

Gentle Ray & the State of the Onion

by Ray Beausoleil

We still need a couple more applicants for the ASCIT Educational Policies Committee and the Executive Social Committee. There should be some more significant happenings in academics in the coming year, and student input will be vital. In addition, Sue Fuhs has a quite a bit planned social-wise, and we'll need lots of help with logistics and implementation. I'm starting to sound like a bureaucrat, ain't I?

There are a few elective offices up for grabs, too. Dan Hansen, a Director-at-Large on the BOD, will attend the University of Illinois next year, so we need a replacement. Any volunteers? There will be a sheet on Flora's door by today. Next year's class officers will be

elected real soon: Senior president and vice-president/treasurer, and Junior president and vice-president/treasurer. The seniors help with commencement (including selecting the speaker), and the juniors run the mudeo. Go sign your life away on Flora's door.

Speaking of which, Flora's leaving her door to attend Mills (?) College next year; we plan to pick her replacement this summer. If you would like Flora's job, or want to be a member of the "Replace Flora Committee" (the RFC), tell Flora.

Remember the survey of student attitudes that was done first term this year? The results were collected and printed in the

continued on page four

HOCKEY EMERGES WITH LAURELS

by Asbestos Alfonosos

Nervous, hungry eyes greet the reporter as he enters the locker room in search of a game interview. A sharp pain is felt in his arm as Caltech player Fred "Slick" Culick mistakes him for an opposing player roaming into the wrong locker room. The reporter frantically pulls out his press card and "Slick" withdraws his honed stick and smiles: *can't get bad news*. The reporter doesn't find a casual atmosphere here that is found in the locker rooms of the Lakers, Dodgers, and Kings during their most recent playoffs. This is a very different and special game. It's been five years since the last league championship belonged to Tech. The rebuilding has paid off. The trades, the recruiting, cloning, and crossbreeding of players has been successful. A 14-2 regular season effort has garnered first place and the important home advantage for the playoffs.

For the reporter the initial panic and rushing of blood to the head has been relaxed by Fred's smile. *Quick, get some comments for a story and leave.* George Yates' name comes to mind. *Team captain and knowledgeable to be the team member most resembling human; might be good for a few notes.* George stretches out a firm friendly hand, a very warm and. George apologizes and explains that he usually puts his hand in a candle flame before

the games to demonstrate his toughness.

George: "...learned that from E. Howard Hunt, a good man. We have the rookies walk over coals."

Reporter: "What other requirements are there for team

But it's with Murph's blessing

CORCORAN RESIGNS

by Christopher Juten

Dr. William H. Corcoran will resign from the position of Vice-President for Institute

Relations and return to full-time teaching and research in the Chemical Engineering department. As the

Vice-President for Institute Relations, Dr. Corcoran coordinated CIT's interaction with the private sector—corporations, foundations, and individuals.

A major project of the last few years has been a development program run in conjunction with Richard P. Schuster, Director of Development, and Jim Black, Director of Public Relations and Executive Director of Alumni Relations. The development program included a major fund-raising campaign entitled "At the Leading Edge." Thanks to Dr. Corcoran's direction, the campaign is almost complete; \$118 million of the \$130 million goal has been raised. Virtually all of this money has originated in the private sector. The money will be used to finance two new laboratories: the Braun Laboratory of Cell Biology and Chemistry and the T. J. Watson, Sr. Laboratory of Applied Physics. Dr. Corcoran anticipates that the full goal will be attained

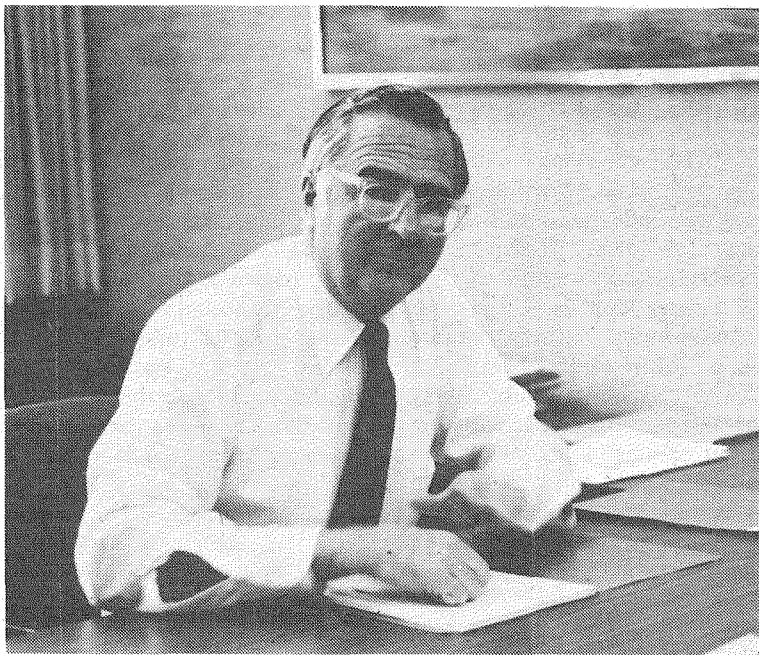


Photo by Fred Vachss

Dr. William H. Corcoran, new Institute Professor of Chemical Engineering, is soon to leave his post of Vice-President for Institute Relations.

continued on page four

Academic Careers Seminar Proves Interesting

by Sangtae Kim

The Y and the Gnome Club cosponsored a career seminar last Wednesday, featuring Professor Richard Dean (Math) and Jim Mayer (APh). The seminar was intended for those interested in academic careers.

Throughout the seminar, four topics dominated the discussion: Academic vs. Industrial Career, Tenure, Financial Support, and Teaching.

Despite the salary differential, both professors felt that the advantages of "being my own boss", the freedom to "conduct research that interests you", and the absence of security hassles attracted them toward academic careers.

Of course, getting there is something else, with tenure being the major stumbling block. After seven years with a university, the tenure question must be settled. Caltech, and many other universities, require favorable letters of recommendation (ten for Caltech) from the *outside*, as well as support from fellow faculty members in the department.

During the "golden age of research", when money flowed freely, many universities expanded their departments. The

result today is a bulge in the 45-55 age bracket, meaning fewer positions left open for young researchers.

Even after obtaining tenure, young researchers have difficulties finding adequate funding for their work. The "money river" is jealously guarded by the "old boys", and its location is kept secret. A young researcher generally joins a research group, with the funding coming from a senior professor.

During the early years, hustling up research grants takes considerable time and effort. Gradually the day comes when "you have arrived", and funding is obtained simply by writing one-page proposals. This day could be as many as five to ten years after tenure.

