Gray, Liepmann Get Top Awards

Gray was selected for his group's research in Bio-inorganic Chemistry and Inorganic Photography. The latter involved the contraction of solar energy into more useful types of energy. The former entailed the role of metals in living systems, and long-range electron transfer in proteins. Gray regarded the Medal as "a special honor" because he was awarded for ongoing research, whereas most receive it as recognition of lifetime accomplishments. He felt the recognition "really helps everyone (in the group of researchers) relate to the importance of our work."

Just before Gray was informed of the prize, he had returned from Congress where he had testified on funding for chemistry and the future of chemistry over the next decade. Eager to tell the news, his graduate students greeted him at the airport with a banner proclaiming "Hail to the Chief" and an RV stocked with enough wine and beer for a party of historic proportions. The National Medal of Science dates back to 1962, when the late Theodore von Karman, a Caltech Faculty member, was the first to receive it. On August 25, 1959, the 86th Congress decreed that no more than twenty Medals per calendar year were to be given out. Qualified recipients were to have made significant contributions to science or engineering. The Medal is purely honorary, unequipped by stipend or office. The faculty winners were Theodore von Karman (1962), John Pierce (1963), Alfred Sorensen (1967), Arie Haagen-Smit (1973), William Fowler (1974), Linus Pauling (1974), William Pickering (1975), Richard Feynman (1979), Simon Ramo (1979), and Seymour Benzer (1983). Non-faculty alumni awarded Medals include Wolfgang Pauli (1969), Allan Sandage (1970), Saul Walsten (1970), Kenneth Pitzer (1974), Sterling Hendricks (1975), E. Bright Wilson, Jr. (1975), Donald Knuth (1979), and Charles H. Townes (1983).

Amazing Banquet

by Josh Kurutz

A radio-controlled, propeller-powered, balsa and mylar dirigible floated noiselessly about the Pasadena Hilton as the Southern California Skeptics assembled for the March 8 James Randi banquet. The program included recognition of the organization's officers and especially devoted members, a presentation by magician Randi, and a talk by Los Angeles Times columnist Jack Smith.

The event was held in honor of "The Amazing Randi," a professional magician, writer, and investigator of the paranormal. He described himself as a "fraud, liar, cheat, thief, and charlatan," noting that he considered himself "a magician, by trade."

Most of the attention directed at Randi was for his twenty-five-year career dealing with claims of the paranormal, which he had always found to be "hollow and without merit." Regarding such hoaxes, Randi commented that there were "merit." Regarding such hoaxes, Randi commented that there were "merit." Regarding such hoaxes, Randi commented that there were "merit." Regarding such hoaxes, Randi commented that there were "merit." Regarding such hoaxes, Randi commented that there were "merit."

The only credentials the Amazing Randi had are his experiences. He feels very "unadorned and unencumbered" by his lack of academic degrees.

Randi was one of four founders of the Committee for Scientific Investigation of Claims of the Paranormal, from which the Southern California Skeptics was born. "Once formed, the organization took off at an astonishing rate," said Randi. The association publishes his own journal, the Skeptical Inquirer, which has an ever-increasing subscription.

Notables in attendance at the Skeptics' banquet included Caltech professor Murray Gell-Mann, Det. Pat Riley of the LAPD bunco squad, Bill Jarvis from the National Council Against Health Fraud, Al Hibbs, chairman of the SCS, Bob Stiner, ex-chairman of the Bay Area Skeptics; Ernie Ernici from the San Diego Skeptics; and Paul Kurtz from the national skeptics organization.

Carmela Going

by Diana Foss

After over fourteen years of caring for Caltech undergraduates, Carmela Kempton is leaving her desk in the Master's Office. Although she left a promising career in downtown bank to work at Caltech (in order to be closer to her then five-year-old daughter) she has no regrets. She says she is going to miss most the entertainment, the amusement, and the knowledge she has gained in her students over her years here. In fact, Caltech students have spoiled her for "conventional social exchange," she says she finds her mind wandering at parties, so much does she enjoy talking to students.

Carmela remembers fondly several events she helped organize. When Ken Mayer was Master, she organized a series of ballroom dances. She recruited every young woman she could think of to come, including her daughter and her daughter's friends, and the first few dances were smashing successes. Gradually, however, the number of female partners dropped off as the women realized that Techers really couldn't dance—and that their conversation was rather impenetrable. Still, ever-resourceful, the students resorted to dancing with each other, the pictures of which Carmela still treasures.

Cooking contests were also fun. "Students would stay up all night making these absolutely spectacular full-course meals," she recalls, "and we had trouble getting faculty judges, because they had to eat seven full meals in only seven hours."

