**Welcome to Caltech!**

by Suzette Cummings, Dean's Office

The Dean of Students Office wants to welcome you back for the 1995-96 academic year. Staff in the office are Rod Krieger, Dean of Students; Barbara Green, Associate Dean; Suzette Cummings, Assistant to the Deans and Sandra Euts, Secretary. We are available to assist you in a variety of ways and we encourage you to stop by to talk with one of the Deans if you have any academic or personal concerns. Here are a few reminders that may help make first term a successful one for you.

If you are finding the material in a course difficult, contact our office for a free tutor. We hire upperclass students to tutor others, especially in the core courses. Tutoring is free to the student and the Deans Office pays the tutor. Of course, attending class regularly, talking with your teaching assistants and professors, attempting all your homework sets, and collaborating with other students when appropriate can make a big difference in your success.

Students who become ill may want to be in touch with the Deans for assistance in excuses for late assignments and tests. If you are too ill to complete a course or can’t take the final exam because of illness, only the Deans are authorized to give the grade of I, medical incomplete. Contact us if you have a medical problem that seems to be interfering with your academics.

Remember, the deadlines for dropping and adding courses, Add Day this year is October 13 and Drop Day is November 15. If we invite you to come in to talk with us about your progress, please respond. We usually have useful suggestions to offer.

Best wishes for a productive and enjoyable first term.

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**Palomar Survey Reveals Peak in Quasar Formation**

by Jay Aller

PASADENA—Astronomers have discovered direct evidence that most quasars came into existence when the universe was still in its infancy. This discovery will help scientists use quasars, the most luminous objects in the sky, as tools for studying the universe back to a time when it was less than a billion years old.

"This survey allows scientists to investigate for the first time the era of quasar formation," said Maarten Schmidt, a Caltech astronomer and a co-author of the study.

Using data from the recently completed quasar search known as the Palomar-Transit-Grism Survey, Schmidt, Donald P. Schneider of Princeton University and James Gunn of Princeton University published their discovery in the July 1995 issue of the Astronomical Journal. (Agrism, from the combination of grating and prism, is a transmission grating mounted on a clear, wedge-shaped piece of glass.) The survey shows that the space density of quasars—"the number of quasars in a given volume of space—reaches a maximum for those with red shifts between 1.7 and 2.7, and declines steeply for quasars with higher red shifts.

"This maximum means there was a peak in the rate of quasar formation between 1.9 and 3.0 billion years after the Big Bang," Gunn said, "and a much lower rate earlier in the history of the universe.

A typical quasar emits 100 times more energy than our home galaxy, the Milky Way. This makes them the most luminous and also some of the most distant known objects in the universe. Because light from quasars takes billions of years to reach the earth, scientists see them as they were billions of years ago. Therefore, quasars are important to astronomers as one of the best probes available for studying the conditions present in the early universe.

Astronomers first identified quasars in 1960 as starlike counterparts to strong sources of radio waves, but were initially unable to determine the nature of the objects. In February 1963, Maarten Schmidt made a breakthrough.

"Recognized that the pattern of spectral lines in one particularly bright quasar was due to hydrogen, but that the location of the lines was red shifted," Schmidt said. "This indicated that the object was moving away from the earth at a very high velocity."

Red shifting is an effect seen in rapidly recording sources of light.
National Student Groups Condemn Student Loan Cuts in Budget Resolution

by Kevin Boyer

Washington, D.C. — The United States Student Association (USSA), the National Association of Graduate-Professional Students (NAGPS), the American Medical Student Association (AMSA), and the United States Public Interest Research Groups (USPIRG), non-partisan national associations representing millions of undergraduates, graduate, and professional degree-seeking students, issued a joint statement condemning last week’s proposal by the House and Senate Budget Committees to slash $10 billion dollars in funding from the federal student loan program. In order to pay for tax cuts for wealthy Americans, the Budget Committee Concession Agreement specifically targets graduate and professional degree students for student loan cuts. A $10 billion funding cut could require the elimination of important government subsidies from the student loan program, including the in-school student loan interest subsidy. One of the nation’s largest student aid programs, the subsidy pays the interest on student loans while students are still in school. The program is projected to provide $12.5 billion in financial aid to the nation’s post secondary students over the next five years. The $10 billion cut was part of the House-Senate Budget Conference Agreement which would reduce federal spending by $560 billion over the next 7 years and taxes by $245 billion. The Conference Agreement also freezes spending over the next seven years for Pell Grants, which currently provide $12.5 billion in financial aid to the nation’s post secondary students.

