectual/ethnic enclave for a few hours each week and find out something about how people of different "races" and ethnic groups have interacted, what sorts of discrimination each has faced, how intellectual and social change has occurred, and what the current conditions and prospects are for the most significant minority groups in America? If you have, I have a course for you, History/Social Science 154b, Race Relations in History and Social Science.

The vastness and complexity of the scholarly literature on the subject parallels the vastness and complexity of the interactions themselves. Although most of the models and metaphors in the literature center on black/ white relationships, the surge of immigration from Mexico, Central America, Cuba, Puerto Rico, and any number of countries in Asia since 1960 has reminded scholars and the lay

Continued on Page 5, Column 2



**ASCIT Minutes** February 20, 2002 Present:

BoD: Ted, Vikram, Joe, Kim, Marcus,

Basit, Neda, Andrea. Absent: Jialan.
Guests: Tom Fletcher, Anna Sczaniecka, Joanna Cohen, Jeremy Pitts, Kathryn Hsu, Corinna Zygourakis, Harris Nover, Spencer Rarrick (Jamroom Manager).

Meeting called to order at 10:18 p.m. General Meeting: Ted discusses the Installation Dinner,

to be held at Margo Marshak's house on February 28. Newly elected officers and outgoing BoD members are invited, as well as faculty and staff guests (so far: Margo Marshak, Suzette Cummings, Tom Mannion, David Baltimore and Alice Huang).

Spencer has come to discuss possible ways to spend surplus ASCIT budget money from this year. Sound equipment suitable for use at the various interhouse parties would be an investment that could possibly save the houses a lot of money, since normally such equipment is rented. A good amp, control board, and speakers would cost approximately \$10,000, he estimates. As this would spend and perhaps exceed the entire surplus, Ted suggests he get hard prices for options. Joe points out that even if we could only afford to buy some of the equipment right now, we would still be enable students to save money in the house budgets.

Basit suggests purchasing a digital camera for use by the Big T staff. A high-quality camera is necessary to produce the fullpage pictures that are sometimes used. Such a camera would cost approximately \$700. Neda points out that publications in the past have lost digital cameras entrusted to them, but the BoD feels that making the camera available only to the

Big T might ameliorate that. \$700 is later approved (5-0-1, Neda abstains).

Harris requests \$1525 for a new

Compaq laptop for the Board of Control. The current BoC laptop was bought used and crashes all the time. A new computer with a CD burner also allows for better archiving. The purchase is later approved

Marcus mentions the senior class gift. They are requesting approximately \$1000 in ASCIT funds to subsidize their gift. A similar request from last year's senior class was turned down, but the issue is tabled for now.

Neda has researched possible music groups for a concert in the Ricketts-Fleming courtyard. This looks to be one of the most expensive options. She is waiting to get an e-mail back from the concert booking company.

Joe suggests that we take Isaac See, our diligent and faithful Election Chair, out to a meal at the Ath to thank him for running many elections this year. Ted, Kim, and the rest of the BoD agree that this is an excellent idea. We will use money that we have saved in the budget by not having food at BoD meetings.

Jeremy requests Ruddock's \$200 in Interhouse funding, in addition to \$200 in multi-house event funding, for the Ruddock interhouse party: "Roman Coliseum." They've got some impressive multi-story construction, and apparently the Physical Plant safety inspector was so pleased that he's "gonna show up" to the party. Approved (5-0).

An alum has donated \$3000 to Ricketts to cover a large portion of their expenses for security guards at Apache, obviating the need for ASCIT funds. Ted wonders if we should draft a letter of support or comment on the recent fire issue. Joe feels that since it's a house issue, we should leave it alone and let the IHC deal with it, as possible use of ASCIT money is no longer in the picture. Tom and Marcus

There is one new house president this week: Mike Lammers of Page House.

An amendments directory has been created on Donut to archive bylaw and resolution amendments. Joe is working on getting a fully updated version of all ASCIT documents before he leaves of-

FEATURES

Tom Mannion has agreed to donate breakfast for 100 on the day of the Student-Faculty Conference to encourage students to attend.

Meeting adjourned at 11:22 p.m. Respectfully submitted, Joe Jewell

**ASCIT Secretary** 

Y News Upcoming Events:

ON-CAMPUS TUTORING (2/25, 2/ 27, Winnett 4-6 pm): Stop by Winnett and tutor a local middle or high school student. No experience necessary, drop by as your schedule allows. (Contact y veep@ugcs if you'd like to join the tutor mailing list.)

- CHANCELLOR PLACE (3/1, 2-5 pm): Visit a retirement home on Del Mar. Play games and talk to the residents, or bring an instrument and play for them. (Contact Joy at joyjoy@its.caltech.edu) Factoid:

Did you know February is Black History Month? There will be cobbler and jazz at the Center for Student Services on Tuesday, Feb. 25 at 7 pm. The winning submissions will be read from the Martin Luther King, Jr. Writing Contest. Y Not Join Us?

Come to an ExComm meeting! All meetings are open to students, staff, and faculty - every Monday at noon in the Caltech Y.

The Y (x6163) is located on the first floor of the Student Services Building, south of the Holliston parking structure. If you are interested in a Y activity or have questions about the Y, please stop by, or send an email to the Vice President (yveep@ugcs).

In honor of Black History Month, Dr. Terrence Roberts will speak at a lun-cheon on February 28, 2003 from 12:00-1:00 at the Athenaeum. The lunch is open

to the Caltech community. Space is limited and reservations are required. For more information or to RSVP, please email cmesa@studaff.caltech.edu or call extension 6207. In 1957, Terrence Roberts and several of his high school classmates--"the Little Rock Nine"--were prevented by the National Guard from integrating Central High School in Little Rock, Arkansas, as the Civil Rights movement began to make its presence known in America. The topic of his talk will be "Lessons from Little Rock: An Educational Agenda for the 21st Century.

Library Classes. The following sessions are approximately one hour of formal instruction in the Sherman Fairchild Library Multimedia Conference Room (Room 328). Walk-ins are welcome, but pre-registration is preferred.

Tuesday, February 25, 12 PM: "Crystallographic Databases'

Thursday, March 6, 2 PM: "Endnote for Absolute Beginners"

You may register for these and other upcoming classes at library.caltech.edu/ learning. For further information, please contact Kathleen McGregor at x6713 or kathleen@library.caltech.edu.

