**VOLUME 85** 

PASADENA, CALIFORNIA / FRIDAY, OCTOBER 7, 1983 I

NUMBER 3

# Coleman **Series To** Open

America's oldest continuing chamber music organization, the Coleman Chamber Music Association, announces the opening of its 80th season with the Empire Brass Quintet, Sunday, Oct. 16 at 3:30 pm in Beckman Auditorium.

Featured in this concert will be the premiere of George Heussenstamm's Brass Quintet No. 5. Also included on the program will be Albioni's Suite in Sol, Bach's Trio Sonata No. 2, Hindemith's Four Pieces, Dvorak's Four Waltzes and Gabrieli's Canzona No. 2.

The Quintet is composed of Rolf Smedvig and Charles A. Lewis, Jr., trumpets; David Ohanian, French horn; Lawrence Isaacson, trombone; and J. Samuel Pilafian, tuba. All members of the quintet have recorded albums.

Organized in 1971, the ensemble, which has toured Europe, Japan and the United States, is the Quintet-in-Residence at Boston Univer-

On Nov. 9 the Guarneri Quartet will perform its ninth Coleman concert, followed by the La Salle Quartet on Jan. 19. On Feb. 12 Malcolm Bilson and Sergiu Luca will offer an all-Mozart program on the pianoforte and violin. Hungary's Takacs String Quartet, winners of international competitions, will appear March 11. Closing the season will be the Tokyo Quartet with Raphael Hillyer, former violinist of the Juilliard Quartet.

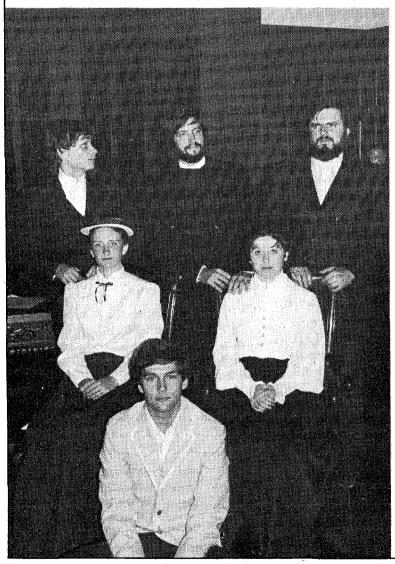
All concerts are held on Sundays at 3:30 pm in Beckman Auditorium, South Michigan Avenue at Constance

April 27 and 28 mark the 38th annual Coleman Chamber Ensemble Competition with \$10,600 to be awarded the winning ensembles. The Winners' Concert will follow on Sunday, April 29 in Ramo Auditorium. This concert is open to the

Tickets to the Empire Brass Quintet concert are priced at \$13.00-11.50-10.00-8.00; students \$3.50 off. They are available now at the Caltech Ticket Office, 332 S. Michigan Ave. For further information, call 356-4652.

Tech Staff Meeting Today 12:15 in 128 Baxter. All are welcome. Bag lunches will be provided





### Candida opens tonight in Dabney Lounge.

Above, Candida and James Morell, played by Rosanna Gatti and Peter Jones.

Left, A family portrait: Clockwise from bottom, Jerry Burch, Shevaun Duiker, Tony Dobrovolskis, Peter Jones, Simon Davies, Rosana Gatti.

Showtimes October 7 8:00 pm 3:00 pm October 8 8:00 pm 8:00 pm October 9 8:00 pm October 14 October 15 8:00 pm October 16 3:30 pm

# Jazz with Akiyoshi and Tabackin

Akiyoshi-Tabackin woodwinds. All will fuse into a "Together" features Toshiko Akiyoshi and her husband, Lew Tabackin, performing separately with thier trios, Saturday, Oct. 15 at 8 pm in Beckman Auditorium.

Together, Akiyoshi and Tabackin are known for their big band jazz. Opening the show, Akiyoshi displays her keyboard work. Tabackin is featured in the second half on

quartet format for the show's finale.

Akiyoshi has been involved in the world of jazz as a pianist, composer and conductor. Her involvement in music began at the age of six, when she studied piano and learned the classics. Since that time, she has formed several bands, including the big band co-led by her husband.

Tabackin, who specializes on flute and tenor sax, is an alumnus of such TV studio groups as Doc Severinson's "Tonight Show" band and Bob Rosengarden's band on the "Dick Cavett Show."

Tickets to this concert are priced at \$13.00-12.00-11.00; students \$1 off. They are available at the Caltech Ticket Office, 332 S. Michigan Ave. For information, call 356-4652,

# **Tech Wins Opener**

## 27 - 21 over Bengals

by Ath Man at Large

The Caltech football team opened another season of exciting Beaver football with a dramatic, come-from-behind victory over the Northeast Bengals last Saturday.

The Beaver trailed 21-13in the fourth quarter befor Beaver quarterback Phil Scott hit receiver Larry Sverdrup with a short pass. The nearest Bengal defender overran the play, and Sverdrup was able to stay one step ahead of him for the remaining 50 or so yards to the end zone.

