

The Technogeeks are at it again! Reviews of Descent II and Congo

see page 8





Men's Volleyball and Women's Tennis finish up their seasons

see page 10

# THE CALIFORNIA TECH

Volume XCVII, Number 25

PASADENA, CALIFORNIA

FRIDAY, MAY 3, 1996

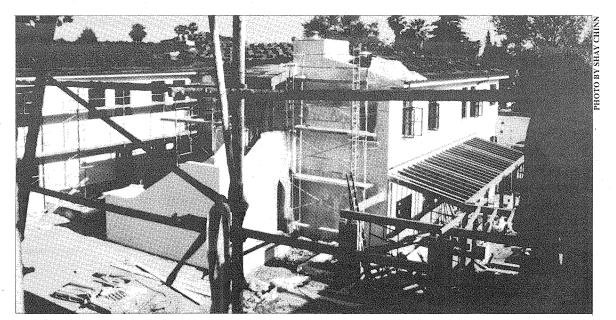
# Avery Center Opens For First House Tours

BY SHAY CHINN AND ROBERT JOHNSON

In hopes of generating excitement about the opening of Avery Center, many graduate and undergraduate students were introduced to what is expected to become the new center of on campus life here at Caltech. On Wednesday, an information session was held at Steele House where representatives from Housing and Residence Life were available to answer questions about Avery Center. For the first time, official tours of the complex were given which allowed students to get a preliminary idea of what the building will become.

Behind the hype and propaganda that has been circulated

about Avery, it seems as though its design and accommodations are genuinely very livable. Here are the vital statistics: the complex will accommodate 136 students, 33 of which are reserved for graduate students. There are 38 doubles (four are reserved for grad students), 50 singles (25 are reserved for grad students), 2 triples, and 4 single suites. Two single suites will share a bathroom. Avery also contains 4 spacious faculty apartments as well as 35 underground parking spaces. All students and faculty will be required to participate in the 10 meal per week board plan. Each room contains an air conditioner, sink, and ethernet connection to the campus network. The singles are comparable in size to those found in the south houses with the major difference



A Brave New World...

being that they will not have closets and instead will be furnished with wardrobes for hanging clothes. Housing also promises large desks. Avery house will be a part of the off-campus lottery to be held on May 15 and will be closed to next years

freshmen. Additional statistics pertaining to Avery Center are

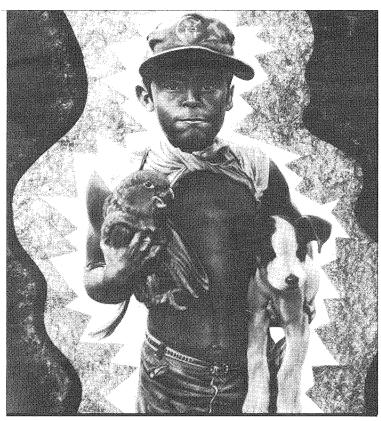
SEE AVERY CONT. ON P.10

# SEMANA LATINA: Explosion of Culture

BY MELISSA SAENZ AND WENG KI CHING

Ya llego la hora! The time is here! Next week is the 3rd annual celebration of Semana Latina brought to Caltech by Club Latino and the Caltech Latino Association of Science and Engineering Students (CLASES). This "Latin Week" brings an impressive series of events celebrating Latino cultures and discussing Latino issues. The members of Club-Latino and CLASES, the graduate and undergraduate Latino organizations at Caltech know that we have been entrusted with the richness and diversity of the many Latin American nations. We are proud to share our culture through this established yearly event that immerses the Caltech and local communities in intellectual, artistic, and socio-political exploration.

Latinos comprise 12% of the United States population and over 32% of the Los Angeles population. The influence of this culture on this country is of great importance. In the U.S., with Southern California as a center of attention, much ethnic friction can be attributed to the lack of understanding among different ethnic groups. Communication and knowledge of ethnic differences and similarities is essential for improving relations within this country. Currently, many issues concern-



This Year's Semana Latina Poster, by Simon Varela

ing Latinos in the U.S. are taking center stage in the news. Please take advantage of this opportunity to broaden your understanding.

Every day of Semana Latina celebrates a different region of Latin America with noontime musical performance featuring professional artists located on the west lawn of the Athaneum. Taste food in the style of each region served by the Athaneum for \$3.00 a plate including beverage.

On Monday, May 6th, experience Mexico's mariachi tradi-

tion with Gallos Reales. Sunday is the Mexican National Holiday "Cinco de Mayo" that celebrates the anniversary of the Battle of Puebla of 1862 in which a small Mexican army led by Ignacio Zaragoza defeated a much larger army of the French Empire. This unexpected victory was a morale booster for the Mexican people and is still celebrated today. Tuesday brings the beat of the Cumbia from Central America with Orquesta Cabaret. Wednesday features

SEE SEMANA LATINA CONT. ON P.8

# Fellowships Are Great!

by Lauren Stolper

Some of this year's seniors are all set regarding their plans for next year. Others are still trying to decide: Will it be grad school, work, or something else? One option for next year's seniors to consider is applying for a fellowship. Some fellowships pay for graduate study in the U.S. only, but others allow you to travel and/or study abroad. You've had four hard years at Caltech — why not spend a few years living, studying, and traveling abroad?

Fellowships such as the Marshall, Fulbright, Rotary, Rhodes, Churchill among others will pay for travel and living expenses, as well as tuition for one to three years of study at a university abroad. I can speak from the personal experience of having lived and studied abroad for two years after my graduation from college that a fellowship can be a wonderful oppor-

tunity to expand personal and professional horizons.

Fellowships vary in many ways: competitiveness (some are much easier to win than others), countries where you can study, duration of fellowship, qualifications, amount of the award, and sometimes, the subject of study. To whet the appetite of current juniors, I have provided a short "Cook's Tour" of fellowship opportunities.

You've had four hard years at Caltech — why not spend a few years living, studying, and traveling abroad?

Fellowships such as the Marshall, Fulbright, Rotary, Rhodes, Churchill among others will pay for travel and living expenses, as well as tuition for LOWSHIPS AND SCHOLAR-LOWSHIPS AND SCHOLAR-LOWSHIPS for details. The guide is mailed out to all juniors during May. Other students can call ext. 2150 or e-mail lauren\_stolper@starbasel.caltech.edu to request a copy.

Graduate students may apply for certain fellowships as long as they meet age and citizenship requirements. International stu-

SEE FELLOWSHIPS CONT. ON P.2

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# Engineers Demonstrate Technique for Crystallizing Proteins

BY PUBLIC RELATIONS

PASADENA — Chemical engineers have successfully demonstrated a new method of crystallizing proteins, an important and notoriously difficult problem in biochemistry. The new approach is reported by researchers from Caltech and the University of Washington in the April 30 issue of the Proceedings of the National Academy of Sciences.

Arranging protein molecules into a crystalline structure is an important scientific challenge; it is the crucial first step in studying a protein's molecular structure. Crystallization will also play an important role in building molecular devices such as biosensors or highly compact data storage mechanisms.

"We're excited about this method because it should provide a general mechanism for crystallizing a variety of both natural and engineered proteins," said Frances Arnold, associate professor of chemical engineering at Caltech and coauthor of the study. "Equally

exciting, the new technique has possible applications in constructing molecular devices based on two-dimensional protein arrays." Arnold's Caltech colleagues in this work were graduate student Daniel Pack and research fellow Chao-Tsen Chen, both in

chemical engineering. The new ap-

proach uses specially designed lipids — fatty molecules — that act like molecular tugboats. Ordinarily, protein molecules in a liquid drift in disorder, but the lipids grab hold of the molecules and help

assemble them into a two-dimensional crystalline layer.

Lipids are common biological molecules, but the special lipid used in this technique has been slightly altered by the addition of a metal-binding portion called iminodiacetate. The engineers then attached a metal ion, in this case copper (Cu2+), at one end.

Almost all proteins contain the amino acid called histidine, to which metal ions such as Cu2+ bind. This binding between the metal ion in the lipid and the histidine in the protein is what enables the lipids to grab the protein molecules.