She understands why people fall in love with Caltech. "Where else can you sit at your desk and hear a cannon go off?" she asks. "Once, about ten years ago, a huge lioness walked through the door into her office. It turned out to belong to a student; giggling outside soon tipped her off. She has become close to many people while at Caltech, old R.A.'s and students write to her from all over the world."

The Winners Are: (left to right) Harry Gray (before and after) and Hans Liepmann

Photo by Jack Pan

Carmela Kempton, the power behind the throne, retires April 1st

continued on page 5
A Question of Bias

Well, it had to happen. The comment on Ricketts was no farther removed to me (not directly, of course) than the movie is "getting too Scary Again". I should explain here, for the benefit of those who don't know, that I have the undergrad social scene, that "a Scary" is a member of Ricketts House. The charge is, then, that there are too many Scars working of Ricketts. I don't see the point, that, therefore, the Tech has been unfairly promoting the interests and views of Ricketts House above those of the other houses. I plead guilty to being Scary, as does Josh Kouritz, but anyone who voted for us could easily have found that out. Diana Foss is also a Ricketts member, and her byline is quite prominent; more on this later. Josh Sisser is also a Scary, but his contributions are mostly in the layout department, hardly a politically sensitive area among the houses. We have some other Scar on the staff, and also several people from other houses. Why the disproportionate number of Ricketts members? The Tech has for years had a chronic shortage of staff members, especially writers. When the editor recruits people, he has to find people the editor knows, and, Caltech being what it is, this most often means fellow house members. This also explains the prominent Blacker/Page representation in the previous administration.

What about the issue of bias? A large factor in this complaint must be the prominence of Diana Foss. Diana writes a lot of news copy. Diana is a member of Ricketts. She, two, however, have nothing to do with each other. Diana writes because she can write; she has a very good style and good contact with the faculty and administration. None of her copy has ever, as far as I can tell, been biased by her house membership. I have been able to help it, will anybody else's copy, the paper should not be a big whiteboard for people to show off their creativity. The newspapers itself has any political bias, then so be it; no paper is perfectly impartial. My political views are my own, not Ricketts'; I've had them much longer than the Tech has been published. Continue on page 3
that discussion of the appropriateness of Institute support for any student group should take place within the framework of the Institute's educational mission, and within this framework, I find myself agreeing with Hassok Chang. Bear in mind that "survival games" such as those played by the Rambo Club are not concerned with wilderness survival in the sense of woodcraft, edible wild plants and how to build a fire; rather, they are simulated warfare, pure and simple. More to the point, as Konstantin Othmer and David Parkinson point out, they are devoted to the enjoyment of simulated warfare, not to training for civil defense. Say, is this an appropriate application of the educational mission of Caltech? I am not a pacifist; I worked the last two summers for a defense industry. However, I am convinced that violence and the potential for violence are matters to be approached only very seriously and with much caution. As the Caltch Rambo Club's attitude towards violence as fun has no place, however peripheral, in the syllabus of an educational institution like Caltech. I therefore urge an immediate and other support from the group. (Mark Looper)

P.S. Honor Code Notice: If the idea of a Rambo Club is not your idea, feel free to suggest to others during a similar dustup over a similar group at couple of years ago at my undergrad school.

ASCIT Budget

To the Editor:

In last week's issue of the Tech, Sam Wang and Michael Keating contributed a letter whose main purpose was to criticize the ASCIT Budget meeting, in particular the ESC and ASCIT Movies budgets. As the ASCIT treasurer, the person responsible for running the budget meeting, I would like to respond to their allegations.

First, I would like to give you some background on how the meeting is run. Each year clubs are asked to send in their requests, which are looked over and then compiled into a proposed budget. At the meeting itself, the members of the BOD receive the proposed budget. Most budgetary items are set aside for voting or are determined by previous costs. These costs include insurance, supplies, salaries for publications editors, etc. The budgetary items that the BOD then considers vote include such ASCIT organizations as the ESC, IBC, and BOC, as well as all ASCIT clubs.

In response to overexpending on the ESC and Movies budget, I worked the last two summers in the wilderness and came to the realization that most people on campus get their largest return from ASCIT. Almost everyone attends an ASCIT movie or goes to a multi house party, whereas the clubs only include certain people, and there are only a few ASCIT movies.

Also, it should be pointed out that in the year before last, the ESC actually spent more than $150.

As a student member of the BOD, I am speaking for Rob personally, I would urge any of you with questions about the social budget to talk to him.

As regards to the ASCIT Movies, I did indeed propose sharing some of the revenue with Harvey Mudd. However, it was also stated by the Activities Chairman that this would probably not have a significant amount of money, since the movies are rented on a per showing basis.

It should also be noted that in previous years the Activities Chairmen have asked for but not received increases in the movie budget, which one reason the movies have succumbed to the burden of rising prices.

