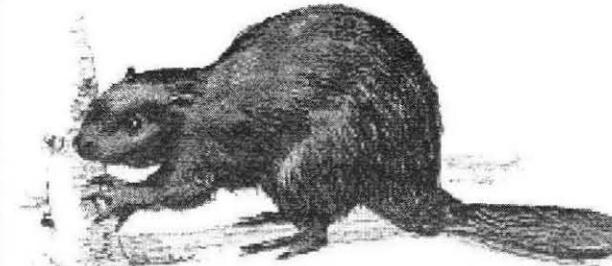




Richard III
a TACIT production of a
Shakespeare classic
see page 3



Gluttony
Greed
Sloth
Envy
Wrath
seven
Pride
Lust
ascit movie
baxter lecture hall
7:30pm, 10pm tonight

THE CALIFORNIA TECH

VOLUME C, NUMBER 18

PASADENA, CALIFORNIA

FRIDAY, FEBRUARY 19, 1999

DINNER BRINGS IN THE SURF

BY ERIK DILL

On Thursday, February 11th, the Student-Faculty Programs office hosted a dinner in the Athenaeum kicking off the 1999 season for the Summer Undergraduate Research Fund and related programs. Members of the SURF Board, previous participating students and faculty, donors and supporters were in attendance to celebrate the occasion.

Since 1985, when Dr. Ernest Swift was so honored, the yearly SURF has been dedicated to an individual exemplifying commitment to undergraduate research. This year's program was dedicated to Dr. Ward Whaling, emeritus professor of physics. Dr. Whaling has been involved with undergraduate research for the past fifty years. Papers published by his group list seventeen undergraduate co-authors, including eight SURF students. Furthermore, he has remained active in SURF as a stalwart advocate for undergraduates in research.

Dr. Whaling was presented with a book depicting both the mathematics and visual beauty of waves. In a show of homage, Dr. Harry Gray rescinded one of his infamous quotes. While at Columbia University, as the tennis courts were being displaced by a physics building, Dr. Gray allegedly remarked that "A good set of tennis is worth at least six physicists." In his welcoming speech, he changed it to "A good set of tennis is worth at least six chemists," in honor of the SURF dedication to Dr. Whaling.

Other speakers for the evening included the winner of the 1998 Purpall Speaking Competition, Ming Chen. Chen talked about the added dimension which SURF brings to undergraduate education. The evening's keynote speaker was Cornelius J. Pings, a Caltech alumnus from 1951. Pings related his own research experience as an undergraduate, studying rare earth elements with Ernest Swift. "Ladies and gentlemen, the SURF is UP!" he concluded, ending the evening and beginning a new year of summer research. SURF proposals are due Monday, March 1st in the SURF office.

Business invades for Career Day

BY DAVID GUSKIN

Ever wish you could work on a laser that beams a live digital video signal from one building to another? Or develop newer, stronger toys for sale on the Web? How about that perfect job where they pay you for hard work, as opposed to the other way around?

Your prayers may have been answered. The annual Caltech Career Day, held Thursday the 18th on Bechtel Mall from 11am to 3pm, hosted a wide range of future Tech employers, from computer software development firms like Adobe Systems (inc.) to biomedical institutions such as the Salk Institute. Caltech students received a first-hand look at the nature of employed life after Tech.

"There's always new technology popping up because there's a need for it," commented Bob Drebin, a representative of the high-tech startup ArtX and Caltech alum of '91. Such advances in technology provide exciting opportunities for starving Tech students to claw their way out of the debt created from tuition costs. Companies like ArtX combine the newest technologies with creative applications, such as work

on the graphics chip for the N64 entertainment system.

Career Day is not all fun and games, however. Students seeking jobs carried many a resume with them for distribution amongst the hordes of wide-eyed recruiters. Although the primary purpose of these resumes was to solicit offers from the attending employers, hopeful students entered to win a variety of door prizes offered by Career Day companies. Forgetful students without resumes were out of luck. As Frosh Nate Austin cried, "So many companies, so many opportunities and no resume!"

However, there were plenty of opportunities to mingle and meet throughout the fair, even without resumes. Many Caltech alums manned the booths of prospective employers, and many of the booths hosted complimentary snackables. The ETOYS booth offered a drawing to win a Furby, and the Black Ops Entertainment area had a Sony Playstation available for boxing matches. The denizens of the tents appeared to be enjoying the occasion as much as their student visitors, as Caltech alum Steve Ginsburg remarked, "It's great to be back here at Caltech, seeing all my friends..."

The event, hosted by the Career Development Center (CDC), attracted many students, though some believed that last year's Career Day outperformed this year's in terms of sheer coolness. "There's not as much neat stuff as last year," said Junior Eric Hale. According to CDC representative Jonie Watanabe,

this year had a large company turnout, with nearly 85 employers in attendance.

Remember - a job will take the "starving" out of starving physicist.

For further information regarding Career Day, contact Jonie Watanabe or Diane Pounds at the CDC at x6361.



Students peruse the booths at Caltech's Career Day.