In comparison, the alternative budget recently offered by President Clinton not only balances the budget, but also increases the federal investments in education over current levels by $40 billion over the next seven years.

Joint Statement: “We applaud that Congress would so actively target students and families in its efforts to reduce federal spending and provide tax benefits for the wealthiest sectors of Americans. Student loans currently make higher education possible for 4.5 million individuals, are supported by huge margins of Americans, and are a crucial part of our nation’s investment in its future.

By eliminating the need-based interest subsidy, Congress would increase the cost of student loans by 20-50 percent, depending on the amount borrowed. The American Council on Education reports that for someone taking out the maximum possible amount in student loans, losing the subsidy would result in a $41,000-month increase for undergraduates, and nearly $400 a-month for graduate and professional-degree students. As a result, access to higher education will be seriously threatened as fewer Americans will be able to afford the education mortgages required to obtain a post secondary degree.

Congress is out of step with the nation on this issue. According to a recent poll of registered voters conducted by KRC Research and Consulting, 89% of Americans (87% of Republicans) believe that the government should maintain student aid funding at its current level. Moreover, 86% believe that tax dollars spent on student aid programs is money well-spent.

Ninety-one percent of those polled believe that federal government spending on student financial aid was a good investment in America’s future. Fifty-eight percent said federal funding of student aid should be maintained even if the defense budget had to be cut.

We are also stunned that Congress would propose to cut graduate and professional student loans without regard or comment to the investment loss this represents. For years, studies have shown that US economic productivity is directly benefited by federal government spending on student aid and higher education. While proposals to eliminate waste and duplication are well-coming, eliminating the interest subsidy takes money directly from students and their families and is irresponsible in light of our nation’s need to remain competitive.

We sincerely hope that Members of Congress will vote against the Budget Resolution because of the drastic cuts to student aid and student loans. We believe that Members of Congress were elected to ensure a bright and productive future for our nation, not a future where economic productivity and individual opportunity are sacrificed to achieve unsupported and misguided objectives.

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Deadline for Submission to The Tech
Letters to the Editor - 5 P.M. Monday
Events and Notices - 5 P.M. Tuesday
Unsolicited Articles - 5 P.M. Tuesday
Regular/Semi-Regular Columns - 5 P.M. Wednesday
Articles, News Submissions - 5 P.M. Wednesday
Art/Photo Submissions - 5 P.M. Thursday

Work for The Tech
3 units PA 15 credit and free food all in one.
Rotation Rules Require Alteration

There are serious flaws in Caltech's current rotation rules. Students must mark their opinions during rotation week in order to avoid rotation violations and the consequences they entail. Though the intended purpose of preventing prejudice is considered positive, the environment is considerably worse than this freshman envisioned. Fortunately, there are means to move to other houses or off-campus as an upperclassman which can shorten the duration of such problems. However, the fact remains that there are several freshmen each year who must deal with this. Some grow to like their house, while others wish to live somewhere else as soon as possible. I believe that this problem arises because of a lack of information. Freshmen are entitled to hear each of the stereotypes of each of the houses. Since most of these stereotypes are based on small kernels of truth, freshmen who desire more information can seek to get it. This is especially important if the freshman's perception of the house is so contradictory to the stereotype as to seem inherently inconsistent. Students should not be presenting this information, but making it available on an individual basis. Instead, there should be some sort of presentation at the beginning of the year where all of this information is presented in a complete and organized fashion. There should be exactly one representative from each house, along with some of the institute officers present. Moreover, each student should describe the stereotype of his/her own house (the freshman need not be told which student belongs to which house), and then anybody else who wants to add a stereotype or mention should be allowed to do so. Freshmen would therefore possess information they deserve to possess before they decide which houses they prefer.