The general complaints that have recently been heard about the fairness of fund allocation must also be addressed. One complaint is that not enough consideration is given to each club. At the meeting, there was a discussion about the number of ASCIT members, club activities, and general campus interest. It was only after all discussions that one issue was brought up: a proposal was brought forth and voted upon. Most complaints stem from the question of how funds are to be distributed among the clubs. The Board of Directors is currently examining this question. Anyone with questions, comments, or suggestions is welcome. The nearest BOD member should be informed.

In conclusion, the budget meeting last week was run in a responsible manner, giving full consideration to all organization members present. If there are any perceived inequities in the system, or complaints about the system, I would like to hear about them. You can either find me in room 15 P.S. and send a note to me at mail-code 15 P.S. Note the irony that the Flem­ing Classic. Tragically, several members of the Crew Male were humiliated and killed. The Dog Nuts Motley Crew then proceeded to dismantle Fleming Classic. After the game had ceased on these issues that overshadowed the Fleming “New Formula” squad several weeks before, the dispute over the issue, with no events, our credibility (and we assume that of the Tech readership) is severely strained in regards to the aforementioned prowess of the Fleming basketball team. If members of Fleming House felt inclined to rescue their bruised honor, the Dog Nuts Motley Crew will gladly accommodate them with a rematch.

Sincerely,  
Captain Moehly and his Dog Nuts Motley Crew  
Swooping Comanners in the Twenty-First Century  
P.S. Note the irony that the Fleming color is red.

More Editorial

from page 2

It’s very easy to sit and complain about something, more difficult is to get up and do something about it. The problem isn’t so much that we are too Scour-dominated, there is an easy and direct way for you to fix that problem: join the staff. If that’s too drastic for you, but you still have some complaints, please send me a letter.

Just don’t do nothing.

Notice

The Tech is now accepting submissions on IBM PC compatible preferably in WordPerfect format. Letters are a floppy labeled with your name and the date, and you can pick it up Friday.
Daddy's Been Turned Into a Scotsman!

by Nick Smith

Highlander

Directed by Russell Mulcahy

20th Century Fox


by David Hall

Bliss

Directed by Ray Lawrence


entertainment

Crossroads A Peculiar Bliss

Crossroads is a sort of blues cross between Phantom of the Paradise and The Devil Went Down to Georgia. The funny thing is...it's very good.

Ralph Macchio plays a young classical guitarist who always wanted to be the blues guitarist in the world. The first two songs are about him and he lives in Long Island (attending Juilliard, no less!). Long Island is the sort of blues birthplaces of the Blues.

Joe Seneca and Jam Gertz are his competitors in a bizarre odyssey in search of a "missing" blues song that will make Macchio rich and famous (well, famous, anyway). Gertz is in search of her blues voice and he lives in New York.

Directed by Russell Mulcahy


The funny thing is...it's very good.

The film starts out by hailing a piece of music by Queen. Now, I like Queen, at least sometimes. I don't like them when they get too cozy with a movie, like in Flash Gordon, for example.

In this case, the music soundtrack was designed to do very little. The young Macchio is singing Queen and it's all going seems to be okay.

But as soon as it begins to get involved with the story, everything changes. The young Macchio quickly becomes a blues singer and begins to shape the story to his liking. And it's all going great until the young Macchio, who has become very big in a very short time, begins to lose his way.

The young Macchio begins to lose his way until he meets up with a blues agent, Harry Joy, who dies for a reason.

You have to watch the movie to understand this part.

Harry Joy is a champion of the world (hmmm, granted, the means aren't quite clear). He's the champion of evil. You know, the usual suspects, villains to be outwitted.

The movie work is not done here. The young Macchio begins to shape the story to his liking. And it's all going great until the young Macchio, who has become very big in a very short time, begins to lose his way.

Harry Joy is a champion of the world (hmmm, granted, the means aren't quite clear). He's the champion of evil. You know, the usual suspects, villains to be outwitted.

But these complaints are fairly minor on the whole. For every lapse in the storytelling, there are a dozen memorable scenes or lines (of which I only remember a few).

The story of the love-letters that took eight years to send is worth the admission price alone. The acting is quite good, and the characters are all clearly delineated; they are real, albeit sick, people.

continued on page 5

MATH AND ENGINEERING GRADS

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• Exceptional salaries and benefits, and equity in the company.
• A signing bonus. You must choose between "good" and "evil", his reasons for choosing "evil" are made apparent, but not convincing. I could see the arguments for doing what he did, but I didn't buy them, and found it hard to accept his action as plausible.

But these complaints are fairly minor on the whole. For every lapse in the storytelling, there are a dozen memorable scenes or lines (of which I only remember a few).

The story of the love-letters that took eight years to send is worth the admission price alone. The acting is quite good, and the characters are all clearly delineated; they are real, albeit sick, people.