The new technique has possible applications in constructing molecular devices based on two-

dimēnsional protein arrays.

Researchers from the University of Washington collaborated for two years with the Caltech group to show that the new concept is valid. The Washington team — Viola Vogel, an assistant professor of bioengineering; Wolfgang Frey, a postdoctoral fellow; and William Schief, Jr., a graduate student in physics — used a special Brewster angle microscope to see how a naturally occurring protein, streptavidin, forms a two-dimensional crystal when bound to this lipid.

The presence of a histidine on the surface of streptavidin is essential for it to bind to the de-

> signer lipid. The histidine responsible for binding was identified with the help of Patrick Stayton, an assistant professor of bioengineering, and Ashutosh Chilkoti, postdoctoral fellow in bioengineering, both at the University Washington. They

created and tested mutants of streptavidin that lacked histidine, and found that one of these variants did not bind to the lipid.

Lipids are "amphiphilic," which means that they simultaneously love and hate water. Part of the lipid (its long, oily tail) is repelled by water, while its metal-containing head is hydrophilic, or water-loving. Because of this amphiphilic property, the lipids line up in a monolayer — a film that is a single molecule thick — on the surface of water. The metal ions hang down into the water where they can grab the proteins, which are also hydrophilic, and pull them up to the lipid-water interface.

The lipids pack the molecules of protein — streptavidin in this case — into a dense, twodimensional sheet. When the proteins are crowded together like this, they can spontaneously organize into large, two-dimensional crystals. Scientists can then use the two-dimensional crystals to seed three-dimensional ones.

"Scientists have used similar methods before to crystallize proteins in two dimensions, but in those cases they had to go to a lot of work custom-designing a lipid with just the right structure to bind to a particular protein," Arnold explained. "The beauty of the new technique is that the lipid-bound metal ions should bind to and crystallize many different proteins. It won't need to be redesigned for each new protein."

## Fellowships: How to get them

CONT. FROM P. 1

dents may apply for certain fellowships. However, in most cases, international students will have to apply through their home countries. We have a special directory that lists awards for international students only.

The deadline dates for most fellowships are in the early fall. Almost all fellowships require a well thought out essay or plan of study, as well as some research into schools where you would like to study. Therefore you should start the application process early! This summer is not too soon.

The fellowship application process may seem a little confusing at first. However you can find plenty of resources and personal advice available in the Fellowships Advising and Resources Office which is now located in Rooms 25 and 26 of the Student Activities Center. We encourage you to drop by or you can schedule an appointment.

Fellowships can provide a wonderful opportunity to study, live, or travel abroad at someone else's expense! You career and personal experience can only be enhanced by a fellowship experience. So, spend a little time looking into fellowships as an option after graduation—you'll find it well worth the time.

Applications for certain fellowships become available over the summer. If you are a current junior who will be a senior next fall or a returning senior and

SEE FELLOWSHIPS CONT. ON P 9

# THE CALIFORNIA TECH

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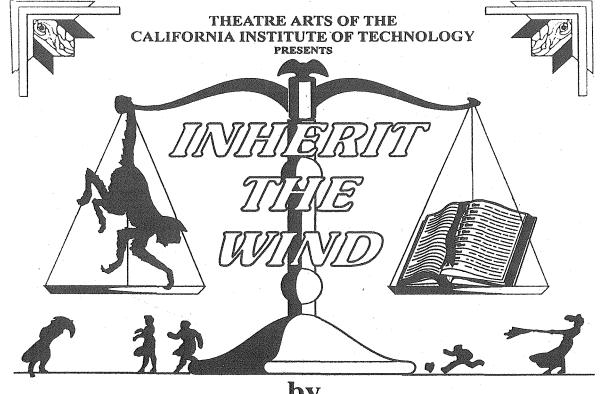
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INHERIT THE WIND was presented on Broadway by Herman Shumlin, in association with Margo Jones, at the National Theatre, New York City, April 21, 1955.



# David Brin: Science Fiction or Sociology?

BY DAMIEN R. SULLIVAN

At noon Friday, 12 April, David Brin, science fiction author and alumnus, gave another talk at Caltech. The talk was arranged and refreshments were provided by Spectre, the Science Fiction Library here. The topic was to be "Science or Propaganda: Which is more important in human affairs" but like his last talk he took a while to get around to the advertised subject.

He started out by noting that science has found human nature to be a very hard problem, but that science is one of the few human institutions to operate on a good understanding of human nature. He then left that hanging to go skate through several different threads, probably presented in a different order than I am restating them here. To whit: all other ages have had their Golden Ages in the past; we look forward to ours. Fear times humanity is a constant; we are the first culture to not regard "weird" entirely as a four-letter word. The Golden Age of Athens involved the expansion of the rul-

ing class from the top 1% to the top 7%; the Iceland that anarchists like to cite had a ruling class of 20%. He brought up the pyramid again: most cultures have had a pyramidal structure, we seem to have a diamond with a fat middle-class, which turns back into a pyramid if you stick it on top of a pile of machines. Artists tell us that art is wonderful and rare; art is wonderful, but "common as dirt". Kill all the artists and new ones will spring up; it's science that is rare and hard. All societies have been polygamous, one way or another. Our version is "serial abandonment". Memes, and his claim that the concept proves itself in his passing it on to us, having gotten it from Dawkins in the first place.

Our biggest plague is one of self-righteousness. Brin feels someone should do a study of blood/brain chemistry while people arguing passionately, to show that self-righteousness correlates to endorphin release, so that we can say "self-righteousness" is a drug addiction. If you ask someone what memes

are important in our important they'll probably think of commercials and say "Buy!" but they're not terribly correct. Everyone knows about commercials, people record around them, the ads have to get more and more flashy to get attention. (I'm waiting for advertising to be discovered as our phrenology or astrology — DRS) The deep memes don't get noticed easily, but positively he identifies suspicion of authority, humor, and tolerance. The difference between mainstream Republicans and Democrats is who they think is accumulating too much power: the government or corporations. Note the message of "E.T.": if you find an alien from outer space, hide him from your duly elected tribal elders. These memes are why Anglo-American culture can maintain itself — why England, with no written constitution behind the law and with a government describable as elected dictatorship is freer than the Latin American countries were when they broke away from Spain, adopted constitutions like the United States.

and fell into dictatorship.

"There is only one anodyne to error. Science learned this, and it is criticism." Through experimentation, peer review, and a general openness to criticism — "The one thing people loathe as much as physical torture" — science has successfully built itself up. (Contrast natural philosophy with all the other branches of philosophy. — DRS) The importance of criticism and the difficulty in exposing people to it is science's built-in grasp on human nature.

Somewhere near the end the talk was scheduled for one hour but got out at 2:30 — he more obviously talked more about "Science and propaganda", I think. The two biggest images from science have been the atomic bomb and Apollo's pictures of the planet. Brin claimed that before Apollo 8's pictures the State Department deliberately didn't use the word "planet", this being, presumably, too potentially socialist. He emphasized again that the level of fear in our society is

extremely low — we sell liquid high explosives on street corners and contemplate giving virtual citizenship to marine mammals. And that we're not going to see the future of Bladerunner; we'll see Vernor Vinge's Singularity, or blow ourselves back into primitivism, looking at the Golden Age which for the first time will truly have been in the past.

I have more notes than these, but this should suffice. The talk was quite entertaining and I didn't really care about the length or his not addressing the alleged title (which, frankly, I think was the title *last* year.) He thinks enough to be interesting on lots of topics, although I feel he still misunderstands the point of the cyberpunks. People have told me he evidences strong sexism, but I did not see real evidence of that in the talk, although this could depend on what interpretation you give some of his statements on sexuality in human culture. The talk was well worth going to.

# The Outside World

by Myfanwy Callahan

Washington, DC.- House and Senate negotiators agreed on a tentative measure that would require all newborns to be tested for the HIV virus, unless the number of infected babies is reduced by some other means.

Jemez Mts., NM - A 14,000 acre blaze in the Jemez Mountains was kept from approaching the Los Alamos National Laboratories and Bandalier National Monument by nearly 900 firefighters Tuesday, as cooler temperatures and calmer winds helped their efforts. It may take another week to contain the fire.