Poet Laureate to give reading

BY TECH STAFF

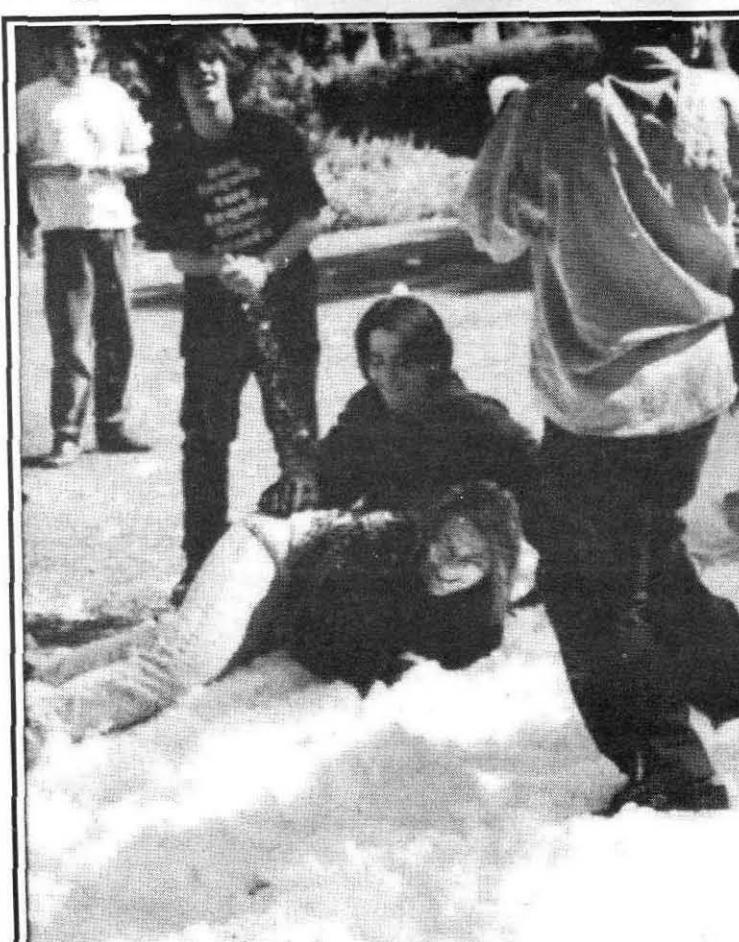
If the drudgery of Caltech life seems overwhelming, perhaps a little poetry will infuse it with a sense of spirit.

This sentiment forms the crux of Nobel Laureate Seamus Heaney's message that poetry performs the greatest of civilization's purposes - a constant reminder of our humanity. As an experienced writer and

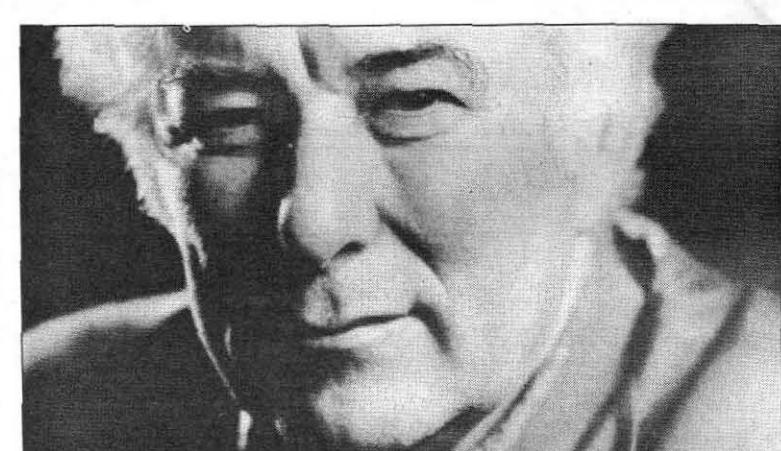
lecturer, Heaney will be giving a James Michelin lecture, "Opened Ground: A Reading with Commentary" in the Beckman Auditorium on Thursday, February 25th at 8 p.m.

Heaney is well-respected as both a writer and academician. He is a former chair of Oxford's department of poetry, and the current Ralph Waldo Emerson Poet in Residence at Harvard

PLEASE SEE SEAMUS HEANEY, PAGE 3



On Friday, Feb. 12th, Darbs commemorated the tragedy which befell the Inuit by relocating snow to the Ath lawn.



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LETTERS TO THE EDITOR

Honor Code raises high hopes for the future

While visiting my freshman daughter at Caltech last fall, I was thoroughly impressed with the freshman students and their strict adherence to the Caltech Honor Code. As a person who values honesty and integrity, I do not believe the code is unrealistic, nor do I worry that following ethical behavior will make your students "gullible prey in a dishonest world." On the contrary, I see Caltech students as examples for the rest of the world to emulate. That these students later constitute a substantial portion of the scientific community gives me hope for the future of humanity. Please continue to encourage those high ideals.

With admiration,
Janice Calkins

Heartfelt thanks in loving memory of Alex

We wish to thank the Caltech Community of students, faculty and staff for the outpouring of support and sympathy following the tragic loss of our beloved son and brother

DAVID ALEXANDER ROSEFIELD

Nov 14 1978 - Sept 20 1998

A special gratitude goes out to those who could travel to Chapel Hill to pay respects to the family and honor Alex's memory.

