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THE CALIFORNIA TECH

VOLUME C, NUMBER 5

PASADENA, CALIFORNIA

FRIDAY, OCTOBER 16, 1998

World-reknown Violinist performs this Saturday

CALTECH PRESS RELEASE

Violinist Xue-Wei will perform on Saturday, October 17, at 8 p.m. in Caltech's Beckman Auditorium. He will be accompanied by pianist John Sun.

The program will include Vitali's Chaconne: Mozart's Sonata for Violin and Piano, K. 454; Saint-Saens' Sonata Op. 75; and Jingping Zhang's A Celebration of Harvest.

In 1986 Xue-Wei won the Tchaikovsky Silver Medal in Moscow. Later, in London, he won first prize and all other available prizes, including the Sontata Prize, and the Orchestra and Audience Prize at the Carl Flesch International Violin Competition.

In 1989, at the age of 25, Xue-Wei became a professor at the Royal Music Academy, the youngest professor in the school's history. Xue-Wei plays a Stradivarius violin made in 1699, which is commonly known as the "Kustendyke."

John Sun was born in China and began piano lessons at the age of five. Upon graduating from the Shanghai Music Conservatory, Mr. Sun joined the Henan Orchestra Society, and later, the Peking Central Philharmonic Symphony Orchestra. In 1980, he moved to the United States. Currently he works as a music consultant at the Central Visual and Performing Arts High School in St. Louis.

This concert is presented by the Caltech Chinese Association; Tritech Associates, Inc.; and Nepo, Inc.

Tickets to this performance are priced at \$20.00, \$15.00, and \$10.00; tickets can be purchased at the Caltech ticket Office on 332 S. Michigan Avenue, Pasadena, and are also available at all Ticketmaster Ticket Centers.

Beckman Auditorium is located on Michigan Avenue south of Del Mar Boulevard in Pasadena. Call toll-free (888) 222-5832 or (626) 395-4652 for information.

Individuals with a disability should call (626) 395-4688 (voice) or (626) 395-3700 (TDD) for information and assistance.

Call Ticketmaster at 213-365-3500.

Apollo to be unveiled in February

BY SHANNON STEWMAN

After disappearing into obscurity early last decade, Caltech's Apollo Belvedere statue, a white Carrara marble replica of the famous statue in the Vatican, is being restored for display in the entrance of Braun Gym.

The statue, formerly on prominent display in Throop Hall, was moved to the Dabney gardens in 1973 to avoid demolition when Throop suffered structural damage in an earthquake. After suffering at the hands of students for seven years, the

Physical Plant tried to find a permanent home for it; failing in this, the statue disappeared into memory.

The restoration project started five years ago when Tom Lehman of Caltech Public Events mentioned to Professor Robert Rosenstone that the Apollo Belvedere was being held in a Caltech warehouse about to be cleaned, and might be disposed of.

Dr. Rosenstone, Chairman of the Institute Art Committee, worked for the last few years on finding a

Institute Art Committee and home for the statue. The search proved, as in the early eighties, to be problematic and the statue stayed in storage until last school year, when Griswald Conservation Associates was contracted for the restora-

> The restoration, according to Dr. Rosenstone, is scheduled for completion later this month, and the dedication ceremony will be held sometime in February. Before it left campus, the statue was stained, paint had been splashed on it, and its

> > PLEASE SEE APOLLO ON PAGE 4



apollo circa 1937

SURF season ends with annual presentation

BY JUSTIN HO AND CAROL CASEY

Undergraduates, graduate students, and faculty alike are invited to the culminating event of the 1998 SURF season this Saturday, October 17.

The student presentations, starting at 10 am and concluding at 4 pm, represent a broad range of summer research projects undertaken.

In these 6 hours, just under 200 students will present research sponsored by the SURF office, which started in 1979 with a small handful of stu-

The presentation times and locations are available at http:// www.cco.caltech.edu/~surf, while an anthology of research abstracts and information for next summer's SURF will be available at the registration desk on the San Pasqual Mall.

At the conclusion of the student presentations, Lee Smolin, professor of physics at Pennsylvania State University, will give a lecture entitled "Why is the Universe Hospitable to Life?" in Ramo Auditorium starting at 4:15 pm.

A reception and poster session will be held on San Pasqual Mall at 5:30. Further questions can be directed to Student-Faculty Programs (SFP) at x2885 or sfp@cco.

innett dedicated

BY ERIK DILL

After being open for several weeks, the newly refurbished Winnett Center was formally presented to the Caltech community on Monday, October 12th. The celebration included book signings, refreshments, and lunch time speeches by Director of Campus and Auxilliary Services, Tom Mannion, President Baltimore, and Vice-Provost Koonin.

The Winnett remodeling project completes improvements to the San Pasqual St. area which were begun two years ago. Development began with removal of the cul-du-sac in front of Chandler Dining Hall and landscaping of the area by Physical Plant. Then an extensive outdoor seating area was added to Chandler. Finally, beginning second term last year, renovations to Winnett itself were undertaken.