The Literature Faculty is pleased to announce the Annual Hallett Smith Competition honoring the finest essay devoted to Shakespeare. Only full-time, officially registered undergraduates are eligible to enter the competition. All submissions must be typed and double-spaced and should not exceed 4,000 words. The essay may be one prepared for a humanities class or may be specifically written for this competition. No student can submit more than one essay. All contestants must submit two hard copies of their work to Pro-fessor Jenijoy La Belle, Division of the Humanities and Social Sciences, 101-40, no later than April 17, 2003. This year's prize will be approximately \$300, though the judging committee may divide the award in case of more than one outstanding submission. For more information, contact Prof. La Belle, extension 3605, or Barbara Estrada, extension 3609

The Literature Faculty is pleased to announce the 57th Annual McKinney Competition. The Mary A. Earl McKinney Prize is awarded each year for excellence in writing. Only full-time students officially registered at Caltech as undergraduates are eligible to enter the competition. This year, prizes will be given in three categories: poetry, prose fiction and nonfiction essays. All submissions must be typed and double-spaced. Include your address and phone number. In the poetry category, entrants may submit up to three poems. Submissions of prose fiction should not exceed 12.000 words. Essays may be ones prepared for a humanities class or any good piece of original writing on a topic relevant to the humanities. The prize in each category will be \$300. Each student is entitled to only one entry in each category. Contestants should submit their work to Professor Jenijoy La Belle, Division of the Humanities and Social Sciences, 101-40, by no later than March 6, 2003. No entries will be returned. Each category will be judged by a committee from the Literature Faculty. Essays will be judged on the quality of thought and the effectiveness of the writing. Winners will be announced in May and the names of the winners will appear in the commencement program. The Committee may divide the award in each category in case of more than one outstanding submission. Previous winners in any one category are not eligible for the competition in that category. If you have any questions, contact Prof. La Belle, x3605 or Barbara Estrada, x3609.

Bellydance Workshop at Caltech! Learn Basic Bellydance Technique with Leela, one of Los Angeles' most popular Bellydance Performer/Instructors. Experience the Exotic Rhythms and Sensuous Moves that make Bellydance so Exciting and Mysterious: it's great for your body, it enhances your creativity and it's FUN! Saturday, March 8th; 2:30 - 4 p.m.; Braun Multipurpose Room FREE for Students Sponsored by Caltech Dance Troupe Caltech contact: Liz Jones liziones@caltech.edu.

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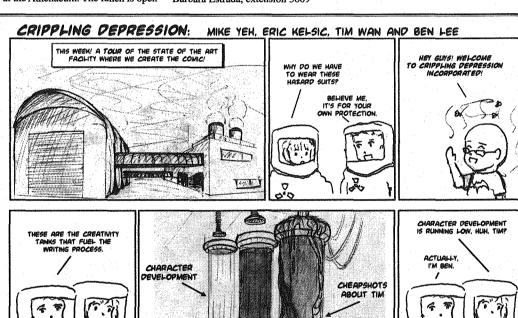
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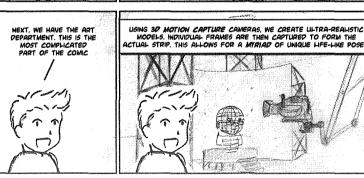
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ABOUT TECH







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## Letters: Ricketts Pres., More Racial Slurs: 'Fob'

'Racist' Also a Target

Dear Creators of the Crippling Depression,

I would like to address your cartoon last week, known as the Crippling Depression. First off, you do not have a poetic license to use the word 'fob,' an acronym for 'fresh off the boat,' commonly applied to recent Chinese immigrants. What I think you don't realize, Mr. Cartoonists, is that although for you it might just be something you hear in a song or from a movie, it is a word charged with hundreds of years of racism and violence. It's a word I can't hear or read without a shiver in my spine and a feeling of emotional pain.

Of course I understand what you were trying to accomplish; I'm assuming you were trying to write the most offensive cartoon against Asian-Americans. However, I really do believe that, particularly in our firmly yet subtly racist society, there is such a thing as going too far for a laugh. Call it satire, call it a joke, call it a tasteless attempt at wit, your cartoon was not justifica-tion enough for using such a charged word, and referring the way you did to Asian-American culture and TAs in particular.

I'm simply amazed by the Tech for publishing such a disgusting cartoon. Any shred of journalistic integrity that was left vanished the moment that cartoon was approved. That the editors could approve of such a thing just blows my mind.

Last week, I heard someone use the word 'fob' in a passing conversation, and I also read an article on the Internet using that word. Without the cartoon, these incidents would never have happened. I don't care how funny someone might think they are, I will not allow an atmosphere at Tech in which someone thinks that it's O.K. to call me

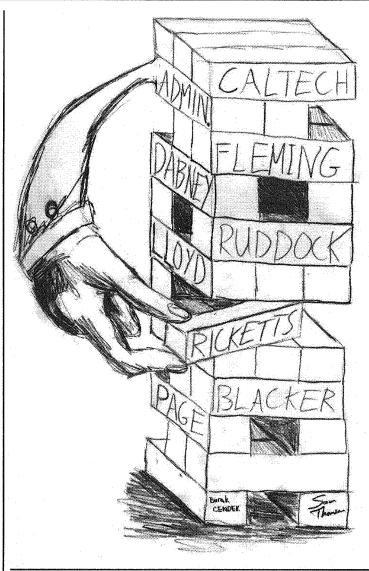
Libin Zhang '05

#### Ricketts Pres. Apologizes

Dear editors,

I write to you on behalf of Ricketts House and the undergraduate community at large in objection to the actions taken in response to the open fire in Ricketts courtyard on February 8, 2003. First, I want to make it clear that this letter will not attempt to excuse or justify the actions of the House or its individuals. Everyone present at the event understood that open fires on campus are against the Institute's current fire policy and also violate the Pasadena Fire Department's most recent interpretation of the Uniform Fire Code. In addition to the unauthorized fire in the courtyard, the two northern doors of the House were secured from within. Although tying the doors closed does not directly violate Institute policy, it was both dangerous and foolish because it eliminated one of the four viable courtyard exits in the event of an emergency. The actions taken on the early morning of February 8 were inappropriate. On behalf of Ricketts House, I apologize to the entire Caltech community for our actions. As a House, we have discussed the severity of our actions and their possible consequences. Furthermore, we are willing to comply with any measures taken to nullify advantages we may have gained from this act, and observe the precautions deemed necessary to protect the community as a whole.