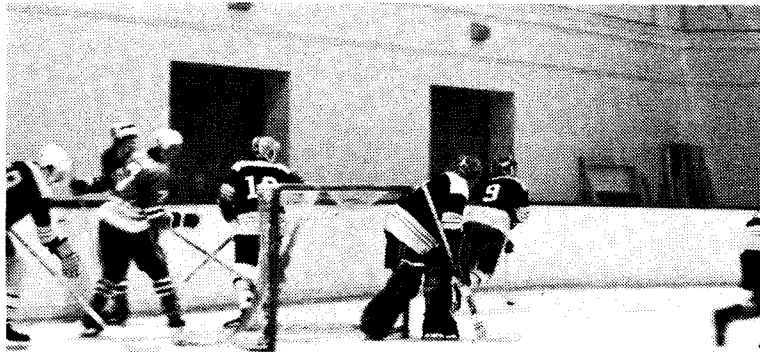
With such worries, do professors at a research-oriented university have any motivation for teaching well? For some, teaching becomes a chore, to be done as quickly as possible, but for others the desire to "do the best job I can do" turns teaching into another medium for achieving excellence.

continued on page seven

Photos by Ann Onimus



The Caltech Pucksters strut their stuff in last week's battle royal against Pierce College. The Pucksters won it, 4-3, 1-5, 4-1.



and, speaking of the RIVET . . .

It's that time of year again, and the cloudy promises of "the RIVET are coming" made throughout second term are soon to reach fruition. The editors of the ROT THIRIBBING TROVET, therefore, are soliciting material for that fine publication: humor, satire, witty verse, new lyrics for popular songs (e.g. "Tech's Been Good to Me So Far"), even

artistic farce. Also, a large number of cartoons will be needed for the HOVET. Even more than the usual *Tech*, the THIRIBBET is made or broken by campus contributions, so please come by Winnett or contact one of the editors about any ideas you have for THRIT HOVING ROBBET articles.

—the eds.

Resurrect the Flying Club

To the Editors:

My involvement with Space Day as an escort for mission specialist George Nelson gave me the opportunity to obtain much useful information; for instance, George had to do something to keep from being bored while finishing his undergraduate work in physics at Harvey Mudd. What? Bored with physics. Anyway, he got into the Harvey Mudd flying program and managed to get a private pilot's license for an insignificant amount of money.

This fact has been bugging me ever since. Often in the past, I have wondered why the CALTECH Flying Club is rarely heard from. Well, it seems that the Club is mostly a JPL organization, and for a good reason. \$\$\$\$\$\$. After all, how many undergrads (or even grads) have \$1200 laying around to pour into a pilot's license?

In the 1960's the Flying Club was started by some aero grad students. It was initially supported by the Institute but it got bigger and bigger, until it was finally turned into a corporation in its own right.

I believe that it is time for students to be involved in the Flying Club once again. I propose a Tech-sponsored flying program in cooperation with the current Flying Club and PCC. Students would begin by taking the existing ground school course at PCC and then the Flying Club would arrange flight time. It would be only fair to have participants pick up a fraction of the cost.

If any of your readers are interested, they may sign the sign the statement of support on the wall outside of my room (115 Lloyd).

Sincerely,

—Ralph Weeks

Letters

Space Day Kudos

To the Editors:

I hope that I speak for more than just myself when I say thank you to Dr. Jim Mayer, Jim Fruchterman, and Tod Lauer for their efforts which made Space Day possible. As you might recall, last May 3 was Space Day when we had an opportunity to visit JPL, hear lectures on the geology of the moon, talk with shuttle astronauts, and learn about the American space program. I personally spent about twelve hours participating in the various programs and enjoyed every minute of it. Besides getting out of class (thanks to President Murph), I was able to hear some very interesting speakers talking about their research. We heard Dr. Gene Shoemaker, Dr. Leon Silver, Dr. Al Hibbs, Dr. Bruce Murray, and others, all of whom were exceedingly interesting. It was also exciting to be able to talk to the participants in the program and the six shuttle astronauts during the dinner on the Olive Walk and at Mayers' house after the program.

Dr. Mayer, Jim Fruchterman, Tod Lauer and Dr. Leon Silver put a lot of work into the program and I'm sure that they feel it was worth the effort. Hopefully, Space Day will not be the last program of its kind. Caltech is a unique place to get an undergraduate education because of the research that goes

on here. Unfortunately, we don't always have time to find out about it. Canceling classes for a day of talks on some of the work being done at Caltech is really valuable since it gives students a chance to stay excited about science and technology. Too often Techers graduate without retaining a flicker of the enthusiasm they had when they came to Caltech. Events like Space Day give us some time to really get interested in what's going on at Tech and JPL.

Sincerely,

—Mike Nelson

Acts of Apostol Praised

To the Editors:

With the coming of Dr. Apostol's last lecture to this year's Ma 1 class I'd like to take this opportunity to thank him for his responsible lecturing. Dr. Apostol is one of the few lecturers at Caltech that I actually respect. He is *always* on time (usually early), always knows the material to be covered in lecture, and is usually able to respond to questions in a helpful manner. For these attributes and many more, I'd like to thank Dr. Apostol.

—A Grateful Student

Movie Clone News

Last week ASCIT showed a movie whose name was my last initial, and this week we're showing a movie whose characters are supposed to be from my home town, Louisville, Kentucky. Of course, this is all a coincidence. The name of the movie is *A Wedding*, and it is Robert Altman's film about everything that could possibly go wrong during or after a wedding, especially a high-class wedding. The wedding is conducted by a bishop who forgets blessings, the bride's sister is very friendly to everyone, including the groom, and the matriarch of the family dies during the reception. Among other things, this is a pretty funny film. Come see it.

The second of the Cinematech movies this weekend is a well-known film by a well-known Caltech alumnus, Frank Capra. The film is *Mr. Deeds Goes to Town*, and it stars Gary Cooper as a small-town greeting cards verse writer who inherits twenty million dollars. Everyone hassles him, trying to get at his money, and he finally decides to share it by setting up a collective farm. This Oscar-winning comedy also stars Jean Arthur. The first film is *High Noon*, also starring Gary Cooper, this time as a small-town sheriff, who, on the day of his retirement, discovers that a criminal he captured years ago will return to the town for revenge, on the noon train. Another Oscar-winning film, this has earned wide critical acclaim since its release.

—Jon Zingman

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 Sunday, May 20, 2:30 pm
 Dabney Lounge, Caltech
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Mozart, *Sonata in F Major*
 Schumann, *"Scenes from Childhood"*
 Chopin, *Fantasy in F Minor and Three Etudes*

Free admission—no tickets required

CALTECH PRESENTS

KATHLEEN LENSKI
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CIT/JPL faculty & staff: \$6.30 Gen. Adm. CIT students: \$5.60 or RUSH TICKETS (\$2.00) on day of performance, if tickets remain. Tickets available at Caltech Ticket Office, 332 So. Michigan Ave. Charge to VISA or MASTER CHARGE by phoning CIT ext. 1652.

