

"Drop Day
cometh!"

The California **TECH**

"Prepare
thysself!"

Volume XCVII, Number 7

Pasadena, California

Friday, November 3, 1995

Student-Designed Satellite Set for Launch Tomorrow

PASADENA — A satellite built by undergraduates working with Jet Propulsion Laboratory (JPL) engineers will be launched on the morning of November 4 from Vandenberg Air Force Base on the central California coast. This date is fairly firm, but has slipped recently and is not carved in stone.

Called SURFSAT, the satellite will fill a need for a Deep Space Network (DSN) calibration satellite. It will emit weak signals at three microwave frequencies, imitating a deep-space

probe. The faint signals will allow testing of Very Long Baseline Interferometry tracking stations, and aid in research and development work in deep-space communications at the Deep Space Network, which tracks planetary probes such as Voyager and Galileo.

"The project has provided an excellent opportunity for students to work with space technology and to learn low-cost mission operations," said Joel Smith, project manager at JPL.

More than 60 students from

14 colleges in the United States and the United Kingdom have worked on SURFSAT during summers since 1987, as part of the Summer Undergraduate Research Fellowships (SURF) program at the California Institute of Technology. Each summer between five and 13 students have worked with a JPL mentor on aspects of the design, testing, and assembly of the satellite, and for the last few years work has continued year round. The SURF

students came from the following colleges and universities: Ari-

"The project has provided an excellent opportunity for students to work with space technology and to learn low-cost mission operations."

-JOEL SMITH

JPL PROJECT MANAGER

zona State; Caltech; Kingston University, England; Occidental College; Oklahoma State; Pomona

College; Rensselaer Polytechnic Institute; Stanford; the University of Alaska; UC Berkeley; UCLA; UC San Diego; the University of New Mexico; and the University of Texas at Austin.

SURFSAT is the secondary payload on a NASA rocket that will boost another object, the Canadian RADARSAT spacecraft, into orbit. The student satellite, consisting of two aluminum boxes measuring roughly 12 by 12

SATELLITE CONTINUED ON PAGE 2

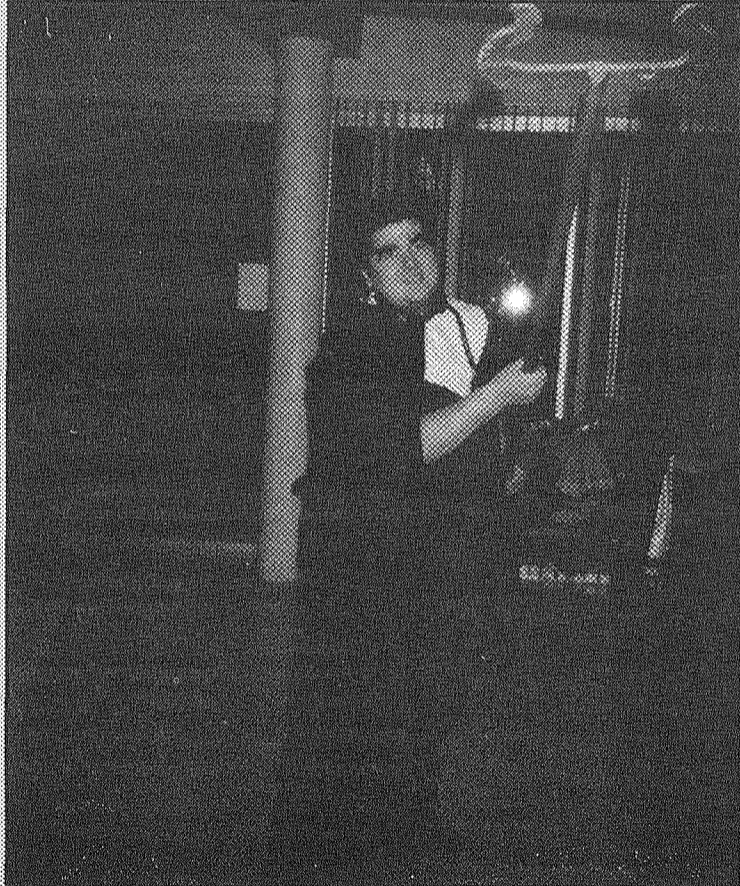
TACIT's Space Pandas Opens Tonight, Promises Wacky Satire and Fun for All

by Joseph Trela

Since the start of the school year, the members of Theatre Arts at the California Institute of Technology (TACIT), have been busy above and beyond the merely mind-numbing ordinary load of events at Caltech. They've had a big house all to themselves on Holliston north of the recycling center, they've been practicing for weeks and now they're ready to perform two greatly contrasting plays this fall: *Revenge of the Space Pandas* and *Under Milkwood*.

The first is *Revenge of The Space Pandas*, a science fiction comedy written by David Mamet, the author of such works as *Glengarry Glen Ross* and the screenplay for *About Last Night*. Directed by Diana Adler, playing at Winnett Student Lounge and packed beyond reason with Caltech in-jokes, the play romps with no sense of decorum through the many subgenres of science fiction as it tells the story of Binky Rudich (a young undergraduate), his astrophysicist girlfriend Vivian Mooster (another young undergrad) and their mutual friend Bob the Sheep (an herbivore) as they...yes, you heard me, Bob the Sheep. Anyway, because of a malfunction in Binky's newest invention (the Two-Speed Clock), they are sent hurtling through space to the planet Crestview, Pearl of the Goose Nebula and dominion of the mighty king, George Topax, and his army of Space Pandas. They'd probably be okay, except for two things. One, the clock is broken and can't send them back to Waukegan, Illinois, Earth. And two, Almighty Topax has taken a mysterious interest in Bob and his coat of wool...

From a rather different viewpoint comes the second play, *Under Milkwood*. Directed by graduate student Maneesh



A devilish Joe Trela proves that Tech photographers have a dangerous job

Sahani, it was originally written by the famous Welsh poet, Dylan Thomas, as a radio play; he com-

Space Pandas romps with no sense of decorum through the many subgenres of science fiction.

pleted it in 1953, the same year as his death, and it was first broadcast on BBC radio the next year. This play is unique in that

it will be performed in a conversational setting at the Red Door Cafe and the Espresso Bar (or E-Bar), with the performers physically intermingling among the audience. As "a play for voices", the intent of the play is to take the performance away from movement and stage presence and to return it to the voices of the actors; they will take on the many personas of villagers in a seaside hamlet as they tell their many stories to the audience. It promises to be a unique experience

SHOWTIMES AND PRICES

Revenge of the Space Pandas

General Admission \$8
Student Admission \$5

Winnett Student Lounge
Caltech campus

Nov. 3,4,10,11 at 8 p.m.
Nov. 4,11 at 12 midnight

Under Milkwood

General Admission \$6
Student Admission \$3

The E-Bar

(1039 E. Green Street, Pasadena)
Nov. 26,30, Dec. 3 at 8:00 p.m.

The Red Door Cafe

(1300 San Pasqual Avenue, Pasadena)
Nov. 24,25,Dec. 1,2 at 8:00 p.m.
Nov. 26 at 2:00 PM

SURFers Show Off Research

By Jim Cheng

Wrapping up their Summer Undergraduate Research Fellowships, Caltech SURFers gave oral presentations of the results of their research to fellow students, faculty, staff, alumni and parents on Saturday, October 21.

After a short buffet luncheon in front of Beckman Institute, the participants and guests broke up into 23 parallel sessions held throughout the Caltech campus lasting until late afternoon. At each session, SURF students gave 20 minute presentations, which were then evaluated by the alumni Session Chairs and the students' audience members.

Student presentations covered such wide-ranging topics as a SURF retrospective, the recent impact of the Shoemaker-Levy Comet on Jupiter, and a simulation of the behavior of a mountain biker.

Though some participants were still rehearsing their presentations before lunch, many were well prepared and were quite enthusiastic about presenting the research they'd conducted over the summer through the SURF program.

SURFer Saurabh Saha, who worked on protein localization in Leishmania at Harvard Medical School, said "It was probably one of the best academic experiences of my life."

Parents, too, were very impressed with their sons' and daughters' work on their research and presentations. Nadya Briskin said, "It's very nice. It gives young people a chance to

earn money and work with top notch people in their areas of interest."

Alumni Session Chair Frank Dryden commented, "It's an excellent program, where students do real research and are forced to organize the results into a meaningful presentation before an audience."

In addition to the students' research, this year's SURF program also saw the largest class of participants in its seventeen year history, as well as the creation of both the SURF Student Advisory Council (SURFSAC) and the upcoming *Caltech Journal of Undergraduate Research* (CURJ), which will feature the best SURF papers, chosen by an editorial board of faculty members, undergraduate and graduate students, and alumni.

As the students' oral presentations ended at 4:30 in the afternoon, SURFers and guests again congregated in front of the Beckman Institute for a poster presentation session, with posters on SURF research topics from femtosecond chemistry to voting manipulability.

SURF Seminar Day finally came to an end with the announcement of this year's Doris S. Perpall Speaking Award semi-finalists, who were selected on the basis of their presentations by alumni Session Chairs and audience members at the individual sessions.

These students will advance to the semi-final round, which will be held during the week of November 13 to November 17 in the afternoon.

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The Outside World

by Myfanwy Callahan
and Maria Huang

AZERBAIJAN, SOVIET — The deadliest underground disaster ever took place on October 29 as fire and noxious gases killed about 300 subway passengers in Azerbaijan. The fatalities could rise to as high as 600.

JOHANNESBURG, SOUTH AFRICA — Magnus Malan, South Africa's hard-line defense minister during the turbulent 1980's was charged with 13 political murders in a case that will force South Africa to confront the bloody excesses of the apartheid era. Malan is expected to appear in court to answer the charges in Durban on Nov. 2.

ARUSHA, TANZANIA — UN budget problems and Kenya's refusal to hand-over suspects are holding up plans to prosecute those who ordered last year's genocide in Rwanda.

MONTREAL, CANADA — Premier Jacques Parizeau Quebec resigned Tuesday. He was the leader of the Separatist

Party Quebecois and resigned after a vote on Monday narrowly preserved Canadian Union.

DAYTON, OHIO — Alija I Zetbegovic, Slobodan Milosevic, and Franjo Tudjman, the three leaders of Bosnia, Serbia, and Croatia respectively, met for negotiations in Ohio this Wednesday. All the major issues of territory and government need to be decided.

BANJA LUKA, BOSNIA-HERZEGOVINA — In Acknowledgment of the coming peace talks, Bosnian Serbs exchanged 300 Muslim civilian prisoners for 150 Serbian Prisoners of war on Monday.

SANTA ANA, CALIFORNIA — The Immigration and Naturalization Service unveiled a new program which would allow over 200 Southern Californian companies to check the backgrounds of their new employees to verify whether they are legally authorized to work. This is the first test of what could become a national program.

IHC MINUTES

OCTOBER 31, 1995

Present: Tom, Laura, Art, Nestor, Vogel, Brian, Alison, Adil, Bill and Tom Mannion
Meeting begins at 9:26 p.m.