Hobart, Australia - Martin Bryant, the man who opened fire on a group of tourists on Sunday, was formally charged with murder Tuesday. After an all-night standoff with police on Sunday, he set fire to an inn and surrendered only after his clothes had caught fire. In that time he had killed 35 people.

Rio De Janeiro, Brazil - After a trial that lasted 24 hours straight, Marcus Vinicius Borges Emanuel, a former policeman, was convicted of participating in a massacre of sleeping street children in 1993. Eight of the sixteen children sleeping on the church steps were killed. Emanuel was sentenced to 309 years in prison.

Paris, France - A mortar and a huge shell were found in a cargo of pickles being shipped from Iran to Germany. Officials speculate that the weapon may have been intended for use

against Israeli targets in Europe.

Qana, Lebanon -Lebanon held a mass burial for the 90 people killed in an Israeli artillery attack on a United Nations base. Meanwhile, President Clinton and Prime Minister Shimon Peres of Israel signed an antiterrorist pact, in response to the four suicide bombings that killed 62 Israelis.

Monrovia, Liberia - U.S. marines shot three intruders near the American Embassy compound in Monrovia last Tuesday, just a day after a short-lived truce was broken. Fighting between rival factions had come so close to the embassy that shots were being fired towards the marines.

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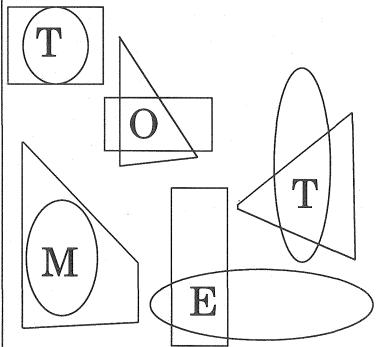
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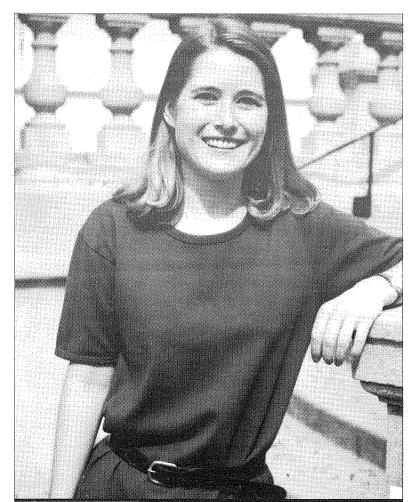
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Please e-mail submissions to totem@cco, bring them to Ruddock 221 or Lloyd 226, or mail them to MSC #990. Deadline: May 10, 1996

# Dean's Office Awards Oustanding Techers

### Rebecca Blankenburg is Awarded Mabel Beckman Prize



Becky Blankenburg, 1996 Mable Beckman Prize Winner, takes time out from her busy schedule

Look for more Dean's Office Awardees in upcoming issues of the Tech! Next Week: Dean's Cup Bibi Jentoft-Nilsen Award Ziegler Prize

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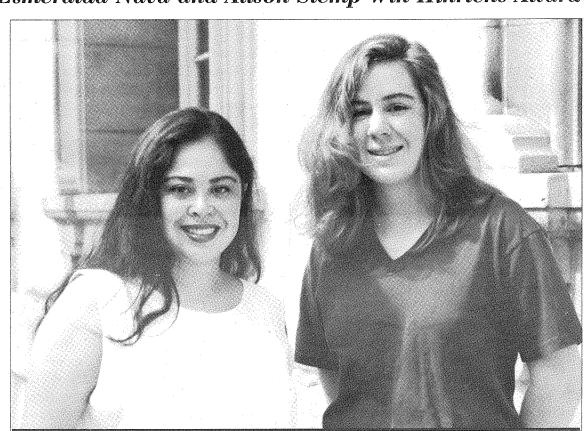
Rebecca Blankenburg has won the 1996 Mabel Beckman Prize. This award is dedicated to the memory of Mabel Beckman who supported Caltech as a friend and benefactor for over fifty years. The prize bearing Mrs. Beckman's name is awarded annually to a woman student upon completion of her junior or senior year and is made in recognition of demonstrated academic and personal excellence, contribution to the Institute community, and outstanding qualities of character and leadership.

Becky, a senior in biology, has demonstrated qualities of outstanding leadership and service during her four years as an undergraduate at Caltech. Her work as Senior Class President, and as upper class counselor and health advocate in Ruddock House is particularly admirable. Becky has also served as Ruddock House secretary and Ruddock prefrosh weekend coordinator, represented Ruddock at freshmen picks for the past three years, and been a Frosh Camp UCC (1993 and 1995), Big Sister for the Big Sister/Little Sister Program, committee member of the 1994 Health Awareness Week Committee, hospital volunteer, State 4-H Ambassador, and National 4-H Ambassador to Costa Rica.

Becky has also contributed in many other ways besides elective office. She has performed excellently in several research labs at UC Davis, The Jackson Laboratory in Bar Harbor, Maine and the Cold Spring Harwell as in undergraduate research here at Caltech. She has been a valued representative for SURF, for the Associates, and for Caltech's premedical group. She has truly demonstrated her ability to balance school activities, community volunteer work, research, and her academic studies.

Becky will be honored with the Mabel Beckman Prize at commencement on June 14, 1996.

## Esmeralda Nava and Alison Slemp Win Hinrichs Award



Esmeralda (left) and Alison are recognized for their dedication and leadership

Esmeralda Nava and Alison Slemp are the winners of the 1996 Hinrichs Memorial Award. Established by the Board of Trustees, this award is given in memory of Frederic W. Hinrichs, Jr. who served for more than 20 years as a dean and professor at the Institute. In remembrance of his honor, courage, and kindness, the award bearing his name is made annually to seniors who have made the greatest contribution to the student body during their undergraduate years at the Institute. The award also recognizes students of outstanding character, leadership, and responsibility.

Esmeralda was selected for the exceptionally capable leadership and service she has provided during her years at Caltech. She has been president and vice president of the Caltech Latino Association of Students in Science and Engineering. She has also served Caltech by being a member of the search committee for the Associate Dean/ Director of Minority Student for prospective students and by Affairs. She has assisted with prefrosh weekend, helped organize Semana Latina, and has served as a member of the Student Advisory Committee for the Office of Minority Student

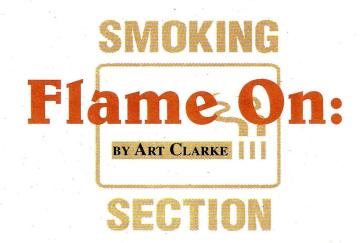
Esmeralda has been involved with the Young Engineers and Science Scholars Program (YESS), serving as a member of the steering committee, as well as head counselor and assistant coordinator. Her work with this program has helped make the experiences of the participants especially worthwhile.

Alison was selected for her outstanding leadership skills and for the service she has provided to her fellow students during her years at Caltech. Alison has held numerous important offices and served on many important campus-wide committees. Throughout her years at Caltech, she has dedicated much of her time to student recruitment by helping to write and design publications serving on the Freshman Admissions Committee.

Alison has been involved in student government as Blacker House President, Blacker House Social Team, IHC Secretary, and as IHC Chair Protem. She has served as Blacker House Health Advocate, participated at new student orientation as a upper class counselor and with the Challenges and Choices program. This year Alison's important work as a member of the Core Curriculum Steering Committee has been very useful to the committee and to the entire undergraduate student population.

Their dedication to service, their ability to lead a broad group with diverse viewpoints, their personal integrity and strong interpersonal skills make both Esmeralda and Alison valuable and influential members of the Caltech community. They will receive the Frederic Hinrichs, Jr. Memorial Award at commencement.





#### **YOU COULD WIN \$1,000,000**

Hey Underclassmen! Enter this Contest and maybe receive \$1,000,000!