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ASCIT * Friday Night *** MOVIE 7:30 & 10:00**

ASCIT Members 50¢ Others \$1.00
 Baxter Lecture Hall

Robert Altman's
A Wedding

Next Week "Oh, God!"

The Caltech Y..... fly by

Tuesday, May 15, An Informal Noon Discussion on THE ARMS CONTROL OF BIOLOGICAL AND CHEMICAL WEAPONS with Dr. Matthew Meselson, Sherman Fairchild Distinguished Scholar. In Clubroom 1, Winnett, at noon. Bring a lunch.

Wednesday, May 16, UPDATE Noon Discussion Series on Power Electronics—An Emerging Energy Processing Field. Dr. R. D. Middlebrook, Professor of Electrical Engineering will be speaking in Clubroom 1, Winnett, at noon. Bring a lunch.

Wednesday, May 16, SIGN-UP for a trip to the RENAISSANCE PLEASURE FAIR in agoura on Saturday, May 19. The \$3.00 cost will pay for both transportation and ticket.

Thursday, May 17, THE SHOURD OF TURIN, a slide presentation by Donald Lynn, JPL Deputy Director, Encounter Operations Planning for Voyager. At 8:00 pm in Baxter Lecture Hall.

The California Tech
 Volume LXXX Number 28
 Friday, May 11, 1979
 Published weekly except during examination and vacation periods by the Associated Students of the California Institute of Technology, Inc. The opinions expressed in all articles are strictly those of the authors and do not necessarily reflect those of the editors or of the Tech. ©1979 by the Associated Students of the California Institute of Technology, Inc.

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The California Tech Publications Offices are located in rooms 115 and 107 in Winnett Student Center on The Caltech campus. Address: 107-51, California Institute of Technology, Pasadena, California 91125. Telephone: (213) 795-6811, Editor—ext. 2153, Business Manager—ext. 2154. Printed by News-Type Service, Glendale, California. Postage paid at Pasadena, California.

Subscriptions
 \$1.50 per term
 \$4.00 per year
 \$100 for life

ISSN 0008-1582

Hockey

from page one

have high I.Q.'s."

Reporter: "Do you remember your last championship season?"

George: "Sure do, '74, knocked 'em flat, they didn't expect the brass elbow pads. Had some good boys that year, one of them might even wind up governor of Maryland some day, have to be shifty to win, right?"

Reporter: "Have anything special worked out for tonight?"

George: "Can't tell you."

The reporter decides it best not to ask what the six-pack of space stashed in George's equipment bag is for. Big Mike Friedman rolls over followed by his clone Chris Friedman. He asks if there's any trouble. George says no but tells the reporter he'd better leave before the coach comes in for the pre-game pep talk. The reporter quietly backs out and closes the door. As the door closes, Andy Gellman, the team's craftiest player, holds up the reporter's wallet.

The story behind the game is well known. A 14-2 regular season brought Tech to first place in the Southern California Collegiate Hockey Association. In the best-two-of-three semifinals, Tech defeated Cal State

Northridge in two straight games to blaze into the finals. Pierce College, Tech's opponents in the finals, skated to second in the league and swept their semifinal matchup against Occidental. Tech had played Pierce four times during the regular season, going 3-1. Finals were best-two-of-three. Tech won the first of these 4-3, with Andy Gellman supplying a hat trick. The second game was a 5-1 Pierce victory on their home ice in a much closer game than the score indicated.

In five minutes the season's finale would begin. Fans are jammed into every open space, eyes straining to see the door of Tech's locker room. Coach Warden's pep talk has been going on for two minutes. An explosive noise breaks forth as plaster cracks and the Tech players emerge through the wall. Pushing through the adoring crowd they make their way to the bench. Gellman quietly slips four more wallets into his equipment bag, "Love our fans," he slyly remarks.

The opening faceoff, clock running, a fast pace, but for the first couple of shifts the passes don't click and the tenseness is visible. Then it breaks. Friedman passes up left wing to Gellman, a quick flick across to Bobroff on right wing who gets the puck to

Christenson going over the blue line. The shot comes off the boards to the defenseman but the right winger beats him to it by an inch. In an instant the puck is passed back to Christenson who slips it in. First blood to Tech.

Stunned, Pierce regroup but the hack pack of Christenson, Gellman and Bobroff are hot. On their next two shifts Gellman and Bobroff pick up goals, staking Tech to a 3-0 lead going into the third period.

Pierce isn't finished; an explosive club, they immediately pick up a goal in the first minute of the third period. The next score is crucial: if Pierce picks up another quick tally it's 3-2 with plenty of time remaining; if Tech gets it, a 4-1 lead is virtually insurmountable. Caltech's Bardet decides it by scoring with assists from Culick, Minahan, and Rogers. Pierce begins taking cheap hits and penalties force them to play the last ten minutes short-handed. The game ends 4-1 with the solid defense of Yates, Rogers, Rothnie, Fryzak, the Friedmans, Chael, and outstanding goalie Jim Carscadden doing a tremendous job in keeping Pierce from getting momentum.

The playoff highlights were many: Eric Chael's fine goal in sudden death overtime during the semifinals, the hack pack scoring eight of the team's nine goals during the finals while yielding none, the tenacious play of the Culick, Minahan, Bardet trio and the Macfurlane, Chobotov, Braisted, Ortiz combination.

All the team wishes to express appreciation for the inspiration and fine coaching of Doc Warden, who guided the club to the league championship. The club also extends thanks to its loyal fans and to its group supporters: The Athletic Dept., The Alumni Association, GSC ASCIP and particularly to L. Bonner, Director of Student Relations, Jim Black of the Alumni Association, and Coach Warden for helping us meet playoff expenses. See us next year.

Baseball Aced

by Vic Manzella

The Caltech baseball team ended another tough nine-man season last Tuesday with a disappointing 16-3 loss to Claremont, but the loss was not without any high points for the Beavers. According to catcher Eric Klumpe, Terry ("Hoyt") Thomason's knuckleball was quite a spectacle, despite the loss. During the first six innings Thomason gave up only two earned runs, and Claremont batters were constantly going fishing for pitches that seemed to jump away from their bats.

The wind was just right according to Thomason, and, as a result, his knuckler was breaking in very erratic directions. This confused everybody, even Klumpe, who was behind the plate. Klumpe claimed to have bruises all over after the game, testimony to the effectiveness of the pitch. After six innings, Kevin Miller took over on the mound for Caltech, and despite the fact that he gave up no earned runs, the Beavers had a near shortage of manpower and ended up at the wrong end of a 16-3 score.