The Beavers then attempted a two-point conversion. On the play, Phil Scott was hit at the line and conveniently fumbled it into the end zone where James Neitzel recovered it for a successful conversion and a tie

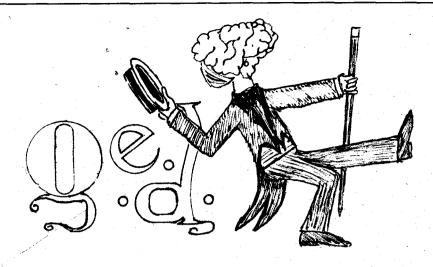
With about two minutes left, Vincent Riley picked off a Bengal pass and returned it to the Bengal 30 yard line. The Beavers moved to the 7, from where Phil Scott threw a pass into the end zone and Jonathan Brown, who was playing in his first live football action in almost a year, made a fantastic catch for the winning score, his second touchdown of the day.

## Movies The Grey Fox

The film The Grey Fox invites comparison to two previous films of note, Butch Cassidy and the Sundance Kid. and The Shootist. All three films deal with the End of the West, the closing of that chapter of American history that is so celebrated in song and story. Of the three, I currently feel that The Grey Fox may be the best, even if it may never be the most popular After all, John Wayne and Robert Redford have a lot of popular momentum compared to Richard Farnsworth (star of The Grey Fox).

The Grey Fox deals with changing times and personal obsolescence. Its main character, Bill Miner, was a highly specialized professional: he robbed stagecoaches. After spending 33 years in prison, he was released into a world in which the stagecoach was a quaint relic, a world of trains and motorcars. He has a choice between two new trades: picking oysters, or robbing trains.

continued on page 4



by Zobi-Wan

To my considerable pleasure, the new mode of thought advocated by this column two years ago has caught on with such remarkable success among the cognoscenti that another series of articles along similar lines is only too apparently in order. Now, as then, my sole objective will be to demonstrate that common sense is unwieldy, logic is unreliable, knowledge is elusive, and therefore concrete proofs possess absolute validity. "Proof positive" serves as the perfect catch phrase for this mode of reasoning—a proof should be sufficient to make one utterly positive. Intuitiveness of a problem ranks as immaterial; a proof, and only a proof, can confirm a proposition's validity. Theoretics has at last found its true worth.

Permit me one caveat at this point: This column will treat serious problems and their serious solutions, and their serious solutions' serious proofs. It is not intended as mere diversionary recreation. It cannot, nor will it attempt to, provide solutions to such pressing questions as:

•Is the World Series convergent or divergent?

•What's the difference between a duck?

•How many pancakes does it take to cover the roof of your

doghouse?

On the other hand, it may be recalled that in the past we developed a quite satisfactory solution (and its accompanying rigorous proof) to the perennial question of where the peck of pickled peppers Peter Piper picked is. We also assigned an actual value to how much wood a woodchuck could chuck if a woodchuck could chuck wood. The relevance of these latter questions vis-a-vis the former should be painfully obvious.

Let us then turn to our principal topic of discussion: the divine right of proofs. For the present column, it is necessary and sufficient to illustrate one method by which a great truth may spring from mere application of the Careful Thought

It has been proved by the author in the past that

There is such a thing as a free lunch.

The hubbub which greeted this revelation, however, prompted the author to perform extensive research on the concept of food. For if there is such a thing as a free lunch, then by defini-

(2)cost(food) = 0,

and since it is known that

 $demand(food) < \infty$ ,

i.e., the demand for food is finite, we must have (by the Law of Supply and Demand)

 $supply(food) = \infty$ .

If we take it as given that the universe is bounded, then

everything is food,

which is, incidentally, a fact which we proved by a different method in the same installment. Now, the basic wisdom of the ages tells us that

The proof of the pudding is in the eating.

So, a pudding being a food, one need merely eat one to confirm its existence. But at this juncture, an interesting effect is observed. As it happens, the author obtained a pudding and ate it. Having fully consumed it, however, he found himself presented with a table upon which no pudding existed. As the proof of the pudding is in the eating, from equation (6), we employ the Symmetric Property to obtain

The eating of pudding is the proof of pudding.

The clear implication is that one can only prove a pudding's existence by eating it; indeed, one cannot prove such a pudding's existence by any other means. And yet, completion of this very proof necessarily terminates the pudding's existence. This phenomenon may be formalized as follows:

Theorem 1.1. One cannot simultaneously maintain a pudding and

For obvious reasons, Thm. 1.1 has been dubbed the "Pudding Uncertainty Principle." Once again, a mighty oak from a little acorn grows.

# Fleming/Page Smoke Bomb Strikes

To the Editor,

Last Sunday night was the end of rotation, which everyone was glad to see. In Lloyd House we were welcoming our new freshman members into Lloyd when an unfortunate incident occurred. Members of both Page and Fleming Houses came to Lloyd, and put on a somewhat rowdy demonstration. This in and of itself was not a bad thing, except that they were unable to control themselves and committed more serious offenses. They used fireworks/smokebombs on campus, one of which struck a Lloyd House member and could conceivably have seriously injured him. They physically intimidated members of Lloyd themselves, and pulled fire

The reaction to this incident was strong. In Lloyd, people were upset once the facts became known to them, once they knew one person had nearly been injured with fireworks, that another was physically abused - there is no other word for it. Concerned members of our house discussed this incident for some time afterwords. and it is fair to say that Lloyd House did not in general find any of this funny or amusing. When a person or a group of people pulls an RF such as this, they have a responsibility to understand and anticipate how the intended victim will see the so called pranks. If that victim doesn't see it as a joke, he has a right to not have to expect to be who were not in any position to made a victim. Responsible, respond or even protect thoughtful people do not in general do RFs on strangers or non-friends.