The Memorial Service at Caltech, Nov. 13th, was a great solace to us. We truly appreciated the opportunity to get to know his world. We could feel your own empathy and sense of loss.

Please keep in touch with us.

Professor Steven, Susan & Justine Rosefield
1409 Arboretum Dr.
Chapel Hill NC 27514

Send letters to: *Or:*
The California Tech *editors@tech.caltech.edu.*
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Richard the Third

BY JEFF SULLIVAN

Shakespeare's Richard III, directed by Shirley Marneus and put on by Theatre Arts at the California Institute of Technology, is now in the middle of its three week run at Ramo Auditorium. The show has been shortened from its original four hours for the benefit of the audience (and the actors) but nothing has been lost because of it. Richard III is performed in the original language and in period costume; no modern translations here.

The cast does a wonderful job with their limited numbers. It is hard to get the audience to believe in a battle involving thousands of soldiers with only a dozen actors, but they pulled it off.

James Gleeson does an excellent performance as Richard, Duke of Gloucester. To many of the characters, Richard seems a shady fellow - not to be trusted, but not completely evil. However, James leaves no doubt as to who the villain of the play really is.

I must also give credit to all the actors that play two, three, or even more characters, some-

SEAMUS HEANEY

CONTINUED FROM PAGE 1

University. Heaney has been an avid writer and advocate of poetry since the early 70s, up until and through his acceptance of the Nobel Prize in literature in 1995.

Heaney credits poetry for his ascent to international rec-

times in one scene. Pulling off all the rapid costume changes, exits from one side of the stage, and entrances on the other, and the mental changes from character to character is no easy feat.

One scene that deserves special attention is the battle between Richard and Richmond. The fight coordinator Joe Cook took a very supernatural take on the fight scene. The combination of the special effects and rigorous training of the actors results in a very exciting battle that will raise the hairs on the back of your neck.

I definitely recommend Richard III to everyone. It doesn't matter if you've seen it a hundred times or never before, every production has a different take, and every performance of every production is slightly different. And when you go, bring your friends, and your friends' friends. The actors enjoy playing before a full house much more than an empty one, and you'll get a better show out of it to boot.

As Steve Collins remarks, "You can't buy Shakespeare cheaper by the hour."

ognition, "...for making possible a fluid and restorative relationship between the mind's centre and its circumference." The reason he uses poetry in his life is simple - "I rhyme to see myself, to set the darkness echoing."

Culture Watch

by Cheryl Forest

Songs of War and Love - Caltech Men's and Women's Glee Clubs

February 19 and 20, 1999 at 8 PM Dabney Lounge

The Women's Glee Club will perform such works as *Heleluya* (a Muscogee Indian chant), *You Shall Have a Song* by Harriet Ziegenhals, Hine Ma Tov, and Songs of Survival. The last collection of pieces were arranged by two English women prisoners in a Japanese camp during WWII. This particular camp housed Dutch, English and Australian women and small children, all nationals of countries at war with Japan. Norah Chambers and Margaret Dryburgh thought of writing down instrumental works by Bach, Dvorek, Schubert and others and arranging them for women's voices to hum or sing on neutral vowels. A few singers began to rehearse the pieces as a surprise for the rest of the camp, and when they performed the arrangements for the others it gave them all hope and the will to survive.

Gloria Grace Prosper, Timothy Howard, and Nicholas Stoup will be the guest performers. The combined Glee Clubs under the direction of Donald Caldwell will be performing Benjamin Britten's cantata 'Rejoice in the Lamb' for chorus, SATB soli and organ. The work is one of Britten's most appealing and features a setting of 18th century English poet Christopher Smart's highly unusual text which extols the worship of God by all creatures, each in its own way

Tokyo String Quartet

Sunday, February 21, 1999 at 3:30 PM Beckman Auditorium

The group will play Haydn's String Quartet in E-flat major, Op. 64, No. 6; Bartok's String Quartet, No. 6; Beethoven's String Quartet in C Major, Op. 59, No. 3 "Razumovsky."

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Track and Field Highlights from Caltech Quadrangular 2/13/99

Men's 1500m	Ian Shapiro	4:13.5	(1st place)
Men's 4x800 relay	Arjun Mendiratta	4:26.1	(4th place)
Men's Discus	Adrian Seymour	4:26.8	(6th place)
Women's Javelin	Seymour/Shapiro/Zeisler/Mendiratta		(1st place)
Women's Discus	Aaron Kuzin	41.42m	(2nd place)
Women's 1500m	Amy Duollo	90' 2"	(3rd place)
Men's Javelin	Amy Duollo	82' 8"	(3rd place)
Men's Shot Put	Phyllis Chen	5:30.2	(3rd place)
Men's 400m dash	Steve Schell	141' 7"	(4th place)
	Aaron Kuzin	11.98m	(4th place)
	Dirk Englund	55.0	(5th place)
	Tom Daula	56.8	(6th place)
	Dave Guskin	57.0	(7th place)

Tennis season starts

BY GERALD PALMROSE

After nearly a month of practice, the men's tennis team has officially begun its 98-99 season—with mixed results.