Golf at SCIAC

by Marie Trujillo

Last Monday, the Caltech golf team competed in the SCIAC Golf Championship at the plush California Country Club. The squad entered the 36-hole match with an outside chance of capturing fourth place in the conference. Also at stake were individual conference honors.

Excited by their role as spoilers, the Techers played like a team possessed. When the dust had finally settled, however, Caltech once again had let a championship get away, and took seventh place.

While team laurels did elude their grasp, there were a few bright spots individually. Charlie Curatalo displayed some brilliant strokes during the first round,

leaving him just three shots off the pace at that point. In recognition of his crisp play, the coaches of the team selected him to head up Second Team All-Conference. Two other Tech golfers, Jack Belliveau and Alan Boyar, narrowly missed in their bids for All-Conference standing, as they fell short by a handful of votes apiece.

This Monday, the team travels to Soboba Springs to compete in the NAIA District III Golf Championship.

KELROF!!

by Bill Gould

Important KELROF 24-Hour Relay preparations are slated for this coming week. Today is the official sign-up deadline for runners. Last Wednesday, 25 runners came to a practice workout for a glimpse of what lies ahead. There will be a makeup workout Monday, May 14, at 5 pm on the track for anyone who didn't make Wednesday's session and wants to get an idea of what they will be subjecting themselves to.

Team assignments will be finalized Wednesday night, May

16. Thursday there will be a meeting for all runners at 5 pm in the classroom in the gym to discuss ways to survive the grueling ordeal. On Friday, May 17, in the gym's classroom (also at 5 pm) there will be a meeting for all timers in order to organize the complex details of timing this impressive pageant of human locomotion.

The Relay will start 9 am Saturday morning. Over 60 runners have signed up so far, and we had about 45 timers at presstime. WE NEED 40 MORE! (call Rob Bourret, x2831).

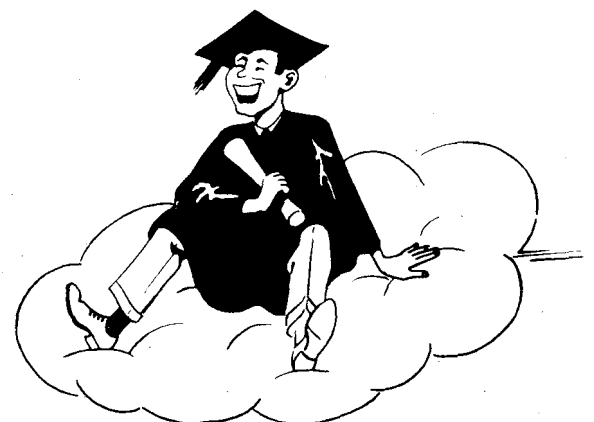
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Corcoran Resignation

from page one

by the end of the year.

Dr. Corcoran will discontinue his duties as Vice-President of Institute Relations on July 1, 1979. At that time, he will become Caltech's third Institute Professor [ed. note—the other two are Dr. William A. Fowler in *Physics* and Dr. John D. Roberts in *Chemistry*] in recognition of his outstanding scientific accomplishments and his great contributions to the Institute over the past 27 years. Dr. Corcoran explained that this honorary post is a recognition of his research activities and encourages him to strive to do even more top-quality research.

What plans does Dr. Corcoran have for the future? A major responsibility will be leadership in a new energy research program at Caltech. In a faculty memo,

President Goldberger stated, "I have asked [Dr. Corcoran] to take on the responsibility for developing a plan and providing leadership for a program which will enable Caltech to make a unique contribution to the energy needs of the nation. Included in this charter will be the coordination of the collaborative energy research activities at the campus and JPL."

Dr. Corcoran will also continue his research activities in both biomedical engineering and desulfurization of fossil fuels. He would like to see biological engineering expanded to include research on new medical compounds and new food plants. He plans to maintain close ties with students through classroom interaction and by being an

undergraduate and graduate advisor. Dr. Corcoran is also intensely interested in encouraging more minority students to enter the scientific fields like engineering. He believes that students at the junior high school level should be made aware of opportunities in these areas. And, in the professional arena, Dr. Corcoran plans to remain active in the American Institute of Chemical Engineers. As a past president of that organization, he is a member of the executive committee and is thus very aware of the nationwide developments in the field of chemical engineering.

Finally, Dr. Corcoran hopes to have some time to himself; he enjoys spending time at his small farm raising avocados.

Track Team Stomps One, Crushes the Other

by Vic Manzella

Last weekend's District Track Meet at Biola College was quite a battle for the larger power-house schools of NAIA District III. The two top contenders, Azusa-Pacific and Cal-Lutheran College, displayed incredible depth and talent in their fight for the championship. But Caltech, despite an obvious size disadvantage, was not left in the dust by all of the other schools present. Outstanding efforts by several team members fell just short of capturing seventh place and gave Caltech a solid eighth place finish among the ten participating teams.

On Friday, junior Bill Gould attempted a very difficult double in the 3000m steeple-chase and the 5000m run. In the steeple-chase, Gould topped his own school record by 15 seconds as he grabbed fifth place in a time of 9:55.9. This was Gould's best performance ever in the event, and he still had enough strength left to run a 16:22 in the 5000m, only a couple of hours later.

In the sprint events, Caltech had a tough time as all three sprinters were bothered by injuries. Despite these problems, however, Mark Morrisset managed to qualify for the finals in the 100m dash with a preliminary clocking of 11.4. In another heat, John Hattick ran an even better time of 11.3 but did not qualify. In addition, Caltech scratched from a six team field (and a sure sixth-place finish) in the 4X100m relay due to these injuries. The 1 team point which this finish would have given them later cost the team a tie for seventh place with Redlands and dropped them into eighth at the finish. In the decathlon, senior Bryan Sutula captured ninth place with a total score of 4598 in the grueling

two-day event.

On Saturday, Jim Quilliam grabbed the spotlight and became the 1979 NAIA District III Champion in the 400m dash. Quilliam won this event in a time 49.0, his best time this season, and he did it running in a lane that was improperly measured and nearly 2 meters too long. This means that his actual 400m time was about 48*, and he continues to approach the qualifying standard for NCAA Nationals.

In the 800m, freshman Lewis Collins came through with an outstanding performance as he finished third in 1:56.5. This was only the second meet this year in which Collins has run the event, but still he managed to top his own personal best with this effort. Senior Rob Bourret had a tough day in the 1500m run, but he managed a fine 4:03 clocking and a seventh place finish despite his sore legs.

In the final event of the day, the 4X440 yard relay, senior Norm Murray ran a fine first leg, but Lewis Collins and Rob Bourret were too exhausted from their earlier performance to equal their previous best efforts in this event. For this reason, a fine last leg by anchorman Jim Quilliam was not quite enough to catch Redlands, and Caltech finished fifth in the event in 3:33.7.