At the heart of this problem is the attitude on the part of Fleming, and to a lesser extent, Page, toward the other houses on campus. Do not make the mistake of thinking that there are only one or two individuals responsible for this and other incidents. They are the product of house attitudes. Aside from

## letter=

just knowing the history of Fleming/Page incidents, I have talked in depth with members of Fleming house to get an inside perspective, and I have drawn that conclusion. Nothing seems to be able to change their belligerence, their sometimes arrogant shirking of responsibility, or their low opinion of the other undergraduate students on this campus. I think then that if that's how they wish to feel, then fine as long as the rest of the campus has some protection against their more irresponsible actions.

This is not the first time that something like this has occurred. Each year I've been here at Caltech there has beeen at least one major incident involving Fleming and/or Page. Whatever efforts have been made in the past, either by the BOC or the IHC, don't really seem to have stemmed the tide of these incidents. Last year was the infamous kidnapping incident and now here we are all over again. I think that currently there is a crisis of faith in the

institutions which deal with this type of problem, i.e. the BOC, whose decisions I feel should be made public when they are convictions, and the IHC. The Lloyd BOC representative was informed all about this incident. Any result will be secret, but I know that many are unwilling to accept that justice is a slap on the wrist.

We are all supposedly responsible, intelligent adults here, and we all have an obligation to behave as such. I think, though, that it has been demonstrated, that there are groups on this campus, who cannot or will not control themselves. If this is true, there is really only the alternative of more stern penalties. It is my concern that future incidents such as this be prevented as much as possible. I really think that this is within the domain of the Master of Student Houses. I would think it entirely appropriate for the Master to inform any and all concerned that this is a community of responsible, intelligent adults, and that those who repeatedly demonstrate that they cannot behave in this way, will be moved off campus, put on leave of absence, expelled or in some other way removed from the environment in which they do not

While I definitely do not seek to increase the tensions between Lloyd, Page, Fleming or any of the other houses, I think the protection of the rights of individuals is more important. Ideally I would like to see both of these things. I think the initiative lies with Fleming and Page.

-Mike Kulbickas

# CALIFORNIA TECH

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your all-important brain? Come to the Y Workshop between 3 and 6 pm to find out. Creative experiences—no fees or assignments. Just stop by.

Also Friday... The NOON CONCERT is back!!! Slow Burn is our feature today. Jazz fusion, on the Quad, fer sure.

How do you better utilize the right hemisphere of

The Caltech Y Fly-by

Sign-ups...

Friday...Oct 4

• End 4 pm today for tickets to the L.A. Philharmonics October 12 performance.

· Continue only until we get one dozen lucky people for the UN free lunch on October 22 at the Ath.

# The Inside World

Blacker: The addition of 24 freshmen to the house of Blacker makes a total of 69 men and 14 women in the house, including off-campus members. There will be a picnic for the frosh on Sunday at the Master's house.

Dabney: Yes, the Darbs are all back and ready for another year of Tech, together with a

super bunch of new freshmen, just as ready to share in the fun.

Our first social event went off with a bang Sunday night. While other houses' frosh were getting showered, the new Darbs were treated to champagne. Elusive Trails played some traditional Dabney tunes, together with some new ones, and there was lots of dancing in the courtyard. Many freshmen discovered the delights of the Green Elephant Bar. It gave us all a real feel of community, as well as being just plain fun.

The freshmen have elected their frosh rep. and it looks like there'll be plenty of paper for the Frosh Bonfire if Ralph Wolf can get them all organized! Wednesday saw the first offer of \$140 to the frosh who can name all the upperclassmen. So far, no winners.

-Bill Callahan

Fleming: As soon as 7:00 Sunday arrived, the upperclassmen welcomed the new frosh in with a blast, both literally and figuratively, as the cannon was fired and a party was started. A little later, the Fleming Musical Appreciation Society went on tour through the other six houses and the Annex.

After Monday's formal dinner, the frosh wer introduced to their pledgemaster, Mike Baumer. Mike informed the frosh as to their rightful place. Shortly thereafter, Mike was introduced to Millikan pond. Then the showerings began.

Tuesday evening, Fleming's president, John Sahr, and head waiter, Scott Stephens, were given the Grand Tour of all 22 showers by a mob of surly frosh.

-Scott Rowland

Page: Page House has finally settled down with its selection of forty-seven of the best of wimpy frosh. Rotation week ended with a bang as the "Nice House" syndrome was washed away by fire extinguishers aimed at the Flems, and the rousing "Lloyd sucks" chant. Soon, Page's new R.A.'s Cheryl and Doug Schmidt will be formally welcomed to our humble dwelling.

Lloyd: No entry

Ricketts: As usual, the Freshman class has moved into Ricketts and was properly sanitized on Sunday night. Later on that night the number of people playing four-square exceeded the capacity of the courtyard so there was another game started in Blacker courtyard while the majority of the Moles were out ponding their president. Unfortunately, the remaining Moles apparently were not fond of athletics and decided to spend their time testing fire safety equipment instead. Thus the frosh were washed again.