...continued on page 5

The Student Travel Network still thinks travel is an adventure! We can get you to Australia on scheduled airline 

continued on page 5

Larry Lynn
Oracle Corporation
20 Davis Drive
Belmont, CA 94002
(415) 598-8000
Farewell, Carmela!

from page 1

"I had an experience that not many women get," she goes on. "Foot-cures, conferences, and each was terrific." She had been the Assistant to David Smith, Jim Mayer, Sunney Chan, and finally Chris Bremner. A mutual friend of hers and David Smith’s told her about the job opening at a time when she was feeling guilty about not being able to spend much time with her youngest child, but she wanted three months before taking the job. She was moving up rapidly in her position at a bank, and she wasn’t sure she wanted to give that up. However, she decided to come to Caltech, and it was “fun from the very start.” She had been belly dancers to a party several months after starting her job, and exotic touches, like this and the elephant at the Saint Patrick’s Day party last month, have been her trademark ever since.

She hopes that her replacement will continue doing these “costly, bizarre things” for undergraduates, and that the Master’s Office will continue to provide opportunities for Techers to develop more parts of their lives than just studying. Although she will miss Caltech, and feel odd as an outsider trickling in, she is not going to “sit at home and clean the oven.” As soon as her retirement is official, she, and her eldest daughter are taking off for Italy, and Carmela plans an extended vacation in Europe. She will use her free time to continue in her love of gardening, fixing up old houses, and visiting her “very cute” grandchildren. She also plans to become more involved with projects to aid the homeless in Los Angeles, a concern of hers since the days when she worked downtown.

As much as she will miss Caltech, Caltech will miss Carmela Kempton even more. Long regard­ed as “the power behind the throne” in the Master’s Office, she has done enormous good for Techers. We wish her well in this new phase of her life.

By Berke Breathed
Lunch For Leaders

by Huston Horn

One hundred successful Caltech students--by vote of the Senate of Student Council--will be guests of Ametek Corporation at an Athenaeum Leadership Luncheon on April 14.

The speaker will be Ruben F. Metter, Dr. Metter, a Caltech alumna is Chairman of Caltech's Board of Trustees and is the Chairman and CEO of FWX Inc. At the luncheon, he will speak informally on techniques of leadership in industrial technology.

The Metter Leadership Luncheon, the first in a proposed series, is being planned by the Caltech Y, the undergraduate Dean of Students, and the Alumni Association. A number of alumni are also being invited to attend the April luncheon.

Ametek Corporation, whose chairman is Robert Noland, a Caltech alumnus and benefactor behind the recent National Leadership Prize, is picking up the entire cost of the leadership series for student and alumni luncheon guests, accordingly, may attend free of charge.

The objective of the series is to introduce Caltech students to some of America's most outstanding leaders, whether they are in education, politics, religion, law or industry. The speakers will be invited to discuss their understanding of leadership in the fields they occupy.

John W. Gardner, a psychologist and educator, the founder of Common Cause, and sometime Secretary of Health, Education and Welfare, has been invited to be on the campus on May 13. Another Leadership Luncheon series in Caltech Y is being planned for his visit.

Undergraduate and graduate students who wish to attend the Metter Leadership Luncheon must sign up in the office of The Caltech Y. Reservations for the luncheon will be accepted on a first-come basis. A standby list will be provided in the event of cancellations.

Fleming: a visit to the Housing Office recently gave new meanings to the familiar phrase "We'll bend over backwards to help you." New meanings such as "Bend over backwards and maybe we'll help you out," or maybe: "Bend over backwards and we'll find out if we've got a friend that we can depend on, embodied by the Housing Office."

Just remember to cover your back and to kowtow to the fat lady. Because the Operator's not over until the lady say's done. And we all know how temperamental fat ladies can be. So sing, fat lady, sing! May we go see CAI tonight.

In a disappointing match last Tuesday, the Big Red Machine accepted by Huston Horn

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FROSH SAY: Snake y'all, you're on grades.

Taney says: You don't need the police to make a cardiac arrest.

Happy Finals everybody--your electronic score keeping equipment.

P.S. Mike... Mike... What if??

— Bush EMOR

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Commentary

by Tony Stirk

Is Five Years Too Long?

Chapter 1: The Gathering Storm

I looked back up, but it was gone. I was not even sure it was moving. I moved my binoculars, and could see nothing. Nothing.

I got inside my regret and look at that moment. Five years, it was. One I could find, and even that it was about twenty years old. For some reason, I was drawn to this one. The only one I could see had a thickly-accented voice, a thickly-accented transmitter. "Missionaries," she said, "please stay in our direction to go."

"Missionaries," I thought. That would explain why they concentrated so much on the Kshotingi.

According to the map, I was in Prohaska. According to my stasis, I was on a beach.