This Sunday, Rob Bourret, Jim Quilliam, and Lewis Collins will be running at UCLA's Drake Stadium in the SPA-AAU National Qualifying Meet. They will each be making a final bid to qualify for NCAA Division III Nationals. At 11:00 am, Bourret will be running in the 1500m run. At 2:00 pm, Quilliam will run the 400m dash, and at 4:00 pm, Collins will be running in the 800m. This should be an excellent track meet for anyone who can make it down to UCLA.

Enchanting Indians

by Samin Mithani

On Sunday, May 13, 1979, at Sexson Auditorium, PCC, Alarmel Vali and party will be presenting some of the most enchanting dances of India. The Caltech Y has arranged to take interested people from the Caltech community at a cost of only \$2.00. Transportation will be provided.

Alarmel Vali has been hailed as a "veritable enchantment" at the International Cultural Festival in Paris in 1973. Besides undertaking very successful tours

of Europe, the Middle East, Southeast Asia and the USSR, she has performed exclusively for the royal families of Greece and Denmark.

Vali is now on her first tour of the USA, where she will be giving concerts extensively and no doubt reaching the people with the sheer beauty of her style, grace, and emotion.

Sign up in the Y office by today, May 11, at 3pm. Meet near Winnett on Sunday at 5:45pm.

Shakespeare, as you like it

by Etaoin Schroedlu

The Shakespeare Society of America, a group that I have discussed in these pages before, recently finished a one-month run of *A Midsummer Night's Dream*, which was one of the most enjoyable performances I've seen at their Playhouse in West Hollywood. The humor was aimed at a rather low common denominator (which was quite suitable the night I attended, as high school groups were present; they enjoyed themselves very much, which I believe is the point of the proceeding), but all of the players were, I am glad to say, well suited for their parts, and put on a carefully crafted bit of buffoonery.

Many of the players had been seen on the Globe Playhouse stage before, including Director Lane Davies, and Shannon Eubanks, who played Titania. The Powers That Be at the Globe missed the opportunity to have Ms. Eubanks play the Maggie Smith double—Titania and Hippolyta. She would have done it well, but the actual Hippolyta, A'Leshia Brevard, was chosen so as to be a good half a foot taller than her Theseus, and more than a match for any other man on stage physically, as is suitable for a former Queen of the Amazons. The lovers, in no particular order, were Ann Bronston, Barbara Kingsley, Michael Ross-Oddo, and Mark Palko, and the rustics were admirably discharged, led by Stephen Stuart as Bottom. J. D. Hall was an imposing Oberon.

Upcoming Events

The Society is on the stretch run of its unprecedented effort to play all 37/38 of Shakespeare's plays consecutively, and has established a tentative schedule for the remaining plays. The current attraction is *Measure for Measure*, one of my favorites, which is often ignored and

misunderstood, and which was recently very satisfactorily presented on public TV as one of the British Broadcasting Company's first productions in their efforts to produce the Shakespearian canon. That BBC series, by the way, is without doubt the biggest thing that has happened to Shakespeare since Shakespeare, and it is heartwarming to see the plays performed so splendidly. The Globe's *Measure for Measure* runs from May 3 to May 26.

From May 30 to June 23 will be performed *King Henry VIII*, another rarely-done play which was also performed among the six BBC plays this spring. Following that will be *Two Noble Kinsmen*, a play of dubious ancestry but probably in major part the work of Shakespeare. (This doubt explains the uncertainty about whether there are 37 or 38 plays in the canon.) This rarely-seen play will run from June 27 to July 14.

King Henry V, that patriotic tale of England's great warrior-king which made an unforgettable movie starring Laurence Olivier, will be on stage from July 18 to August 11. It will be followed by *Merry Wives of Windsor*, the tale of Falstaff in love, August 15—Sept. 1.

They Had A Fake One

King Richard II, another of the BBC's performances this year, will run from Sept. 5 to Sept. 22, and be followed by *Coriolanus* (the real Shakespearian one this time), Sept. 26—Oct. 6.

The final play in the Society's performances at the Globe will be *The Tempest*, traditionally considered to be Shakespeare's last play. After that, I am not certain what the Society will do—there is talk of performing other Elizabethan and early 17th-century playwrights.

However, I am willing to bet that Shakespeare will continue to be an important part of their repertoire, to the benefit of all Shakespeare fans in the area.

Tickets at the Globe Theater are just \$5, and \$3.50 for students with ID, the same price level as in 1975 when I first started attending performances at the Globe. At that price, the entertainment is hard to beat. The Globe is a small theater limited to a seating capacity of 99 so as to avoid the Actor's Equity union rules which the theater can in no way afford; all of the seats in the house are good ones, and in fact are within 10 or 15 feet of the stage. Performances are usually Wednesdays through Saturdays at 8:00 pm; to be sure of seats, call 654-5623, or OK-GLOBE.

Beausoleil

from page one

Tech. Well, we're gonna do again next year, although we aren't sure about when. (We plan to hit off-campus students this time.) If you have any suggestions, please see myself or Barry O'Mahony.

Before I close, you should know that the ASCIT BOD at the old IHC sat down with two trustees, Shirley Hufstедler and Dick Cooley, a couple of weeks ago. They are sympathetic to changes and improvements to be made in Caltech undergraduate program. They hope to involve more trustees in the process sometime in the future.

Shroud of Turin?

by Mike Nelson

Nexts Thursday May 17, the Caltech Y will be presenting a program on the Shroud of Turin. Don Lynn, JPL Deputy Director, Encountering Operations Planning for Voyager, will be giving a slide presentation in Baxter Lecture Hall at 8:00 in the evening.

The program will explore the mysteries of the Shroud of Turin. It is one of the most sacred relics of the Christian church and has baffled scientists for centuries. The Shroud consists of about fourteen feet of linen cloth which bears an anatomically correct image of a crucified man. The Church and the thousands of pilgrims who visit it annually believe that the shroud was the burial cloth of Jesus Christ and that the image on it is his. Scientists have approached the Shroud with two questions in mind: (1) could the relic actually be from the time of Christ and (2) how was the image on the cloth formed. So far the research done on the Shroud has been rather limited

due to the church's reluctance to expose it to any possible harm. The results of the research done to date have served to confound and fascinate a great many people. It has been shown that the relic is not some poorly-constructed fraud. References to the Shroud can be traced back some six hundred years and the cloth is like that made in Palestine two thousand years ago.

The nature of the image is the most puzzling aspect of the mystery. There is no evidence that anyone painted the image and indeed the fact that it is so correct anatomically and historically indicates that the image was created by some very unusual process.