The freshmen failed the traditional obligation to give selected upperclassmen a grand tour of the showers of the house. After only three of ten showers, the freshmen decided that picking rooms was much more interesting than carrying around a shampoo covered tresurer. Better luck next time - also don't forget the cocktail party tonight at eight in

Ruddock; 23 new frosh are carrying around Harlequin Romances and reading to upperclassmen as a part of Hassle Week, 1983. Each night this week, they have completed their assigned tasks to receive clues to the identity of their pledgemaster. If they can identify the pledgemaster and get him off campus by midnight tonight, they are free to do as they wish to him. Yon frone are wimps!

-Ken Whang

# Come to the Big Tmeeting,

today at 7:30 in 125 Baxter. Come one, come all. No experience needed.

We need artists for cover art, photographers to cover this years events, writers to explain the pictures, and other creative people to make this year's yearbook the best ever seen by Caltech.

If you saw last year's yearbook and thought that it could be improved, then come and join the Big T staff for this year's book.

## 

## PAINTING **BY GREG SUSCA**

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Faculty, Grad Students, Attend! Mondays and Tuesdays are Beer Days. Half price on Beer.

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# Grey Fox

from page 1

Bill meets and falls in love with another person caught in the change of the century, a woman trying to be treated as a human being and a skilled professional. He is befriended by a man who is a loser in both worlds, and runs hard up against the 20th century.

Richard Farnsworth, Jackie Burroughs, and Wayne Robson provide outstanding characters, and young director Phillip Boros, previously known only for documentaries, does great work. British cinematographer Frank Tidy shoots the Pacific Northwest and western Canada

50¢ ASCIT members

MEASCIT MOVIE

**TONIGHT at 7:30 and 10:00** 

Ordinary People

in Baxter Lecture Hall

richly but believably. The music is provided by The Chieftains, whose Irish traditional music was heard last year at Beckman Auditorium.

The Grey Fox has one real advantage over Butch or The Shootist: it's basically an optimistic film, rather than a film portraying frantic gaiety in the face of doom (Butch) or resignation (Shootist). In The Grey Fox, at least you get the idea that happy endings are possible some of the time, even if not everybody gets to enjoy them. That possibility is something that everybody needs, at least once in a while. Go see The Grey Fox if you can. [At the time of this writing, the nearest showing is at the Mann in Glendale, on Brand south of Broadway.] -Nick Smith

\$1 all others

## Saturday at Beckman **Bella Lewitsky**

choreographer Bella Lewitzky opens Caltech Public Events' 20th anniversary season, Saturday, Oct. 8 at 8 pm in Beckman Auditorium.

In "Bella Lewitzky: The Woman and Her Art," Lewitzky shares her memories, experiences and concepts of dance. Highlighting this program, designed for Caltech. will be excerpts from the

repertoire.

choreographer, As a dancer, lecturer and educator, Lewitzky has been active in the development of dance throughout her career. She has founded or co-founded several dance companies, the most recent being the Bella Lewitzky Dance Company.

Through the National Endowment for the Arts' "Artistin-Schools" program, Lewitzky Lewitzky Dance Company's has developed her concept of

using movement as a tool for teaching children to learn. She believes that this should be as much a part of the learning experience as reading and mathematics.

Caltech student tickets to this event are priced at \$6.50-6.00-5.50. Caltech student rush tickets for \$4.00 each will go on sale beginning one hour prior to performance time at the Caltech Box Office. Tickets may be purchased at the Caltech Ticket Office, just north of the Beckman Auditorium parking lot. For information, call x4652.

## **SURF Presentations**

Saturday, October 8 is SURF Seminar Day. Students will give 20-minute presentations on their summer research projects between 1:30 and 4:30 pm at various locations on campus. Following is a sketchy listing of the project topics discussed in each session.

Session I, 102 Spalding, topics in physics, mathematics. astronomy, literature, and computer science.

Session II, 104 Spalding, topics in engineering and applied science.

topics in electrical engineering.

applied physics, and physics. Session IV, 125 Baxter, topics in physics and applied

Session V, 127 Baxter, topics in physics.

Session VI, 128 Baxter, topics in biology.

Session VII, 104 Watson, topics in biology, chemistry, and applied physics.

Session VIII, 142 Keck, Session III, 106 Spalding, topics in chemistry, chemical engineering, and biology.

Session IX, 102 Steele, topics in engineering, chemistry, biology, and computer science.

# **Right Brain Labs**

Are left-lobe Techers destined to go through life on half

Unless they energize the right hemisphere, the answer seems to be yes.

To forestall that bleak eventuality, Art Therapist Cynthia Corngold and The Caltech Y initiate a Right Brain Laboratory this afternoon.

The objective of the lab, says Ms. Corngold, is to help one "use the spatial, intuitive, non-verbal and perceptual side

of the brain."

Participants in the RB Lab will exercise right hemisphere cells through the use of color, forms and designs. No experience, no ability and no money will be required; no grades, no judgments and no assignments will be given.

Lab hours are 3 to 6 Fridays in the workroom of The Caltech Y upstairs in Winnett Student Center.