However, I wish to note that the administrative response is an injustice to the entire undergraduate body. Even if you believe Ricketts was justly punished with a 96-hour security watch at a cost of \$5000 to



## 'The Living and Dead': Use of Common Sense

By JEAN-PAUL REVEL

These last few months have been more contentious than usual on this campus, with many students chafing at what they see as attacks on their freedom, their self governance, the quality of their lives in general. Some even say that there are threats to the very things that made them decide to come to CIT instead of, well, you know, elsewhere. I, and I believe many others in what is called the administration (and in the faculty too) have been a bit surprised at that perspective and I for one, sure hope that the view expressed for example by Sam Thomsen in The California Tech of 2/17/03 is somewhat idiosyncratic.

The last time I looked into it, the reasons for coming to Caltech were rather different, having to do with "the" ratio (students to faculty, not gender or ethnic, however hard we try), with a tuition rate lower than at other prestigious colleges, with financial aid where needed, with the chance to work and live next to people as smart as you are, and the opportunity to interact with a distinguished faculty in the sciences and the humanities too. Not less important (remember SURF appli-

sociology or social psychology.

Students arrive at a course with

widely varying levels of knowledge

and interests, and the instructor

must often provide a good deal of

essentially introductory-level mate-

cations are due on March 3), was the appeal of many opportunities for research. Finally it was also often said that students found it very appealing to live under an honor code which allowed them to exercise their good judgment, to feel that they were trusted. Could all these reasons have been fallacious? Is it possible that one comes to Caltech with the idea that federal and state laws, city ordinances, Institute policies and housing rules are not applicable where students are present? That the only laws that apply to the undergraduates are the laws of physics? I have to admit that's news to me and I think to a lot of other people as well.

While it is important for the students to be in an environment where they can begin to develop independent lives, that certainly does not mean that there should be license to behave in ways which could be harmful to themselves, to their fellow students and to the Institute, never mind the burghers among whom we live. In fact the Honor Code as implemented at Tech would clearly preclude many of the practices which seem to have caused trouble. It is taking advantage of others to place them in the way of danger. To cite only one practice, fires are dandy but in the proper environment and conditions. Customs which might have been allowable at one time are not necessarily applicable today. Young adults today were just born too late and live in the wrong places for open fires and many other things besides to be tolerated lawful prac-

Now it is certainly very Caltechian to believe in the supremacy of physics. Even as a biologist I will be quite happy to admit that if one digs deep enough, one eventually gets to the level of physics. It may be a bit awkward to deal with how the brain works when taking such a microscopic view, but that's right, eventually brain func-

Continued on Page 6, Column 4

tween two villages now often encompass countries and continents. Segregation or integration does not apply now to one lunch counter or university and gradually to others, but to all simultaneously and immediately.

This Spring, the same five U.S. Supreme Court justices who stopped the count in December, 2000 and awarded the championship to George W. Bush by a technical knockout are poised to declare affirmative action unconstitutional in all public and private universities in admissions, hiring, and perhaps even outreach. As 60 friendof-the-court briefs already filed will make them aware, the effect of their action will be to almost totally segregate all elite universities, graduate, and professional schools, and to relegate nearly all African-Americans and non-Cuban Latinos to lesser colleges, perhaps most to historically black or historically Latino ones. Harvard and MIT may come to resemble Caltech in a way that they would prefer not to. In one of the most bitter ironies in the long history of discrimination in America, the "Bush Five" will take this action in the name of colorblindness.

As this affirmative action example shows, and as our imminent preemptive war on Iraq underlines, the 21st century is not likely to be more pacific than the wretched 20th, and ethnic issues may be at its center. It might be worthwhile to start to try to understand some

## America, World Not Color Blind Despite Politicians' Trivialization

Continued from Page 3, Column 5

public alike how inadequate the simple dichotomy has always been to explain the conflict-laden intermingling of Americans.

Then, too, scholars have increasingly emphasized that members of subordinated groups have not been helpless. No longer is it thought sufficient to study merely what whites did to blacks, or Native Americans, or Chinese, or Mexicans. Through rebellion, resistance, and mostly, through less heroic human interactions, subordinated

the house, realize it holds innocent individuals at fault and also sets a dangerous precedent. Administrators will now begin to hold houses financially liable for a host of reasons, and they have strategically used this act to set the stage for future monetary sanctions. But more importantly, the letter addressed to Ricketts threatened to disband the house. As a private institution, Caltech reserves the legal right to arbitrarily disband any House on campus. Regardless, the mere threat of disbandment undermines the student government that has evolved over several decades, and actually disbanding a House would disadvantage the other six houses, as well as Avery.

As students, we should all be upset with the future ramifications of the administration's course of action. Furthermore we should question their future attempts to create "policy on the fly," that is, arbitrary changes in policy without a formal change in written policy. In a letter sent to several faculty and administrators, including the President himself, we asked the administration to make a statement in which they "promise to... demonstrate more faith in the judicial bodies on campus" and also "desist future threats to disband any of the houses." I certainly hope they will show us that as undergraduates, our opinions and presence on campus are valued.

Sincerely, Juan Rodriguez '03 Former Ricketts House President

groups have helped to shape and change their places in society. The realization that ethnic relations are never wholly top-down impositions has contributed further to the burgeoning of scholarship.

A third trend has perhaps had an

even deeper effect on the study of ethnic relations. Despite the end of legalized segregation and disfranchisement, the passage of civil rights laws, and a marked decline in whites' beliefs in the genetic inferiority of other peoples and the morality of discriminating against them, many African-Americans, somewhat smaller proportions of Latinos, and even some Asian-Americans still suffer from discrimination and poverty. Yet political "conservatives" represent such problems as minimal, attribute them to individuals' inadequacies, and declare that America is now a colorblind society. Can colorblindness

and racial discrimination coexist? On a trans-national level, globalized culture and communication and increasing international travel have homogenized large parts of the elites in many countries, but ethnic rivalries and ethnocentrism have reemerged or been heightened, especially in formerly Communist countries. Is ethnicity more or less important than it used to be, or is it perhaps both, even in the same place?