On February 6, Claremont-Mudd-Scripps, ranked #15 nationally in Division III tennis, came to Caltech and handed the Beavers a 7-0 loss. The score was no indication of the competitiveness of the match, however: Caltech teams held their own against the more experienced CMS squad. Notably, the #3 doubles team of Kanwar Kahlon and Gerald Palmrose had two match points in their battle with CMS's #3, but were unable to finish the job, losing 9-8.

The following week, the men traveled to Cal Lutheran to play the team they beat at the SCIAC Championships last year, but lost 4-3 in a very even match. The day was highlighted by the stellar singles play of #3 Jason Wong, who powered his way to a 6-0, 6-2 win, and #4 Chris Leapley, who used an aggressive attack to win 6-1, 6-4.

The Beavers' next conference match will be against Redlands, a perennial national powerhouse ranked #4 in the nation this year. They will also play Occidental today and PCC Monday in two nonconference matches.



Lion dancers perform for the lunar new year, 4697.

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The Ticket Stub

by Justin Ho

"The Bad and The Ugly"

My Favorite Martian

Rated G for nothing but a horny space suit

* + 1/2

The classic TV mini-series, brought to the big screen by Disney, stars Christopher Lloyd as Martin the Martian (though I prefer Marvin) and Jeff Daniels as the other guy who takes him under his wing. Bad movies are usually endowed with the characters whose names you forget, and MFM is no different. I have to say that I was entertained, but in that immature, childish way which prevents MFM from being appealing to all ages. All the little kids in the theater seemed amused, and possibly their parents too, if they'd been brainwashed by a

plethora of kiddy movies. But *My Favorite Martian* is definitely no *Bug's Life* or *Mulan*.

To start out, Rover is on the surface of Mars exploring rocks, and lo and behold, the scientists at NASA are thrilled to have studied terra firma red-planeta. Just feet beyond where Rover dies, though, is a valley bustling with ET life. The guy played by Jeff Daniels is a loser (flash to the guy who gets his coat stuck in the car door, abandons the jacket and cue laughter from little kids) who writes the lines that news reporters recite in front of the TV camera on-location. He works with Elizabeth Hurley but lets his personal feelings intervene at one point which embarrasses her, gets him

fired, yada yada yada....tragedy. On the way back from covering a story, he haps on an alien crash landing, though he doesn't know by the presence of a toy space ship where there should have been some grounded space craft. The government, cue X-files fans, nevertheless is onto him.

Martin the Martian, allied with his space suit, Suit, has extraordinary powers like shrinkage and dissemblance. They are alive and well in the miniature space pod, but the ship itself is in dysfunction, and what's more, will blow up soon. Consequently, the 2-become-1 Martian has to use Daniels for a crash course in Humanity 101, escaping detection from humans while seeking parts to repair their combustible vehicle. Conflicts: 1) Hurley, speaking in a British accent which sounds so fake even though she is English, is the self-promoting IT girl who threatens to reveal the aliens' identities; 2) Martin and Suit are eventually captured by the men in black. FINAL VERDICT: entertaining but bad.

Simply Irresistible

Rated PG-13 for implied activity under cover of fog

* + 1/2 for the mechanical crustacean

Sarah Michelle Gellar's acting

ability is compromised for I don't know what. What could have possibly motivated her to hang up the wooden stakes and acclaim of Buffy-dom for wearing the same eyesore/fashion faux-pas tank tops and having a shiny face which screams worst makeup? Premise of the film: food is the road to people's hearts, which isn't so bad when the culinary delights are courtesy of a magical little crab. But the arthropod is the only charming element of the movie.

Amanda (Sarah Michelle Gellar) is a small, cozy-ambience restaurant owner with no luck with food. She is rescued from bankruptcy by an angel in the guise of a cab driver who gives her the omnipotent little crab, and magically her cooking reaches four star status. Ummm, too bad the movie doesn't. Along comes Tom (Sean Patrick Flannery), soon to open the first posh restaurant in a department store boutique (Henri Bendel), and a cutesy, unjustified relationship commences when he tries her crab napoleon. The movie actually pokes fun (oh, or was it not trying) at the absurdity which underlies the affair when he claims that she's a witch, using magic and charms to supernaturally woo him and keep him fixated on the ceiling. Why, then, does he end up with her? And, mentioning the ending isn't spoiling anything because it is

obvious to predict the happy couple's happy ending the minute they lay eyes on each other. Nothing dramatic or serious happens to portend an ending like *Up Close and Personal*.