In his remarks, Mannion praised the efforts of many, including the Administration, Faculty, Students, and the staff who works in Winnett, for the success

of the project. Several commit-

tees contributed to the ultimate design of the building, and groups like the Caltech Y and Radio club, who were displaced by construction, were supportive of the effort.

Dr. Baltimore noted that the christening of a new bookstore was an event of almost sacred proportions. Reacting to the transfiguration of the formerly cramped atmosphere, he quoted a book review from Science Magazine: "[It] conjures up that book shop feeling - the exhaustion and pleasure after having spent the best part of an afternoon squatting on the floor, absorbed in the book in front of you." Baltimore also thanked Tom Mannion as the catalyst and driving force behind the project, stating that his efforts set a desireable precedent for continuing to improve the appearance and functionality of the campus infrastruc-

A blast from the Fleming cannon marked the end of the ceremony and the appearance of food from Caltech Catering as Techers celebrated a valued and much anticipated addition to the campus.



President Baltimore attending the Grand Opening of the Caltech Bookstore.

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The Aero Association of Caltech (a.k.a. The Caltech/JPL Flying Club) is dedicated to the promotion of interest in general aviation in the Caltech community. If you would like to join, contact Peter Gluck at 818-354-9425 or email Peter.R.Gluck @jpl.nasa.gov.

Amnesty International is attending a regional conference in Portland this weekend. They are focusing on launching the USA campaign. They would hold their monthly meeting on Thursday October 22, from 7:30 to 9:00 p.m. in the Caltech Graduate Student Council office, 1052 E. Del Mar Blvd on the top floor. For more information, contact Larry Romans ljr@ljr.net.

The Caltech Orienteering Club is attending a Class B meet at Mount Palomar this weekend. They will be attending a "Run in the Redwoods" Class A meet the weekend of November 14-15, which will include all standard courses for USOF Classes. There will also be recreational and beginner's courses. For more information, contact eisner@gps.

The Caltech Premed Club will be hosting an A3M Bone Marrow Drive October 21st in Winnett Center. They plan to meet with Alumni in medicine later this year. For more information, contact the officers at premed@its.

The Caltech Psychics' Network will hold a conference call on UFO sightings. Tune in at 10:20.

The Quiz Bowl Team meets weekly on Thursdays at 7:30 in the SAC. They encourage all those interested in trying out, or just playing, to drop in.

For more information contact mason@robby.

The Caltech Swedish Club is hosting an outing to Berolina Bakery, a Swedish bakery in Glendale, Saturday October 24, 1998. To carpool, meet at the South East corner of the South Catalina parking lot (corner of Wilson and San Pasqual) at 3:00 p.m. For more information contact sverige@its.

Velo, the Caltech bicycling club is trying to organize a road trip to the Stanford races this weekend. Also, they are planning to attend the UCLA races the week after. There will be a benefit ride for the National Multiple Sclerosis Society on Sunday October 25 in Santa Monica, offering a variety of distances and terrains. If you are interested in any of these events, contact Daniel Giammar at giammar@its.

The Outside World

by Cheryl Forest

BELGRADE: An agreement was announced Thursday between U.S. special envoy Richard Holbrooke and Yugoslav President Milosevic that will avert the immediate threat of NATO attacks. Both President Milosevic and NATO (with heavy U.S. involvement) can claim victory. Part of the agreement does call for 2,000 international observers and NATO reconnasissasnce flights to monitor the promised withdrawal of troops.

JERUSALEM: Gunmen believed to be Palestinian militants shot and killed an Israeli and seriously wounded another this past Wednesday. The timing was unfortunate, as an Israeli-Palestinian summit meeting is going to be held in Washington on Friday. Prime Minister Benjamin Netanyahu was said that there was "no chance, at this stage, of signing an agreement."

Washington: The Federal Reserve cut two key interest rates by a quarter-point Thursday in an effort to protect the American economy from the growing global economic crisis. This cut comes on top of a September 29th cut of the funds rate. The response on Wall Street has been explosive; the Dow Jones closed after gaining 331 points, and bond prices have been rising as well. In other Washington news, the governmental budget for the coming fiscal year has been approved; both parties are claiming victory.

ATLANTA: By some odd twist of fate, the San Diego Padres managed to edge out the Atlanta Braves last Tuesday at the Ted in Atlanta, thus winning the National League title and securing a place in the World Series. The Padres will face off against the New York Yankees October 17 in New York.

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4. Source: Morningstar Principia Variable Annuities/Life 4/30/98.

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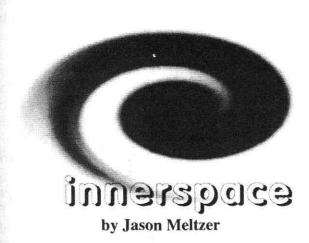
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Rotation, Part II

Life at Caltech has quickly returned to normal. The calm and quiet emptiness of the summer has been replaced with classes and problem sets and students. The frosh have arrived, Rotation is over, and they are all in their Houses, for better or for worse.