Don Lynn has been involved with trying to discover how the face of Christ came to be recorded on the Shroud. He has worked extensively with computer enhancement of pictures coming back from JPL's planetary probes. About three years ago he became interested in the mystery of the Shroud of

Turin. Since then he has used his skills to enhance the few pictures which have been taken of the Shroud. Recently, Lynn was a member of a research team which was able to work directly on the artifact. A number of very interesting experiments were performed on the Shroud in an attempt to explain it. The main questions are still not fully resolved but the results have made the Shroud all the more interesting. On Thursday, Don Lynn will describe his experience with the Shroud and will discuss the latest research on it. An excellent article in *Science* (July 21, 1978; Volume 201, page 235) provides an overview of the mystery of the Shroud for those who wish to learn something about it before the program.

Thursday's presentation promises to clear up some of the questions concerning the Shroud and to pose others. Don Lynn's expertise on this topic should make for a fascinating program on a religious relic which presents a puzzling challenge to modern science.

Photo innocently taken by Robert Parker



The Rivet are Coming!!! see page two, upper left



True to the prediction of guitarist Rock Howard, *Nomo Sno ain't no mo'!* Shown here in publicity photo from their legendary last concert are Howard, drummer Bill Farr, vocalist Steve Quesnel, vocalist/guitarist Jean Richter, bass player J. C. Collins, and suddenly-turned-invisible-drummer Romney Katti.



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Random Numbers

Well, the *Tech* didn't publish me last week. Do you suppose that they're trying to tell me something? If the last half of the mindless trivia that makes up this article seems a little stale, it's only because I wrote it last week. It gets harder every week to find something funny to write about. I am usually so busy now that I never know what is going on.

Well, now that *Phaedra* is over, I have found some other way to occupy my spare time. I have become involved in the new Caltech Drama Club, which had its first meeting this week. If you couldn't make it to the meeting and you are interested, just talk to one of the officers or stop by at our next meeting. And just who are the officers? Well, somewhere else in this paper there should be an article describing our meeting in great detail and containing a full list of all the officers. [Don't bet on it, bunkie. But in case any of you are curious, Shevaun Gilley is *Madame Prez*, Jenny Lunt is the *Financial Wizard*, Bruce Baskir is the *Scribe*, and just about everybody else in the club is one of the *liaisons* or *committee heads*—and of course, Shirley Marneus is the *kingpin*...er, *queenpin* behind the whole operation—the eds.] I mean, I wouldn't want to be redundant and repeat myself, or somebody else, by repeating what might appear elsewhere in this paper. I mean, I wouldn't want to be redundant and repeat... Deja vu, that feeling you have that you've been somewhere before. Deja vu, that felling you have that you've been somewhere before. Oh well, I'm getting silly and I do have to sew the neck of my T-shirt closed, so....

Here is last week's vain attempt at humor.

I am told that some very important book says that there is no place in a newspaper for writing like this. Well, I really wouldn't know about that. I just

keep handing them in and the *Tech* keeps publishing them. Sometimes. They seem to have no shortage of space.

So tell me, just what is this fetish that B&G seems to have about thinning the trees? I know they have to be thinned, but I can count the leaves on some of the trees on campus and never get to a number that's big enough that I have to use my toes. And while we're on the subject of trees, I have it on good authority that the trees along that court between Kerckhoff, Arms, and North Mudd are known as the "Phallic Bushes" to certain individuals in Southern California. It seems that great distances have been traveled by these, and other, individuals, so that they could shake these bushes while under the influence of certain illegal substances. Don't ask me, I'm just reporting what I was told. Even if it isn't true, it is interesting.

Can anyone tell me what Space Day was? Not that I mind getting out of Thursday classes; it's just that I don't have any in the afternoon anyway so that's no real advantage.

Anyone who says nothing ever happens around here has obviously never been here on Polish Constitution Day. It's not every day that a wall is removed from the staircase that it used to support or that a stair rail is bent and broken in three places in the process of removing it from a wall. I mean, most people would use a screwdriver. And so many chairs were destroyed that our house will be eating in shifts until we can get some more. But I'm sure that you will all hear more about Wednesday night's activities than I could possibly fit into my column. Wednesday night might even live on in infamy.

This was going to be longer, but my room-mate just went to bed, so....

—Duncan G. Mahoney

Investment BOD News

Our meetings are now open to all. New officers are: Wally Walter, Chairman; Grace Mah, Vice-Chairman; Mark Fischer, Treasurer; and, Jim Angel, Secretary. We set up four committees: Mark Fischer chairs the Stocks and Equities Committee, Jim Angel is the head of the Bonds Committee, the Cash Equivalents Committee is run by Arley Anderson, and Jeff Eriksen is in charge of the Bylaws Committee.

Although some tentative plans for investment have been made, our chairmen encourage any advice or suggestions you may have about investing the endowment. A provisional set of bylaws have been approved and a formal set will be made available in a few weeks. All are welcome to make suggestions to any member of the Investment BOD.

We Need You

(Even If You Can't Act)

Auditions for *The Romancers*, a comedy by Edmond Rostand, will take place in Baxter Lecture Hall on Sunday, May 20 from 2-5 pm. Students, faculty, and staff are invited to try out.

The play, to be directed by Shirley Marneus, will be presented in Dabney Gardens on the last two weekends in July. For those of you unfamiliar with the show, it may help you to know that the musical *The Fantastics* was based on it.

There are six speaking parts in the show, five men and one woman, and ten other people will be needed as "chorus." People are also needed for crew, set-building, publicity, working on costumes, ushers, etc.

If you have any questions, please call Flora at x2157.

Chemical Warfare Discussion

by Vic Manzella

Does the idea of chemical weapon stockpiles in the United States ever make you wonder about the possibility of nerve gas spills in populated areas? In a time when the problems of managing radioactive materials loom over us, the dangers of chemical weapons (especially nerve gases) are virtually forgotten. Fortunately, there are people still working on the control and eventual elimination of these weapons, among them a visiting professor here in Caltech's Biology Department, Dr. Matthew Meselson.

Dr. Meselson is a Sherman Fairchild Distinguished Scholar, and he is currently the Thomas Dudley Cabot Professor of Natural Sciences at Harvard University. During the Kennedy Administration he became the consultant for Chemical and Biological Weapons with the US Arms Control and Disarmament Agency in Washington, DC. He remained in this role until 1973, and he was successful in helping

to bring about a treaty at Geneva in 1972 under the Nixon Administration for the total disarmament of all biological weapons. Earlier, the US had been developing such weapons. But despite this success at eliminating biological weapons, chemical weapon stockpiles still exist in the United States and the Soviet Union. Currently, a Geneva Protocol exists which forbids the use of chemical weapons except in retaliation for their use by an aggressor. However, this is not a satisfactory situation, so Dr. Meselson and others are now working on a treaty for total disarmament of chemical weapons.