This week's Flame On was written by Art Clarke with some input from Rod and Kim. As an added bonus for the loyal readers of this feature (and to make up for last week's void) we are having a competition. If you can mail a copy of this week's article with all lines that were written by Rod and Kim underlined in red, you might receive \$1,000,000 and will be featured in the next **Flame On!** Now, isn't that a treat? If more than one person gives the correct answer, EVERYONE'S A WINNER!

This competition is closed to seniors, who should have received the oringinal, non-edited version of this memo on April 8.

# Flame Off!

—Begin Memo—

To: All Seniors

From: D. Roderick Kiewiet, Dean of Students Kim West, Director of Residence Life.

Date: May 3, 1996

Subject: DITCH DAY 1996

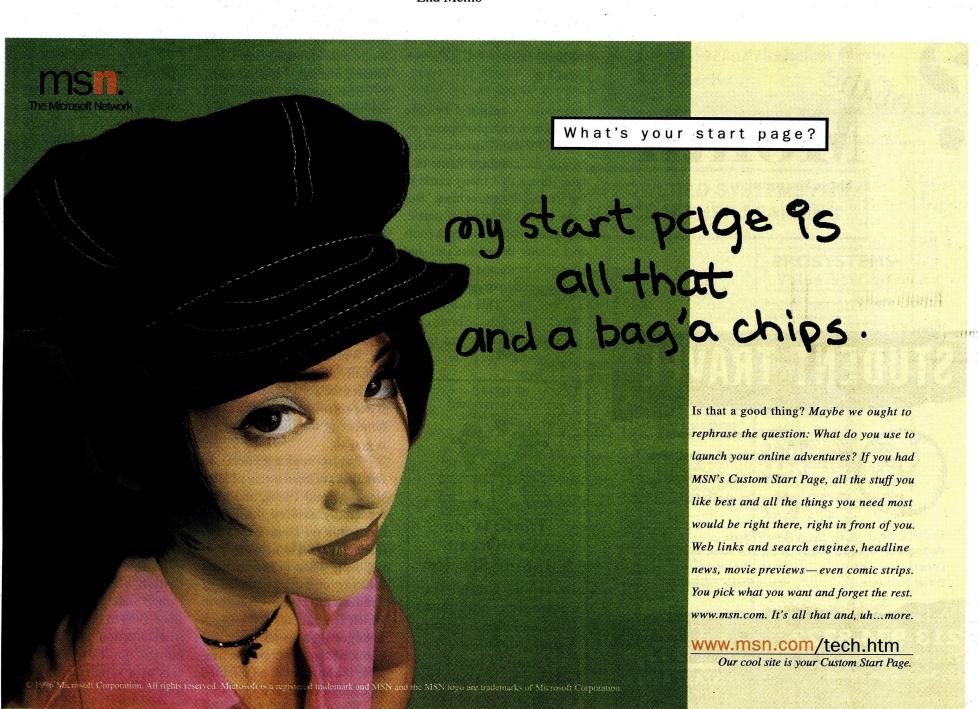
Ditch Day is approaching, and it should be great fun for everyone involved. There are some things, however, that you should keep in mind. First, in designing your stacks, please be sensitive to activies that would be potentially dangerous to individuals involved or that would be seen as harassing to other members of our campus community. That means no lewd ogling contests, no lecherous goggling competitions and absolutely NO wolf-whisting at construction workers. Last year, in an incident mysteriously restricted to Lloyd house, several students were instructed to whistle 'appreciatively' at construction workers on Moore lab. and the Caltech law office is still working on the harrasement suits. We do not wish to repeat this experience, and any violaters of this request will be castrated with much aplomb. If you have questions relating to this, please see one of us.

Furthermore, stacks in the past have involved climbing on buildings to recover clues. Since the risk of injury is real, we that you avoid the inclusion of such activities in your ditch day stack. Any students seen climbing onto roofs will be summarily arrested and detained by our trained security personal. For prosecution purposes, we will assume that any students who are already on the roof, but were not spotted climbing, got there by other means and are therefore immune to detention. Catapults and rocket launching students in your stacks is therefore encouraged, as it is great fun for the student and TV stations love that sort of video-bite. We also ask that you not involve any animals in your stack, and remind you that DAPAC guidelines prohibit the consumption of alcohol or drugs as part of a stack. You may, however, have animals that drink large quanties of alcohol and consume copious amounts of drugs as part of your bribe. LSD-laced pork is rumored to be a particularly tasty treat and pigs on PCP are always a party favorite.

We also ask that people refrain from using Millikan library for its intended purpose: Federal law does not allow us to use the building as the world's biggest bong. If you have already ordered your "Mary Jane" for this purpose, please let us know and we will help you dispose of it. If this presents a problem for you please come and talk with one of us.

As always, please remember that individual students are responsible for damages to Institute property arising out of Ditch Day activities. This includes, but is not limited to, the new Sherman library, Avery house, the geographical symmetry of campus, Presidents Everhart's twisted view of campus unity, your soul, everything you own, your sense of youthful exhuberence, any future inventions you may have been able to produce before you were heinously damaged during Ditch day, your parents, their credit cards, your dog (if you do not own a dog, substitute a sibling), and Parson-Gates. Please keep this in mind as Ditch Day approaches. Billing will be handled through The Guido and Guisseppe Bill Collection Agency. They get their money, or they get their jollies.

— End Memo —





Trust Me.

by Keith Counsell

This week's topic: The Predator, suggested by Art Clarke.

In case you haven't heard, the Senior class traditionally gives a gift to the Institute to celebrate their graduation and leave a mark on Caltech. Last year, the money donated by Seniors was used to paint "Caltech" in the gym. Whoopee! I know, you're probably thinking that this year the Seniors should follow in this exciting direction by painting the Caltech logo on the athletic vans... Unfortunately, this doesn't really seem to reflect the feelings that we have for the Institute.

We wanted to put a seven foot tall Predator statue in the Registrar's office.

Pretty much sums things up,

Tragically, this doesn't look like it'll happen. In the words of Meat, "The Registrar has de-

clined our generous gift." This is pretty rude, right? Everyone knows you're not supposed to refuse gifts which express genuine sentiment. But I'm not here to criticize the social aptitude of high ranking administration officials who can prevent me from graduating after another fortytwo days of pure, living, unadulterated hell.

Given that the Predator so concisely expresses the feelings of at least a large fraction of the Senior class, it seems tragic to simply give up on the idea. While Tom Mannion, source of all goodness, has agreed to accept the statue, it just wouldn't be the same. Given to the Registrar, it's a not-so-subtle criticism. Given to Tom, it's just a big statue. So, these are my ideas for alternate locations where the Predator would seem at home.

Beckman Laboratories. Ok, so it might not do us a lot of good, but it would warn the critters what they're in for. As an

added bonus, unenlightened frosh might think that it was a product of the Biology depart-

Firestone, up by all the AMa profs. Maybe this is application would be too specific to engineers and the rest of the people who have to take AMa95 for their non-AMa major. I assure you that it would be extremely gratifying for most of the Engineering and Applied Science undergraduates, however.

Lee Reavis's Office. Although I'm relatively happy with TFM (it beats day after day of \$0.14 a pack Ramen handsdown), many of my friends are not. I count down to the date of Commencement while they keep track of the number of days of board food left.

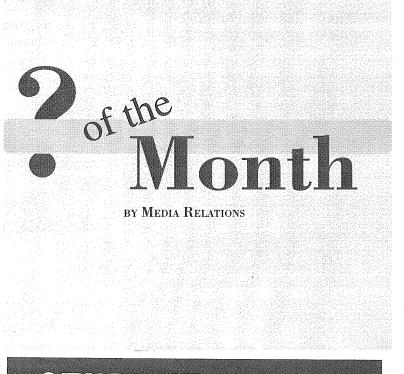
The nearest Internal Revenue Service office. It's so perfect. A big, largely invisible organism that suddenly pops out of hiding, takes what you value most, and then flees into the

darkness which spawned it. While admittedly not Caltechspecific, this idea still seems to have a great deal of potential.

Mead Laboratory. Home of Chemistry 3a. Does anybody think this class is even vaguely useful? Most chem majors I know agree with the general consensus that Ch3a is a waste of time which encourages you to play with toxic substances WAY too early in the morning. Mmmm, X2... Is there anything it can't do?