These trends make it difficult to organize courses in ethnic relations at any university. Does one dabble in the literature of many disciplines, or concentrate on one or two? Which of the numerous worthy and interesting topics does one take up? How much history, how much sociology, how much economics, how much political science, how much social psychology? There are also problems specific to Caltech. While at other colleges, many students enter ethnic studies courses expecting to discover cardboard heroes and villains, and to express their feelings, as much as to discover new facts, such expectations are muted at Caltech. Here, the difficulty is that students have almost no background at the college level in history, empirical economics or political science, or in any kind of

For all of these reasons, H/SS 154 has been organized completely differently every time it has been taught. Although my initial hope was that it would be a cumulative, two-quarter sequence, patterned on my rather successful Supreme Court course, and that it would move either from social scientific generalizations to historical specificities, or vice versa, Caltech students have just not had enough time or free units to make that possible. I have therefore decided to make a virtue of necessity and to exploit the range and excellence of the literature by making the "a" and "b" quarters independent, instead of making one a prerequisite for the other, and by sampling from different parts of the literature each term. What I have brought over from the Supreme Court class is the assignment of oral (as well as written) reports by each student on books associated with, but in addition to, the common reading. As a consequence, students take perhaps more responsibility than in typical courses for organizing their own learning, and all of us are at least indirectly exposed to a considerable

amount of knowledge. The course for the Spring term is illustrative, including common readings on the history of racism, primary source materials on African-Americans and Japanese-Americans, essays on Hispanic-Americans today, an overview of the history of Asian-Americans, an exploration of the politics and economics of racial discrimination in recent America, and even an in-depth examination of Apartheid in 20th century South Africa. Associated readings will cover all these topics, with a special emphasis on the history, politics, and sociology of ethnic groups in Southern California.

Worldwide modernization has not ended group conflicts or identities as much as it has expanded their scope. Fights that used to be be-

# Indie Mag. Chickfactor's Mix Tape Reviewed by High Fidelity Rules Staff Reviewer Looks at All's Fair in Love and Chickfactor Twelfth Night Review, Humor: It's Worth It' By JENNY IOFINOVA and ARTHI SRINIVASAN

#### By JONATHAN CHANG

Album: all's fair in love and chickfactor/cf mixtape 1 Artist: Various Artists

Label: Chickfactor/Enchante Records

Chickfactor? Why, it's one of those niche indie magazines, where music geeks can relish in their indie snobbery. Or as they put it: "the international bible of French new wave, fluffy bossa nova, anglophilic baroque pop, and other junk." But what would a grand music 'zine be without a mixtape? To remedy this ten year lapse, the folks over at Chickfactor have put out a mixtape, entitled "all's fair in

love and chickfactor/cf mixtape 1." As you can probably deduce from the way they've described themselves, Chickfactor is really focused on twee pop, indie pop, and related subgenres. Everyone from Georgia from Yo La Tengo to Sleater-Kinney to Liz Phair to Cibo Matto have graced the pages of Chickfactor, so one would expect only good things on this mixtape. But let's see how well the mixtape holds up against the tried and true rules of making a good compilation

tape...
"You gotta kick off with a killer, to hold the attention":

This album kicks off with songs from Pipas, Dump, and the Would-Be-Goods. They're not necessarily great attention-getters, but they're good pop songs and effectively set the timbre for much of the rest of the album.

"Then you have to take it up a notch..."

The album does this trick perfectly. As good as the first few tracks are, they're succeeded by tracks from the Magnetic Fields, the Pacific Ocean, and Low. The Magnetic Fields' contribution to this compilation (a rarity available otherwise only on a 7" single), "I Don't Believe You," just proves that these bands deserve their place in the canon of indie pop.

"Maybe cool if off a notch...":

The album then slows down to a more modest pace. The next track is a little minimalist gem from Shannon Wright called "I Started a Joke". The sparse acoustic guitars are a perfect complement for her rather unique voice. The song after that is quite possibly the best song I've heard in a while. It's a simple bossa nova ditty by The Legendary Jim Ruiz called "Ariel." The lyrics themselves confess that the song only has five chords, but the song is a lot of fun and it's full of great lines like "I always believed that love at first sight was

like Italian screen logic, something you can't find."

The album gets more eclectic from there. There's April March's "Mon Ange Gardien," which you probably won't like, unless of course, you're in to French bubblegum pop. And then there's the Clientele's "Rain," which harks back to the days of classic rock, a la the Byrds, or the Go-Betweens.

Toward the end of the album, there's another simple song, "Hurricane," consisting of barely more than two chords. It's by Hercules featuring the Fan Modine and it's one of those songs whose simplicity makes it all the more charming. If you've listened to the Fan Modine before, then you'll instantly recognize the beautiful layering of violins and synths that back the main vocal and acoustic guitar line.

And then there's "Mediterranean" by True Love Always, a band which lists the Onion as their favorite Web site. The song is definitely more alt-jangle-pop and less Belle and Sebastian than most of their more recent songs. It's the kind of song



Courtesy of Jonathan Chang

that makes for a good single - fast, upbeat, easy to sing to, and full of hooks. And it's a good way to cap off a compilation album.

So like most good mixtapes, this album is chock full of great songs that you probably wouldn't have otherwise heard. However, it draws such an eclectic mix of songs that there'll undoubtedly be a few that you find yourself skipping over. Nonetheless, the songs that you don't skip over will probably make this a dear and worthwhile pur-

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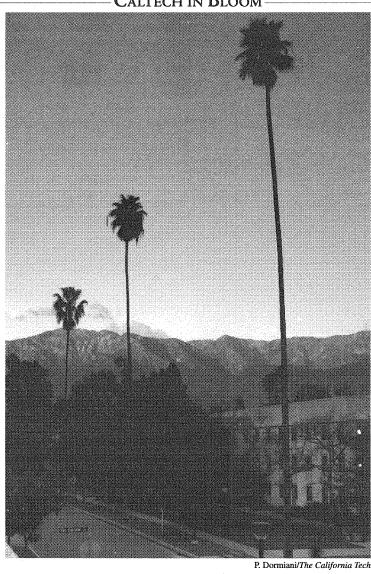
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#### ARTHI SRINIVASAN

Having been unable to come to an actual show by the deadline for the article, I staggered into Ramo Auditorium Thursday night expecting to write a cautious review just in case the rehearsal was a poor indication of opening night. The rehearsal, however, was so smooth, and the actors so focused, that at times I forgot that I was the only person in the audience, despite the fact that some of the actors appeared in baggy jeans, and top

The opening scene was very effective. The Duke (Frederick Farina) has great stage presence and delivered the first line beautifully, immediately creating the reality of the play. Director Marneus made the unusual decision to have some actors, including the Duke before the opening, be located in the front row, and it has worked very well. In one scene, Sir Andrew Aguecheek (Noah Robinson) and Fabian (Nicholas Rupprecht '05) actually hustled from the stage into the front row to avoid being seen by Malvolio (Steve Collins).