Amanda is employed at the restaurant despite the professional hostility that separates her and Tom because she has the ability to inflict her emotions on anyone who tastes her food. She's chosen to host the opening of the chic restaurant when the grumpy French chef storms away by the managers who fawn over her aphrodisiac-induced pastries, having used it to motivate a not-so-pure rendezvous in the elevator. Peaches spew forth romantic clouds of vapor straight out of her own imagination; one recipe she serves leaves customers speechless, and another reduces them to tears. But gastroenterological attributes aside, where's the acting? It even seems like the writers put a bit too much emphasis on deciding what foods go in front of the camera. The actual dialogue becomes superfluous. The movie may as well have been a display of four-star restaurant polyethylene models, because the dialogue is so stunted that it doesn't move the movie in any direction. Final Verdict: *Simply Irresistible* could have substituted for a silent, schlapstick Charlie Chaplin flick if Ms. Buffy had worn a mustache.

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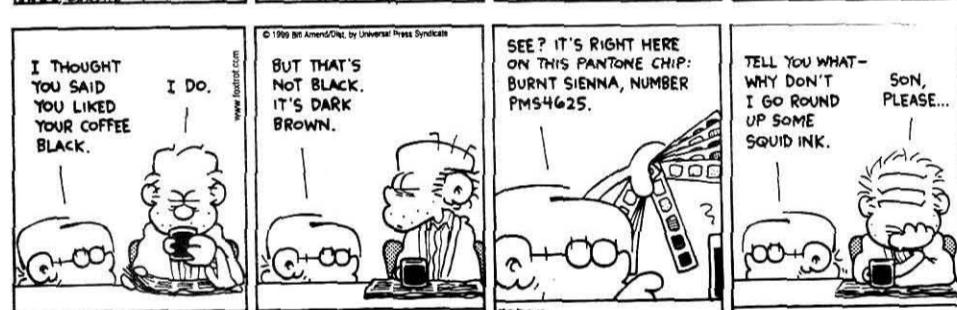
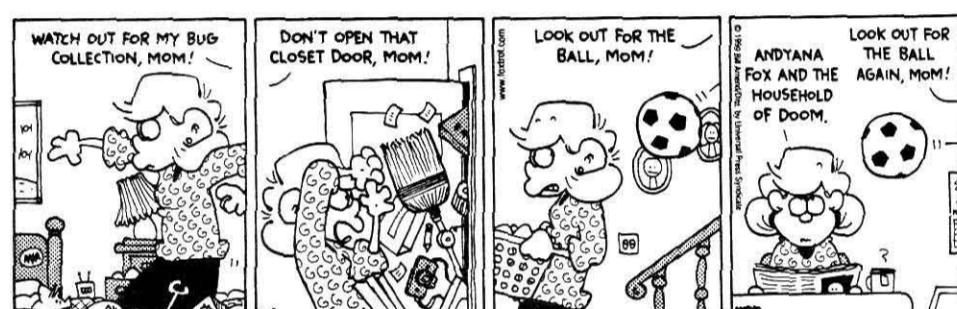
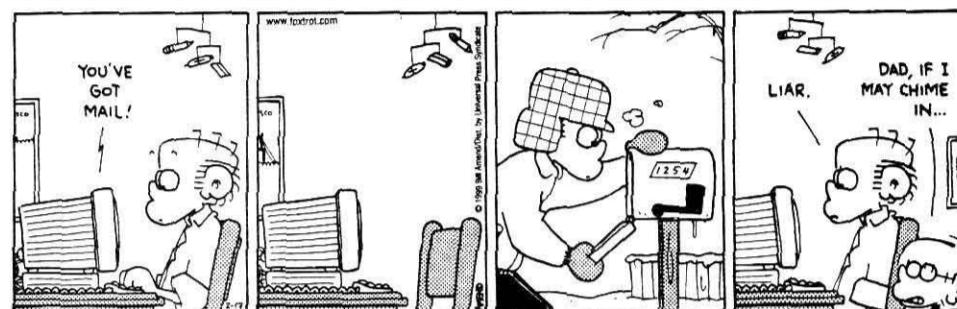
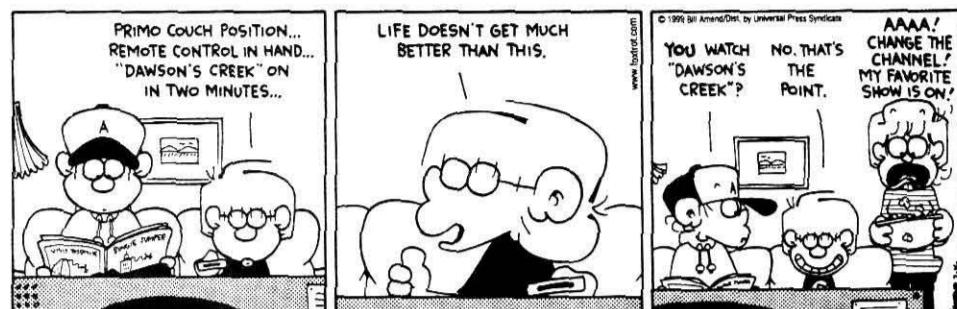
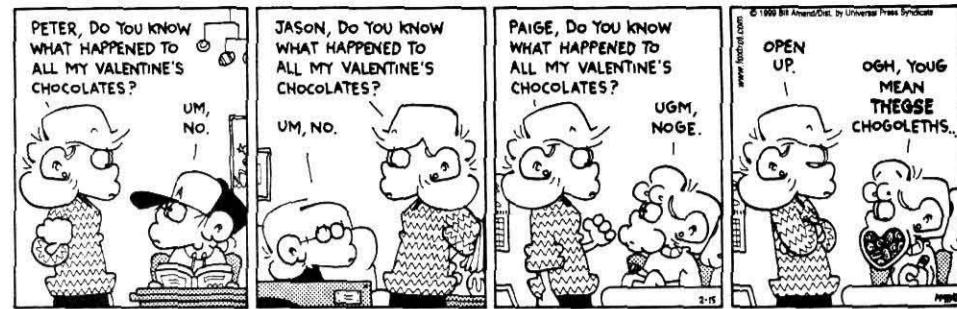
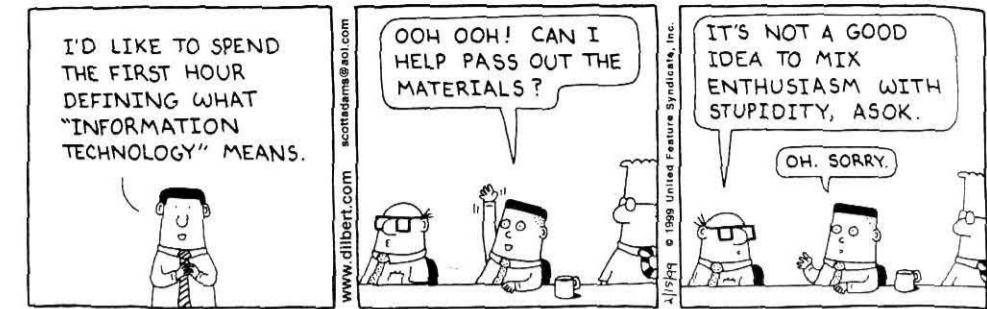
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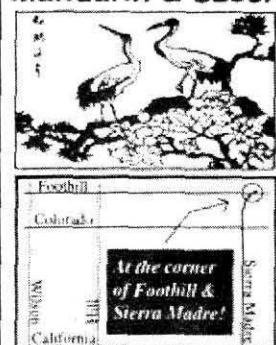
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Academy Award Nominee Little Voice Daily [11:30] 2:00 4:30 7:00 9:30
Academy Nominee: Best Foreign Film Carlos Saura's Tango Daily [1:20] 4:10 7:00 9:50
Still Crazy Daily [4:00] 10:00
Sep. Adm. The General Daily [1:00] 7:00