There is also a second, though related, problem of lesser magnitude. During Rotation week, one often hears upperclassmen saying, "They are all fine houses," who do not believe that all houses are indeed 'fine.' (I'll grant that there are also many people who probably do believe it.) People who do not believe it should not be saying so! I feel it is hypocritical for lying to be condoned in the name of rotation. If a freshman asks an upperclassman a question which could warrant such a comment, a simple statement of the institutes prohibitions of comments that present bias would be sufficient.

I reiterate that I agree with the purpose of these rules. One does not want freshmen to be unfairly biased for or against any of the houses. I assert, on the other hand, that one does not want people to be unfairly trapped in a situation which takes at minimum a few months to rectify. The current rules allow for the latter far too often. Therefore, changes must necessarily limit to what I previously stated need to be made.

Mason A. Porter

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**TACIT Ready for New Year**

by Mark Adler

Aliens, Sluts and Murderers wanted.

Do you sometimes feel like an alien? Have your friends questioned your promiscuity? Did you ever desire to do in your significant other? Now you can participate in Contraculture, the Academic Review from the Fourth World in the Goodfellow System and eccentrics from a small Welsh seaside village are needed for TACIT's productions of Revenge of the Space Pandas and Under Milk Wood this November. Auditions are being held soon.

In addition to the aliens in Revenge of the Space Pandas, other roles available include Binky Rudich and Virian Moorner (students); Bob (a sheep); the Grand Pumpkin Smashing Executioner (a grand pumpkin smashing executioner) and many more.

Auditions will be held for a few remaining voices for Dylan Thomas' poetic Under Milk Wood, directed by Caltech graduate student Maneesh Sahani. The piece is about sound—the sound of the sea, the night, the gossip, the pub. The production will be untraged with the sounds of the actors and of the town around them enveloping the audience. A couple of the more than 50 character voices include: Rose Mae Cottage, who lies in the clover with the nannygoats, painting circles of lipstick around her nipples, waiting for someone, anyone, to help her "sin till she blows up."

Mr. Pugh, the school master, who reads the "Lives of the Great Poets" at supper and concocts in his imagination devilish notions to do away with Mrs. Pugh.

Actors will play multiple characters, a variety of accents and voices is desired.

There are plenty of backstage positions open for those who like to participate in either, or both productions, but are panic stricken at the idea of being in front of an audience. Set construction (create a unique civilization!), special effects, alien makeup and design, a Pumpkin Smashing Concentration Booth, sound effects, musicians, stage managers, and much, much more are needed.

Auditions for both shows are on Friday, September 22 from 6 pm - 9 pm and on Saturday, September 23 from 1 pm to 3 pm in Winner Club Room 1. You may audition for, and if cast, be in either or both shows! If you have any questions or would like further information, please contact Maneesh Sahani at (818) 793-2879 or e-mail maneesh@vis.caltech.edu.

From Shakespeare to Space Pandas, TACIT does it all...

Some of you who are new to campus may be now asking yourself, "What is TACIT?" T.A.C.I.T. is the catchy acronym for Theater Arts at the California Institute of Technology. For those of you who thought that Caltech was all science and no play, have we got news for you! Last year TACIT produced shows from musicals to Shakespeare. This year there are no fewer than four productions lined up! Starting off the season will be Pulitzer Prize winning playwright David Mamet's wacky sci-fi comedy, Revenge of the Space Pandas. Soon after will be the lyrical "Under Milk Wood" by Dylan Thomas. To give Southern Californians a chill in winter will be the gripping "K.Z." Ending this terrific season will be the classic "Inherit the Wind."

If you would like to get involved in the theater program, just e-mail: tacit@ccs.caltech.edu. Actors, musicians, designers, technicians and audience members are always welcome!
Question of the Month: Visible Stars

Answered by:
S. George Djorgovski, Associate Professor of Astronomy

Question: How many stars can a person see at night with the naked eye?