## It doesn't take a lot of paper work to get into college. FOR LENDER USE - LOAN IDENTIFICATION CALIFORNIA GUARANTEED STUDENT LOAN Application For STUDENT AID COMMISSION STUDENT AID COMMISSION EDUCATIONAL LOAN PROGRAMS SACRAMENTO, CALIFORNIA T'S LAST NAME HILE IN SCHOOL BORROWER INTENDS TO WITH PARENTS ED STATUS LIST A IBLE ALIEN MAJOR COURSE (CHECK ONE) 14. PERIOD OF LOAN OF STUDY CODE USE THE CODE NUMBER IN ANY SCHOOL BEYOND REQUESTED A GUARANTEED STUDENT LOAN, A PARENT LOAN OR AN AUXILIARY LOAN TO ASSIST TO THE ACADEMIC YEAR FOR NO [ M A GUARANIEEU SIUDENI LOAM, A FARENI LOAM OR AN AUAILIARY ETAILS, INCLUDING REPAYMENT ARRANGEMENTS ON A SEPARATE SHEET. IF YES, LIST BELOW (USE SEPARATE SHEET IF NECESSARY) INTEREST UNPAID BALANCE SCHOOL PERIOD BEGINNING ENDIN NDING STUDENT LOAN DEBTS? TYPE OF LOAN SEE INSTRUCTIONS ADDRESS C C В C ADULT RELATIVE AT DIFFERENT ADDRESS C MOTHER OR GUARDIAN (CIRCLE ONE) R GUARDIAN (CIRCLE ONE)

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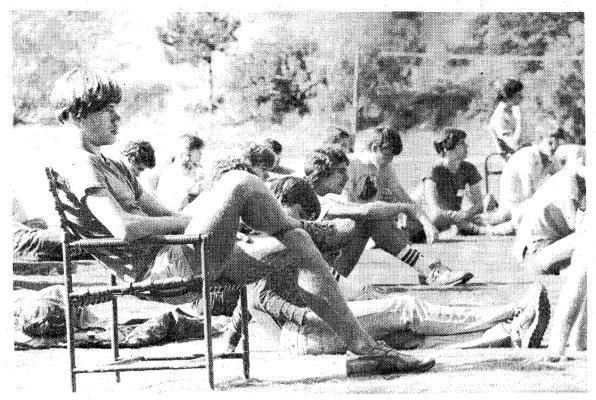
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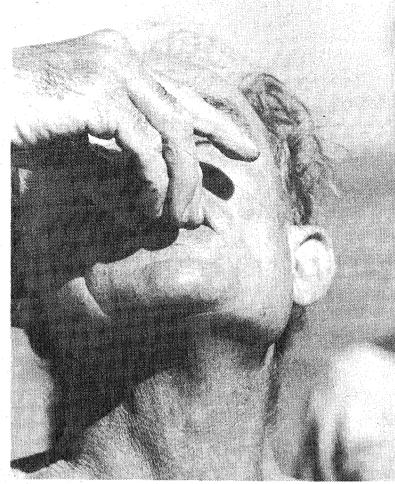
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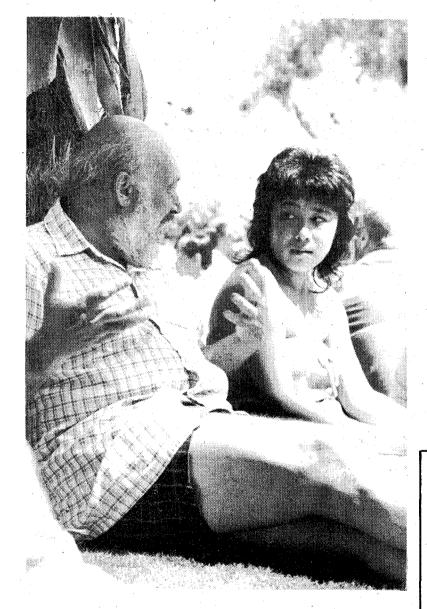
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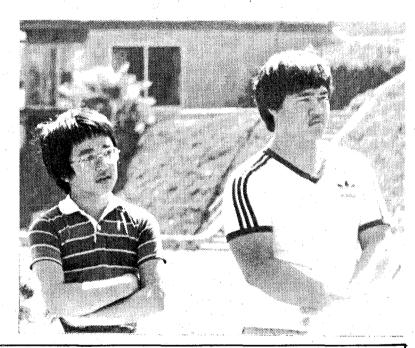






# More from Frosh Camp

Clockwise from right, frosh and faculty stand, talk, sit, and sample marine delicacies.



# New York University Visits Your Campus to Answer Questions on the M.B.A. Program

Located in the heart of the Wall Street area, New York University's Graduate School of Business Administration has trained students for executive positions for over 60 years. A recent survey by Standard & Poor's ranked New York University number 2 nationwide as the source of graduate education for chief executives in major companies. On

Wednesday, October 12, an admissions officer will be on campus to discuss the quality and flexibility of the graduate business program. Check with

NEWYORK INIVERSITY APRIVATE UNIVERSITY IN THE PUBLIC SERVICE

business program. Check with the Office of Career Development for sign-up schedule and further information.

New York University is an affirmative action/equal opportunity institution.