- Tom Mannion discusses 3 things with us: House Furniture: To avoid the hassle of housing purchasing furniture or reupholstering furniture, each house will be given a budget for common area furniture. This includes things such as library furniture, computer room chairs, and common area couches. It is also pointed out that if any house needs major work (such as leveling, refelting...) done on its pool table, housing can help with that too.
- Thefts: Recently there have been a huge number of food thefts from the student houses. Ruddock has been missing lots of their ice cream, and all types of food disappears from Blacker every day. Most people felt that if you have a cabinet you should be responsible for locking it yourself, but Tom offered to put locks on cabinets, fridges, and possibly doors on some of the kitchens. Also, combo locks are going to be installed on Lloyd as well as the SAC entrances. The four exterior SAC doors will have locks going in, and the five doors leading up to the houses will have locks to get into the houses. Don't forget to lock the laundry room when you leave! The South house room doors don't always close. Take it upon yourself to close them behind you.
- Summer CTY Program: From the last week of June to August 10th Johns Hopkins University would like to hold a summer program here at Tech. It would mean housing 175 7th graders for that amount of time. This could be distributed over alleys in all 7 houses or in
- Avery when it opens. Though this would potentially displace people in all seven houses, the extra revenue would keep board costs down, and each house would get a cut from the profit of reselling our housing to the program. Up to 36 positions for UG employment would be created, we would require them to use UG TA's and RA's. We would also be sucking up as many of the minorities as we could to boost the minority interest in Tech. Everyone agreed the program sounded great but wanted to look into the numbers a little more and check with their houses.
- Tom Mannion leaves. Heave!
- People talk about Interhouse. Presidents decide to go back to their houses and gauge interest in Interhouse to see if we want to revive it. If you are interested in seeing Interhouse revived, talk to your president.

That's all, folks!
Laura Brady
IHC Secretary

ADDENDUM

- Also, another amendment was made to the shoot-the-moon clause to allow a challenge to come at the end of the year if a house merely comes in last place in every sport without forfeiting any games, instead of a house having to lose every game of every sport. Passed (6-0-1).

SATELLITE: Launch date set for student project

CONTINUED FROM PAGE 1

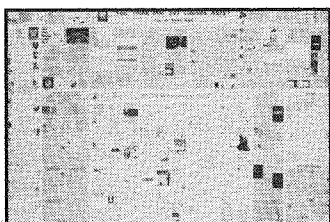
by 16 inches, is permanently bolted to the second-stage booster of a NASA/McDonnell Douglas Delta II rocket. It will settle into a polar orbit at an altitude of about 750 miles, where it will be powered by its own solar cells with no electrical connection to the second-stage structure. Scientists plan to use the satellite, whose final cost is estimated at less than \$3 million, for the next year as a NASA test vehicle. Funding for the project came from NASA's Space Communications Division and Astrophysics Division.

Caltech's SURF program allows undergraduates to pursue individual research projects in a tutorial relationship with a member of the Caltech faculty or JPL technical staff for 10 weeks during the summer. SURF students propose research projects in an imitation of the grant-seeking process. Faculty committees then review the proposals, and SURF bases its awards upon their recommendations. Students submit technical reports at the end of the summer and give short presentations about their research at SURF Seminar Day in the autumn. As with any fellowship, the students receive a stipend for their work. In 1995, Caltech's SURF program had 246 students participating.

SURFSAT is scheduled for launch at 6:22 a.m. PST on Saturday, November 4. NASA Select television will show the launch from around 5:30 a.m. to 7:30 a.m.

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- Dr. Kary Mullis, Nobel Laureate, Chemistry, 1993



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El Dia de Los Muertos Hispanic holiday celebrates the deceased

by Patrico Vela

Well folks, you guys know what day has just passed? Yup it's Dia de los Muertos. Dia de los Muertos is an inherently Mexican tradition, which according to the article at my side has Aztec roots. The point of this blessed (huh?) day is to honor those dead that you love or cherish. Your grandmother, your best friend, your favorite singer (Jerry Garcia?), whomever you feel is important enough to merit such a favor, so long as they are dead. For most of you Halloween might be a big thing, but elsewhere it is a relatively nonexistent occasion. Please do not be spare with your little *ofrenda*, they more extravagant the more you curry the gods favor, I think.

Last year I went home for Thanksgiving, another wonderful Anglo/Gringo tradition, and my cousin just so happened to be doing a report on *el Dia de los Muertos*. So we went to all kinds of museums to see all of the offerings our Mexican brethren had to offer.

Now even though San Francisco isn't the Mexican haven that Los Angeles is, it still has its numbers. The *ofrendas* were tremendous, ranging from simple people wanting to honor those they loved to artists displaying their best in honor of a deceased one. Skeletons were a frequent item or the artistic display.

Which reminds me of a little story I have. Although the tradition is Mexican in nature, that

does not mean that others do not partake in it. On our (my family) little trip to Mexico this summer, there was one thing my Dad wanted above all, calaveras. And to think he is Salvadoran. We went to see Aztec ruins and artifacts, what did he take pictures of? He took pictures of skulls, and what occasional skeletons they had. At the local weekend markets he bought two scenes, a mariachi band consisting of skeletons, and another scene of a skeleton wedding couple. My brother and I already want to put that sucker on



our wedding cake. He has infused in us this bizarre propensity for skeletons and such.

But back to my article. This thing we have about the dead manifests itself in interesting, and sometimes very beautiful ways. So for all you artsy fartsy (and not necessarily so) people I strongly urge you to go check out the Dia de los Muertos exhibits and/or celebrations. I strongly urge you to go check out the Dia de los Muertos exhibits and/or celebrations.

The ones I have been informed of are: Spirit Risings/Dia de los Muertos Celebration. Nov. 4 only; Music, Dance, Poetry. At the John Anson Ford Amphitheater 2580 Cahuenga Blvd. East, Hollywood Tickets: (213) 365-3500 (Ticketmaster, or other random locales.)

PCC has a lot of stuff, but the editors have lost the wonderful facts sheet. Sorry folks.

Avery Meetings Upcoming

by Mfanwy Callahan

The second of two open meetings about Avery House will be held on November 14 at 8:00 p.m. in Chandler. It will discuss the social structure and staffing of Avery House. Further meetings will be held during second and third terms as needed. If you have any questions about the Avery House, you can contact anyone on the Avery House committee.

The future of Avery House is really up to the people who live in it. Over a hundred undergraduates next year along with graduate students and faculty. To make sure that the house is the kind of place YOU would like to live in, come to the Avery house meeting on Nov. 2 and your opinion will count.

Avery House, under construction right now, is just north of the MOSH's house. Avery house is to be the first Caltech residence with undergrads, grads, and faculty living together in one building. Some of the issues related to Avery, are whether it should become an

eight house or not, and who will live there. A number of students discussed Avery house at four meetings this summer. While their opinions are not decisions that will necessarily be implemented next year, they do represent some current ideas about the project.

Many thought, for instance, that freshman should not be members of Avery House, at least for the first year. With no existing house government and no real idea of where the house is headed, it would be difficult for freshman to choose or be chosen by Avery. While Avery is in its first years, there will not be the social support structure present in the other houses. Some suggested that, for at least the first year the Avery pick should be equivalent to an off-campus pick, allowing upperclassmen to stay on campus and on board even if there is not enough room in their respective houses. These suggestions were made at the summer meetings, but by no means are they active decisions. The real decisions will be made after the second meeting.

ASCIT MINUTES

OCTOBER 30, 1995

Present: Most of the ASCIT BOD, Chou Hung, the Big T Editors, Wei Hwa Huang, Terry Moran, Anand Chelian, Sean Vellucci, JJ Carrasco, Priya Rai, Brian Bircumshaw, Jessica Chang, Donna Akutagawa, Michael Ru, Reza Mohsin, Jeremy Gawle, some tall guy who is always in the SAC, Brian Frazier, Corrine Gilliam, Rahul Malhotre, some TA, John Avery, Blake Jones, Judy Green, Jim Glore, Steve "Babbling Armenian" Van Hooser, Ryan McCorvie, Neema Jalali, 2 Random guys we don't know, and David Djambazou (a Bulgarian).

Not Present: Please consult your Little t, pages 229 to 263, and eliminate the following names: Jon McDunn, James Honaker, David Relyea, Kanna Shimizu, Tom Maccarone, Greg Steiert, Melissa Saenz, Chou Hung, the Big T Editors (consult the Little t, page 72. Please note this list is no longer valid), Wei Hwa Huang, Terry Moran, Anand Chelian, Sean Vellucci, JJ Carrasco, Priya Rai, Brian Bircumshaw, Jessica Chang, Donna Akutagawa, Michael Ru, Reza Mohsin, Jeremy Gawle, Brian Frazier, Corrine Gilliam, Rahul Malhotre, John Avery, Blake Jones, Judy Green, Jim Glore, Steve Van Hooser, Ryan McCorvie, Neema Jalali, and David Djambazou. For a complete listing of everybody in the world not present at this meeting, please contact the Church of Jesus Christ of Latter Day Saints, the Mormons. Be sure to eliminate the names given above.

• Meeting begins at 10:05 in the Coffeeshouse. Chou requests

money for the CURJ (Caltech Undergrad Research Journal). As the funding is requested for March/April of 1996, it does not fall within this year's BOD term of office (and jurisdiction). However, Chou mentions that the CURJ, although not technically an undergraduate publication, is fully staffed by undergraduates and will contain only undergraduate submissions. Chou will return next week to go into greater detail about the CURJ.

• The Big T Editors submit a compensation schedule. Kanna will compare it with last year's schedule and will comment upon it at next week's meeting. The Big T also plans to buy (and fully fund from this year's budget) an extra computer for their office. Money will come from the extra advertisements they sell for this year's Big T (75th anniversary issue). The Editors also want to make sure that Ken understands the foundations of last year's Clue.

• Melissa needs to know where the ASCIT letterhead is kept. Dave tells her.

• Greg says the party cost less than \$1200. ASCIT owes Kristie Armentrout \$20. Greg also got approval from Kim about his early registration idea (parties for the entire undergrad population registered before the first of a term will most likely get \$50 extra from ASCIT and up to \$100 from Student Affairs).

• As Dabney House has already received \$50 apiece from 5 other houses, the BOD passes the motion to give Dabney \$50 for their Pumpkin Drop 5-0-1.

• Kanna will attempt to get all publications editors to whom we owe money to sign their W-4 forms. Kanna also mentions that Gavin needs an officer to be

present when he talks to the IRS about payment of publications editors.

• Dave updated the Bylaws on the Web. These Web-bed Bylaws shall serve as the absolute reference source of ASCIT policy, belief, and custom. The Bylaws in the Little t, previously infallible, are incorrect due to clerical oversight and should be disregarded as a reference of specific policy and should instead only be used if the reader merely wishes to peruse the general policies and procedures of the ASCIT BOD.

• James dry heaved for 6 hours in his sleep.

• Jon spoke with Peter Manca. The ASCIT Movies will begin the permanent usage of 16 mm film on Caltech projectors on Friday. The lack of movies for the past three weeks due to projector woes will probably end up leaving the Movies quite a bit less in debt for this term.