That reminds me, I was going to write about Rotation again this week, wasn't I? Now that I've been through the process, from both ends, I have plenty to say about it. But I'm not going to say everything. Not because I don't want to, and not because anyone is forcing me not to, but because it was understood upon participating in Rotation from the side of my House that certain things should not be discussed, and I will honor that understanding.

It doesn't matter anyway; they're all things that anyone who has gone through the process twice knows. They're kind of like death, or the senile old man in the family that was thrown into a nursing home so he won't scare the children: things we all know about but don't discuss. Things that are probably better left hiding in the dark corners of our minds, lest we bring them to light to scare ourselves.

PINIONS

If you haven't figured it out by now, I don't like Rotation. The first time around I found it useless and hypocritical; the second time I found it even more useless and hypocritical, as well as sickening. It's like some perverse sociological experiment, except that it has bearing on real lives. Okay, maybe I exaggerate; maybe. But I still think the process is a poor one, one that could stand significant improvement.

As I understand it, Rotation is designed to accomplish two major tasks: to allow incoming students to learn about each House and the House system, and to allow the Houses to learn about the incoming students. It's a getto-know-you process that ultimately should match new students to appropriate Houses.

How well it works is hard to gauge; I know of people who love their Houses, others who hate their Houses, and many who are content to live anywhere (including Avery). In contrast, I don't know of anyone who actually likes Rotation. Obviously there is something wrong.

As I see it, there are a number of problems with Rotation. Primarily, the get-to-know-you part doesn't work very well. The Houses do not always come across realistically, and it is hard to determine the personality of an individual from a quick meeting and a student interest sheet.

It takes up a lot of time on the part of active frosh and upperclassmen. The Rotation receptions are usually boring and repetitive. The same questions get asked over and over: "why do you like this house?"... with the same answers: "I like it because"

After a while you just want to scream, "I hate my House, I hate being asked these stupid questions, I hate Rotation, and I hate you, too!" Okay, maybe I exaggerate again, but there must be a better way.

I have thought about it, and sought the input of others, and have come up with a few possible alternatives to the process we call Rotation:

Auction style: This was suggested by a friend. Right off the boat from Catalina, the frosh are divided between the Houses via an auction. Each House gets some amout of "money" to bid with, which can be proportioned to House size. Each frosh is brought up for auction one by one, as the IHC Chair reads his or her Student Interest Sheet and medical record, displays the health of the frosh's teeth and gums, and may even allow the frosh to give a statement. The highest bidding House wins. This would certainly cut down on the time Rotation takes up (it would proabably only take a few hours), though it doesn't really fix the problem of frosh learning about the Houses. I guess it's a trade-off. (I apologize in advance to anyone who might take offense to this; it's meant to be satirical).

Psych Experiment style: Rather than the Houses trying to learn about the Frosh by meeting them all briefly, a better measure of their personalities would be how they interact with each other. Instead of attending receptions, the Frosh would be placed in a room together with various distractions: books, magazines, television, computers, and anything else you may think of. They would stay in the room for a few hours and would be video taped. House members would then review the tapes and pick out the Frosh they like best, based upon how they acted in the room. Frosh will go through this multiple times, with different groups of students each time, to get a better statistical sample. This plan would also greatly decrease the time Rotation requires, and would give Houses a good idea of what the Frosh are like, but again it doesn't help the Frosh. They don't really need to know anything about the Houses anyway, right?

The Really Long Version: I've heard people suggest that the problem with Rotation is that it's too short. People don't have time to get to know each other in such a brief period. So how about we make Rotation a month long? Maybe an entire term? The Frosh can move from House to House, eating and living in at each for a week. That way, the Houses would have more than enough time to get to know the Frosh, and the Frosh could get a pretty good idea of what each House is like. It seems like this idea may work, but there are things like constant moving of classes would get in the way. Plus we'd have to live under Rotation rules for an entire

Obviously most of these suggestions are meant as jokes. Unfortunately, there seems to be no good alternatives to Rotation. It's long and tiring and nobody likes it, but it works well enough and has no good replacement. I guess we're stuck with it. At least we have an entire year before we have to deal with it again.



But when it came time to dance, Dustin didn't want to move at all. All he would do is go over to Sophia and pinchi her butt!



Cynthia's World

I wanted to send the videotape to America's Funniest, but I think my aunt burned it instead.

Opinions Apollo...

genatalia and some of its fingers were missing. Three of the fingers are in storage in the campus archives.

Rosenstone recommended Braun Gym as the new site for the statue because the athletic director at the time, Dan Bridges, expressed a lot of interest in it, and to increase the life of the statue. Marble decays into "cottage cheese" when exposed to a combination of air polution, smog, and direct sun. Finding a safe home for the restored statue was a paramount

concern.

When asked if there were other works of art that might also be stored in warehouses, Dr. Rosenstone answered "I hope we have none," and went on to express concern about such artwork disappearing.