In general, the actors did a fantastic job. Sadava, in her first ASCIT role, pulled off a solid performance despite a very challenging role. She conveyed Viola's discomfort derived from being too believable as a boy to the point of being the object of Olivia's affection, and looked very uncomfortable in her dressy court uniform. It seemed, however, that the actor was no more confident in those clothes than the character was, and the relief when all is revealed in the end and Viola puts on a dress seemed deeper than just that of the charac-

Likewise, Lavanya Vasudevan

was very believable as Olivia. Her natural grace that Marneus had alluded to in the interview before the rehearsal have carried her through the role, and she was as graceful in her pursuit of Cesario/Viola as she was in dealing with her drunken uncle Sir Toby Belch (Doug Smith).

The comic relief was clearly having a lot of fun with their roles. Those who only know Noah Robinson as the head Ch 1 TA this year will be surprised to see him gallop around on stage as Andrew Aguecheek and seeming to enjoy himself tremendously as he and Malvolio (Steve Collins) are manipulated by Sir Toby, Maria (Lisa MacWilliams-Brooks '03), and Fabian (Nicholas Rupprecht '05), who show us that often the servants far outsmart their masters.

The play is held together by Feste the fool (Karen Kahler). Not only does Feste bridge together many of the subplots, but she also bridges together the dialogue, music, and dancing of the play, doing the vast majority of the singing, and playing the deer during the major dance scene of the play, the deer hunt. And she is fantastic. The deer is just cool, and the singing integrates well into the plot.

The actors are supported by a solid crew and a beautifully done stage. The props are very realistic and also very beautiful. Overall, a great job and a wonderful play. The actors are amazing, the director is creative, and the music is well-chosen. I know that three hours is a large chunk of time to lose on nonacademics on a Saturday night, and the \$5 student ticket price is hard for the average Caltech student budget to absorb, but it's worth it. Go see Twelfth Night.

## Physics and Psychology

Continued from Page 5, Column 5

tion can be reduced to the pattern of distribution of charges and interactions between various molecules, physical chemistry, if not the realm of neutrinos and quarks.

But Physics, just like Justice ought to be, is blind. It just is, pretty much immutable and unthinking, it protects no one. Only if we recognize the facts "imposed" by physics, can we stay on the safe side of things, in the world of the living. And there needs to be ample room for error, lest one get too close to the cutting edge that separates the live from the dead. The physics of doors are pretty straightforward. Most turn on hinges, and are kept one needs the doors to open, the proper key has to be used to release the lock, the handle pressed to slide back the latch. Doors don't work when you place a rope across the doorway, dump something in front of them, that's physics, plain everyday, not very sophisticated physics. Even in such simple cases one must be careful lest one interferes with the desired physical behavior. You are all aware, I am sure of the terrible accident at the Epitome Club in Chicago last week. Pepper spray was apparently used to stop a fight, but it caused a panic. That's physiology, I mean deep down somewhere, physics. The panic caused a rush of people trying to escape and when physics i.e. bundles of stuff or too many people trying to get out all at once prevented the doors from opening or opening wide enough, people got trampled, squeezed to death by the press of the terrified

crowd. Who wants to be physically

dead? Physics was at work too last Friday at that concert in Warwick, Rhode Island. Fireworks went off, people panicked, again got stuck trying to use the doors. The physically correct result was a lot of dead and physically injured people.

The smart thing to do is not to put physics to the test. It takes so little to go over the edge, a few drops of water on a greasy pavement, one slip, one loose piece of ice encrusted insulation, all can cause deadly accidents by physically absolutely correct principles. The idea behind policies, ordinances, laws edicts and other seemingly coercive statements is to prevent one from giving physical principles. There is plenty of room for fun away from the edge of the roof. It seems to me that brawn is not of the essence, brains are. Remember, I bet that's really why you came to Caltech, to learn to use your brains even better than you knew before.

A bientot



Does psychology subscribe to underlying principles of physics?

## From Morale to Core, Annual SFC To Tackle Gamut of Student Gripes

Continued from Page 1, Column 1 mously wide range of academic is-

sues that the ARC has set out to tackle.

The Student Faculty Conference began in 1980 with the stated goal of simply getting students and faculty to talk to each other. Over the years, the SFC has addressed a diverse set of issues, ranging from changes in graduation requirements to installation of phones in student rooms. Unfortunately the SFC died out in the late 1990s, leading to a marked decline in communication between students, faculty and the administration.

The SFC held in 2002 was the first in several years, but it was quickly realized that it had only begun to address some of the more important problems that plague student life at Caltech. Further deliberations among members of ASCIT and the ARC led to the conclusion that most of these problems are rooted in the academic curriculum and workload. Any successful attempt at dealing with these problems must reconcile substantial differences between various academic divisions, as well as devote substantial resources towards addressing specific courses.

Over the past year, the ARC and ASCIT have assiduously worked towards organizing a conference unprecedented in its scope and ambition, which aims to stand out for the wide spectrum of issues it has set out to address. ASCIT President Ted Jou '03 is confident that "the 2003 edition of the conference should be a great step towards unifying the campus."

The conference has been loosely structured to mirror the way the academic divisions at Caltech are

organized. Participants in the deliberations leading up to the conference have been organized into 11 committees that comprise faculty and students alike. Division-specific committees will address concerns pertaining to physics, astronomy and applied physics, biology, mechanical, aerospace and civil engineering, electrical and computer engineering and computer science, chemistry and chemical engineering, geological and planetary sciences, math and applied math and engineering and applied sciences. Besides these committees, the Workload and Morale Committee, the Core Curriculum Committee and the Humanities and Social Sciences Committee will address issues that concern the entire student body.

Members of the faculty and administration that will serve on these committees include Vice President for Student Affairs Margo Marshak in Workload and Student Morale, Master of Student Houses Cathy Jurça in Workload and Student Morale and in Humanities and Social Sciences and Chair of Humanities Social Sciences Jean Ensminger in Humanities and Social Sciences. Each committee comprises a faculty co-chair, a student co-chair and up to five student and faculty members. These committees have been meeting periodically to evaluate various concerns that have been voiced among students and will make presentations on their findings and recommendations at the conference.