• Meeting ends at 10:37 p.m. But remember to tune in next week for the EXCITING CONCLUSION to: "Chou Hung: An explanation of the CURJ!"

Most Respectfully Submitted,

David Relyea
(The Tech Editors keep putting my name in this stupid *ursive scrawl font*. It's not my fault. I never asked for it. I just work here.) (Sorry. I should learn to deal.) (But sometimes you just *shouldn't* deal, man. Like why were we served Colgate in the soft serve machine? Why? Why?)

ASCIT Secretary

CLASSIFIED ADS

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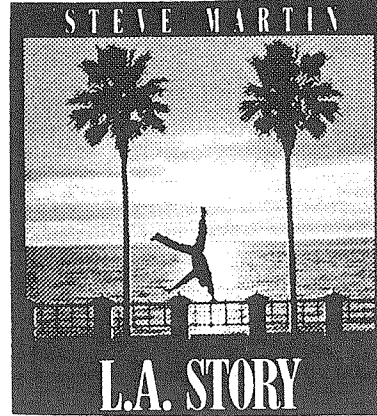
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Daily 4:30, 7:00, 9:30 p.m.
Sat-Sun Bargain Matinee 1:45 p.m.

Chemistry Animation Project Offers First Videos For Sale

By Jay Aller

PASADENA — The California Institute of Technology's Chemistry Animation Project has completed the first six titles in a series of broadcast-quality educational chemistry videotapes and has released them for sale to teachers and to the public.

The videos illustrate many of the three-dimensional concepts that are central to the basic chemistry curriculum, but that can be difficult to visualize. The six tapes now available cover three introductory topics, "Crystals,"

"Atomic Orbitals," and "VSEPR" (valence-shell electron-pair repulsion theory); two intermediate topics, "Stereochemistry" and "Nucleophilic Substitution;" and an advanced topic, "The Diels-Alder Reaction."

"Our goal with the project is to revolutionize the way students at all levels can view the chemical world," explained project director and Caltech chemistry professor Nathan S. Lewis. "We want to stimulate the thoughts and curiosity of teenagers, to get them to ask questions and to learn about the topics with vigor, instead of merely obtaining numerical answers for assigned problems on a topic that they cannot understand or fully visualize."

New videos on the topics of "Hybridization and Resonance," "Periodic Trends," and "Molecular Orbitals" should be available later in the 1995-96 academic year, and other titles in the works include "Binary Crystals" and "Spectroscopy/Molecular Motions." Information on each video is available on the World Wide Web at <http://bond.caltech.edu>.

Videotapes are \$19.95 each, with unlimited duplication privileges for an instructor's use by his or her students. To order videos or for more information, contact

the Caltech Bookstore by mail at Mail Code I-51, Pasadena, CA 91125; by phone at (800) 514-BOOK; by fax at (818) 795-3156; or by electronic mail at citbook@caltech.edu.

Details follow about each of the tapes now available:

Crystals (Introductory Level)

From gold and diamond to sodium chloride, face-centered cubic crystals characterize many important substances. Within the framework of the face-centered cubic crystal lattice, this tape illustrates Miller indices, lattice vectors, and crystal surface structure. Topics covered: The unit cell and its relationship to crys-

tal structure, the face-centered cubic unit cell, Miller indices, Low-index cutting planes and the structure of low-index surfaces.

Atomic Orbitals (Introductory Level)

The sizes and shapes of atomic orbitals play a dominant role in properties of chemical bonding. Key concepts illustrated in this tape include the organization of the periodic table, the shapes of atomic orbitals, and orbital features important for chemical bonding. Topics covered: Shapes and directions of s, p, d, and f orbitals, the orbital basis for the periodic table, nodes in orbital shapes.

VSEPR (Introductory Level)

Valence-shell electron-pair repulsion theory remains one of the simplest, most powerful tools for understanding the shapes of molecules. Based only on simple Lewis dot concepts of chemical bonding, VSEPR allows for the prediction of the shapes and bond angles of a wide variety of molecules. Topics covered: Bond angles, steric numbers, shapes of molecules and the nomenclature of the various molecular geometries.

Stereochemistry (Intermediate Level)

The three-dimensional arrangement of atoms in molecules plays a crucial role in chemical reactivity. Enantiomers, chirality, diastereomers, Newman projections, and other important aspects of stereochemistry are graphically illustrated in this tape. Topics covered: Chirality and

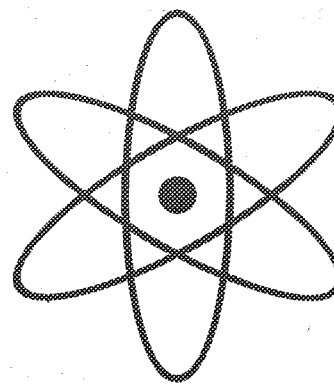
enantiomers, enantiomer nomenclature: R versus S, diastereomers, conformational isomers, Newman projections, anti and gauche conformers, *cis* and *trans* (geometric) isomers

Nucleophilic Substitution (Intermediate Level)

Nucleophilic substitution provides a classic example of chemical reactions capable of proceeding through multiple pathways. This project explores the stereochemical consequences of these different paths, the concept of a transition state, the possibility of a discrete reaction intermediate, and the interpretation of reaction coordinates in the context of basic nucleophilic substitution reactions. Topics covered: SN1 and SN2 reactions, transition states and intermediates, inversion of configuration in the SN2 reaction, partial retention of configuration in the SN1 reaction, introductory kinetics of chemical reactions

Diels-Alder Reaction (Advanced Level)

The synthesis of complex substances generally involves challenges in controlling the stereochemical arrangement of molecules. Aspects of stereochemically controlled synthesis, as well as orbital control of reaction products, are featured in this tape. Topics covered: Structural changes during the Diels-Alder reaction, orbital control of 4+2 additions, *cis* versus *trans* additions, relative reactivity of *S-cis* and *S-trans* isomers, cyclization reactions, endo versus exo additions



"Our goal with the project is to revolutionize the way students at all levels can view the chemical world."

-NATHAN S. LEWIS,
PROJECT DIRECTOR AND
CALTECH CHEMISTRY
PROFESSOR

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Regan Mills
Hardware Design Engineer
Industrial Consumer Division
Boston, MA

BS, Electrical Engineering
Massachusetts Institute of Technology
Cambridge, MA, 1992

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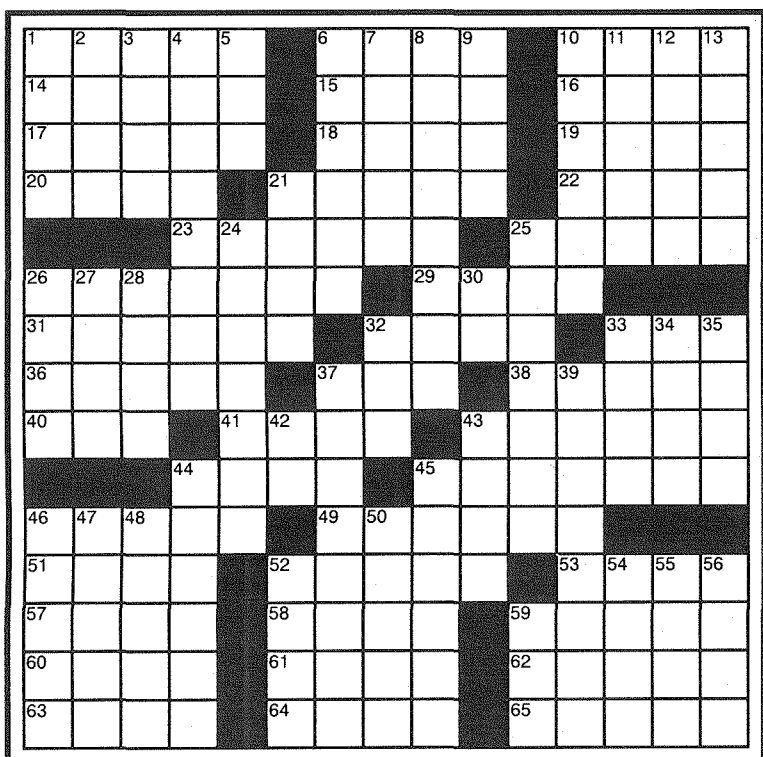
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This week's

Crossword

by Wei-Hwa Huang



Across

- 1. No one's got one like Gaston's
- 6. You love Latin?
- 10. The "m" in $E=mc^3$
- 14. Wolverine
- 15. Al the llama?
- 16. Barbara the Jeannie
- 17. Frustration
- 18. Rube

Down

- 19. Burt's ex
- 20. A bird's abode
- 21. Heracles' teacher
- 22. Quick pace
- 23. Escapes detection
- 25. Techers' favorites
- 26. Nala, e.g.
- 29. Separate
- 31. Worried

- 32. "I'll have to say I love you in a ___"
- 33. A bijection, e.g.
- 36. Man behind the counter
- 37. Reed of "The Home Court"
- 38. Capital tax?
- 40. Brain's exclamation
- 41. Isfahan's country
- 43. Splotched horses
- 44. Jump
- 45. Conspicuous
- 46. Gore
- 49. Guillotine or silhouette, e.g.
- 51. Slimy fish
- 52. A group of 26-across's
- 53. Sold ____, no returns
- 57. What Wei-Hwa did
- 58. Chilled
- 59. Gig
- 60. Go out with
- 61. Candy color in *Santa Claus*
- 62. Weird Al's favorite music
- 63. Toboggan
- 64. Went too fast
- 65. Overly embellished

- 6. Ladybug fodder
- 7. Lobster state
- 8. Get used
- 9. Fifth Avenue store
- 10. The sun, often
- 11. Find cute
- 12. Wencelas, e.g.
- 13. Quarrels
- 21. Sexual desire
- 24. A roof with more holes, e.g.
- 25. Like Chaplin's pants
- 26. Like a doily
- 27. Yap
- 28. Is in debt to
- 30. —
- 32. Japanese honorific
- 33. Tick
- 34. Famous poet?
- 35. Attention getter
- 37. Dixie, e.g.
- 39. Don Bluth, e.g.
- 42. ©
- 43. Window glass
- 44. Withstood the test of time
- 45. Soiled
- 46. Begins to cultivate
- 48. A bicycle has two
- 50. Aristocrats
- 52. Section
- 54. Deposit
- 55. Red or India, e.g.
- 56. Remain
- 59. Fat farm

Logic Puzzle

by Wei-Hwa Huang

Last week, the super-secret meeting of the Caltech Logic Puzzle Club was held in a room in the SAC (Student Activity Center). Five out of the club's six members attended, representing each of the four classes. (Some of you smarter people will have already deduced that two of these students were in the same class. You'd be absolutely right; in fact, they rotated out of Page as roommates.) For the interests of the society, they will all be assigned a pseudonym for the remainder of this puzzle, e.g. "Quine". The first point on the agenda was to discuss what sort of logic puzzle to publish in the student newspaper; each person had their own opinion, except for one guy who was just there for the free food. Eventually the one who was from Blacker proposed that they would compromise and use a standard logic puzzle for their first article, which everyone agreed with, even the Lloydie. Before the meeting adjourned, the Bio major offered to create the puzzle, with the EE and AMa major helping him. So, with the following clues, can you match each member with his pseudonym, his class, his major, his house, and the type of puzzle he liked?

