

Coleman Chamber Wraps Up Season

by J. Copeland

The seventy-fifth season of the Coleman Chamber Music Concerts closed Sunday with a performance by the American Brass Quintet. The Quintet played old and familiar works by both Giovanni and Andrea Gabrielli, and Bach. They showed their versatility with new (to me, at least) works by Isaac and Hindemith. Hindemith's *Morgenmusik* was written in 1932 for a festival in the city of Wismar in Holstein. It was tailored to the tents of the local music school. *Morgenmusik* was to be played as the first music of the day from a tower. It included three movements for winds. Works for later in the day included *Table Music* for flute, trumpet, and strings; and *Evening Concert* with two orchestral pieces and four for small ensembles.

The featured piece for the concert was a work by George Kleusenstam—Brass Quintet No. 1. It was the world premiere of this work, which was commissioned by the Coleman Association in celebration of their anniversary. It had several theatrical touches, such as the performers leaving the stage, and beginning to play before re-entering. Stylistically, it was very *avant-garde*, perhaps a little too much for the taste of some. However, at no point could it be denied that this is an entertaining new composition.

The concert was ended by a marvelous brass rendition of several contrapuncti from Bach's *The Art of the Fugue*.

All-in-all, it was a very good end to an excellent season of music in what has become one of the landmarks of Pasadena.

It won't be the Monaco Grand Prix (or even a speed race at all), but the ASCIT Road Rally is coming up this weekend and it could be a blast. The Rally doesn't require a Ferrari; all it takes is a car, a driver, a navigator, and some passengers with sharp eyes. The route is determined by following a list of instructions and is scored by answering questions about things seen along the way.

The Rally will leave from Beckman parking lot at 2 pm this Sunday, May 6. It should last about 2 hours and will end at a local pizza parlour for dinner. You can sign-up on a list at any of the student houses or by showing up in the parking lot on Sunday. There will be a trophy for the winning car from each house. See you there.

ROY GOULD NEW E&AS HEAD

Photo by Fred Vachss



Dr. Roy Gould, chairman of Engineering & Applied Sciences

by Christopher Juten

The Division of Engineering and Applied Sciences recently got a new division chairman—formerly a professor and the Executive Officer of that division—Dr. Roy W. Gould. Dr. Gould replaced Dr. Robert Cannon in April, after Dr. Cannon went to Stanford.

Dr. Gould is a Caltech graduate—class of '49—and a Darb. He remembers his years in the houses as being "glorious", and he has maintained close contact with many of his friends from those years. He earned his Master's from Stanford and his PhD from Caltech. Most of his subsequent work was at Caltech, although he strongly believes that other perspectives are very important; he has, therefore, worked on several other projects. Among these are employment at North American Aviation and JPL, sabbaticals to Europe, and a stint with the AEC in fusion research.

Because Dr. Gould has been the Division Chairman only a short time he has not yet decided upon any specific policy changes or reorganization in the division. However he is sure that no crisis areas exist and that the department is, on balance, healthy and strong. The department is small (75 faculty members) compared with many other schools, and yet it covers most areas of engineering extremely well—in fact, Caltech's E&AS department is one of the best in the country. The strength of this division is evidenced by the larger percentage of students—35%—who study under the heading of E&AS.

While Dr. Gould does not have any specific programs in mind, he does have several overall directions in mind. Of primary importance to the growth of the division is the addition of new faculty. Dr. Gould sees himself as a "facilitator" rather than a director. This reflects the importance of the entire faculty because changes in programs and emphasis originate and germinate in the faculty itself. Dr. Gould sees his role as one of insuring the success and smooth operation of both old and new programs. New faculty will be added to improve weak or new areas in the division. Under Dr. Cannon's direction, twelve new faculty members were added over the last five years; Dr. Gould expects at least that many new faculty members in the next five years. Dr. Gould also emphasized the importance of obtaining young faculty members; he feels that an age balance in the faculty is an essential aspect of maintaining a strong division.

Dr. Gould also feels that

faculty members should have industrial experience or, at least, industrial contacts. This desire reflects Dr. Gould's belief that Caltech's contribution should be primarily in developing new

technologies. Caltech is not heavily involved in solving industry's day-to-day problems, but in discovering new areas of concentration for the future.

This need to discern new areas

of research is partially met by the undergrad's contribution to research. Dr. Gould feels that the undergraduate years are highly important in helping the student find interesting, challenging, and rewarding areas to pursue in their careers. Dr. Gould firmly believes that each student should anticipate changing focus several times in their projected 40-year career. For this reason, students need a broad background in their undergraduate education. However, research illustrates the many ways in which the student can become involved in engineering. Also, the student learns that only half of research is experimenting and communicating results—the other half is defining the problem and discovering what can efficaciously be explored in the problem. The importance of research is not lost in the mind of Dr. Gould, and he anticipates continuing research opportunities in the realm of the senior thesis.