The Institute Art Committee catalogued the Institute's pieces of art, several tens of thousands, in the early eighties, during Rosenstone's first chairmanship and found between forty and fifty paintings and etchings stored in a basement locations on campus. Some were distributed around campus, and those

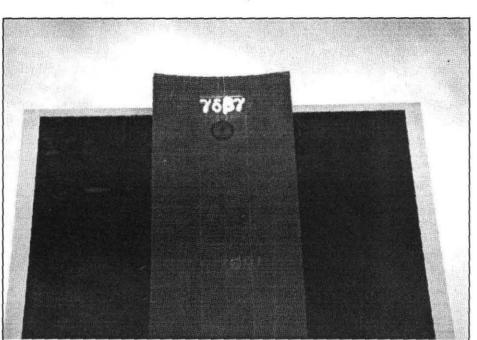
that were deteorating and unwanted were sold. This, hopes Rosenstone, is the last of Caltech's buried treasures.

About the Apollo Belvedere, Rosenstone remarked that "it was a real landmark at Caltech," and that the statue was missed by many alumni of its period.

He also expressed concern over the state of arts at Caltech. "We have no good [general] way of caring for artwork. I wish we did." When asekd about a possible solution to the problem, he suggested "it's almost like what we need is someone on the staff to oversee art."



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On Wednesday, the freshman of "The Church and Hovse of Blacker, the two being one and inseparable" appropriated the Lloyd House gong. After hanging it from the ceiling of Blacker dining hall for their dinner, they decided to place it where everyone could see it, hanging from the roof of Millikan Library. Pictured is the gong, along with a note from the industrious freshman in red Christmas lights, circa 4:00 a.m. Thursday morning.



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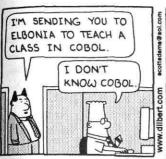
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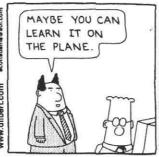
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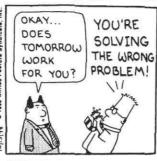
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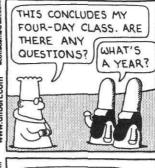


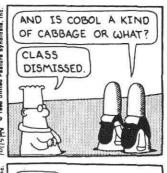
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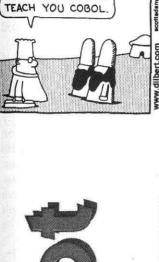




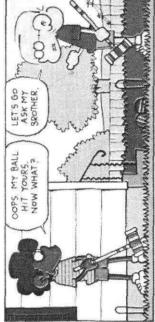


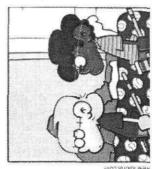




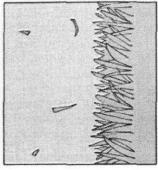


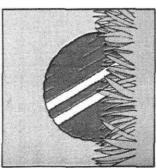


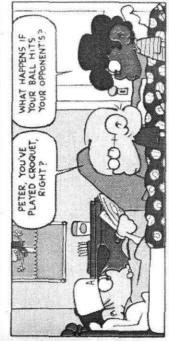














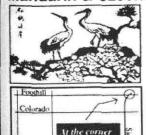
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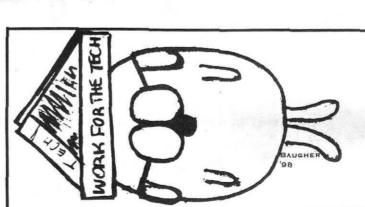
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At lunch the other day I read a scrap of newspaper left behind by a previous eater. Besides the usual bad news from Kosovo, the not so discouraging news from the middle East, and the echoing repercussions of Monicagate, I found an item on fall colors in New England. Well, that would be right, Columbus day was Monday the 12th.

A holiday in New England is ideal for leaf watching. Once, I was transported to Lonesome Lake in Franconia Notch, NH, with Mount Lafayette underlined by the vivid colors of birches and maples in full fall regalia reflected on the pond's black and smooth surface. There were very few visitors at the Lake. An hour or so of slogging up a steep hill and shuffling through damp leaves was not strenuous enough a climb for most, and too much for just casual strollers, . Sometimes I would swim, breaking through the thin crust of ice edging the lake and fracturing the peaceful image of the reflected mountains.

According to the paper this year's fall color show is a fizzle because of El Nino, of course. Here at Caltech the turning of maples is a few weeks away still, but the brazilian silk floss trees are in the pink. The most beautiful colors, however, come

Dean's Corner

Supercallifragilistic Uberimafidantic Red Flash!

by Jean-Paul Revel

an unusually dazzling red flash of intellectual brilliance, the annual SURF Fall Seminar.

There will be 208 presentations given by your friends and classmates, offered for your intellectual pleasure, enlightenment and amazement next Saturday October 17th; that means tomorrow, the day after today. Between the middle of June and the 3rd week in August, 293 students were working away, either here or elsewhere, many taking their first steps in full time research. All this was made possible by the SURF program so enthusiastically and aptly led by Carolyn Merkel and her coworkers. For the last twenty years the Summer Undergraduate Research Fellowships have provided summer jobs in the form of a well guided research experience to many of our students.