The Core Curriculum Committee will focus on academic issues that affect students from all the options. According to ARC chair-elect Kathryn Hsu '04, who is also the

student co-chair on the Core Curriculum Committee, the committee expects to focus on Core 1ab, the institute's science writing requirement, special sections in the freshman physics and mathematics courses as well as the lack of a remedial section for Ch 1ab. It is hoped that the committee is able to formulate a concrete set of recommendations to address most of the concerns that have been voiced in this regard.

The Workload and Morale Committee has set out to investigate the impact of the core curriculum on student morale. The committee will evaluate and attempt to improve upon the existing support network for undergraduates, as well as to propose means to promote better study habits among students.

Dr. Jurca, who is part of the HSS and the Workload and Morale committees, "would like faculty to get a better sense of what students experience/endure during their time at Caltech, from how much time students spend on homework to how much time they spend on extracurricular and other activities, to how many nights a week they get fewer than six hours of sleep.

She further stated that the committees "would like faculty to know what students think of individual courses as they function within a larger program of study that is supposed to educate them broadly as well as provide them with specialized expertise. This is information that course evaluations are not designed to provide."

The Humanities and Social Sciences committee will be co-chaired by Dr. Ensminger who is "interested in learning from students what they perceive to be the strengths and weaknesses in the HSS curriculum and programs." Given the small number of faculty "trying to cover a very broad terrain in both humanities and social sciences," she believes that "it is important that we mobilize our resources as efficiently as possible to offer a first class program to our growing body of majors and also to the general student body at Caltech who will not major in social science or the humanities, but who deserve to have a very high quality experience in this division.'

To this end, the HSS chair plans to have had lunch with each of the 40 majors in the division to discuss the merits and demerits of the program before the conference is held. It is hoped that this interaction will help build a stronger program in the humanities and social sciences. Integral to the success of the conference will be the active participation of students and faculty alike. In an e-mail to the undergraduate student body, ARC Chair Basit Khan '03 urged students to participate in the conference by contributing to discussions on the issues that will be taken up at the conference. According to Khan, "it is inevitable at a school such as Caltech that most students have wide-ranging academic concerns and complaints. The only way these can be dealt with is if students are proactive in voicing their concerns.

For her part, Hsu pointed out that

faculty are far more likely to take these concerns seriously when they are voiced in no uncertain terms by a sizeable portion of the student body. ASCIT hopes to obtain feedback on various issues from students through postings on the newsgroups that have been specifically set up on the donut.caltech.edu Web site for the conference. Members of the faculty will periodically visit these newsgroups to collect feedback from students as well as attempt to understand their fundamental concerns. These inputs will determine the agenda of the conference as well as the focus areas of each commit-

7

According to Khan, "the conference will be an exercise in futility without the active participation of students. It is important that the student body is able to articulate its concerns forcefully and clearly to allow the faculty and administration to begin to understand and address their problems. The participation of seniors will also be a major factor in the success of the conference. While graduating seniors are justified in thinking that they have little to gain from this exercise, faculty and the administration will inevitably rely heavily on their experiences to help make Caltech a better place, academically and otherwise for future classes.

On a more sobering note, Khan added that "one cannot expect things to change overnight, but this is certainly a step in the right direction." In light of the admittedly poor showing at last year's edition, it remains to be seen how successful the conference will be in achieving its stated goals.

# Depleted 'Clean Water' Supply Threatens Earth

Continued from Page 1, Column 3

eas that depend on such aquifers, water must be considered a nonrenewable resource.

After thus pointing out that usable water is in fact not an unlimited resource, Dr. Hering went on to discuss the impact that human activities have had on water supplies and on the waterscape. She cited examples such as the San Joaquin Valley, where water withdrawal has caused the land to sink more than 25 feet in less than 100 years. In Texas, where comparatively more water has been withdrawn, the land has sunk 50 to 100 feet in many areas. In Great Plains States such as Nebraska the water depth has dropped in some places by 50 feet due to pumping for agricultural use.

Dr. Hering then spoke at length about the issue of water contamination. In southern California, for example, a major problem in recent years has been the leakage of methyl tertiary butyl ether, a gasoline additive, from underground storage tanks into the water table.

Likewise, a similar problem in southern Asia and especially in

Bangladesh is that many groundwater supplies are heavily contaminated with naturally occurring arsenic. Dr. Hering said also that her lab group is investigating the arsenic problem and trying to determine how arsenic is released from the rock into the groundwater. Their theory is that when water invades arsenic-bearing minerals, the metals in those minerals ionize and the arsenic is absorbed into the metal particles. When the water is drawn to the surface, the arsenic is drawn up with it.

Dr. Hering concluded her talk by explaining that we must manage and protect our water resources and that water conservation must play an intrinsic part. In addition, she argued that agriculture, which accounts for 85% of Californians' water use, must be part of any conservation plan or the plan will be doomed to fail.

The next Watson Lecture will be given by Physics Professor Barry Barish a week from Wednesday. The topic is the LIGO project.

## Lavish Costumes, Diverse Cast Highlight Year's Last TACIT Play

Continued from Page 1, Column 2

tion has been translated from the Elizabethan era to the Victorian Regency Period. Marneus looked to setting in her choice of the Victorian period, noting the lavish costumes and decorations of the 1830s.

Performing a Shakespeare play presents the director and actors with certain unique difficulties. The language can make the play difficult to understand and perform. Still, both the actors and the directors agree that each time they spoke the lines out loud and acted out the scenes, the meanings became clearer. Vasudevan remarked that "the more you say [the lines] and are in the scenes acting them out," the better you understand the lines. Otherwise, she added, "it's just like another language.'

Humanities Professor Jenijoy La Belle, who co-teaches the Shakespeare class with Ms. Marneus, further noted that "it takes [the actors] a long time to realize the depth of the characters, but they do the more and more they get acquainted to the language, the rhythm.

In Twelfth Night, TACIT brings together a diverse group of actors. While some of the cast and crew have done several productions, others are working on their first production. But according to the director, they have come together over the course of six weeks and have begun working together as a company.

Sadava, reflecting on how far the cast has come since the first rehearsals, observed that "it definitely helps a lot when you spend so much time with the cast; the better friends we've gotten, the easier it's become.

Observing a rehearsal clearly shows that each actor brings a unique quality to the part. Ms. Marneus noted that all of the actors have come to fit the characters they are playing and are suited for the part based on the qualities and char-



Dana Sadava '03 plays Viola, who, dressed as a man, earns the love of Olivia while herself coming to love Orsino.

acteristics they bring with them.