# The Rand Graduate Institute (RGI)

Invites applications for its doctoral degree program in policy analysis. Deadline for submitting applications for 1984-1985 is February 1, 1984. RGI is an integral part of The Rand Corporation. Its curriculum consists of interdisciplinary study, combined with on-the-job training (OJT), leading to the award of the Ph.D. in Policy Analysis. Students receive OJT support equivalent to doctoral fellowships. The Rand Graduate Institute is fully accredited by the Western Association of Schools and Colleges.

A master's degree, or equivalent post-bachelor's degree training and experience, is required for admission.

A representative of the Rand Graduate Institute will be at the Career Planning Center (10 Dabney Hall) on Wednesday October 12, 1983.

The Rand Corporation is an Equal Opportunity/
Affirmative Action employer.

## GSC Volleyball Scores

## Weekly Sports Calendar

A League (Oct. 5)

Jet Setters outset Up-Setters 8-15, 15-8, 10-9

Tapir nosed out Aesops 15-2, 15-12

Six Hitters climbed over Kong's Killers 8-15, 15-6, 6-5

Brute Force reversed Hp's 15-12, 8-15, 15-5

Page out-horsepowered Ruddock 12-15, 15-6, 15-10

B League

Gangbusters consumed Chow Dogs 15-6, 15-12
Overpaid Amateurs overplayed Scurves 15-9, 13-15, 15-6
Face hit Tire Irons 15-5, 16-14
Smashers splooshed We're Mudd 15-3, 15-13
Magnum Force outgunned Hydraulic Jumps 15-8, 8-15, 15-11
Reynolds Numb-ers bumped Strange Bruise 15-6, 15-13
Besops may still be playing with Jerry's Kids

DAY	DATE	TIN
Fri.	10-7	6:30 p
Sat.	10-8	9:30 a
Sat.	10-8	10:00 a
Sat.	10-8	10:00 a
Sat.	10-8	2:00 p
Sat.	10-8	1:30 p
Tue.	10-11	7:30 p
Wed.	10-12	3:00 p
Wed.	10-12	4:00 p
Fri.	10-14	7:00 p
Sat.	10-15	TE
Sat.	10-15	10:00 a
Sat.	10-15	10:00 a
Sat.	10-15	2:00 p

TIME	SPORT
6:30 pm	Women's Volleyball
9:30 am	Cross Country
10:00 am	Water Polo
10:00 am	Soccer
2:00 pm	Women's Volleyball
1:30 pm	Football
7:30 pm	Women's Volleyball
3:00 pm	Soccer
4:00 pm	Water Polo
7:00 pm	Women's Volleyball
ТВА	Cross Country
10:00 am	Soccer
10:00 am	Water Polo
2:00 pm	Women's Volleyball

<b>OPPONENT</b>	L00
Whittier JV	Whi
Whittier & Occidental	Clar
Alumni	Calt
La Verne	Calt
L.I.F.E.	Calt
Cal Poly Pomona	Cal
Pacific Christian	C.S
Redlands	Calt
L.A. Valley J.C.	Calt
Whittier JV	Calt
Biola Invitational	La
Claremont-Mudd	Calt
Redlands	Red
Christ College	Call

LOCATION
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Items illustrated not necessarily those on sale.

#### **ASCIT Notes**

There will be an open meeting on Wednesday, Oct. 12 at 9:30 pm in Winnett to discuss the upcoming Faculty-Student Conference. Groups of students are presently working on specific problems which were mentioned in previous conferences in the hopes that we will be able to report on the progress made toward solving these problems rather than simply reiterating that they exist. All presently in charge of a group should be at the meeting prepared to make a progress report and all interested in joining a group or just listening to the ideas presented are urged to come. We need lots of help and interested people.

-Candi McCoy

## **Social Notes**

The ESC music survey will appear in the next issue of the *Tech*.

# GRADUATE SCHOOL OF 4 BUSINESS

Joyce E. Cornell, Dean of Admissions, will be on your campus Tuesday, October 11, 1983 to speak with students from all disciplines who are interested in the M.B.A. program and Ph.D. degree programs. Twelve concentrations are offered in the Business School plus joint degree programs with the Schools of Architecture, Engineering, International Affairs, Journalism, Law, Public Health, Social Work and Teacher's College. For further details please contact the Placement and Career Planning Service.



# Fellowships and Associateships

## **Minority Engineers**

One hundred and fifty fellowships will be awarded to ninority students for 1984 by he National Consortium for Graduate Degrees for Minorities in Engineering, Inc.

The Consortium, organized n 1976, is a joint venture of orty engineering colleges and orty-two industrial/governnental laboratories that have oined together to provide opportunities for minority tudents to pursue master's legrees in engineering.

Candidates for participaion in this program will be elected from the following American citizens: American ndian, Mexican-American, 3lack American and Puerto Rican. At the time of applicaion, the minimum academic equirement for the student is

enrollment in the junior year of undergraduate study in one of the engineering disciplines. Those presently in their senior year, or recently graduated, are also encouraged to apply. An applicant's record must indicate the ability to pursue graduate studies in engineering at a member university.