The participants also learn how to write up their work and to present it orally. Starting at 10 AM tomorrow, they are going to let us in on what they have discovered. I don't want to say anything that might bias you towards particular talks, but there are some titles that are irresistible to me.

The program can be found by making a query for SURF on the Caltech Homepage, and a hard copy will be available tomorrow on the San Pasqual Mall (the area between Chandler and the Red Door) starting

at 9 AM. The

talks I list below tickled my fancy, but not necessarily because of their scientific importance, which is hard to judge from just a title. I don't intend to ridicule the research either, or to give out "golden fleece awards", as one US Senator used to do, deriding research which he thought unnecessary. (As fate would have it, he was forced to retire afflicted with Alzheimer's disease, a topic which might well have caused him to rail, had he known, about fibrillar tangles in the brain.)

Maybe "Computer Modeling of Near Earth Asteroids" would have passed the senator's muster, considering the fears raised by recent news about the far from zero possibilty of impacts and the resulting movies. However the idea that "Vancouver (will be given) Back to Mexico!" would never have flown! Another question which would have caught the senator's critical eye was "When Should One Wake Up"?. In the morning of course, overlooking the fact that this is Caltech.

One student's topic was "Understanding the Horn Effect: Road Generated Exterior Noise From Tires." That study shows the hand of an Anglophone. Could it be that Rolls Royce is attempting to further quiet their cars, now that quartz movements have eliminated the noises from the dashboard chronometers?

Another report, "Programming and Interfacing Industrial Robots for Classroom Demonstration" may reflect an unfortunately very American problem. Are things going so badly in schools that the only "teachers" who can survive are industrial strength robots? But maybe I misunderstand.

One topic I understand all too well and that I want all of you to avoid outside of the properly equipped laboratory is one on "Ultrafast Energy Transfer in High Explosives". Please, no home brewed experiments. Instead, go see the Prof. who was in charge or else work on "Combinatorial Markets-None Brute Force Approach Under AUSM" which sounds less violent, perhaps, and misspelled too?

Maybe I should wait to first find out what AUSM is. It could be "All Undergrad involved in SM" Hmmm. I searched the net for clues and came up, I kid you not, with "Asset Utilization and Service Management," "ATM UniService Module," "Advection Upstream Splitting Method", as indicated by someone at NASA with the handle "scratchy." In so far as collaboration policy is concerned "Collective Forage Selection by Social Insect Societies" might well be instructive.

There are many more examples of very deep inquiries but I have no room to go into all of them. I do want to mention the deep topic of "Energetics of Subsurface Exploration" and what may be a complementary piece "Tactile Visualization of Multi-Dimensional Scientific Imaging

Let your fingers do the digging in the vernacular. But, the most astounding topic to this layman is the work on "Calculation of Graviton Scattering Amplitudes in Eleven-Dimensional M-Theory". Now Caltech students have trouble with the 4th dimension as I commented earlier. I just can't conceive of worrying about the eleventh. So come all to see for yourselves what these and the other SURFers have been up to.

For some, SURF is not just an opportunity to work but also a chance to travel away from here. Most Surfers stayed on Campus or as close as JPL or UC Irvine but some went further, travelling to the National Institutes of Health in Washington, DC, the Swiss Federal Institute of Technology, Texas, the Sierras, Cambridge, Oxford and Edinburgh too, Georgia's Institute of Technology, Berkeley, the Chinese University of Hong Kong (how were the dimsum?), Fudan U., the Academy of Sciences of the Czech Republic and Bilkent University (I had to look it up I am ashamed to say; it is in An-

Competing and winning one of the available fellowships is a significant honor as well as an opportunity. Important dates for the 1999 season will soon be posted on the web. Generally speaking however announcements of opportunity will be available in January, with Applications due in March and awards announced in April.

Prepare! Prepare! SURF is coming!

Consult the SURF homepage and come and enjoy any or all of this special day, along with the Plenary Lecture (in Ramo at 4:15pm) on "Why is the Universe Hospitable to Life?" which will focus on the interdisciplinary nature of science and engineering as it pertains to the search for extraterrestrial life. There will also be a reception and posters on San Pasqual Mall.

A bientot!

Jean Paul Revel

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Lady Beavers Conquer L.I.F.E. Bible

BY GERALD PALMROSE

On Tuesday at Braun Athletic Gym, the Lady Beavers broke out of a frustrating losing streak and defeated L.I.F.E. Bible 3 to 1 in their best of 5 games match. The game was witnessed by close to one hundred boisterous fans, an unusually large turnout for a weekday game, and was filled with momentum swings and fabulous plays that kept the fans excited for the entire match.

In the first game, Tech took commandig leads of 11-4 and 13-6 and then held off a strong rally to win 15-10. The first game showcased no single player, but rather was a good team effort. The Beavers played a suffocating defense, forcing Life to make numerous errors.

With energy high riding into the 2nd game, Tech bursted through the gate to take an unsurmountable 13-3 lead. They were powered by the masterful serving of Barbara Kraatz and Karen Lam, and for a time looked invincible.