- 1. The advocate for numerical logic (who isn't the Darb) and the advocate for sequential logic are in the same grade. The person who wanted a meta-logic puzzle calls them "frosh" by force of habit.
- 2. One of the members was "Boole's" prefrosh.
- 3. "DeMorgan" is in a class by himself. The meta-logic advocate isn't a senior.
- 4. Although the tri-valued logic puzzle advocate still acts the most froshly, technically he isn't one. He often teams up with the Chem major against the two North Housers.
- 5. The Mole doesn't need AMa 95 to graduate.
- 6. The five students are: the two in the same grade; someone younger than they are; "Carroll" (who isn't the Darb); and the Flem, who hates tri-valued logic.
- 7. The sequential logic advocate (who is not from either Ruddock or Dabney) and the one who likes tri-valued logic hate Physics. On the other hand, "Boole" and the two same-class people can't stand math.
- 8. "Gödel" is not the Rudd.

Solution to last week's puzzle



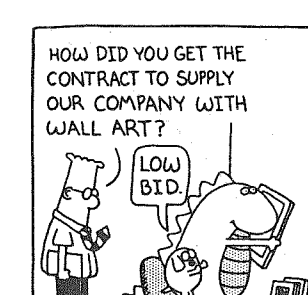
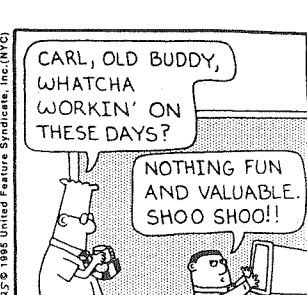
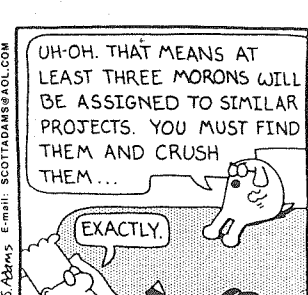
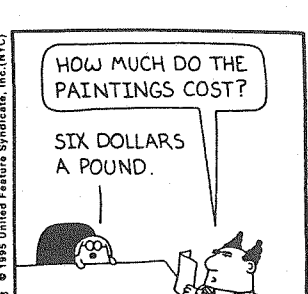
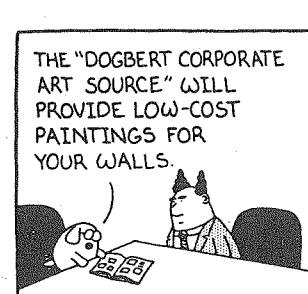
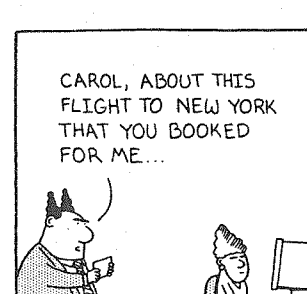
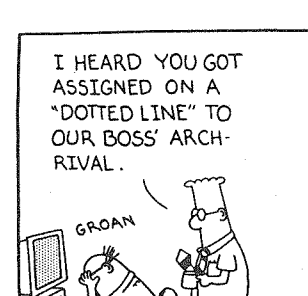
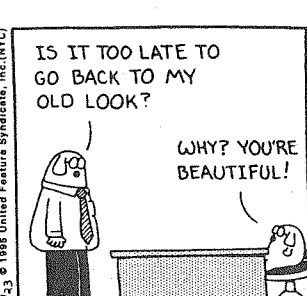
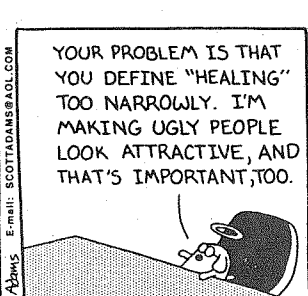
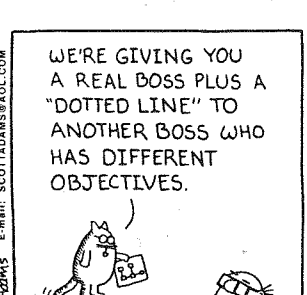
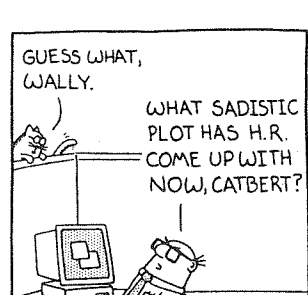
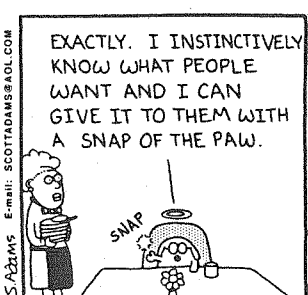
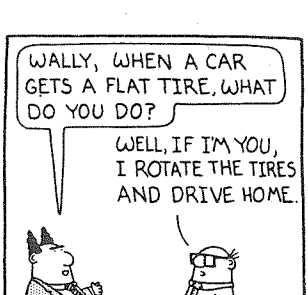
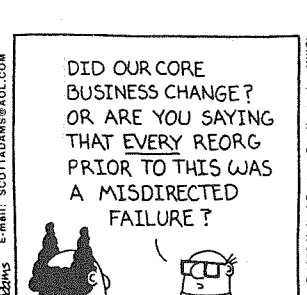
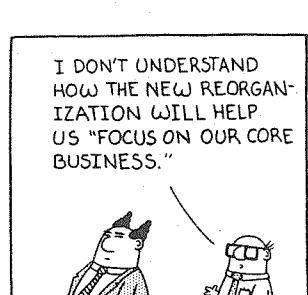
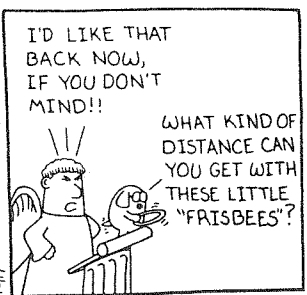
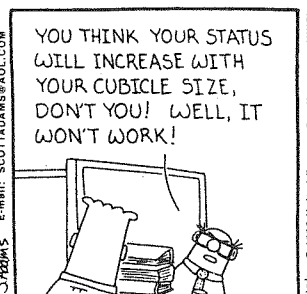
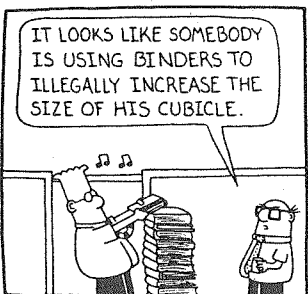
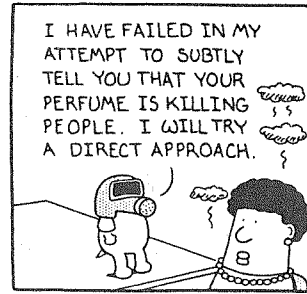
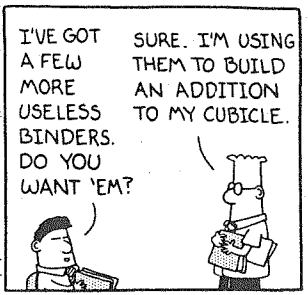
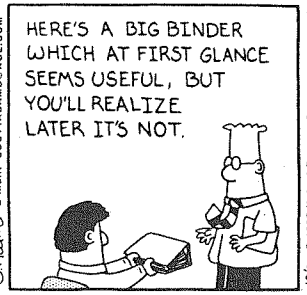
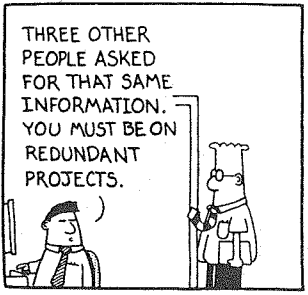
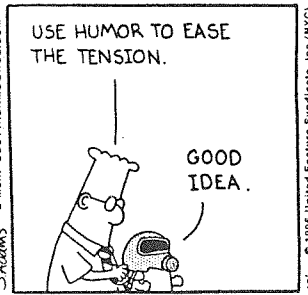
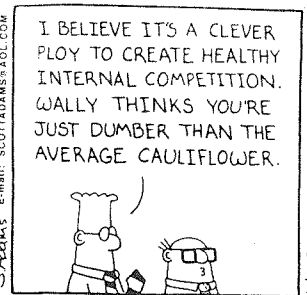
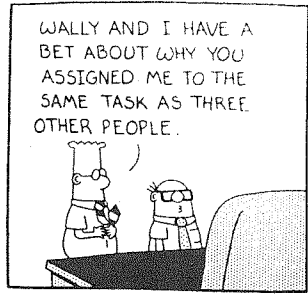
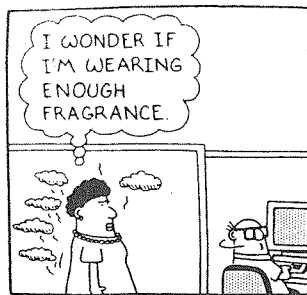
THE CALTECH SCIENCE EDUCATION CLUB will have its initial meeting on Wednesday, November 8th at 5:15 p.m. at the CAPSI House 287 So. Hill (three doors south of Del Mar). **Pizza supper is provided.**

Come and discuss your ideas with others who are involved in the vital and challenging endeavor of improving science education at all levels. Whether you are considering the possibility of a career in teaching or want to make science education and science education outreach a part of a research career, or simply want to contribute in some way to this very important work, please **join us in an informal, ongoing discussion.** We will touch upon the relationship between science, scientists and science teaching at all educational levels.

Members of the Caltech community are all invited: undergrads, grads, postdocs, staff, faculty, anyone interested in science education. **Please RSVP** by Nov. 6th to Jane Sanders, JZS@coo.caltech.edu, or x4016, so we'll have enough to eat.

DILBERT®

by Scott Adams



ADAM VILLANI: MEDIA GUY

by Adam Villani



Boingo

October 30 at the Universal Amphitheatre

While perhaps known to most of the country as the rock band movie composer Danny Elfman (*Batman*, *The Nightmare Before Christmas*) dabbles in on the side, to Southern Californians Boingo (formerly Oingo Boingo) is our favorite good-time band, bringing merriment in the form of their concerts and albums since the late '70s. Like all good things, though, Boingo has come to an end, as they've promised that their concert Halloween night was their last ever.

I managed to get tickets to their penultimate show October 30, an excellent 195-minute, 39-song show in which Boingo drew from their entire oeuvre, from hits like "Dead Man's Party" and "Only a Lad" to crowd favorites like "Grey Matter" (featuring the fabulous rumbaphones), to obscure gems from the Boingo vaults like "I'm So Bad" and "Reptiles and Samurai." The show was also peppered with several of the more complex and introspective songs from their last studio album, which topped the charts in Southern California its debut week last year despite failing the crack the Billboard Hot 100. The high-spirited performance, which played more like a party than a concert, was not only a tribute to 17 years of great Boingo music, but an acknowledgment of the special relationship between the band and its fans in Los Angeles.