Answer: Under ideal conditions, about 3,000 stars should be visible at night with the unaided eye, but many factors can reduce this number.

In the best of circumstances, about 6,000 stars are bright enough to be visible to the naked eye. But of course, only half of these are visible at any one time, no one can see the stars below the horizon.

A full moon reduces the number of stars that are visible. The sunlight reflected from the moon’s surface brightens the entire sky and obscures the fainter stars. A similar problem is created by the artificial lights of towns and cities. That’s why the telescopes on Mount Wilson near Los Angeles aren’t able to see as well as they might; city lights brighten the sky and mask the faintest stars.

Certain atmospheric conditions can also make stars more difficult to see. Smoke from fires, dust kicked up by wind, and high humidity all make stars harder to see. And of course clouds block them out altogether.

So for the best viewing, go out on a dry, clear, calm, moonless night far from the city, and you should be able to see nearly all the 3,000 visible stars.

This is a monthly feature produced by the Media Relations Office at the California Institute of Technology, in collaboration with Caltech’s faculty, to answer commonly asked or particularly intriguing questions about science and the natural world.

When It Comes To Value, No One Even Comes Close.

$79 Danish Desk. Functional and affordable. This Danish desk is just the right size for an apartment. 47.5"w x 27" x 28.5"h. In all-white, black or white with beech trim, only $79.

$29 Low Bookcase. An exceptional value. These quality Danish bookcases are great for storing everything. Low bookcase 22"w x 10" x 33.5"h $29. High bookcase 22"w x 10" x 68.5"h $39.

$88 Danish Twin Bed. Design your room on a budget. This bed is the perfect combination of style and price. Available in white or black, just $88. Serta twin mattress $88.


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I T Y WE INSTALLED RETADIUM STATUS ADJUSTERS IN THE CUBICLE WALLS. SENSORS MONITOR YOUR WORK AND ADJUST THE CUBICLE SIZE ACCORDING TO YOUR VALUE.

As the nation's largest retirement system, we offer a wide range of allocation choices—from TIAA's traditional annuity, with its guarantees of principal and interest, to the seven diversified investment accounts of CREF's variable annuity. What's more, our expenses are very low, which means more of your money goes toward improving your future financial health.

To find out more, call our planning specialists at 1-800-842-2888. We'll send you a complete SRA information kit, plus a free slide-calculator that shows you how much SRAs can lower your taxes. Call today—it couldn't hurt.

PAIN KILLER.
Looking for outside scholarships to assist with the cost of your Caltech education?

Check out the fund finder in the Caltech Career Center!

- There are more than 3,000 listings for both undergraduate and graduate study opportunities.
- The Career Center is located in room 8 of Parsons Gates and it is open from 8 to 12 noon and 1 to 5 pm Monday to Friday.
- The Fund Finder is a free service provided by the Caltech Financial Aid Office and Career Center Office.

Selected Performance Courses

PA 30 abc. Women's Glee Club. 3 units (0-3-0); first, second, third terms. Prerequisite for PA 30 c: PA 30 a or PA 30 b. Study and performance of the choral repertoire for women's voices encompassing all styles, all periods. Includes both group and individual instruction; campus and off-campus performances. Instructor: Hubbard.

PA 31 abc. Chamber Music. 3 units (0-3-0); first, second, third terms. Study and performance of music for ensembles of three to seven members. Literature ranges from the Baroque to contemporary eras. Open to students who play string, woodwind, or brass instruments, or piano. Instructor: D. Bing.

PA 32 abc. Symphony Orchestra. 3 units (0-3-0); first, second, third terms. Study and performance of music written for full symphony orchestra and chamber orchestra. The orchestra performs both the standard symphonic repertoire and contemporary music. Two and a half hours of rehearsal per week. Instructor: Gross.

PA 33 abc. Concert Band. 3 units (0-3-0); first, second, third terms. Study and performance of music written for the classical wind ensemble. Emphasis is placed on the traditional literature, but the study of contemporary music is an important part of the curriculum. Instructor: W. Bing.