Millikan Board Room. This is probably my favorite idea, actually. Think about it; we'd be communicating our sentiments directly to the most powerful, influential, hosifying groups associated with Caltech. Maybe we could convince the Board of Trustees to give the Predator a vote at meetings! Some random alum from the area (or, failing that, a homeless person) could drop by for board meetings and throw a little spin into the mix.

For a week, starting Monday May 6 there will be daily tours of Avery House. They will be at 12 noon, 3, and 4 p.m.. Sign up in the Residence Life Office. Hard hats will be given out and hard soled shoes are required, no sandals or other non-protective footwear allowed.



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#### What exactly is Mad Cow Disease?

Answered by:

Michael Harrington, Member of the Beckman Institute at Caltech in biology

Formally called bovine spongiform encephalopathy or BSE for short-mad cow disease is the common name of a fatal illness that many cattle in the United Kingdom have. Bovine means related to cattle; encephalopathy has Greek roots and means brain disease; and spongiform means literally "in the form of a sponge." Put it all together, and BSE is a disease of cattle in which the brain ends up looking like a sponge, full of supplement in cattle feed.



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The term mad cow disease comes from the strange behavior and odd staggering gait of affected cattle. The sick animal loses its sense of balance and lurches or stumbles around in circles, making it appear crazy.

BSE is closely related to a centuries-old disease in sheep called scrapie, and to some human diseases, notably an illness called Creutzfeldt-Jakob disease, or CJD for short.

Scientists believe the disease is spread when one animal eats infected tissue from another animal. In fact, scientists believe the current epidemic among British cattle was caused by using the processed offal of scrapie-infected sheep as a

While the disease can occasionally move between species, the source for CJD in humans is not known, except for a small number of families in which it is genetic.

Public-health experts in Britain have been aware of BSE since the mid-1980s, and have repeatedly assured the public there was no chance that humans could be infected by eating beef. Then in March, after looking at 10 new cases of Creutzfeldt-Jakob disease in which the patients were much younger than usual, they announced that it might be possible for humans to be infected by eating beef after all.

While scientists know that

the disease can be spread between animals when animals eat infected tissue, scientists know few of the details. The infectious agent is not a bacteria or a virus, but a poorly understood type of protein called a prion. Prions were discovered in the 1980s, and no one knows yet how they result in disease.

More puzzling still, cooking contaminated beef doesn't inactivate the infectious agent, as it does with bacteria and parasites. Prions heated to a temperature that will destroy most proteins (130 degrees Celsius, or 266 degrees Fahrenheit), retain their ability to transmit the disease.

Although the British govment stressed that there is only very weak and indirect evidence for a link between the illness in cattle and in humans, British beef sales plummeted. As more information has become available and beef prices have dropped over the last several weeks, Britons have resumed eating beef, but at slightly lower levels than be-

American agriculture and health experts believe this country is safe from BSE, because British beef imports to the United States have been banned since 1989 to protect U.S. cattle from infection. Also, American farmers don't use sheep products as a supplement in cattle

# inutes

APRIL 29, 1996

Present: Dave R., Maria, Dave B., Emily, Kristie, Grace, Kohl, Alexis,

Kara, Gavin, Peter Manca, Patricio, Terry, Devang

Meeting starts at 10:07 p.m.

Devang came by to request Fleming's Multihouse funds for party with Ruddock House.

Gavin picked up the term's check for TACIT.

Patricio came in to thank us for the 7 p.m. movie slot on Friday May 10. On May 10, at 7

p.m., a movie to celebrate Semana Latina, Fresas y Chocolate (Strawberries and Chocolate) will be shown. Apocalypse Now will be shown at 9 and 11 p.m. Both movies will be shown at Baxter Lecture Hall on 35 mm film. Patricio also needed some money for the party for Semana Latina. He requested \$100, but if he needs more, he can come to ASCIT again later. He got a check for \$100 (6-0-2).

Peter Manca gave us an update on the ASCIT movie situation for second term. ASCIT

movies broke even. This term, most of the movies will be on 35mm film. He took \$1000 of the \$3000 allocated to movies for this term.

Terry brought the compensation schedules for the Business Managers. He also brought the splits for the TECH editors. Both were passed 7-0-1.

Officers' reports were given.

- Kara wants to know if people would like it if part of the ASCIT doughnuts were bagels
- Alexis says there's paper and toner in the copier. Received a call from Graphic Arts saying that the ASCIT copier account number is wrong. Will work with Kristie to solve it. Student account numbers are in. The account numbers will be entered on a weekly basis.
- Emily got the sign-ups posted for the ASCIT formal. The invites are done. If you need a want a Caltech discount on your tuxedo, go to Gary's Tuxedos or Tuxedo Center on

Lake (all within walking distance). There is an ad in the TECH specifying the exact discount for each store. If there are any Graduate students who would like to go to the formal, go to the Red Door to fill out a reservation. Transportation is being dealt with.

• Kohl will get together with Ben Turk and talk to Wendell Jack about a Judo Class. Thursday, there is a Curriculum Committee meeting. They'll be reevaluating the core curriculum. The photography class is still up in the air. If you were confused by the CLUE reviews, refer to the article in last week's TECH or refer to your e-mail. By the way, the request to submit a review is a request not a demand. If there's an error and you were asked to write a review for a class you never took, delete it. If you want to write a review for a class, but you weren't asked to, \*feel free\* to do so anyway. Sign-ups for ARC representative at large are up and will come down next Friday (10 May) at

midnight. Please refer to announcement from ARC secretary (elsewhere in this Tech) for further info.

- Maria says that the BOO talks are still happening and will continue through next week.
- Kristie got a request from faceplant for \$1141. ASCIT moved to give them \$60, 5-1-2.
- Dave Bacon and Emily are on a committee to organize orientation week. The freshmer will register on Saturday and there will be tours, open forums and the club fair to familiarize them with the campus. They want ASCIT support. ASCIT support was granted.

Meeting closed at 11:21 p.m.

Respectfully submitted,

Grace Yang

**ASCIT Secretary** 

# Medicine, Women, and Ethics

by Jim Cheng

As part of a continuing series of seminars on Science, Ethics and Public Policy, Emily Martin, Professor of Anthropology at Princeton University, delivered her presentation entitled "The Woman in the Flexible Body: Gender and Contemporary Medical Research" Wednesday afternoon in the Judy Library.

Drawing on her recent research in women and medical research, Professor Martin illustrated many of the cultural assumptions prevalent in medical research. Pointing to a number of fanciful cartoons, she argued that many of today's medical textbooks use "dead," or often unnoticed metaphors in describing women's health. With her collection of slides ranging from popular daily cartoons to covers of renown science journals, she vividly illustrated the frequent comparisons of gynecological processes to industry and production and the depiction's of the female egg as a "damsel in distress" waiting to be seduced or conquered by male sperm

Continuing her presentation on the metaphorical description of the body, she next presented the post-World War II paradigm of the body as a machine. With a number of slides from a popular 1950s children's book, Professor Martin discussed the metaphor of a mechanical device for the body, one with clearly delineated boundaries and an increasingly important immune system. From this, she

suggested, arose the characterization of the immune system as an agent constantly engaged in warfare and surveillance against microbial invaders.

Continuing her characterization of the body as a mechanical device, she next drew comparisons to that of the corporation, noting that both are frequently depicted in popular culture as monolithic fortresses or castles. From this, she draws in the depiction of women in medicine, noting that this metaphor is often inconsistent in regard to women, particularly in the areas of pregnancy, where a foreign fetus is "tolerated" by a mother, rather than expelled immediately as the metaphor of the body as a well-defended castle would hold, and in the case of autoimmune disorders, which frequently pit the body's own defense mechanisms against itself With this, she argues that the paradigm of the body as a rigid and heavily defended fortress is not entirely correct, especially in the case of women, and those with allergies or autoimmune diseases.

Turning to a more contemporary view of the body in medical research, Professor Martin compares a woman's health to non-linear systems, drawing on chaos theory, she presents a possible new paradigm, where flexibility and the ability to change, particularly in women's reproductive health, might be seen as healthy and normal, as opposed to the old mechanistic metaphor, which often pictured deviations from the norm as bad and inefficient.