Mighty Aphrodite

This year's Woody Allen movie (coming to Landmark's Rialto in South Pasadena today) finds the New York intellectual's favorite writer-director-actor really stretching himself by playing a nebbish Jew who adopts a child and falls for much younger women. In all seriousness, though, it's easy to forget that despite his tumultuous private life and the sameness of his movies' subject matter, Allen continues to make humorous, likable, pithy movies full of career-making performances, tightly written and expertly directed. In *Mighty Aphrodite*, Allen plays the father of a seemingly perfect adopted son who gets curious about the child's birth parents, only to find Mira Sorvino, in a hilarious, dead-on performance as a ditzy prostitute and porn star, is the mother. The whole affair is watched over by a Greek chorus, a stylistic gamble that works more often than it doesn't, but certainly shouldn't become commonplace. *Mighty Aphrodite* isn't the best Woody Allen movie ever, but mediocre Allen is still pretty damn good.

Björk

November 1st at the Hollywood Palladium

While not close to the energy level of Boingo's final performances, Wednesday night's concert by up-and-coming singer Björk (she's dropped the Gudmundsdottir) at the Palladium was very strong, showcasing the ex-Sugarcubes vocalist's wild range in style, from the bass-heavy industrial beat of "Army of Me" to the old big band tune "It's Oh So Quiet." Björk's powerful stage presence unified the show, as some sort of bouncy, mischievous elf prone to strange gesticulations and able to go from a whisper to a yell without breaking stride. The Icelandic singer has only two albums of solo material to cull from, but both are full of great tracks, several of which appeared in markedly different arrangements in concert; I would love to see more.

As a bonus, she utilized an accordionist throughout the show, always a plus for me.

Get Shorty

This new black comedy from Barry Sonnenfeld (*The Addams Family*) is a quirky and intriguing look at Hollywood through the eyes of Miami gangster Chili Palmer (John Travolta, in good form), who comes to Tinseltown to collect on a debt from B-movie producer Harry Zimm (Gene Hackman, understately funny in the best role I've seen him in a long time) and ends up pitching a movie idea to him. Sonnenfeld's direction is deliberately mannered and artificial, and while the material (Elmore Leonard's novel of the same name) is perhaps not as well suited to this style as the best work of the Coen Brothers (for whom Sonnenfeld was cinematographer on *Raising Arizona*), *Get Shorty* is an entertaining, surreal look at how not only is Hollywood barely a step above a bunch of loan sharks, but a gangster like Chili Palmer can play the Hollywood game better than the Hollywood players.

Last Week's Column

Unless you noticed something I didn't, last week there was no Media Guy column. I had one written, but the capitalist swine called editors decided to leave it out due to space considerations, and between last week and this week the hard drive they were storing it on died. In case you're wondering, in the column that will never see the light of day I encouraged you to see the "That's Blaxpotation, Baby!" film series and visit the Magic Johnson Theatres, told you what I like to watch on TV ("Beavis and Butthead", "ABC World News Now"), and reviewed Masahiro Shinoda's *Sharaku*, which debuted at the AFI Los Angeles Film Festival, which I told you about (but which concluded yesterday).

Calendar

by Terry Moran

Theater

• There's quite a bit to be had in Southland theater this week—this Friday marks the launching of *The Revenge of the Space Pandas*—but you know that already from the first page. I give credit to any show that has a name like that, but we mustn't forget our roots—Stoppard's *Rosencrantz and Guildenstern are Dead* is playing at the Improv Theatre. If you have not yet heard of, read, or seen this, DO! Simply put, it's one of the better plays I know of. From other various eras of Western Civilization: an adaptation of *Antigone* directed by Goran Gajic and re-written by Deanne Stillman based on the "horrors of former Yugoslavia" is showing at the Hudson Guild in Hollywood thru December 31st while Ibsen's *A Dolls' House*, directed by Mark Rucker, is showing at A Noise Within off Brand in Glendale.

Concerts

• For once there are no big name bands of any talent coming through, though there are a lot of cool bands appearing around LA in these convening couple weeks, oh, and **Green Day**. I really would love to recommend this one time punk, now completely sold out group, but I can't—unless it is as the most over rated band since the Beach Boys. Still the same, for those wishing to throw away good money they could give to me instead, Green Day will be performing on Tuesday, December 12th at 7:30 p.m. at the Arrowhead Pond to you and a few hundred thousand of your friends. The good news: tickets are only \$15-worth it to see their guests **The Riverdales** in concert! — the bad news: tickets go on sale Saturday at 10 a.m., with no line-ups and random wristband distribution blah blah blah—I'm sure we've all done that in the past. On the other hand, you could go to **Exoticon '95** if you are cool (and 21...) on Saturday, November 4th at the Park Plaza Hotel downtown from 6 p.m. to midnight. Tickets are \$11 at advance at Poo-Bah's and other locations, and \$12.50 (Cheap!) at the door. This year's unbelievable line-up includes **Combustible Edison** ("Be a Swinger if you Dare..."), **Joey Altruda Sextet**, **The Phantom Surfers**, **Wonderful World of Joey**, **The TikiTones**, **Davie Allan & the Arrows**, **Brother Cleve**, **Eddie Detroit**, and a heck of a lot more—plus a lot of DJ's and rooms of random "rare and exotic goods." Elsewhen: **No Doubt** (good ska for those who haven't heard of them) will be at The Troubadour on Friday, November 24th with Red 5, Saturday, November 25th with Stretsch Armstrong and Waterdog, and with The Grabbers on Sunday, November 26th. Tickets on sale today at 10 a.m. Also just announced: **Lisa Loeb & Nine Stories** is at the Roxy Tuesday, November 28th, **Jawbreaker** with **That Dog** and **FLUF** perform on Wednesday, November 22nd at The Palace, while **Harry Connick, Jr. and his Funk Band** will be at UCI Bren Events Center on Tuesday November 7th at 8 p.m. At the cost of repeating myself, some other concerts that are up and coming are **Sonic Youth** with **The Amps** and **Mike Watt** at the Wiltern Theater on Saturday, November 11th, **Fugazi** at the Shrine Auditorium with a bunch of special guests on November 8th and 9th, **Blues Traveler** on November 21st and 22nd at 8 p.m. at the Wiltern, **KMFDM** with the Genitorturers on Sunday November 5th, **Jane Siberry** on November 13th at the Wadsworth Theater, and **Tripping Daisy** with Spacehog on Thursday, November 16th. But, if the only part of going to a concert you can afford right now is the gas, **Everclear** will be giving a free "Santa Monica" Show with Ruth Ruth through KROQ on Saturday, November 4th at 3 p.m. at 415 PCH, 2 miles north of the Santa Monica Pier, so you have NO excuse!

Neato-Speedo Events

• For the real die-hard (-er than Mercury did) **Queen** fans: On Sunday, November 5th, there will be an Album Launching Party for the newest Queen album *Made in Heaven*, which promises to showcase 25 years of Queen. Tickets for the party, which will benefit the Mercury Phoenix Trust, are available through TicketMaster. On a side note: I must admit that I find it amazing that a band can create albums at about the same rate five years after they disassociated as they did ten years ago. If only Queen could still perform in concert as well-only Mercury could wear tight black latex pants and still have half of teen America drooling at his feet.

OPERA A LA CARTE TO PERFORM AT CALTECH

Opera A La Carte will stage a program of highlights from Gilbert and Sullivan operettas on Saturday, November 4, at 8 p.m. in Caltech's Beckman Auditorium.

Under the direction of company founder Richard Sheldon, who also heads the cast, Opera A La Carte will feature leading soloists along with a small chorus. The Magic of Gilbert and Sullivan consists of selections from *The Pirates of Penzance*, *The Mikado*, *HMS Pinafore*, *The Gondoliers*, *Trial By Jury*, and many more, staged and in costume. Several less familiar pieces will also be performed.

Tickets to Opera A La Carte are \$28.00, \$25.00, and \$22.00; youths 18 years and under receive \$2.00 off.

Student and senior rush tickets: \$8.00 beginning one-half hour before the performance (subject to availability). Tickets can be purchased at the Caltech Ticket Office, 332 S. Michigan Avenue, Pasadena, and are also available at all Ticketmaster Ticket Centers.

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7:30-1:00 am
Monday-Friday
8:00-1:00 am

Have a date? Want to lose your room-mate temporarily? The back room at the Coffeehouse is now open!

Opiate of the Masses IV

by Joe Trela

In which for the want of a thumb, the hand in the till is lost

In one corner, we've got Mike Tyson versus Buster Mathis, Jr., with the Iron One on free commercial television for probably the first time since he finished doing those Nintendo commercials for Punch-Out. In the other corner, we have Evander Holyfield up against Riddick Bowe; it was almost certainly destined to be a more interesting fight (especially if what Holyfield said about faith healer Benny Hinn fixing his heart condition turned out to be wrong), but, alas, it was fatally stricken by the Dread Curse of Paih-Pur-Veu.

It's obvious to even the casual boxing viewer (like myself) that in the contest between Free+Shiny and Expensive+Gitty, the fewest syllables win. Kiss fight number 2 goodbye from the group mind.

Of course, only 2,000 tickets or so had been sold for the MGM Grand fight versus the 10,000+ for Holyfield's fight at Caesar's Palace, but to borrow

from the managers in *The Phantom of the Opera*, "Nielsen's worth his weight in gold."

But wait, what's this? Tyson breaks his thumb in a sparring match, it doesn't heal quickly and is forced to call off the fight in an impromptu press conference. Now MGM, Fox and Don King must juggle their respective schedules and try to dissipate all the built-up media hype before the inevitable questions about timing emerge - excuse me, they already have. Oh well - there's always Sweeps Week.

You can **pick** your friends, and you can **pick** your teams, but you can't **pick** your friends' teams. Or at least, you should ask them first.

BUFFALO VS. INDIANAPOLIS:

While recovering from prostate surgery, Marv Levy attempts to become the first coach to run a team from his home through the Internet. The plan falls through when an error results in the "Naughty Web Pictures Page" showing up on the Buffalo computers and a Slant-Z pass play appears in front of some horny sixteen-year old in

Baltimore.

Pick: *Buffalo*

NEW ENGLAND VS. N.Y. JETS:

After being sequentially demoted to second and then third place on the Jets quarterback chart, Boomer Esiason becomes the only player to be sent down to the twelfth-string spot; he is then locked in a trunk "for his own protection."

Pick: *New England*

HOUSTON VS. CLEVELAND:

The Houston team bus is nearly swamped by Cleveland's first annual "Our City's Cooler Than Yours" parade, featuring Harlan Ellison, Trent Reznor, the Pretenders, the Cleveland Indians and Grand Marshal Drew Carey.

Pick: *Cleveland*

DETROIT VS. ATLANTA:

Mike Moore, native of Michigan and creator and host of the on-again, off-again show TV Nation, is stopped by security while attempting to set up another wacky stunt in which Crackers, the Corporate Crime-Fighting Chicken, is duct-taped to the ceiling of the Georgia Dome with a Super Soaker full of hot pepper oil. Apparently, it was to protest the exporting of automotive jobs or something.

Pick: *Atlanta*

ST. LOUIS VS. NEW ORLEANS:

Disgruntled Rams fans kidnap QB Chris Miller, tie him to a raft and float him down the Mississippi River to his game; he is found unharmed and announces that he "has become more in touch with nature, especially the striped bass that nested in my shorts."