"[Sadava] has a spontaneity and freshness characteristic of Viola" "Lavania [Vasudevan] is ex quisite, she has a charming personality, very feminine, which is perfect, of course, for Olivia," reflected a pleased-looking Ms. Marneus, while the actors were preparing to start the final dress rehearsal.

She also commented on the strength of the supporting cast. "[Noah Robinson] is very tall, rather angelic in appearance, which I think works very well for Andrew [Aguecheek]" and "[Smith] never had a part this size, but he has an enormous laugh, among other things, which makes him perfect for Sir Toby," she observed.

Aside from comic dialogue and plot twists, Twelfth Night boasts an amazing set that manages to combine a palace, a palace garden, a city street and a dark beach on the same stage. The play also showcases the actors' skills in singing, dancing and even swordfighting. Notably, much of the music was composed specifically for this production by Robert Parker.

Also important to the production are the sound and light crew, who have been hard at work for the past week, attending rehearsals that eas ily ran until midnight and preparing for the performance. Their jobs are further complicated by the fact that there is no overall stage manager who supervises them. "We just kind of run [lights and sounds] on our own," said crew member Jonathan Toomey '03.

The cast and crew all praised the work of Ms. Marneus, commending her knowledge of Shakespeare. Dr. LaBelle said, "it was interesting teaching the [Shakespeare] class with Shirley because I paid attention to things I hadn't paid attention to before; Shirley makes me realize you have to pay attention to the characters who are in a scene but speak no lines."

Likewise, the cast, crew and director were univocal in expecting nothing but full confidence for opening night. Watching the rehearsal, one could do nothing but agree with them and wish them to "break a leg."

#### CALTECH CONVENTIONAL WISDOM WATCH



Shirley Superb: It may be revving up for only its third evening performance, but the crew of Twelfth Night has come together so well that audiences are leaping for



Red Hering: Some say the war's about oil, but the truth is elementary, dear Watson: it's all about water! Perhaps this is what Bush and his Big Water cronies have up their sleeves. The whole affair seems less than clean.



Under Fire: You don't SAy? The pot is gone and now, from the best we can deligneate. Ricketts itself seems next on the hit list. And Margo juan't back down on the place with her 1:01.13 in the 100

# Swimming Caps Off Record-setting Season

The swim team just finished one of the best seasons in Caltech history. The women finished the dual meet season 7-6 while the gentlemen finished 8-4. "We are a nice blend of quality and depth," related coach Clinton Dodd. The team played host to teams from Illinois and Washington as well as the powerhouses from Southern California. The ladies traveled up to the Bay Area and competed against Mills College, winning 149-45. The high point for the men was a close victory over conference rival Pomona-Pitzer, 116-106.

Last weekend was the SCIAC Conference Championship held at Cerritos Natatorium. The three-day meet had tons of highlights, as the sprinters and divers took center stage on the first day. Jim Rebesco '04 and Jacki Wilbur both made it into the evening 50-yard sprint finals. Both had outstanding races with Jacki lowering the Caltech school record to 25.31 and Jim swimming the third fastest time in Caltech's history, 21.79 (Henry DeWitt '67 - 21.7, Mike Greene '97 - 21.61). Jacki ended up with a fifth place finish, while Jim raced to fourth place. Freshman diver Ben Pelletier dove well, placing second on the one-meter diving board. Natlie Kruk '06 swam to a personal best in the 500-freestyle and a 15th place standing and came in just three seconds off the school record. The lady Techers continued to

assault relay records, breaking the old 200 freestyle and 400 medley relay records, with the team of Jacki Wilbur '04, Lisa Seeman '06, Saskya Byerly '03 and Natalie Kruk '06. (Beth Dorman '05 replaced Seeman in the free relay).

Day two was when the Techers' full squad came into play as the diving and the stroke were contested. Pelletier again finished second in the three-meter diving behind a nationally ranked diver from Redlands and Rebekah Eason '06 dove into seventh place, 10 points better than her prelim scores. Jacki swam to a personal best to get into the finals of the 100 fly and the consolation round of the 100 back. That evening she bettered both times and set two more school records and ended up on the podium in third

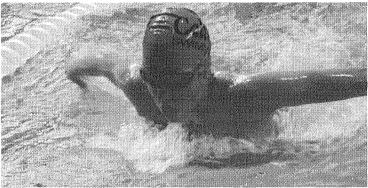
fly.

The third and final day saw the swimmers continue their improvement. Jason Lee '05 placed 12th in the 200 backstroke and Rebesco made it to the championship finals

to place fourth in the 100 freestyle. Hans Smith '05 also had an amazing swim in the 200 yards butterfly, placing seventh and beating his trial time by over eight seconds.

Also coming up big on the women's side was Saskya Byerly placing 16th in the 100 freestyle with an amazing 59.97. Lisa Seeman making it to the consolation finals in 12th place for the 200 breaststroke. In the 400 freestyle relay the team of Kruk, Grant '06, Byerly and Wilbur beat out the La Verne team by over seven seconds.

The conference finals were a fight to the finish as the men's team tied for fourth place overall with Occidental College and Pomona-Pitzer, beating out Whittier. The women placed sixth overall, also beating out Whittier.



Natalie Kruk '06 swims hard in her 200 butterfly in last weekend's SCIAC Conference Championship. She managed to place 11th among some of Southern California's top swimmers.

## Track Team Takes On Challenging MIT Meet

By JULIE LEVESQUE

Instead of spending Valentine's Day weekend with their honeys, the dedicated Caltech Track and Field team flew to Boston to battle MIT and eight other Division III schools in a stiff track meet. It was a busy weekend for the team, which flew out early on the morning of Friday the 14th and arrived back home the following Monday.

The team slid in a little bit of practice after arriving at MIT at their indoor Johnson athletic facility. Nobody went outside during practice. It was just too cold. The 200 meter track had a great Mondo surface but that didn't really make up for the tight turns and narrow lanes.

The meet commenced at noon on Saturday with the men's 3000meter. The entire show was sort of like a circus. Hundreds of athletes warming up and getting ready inside a single small room. On the small track everyone looked as though he were running twice as fast. The competition, was stiff but manageable. It was exactly the sort of competition we were looking for: challenging but still in the same league, though with almost every event filled, MIT destroyed Caltech from the start.