Concluding her presentation on women and medical research, Professor Martin ended by presenting several new perspectives on health and the body as a flexible and adaptive system, including Polly Matzinger's characterization of the immune response as a dance, and biologist Margie Profet's controversial theory of menstruation as an aggressive assault by the immune system against potential invaders.

The signup sheet is up for new Academics and Research Committee (ARC) Representatives-at-Large. Interested candidates must signup at Winnett and submit a ~200 word statement to kshekar@cco (describing qualifications and interest) by May 10 at midnight. If you have any questions please email me.

Kiran Shekar (kshekar@cco) ARC Secretary





# **TechnoGeeks**



### Descent II

With the release of *Descent II* almost two months ago, Interplay has once again created a fantastic 3D game. The basic game style is the same in that you fly a fully 3D ship with 6 degrees of freedom. Some have said that *Descent II* is a lot like *Doom II*: new enemies and new levels. But this is really not the case. New enhancements such as the guide-bot, headlights, afterburners, energy to shield converter make the game much more interesting. Interplay has also gone out of there way in making really cool cinematic sequences. The introductory movie is of movie quality—very cool. The soundtrack which plays from the CD is very awesome and adds depth to gameplay. There are also many more enemies which have unique characteristics like the thief-bot and the nasty bosses which are found on every fourth level. The background tiles are also animated here and there including flowing rivers and lava (you can even fly through a waterfall at one point). There is also built in support for high resolution game play in 640x480 and 800x600 modes. One thing: *Descent II* is difficult and requires intense play. There are 30 hard levels and 8 player net support making Descent II an all around terrific game.

A full byte



If you can identify which level the screen shot from Descent II shown above is from, mail editors@tech with your answer The first person to respond will receive a \$10 prize or a free game that we've reviewed. Good Luck!

Congo: Descent into Zinj

Congo is the latest release from Viacom New Media who have previously put out Beavis and Butthead and MTV Unplugged. Congo is a Myst style game done in first person in which you guide your character through the jungle, pointing and clicking your way through obstacles and puzzles. First, the interface isn't the greatest since is isn't very interesting. Also, certain sequences aren't done intuitively which can cause your player to die randomly or get stuck in a dead end which requires a restart. Finally, it is a Windows 3.11 game which doesn't run very fast. Because of these shortcomings, gameplay didn't last long and the game got quickly sideshelved.

3 bits out of 8

CONT. FROM P. 1

the colorful dancers and musicians of the Brazilian Troupe Sambala. Thursday highlights the music of the Andes with the Inka Kings from Bolivia. Friday adds a Carribean flavor with the merengue and salsa rhythms of Los Costenos band.

Evening Events:

Monday: Biology Professor John Alderete of the University of Texas Health Science Center at San Antonio delivers the keynote speech "Hispanics and Higher Education". Beckman In-



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## Semana Latina: Experience Latino Culture at Caltech

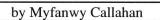
stitute Auditorium, 7:30pm. Tuesday: "Cocina Latina: at the Athaneum lawn features tasting, demonstrations, and tips for simple, make-at-home recipes of Latin cuisine. Wednesday: This comedy night with Culture Clash features their critically acclaimed play "Radio Mambo: Culture Clash Invades Miami" which mixes humor with social commentary. Culture Clash recently performed this play in Los Angeles charging \$20 a ticket. We are showing the same play at no cost! Don't miss this one! Ramo Auditorium, 7:30pm. Thursday: A panel discussion on "Latinos in the Media" brings speakers from the LA Times, PBS, NPR, and the National Hispanic Media Coalition. A short reception with

the panelists follows. Beckman Institute Auditorium, 4:30pm. Friday: Join us for a movie night featuring "Fresa Y Chocolate" (Strawberry and Chocolate) for the 1994 Academy Award Nominee for Best Foreign Movie (Cuba). Baxter Lecture Hall, 7:00pm. Saturday: Semana Latina culminates with Saturday nights Sabor Latino(Latin Flavor) party with the band Makina Loca. Salsa Lessons starting at 8 pm will preced the party, the band starts at 9 pm.

Semana Latina is a wonderopportunity for all students, faculty, and staff to explore a culture that is much ingrained in our society. We, the organizers, are excited for and proud of the week to come!

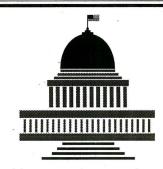


# Capitol **Steps Spoof Politics**



Once again the Capitol Steps made an appearance at Caltech, drawing laughter from a packed audience. For several years now, the Capitol Steps has come to Caltech to share their witty political commentary in the form of stand-up comedy and hysterical musical numbers. This year they featured songs about the Unabomber, the Montana survivalists, and of course, none of the political candidates emerged unscathed.

The five member group from Washington, DC, impersonated Buchanan, Dole, Clinton, and Perot in a number of songs emphasizing all those mannerisms which become so apparent in an election year. They interspersed these with songs relating to the international state of affairs, explaining the cause of the war in Bosnia, and making fun of the Quebecois and Jacques Chirac in a good-natured way. One of the members came forward twice in the performance to deliver "Lirty Dies", an impressive talk laden



with spoonerisms, saying them just slow enough for the audience to catch most of them and laugh at the unexpected twists in mean-

In both performances the audience was packed. Some had already seen the Capitol Steps several times before, but the amaz ing speed with which they write new songs about the most current topics makes their show a fresh success every time. The student tickets are a steal at \$5, so this is a must see for next year.

The Capitol Steps have had their songs played on National Public Radio's All Things Considered several times, and they are regularly featured on CNN's Inside Politics. They have recorded 15 albums in the past thirteen years, since they began at a Christmas party in the office of the former United States Senator Charles Percy. All their songs are original spoofs written by Elaina Newport, Bill Strauss and occasionally other members of their group. The five Capitol Steps and their piano accompanist always put on a great show.

## $\mathbb{C}$

# Earth Day is Fun and Informative

BY LAURA VERHOFF

The Earth Day Festival, sponsored by the Caltech Environmental Task Force, was held last Friday, April 26 from 11 a.m. to 2 p.m. The Festival, which was held in the Winnett courtyard, turned out to be a huge success. It was brimming over with useful information on a variety of topics ranging from environmentally safe products to population growth management to recycling.

There were a great number of tables representing these various topics. A table full of environmentally safe products featured shoes and purses made from recycled materials such as rubber, plastics and old tires. The League of Women Voters was available to register people to vote. Stuart Taylor, a grad student, was there representing the Utah Wilderness Coalition, a group that is attempting to protect the Utah Red Rock Wilderness. The Pasadena-San Gabriel Valley chapter of the Zero Population Growth was passing out information on population con-

There were also many environmentally-conscious products available. There was an electric car to view, while Wild Oats was passing out free samples of trail mix. The Caltech Recycling Cen-

ter was handing out apples and oranges, as well as selling plastic reusable mugs. There was also a table of books for sale on topics such as vegatarianism, composting, and other environmental issues. There was also incense, statues, and jewelry for sale

Many campus clubs were also on hand to give out information on the objectives of their club. The most conspicuous was CETF. Not only did they have food for sale for a small donation, they also had Earth Day shirts and a table full of ideas on how you can help with environmental issues. They even made a huge poster listing things you could do while shopping, with your car, in your home, and some small personal efforts. Other Caltech clubs having tables were the Alpine Club, Amnesty International, CIT-KNIT, and the Caltech Rideshare group.

The Pasadena chapter of the Audubon Society was handing out literature on birds indigenous to this area. A huge table was presented by the Pasadena Water and Power Department. They had samples of water to try, the different types of energy-efficient light bulbs they sell at discounted prices, as well as information about the energy-saving programs they have including low-

flow shower heads, and low-flow toilets.

However, the most interesting (or amusing) tables by far were the Hemp Shak table and the Safe Water Foundation table. At the Hemp Shak table, they had many different products made of hemp. They were quite insistent and energetic about disseminating their information. Anyone who went to the Safe Water Foundation table would have seen freshman Travis Williams arguing with the man at the table about the benefits of water fluoridation. Overall, the Earth Day Festival was very successful. There was a table for everyone to learn something about what they can do to help save the planet.