Pick: *St. Louis*

GREEN BAY VS. MINNESOTA:

Only three days after his unveiling, "Jolly Judkis", the protagonist in Upton Sinclair's novel *The Jungle* and new mascot for the Packers, is pulled after mas-

sive complaints from vegetarians and the local Lithuanian community. He is replaced by Marv, the Minimum-Wage Drone (sponsored by Tyson Foods).

Pick: *Green Bay*

WASHINGTON VS. KANSAS CITY:

After President Clinton laughs for thirth-eight minutes straight when Gus Frerotte bemoans the Redskins' "disasterous" loss a week before, doctors confirm that the President suffers from a rare psycholinguistic disorder focused on that word. Immediately, the secret CIA project "Operation Rose-Colored" is launched to shield the President from all news about his foreign policy.

Pick: *Kansas City*

PITTSBURGH VS. CHICAGO:

Anthropologists announce the startling discovery of the "Art Rooney" cult in a Pittsburgh suburb; members believe that the deceased former owner of the Steelers sleeps under the Alleghenies and will return one day "when the stars on the Pittsburgh helmet appear in the sky" to rule the world, beat the Cleveland Browns and win the division.

Pick: *Chicago*

OAKLAND VS. CINCINNATI:

Barry Foster returns to Riverfront Stadium in an attempt to find himself as a fry cook; he stays on for two days before quitting to take on a new job as an electrician. In the next three weeks after that, he takes and discards fifteen new jobs; he is last seen as a concierge at the Brown Derby in Los Angeles.

Pick: *Oakland*

CAROLINA VS. SAN FRANCISCO:

Following their karaoke commercial for Visa, "George Seifert and His Golden Throats" make their debut at a downtown San Francisco club to the shock and horror of many. Fortunately, the ensuing riot caused little damage and no serious injuries (except to some egos).

Pick: *San Francisco*

ARIZONA VS. DENVER:

After the automated air-traffic system at Denver's new airport continually refers to their plane as the vanguard to an alien invasion fleet, four of the Cardinals are forced to land in Boulder and hitchhike to Denver. They are picked up by an annoying yet endearing character with rainbow suspenders who says "Nanoo, nanoo" a lot and nearly crashes the van after sucking some "Liquid Heat" liniment out of a bottle with his finger and passing out.

Pick: *Denver*

N.Y. GIANTS VS. SEATTLE:

The Giants make the mistake of flying into Seattle airspace on a DC-9; after some quick exchanges with the 12th Air Wing of the Washington Air National Guard, they land in Spokane and take a Boeing 727 for the final leg of the journey.

Pick: *Giants*

MIAMI VS. SAN DIEGO:

In an event similar to that occuring to his teammates Rick Mirer and Cortez Kennedy, Seahawks QB John Friesz is fined \$5,000 after being seen eating a hot dog. "The fact that it was at Der Weinerschnitzel on a Wednesday and not on the sideline during game time," says coach Dennis Erickson, "is not a mitigating factor. Players must learn to behave."

Pick: *San Diego*

PHILADELPHIA VS. DALLAS:

An official city report announces that the massive corruption probe in Philadelphia has even extended to the security at Veterans Stadium. It turns out that some security guards were letting small children in to get autographs from and talk to the players **without** charging them the standard \$20 autograph fee; fans are shocked.

Pick: *Dallas*

Last week: 7-5
Record This Year: 21-17



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INTERVIEWING:

Date: November 17, 1995

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Due to a clerical oversight, many amendments made to the ASCIT Bylaws by last year's BOD are *not* within the copy of the Bylaws in this year's *Little t*. These amendments, however, are now in the copy of the Bylaws accessible from ASCIT's homepage on the Web. Sorry for the (oh so massive) inconvenience.

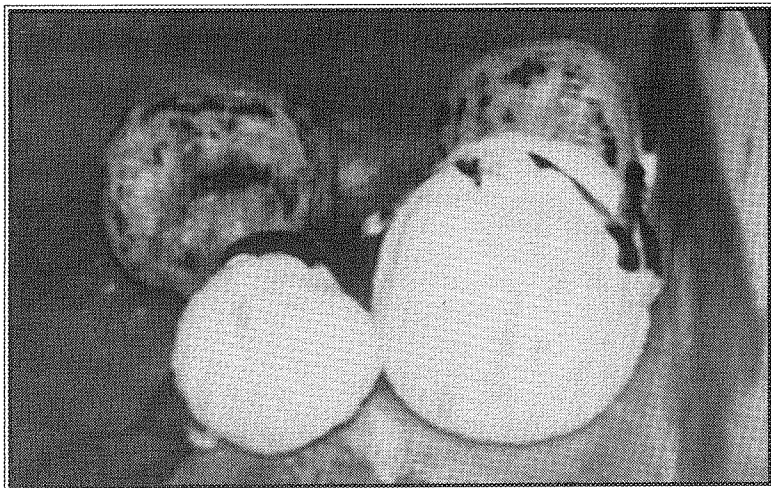


PHOTO BY SHAY CHINN

Students on board at Caltech have sports of their own ...

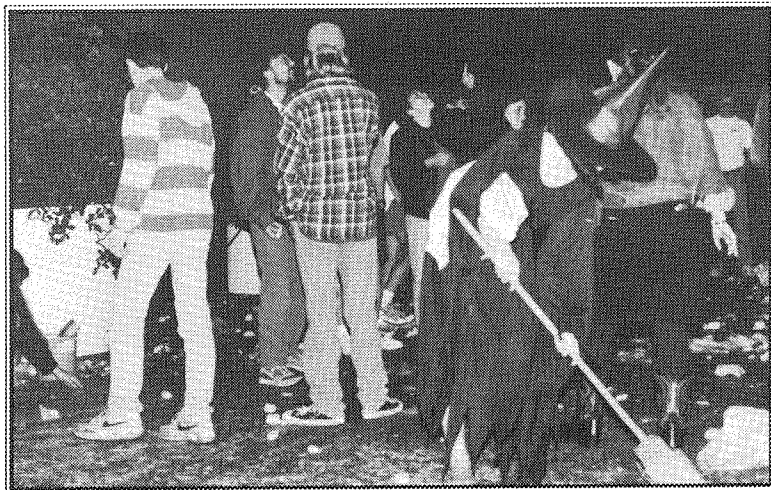


PHOTO BY SHAY CHINN

Suck!

Atlanta Tomahawks Cleveland

by Mason A. Porter

Last Saturday, the Atlanta Braves defeated the Cleveland Indians 1-0 to bring Atlanta its first major sports championship since 1900. The Braves finally won the World Series after losing in 1991 to the Minnesota Twins and in 1992 to the Toronto Blue Jays. In 1993, the Philadelphia Phillies defeated them in the National League Championship Series (NLCS).

Under pressure to shed their label as chokers, the Braves finally met the expectations of their fans. After dismantling the Colorado Rockies in the Division Series, they swept the Cincinnati Reds in four games in the second round of playoffs, the League Championship Series. The Reds looked simply pathetic against Atlanta, as budding Cincinnati superstar Reggie Sanders stuck out in three fourths of his at bats. The rest of the Reds followed suit, tying the record for

fewest runs scored in a playoff series. Former Los Angeles Dodger Mike Devereaux was named Most Valuable Player (MVP) of the series.

The Indians had defeated the

succumbed to the Braves magnificent pitching in this year's world series. Led by World Series MVP Tom Glavine, Atlanta held the Indians to a batting average under 0.200.

In fact, five of the six games were decided by one run, the last being a 1-0 one-hitter by Glavine and closer Mark Wohlers. Glavine has more wins than any other pitcher (including teammate Greg Maddux, unarguably the best pitcher in baseball) in the Major Leagues over the past five seasons. With

Glavine, Maddux, John Smoltz, Steve Avery, and fifth starter Kent Mercker, the Braves have the best starting rotation in baseball. Though it is questionable whether they had a more talented team than Cleveland, it was Atlanta who won. Nevertheless, the Indians will have an excellent opportunity for a rematch, as both teams should dominate their respective leagues over the course of the next few seasons.

The Braves finally met the expectations of their fans.

Seattle Mariners is one of the most exciting playoff series in recent memory. The Tribe (Cleveland) finally won after six grueling games due to the brilliant pitching of former Dodger Orel Hershiser, who was named playoff MVP. Hershiser was also the MVP of the 1988 NLCS and 1988 World Series.

Though the Indians had the best record, 100 wins and only 44 losses, in about half a century, the

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Baseball Awards for 1995 Season to be Announced

by Mason A. Porter

Both the National and American Leagues will soon be announcing their Most Valuable Player (MVP), Cy Young, Rookie of the Year (ROY), Manager of the Year, and Comeback Player of the Year awards. Some of these awards have obvious winners, while some are open to a wide range of debate.

The quest for the National League (NL) MVP award has been a heated contest between a number of excellent players. Catcher Mike Piazza of the Los Angeles Dodgers, despite missing a month with injuries, hit 0.350, with over 30 home runs (HR) and over 100 runs (RBI). Teammate Eric Karros also hit over 30 home runs with over 100 RBI, but his overall statistics less vaunted than Piazza's. Nevertheless, he was the team leader and was one of the best clutch hitters in the National League this season. Another prime candidate is Colorado Rockies outfielder Dante Bichette, who led the league with 40 HR and 128 RBI while hitting about 0.340. Bichette, however, was greatly helped by the fact that he played half his games in Coors Field in Denver, which is a notori-

ous hitter's park. He will probably garner a good share of votes, but he does not deserve the award. Two other candidates are Reggie Sanders and Barry Larkin of the Cincinnati Reds. Sanders, though he choked in the playoffs, had an excellent season and merits consideration for the award. Note that voting on the awards occurred before the postseason began, so his lackluster performance will not adversely affect his MVP chances. Teammate Barry Larkin served as the team catalyst, hitting over 0.300, with 12 home runs as the Reds' leadoff hitter. He also stole over 40 bases, played superbly on defense, and was a team leader in the clubhouse. The last candidate I will proffer is indeed the best in my estimation. Pitcher Greg Maddux of the Atlanta Braves has dominated the National League this season like no other player in it. He won 19 games and only lost twice; he established a new Major League record with 18 consecutive (and counting) road victories. His Earned Run Average (ERA) was a minuscule 1.63. The Braves were all but guaranteed a victory during Maddux's starts. I therefore believe Maddux will win the National

League MVP award, with Karros and Larkin coming close.