Life then rallied for two points to close the gap. At 13-5, a Caltech pass off a hard serve sailed all the way up to the ceiling, hit some of overhangings, and luckily bounced in the correct direction so that Tech could make a play on the ball. The

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rally lasted over 20 hits with numerous desperate saves by both sides, ended by Jennifer Fong's hard slam that Life couldn't handle. Caltech went on to win the game 15-5.

With the crowd sensing a victory, Tech rode the wave as long as they could to take an early 8-4 lead. However, Life suddenly picked up their game and started to dominate on offense. With the Beavers tiring and the crowd aghast, Life went took the third game, 15-13.

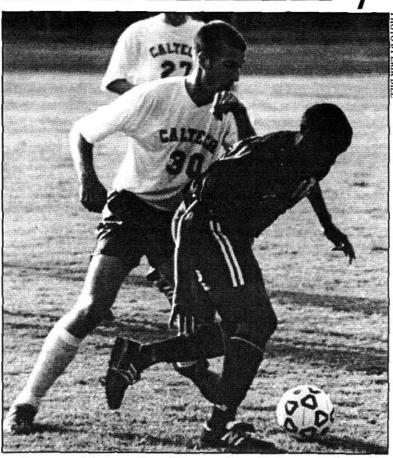
Life Bible continued its run into the 4th, energized by their close victory in the third, and took a 6-1 lead. But as she has done all year, Hanna Cai stepped up and served the Beavers back into the set, 6-6.

With the score at 8-10, it lasts - the season Dominika Rytwinska came up two weeks away!

huge with an off-balance precision shot cross court that dazzled all those in attendance. The shot was pivotal in rejuvenating Tech as they went on to complete an emotional 4th game, 15-13.

SPORTS

Said Kraatz, "If we can work together we can beat anyone." Hanna Cai was more expressive in saying, "It feels good to win." The victory was the second for the Beavers this season, and it precedes the Caltech Tournament which is scheduled for Saturday, October 17, from 8-5 P.M. One of the participants in that tournament is L.I.F.E. Bible, so going in, the Beavers have a real shot at taking the whole thing. I encourage all of you to make it to that tournament and enjoy volleyball while it lasts - the season finale is only



In a quasi-international game, the soccer team played Stevens Institute of Technology, from Hoboken NJ.

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Mints

Announcements

Lost and Found Items from Frosh Camp: (1) Swiss Army Knife (1) B.U.M. Equipment Pocket Watch (1) Navy Blue Hooded Sweatshirt (1) Black Nylon jacket (1) Burgundy pillow case with pillow (1) Blue and tan plaid quilted jacket. Please contact Suzette Cummings, Assistant to the Dean of Students, Caltech 102-31, Pasadena, CA 91125. 626-395-6351 or Fax 626-577-4215. Please note new email address: suzette@cultech.edu

Caltech Guitar Classes for the Fall quarter will meet on Tuesdays, starting October 6 in Room 1 of the Student Activities Center (SAC) as fol-

Beginning Guitar Class 4:30 - 5:30 PM Intermediate Guitar Class 3:00 - 4:00 PM Advanced Guitar Class 5:30 - 6:30 PM

Classes feature a classical technique which can be used in many forms of guitar. Classical, flamenco and lighter pieces are explored including a jazz/folk chord system in the Beginning Class. Classes are free to Caltech students and other members of the CIT Community (space permitting). Undergrads can receive 3 units of credit if desired. Private instruction can also be arranged. The instructor, Classical Guitarist Darryl Denning, has an international background in teaching, performing and recording. For further information email Denning at ddenning@caltech or telephone 323-465-0881.

GREEN CARD LOTTERY BEGINS IN OCTOBER The instructions for the 2000 Diversity Immigrant Visa Lottery have been announced. The dates for this lottery are October 1 through October 31, 1999. Nationals of China (mainland and Taiwan, except Hong Kong S.A.R.), India, the Philippines, South Korea, Vietnam, United Kingdom (except Northern Ireland) and its dependent territories, Poland, Colombia, Dominican Republic, El Salvador, Haiti, Jamaica, Mexico and Canada are not eligible for the program.

To pick up a copy of the procedures on how to apply for this Lottery, please stop by the International Students Programs office (Lloyd House, Olive Walk) if you are an international student, or the Faculty and Postdoctoral Scholars Office (Parsons-Gates 010) if you are an international postdoc, professor, researcher, or staff member.

Low-cost and free mammograms and Pap tests will be available at hundreds of approved facilities throughout October and November. These facilities are listed in the free Breast and Cervical Cancer Health Services Directory. An English/Spanish directory is available by calling 1-800-706-3131 or visiting an American Cancer Society Office.

The Los Angeles Philharmonic is offering \$10.00 student rush tickets for the 1998/99 winter season. Current full-time students may purchase one ticket per ID at the box office prior to the performance. For current program information or a free schedule, please call 313-850-2000.