PA 34 abc. Jazz Band. 3 units (0-3-0); first, second, third terms. Study and performance of all styles of jazz music, from Duke Ellington to Pat Metheny. Jazz improvisation is also stressed. Instructor: W. Bing.

PA 35 abc. Guitar. 3 units (0-3-0); first, second, third terms. Offered on three levels: beginning, intermediate and advanced. Instruction in a strong classical technique, followed by exploration of various styles of guitar—classical, flamenco, folk, and popular. Instructor: Denning.

PA 36 abc. Men's Glee Club. 3 units (0-3-0); first, second, third terms. Classical repertoire from Renaissance to the present day for both men's and mixed voices, often with orchestra. Includes both group and individual instruction. Three hours of rehearsal per week. No prerequisite. Instructor: Caldwell.

PA 37 abc. Chamber Singers. 3 units (0-3-0); first, second, third terms. A sixteen-voice SATB auditioned student ensemble, the Chamber Singers provide costumed entertainments for the Athenaeum in December and perform annually on the All-Mozart Concerts in the spring. One and a half hours of rehearsal per week. Instructor: Caldwell.

PA 61 abc. Silkscreen and Airbrush. 3 units (0-3-0); first, second, third terms. Instruction in silkscreen and airbrush techniques, using a variety of media including T-shirts. Instructor: Barry.

PA 62 abc. Drawing and Painting. 3 units (0-3-0); first, second, third terms. Instruction in techniques of drawing and painting, utilizing models, architecture, and still-life as subjects. Instructor: Barry.

PA 63 abc. Ceramics. 3 units (0-3-0); first, second, third terms. Instruction in the techniques of creating ceramics, including slab roller and potter's wheel, and glazing methods. Instructor: Freed.
The Caltech Men’s and Women’s Cross Country Teams return to campus eager to build on their intense summer training programs. Then ‘two-a-days’ staled, yet they still persevered, and have competed in two meets already in this young season. The first meet was the Whittier Invitational on September 9. Caltech did quite well at this large, early season meet, despite being without top runner Dan Kleinman, who injured himself over the summer and claims to have a friend who stress-fractured his femur. Seniors Tom Dmulksauskas and Tom Meyer placed 1:2 for the Beavers, at 22:29 and 22:33, respectively for the 6K course. Sophomore Brian Barris was third with a time of 23:18. The Men’s A team finished in a respectable 11th place out of 17 teams. On the women’s side, Caitlin Henderson demonstrated her usual dominance and was joined by Gretchen Lawson and fosh Phyliss Chen.

Following this success, the two teams traveled to Santa Barbara for the Westmont Invitational on September 16. The mens top runner departed at 6:00 AM, arriving in plenty of time for the men’s race to start at 8:30. The only problem was that the men’s schedule was to begin at 9:45. After the wait, during which an ignition key was somehow broken off in the door of one of the cars (Think, Kleinman.), the race finally began. On this day Barris proved to be the fleetest Beaver, with Meyer, sophomore REJOORF sensation Brad Nakatani, Dmulksauskas, and fosh Conrad “Goose” Ziesler rounding out the top five. Caltech finished in 3rd place among the 6 competing teams. For the women, Henderson ran a refreshingly free-form course and dominated the field. Next for the Beavers is the home meet in the Arroyo this Saturday, September 23. It looks to be a banner year for cross country at Caltech, with Kleinman expected back soon, strong returning runners, and promising freshmen.

Joining Ziesler are Tom “Pepe” Collier and Jeff “Rondell” Mendez. There is also talk of a blazingly fast fosh named Hale Gebreezruise who is expected to join the team soon. So come out to the lone meet of the year within jogging distance of campus, and watch us dominate the final 200 meters of the course to the memory of Schuyler Cullen.

A leading entertainment company is currently seeking a highly-skilled engineering professional who can work well with creative people. As a key member of our post production sound department, this individual will service and align all forms of audio equipment from 35mm to direct disk, digital recorders, audio mixers with outboard gear routing, console troubleshooting and format changes, and provide general maintenance on consoles.