In the American League, there are three obvious candidates for Most Valuable Player, and a few other players who form a second tier of MVP contenders. The no-brainers are Albert ("Don't call me Joey.") Belle of the American League Champion Cleveland Indians, Mo ("Hit Dog") Vaughn of the Eastern Division winner Boston Red Sox, and designated hitter Edgar Martinez of the Seattle Mariners. Belle hit over 0.300 with 50 home runs and about 120 RBI. He hit 14 homers in his last 55 at-bats! However, the best part of his season was after the Indians had already run away with the American League Central pennant. Therefore, despite Belle's monstrous statistics, I believe that Vaughn should be the American League MVP. His statistics were excellent, although Belle's were slightly better. Vaughn hit about 40 home runs, drove in 126 runs, and had a batting average of about 0.300. Moreover, he was the team leader of the Red Sox, propelling them to the Eastern Division title. Another viable candidate is Edgar Martinez of the Seattle Mariners. He won the batting title, hit over 30 HR, and drove in over 100 runs. He also led the league in on-base percentage, and was among the leaders in slugging percentage. Martinez was nevertheless a virtual unknown until his playoff heroics, so he is unlikely to garner enough votes to win the award. Instead, he'll finish a strong third. The "dark horse" candidates for AL MVP are Jim Edmonds and Tim Salmon of the Angels, and Manny Ramirez of the Indians. All three players hit about 0.300, with about 30 HR and over 100 RBI.

However, Ramirez candidacy pales in comparison to teammate Belle's. Salmon and especially Edmonds



would be more viable candidates if they had not choked along with the rest of the Angels during the 1995 season's waning months. That they played poorly under pressure while Vaughn thrived in those same situations underscores their seasons. Though all had excellent seasons, Mo Vaughn clearly stood out.

The NL Cy Young award is going to go to Greg Maddux. He is going to get a first place vote from every person to win his unprecedented fourth straight Cy Young Award. He is by far the best pitcher in baseball. His ERA was lower than 1.80 for a second consecutive season; that had not happened since Walter Johnson accomplished the feat about 80 years ago. Maddux, age 29, already has 150 career victories and only about 90 losses. His career ERA is under 3.00, and it would be much lower if not for his horrendous first full season in 1987 when he was with the Cubs. Maddux is second only to teammate Tom Glavine in most victories over the past five seasons. Glavine, in fact, will get quite a few votes in the balloting, as he also had an excellent season. Others who will receive some votes are rookie Hideo ("Tornado") Nomo of the Dodgers, and Pete Schourek and John Smiley of the Reds.

The American League Cy Young award is a contest of three starters and one reliever. The likely winner is starting pitcher Randy ("The Big Unit") Johnson of the Mariners. Johnson, the tallest (it's actually a tie) player in major league history, won almost twenty games and had only a few losses. He, as usual, led the league in strikeouts,

and was the main driving force behind the Mariners' resurgence in the AL West race beginning in August. Closer Jose Mesa, age 29, of the Cleveland Indians is the likely runner-up. After having failed numerous tryouts as a starting pitcher, he was converted to relief this past season and excellent mightily. He led the major leagues in saves with 46, while blowing only a couple of saves. Moreover, his 1.14 ERA was the 8th lowest in modern major league history. Tim Wakefield of the Boston Red Sox came from oblivion to become a candidate for the Cy Young Award. Released from the Pittsburgh Pirates in April, he signed a minor league contract with Boston. He was called up a couple of weeks later and began winning games, something he had not done on a regular basis since 1992. By August, he seemed like the leading candidate for the award, but his performance tailed off at that point. However, he still had 16 wins, only a few losses, and an ERA under 3.00. The final candidate is Baltimore Orioles ace Mike Mussina. Early in the season, he pitched poorly but won several games because of good run support. Later, however, he pitched as well as anybody in the American League. He finished with a won-loss record similar to Wakefield's and an ERA of about 3.30. Another name worth mentioning is that of Kansas City Royals' right-hander Kevin Appier. He was the best pitcher in the league during the first half of the season, but then tailed off because of arm trouble. In the words of one scout, Appier is "rotator cuff surgery waiting to happen."

This brings us to the Rookie of the Year award. The likely winner in the National League is Dodger right-hander Hideo Nomo. Nomo, who turned 27 late in the season, revitalized the Dodgers, and in fact all of baseball with his amazing performances this season. His games were televised in the streets of Japan, where he used to play baseball. Furthermore, he was madly cheered in Japan after having been put to

AWARDS CONTINUED ON NEXT PAGE



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Baseball: Mason Risks Head by Identifying Winners

CONTINUED FROM PREVIOUS PAGE

shame by the press there when he exercised a clause in his contract by retiring from the Japanese League so he could play baseball in the United States, against the best players in the world. (It is doubtful that such loopholes will be exploited in the future, as it assuredly will be remedied.) The second Japanese player in major league history, Nomo showed the world that quality baseball is played over there. He went 13-6, with a 2.48 ERA; he also beat out Atlanta Braves right-hander John Smoltz for the strikeout title. He started the All-Star game against Randy Johnson of the Mariners, pitching two scoreless innings and striking out three batters. Furthermore, he drew people back to the ballpark, and has had a profound impact in saving the game of baseball. Nomo and Cal Ripken were the main two reasons that many fans who had vowed to abandon the game returned. Third baseman Chipper Jones will finish right behind Nomo. He played sterling defense in his first season as a third baseman after being converted from shortstop. He hit about 0.260 with about 20 HR and about 80 RBI. He also hit well in the clutch. Many people say that Jones should win because Nomo played six seasons in the Japanese League. Such people don't consider Nomo a rookie, and Jones may win if there are enough baseball writers (who vote on the Rookie of the Year award) among them. Moreover, they are clamoring for a rule to prevent people such as Nomo from winning the ROY award in the future. As far as I'm concerned, that is a bunch of crap. The winner should be the best rookie; no other considerations are relevant.

The AL ROY is a contest between two rookie outfielders: Garret Anderson of the California Angels, and Marty Cordova of the Minnesota Twins. Anderson of the Angels is the better candidate, but it's a very close call. He began the season on the major league club, but did not play much. He was thus sent down to the minor leagues, only to be called back up in June and excel both at the plate and in the field. Anderson ended up with nearly 400 at-bats, hitting about 15 home runs with about 65 RBI. He also hit over 0.300. Additionally, he helped lead the Angels during their big hot streak immediately following the all-star

break. Cordova, on the other hand, began the season as the Twins starting leftfielder and was consistent during the entire season. He hit 0.277, with 23 homers and about 80 RBI. However, he played poor defense. The vote will be close, but I'm giving the edge to Anderson. A couple of minor candidates are second baseman Ray Durham of the Chicago White Sox and reliever Julian Tavarez of Cleveland.

Durham hit just under 0.270, drove in 50 runs, and played well defensively. Tavarez served as a set-up man for Jose Mesa and performed admirably in that role. He won 10 games and had a good ERA.

An award of somewhat lesser interest is Manager of the Year. Don Baylor of the Colorado Rockies should win this award in the National League. He took a third year expansion team into the playoffs as

the NL Wild Card. Though the team had some good offensive players and decent defense, its pitching was simply horrible. It took excellent managerial work to get a team with such a thin pitching staff all the way to the playoffs. Davey Johnson of the Reds deserves consideration for having to deal with Marge Schott all year. Even with that distraction, he still reached the National League Championship Series. In the American League,

Lou Pinella should win the award. He guided the Mariners to an excellent finish to steal the Western Division championship from the Angels. Another award is Comeback Player of the Year. Tim Wakefield will win it in the AL, and Ron Gant of the Reds will win the award for the second time in the NL. Wakefield returned from oblivion and Gant missed the 1994 season after a snowmobile accident the previous winter.

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Announcements

Information and applications for 1994 Summer Work-Study are available in the Financial Aid Office (MSC 12-63) now. If you are interested in Summer Work-Study, please submit the required application as soon as possible, but no later than **June 1, 1994**. The entire financial aid application must be complete by June 1st to be considered. If awarded, the work-study funding will begin with the July 4th payroll period.

Events

*The Caltech Y presents the Saturday Alternative Movie *American Graffiti* on Saturday, November 4th, at 10pm in the Beckman Institute Auditorium.

*The Caltech Bookstore will be hosting the author of Force of Nature: The Life of Linus Pauling, Tom Hager, on Wednesday, November 8th at 4pm in the Athenaeum. Hager will be speaking and autographing his book.

*The renowned architect Frank Gehry will give the fourth annual James Michelin Distinguished Visitor's Lecture entitled Current Work on November 8th at 9pm in the Beckman.

*The Caltech-Occidental Concert Band under the direction of William Bing will be giving a concert on Saturday, November 11th at 8pm in the Beckman Auditorium with guest conductor Frank Ticheli. There will also be performance of John Philip Sousa's Star and Stripes Forever in honor of Veterans Day. Admission is free but limited.

*Nate Lewis will be giving a Watson Caltech Lecture entitled "The Caltech Electronic Nose Project" on Wednesday, November 15th at 8pm in the Beckman Auditorium. He has kindly asked that he have the honor of being poked at the end of his talk.

*A two-day Blood Drive will be held in the Winnett Student Lounge on Wednesday, November 15th between 9:15am and 2:30pm and on Thursday, November 16th between 12:15pm and 5:30pm. For an appointment, please call Villa Zmuidzinas at x6001; walk-ins are welcome.

*Dr. Dwayne L. Merry will narrate an Armchair Adventure travel film entitled "The Treasures of Mexico" on Friday, November 17th, 8pm, in the Beckman Auditorium. Admission starts at \$7.

*Dean Elzinga will be giving a Paco A. Lagerstrom Chamber Music Concert including songs by Schubert, Vaughan Williams, Brahms, and Ravel on Sunday, November 19th at 3:30pm in the Dabney Lounge.

TACIT will be performing Pulitzer prize winning sci-fi comedian David Mamet's *Revenge of the Space Pandas* -or- *Binky Rudich* and the *Two-Speed Clock* on Friday, November 3rd at 8:00 pm; Saturday, November 4th at 8:00 pm and at 12:00am; Friday, November 10th at 8:00 pm; and at Saturday, November 11th at 8:00 pm and at 12:00am! General admission tickets are only \$8, \$5 for students. Tickets available at the Caltech Ticket Office or at all Ticketmaster Ticket Centers. Call x4652 for more information.

Opera a la Carte will be presenting their performance of *The Magic of Gilbert and Sullivan* in the Beckman Auditorium at 8pm on Saturday, November 4th. The show will feature fully costumed musical numbers from shows such as *The Mikado* and *The Pirates of Penzance*. Tickets range from \$22 to \$28, with a \$2 student discount.

Announcements

★ denotes a new announcement.

Guitarist Paul Galbraith will be performing a Paco A. Lagerstrom Chamber Music Concert from 3:30 pm on Sunday, November 5th in Dabney Lounge. Admission is free.

The Caltech-Occidental Band will be holding a concert directed by William Bing with guest conductor Frank Ticheli, Professor of Music at USC on Saturday, November 11th, at 8 pm in the Beckman Auditorium. Admission is free.

From the Counseling Center

The Counseling Center is offering a Women's Therapy Group For Graduate Students to begin in the fall term. The group is designed as an expansion of the women's group offered last year which provided an opportunity for women to examine a range of personal and professional issues in a confidential setting. Through the group discussion, women will be able to examine their patterns relating to others, their family and intimate relationships, and challenges they experience in achieving success. Another important goal of the group process will be to facilitate a sense of closeness and connection within the group. Each group member needs to meet with the group leaders for a pre-group interview. If you would like more information or to schedule a pre-group interview, please contact the Counseling Center at x8331 today at the latest. The group will be offered on Tuesdays at the Counseling Center and will begin in November.