I picked up the microphone in the water. "Reilly U29970 hailing anyone who can hear. Over." I waited. Nothing. It wasn't a very surprising, since the transmitter wasn't powerful enough to get much past line-of-sight.

I decided to drive up the coast for a while. According the map, Prohaska was reasonably close to the coast — within sight of it, in fact. But the map's scale could be trusted. Since the terrain became visibly mountainous to the south, it was a good guess that north was the right direction to go.

I made one more scan with the binoculars. The south was definitely too hilly. I looked north. Nice and flat. As I stood there, the binoculars were down, something caught my eye. I picked up the binoculars and I kept looking, then saw it again: a small flash of light, flickering on and off. I kept it focused the lenses, and could see that it was a little bird.

"Reilly U29970 hailing anyone who can hear," I said into my microphone. "Palm tree 3." I was replied. "Shortly arriving. Please await. Over."
OFFICERS’ won’t pay for full tuition and allowances for educational scholarships didn’t start college on a scholarship, you

Circuit designers can devise a structure that can function like amplifiers and filters, which in operation are either on or off. Instead, Hopfield’s associative circuits of digital computers can operate between. Such circuits behave very “biologically,” Dr. Hopfield has found. For instance, in his experiments an associative memory given a partial hint can remember a whole piece of information. In such experiments, Dr. Hopfield programmed a minicomputer to simulate a circuit of 100 neurons with 10,000 interconnections. The peripheral circuit produced were strings of voltages that Dr. Hopfield assigned to letters of the alphabet. When the system was operated, Dr. Hopfield found it would recall an entire memory “word” or sequence when fed only a portion of the letters in that sequence. The circuit could also deal with wrong information. When Dr. Hopfield gave it a hint that included some wrong letters, it could correct them, yielding one of its programmed memories intact.

Another way to test Dr. Hopfield’s associative memories that he found was to see if it could think of something between the two memories in correct proportion. For example, Caltech electrical engineering professor Demetri Psaltis and his colleagues have built an associative memory using lasers and optical components instead of electronics. Also, Caltech’s Amnon Yariv and his colleagues have used new optical techniques called phase conjugation to produce optical versions of associative memories.

Beside storing information, the new collective circuits built using neural network theory can also process information. In particular, collective circuits are better at the kinds of tasks at which the brain excels—for example, the kinds of problems occurring in pattern recognition and in making the optimum choice from a number of complex alternatives.

Traveling Salesman Problem

In one experiment that showed this ability, David Tank of Bell Laboratories and Dr. Hopfield have developed these theories and networks to solve the Traveling Salesman problem, a well known and difficult one for digital computers to solve because of the number of possibilities that must be considered. Basically, the problem involves finding the most efficient route for a salesman to travel among a set of cities on his route. In real life, there is little importance to finding the absolute best answer; a very good one will do.

In the simulation, the researchers programmed the neural network model to represent a number of cities, adding connections that represented the cities’ distances one to another. They found that the collective network could settle on an answer in a tiny fraction of the time required by a digital computer. The system performed well in finding a very good solution. For example, for a ten-city route, the system found the best route 50% of the time, but one of the next two routes 90% of the time.

Neural network theories also offer a new approach to understanding how living organisms process information. For instance, Dr. Hopfield and Alan Gerber of Bell Laboratories are attempting to model the learning process of the garden slug on a computer, using associative memory theories.

Slugs?

Garden slugs can learn to avoid foods that they associate with harm or unpleasant taste, an ability that makes them a useful model system for studying memory in higher animals. In experiments by Garip, Christine Sahley and others, the slugs display the paradigms of Pavlovian conditioning shown by mammals. Also, since the slug possesses only about 5,000 to 10,000 neurons, it can be realistically modeled in a computer.

In one experiment, the researchers tried to understand how the slug distinguishes a time sequence of events. If a certain food was initiated after the slug was fed another, which has an unpleasant taste, the slug did not subsequently avoid the first food. But when the first food was given before the quinine, the slug did avoid the food in later encounters. The researchers modified the basic connections in their model to “remember” the time sequence of events and the system did successfully capture this aspect of the slug’s behavior.

The result, says Hopfield, is that the strong feeling of sequence that animals and humans possess may originate from the very basic level of the single neuron cell and its interconnections.
**Open Volleyball Tournament**

Volleyball enthusiasts who managed to get out of bed early last Sunday, 3 March, played in the Caltech Open Triples Volleyball Tournament sponsored by the Caltech Men's Volleyball Club. The new Club, randomly chosen teams took part in four hours of spirited round-robin play.

The championship match saw a team consisting of Tyler House, Ricardo Palacios, and Linda Tanner pitted against the team of Chad Edwards, Nur Dagdeviren, and Frank Mills. Tanner was defending her first place title from the previous Caltech Open. In a fiercely fought final game, the Edwards team engineered a nail biting come-from-behind victory to edge out the House team 15-13 and remain undefeated for the day.