Ideal candidates will have a background in electronics with an excellent understanding of recording studio audio flow. Knowledge of post production sound in film, TV, and music is highly desirable, and proficiency with PC/Macs is essential. Experience highly preferred, though recent EE grads are welcome to apply. This position provides a competitive salary and benefits package, as well as the opportunity to be involved in high-profile creative projects. Please submit your resume to: RSA Reply Service, Attn: Dept. #1910, 8737 Century Park Bldg. #1910, Los Angeles, CA 90067. Equal opportunity employer.

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Burn, baby, burn – disco inferno.

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where the spectral lines of such sources move toward longer wavelengths, or toward the red end of the visible spectrum. The larger the red shift, the more the light is shifted toward red, and the greater the distance to the source.

The small size of quasars is as astonishing as their luminosity. Studies of the variability of quasars have shown that their brightness can change on time scales of days, or sometimes just a few hours, which implies that their physical size is not much larger than our solar system. Because of quasars' extraordinary brightness and small size, astronomers suspect that they are probably powered by matter spiraling into a supermassive black hole. But just how quasars form and whether black holes really power them remain a puzzle, one which studies such as the one reported here will help scientists solve.

The Palomar Transit Grism Survey was undertaken with the goal of finding a large number of high-red shift quasars so that scientists could study the evolution of these objects back to a time when the universe was less than a billion years old. The survey began in 1985 using a special electronic camera designed by James Gunn that was mounted on the 200-inch Hale Telescope at Palomar Observatory.

Finding a large number of quasars was like looking for needles in a haystack and required special software to separate the quasars from superficially similar foreground objects. "For every high-red shift quasar that we found, we recorded and sorted through thousands of nearby objects," Schneider said.

The Palomar Transit Grism Survey succeeded in identifying 90 quasars with red shifts between 2.75 and 4.75, with a typical luminosity more than a trillion times that of our sun. Analysis of the survey data has revealed that between red shifts of 2.7 and 4.7, the space density of luminous quasars declines by a factor of seven. That is, for quasars with red shifts greater than 2.7, the higher the red shift, the fewer quasars there are in a given volume of space.

Previous studies by other groups have shown that the space density of quasars increases dramatically by a factor of 100 or more — in the range of red shifts between 0 and 2.0. These results, combined with other studies of quasars with intermediate red shifts, show that the space density of quasars exhibits a sharp peak at a red shift between 1.7 and 2.7, indicating that the bulk of quasar formation must have occurred around 2.5 billion years after the Big Bang. This result will help astronomers refine their theories by placing important constraints both on models of galaxy and quasar formation, and on ideas about the mechanism that supplies quasars with their tremendous energy.

This is a joint release by Caltech and the Pennsylvania State University.
Even your social life has prerequisites.
A Life in the Day of Humanity

by Mason A. Porter

The green slime crawled onto the surface; it foraged and chewed and digested its food.

And the green slime slithered upon the surface; it beat up its cohorts and enjoyed itself immensely.

And the green slime crawled onto the surface; it conjugated, masticulated, differentiated, and integrated.

And the green slime slithered upon the surface; it payed for the privilege of being tortured in hope of future reciprocity.

And the green slime crawled onto the surface; it ate other dogs, polluted its eyes and its ears, and spread its other wonderfully noxious slime.

And the green slime slithered upon the surface; it harassed all the red slime, yellow slime, black slime, polka-dot slime, plaid slime, and pollen.

And the green slime crawled onto the surface; it faded and cracked but still did not receive any Social Security benefits.

And the green slime slithered upon the surface; it crackled and popped and lost its will and found another and wrote a script for its funeral.

And the green slime tentatively slithered across the surface; it spoiled its derivatives with preservatives and chronically harkened back to earlier times and body.

Kreative Korner Submissions

We at The Tech encourage everybody to submit poems, art, work, scripts, etc. for this column. However, we reserve the right not to print any submissions for any reason. Please try to submit as early in the week as possible. All creative writing printed in Kreative Korner will be in turn submitted to The Toad. Thank you very much.