Dean's Corner

Copy right or copy wrong?

by Jean-Paul Revel

Establish a copyright system, a set of exclusive legal rights that authors generally have over their works for a period of years (see <http://fairuse.stanford.edu>, for example). Eventually the works enter the public domain i.e. can be used without restriction by one and all. How long they are protected depends on when they were created. Beginning in 1978, the copyright protection extends for 50 years after the death of the author. This is so whether or not the material bears a copyright notice (©), and whether or not they are registered with the (US) Copyright Office. Of course, things get difficult if the works are not registered, since the date of their creation may not be obvious. Still, works by Beethoven are likely in the public domain, but Dilbert cartoons or Chaka Kahn songs are not. To use copyrighted material one needs to apply for permission to copy, giving the copyright holder a chance to earn a living. This is true even for partial copies or derivative works, and for distributing and performing them

(showing a movie or playing an audio recording, as well as performing a dramatic work). The law also applies to software and databases.

It is obvious that problems can arise from too strict enforcement of the prescriptions. To allow access to material in special circumstances, for example for purposes of criticism, comment, news reporting, teaching, scholarship or research, the copyright laws include fair use provisions which allow for limited copying or distribution of published works without the author's permission. The guidelines for determining what is fair use are vague as they should be, since one cannot predict all circumstances. Thus copies used for teaching at a nonprofit institution, distributed by the teacher to his students without charge would likely be considered "fair use". However, any use that would diminish the potential market for, or the value of the copyrighted work may be an infringement of the copyright.

One specially touchy issue has been raised by the distribution of music and other materials on the Internet. Part of the problem arises because the tra-

dition on the Net, up to now, has been that it is free and there are many sites that do not require one to pay to use their services. It is possible to visit a Museum, and view digital reproductions of their holdings for free. However reproduction of such works are prohibited without permission from the copyright holder. I recently e-visited the site of the Bodleian Library in Oxford, England. Before being allowed to view material in their "Toyota City Imaging Project" I had to click my agreement with the copyright notice which was on the home page. Lo and behold one of the items I was then allowed to see was the pamphlet used at the memorial service of one CS Rolls, who died in 1910 at age 23, in an airplane accident. He was the dealer who had the exclusive rights to cars produced by engineer Sir Henry Royce (1863-1933), he of the motto "Quidvis recte factum quamvis humile praeclarum." Neat, huh?