You are invited and encouraged to attend a Noon Discussion sponsored by the Caltech Y on "The Arms Control of Biological and Chemical Weapons" with Dr. Meselson on Tuesday, May 15. This informal discussion will be held in Clubroom 1, upstairs in Winnett Center, and you are welcome to bring your lunch.

INSIDE

It was the last Sunday in April. About fifteen of us gathered in the large, but cozy, living room of "Madison House"—where the grassroots monthly, *New Pasadena*, is conceived, printed, and assembled. The printing press awaits in the garage—ready for action. Inside the house, up the dimly-lit staircase, there is the workroom where we do the layout. Back downstairs in the living and dining areas, we hold meetings and collate the magazine. Meanwhile, this place serves as home for seven people. At Madison House, politics is more than going to the polls on election day, it is a way of life.

The magazine is run collectively. People bring up news, ideas, and suggestions for articles to the group for discussion. In this way, involvement is encouraged and people learn from each other.

Our philosophy at *New Pasadena* is that the magazine improves as more people get involved. However, sometimes this approach can run into problems, as Janet Gray points out: "A large proportion of the people involved in *New Pasadena* have very strong personalities. They have a lot of knowledge and have a high level of involvement. There are a lot of things these people are angry about. It's hard to get business done because they all have opinions on everything. It's very easy for discussions to get on tangents. But this is good in a way because this is what keeps people going, and this is what the spark is."

Perhaps one of the angry persons of whom Janet was referring is Tim Brick. Sulking in his chair, he seemed like a leopard waiting to pounce on anyone who made a foolish move. Indeed, Brick has done extensive muckraking of California politics, especially concerning the utilities. He has

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This is the time for da Kine!

summer work too! 32

new pasadena

inside to a lot of shady dealings between government and the big utilities that just aren't published in either the *Star News* or the *L.A. Times*. For example, we have investigated the connection between the Brown family and Indonesian LNG (liquefied natural gas). His contacts with both the community and experts in the utilities made him a natural choice for the newly formed Pasadena Utility Advisory Commission. Tim has a broad philosophical outlook on *New Pasadena*:

"In comparison to the *Chronicle* (a local weekly), which has been providing some very good alternative coverage to the *Star News*, *New Pasadena* gives more long-term analytical treatment of issues. We concentrate on redevelopment, housing, utilities, and schools, analyzing the trends going on rather than an immediate up-to-date article."

"Also, *New Pasadena* presents a certain type of activist journal. The whole thing they lay down in journalism schools is about objectivity. It's essentially a reactionary thing where you report something that happened, whereas ever since it began, *New Pasadena* has tried to ask questions to set political themes. And that's a whole different philosophy. Also, there's a different kind of philosophy behind asking people to be involved in particular things to write about their involvement, because they have a special knowledge of what's actually going on."

Sam Schiffer, redevelopment director, added to Tim's comments: "This business about objectivity does not exist. The mere fact that a newspaper plays up certain stories and downplays others or ignores others is a matter of editorial judgement. And the

editorial judgement of *New Pasadena*, I think, is to play up those issues that affect the great mass of ordinary citizens, not the small number of issues that help those in power. That's the bias."

Alicia Ruble, who helps out on production, agreed: "What makes *New Pasadena* different is that we admit to having a bias. We don't put up a front of being totally objective."

New Pasadena has taken controversial positions in support of people who generally have little voice in the community, namely those in the low- and moderate-income bracket. We have encouraged these people to seek greater control of their economic and social situation through political means. For example, *New Pasadena* has sided with people opposed to redevelopment in neighborhoods. We have also given support to rent control organizers and people who favor utility rate restructuring.

People in the magazine have taken active roles in the community. Jim Hight ran for School Board two years ago and has helped to organize students at PCC. Bonny Berry organized people in her neighborhood against redevelopment. Carl Selkin, who writes a monthly "Getting Organized" column, is active in the CLEM (Claremont-Lake-EI Molino-Mountain) Neighborhood Association. Chip McCarthy has talked to people in redevelopment project areas informing them of the city's plans. Taylor Dark III, who writes our School Board Blues column, is also involved with the underground John Muir High School publication, *Blazing*. Production coordinator Howie Stover is a member of the Blue Ribbon Committee for L.A.'s utility. Tim Brick is a co-coordinator of C.A.U.S.E. (Campaign Against Utility Service Exploitation). Alicia Ruble is active in the Southern African

Support Committee. Denny Meehan works for Center of Living Independently. Laura Vallejo, Nathan Sarnoff, Pam Stanley, and business Coordinator Floyd Beatty are teachers. Don Wheeldin is an educator who has been actively involved in local politics for years and has written for *New Pasadena* for five years.

According to Howie Stover, who has been with the magazine ever since it began five years ago, the publication has undergone considerable changes: "*New Pasadena* was started pretty much by an organization named People's Action Union. We were concerned with a broad range of issues: anti-war issues, utility issues, the schools, and environmental issues. So *New Pasadena* began as a vehicle for these concerns to help bring together the various campaigns. When we started, we were coming out of the sixties—a much more dramatic, much more militant, and much more outward-looking period of time, than now in the seventies. We were much more radical in the way we presented articles. Our way of writing and our use of graphics were, in general, more trying to direct people towards specific actions than we are now. At this time we shifted to a more subtle form. We are vastly less rhetorical. We eschew rhetoric completely because we found people don't relate to it. I think we've become more analytical, more clear, more grassroots and more sensitive."

Many changes have taken place in the past year with the addition of new people like Janet Gray, Vendi Elman, and Marilyn Davis. A book editor, writer and poet, Gray was the natural choice for the editorial position. Her literary skill has added a much-needed polish to the magazine, making it more readable. She has also helped to make *New Pasadena* run in a more business-like manner by setting up production schedules.

Vendi's artistic touches have given the magazine an unpretentious at-home flavor. Her eye for graphics have considerably improved the appearance of the magazine. With the help of artists like Lauren Zolot, she has helped make *New Pasadena* one of the nicest looking publications around.

Marilyn, who is in charge of distribution and outreach, has been a dynamo in making sure that things get done. She's the one paid staff member (the

magazine was awarded a six-month grant to hire her), but has worked well beyond the call of duty. *New Pasadena* increased subscribers by 50% in that time period.

New Pasadena is supported mainly through subscriptions and donations. It runs a few advertisements each month, but wants to be free of the conflicting interests that plague commercial media. According to Gray, "It's not a business, it's an organization whose purpose is not to sustain itself and make profits, but to be a voice in the community." Fortunately, the costs of production are fairly low because of the hundreds of hours of free time that people donate to the magazine. This is what gives *New Pasadena* its credibility. People work for free. Why? Perhaps it's because *New Pasadena* relates very deeply to what we value in life—it's something we believe in.