Winters received ten-dollar gift certificates from Backin-Robbins Ice Cream while the second place finishers got five-dollar certificates. At the next triples tournament in May, Linda Tanner will be trying for an unprecedented three consecutive victories winning prizes. This makes her the one to beat. Watch here and on campus bulletin boards for further details of the upcoming tournament.

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**WEEKLY SPORTS CALENDAR**

<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Time</th>
<th>Sport</th>
<th>Opponent</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon.</td>
<td>3-23</td>
<td>3:00 pm</td>
<td>Women's Soccer</td>
<td>Jazz</td>
<td>La Salle High</td>
</tr>
<tr>
<td>Tue.</td>
<td>3-27</td>
<td>12 noon</td>
<td>Baseball</td>
<td>Pacific University (Oregon)</td>
<td>Caltech (2)</td>
</tr>
<tr>
<td>Wed.</td>
<td>3-26</td>
<td></td>
<td>Women's Tennis</td>
<td>Redlands Invitational</td>
<td>Redlands</td>
</tr>
<tr>
<td>Thu.</td>
<td>3-28</td>
<td>3:00 pm</td>
<td>Baseball</td>
<td>Claremont-Mudd</td>
<td>Caltech</td>
</tr>
<tr>
<td>Fri.</td>
<td>3-29</td>
<td>3:00 pm</td>
<td>Baseball</td>
<td>Caltech (2)</td>
<td></td>
</tr>
</tbody>
</table>

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**Baxart Lives on**

by Diana Foss

Although the Baxter Art Galleries have gone from art to cars it certainly lives on elsewhere. The late Frank Miller, of the American Museum research bureau of the Smithsonian Institution, has asked for the old Armory building on Raytheon Drive to be made available to researchers of art in many countries and private companies involved in the space effort, and attendance for the period of 3 May to 29 June is expected to reach 300,000. There are also potential exhibition spaces in Spain; the show could very well be traveling through most of 1988.

The catalog for "Space Photography," sponsored by the Pasadenan Art of Contemporary Art, is now available so that important research can be conducted. It certainly lives on elsewhere. The late Frank Miller, of the American Museum research bureau of the Smithsonian Institution, has asked for the old Armory building on Raytheon Drive to be made available to researchers of art in many countries and private companies involved in the space effort, and attendance for the period of 3 May to 29 June is expected to reach 300,000. There are also potential exhibition spaces in Spain; the show could very well be traveling through most of 1988.

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Caltech Baseball Bests Pacific Coast Baptist

— Frosh Colder Pitches Complete Game

by Ternin Too

The Caltech Beaver baseball team wound up second term play with a 6-2 victory over Pacific Coast Baptist Bible College. Brian Colder turned in a superior performance on the mound, while the Beaver offense capitalized on several Pacific Coast miscues to earn the victory.

PCBBC threatened in the top of the first inning, placing runners on first and second with only one out. But Colder chose to have none of that and proceeded to pick off the runner from second and then the runner from first. The poor man on first had claimed to know Colder (and his pick-off move) as well as he knows his brother. Two seconds later, he stared up to the umpire, who declared him a victim of fratricide.

In their half of the inning, the Beavers pushed across the first run of the ball game. Michael Keating beat out a grounder that the Pacific Coast shortstop boobbled. He then stole second base and went to third on a base hit by Colder. Keating scored on a passed ball in colder.

In the fourth inning PCBBC managed to tie and in the fifth even pass the Beavers by one run. But these runs were not earned. Both of the base runners who scored had gotten on base by dropped fly balls. Colder picked another runner off of second base in the fourth.

Caltech, however, responded to a wake-up call to fight. In the bottom half of the sixth inning, the Beaver swayed their bats, Colder, Min Su Yun, and David "Bruno" Bruning all lashed out hits. Yun’s hit was good for an RBI, knocking in Colder. Brandon Myraus gritted his teeth to take a vicious well from a PCBBC pitch. After circling to third base, Yun was batted in by a sacrifice fly by Brent Bush.

The Beavers added a run in the seventh inning with Keating taking home on a squeeze bunt by Colder. In the eighth, Yun led off with a walk and stole second. He went to third on a single by Brian Lemoff and scored on a wild pitch.

The baseball team will resume play during spring break, when they will take on Pacific University (Oregon). They are at home for a double-header on Thursday of the post-finals break period.

Pitching Phenom

This game is already rumored to have been the best pitched game by a Techer in two years. Colder finished the complete game showing tremendous control, striking out seven, only giving two free passes to Pacific Coast, and hitting one batter (this man had to duck to his knees to allow the pitch to bean him). The Beavers missed the presence of slugger Jim Hamrick for this game. Hamrick returns to action after finals week, barring unexpected job interviews.
Music Festival
The Caltech/MIT Enterprise Forum will be held on March 18. Andy De Marz, Ph.D., a Caltech alumnus and President of Retix, will present his business plan to a panel of technical, financial, and marketing experts. Retix, in Santa Monica, is in the business of networking and inter­networking computer systems. The company manufactures and markets network controllers, gateways, and communications software.