## Fellowships: They're good for you

CONT. FROM P. 2

would like to receive applications for the fellowships listed below, please email your name, current class, e.g., junior or senior, summer mailing address, and specify which awards you would like information on. Depending on when they are sent to us by sponsoring agencies, applications will be mailed out between June and August.

The fellowships you can ask to receive applications are the **Fulbright** (also appropriate for graduate students who are U.S. citizens seeking postdoctoral opportunities), the Hertz (requires citizenship or permanent residency plus a 3.75 GPA),

Caltech (Athenaeum Lawn)

May 6-11, 1996

Marshall (requires 3.7 GPA and U.S. citizenship), and the Rhodes. (requires U.S. citizenship) We are also taking names of juniors and seniors who want information on the Churchill, Luce, and Watson.

Note that you can access our fellowships guide and find links and information on fellowships for graduate study in the U.S. and abroad, as well as information on study travel and work abroad through the Fellowships Advising Office Home Page. The URL is: http://www.cco.caltech.edu:80/~lstolper/

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"Strawberry
and
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THE CALIFORNIA TECH **S**PORTS

# Men's Volleyball Undefeated at Home

by Rich Chin

Season Record: 18-7

The Caltech Men's Volleyball Club hosted Whittier College Friday, April 26. It was to be the final match of the club team's '95-'96 season, and the Caltech crowd was the largest one yet. Some people might get nervous in this situation, but not these players; they just were pumped and ready to dominate.

Tech's first game was practically flawless. By one full rotation, Tech had a 4-1 lead. By two, it was 12-3. The next server finished it. Blocking was the key element in the club's game, as the Whittier offense flailed in

trying to get anything past the wall that Tech put up. Middles Wiberg and Gary Leskowitz were in their element, never once getting fooled by the opposition's setter, while their own attacks were so effective that the outside and opposite hitters had a field day against either single or out-of-place double blocks. With Andreas Masuhr and Mike Burl detonating from the outside and Jack Prater awe-inspiring from opposite, Whittier never had a chance. It was a quick 15-3 victory for Tech.

Whittier tried to come back fired up for the second. It took

Tech a little while to settle back into the match after the first game, so Whittier was able to take a 5-2 lead by their fourth server. Unfortunately for them, the club rediscovered its rhythm, took control, and never looked back. Mike Machezynski and Steve Sears got to show off their skills at middle and swing hitter, respectively, and Aaron Kiely traded places with Joel Jones for defensive specialist. The team could hardly have played better as, after giving Whittier the 5-2 lead, the club came back to score 13 unanswered points to take the game, 15-5.

The third game still saw Caltech in control, as the only Whittier lead came at 2-1. This time, Caltech's extreme depth of field in its squad was evident as Forest Fisher and Stuart Demcak came in as middles, Tyson Grant as opposite, Aaron Kiely as swing hitter, and Weng Ki Ching as defensive specialist. Although Whittier did a lot to tighten up its game, and showed great heart in never giving up, it could not do very much against Tech's dominance. The final play of the match pretty much summed up the flavor of the whole night. An aggressive serve by Mike Burl caused a

scrambled pass and high set to Whittier's opposite hitter, who was stuffed by the imposing solo block of Andreas Masuhr. That gave the game, and match, to Tech with a score of 15-10.

The team would like to thank all the fans who came out to support them during the season, especially those friends who volunteered to line-judge some of the home matches. It would also like to thank Emily Ho and Grace Yang for score keeping the home matches. And it would especially like to thank Maureen Burl and Melinda Kiely for their help and support throughout the year.

# Avery:

page 10.

The design philosophy behind Avery seems to be very friendly. There is a large dining room where lunch and dinner will be served during a set period of the day. Adjacent to the dining area is a cafe which will serve coffee items and other beverages in an open room which is planned to be equipped with a big screen TV and fireplace. Randomly situated throughout the residential area of Avery are two large and two small lounges, each with their own individual style. The lounges will contain a kitchen and a separate social area with couches. There will be a large courtyard in the center of the complex complete with trees, grass, and shrubbery.

With the completion of Avery, the Housing Office plans to address one of the biggest complaints of on-campus life: food. A new executive chef has been hired to oversee the menu items for both Avery and the seven undergraduate houses.

Emphasis will be placed on

# Statistics for 1996-97 Housing

#### Housing Rates

Housing Type	<u>Term Rate 1995-96</u>	Daily Rate 1996-97	Term Rate 1996-97
UG Houses	\$995.02	\$11.91	\$1,059.99
Avery Single	N/A	\$13.21	\$1,175.69
Avery Suite Single	N/A	\$13.86	\$1,233.54
Avery Double	N/A	\$12.50	\$1,112.50
Avery Triple	N/A	\$12.50	\$1,112.50
Off-Campus Alleys	\$995.02	\$11.91	\$1,059.99
Marks/Braun	\$1,016.38	\$12.22	\$1,087.58
Apartments	\$1,100.93	\$13.29	\$1,182.81

## Number of Toilets per Student

Dablicy	0.54
Ricketts	0.31
Fleming	0.25
Blacker	0.24
Lloyd	0.23
Avery	0.22
Page	0.20
Ruddock	0.19

### Number of Showers per Student

Ricketts	0.30
Blacker	0.25
Page	0.25
Dabney	0.24
Fleming	 0.24
Avery	0.22
Lloyd	0.15
Ruddock	0.13
* *	

making food service more like a restaurant: answering the individual desires of the students by creating individualized menu items. It is yet unclear how this will be implemented. Another idea currently in works is the use of cards which will be used to record meals. Although everyone living in Avery will be required to be on the board plan,

the cards will allow the food service to monitor consumption and streamline preparation to cut costs. The cards are planned to be implemented in the seven undergrad houses and future plans include a cash equivalency system so students can use their board dollars to buy, for example, pizzas from Dominos.

Overall, large emphasis is

Happy Birthday Autumn! (even if it's a day late!)

-Eds.

# Want to get a VCR for under \$100? RAM for \$15 per meg? Or maybe a whole year's supply of Ramen or Mountain Dew?

Then join the the Caltech Discount Club. We buy anything that you can imagine in bulk amounts, so you get the stuff cheap. Membership is free to all ASCIT members. All you do is read the weekly email postings and pick any product that might interest you.

To join and be put on the mailing list, just send a blank mail to kai@cco.caltech.edu with the title "Discount Club". And yes, this we are an officially sponsored club by ASCIT.

being placed on making the students happy with the meal program. Since the faculty living in Avery will be required to be on board, every attempt is being made to keep them satisfied

Avery Center seems to represent a Renaissance of sort for on campus life here at Caltech. Housing at the Institute has more or less remained the same since the 1960's when the north houses were built and Avery is a genuine attempt to breathe life into the social life on campus. All students are encouraged to take part in the informal tours being given next week to help decide whether or not Avery is the right housing choice for next year.



Avery's Almost Done!

# Women's Tennis Finishes SCIAC Season

#### BY LAURA VERHOFF

If you wanted to see the women's tennis team in action, it's a little too late. You missed the exciting SCIAC Conference Championships. The Lady Beavers started off playing against Redlands, the third-ranked team in the conference. Unfortunately, the women did not manage to pull off any wins. Sophomore Alexis Johnson played an outstanding match against their number one, Dina, a nationally ranked player, losing in two

Next, the Techers went on to play against Whittier. They had already beaten them twice during the regular season, so they were quite confident going in. Everyone played strong matches, win or lose, in a great team effort. The win put the team in place to tie for fifth place if they could finally beat Cal Lutheran.

> The Tech still needs Sports Writers and Photographers! E-mail editors@tech if you want to help!