-The Editors
Theater
Andrew Lloyd Webber’s seven Tony winner Cats returns to the southland for 8 performances only at the Pasadena Civic Center between October 3rd and 8th. Nightly performances will be at 8 p.m., with two matinees on Saturday and Sunday at 2pm. Tickets are limited and are priced from $39.00 a piece.

Outdoors
The Autumn 1995 edition of the Outdoors section in the Santa Monica Mountains National Recreation Area, a calendar/guide made available seasonally by the National Park Association which lists hikes, walks, talks and special events for this October through December, is currently available free to all those interested. To get your own edition, either call 979-1036 or write to Outdoors, SMNPA, 30401 Agoura Road, Suite 100, Agoura Hills, CA, 91301.

Restaurants
The grand opening of Los Angeles owned Planet Hollywood was held in all possible pomp last week, leaving in its wake an opportunity for all those hungering for both edible and oral satiation at what is being hailed as the closest L.A. will ever have to a movie museum. Featured in this the twenty-eight Planet Hollywood are Charles Chaplin’s coat from The Great Dictator, an ape from the film version of Crichton’s Congo, Forrest Gump’s box of chocolates, and much, much more. Often overwhelming, but always enjoyable, the newest Planet Hollywood has been set up in the midst of Beverly Hills—so, if the wait is too long to get a seat at P.H. this weekend, there’s always the Hard Rock Cafe right down the street.

Concerts
Tickets go on sale this Sunday for the much-talked-about Bowie/Nine Inch Nails concert that is to be held in Los Angeles at the Forum on October 28th. From the gibe that has been coming from performances that were held in the East last week, NIN fans shouldn’t expect to hear much from Reznor, who is still recovering from his last tour. In the performances already held, the unlikely couple performed a set of duets, followed by Bowie performing songs from his recently released album.

Calendar
by Terry Moran
The Calendar section will hopefully be a weekly part of the Tech, hopefully bringing in new events to a diversity of activities and spots throughout the Southern basin that even a local might not know about.
Class Additions & Changes

* CET Guitar Classes for the Fall quarter will meet on Tuesdays, starting October 3rd in Room 1 of the Student Activities Center (SAC) as follows: beginning classes will be held from 4:30 to 5:30 pm, 5:00 to 6:00pm for intermediate students, and from 5:30 to 6:30pm for advanced students. Classical and popular music repertoire is explored but techniques transfer to other styles of guitar playing. Students of both the College and students in a jazz/folk chord system. Classes are free to Caltech students and other members of the Caltech community (subject to registration). Undergraduates can receive 3 units of credit if they choose. Private instruction on any level can also be arranged. The instructor, Classical Guitarist Daryll Denning has an international background in performance, teaching and recording and can be reached by phone at (213) 645-0881 or by email at: ddennning@ac.caltech.edu

* Three H&SS courses have been added to this fall’s class offerings. While EC 161 has been moved to third term, Professor Caroline Rubin will be teaching EC 162, Monetary Theory this fall. An organizational meeting will be held on Tuesday at 4:00pm in 162-114. Mr. Tim Brown, also of the College of Fine Arts, is offering H 146, American Biography Tuesday evenings at 7:30pm, H K106 is offered by Professor David Lane and the Caltech Community in the English Speaking World, Wednesday evenings at 6:30pm. H 126, Literature of the London School of Economics, will be taught Thursday evening. Professor Richard Wurmbrand, a student of B.R. Johnson Stiles, a visiting professor of history from Victoria and Albert Museum in London. This course will consider the cultural dimension of the Rapid Reversals in Britain and in The English Fortunes between 1660, when England was a minor Euro­pean power, to 1850, when it had become the dominant European nation and the center of the world economy. A full schedule of courses to be taught in the Humanities & Social Sciences Department in the 1995-96 year are available in 228 Baxter.

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. The group will provide 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. If you would like more information or would like to schedule a pre-group interview, please contact the counseling center at at (818) 505-8531 for more information.