The AIDS Service Center, located at 1030 S. Arroyo Parkway, Pasadena, gives free anonymous HIV testing every Monday evening from 6:00 pm to 8:00 p.m. Walk-in are welcome but appointments are preferred. Call 888-448-

Events

Goodwill Industries of Southern California **Book Sale and Preferred Merchandise Sale** will take place on Saturday, October 17th from 8:00 a.m. to 3:00 p.m. and October 18th from 10:00 a.m. to 3:00 p.m. at 342 San Fernando Rd in Lincoln Heights. The event will feature over 40,000 books, in addition to the hundreds of household items that already are sold at the address

Pulitzer Prizewinner Jules Feiffer will be lecturing Wednesday October 28th at 7:30 p.m. at the Skirball Cultural Center as part of the "Cartoon Art' Lecture series. For tickets call 213-

"Corporate Tyranny: A Call to Action," sponsored by Mobilization for the Human Family will occur Saturday, October 17 from 9:00 am to 12:30 pm at the Immanuel Presbyterian Church, 3300 Wilshire Blvd. Registration starts at 8:30 am. There is no fee and child care is available. For more information, call the Mobilization Office at 909-625-8722.

The Pasadena Community Orchestra will be presenting their October Concert, October 30th, 1998 at 8:15 p.m. at the First Church of the Nazarene, 3700 East Sierra Madre Blvd. Admission is free. For more information, call 626-

The next Watson Lecture Series presentation will feature Kenneth H. Nealson, Senior Research Scientist, Jet Propulsion Laboratory, in a talk entitled "The Search for Extraterrestrial Life: Lessons from Earth." The lecture will take place on October 21st at 8:00 p.m. at Beckman Auditorium. The lecture is free and seating is based on a first-come, first-served

The World Acappellafest will be held Saturday October 17, 1998 at the John Anson Ford Amphitheatre in Hollywood. There will be an afternoon concert at 3:00 pm and an evening concert at 7:30 pm. For information and tickets, call 877-222-7352.

The San Gabriel Valley Chapter of the Red Cross is holding their first annual Haunted Mansion event Halloween weekend; October 29th from 6:00 p.m. to 9:00 p.m, October 30th from 6:00 p.m.-10:00 p.m. and October 31st from 5:00 p.m. to 10:00 p.m. It will be held at the Red Cross Headquarters, 430 Madeline Drive in Pasadena (corner of Orange Grove Boulevard & Madeline Drive).

Fellowships and **Scholarships**

NSEP Scholarships for 1999-2000 Applications for National Security Education

Program (NSEP) undergraduate scholarships are currently available for study abroad in summer 1999, fall 1999, and spring 2000. Scholarships are available to U.S. citizens enrolled at two- and four-year institutions who wish to study abroad in critical world areas in Africa, Asia, Eastern and Central Europe, Latin and South America, and the Middle East. Scholarships are not available for study in Western Europe, Canada, Australia, and New Zealand. Sophomores and Juniors majoring in science and engineering may apply to study for a summer. This summer, Walt Ogburn'99 studied Russian language in culture in St. Petersburg under an NSEP Fellowship. During the summer of 1998, Jeanne Wilson '98, who is now on a Watson Fellowship, studied Turkish lanuage and culture in Istanbul

The maximum scholarship is \$8,000 per semester and \$16,000 per academic year. The campus application deadline for the 1999-2000 academic year is January 25, 1999. Turn all materials into the Fellowships Advising Office, Room 25 of the SAC. All applicants must undergo and endorsement interview with Lauren Stolper, Director of Fellowships Advising Applications will be available in Fellowships Advising by mid-October. Additional information on preferred geographic regions, languages, and fields of study and application procedures can be found at http://www.iie.org/ nsep (FAR)

Watson. There will be an information meeting on the Watson at which the current director of the program, Noreen Tuross, will speak. We encourage seniors and juniors to attend this eeting. Note that only year. However, we cannot guarantee that the director will be on campus to speak next fall, so take advantage of this opportunity to get information now if you are a junior, Friday, October 2nd, 1998 at 12 noon in the Winnett Club Room. We will be serving a nice buffet lun-

fellowships@cco.caltech.edu by October 28. Give us your name, your board contract number if you are on board, and state if you are a junior or senior. If you have special food needs (we will have a vege item) please call Karen Johnson at ext. 2150. Note that the Watson deadline is Monday, October 12 at 12 noon. You can read essays of former winners in the Fellowships Advising Office. Contact our office if you have questions. (FAR)

NSF. Applications for the NSF are available in Fellowships Advising or on the Web at http:/ /www.fastlane.nsf.gov. Click on the GRFP icon. The application submission deadline is November 5. U.S. citizenship or permanent residency required. (FAR)

Hertz Fellowship. Applications for the Hertz are only available on the Web at http:// www.hertzfndn.org. The application submission deadline is October 23. Applicants must have a 3.75 GPA and U.S. citizenship or permanent residency is required. (FAR)