The problem of having copyrighted material on the web has been exacerbated recently in the case of audio material. This was precipitated by the introduction of MP3 compression, which allows compact packaging and quick downloads of CD quality audio material. There has been a cottage industry of individuals who have placed songs on their sites, which are then accessed by thousands. One entrepreneur, a member of the group Phreemp3 suggested to a LA Times reporter

(PJ Huffstutter, 2/8/99) that in the span of a few days he may have 35,000 (that's right, thirty five thousand) fans copying music (most of it copyrighted by others) from his files. The same article reports that the second most frequent search word on the Net is MP3 (the most used search word is "sex"). No wonder that the music industry is concerned. There are those who feel that the Music industry will find a way to earn its billions, even while being bled by MP3 users. Perhaps. But the copyright law is being broken, and with it the possibility arises that other intellectual property will suffer the same fate.

It does not seem appropriate to condone breaking of the law because someone else's, not our property is being taken. Besides, an act of Congress, the "No Electronic Theft" law of 1997 calls for fines as high as \$250,000 and 3 years in prison for electronic piracy. Let's apply our Honor Code here, as in all other aspects of our lives. I urge you to avoid situations where copyrighted material can be pirated. Contact my office if you have questions or problems. I'll put you in touch with expert help.

A bientot,

Jean Paul Revel

PS: Rolls was a car dealer and Sir Royce an engineer. His motto translated means: Whatever is done right, however humble, is noble.

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Announcements

Mark your calendars! **Prefrosh Weekend 1999** is scheduled for Thursday, April 15th, through Sunday, April 18th. If you are interested in helping out with Prefrosh Weekend, please contact Dina Figueroa, Assistant Director of Admissions, at dina@admissions.caltech.edu.

It's time to SURF! Even though summer seems far off, now is the time to start thinking about SURFing this summer. If you're thinking about applying for a SURF, you should begin now to look for a mentor and ask for letters of recommendation. The SURF application deadline is Monday, March 1. Check out the SURF web site at www.its.caltech.edu/~surf/ to get information on the application process, look at announcements of opportunity from specific faculty members and JPL technical staff members, and download an application. For more information, contact the Student-Faculty Programs office at x2885 or sfp@its.

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? The Gay/Lesbian/Bisexual Discussion Group meets on the first and third Tuesday of each month from 8:15 P.M. until 10:15 P.M. in the Health Center lounge. This is a confidential meeting and does not imply anything about a person's sexual orientation -- only that s/he is willing to be supportive in this setting. The group usually discusses a particular relavent topic and then moves on to general discussion. Call x8331 for more information.

Free anonymous HIV testing is available every Monday evening using Orasure oral testing at the AIDS Service Center, 1030 S Arroyo Parkway. Appointments by calling 888-448-9242 are preferred; walk-ins are welcome. Last appointment at 8:00 pm. For more information call Craig Petinak at 626-441-8495.

****Dr. Drew Pinsky** will give a talk in Baxter Lecture Hall on **February 25** during lunch (12 P.M.). In case you haven't heard **Loveline** on the radio or seen it on MTV, Dr. Drew Pinsky is a Board Certified MD, specializing in internal medicine and addiction medicine. He will be talking about the biology of drugs and alcohol, and will answer questions on related topics. The event is limited to 150 people, and priority is given to Caltech students. Lunch will be provided. You can get advance tickets from Beverly Conant Sloane in SAC 38, or Marie Fox, or Ute Zimmermann.

Events

****Earthquake Preparedness Training** will be offered by the Pasadena Fire Department from 9:00 am to 12:00 pm in Baxter Lecture Hall on Tuesday, March 23. Learn what to do before, during, and after an earthquake. The session is limited to the first 100 people who sign up. For reservations call

Fellowships and Scholarships

The next film to screen in the **German Film Series for Winter 99 term is *Hitler Junge Salomon* (Hitler Boy Salomon) 1989. It will be shown in Baxter Lecture Hall on Wednesday evening, February 24 at 7:30 pm. There will be an introduction and discussion after the screening. Features English subtitles. Refreshments will follow. Admission is free. For further info, please call 3610.

Come to the 2nd annual **Love Sucks! concert, a fun-filled a cappella fest to help you forget your post-Valentine's-Day blues. The concert features Caltech's groups the Treblemakers, Ecphonema and Out of Context, and a whole bunch of surprise guests with all new music. Admission and refreshments are *free* for members of the Caltech community. Be there: Saturday, February 27, 1999 at 7 PM in Dabney Hall! Contact rachels@caltech.edu with any questions.

Join **Jorge Mester and the Pasadena Symphony at 8:00 pm at the Pasadena Civic Center on Saturday, February 27 for an **all-Russian** program with something for everyone. Thrill to the blood and thunder of Tchaikovsky's romantic tone poem, then be dazzled by Karen Gomyo's virtuosic violin playing at her West Coast premiere. Next, delight at Shostakovich's most humorous symphony, and Liadov's "The Enchanted Lake." Student tickets are available for \$7.50 with ID. For more information call 626-793-7172, 626-584-8833, or Ticketmaster at 213-480-3232.

****Caltech SEDS** will be holding its fourth **telescope construction meeting** beginning Sunday, February 28 at 2:00 pm in the SEDS lab (0011 Thomas). No prior experience is necessary. For detailed contruction plans follow the Construction Instructions link from <http://www.cco.caltech.edu/~sedss/telescope.html>. For other information contact Loren Hoffman at loren@cco.caltech.edu or Leon Torres at leon@ugcs.caltech.edu.