For those unfamiliar with the Forum, it is a presentation and analysis of the business plan of a small company in a technical field, usually an entrepreneurial outpost of the type that so many Techers have found themselves in when venturing into the real world. If you are interested in forming your own company, or joining a small one, you may find the Forum both useful and interesting.
The Forum at 7:00 pm in Bax­ter Hall is free to Caltech students with ID.

Another MacGroup
The MacBay Users Group is having its monthly meeting on March 18 at 7:30 pm in the Barrett Hall on the CalArts campus in Los Angeles. There will also be a talk by Mark Hempel on the programming language shoe, which you can run on the Macintosh.

If you are interested in more information please contact Ruth Stever, (818) 848-1277, or write MacValley Users Group, P. O. Box 4297, Burbank, CA 91503. Those interested in summer positions should contact them immediately, at (603) 826-5206.

CPR Course
A Cardiopulmonary Resuscita­tion (CPR) course will be con­ducted under the auspices of the American Red Cross for all Caltech personnel. The course will be offered during two successive four hour afternoon sessions, March 25 and April 1.

An American Red Cross cer­tification will be awarded upon satisfactory completion of the course.

Contact to all those interested in taking this course should contact the Health Safety Office, #7027.

Work in Japan?
A Caltech alumnus is offering two jobs in his Japanese factory for the summer. Travel, room and board will be provided. Students will be doing basic factory work if interested. Contact Gary Lorken, Dean of Students, or Jeanne Noda, Associate Dean, #3035 or to the Deans' Office, 102 Parsons-Gates by March 17.

Y Meets Y
Teachers who are interested in cut-rate use of the facilities of Pasadena's downtown YMCA are invited to let it be known at The Caltech Y. The Caltech Y and the YMCA of Los Angeles maintain group rates for student use of such facilities as squash and racquet ball courts, the indoor swimming pool and an assortment of classes. The YMCA also offers a better system whereby students would gain free admission in exchange for programming assistance to the YMCA's newly-installed com­puter system.

To add flesh and blood to these up-to-now theoretical conversations, please supply your name, and in particular interests on The Caltech Y's sign-up sheets. The Metropolitan YMCA is located on Marengo just west of the Pasadena north of the Plaza-Pasadena shopping mall.

Women in Engineering
The Society of Women Engineers scholarship program is available for women in engineering. For more information, request and applicable materials, go to the Financial Aid Office, Room 10, Parsons-Gates, or Gloria Badillo L- M. A. 429 N. Palm Avenue, Apt. A, Altahona, CA 91101. Application Deadline: March 15.

Spending Time Conserving
The Student Conservation Association is looking for students willing to serve as expenses-paid (no real salary) volunteers for various projects in National Parks, Wilderness Areas, and Wildlife Refuges. They range from gold panning to working on wildlife surveys, natural history interpretation, biological and ar­chaeological research. Volunteers who are accepted into the programs will receive transportation, round-trip transportation to their program area and a stipend to help cover personal spending expenses as well as free housing at the work location.

For further information, contact the Student Conservation Association, 6705 O. B. Waters, Charleston, New Hampshire 03078. If interested, send in some­positions should contact them immediately, at (603) 826-5206.

SSSP Needs You
The Student Secondary School Project will be needing tutors and counselors this summer, running from Monday, June 23 through Thursday, August 7, 1986. The program must be running in the area of the program for the seven weeks of the program (especially during the evenings). As of this writing, 3 tutors each are needed for Biology, Chemistry, Physics, and Math/Calculus problems, as well as 12 to 15 counselors. Contact Dr. Lee Browne, who forgot to give us his extension, for further details.

Y Not Volunteer
Alumni, undergraduates, and graduate students are needed to help produce the Caltech Y's second-term Decompression. Those elevating moments of that otherwise depres­sion­finishing final week, will take place on the evenings of Saturday and Sun­day, March 15 and 16.

From 8 o'clock until midnight The Y will serve up cassette tapes, movie, rock videos, chili, milk and punch, fresh fruit, sugar-fries, crepes, bagels and bagels. Volunteers are needed to help with the preparation and cleaning of the food and with cleaning up. It's not only fun to do, you'll sleep better. All you need to do is sign up for the shift in the Y office by climbing the 24 steps on the north end of Winnett. Remember, no one hears the Y's sign-up sheets.