Each fellowship pays tuition and fees at a member university and a stipend of \$5,000 for the academic year, as well as provides summer employment at a memberresearch laboratory. The deadline for application material for consideration for 1984 is December 1, 1983. For further information contact:

Howard G. Adams Graduate Engineering for Minorities

> P.O. Box 537 Notre Dame, Indiana 46556

## **NSF Grad Fellows**

The National Research Council will again advise the National Science Foundation in the selection of candidates for the Foundation's program of Graduate Fellowships. Final selection of Fellows will be made by the Foundation, with awards to be announced in March 1984.

As one means of aiding the progress of science and engineering in the United States, NSF Graduate Fellowships will be offered to individuals who have ability and demonstrated special aptitude for advanced training in science or engineering. Subject to the availability of funds and to sustained academic progress, new fellowships awarded in March 1984 will be for maximum tenured periods of three years. Applicants must be citizens of the United States, and will be judged on the basis of ability. The annual stipend for NSF Graduate Fellows will be \$8,100 for a twelve-month tenure.

NSF Graduate Fellowships are intended for students at or near the beginning of their graduate study, and will be awarded for study or work leading to master's or doctoral degrees in the mathematical, physical, biological, engineering and social sciences, and in the history and philosophy of science. Eligible applicants will, in general, be college seniors or first-year graduate students

who, at the time of application, have not completed more than 20 semester/30 quarter hours, or equivalent, of study in any of the aforementioned science and engineering fields following completion of their first baccalaureate degree, or its equivalent.

Applicants will be required to take the Graduate Record Examinations (GRE) designed to test aptitude and scientific achievement. The examinations will be given on December 10, and the Foundation will pay December 10 test fees for fellowship applicants, pro-viding NSF application is the primary purpose.

The deadline date for the submission of applications for NSF Graduate Fellowships will be November 23, 1983. Further information and application materials may be obtained from the Fellowship Office, National Research Council, 2101 Constitution Avenue, Washington, D.C. 20418.

## **NRC Postdocs**

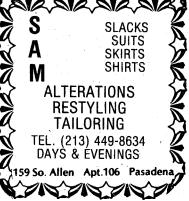
The National Research Council announces the 1984 Postdoctoral, Resident and Cooperative Research

programs are open to both U.S. and non-U.S. nationals, and to both recent Ph.D. degree holders and senior investigators.

Awards are made for one or two years; senior applicants who have held the doctorate at least five years may request shorter tenures. Stipends for the 1984 program year will range from \$24,500 a year for recent Ph.D.s up to approximately \$50,000 a year for senior associates.

Applications to the National Research Council must be postmarked no later than January 15, 1984. Initial awards will be announced in March and April followed by awards to alternates later.

Information on specific research opportunities and federal laboratories, as well as application materials, may be obtained from Associateship Programs, Office of Scientific and Engineering Personnel, JH 608-D1, National Research Council, 2101 Constitution Avenue, N.W., Washington, D.C. 20418, (202) 334-2760.



## Associateship Program. Approximately 250 new full-time associateships will be awarded on a competitive basis in 1984 for research in chemistry, engineering, and mathematics, and in the earth, environmental, physical, space and life sciences. Most of the

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- Electrical Engineering • Electronic Engineering
- Nuclear Engineering
- Aerospace Engineering
- Optical Engineering
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- Computer Science
- Mathematics
- Economics

All initial assignments are in the Washington D.C. area. Some require foreign travel. U.S. citizenship required.

Get an application form from the PLACEMENT CENTER, Room 10, Dabney Hall. MAIL IT NOW!! Qualified applicants will be contacted to arrange offcampus interview.

MAIL YOUR RESUME OR APPLICATIONS FORM TO:

> L.L. CURRAN P.O. BOX 669 LAWNDALE, CA 90260

CENTRAL **INTELLIGENCE AGENCY** 



# announcements

### Attention Seniors!

Essays for the Watson Fellowships are due on Friday, Oct. 21. Seniors interested in applying for these travel fellowships should talk to either David Wales or Chris Wood in the Deans' Office, 102 Parsons-Gates.

## **Deadlines Approach**

Fellowship/Scholars Program Deadlines:

Los Alamos National Lab (10/31)NSF Postdoctoral

Fellowship Program (11/8) National Endowment for

the Humanities (11/5) Livermore National Lab (12/1)

American-Scandinavian Foundation (12/15)

For applications and information, drop by the Career Development Center, Room 8, Parsons-Gates

## **Techer Diplomats?**

Mr. Raymond Gonzales, a Foreign Services Officer with the Department of State, Washington, D.C., will be on campus on Thursday October 13, 1983 from 9 am to 12 noon to talk to students interested in a Foreign Service career. Come to the Career Development Center, Room 8, Parsons-Gates to make an appointment.

## **CLASSIFIED**

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COMBUSTION **ENGRG** SR./GRAD STUDENT Needed immediately for 1-2 qtrs. as Research Asst. to UCI staff providing techni cal assistance to Calif. DHS on implementation of AB1513. Under tutelage of professional engr., R/A will be involved in development of performance stds. for low-level radioactive waste incinerators integrating variety of emissions stds. and testing methods with goal of designing a joint permit application usuable by multiple state agencies. Primary task will be to gather and integrate materials. Hands-on testing experience possible. Occasional travel to W. LA necessary. U.S. citizenship reqd. Call JIM TRIPODES, EH&S Office, UCI at: (714) 856-7066 or

\*Students in appropriate Physics and Chemistry disciplines may also apply.