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#### HOUSING WANTED-

**ONE-BEDROOM APT WANTED** Subjet from June 1-August 15. Must have kitchen with stove and refrigerator, air conditioning, and parking. Convenient street parking OK. gle bedroom in multi-bedroom apartment or house also OK. Reasonable/Student prices only. Contact (215) 545-3524 or via e-mail at: rkatzovi@dolphin.upenn.edu

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On Saturday came the match against Cal Lutheran. With wins from Johnson and junior Lena Petrovic, the Techers were down 2-4 after singles. Johnson teamed up with sophomore Irene Wong for a quick, powerful win at #2 doubles to bring the match score to 3-4. At #1 doubles, Petrovic

and senior captain Laura Verhoff struggled through the first set (losing 0-6) and then came back in quite a strong fashion to win the match in three sets. This set the match to 4-4, with only #3 doubles still playing. Freshman Amy Chang-Chien and sophomore Grace Yang played a nailbiting, three set match, but came up a little short. Overall, the team put out tremendous effort, but just couldn't pull out the win.

SCIACs ended with a tasty BBQ in Tournament Park. Johnson became the first Caltech player to earn All-Conference Honors in three years (yea!) The greatest moment of the awards ceremony was when Caltech was awarded the Sportsmanship Award.

Even if they didn't manage to place very high in SCIAC, the fact that they were honored by their peers for good sportsmanship is an outstanding accomplishment. Congrats to the whole team on a wonderful sea-

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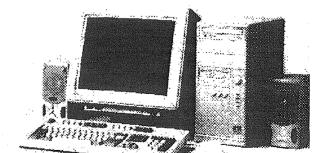
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#### **Announcements**

The SURF Office has a few industrial SURF opportunities still available! Please stop by the SURF Office at 137 Beckman Institute. The announcements are also included on our Web page at http:// www.cco.caltech.edu/~surf/ For further information, please contact us at x2885 or surf@starbase1. Deadline for applications is May

The Annual Career Development Center Student Surveys have been sent out to all graduating students. If you receive one, please fill it out and return it to the Career Development Center, Room 08, Parsons-Gates. If you are graduating and did not receive one, please pick one up at the Career Center.

IHC Appointed Committee signups will be up next week. Sign up and do something with your life!

#### **Events**

The Caltech Men's and Women's Glee Clubs and Caltech Chamber Orchestra present two performances of their Spring Concert featuring Johannes Brahms' Alto Rhapsody, Aaron Copland's Appalachian Spring, Camille Saint-Saens' Violin Concerto, and Randall Thompson's Place of the Blest, on Friday and Saturday, May 17th and 18th, at 8pm in the Dabney Lounge. Although the concert will be free and open to the public, seating is limited, and all are highly encouraged to come early.

Today, Friday, May 3rd, at 4pm Eric Davidson and Scott Fraser, both Professors of Cell Biology at Caltech, will give a spectacular Biology 0.1 seminar entitled "How do embryos develop and how does development evolve?" in the Baxter Lecture Hall. This lecture series is designed to provide an opportunity for non-biologist members of the

# Mints

denotes a new announcement.

Caltech/JPL community to increase their awareness and understanding of the biological revolution and its implications. The lectures are designed as an interconnected series which addresses the most central and fundamental problems in biology, both from the standpoint of what we know as well as what we do not yet understand. The lectures are presented by members of the Biology Division faculty as well as by guest outside speakers. All will be directed at a "lay" scientific audience. No prior knowledge of biology is necessary to understand them.

On Friday, May 10th, at 4pm, Ellen Rothberg, Professor of Immunology, Caltech, will give yet another Biology 0.1 Seminar entitled "How does the immune system work? What is AIDS?" in the Baxter Lecture Hall. All are invited

The 17th annual Bandorama featuring the Caltech Jazz Bands and the Calt4ech Concert Band directed by William Bing, will take place on Saturday, May 11th, at 8pm in the Backman Auditorium. The concert is free and open to the public, with works by John Philip Sousa and Sammy Nestico on the program.

Theatre Arts of the California Institute of Technology are proud to present Inherit the Wind, a play by Jerome Lawrence and Robert E. Lee, May 3rd, 4th, & 11th at 8pm, and May 5th & 12th at 2pm in the Dabney Lounge. General Admission is \$8, students \$5. Tickets are available at the Caltech Ticket office.

> From the Counseling Center

Looking for a safe and supportive place to discuss issues such as coming out, being out, dealing with family, coping with a homophobic culture, and being GLB at Caltech? Want somewhere just to make new friends? You are invited to the Gay/ Lesbian/Bisexual Support Group, which meets on the first and third Tuesdays of each month from 7:30pm till 10:00pm in the Health Center lounge. This is a confidential meeting and attending does not imply anything about a person's sexual orientation—only that he or she is willing to be supportive in this setting.. Refreshments are served. If you would like more information, please call x8331.

> Fellowships, Internships, and **Scholarships**

From the Fellowships Advising and Resources Office, extension 2150, or  $lauren\_stolper@starbase1.caltech.edu:$ 

The Lindbergh Foundation Grants Awards support innovative ideas at their early stage of development. The grants are open to citizens of all countries and support research and educational projects that address in some way the balance between technology and the environment. Ten grants in amounts of up to \$10,580 are awarded each year. Applications are available through the Fellowships Advising Office.

From the Deans' Office, 102 Parsons-Gates:

Teachers are needed for this summer's Academy by the Sea academic boarding program in the following areas of expertise: English, English as a Second Language, Computer Science, Math, French/Spanish, Science (Environmental/Oceanography), Social Sciences (World, U.S. History). The qualifications to work in the program are a Bachelor's degree in a related subject and previous experience with youths. All applicants must also be able to work from July 3rd through August 10th. The program is set up for the teachers to teach three morning classes, assist in two recreational activities, and live on-campus in Carlsbad, California. Teachers will also be asked to assist in supervising weekend excursions to Southern California attractions, as well as attend to periodic dorm supervision duties during some evenings and weekends. All participants will be provided with room and board as well as \$2,200. This is a terrific experience working with youth in a California seaside academic program. To apply, please send a resume and cover letter to the attention of: Ms. Eowyn Schutze, Academy by the Sea, P.O. Box 3000, Carlsbad, CA 92018-3000. For more information, please call (619) 434-7564 or Fax (619) 729-1574.

From the Financial Aid Office, 515 S. Wilson, second floor:

The San Joaquin Valley section of the Society of Petroleum Engineers will be awarding scholarships to qualified applicatns who are enrolled as full-time undergraduate or graduate students in engineering or energy related-disciplines nin 1996-97. For the last three years, SPE of the San Joaquin Valley has awarded 6-10 scholarships totaling \$6,000 each year. Preference will be given to those applicants demonstrating a sincere intent to enter the petroleum industry after graduation. Applicants should be resident or former residents of Fresno, Kern, King, or Tulare Counties or Cuyama or New Cuyama, California, or children or current members of the San Joaquin

Valley Section of SPE. Th e completed application and all supporting documents are due no later than May 10th, 1996.

The John Gyles Education Fund is offering financial assistance to students in Canada and the United States. Canadian or American citizenship and a minimum 2.7 GPA are required. Selected students will receive up to \$2,500. Deadlines for 1996 are April 15, June 15, and November 15 (postmark date). To receive an application, send a stamped (U.S. \$.32), self-addressed No. 10 envelope to: The John Gyles Education Fund, Attention: R. James Cougle, Administrator, P.O. Box 4808, 712 Riverside Dr., Fredericton, New Brunswick, Canada E3B 5G4.

The Jewish Family and Children's Services is pleased to announce the continued availability of financial support for Jewish individuals and their families. JFCS provides hundreds of students loans, grants, and scholarships to Jewish students. Individuals may apply for up to \$5,000. Special scholarships are available for study in Israel. To be eligible, students must have financial need, have at least a 3.0 GPA, and be residents of San Francisco, the Peninsula, Marin or Sonoma counties, or the Bay Area. There are no deadlines—applications are accepted throughout the year. The Financial Aid Office has applications.

The Nuclear Age Peace Foundation announces its Lena Chang Scholarship Awards for 1996-97. The Foundation will be awarding two \$2,500 scholarships to undergraduate minority students who can demonstrate financial need and academic excellence. Applications are available at the Financial Aid Office and are due to the Nuclear Age Peace Foundation no later than July 1, 1996.



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