J.R Heberle '05 notched a personal record in the 3000-meter with a time of 9:53, Felicia Katz '06 broke the school record in the pole vault with a vault of 10'0", Jeremy Leibs '06 and Chad Kessens '03 beat all of the MIT runners in the

55-meter high hurdles and Elaine Gee '04 earned a personal best of 7'7" in the pole vault.

The meet finished off with a thrilling women's 4x200-meter relay with Tamara Becher '04 nearly running down MIT's anchor and missing by less than two tenths.

Besides the meet, the team also enjoyed seeing many parents, alumni and city sites while in Bos-

Luckily, the team made it out of Boston just hours before the airports were shut down for a day and a half due to a major storm.

## 'STRONG' BUT CORRUPT PM?

Continued from Page 2, Column 1

struction of around 24,000 primary and secondary schools, the installation of electricity in almost all the villages across the four provinces of the nation and the introduction of the "modern information age" to Pakistan through her efforts to install telephone and Internet systems.

She also mentioned that she had worked against gender discrimination in Pakistan. "I made women aware that domestic violence was not something they had to put up with and have been fighting to reverse centuries of discrimination,' she said.

As the youngest chief executive officer in the world at the age of 35 and the first female prime minister in the Muslim world, Ms. Bhutto might be considered as a woman of rare strength and willpower. With her present warrant of arrest in Pakistan on charges of corruption, however, some wonder how much of what she says is mere propaganda against the current regime.

Her own party on numerous occasions has been charged with corruption and injustice and was never once allowed to rule for a full term. Her father, previous head of the party, was likewise hanged on charges of corruption in 1979.

During the speech, she continually held that democracy ended after her regime in 1996. Many say that is untrue, however, since it was only in 1998 that Pervez Musharraf ousted her rival Mian Nawaz Sharif.

Many familiar with Pakistani politics questioned the speaker's accuracy, pointing to her blatant disregard for the fact that Pakistan's current prime minister is a democratically elected leader and her repeated insistence that Pakistan is not striving for democracy.

One audience member, also of Pakistani origin, admired her courage but criticized her command of the facts. "We admit that she is a woman of strength but a lot of her motives are questioned in Pakistan," he said. "She has quoted a lot of incorrect facts tonight and that disturbs me."

## SWE Reaches Out in 'Introduce' Day

By KRISTIN SHANTZ

Last Thursday, a yellow school bus arrived at the Caltech campus and 30 eighth-grade girls from Eliot Middle School disembarked, anxious to begin the full day of fun-filled activities that In the awaited them.

Spotlight Last Thursday was Introduce a Girl to Engineering Day 2003, the third annual national event established to encourage girls to explore the possibility of pursuing a career in this male-dominated field. The Caltech chapter of the Society of Women Engineers (SWE) participated in this national affair by coordinating a community outreach event, in which they invited a group of middle-school girls to spend the day at Caltech to learn firsthand that engineering is fun and that it's not just for the boys!

The day began with an introduction given by Kristin Shantz '04, SWE treasurer and coordinator of the event. Then Professor of Mechanical Engineering Melany Hunt and SWE advisor for the Caltech chapter, gave an entertaining presentation on the four basic categories of engineering: chemical, civil, electrical and mechanical. She was pre-

pared with examples of each category, showing off containers of scotch tape and Sudafed to represent chemical engineering products and a Game Boy and a cell phone to repelectrical engineering prod-

ucts. The girls walked out of the room making comments like, "I want to be the electrical engineer; which kind do you want to be?'

Next, the girls went on tours of two laboratories on campus. Megan Greenfield '04, a SWE representative-at-large, led the tour of Chemical Engineering Professor Julie Kornfield's chemical engineering lab, home of liquid crystal and medical eye research, and afterwards, the girls could not stop talking about the pig's eye they had

Graduate student David Van Gogh also gave them a tour of Engineering Professor Richard Murray's multi-vehicle systems lab. He conducted a demonstration of ground-based vehicles and showed how they can follow each other.

After the lab tours, the girls enioved a catered lunch on the Court of Mann and had the opportunity to meet and chat with plenty of female engineering students. When lunch was over, Shantz and Melissa Soriano '03 led the girls on a tour of Fleming House, where they were also briefly introduced to what life in college is all about. They were very excited to learn about the new freedoms they would have in college: one girl exclaimed, "No curfews?!" They thought it was too good to be true.

After this tour, the girls participated in a hands-on engineering project, in which each had the opportunity to construct her very own candle-powered boat. Participants provided them with Naked Juice bottles, copper wire and candles and SWE member Beth Wildanger '05 led them through the construction project step-by-step.

After they built the projects, the girls had the chance to test their boats in Millikan pond. The girls had a great time with this and luckily only one boat managed to escape to the middle of the pond where it could not be retrieved. The girls were quite proud of themselves when their boats were balanced correctly and managed to

This was the concluding event of the day, after which the girls boarded the bus and returned to school, toting their boats back with them. It was definitely a fun day for evervone.

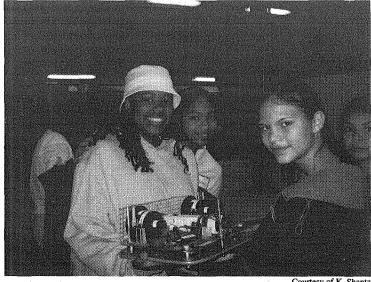
SWE is beginning to focus more and more on community outreach events, such as this one, to encour-

age girls to pursue engineering. If the gender ratio at Caltech is not enough of a reason to encourage girls to pursue math and science, it so happens to be that only 27% of engineering students at this school are female, which is even less than the overall percentage of women.

When coordinating this event, Shantz chose to focus on the middle-school age group, because statistics show that this is the age at which girls begin to lose interest in math and science. In the fourth grade, girls are just as interested in math and science as the boys, but by the time they reach the eighth grade, twice as many boys as girls express an interest in these subject

And it has been shown that the cause of this disinterest has nothing to do with a lack in aptitude. By the eighth grade, studies have shown that girls perform just as well as boys in math, despite their lack of enthusiasm in the subject.

So perhaps the cause has something to do with a lack of encouragement or a need for female role models. Although SWE surely cannot drastically increase the female engineering population overnight, they can strive to make a difference in as many young girls' lives as they can. The Introduce a Girl to Engineering Day activities definitely sparked an interest in many of the girls who attended the event. And who knows? Maybe they even managed to inspire some future engineers who may not have otherwise pursued the field.



Eighth-grade girls show off a vehicle as part of the Society of Women Engineers' "Introduce a Girl to Engineering Day."

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