Future of the Shuttle
Mr. Martin MacDonald, of Rockwell International, will speak on the Future of the Space Shuttle program at 7:00 pm on Thursday, March 12, in the DeWitt Faculty in Downey. He will answer questions on the recent Challenger accident, and the future of the program. There will be a full-scale model of the Shuttle available for viewing.

Mr. MacDonald is a member of the Space Transportation and Space Transportation Systems Group at Rockwell. He will be presented in the DEI Room. Enter at Gate 53 on the corner of Bellflower and Gray Rd.

The public is invited; there is no admission charge. The lecture is sponsored by OASIS, the Organization for the Advancement of Space Industrialization and Set­lement. For more information about this lecture or other OASIS activities call F. Wiley Livermont at (818) 249-5252.

Another Final Offer
The Poetry Workshop that meets in the Y Lounge on the second term will be held from 6:30 to 8:00 p.m. each night of the months of each month now has copies of the new process, which is on sale for $2 (cheap) and are available in the Y Office. New sign-up sheets are available, which means you can change your mind. Bring your poetry to share.

Need $ for 3rd Term?
If you think you will need a summer job to pay for 3rd term, make an appointment with Ms. Janice de la Garza, 7032. She is available, so if you are in­terested in summer employment, you should come by the CDC as soon as possible. We expect to have some jobs available please check with the CDC (Room 8, Parsons-Gates) on a regular basis.

Hilite at Rest
From 4:30 to 6:00 pm is an informal gathering of Hilite and Caltech Jewish community in the Y Lounge, 2nd floor of Winnett Center. Refresh­ments and conversation will be available, so if you are interested, you might want to drop in.

Grad student Housing
Graduate student housing infor­mation packets and applications for 1986-87 are now available in the Housing Office. Included in the packet is information concerning the 2-bedroom Apartments currently under construction and scheduled to open in September, 1986. It is in­terested in obtaining information for next year at this time. The packet is $2 and a packet will be sent to you.

Spend Time Conserving
The Student Conservation Association is offering to lend you some­ of each month now has copies of the new process, which is on sale for $2 (cheap) and are available in the Y Office. New sign-up sheets are available, which means you can change your mind. Bring your poetry to share.

Seeking jobs and work with motivated high school youth and/or supervise them in the north undergraduate houses for the seven weeks of the program (especially during the evenings).

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A&T Award Winners

Last Thursday, March 6th, the second A&T Research and Development Awards of $500 each were presented to five Caltech undergraduates and one graduate student for this money to reward juniors in Electrical Engineering & Computer Science for a combination of academic achievement and involvement in the Caltech community. The checks were presented over dinner at the Athenaeum by Mr. Alex Gillon of A&T to:

Randyl Brown
George Lazouri
Bena Curro
Ravi Subramanian
Rosalie Wu

Starre-Crost Auditions

Two households, both alike in dignity. TACTIC’S spring production of Shakespeare’s Romeo and Juliet will be cast this weekend. Now’s your chance, if you’ve ever wanted to strut and fret your hour on the stage, the acting was romantic drama...from the fascinating lives of two of the greatest plays ever to set up lovers. Energetic young men and women are required for the fighting. Rehearsals will be held in 25 Baxter, 7:30 to 10 pm, Monday, March 14, and 1-6 pm Saturday and Sunday. Bring a script if you have one. Rehearsals will be finished before you’re interested in working backstage. For more information, call csl529. Students, faculty, staff, JPL welcome.

ASCIT Nominations

Nominations for the ASCIT ap­pointed offices have been extended until April 1st. Interviews will be held on April 2nd and 4th for the offices which require them. Short descriptions of the jobs and signup sheets are up on bulletin boards of the student houses and on the doors of the ASCIT office. The available positions are:

ASCIT Executive Committee

President’s Staff

Elected Policies Committee

Communications Director

Student Darkroom Director

Publications Darkroom Director

Treasurer

Big T Editor

little t Editor

Business Manager

little t Business Manager

California Tech Business Manager

In the little t Design, please sign up as soon as possible.

Free Japanese Music

The UCLA College of Fine Arts will present a free program of Japanese music and chamber music on Saturday, March 21, at 1:30 pm in Price Auditorium. This program features the Hidaka Trio and the Caltech Quartet. For further information, call the College of Fine Arts at (213) 206-6456 or the Hun­tington Library at (818) 405-2125.

Requiem Auditions

The William Hall Chorale will be holding auditions for their spring 1987-88 season which will include a concert of the Romantics, works by Britten, and their traditional Baroque presentations of Handel’s Messiah. Auditions will be held in the music building at San Gabriel High School, on March 17th and 24th, from 7-10 pm. For reservations and additional information call Thomas Sheets or Dr. William Leake at 825-9496 or write 10995 Westwood Blvd. Los Angeles, CA 90024.

* Decompression*

An hour-long magic show will be presented by the Japanese Garden in the student houses and on the ASCIT Executive Committee

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