## **Guitar Classes**

Caltech actually offers guitar classes, taught by classical guitarist Darryl Denning. Mr. Denning has had an international peformance career and has recorded extensively. In fact, his latest recording, "Two Worlds of the Classical Guitar", is supposedly available at the Bookstore now.

In any case, the guitar classes are on Tuesdays in Fleming Music Room and are free to Caltech students and other members of the Caltech community (space permitting for the latter). Classical and Flamenco repertoire will be explored but the techniques gained can be used in other forms of guitar as well. The schedule is as follows:

Beginning - 4:30-5:30 pm Intermediate - 3:30-4:30 pm Advanced - 5:30-6:30 pm

Undergraduates can receive 2 units of academic credit (PA ?) if they choose. Students should bring their guitars. Private instruction on any level can also be arranged. For further information, call Mr. Denning at 465-0881.

## Lights, Camera... Action

The Caltech Film Workshop is looking for amateur directors, cinematographers, special effects wizards and those interested in learning the art of filmmaking. Meetings are held every Wednesday at 5:30 pm in the Master's Office. This could be your big break, so come on Contact Dave Hayes at x3971 or Joel Harris at x9314 for more info. Cut! Print it!

## **CLAGS** meeting

CLAGS will meet for the first time this year at 2:00 pm on Sunday in 210 Baxter. There will be a short organizational meeting covering projects and plans for the upcoming year, followed by a group discussion. All interested members of the Caltech community are welcome, and the meetings are confidential. For more information, call Teresa Solberg at fellow student-apply now! 3 x3771 or Josh Susser at x3776. units credit PA 50.

# Russian Workshop

The Caltech/JPL Russian Language Workshop will again conduct studies in the Russian language this fall. The workshop meets each Wednesday evening in Steele Lab, room 110, from 7 to 9 pm. Membership is free and is open to the Caltech community and friends. For more information, call Larry Mak (JPL) 354-6748, or just stop by. Visitors are always welcome.

## **About the Health** Center

Our hours during the school year are from 8 am Monday to 8 am Saturday continuously while school is in session. Nurse Practitioners are available daily and a R.N. is on duty at all times. A physician is available daily, for appointments call x6393.

Appointments and walk-in services are available for the following: preventive health information, diagnosis and treatment of medical illnesses and injuries, lab tests, immunizations and allergy clinics, gyn. exams, birth control methods, acne clinic, nutrition information and infirmary care. Infirmary services also offer you the opportunity to spend the night for any reason. You don't have to be ill or discuss your reason with us.

Current 1983-84 Health Insurance ID cards and brochures are also available. Everyone should carry a card with them for emergencies if needed.

We also have a lounge with a TV and stereo that you may use at any time, so here's an invitation to come over and get acquainted.

-The Health Center Staff

Applications will be

available for the '83-84 Health

Advocate Program at the

Health Center till October 12th.

If you are interested in becom-

ing a paraprofessional member

of the Health Center, trained in

common health concerns,

health education, multi-media

first aid, CPR, communication

skills and willing to help your

## Sample Fogwater

Research group in Environmental Engineering Science is looking for students to help out in an air pollution study program in the San Joaquin Valley this winter. Work will primarily involve operating aerosol sampling instruments at various locations in the Valley, with a special emphasis on the sampling of fogwater at night.

This specific program will begin early December and last till the end of January. If you are available for a few weeks in that period, or for a few days each week, or something like that, give us a call as soon as possible. Our extention is x4407: ask for the Fog Squad.

## **GSC Soccer Meeting**

A meeting will be held on Monday, October 10 at 7 pm in the Y lounge to organize an intramural soccer tournament for grad students, staff, and faculty. Contact Pratim at x4393 for additional details.

## **Coffeehouse Opens**

The Caltech Coffeehouse, home of thick shakes and highquality burgers, opens its doors for the 1983-84 school year tonight at 8 pm. The schedule for this year is 8 pm-1 am weekdays, 6 pm-midnight weekends.

For you frosh who don't know, the coffeehouse is located at 300 S. Holliston Av. That's the street the gradturkey houses are on. Just walk north and look for the red light. If you still can't figure it out, ask an upperclassman.

Doc says, "c'mon in," so y'all better show up, y'hear?

#### Red Door Work-Study

The Red Door Cafe is looking for undergrads eligible for work-study who are interested in working afternoon shifts (between 2 and 6 pm) at the Cafe. For more information contact Astrid Howard (manager) at x6158, x6259, or sign up on the list outside the Cafe on the second floor of Winnett.

Volunteers (both grad and undergrad) interested in staffing evening shifts are always welcome. Ask anyone working behind the counter at the Cafe for details.

## Caltech L-5 Chapter

The Caltech L-5 is a local chapter of an international organization dedicated to the enlargement of the manned space program. We consist of Caltech students, students from other colleges, and also Pasadena community members. Our plan of action for this coming year is rather hazy at present, so workable ideas for chapter activities are very welcome. Everyone interested is invited to our first meeting, which will be held on Thursday, Oct. 20th, at 5:00 pm in Clubroom 1 of Winnett Student Center.

## Tech Staff Meeting Today

12:15 in 128 Baxter. All are welcome. Bag lunches will be provided

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