New Pasadena is planning a subscription party on Sunday afternoon, May 20, at Super Antojitos—a small Mexican restaurant a half block north of Colorado on Mentor. There will be live music, snacks, and fascinating conversation with all sorts of people. Everyone is invited. For more information call 794-9686.

—Bob Tajima

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Academic Careers

from page one

In California, the UC system is primarily for research, and like tech, professors are judged by their research output, not their teaching ability. The Cal-State system is for teaching, hence teaching ability is the criterion here.

A young faculty member, in order to survive, must do outstanding work—"publish or perish". The "ivory tower" is a not working environment, but awfully tough to get in and out of.

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public service

Tute Tute!

The list of Biology tutorials (Bi 23) to be offered next term is now available outside the Biology Office, 156 Church, and outside Rm. 12, Beckman Labs. The tutorials are staffed by Biology faculty, postdocs and grad students. They provide an opportunity for learning through personal contact in a small group situation and cover a broad range of subjects. Bi 23 may be taken for up to 6 units; grading is pass/fail. For details, see Ron Konopka, Rm. 12, Beckman Labs.

Rendezvous With Drama

There will be a meeting of the officers of the Drama Club, and anyone else interested, at 8:00pm Tuesday, May 15th, in Clubroom 2 of the Winnett Student Center.

Another Exam!?!

Arrangements for Physical Examinations for students for Graduate School, Transfers, Permanent and/or Summer Employment, Class II Driver's License, etc., may be made at the Young Health Center. These examinations will be done by Nurse Practitioners Tuesday-Friday mornings by appointment. Please call x2394 for further information.

music

Ever Play Jubilee?

The Caltech Glee Clubs will present songs from "Paint Your Wagon" and a medley of songs from the '40s in their Spring Jubilee. This songfest will be in Beckman Auditorium on Saturday, May 12 at 8 pm. Admission: \$3.60 for CIT/JPL faculty and staff, and free for Caltech students. For information call x1652.

I Hear A Waltz

Your orchestra is holding a waltz. That's right, a real live waltz. Strauss and Lehar will roll off the balcony of Dabney Lounge tonight from 8:30 pm until whenever. Come see what surprises we have for you. There'll be refreshments for all. Not only that, it's free and open to all staff, faculty, and students. Formal or semiformal dress suggested.

And A Violin

Violinist Kathleen Lenski will perform on Tuesday, May 15, at 8 pm in Ramo Auditorium.

Her program will include Mozart's "Sonata in E Flat Major, K. 547"; Schoenberg's "Phantasy for Violin and Piano"; Schubert's "Rondo in A Major for Violin and Piano"; Brahms' "Sonata No. 1 in F Minor, for Viola, Op. 120"; Paganini's "Sonata-Theme and Variations in A Major for Violin and Piano"; and Kreisler's "La Gitana", "Liebesleid", and "Liebesfreud". Ms. Lenski will be accompanied by pianist Lincoln Mayorga.

A graduate of the Juilliard School where she was a student of Oscar Shumsky, Kathleen Lenski has been playing the violin since the age of two. She was a performing member of the first Heifetz Master Class in 1958. Her honors include the Second Prize in the 1969 Paganini Competition, the Debut Award of the Young Musicians Foundation in Los Angeles and the Diploma of Highest Achievement from the Accademia Chigiana in Siena, Italy.

For more information, phone the ticket office at 793-7043.

I Won't Quit 'Til I'm A Star . . .

George Benson, responsible for the biggest-selling jazz album of all time, *Breezin'*, and whose newest album, *Living Inside Your Love*, has just been released, will appear in two performances only at Bridges Auditorium on the

campus of the Claremont Colleges on Sunday, May 13 at 6:30pm and 9:45pm. The band Sea Wind will open the concert. Tickets for the May 13 concert are now available at Mutual Agencies, Bridges Box Office at 4th & College in Claremont, and by phone at (714) 621-8032.

events

The Ath Formal (actually semi-formal) will be a week from today, Friday, May 18 and there's still time to sign up. The cost will be \$15 per couple (a bargain) and the band will be "Light." Dinner will start at 7:30pm. Sign-ups will be coming down this Wednesday, though, so you'd better hurry.

Industrial Development

The Industrial Relations Center of Caltech will present 11 management development courses during May.

Three general management seminars—"Assertive Management" (May 1-2); "Effective Time Management" (May 14-15); and "Handling People Problems Face-to-Face" (May 17-18)—will deal with the latest techniques in organizational behavior, motivation, and productivity improvement.

Additional seminars will be: "Improving Customer Service" (May 8-9); "Management Skills for Engineers and Scientists" (May 8-9); "How to Implement a Wage and Salary Program" (May 7-9); "The Maze of Governmental Regulations" (May 15-16); "How to Administer the ERISA Plan" (May 17-18); "How to Manage the Private Truck Fleet" (May 21-22); "How to Establish a Preventive Maintenance Program" (May 21-22); and "Cost and Personnel Impact of Age Discrimination Legislation" (May 30).

A detailed description of courses offered may be obtained by writing Industrial Relations Center, 1-90, California Institute

of Technology, Pasadena, California 91125, or call (213) 795-6811, extension 1041.

g&c

So Ya Wanna Be In Pictures, Eh?

The well-known art film director, "El Busto," is at Caltech and is looking for people to appear in his latest movie. Most needed are two women with access to nun's habits and who get along well with large, hairy animals. Contact Armando Howard, Lloyd 128, 578-9344.

Free Meal!

The Caltech/JPL Toastmasters' Club announces a membership drive. The club is dedicated to giving members experience speaking to groups. At each meeting, members give prepared and impromptu speeches over dinner (which is free for a first-time guest), and each speaker is then constructively evaluated. They meet at JPL's executive dining room in the main cafeteria, at 5:15pm on the second and fourth Wednesdays of each month.

Club members are a varied group, including scientists and secretaries, technicians and managers. Students are welcome. Anyone interested is invited to call Nancy Kosowicz (x2087) or Tom McDonough (795-0147, afternoons and evenings).

Pick Up Your Raped-Over T-Shirts

The "TRUTH SHALL RAPE YOU OVER" T-shirts have been in for three weeks. Please pick up your shirt if you ordered one by noon, Friday, May 18. All shirts not "claimed" will be sold to the people on the waiting list. Contact Izzy Lewis, 136 Page.

private

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Postage paid at Pasadena, California. The California Tech is published weekly except during examination and vacation periods by the Associated Students of the California Institute of Technology, Inc., Winnett Student Center, Caltech 107-51, Pasadena, California 91125.