Join the **Caltech Glee Clubs** at 8:00 pm on February 19-20 in Dabney Lounge for **Songs of the Spirit**, including music by Casals, Larsen, Mozart, Willcocks, and vocal orchestra music from the film *Paradise Road*.

Join the **Caltech-Occidental Concert Band** for a free concert at 8:00 pm Saturday, February 20 in Thorne Hall at Occidental College. This fine concert will feature the music of John Philip Sousa, Leonard Bernstein, and many other wonderful composers. The location may not be so convenient as, say, Beckman Auditorium, but Thorne Hall's excellent acoustics make the trip well worth the effort.

Raphael Green will narrate the **Armchair Adventures travel film China: The Middle Kingdom** on Friday, February 19, at 8:00 pm in Caltech's Beckman Auditorium. Tickets are priced at \$9.00 and \$7.00 and can be purchased at the Caltech Ticket Office, 332 S. Michigan Ave., or any Ticketmaster Ticket Center. For more information call 1-800-2CALTECH or 626-395-4652 or Ticketmaster at 213-365-3500.

NSPA by March 10, 1999.

The **National Institutes of Health (NIH) Undergraduate Scholarship Program** offers scholarship awards to undergraduate students from disadvantaged backgrounds that are committed to careers in biomedical research. In return, recipients are obligated to serve as paid employees in NIH research laboratories during the summer and after graduation. The scholarships pay for tuition and reasonable educational and living expenses up to \$20,000 per academic year. Applicants must be full-time for the 1999-00 academic year, have a 3.5 or higher GPA or be ranked within the top 5% of your class, and classified as having exceptional financial need. Applications are available in the Financial Aid Office. To apply, applicants must submit application form; official transcript; undergraduate institution certification form, and three letters of recommendation, preferably from professors familiar with the student's academic qualities. For more information, visit the NIH website at <http://ugsp.info.nih.gov>. The deadline for receipt of completed applications is March 31, 1999.

The **Dennis W. Cabaret Scholarship Committee** is pleased to announce the availability of scholarships for students whose permanent address is in Orange County. Applicants must have completed at least one year of college, have a 3.0 or higher GPA, be currently enrollment in an institution of higher education, and clear roots of activism in the Orange County lesbian and gay community. The applicant is advised that the Scholarship Committee may call him or her for a personal interview. Applications are available in the Financial Aid Office. Completed applications should be sent to: Dennis W. Cabaret Scholarship, c/o Thomas J. Peterson, 2821 Cassia Street, Newport Beach, CA 92660-3217. Applications must be postmarked by Friday, February 26, 1999.

The Deans' Office is accepting proposals for the **Monticello Foundation and the Robert and Delpha Noland Summer Internships**. Three to five Caltech undergraduate women (current freshmen, sophomores and juniors) will be given an opportunity to participate in research projects outside the Caltech-JPL community for ten weeks during the summer. Each student will receive a \$4,000 stipend. Applicants are required to identify the projects in which they wish to participate for a ten-week period. All arrangements with the principal researcher will be the responsibility of the student. Each applicant must describe her project in a short essay and submit it to the Deans' Office, 102 Parsons-Gates, along with two

faculty recommendations. Proposals are due Monday, March 1, 1999.

The **John Gyles Education Fund** is offering scholarship awards up to \$3,000 for the 1999-2000 academic year. Applicants must be Canadian or U.S. Citizens, have a 2.7 or higher GPA, and demonstrate financial need. Criteria other than strictly academic ability and financial need are considered in the selection process. To obtain an application, send a self-addressed, stamped envelope to: The John Gyles Education Fund, Attention: The Secretary, P.O. Box 4808, 712 Riverside Drive, Fredericton, New Brunswick, Canada E3B 5G4. Filing dates for mailing documents in 1999 are April 1, June 1, and November 15.

The **Fulbright Program** has started a special program for graduating seniors who are U.S. citizens and have a knowledge of **Mandarin Chinese**. Students will be able to study in China for 10 months beginning in late August of 1999. Students will need to go through the regular Fulbright application process and be endorsed by the Caltech Fulbright Advisor, Lauren Stolper. Applications are available through the Fellowship Advising Office. Call ext. 3150 or email lstolper@caltech.edu to request an application. The campus deadline for submitting completed applications will be Friday, February 19. Applications and all reference materials should be sent to Lauren Stolper, 25-58.

Fellowships Advising and Resources has received information on a number of **summer undergraduate research fellowships**. Students receive a stipend and sometimes travel and room fees are paid. Stop by our office and check through the summer fellowship files for information on these and other summer fellowship opportunities.

For information on the listed fellowships, assistance with essays, for clarification of questions, contact:

FAR - The Fellowships Advising and Resources Office. To make an appointment, call x2150.

For more information, please email lauren_stolper@starbase1.caltech.edu

UFA - The Undergraduate Financial Aid Office. 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. ASCII and rtf are best. The editors reserve the right to edit and abridge all material. Solicitations will be referred to the business manager.

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