Attention Senior Women and Minority Seniors. All female and minority seniors seeking to pursue doctoral degrees in either astronomy, chemistry, computer science, geology, materials science, math, or physics and related fields should apply for the National Physical Sciences Consortium Graduate Fellowships in the Physical Sciences. Applications are available at http://www.npsc.org. The application deadline is November 5. Applicants must be U.S. citizens with a minimum 3.0 GPA. (FAR)

The Southern California Chapter of Women in Cable & Telecommunications is offering a \$1,000 Jeanne Cardinal Grant to one female junior or senior student residing in Southern California. Applicants must plan to pursue a career in the telecommunications field, have a 3.0 or higher GPA, and be active in at least one school approved campus organization or in community service. Applications are available in the Financial Aid Office. Applications are to be completed and sent to: The Southern California Chapter of Women in Cable & Telecommunications, c/o Pamela Drake, Avenue TV Cable Service, Inc., PO Box 1458, Ventura, California, 93002. The deadline is December

The Northrop Grumman Corporation is offering a \$3,000 scholarship to an undergraduate who has a career interest in the Aerospace/ Defense Industry. Applicants must be U.S. Citizens, full-time students in 1998-99, and must have a 3.0 or higher GPA. Applicants must also be majoring in one of the following fields: Electrical Engineering, Mechanical Engineering, Aerospace Engineering, Computer Science/ Engineering, or Manufacturing Engineering. To apply, submit a resume and academic transcript to the Financial Aid Office. The deadline is October 16, 1998.

The Elie Wiesel Foundation for Humanity sponsors an annual essay contest for full-time undergraduate juniors and seniors in colleges and universities throughout the United States. Essays must be submitted on behalf of a student by a college or university administrator, faculty advisor, or faculty member, and be accompanied by a completed entry form. No more than three (3) essays may be submitted from the same college, university, or campus in any one contest year. To obtain an entry form and further information, send a self-addressed, stamped envelope to: The Elie Wiesel Prize in Ethics, The Elie Wiesel Foundation for Humanity, 450 Lexington Avenue, Suite #1920, New York, NY 10017. No FAX submissions will be accepted. Entries must be postmarked by January 22, 1999, or be delivered to the Foundation office by 5:00 p.m., January 22, 1999.

Chela Financial is pleased to offer 150 scholarships of \$1,000 each to help students reduce their loan indebtedness for the 1998-99 academic year. Three students will be nominated from Caltech. Applicants must have a minimum \$2,625 outstanding loan balance, be enrolled at least half-time, must demonstrate financial need, and have a 3.0 or above GPA as of October 1, 1998. To apply, submit a current academic transcript, current resume, and personal statement to the Financial Aid Office. The deadline is October 30, 1998

The Caltech Financial Aid Office is proud to introduce a new link on our website called the Financial Aid News. This site is designed to provide students with updated information about scholarship opportunities at Caltech, Our office will post these scholarship opportunities on a weekly basis. You can view the web site at www.finaid.caltech.edu/news.html.

For information on the listed fellowships, as. sistance with essays, for clarification of ques-

FAR - The Fellowships Advising and Resources

For information, please contact lauren_stopler@starbase1.caltech.edu. To make an appointment, call x2150

UFA - The Undergraduate Financial Aid Of.

For information, call x6280, or stop by 515 S. Wilson for an appointment.

To submit an event for the Mints, contact mints@tech.caltech.edu or Mail Code 040-058 by noon on the Monday prior to its inclusion. Submissions must be brief and concise. Please do not send Mints in difficult formats like binhex or word document, .rtf and ASCII are best. The editors reserve the right to edit and abridge all

Science's Next Wave is a valuable resource tool for the Caltech community.

While it is designed for graduate students, undergraduates will find valuable information—such as, is graduate school right for me? Science's Next Wave is a website billed as "Resources for the Next Generation of Scientists." It provides information on such topics as: Job Market News (one notable article was entitled "Costs Associated with Hackers' Effects on Academic Computing"), Career Transitions (interested in writing? Check out the article on "Biology to Medical Writing"), Career and Job Hunting Advice (find out how to re-write your resume in "A Resume Makeover") Family Career Issues (what if there are two PhD's in the family?-see "Dual Career Couples Resources"), Women in Science, and Science's Big Debates (What is your stand on 'PhD Birth Control?'

See the article "NRC Report Advocates Blr.D. Birth Control"). In addition to these topics, the Next Wave has forums in which students can disguss Careers in Science, Research Dilemmas, Job Search Support, Post Doc Issues, The Academic Life, The Corporate Life, as well as a Graduate Student Support Group. As the site is funded by institutional subscriptions, the Caltech Provost's Office has generously provided funds for a two-year site license, and the Career Development Center is the site administrator.

So what are you waiting for? Cruise on over to: http://www.nextwave.org/

If you have any questions or suggestions for some other helpful sites, e-mail us at: career@caltech.edu or stop by the Career Development Center at Parsons-Gates Room 8. Drop-in appointments are available Mondays 11:00am - 12 noon and Tuesdays thru Fridays 2:30 - 3:30pm.

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