* The Caltech Men’s and Women’s Glee Club and the Chamber Singers would like to invite all interested students and staff to join in an exciting year of singing! The Men’s glee club and the Chamber Singers, under the supervision of Dr. Donald Caldwell, will meet Mondays between 7:30 and 9:30 and Wednesday evenings between 5:00 and 6:30pm. Signups will be held on Monday in Rogette of this C Bengal. Please call or write Bill Bing at (213) 684-0964 or using acetylene for more information.

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* The Women’s Center and the Counseling Center are co-sponsoring a confidential Assertion Training Group for both undergraduate and graduate women. The group will focus on developing assertion skills including gaining an understanding of aggressive, non-aggressive, and anesthetizing behavior; and problem solving specific difficult situations. Jan Asco, Ph.D. and an intern from the Counseling Center will co-facilitate the group which will be held for eight weeks in the Student Center. Mondays from 12:00-1:00 pm beginning October 2nd. If you would like more information or you would like to sign up for the group, please contact the Counseling Center at (818) 505-8531.

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 California bands. The first finalist of this competition will be given the chance to perform for music industry’s leaders at the Troubador on November 30th, while the top band will be given the chance to record their albums to be mastered, manufactured, and promoted as a major-label quality CD (a prize valued at $20,000). 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, 1660 West Sunset Blvd., Suite 101, Burbank, CA 91502.

Fellowships and Scholarships

The Financial Aid Office has applications and/or information on the following and additional undergraduate scholarships. All qualified students are encouraged to apply. Our office is located at 515 S. Wilson, second floor.

* The National Hispanic Scholarship Fund is offering awards ranging from $500 - $1,000 to full-time undergraduate students who are Hispanic parents and who are U.S. citizens or permanent residents. Students must have completed at least one term of study and, to be competitive, should have a GPA of 3.0 or higher. Applications are due no later than October 1, 1995.

* 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 majoring in areas of recreation, leisure studies, or in an aging-related field. Applicants also must base GPA’s of 3.0 or above and must have financial need. The deadline to submit applications is October 30, 1995.

* The American Concrete Institute is offering the Peter D. Courtois Concrete Con­struction scholarship and is offering a $500 award 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 materials must be submitted by January 15, 1996. The ACI Committee is also offering two ACI-James Instruments Student Association Awards for original student research on non-destructive testing of concrete. Applicants must submit a technical paper describing the research. The award is open to undergraduates or graduates, and the research work must have been completed within two years of the submission date. Complete technical papers must be received by ACI Committee no later than September 30, 1995 at the following address: c/o Dr. Allen Davis, Madison, Knepper and Associates, 9 Exchange Square, Suite 206, Salt Lake City, UT 84111, (Telephone 801) 535-2888.

* The Career Center is offering three different competitions: the Concrete Cube Competition, the Concrete Egg Protection Device Competition, and the Concrete Projects Competition. For complete rules, call the Career Center Depar­tment, at (312) 535-2900.

* Applications are available in the Career Center, Parsons-Gates, and 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 total of $18,000 in financial support. Applications are due by November 15, 1995. Caltech can nominate two candidates to the Churchill Foundation.

* The Harry S. Truman Scholarship Foundation awards scholarships to U.S. citizens who have outstanding leadership potential and intend to pursue careers in public service. If interested, contact the Council for the Deans’ Office, 102 Parsons-Gates for more information.

* Looking for outside scholarships to assist with the cost of your Caltech education? Contact the Financial Aid Office in the Caltech Career Center. There are more than 3,000 listings for both undergraduate and graduate study opportunities. The Career Center is located in Room 8 of Parsons Gates and is open from 8-12 noon and 1-5pm, Monday–Friday. The Financial Aid Office provides a wide range of services provided by the Caltech Financial Aid Office and Career Center Office.

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Announcements

All Announcements are new.

* Auditions for the Caltech Jazz bands, Concert band and Chamber Music Group will be held in Room 12 of the SAC from 4:30-6:30, 8:00-10:00 on Sunday, September 24th, and 4:00-6:00, 8:00-10:00 Monday, September 25th. All members of the Caltech community are welcome to audition. For more information, please call or write Bill Bing at (213) 684-0964 or using acetylene for more information.

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