Are you looking for help in dealing with procrastination? Four weeks are yet left in the Counseling Center's Procrastination Group for graduate and undergraduate students; the next meeting in the series is scheduled to be held this next Tuesday, November 7th between 3:15 and 4:45 pm in the Health Center Lounge. The group will provide an opportunity to discuss procrastination difficulties, to examine the psychological issues which may contribute to procrastination, and to learn ways to begin to overcome procrastination. Kevin Austin, Ph.D., Director of the Student Counseling Service, will lead the group with staff member Jamil Ali, M.A. For more information call Virginia at x8331 to arrange to meet one of the group leaders prior to beginning the group. This meeting is required in order to attend the group. So don't procrastinate, call today!

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 someone just to make new friends? We invite you to the Gay, Lesbian, & Bisexual Support Group every first and third Tuesdays of every month from 7:30 to 10:00 pm 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. The group usually discuss a particular topic relevant to the group that week and then move on to announcements and general discussion. Refreshments will be served. If you would like more information, please call 395-8331.

The Women's Center and the Counseling Center are co-sponsoring a confidential Assertion Training Group for both graduate and undergraduate women. The group will focus on developing assertion skills to be used in professional settings. Goals of the group will include: developing a conceptual understanding of aggressive, non-assertive, and assertive behavior; practicing specific behavioral skills (eye con-

tact, voice projection, body language); strengthening cognitive skills including gaining an understanding of rights and appropriate behavior; and problem solving specific difficult situations. Jan Aura, Ph.D. and an intern from the Counseling Center will co-facilitate the group which will be held for the next four weeks at the Women's Center on Mondays from 12:00-1:00 pm. If you would like more information or you would like to sign up for the group, please contact the Counseling Center at (818) 395-8331.

Competitions

Disc Makers is giving a chance in a lifetime for unsigned bands to get signed! The Disc Makers' 1995 Los Angeles Unsigned Band World Series is open to all unsigned Southern Californian bands. The six finalist of this competition will be given the chance to perform for music industry's leaders at the Troubadour on November 30th, while the top band will be given the chance to record their album to be mastered, manufactured, and promoted as a major-label-quality CD (a prize valued at \$10,000). The contest is open to all Southern California bands that submit either a demo or CD by November 9th, along with a \$15.00 cover charge to: Disc Makers' 1995 Los Angeles Unsigned Band World Series, 213 W. Alameda, Suite 101, Burbank, Ca 91502.

Fellowships and Scholarships

For further information on the following announcements please contact the Office of International Programs, MSC 0-54, extension 6330:

One-year cultural exchange programs in technical fields are now available to students through the Congress-Bundestag Youth Exchange Program for Young Professionals and Agriculturists. This program offers American participants the chance to learn about Germany first-hand through a combination of intensive language study, professional or technical schooling, and practical work experience. Applications can be requested directly from the CDS International by phone or mail at CDS International, Inc., 330 Seventh Avenue, New York, NY, 10001-5010, (212) 760-1400. The application deadline for the 1996-97 program is December 15, 1995.

From the Fellowships Advising and Resources Office:

For further information on the following announcements please contact either x2150 or lauren_stolper@starbase1.caltech.edu.

*Applications for the Department of Defense's National Defense Student Education Grants (NDSEG) will be mailed out to universities starting the week of November 6. This is a week later than the predicted application shipping date. Therefore, the Fellowships Advising Office expects to receive applications during the week of November 13. The application deadline date is January 17 so this later shipping date should pose no problem for applicants. In addition, starting next week the application will be able to be accessed on line. Open the URL <http://www.battelle.org/ndseg/ndseg.html> The NDSEG offers three years of graduate study in most fields of science and engineering. Graduating seniors and first year grad students who are U.S. citizens or U.S. nationals may apply. Permanent and conditional residents are not eligible to apply for this award. In a discussion with an NDSEG representative today, Lauren Stolper, Caltech's Fellowships Advisor was told that the essay is one of the most important factors in winning an NDSEG. The program representative advised students to have their essays reviewed and leave time to rewrite the essay before sending it in. Remember that Lauren is available to review your statement of purpose or study proposal. To schedule an appointment please call ext 2150 or email lauren_stolper@starbase1.caltech.edu.

Applicants can now apply to the NSF completely on-line at URL <http://www.nsf.gov/a10/A10PrepNewAppl.htm> Remember the electronic transmission and postmark deadline are the same as for mailed applications: November 6th, 1995.

The applications for the DOD National De-

fense Student Education Grants will be available within the next two weeks. When they arrive a notice will be sent to the Houses and placed in the Tech. Any student applying for the NSF should consider applying for the DOD as the grants are similar in their qualifications. Note: only U.S. citizens and nationals may apply to the DOD.

The National Security Education Programs seeks to equip American citizens with an understanding of the less commonly taught languages and cultures to allow them to become more integrally involved in global issues in their field as professionals. Through the NSEP Undergraduate Scholarships for Study Abroad, students can study in any country except the following: U.S., Canada, New Zealand, Australia, and Western Europe. Freshmen, sophomores, juniors, and seniors may apply. Freshmen and sophomores can apply for summer, semester, or full year programs. Juniors and seniors are only eligible for semester or full year programs. Seniors may only apply for the program provided they will not graduate from the program before or during their term of study. Students interested in applying for the program should request an application from Lauren Stolper, Fellowships Advisor, by November 13th to allow sufficient time to complete the application and devise a plan of study. Completed applications are due by November 30, turned in to Lauren Stolper.

From the Dean's Office:

For further information on the following announcements please stop by 102 Parsons-Gates:

Applications are available in the Deans' Office, 102 Parsons-Gates for the Churchill Scholarship Program. The one-year graduate study award is available to graduating seniors and graduate students. It includes full tuition, \$6,000 living allowance for a full-year program, and a \$500 travel allowance. At current exchange rates, the value of a Churchill Scholarship is approximately \$20,000. Churchill College is a predominately engineering and science-oriented college at Cambridge University. Applicants must be U.S. citizens between the ages of 19 and 26. The deadline to submit a complete application to the Deans' Office is November 13th, 1995. Caltech can nominate two candidates to the Churchill Foundation.

The Harry S. Truman Scholarship Foundation awards scholarships to juniors who have outstanding leadership potential and intend to pursue careers in public service. If interested, please stop by the Deans' Office. The deadline for receipt of nominations for this scholarship is December 1st, 1995.

From the Financial Aid Office:

Applications and/or information on the following and additional undergraduate scholarships are available at the Financial Aid Office at 515 S. Wilson, second floor. All qualified students are encouraged to apply.

Asian & Pacific Americans in Higher Education (APAHE) is offering four \$500 non-renewable scholarships for the 1996-97 academic year. Applicants must be California residents attending at least half-time in Fall of 1996 and must have a minimum 3.5 GPA. Applicants must also have undergone special circumstances or unusual hardships, must have a need for financial assistance to complete their educational goals, and must have a community involvement or do volunteer work with Asian and Pacific American populations. To apply, complete an application and statement of candidacy and submit it to the Caltech Financial Aid Office no later than November 24, 1995.

The California Irrigation Institute (CII) announces a \$500 scholarship award for junior and senior undergraduates majoring in an irrigation or water-related field of study. Applicants must have a minimum 3.0 GPA, must provide two recommendations from professors in the area of soil, water, irrigation, or other agricultural-related fields of study, and must not have previously received the award. Applicants must also write a 500-word essay on a subject dealing with water management and/or irrigation and must be willing to attend the annual CII meeting (all expenses paid). Applications are due November 25, 1995. For an application or more information, come to the Financial Aid Office.

The California Park and Recreation Society Aging Services and Activities Section announces its scholarship competition. Undergraduates and graduates may apply for the \$250 awards. Applicants need to be full-time students in the areas of recreation, leisure studies, or in an aging-related field. Applicants also must have GPAs of 3.0 or above and must have financial need. The deadline to submit applications is November 30, 1995.

The American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc. is offering nonrenewable scholarships in the amount of \$2,500 to full-time engineering students in the final two years of undergraduate study. Students must have a GPA of 3.25 or above and must be involved in the fields of heating, ventilation, air conditioning, or refrigeration, or in related areas including indoor air quality, energy conservation, human comfort, or HVAC system design, operation, or maintenance. Applications are available at the Financial Aid Office, and are due December 15, 1995.

The Elie Wiesel Foundation for Humanity is sponsoring its annual essay contest for full-time undergraduate juniors and seniors. Students are challenged to examine and analyze urgent ethical issues in essays of 3,000 - 4,000 words. First prize is \$5,000, second prize is \$2,500, and third prize is \$1,500. Essays must be postmarked by January 12, 1996. For essay guidelines and additional information, visit the Financial Aid Office.

The American Concrete Institute (ACI) is offering several awards. The Peter D. Courtois Concrete Construction Scholarships are two \$1000 awards for undergraduate study in concrete construction for the 1996-97 academic year. Eligible students must be enrolled at least half-time and must be seniors in 1996-97. The application, available at the Financial Aid Office, with all required supporting documents is due January 15, 1996. The ACI Committee is also offering one ACI-James Instruments Student Award in the amount of \$800, for original student research on nondestructive testing of concrete. Applicants must submit a technical paper describing their research. The award is open to undergraduates or graduates, and the research work must have been completed within two years of the submission date. Completed technical papers must be received by ACI Committee no later than November 30, 1995 at the following address: c/o Dr. Allen Davis, Madsen, Knepfers and Associates, 9 East Exchange Place, Suite 900, Salt Lake City, UT 84111, (Telephone (801) 533-2888). ACI is also sponsoring three different competitions: the Concrete Cube Competition, the Concrete Egg Protection Device Competition, and the Concrete Projects Competition. For complete rules, call the ACI Education Department, at (313) 532-2600.

GLAMOUR Magazine announces its 1996 Top Ten College Women Competition. Women who are currently full-time juniors are invited to submit applications to receive one of ten awards consisting of a cash prize of \$1,000, the opportunity to meet with top professionals in your field, and national recognition in GLAMOUR's October 1996 issue. Applications are available in the Financial Aid Office and must be completed and postmarked no later than January 31, 1996.

The National Academy for Nuclear Training will be awarding 100 new \$2,500 scholarships for the 1996-97 academic year. Applicants must be U.S. Citizens, sophomores, juniors, or seniors in 1996-97, and enrolled full-time, with a minimum GPA of 3.0. Applicants must also be majoring in nuclear fission or electric power-related fields, and must be interested in a career in nuclear power. Applications must be postmarked no later than February 1, 1996.

The American Electroplaters and Surface Finishers Society is offering \$1,000 scholarships to undergraduate and graduate students who will be full-time during 1996-97. Undergraduates must be at least junior standing in 1996-97. Both undergraduates and graduates must be studying metallurgy, metallurgical engineering, materials science or engineering, chemistry, chemical engineering, or environmental engineering. Award selections will be based on, but not limited to: career interest in surface finishing technologies, scholarship, achievement, motivation, and potential. Financial need is not a factor. Applications and supporting documents must be postmarked by April 15, 1996.

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