Dr. Gould takes his responsibility very seriously; he will do his best to support the programs the division institutes through both his and the faculty's initiative. Best of luck to the new "facilitator" of E&AS.

HEY MON, NOMO SNO TODAY

Nomo Sno, Dabney House's latest excuse for a band, will play a Noon Concert out on the Quad today. The group consists of (from left) Bill Farr, drums; Rock Howard, lead guitar and vocals; Jean Richter, vocals and rhythm guitar; J. C. Collins, bass; Romney Katti, drums; and, Steve Quesnel, vocals. We recently cornered the band members in a daisy patch for this brief interview.

How long have you guys been together? **Bill:** Since the beginning of third term. That means we've stuck it out longer than most bands do nowadays. **Rock:** Don't worry, though; we can't last much longer. *Whose idea was this?* **Bill:** Mine. This is the first thing I've ever been responsible for. **Steve:** Outside of three kids in Denver and twins in Miami. *Who is your band's sex symbol?* **Rock:** Romney, without a doubt. He's a real animal. **Romney:** Who is this guy? *Well, Romney, we all remember how you stole the show at Dabney House during Interhouse. Of all those songs that you played drums for, how many did you actually know?* **Romney:** One. But that was more than most of the other "musicians." *J. C., why do they call you 'Thumper'?*

J.C.: You'll have to ask Jody. You guys sounded pretty good in your warm-up concert last weekend. To what do you attribute your unique sound? **Jean:** Cocaine. *What are your major influences?* **Jean:** Cocaine. *What do you hope to get out of your music?* **All:** Cocaine. *What will you be doing Friday morning to get ready for your*

performance? **All:** Cocaine. *Bill, there are those who doubt your claim to being the most accurate drumstick thrower in California. How do you respond to . . .*

[after this point, the interview deteriorated into a drumstick-dodging contest for the Tech's hapless reporter—the eds.]



Letters

Lydick Defends Article

When I wrote the article which ran under the headline "The Apathy Syndrome," I expected it to be read, complained about, and then forgotten by the people to whom it was addressed. I was, therefore, pleasantly surprised to discover that someone had been incensed enough by it to write a letter in reply. The pleasant surprise, however, quickly gave way to dismay as I discovered that the reply was little more than the knee-jerk reaction so often seen in anti-nuclear statements. In addition, there was some evidence that Mr. Tajima misunderstood the basic thrust of my article.

First, and most important, let me hasten to point out that one need not have an elitist attitude to be a member of an elite. Techers are members of a technological elite by virtue of their training: they are in a position to understand our current technology much better than someone lacking their training could hope to. This, whether they care to admit it or not, places them in an elite group. In no way should this be interpreted as meaning that there is any reason for Techers to ignore everything except technology; in fact, it is exactly this insularity which my article attacked. However, in all fairness, I must admit that social realities indicate that the technological elite cannot be significantly expanded, and that probably neither can the interests of the average Techer.

As to the "economic and political considerations," I'm afraid that I must point out to Mr. Tajima that, as a graduate student in social science, I've probably given more thought to these issues than have most people. It appears to me that the economic issue boils down to two points:

1) Which power sources are

economically feasible; and
 2) Whether research should be directed toward alternate energy sources, if they are not feasible now.

With regard to the first, the economic cost of nuclear power probably is understated due to limitations on the liability of utilities using nuclear power: if a company does not face the full costs of its actions, these costs will not show up in the rates. If the utilities had to insure against the damages a nuclear accident could cause, their rates would be higher, perhaps high enough that nuclear power would *not* be economically viable. Be that as it may, the simple fact is that alternate energy sources simply are *not currently viable*. Solar energy is more expensive than even fossil fuels; once reliability constraints are considered, so are windmills; you can't transport geothermal energy directly, and the same is true of water power. That leaves the question of how serious the risk is of a nuclear accident (certainly a technological question) as the primary issue of the first point.

The second point is the classical public goods problem (no one firm finds it practical to

invest heavily in research, but we might be better off with that research) with a little uncertainty thrown in just to keep things interesting. It is my personal belief that such research should be undertaken; however, I must point out that, given the nature of the question and the quality of the available data, there is nothing in economic theory to justify this opinion—I state it as a concerned human being and not as an economist.

The political issue is at once easier to state and harder to resolve than the economic issue: I favor nuclear power, Mr. Tajima opposes it. The question is: how, outside of a market situation, should this conflict be resolved? As long as the decision reached is between the two extremes, it is in some sense optimal. A move away from nuclear power hurts me, a move toward it hurts Mr. Tajima. As long as we restrict ourselves to this one dimension, and as long as everyone perceives only one local optimum along the dimension, majority rule yields results that are consistent, anyway. As we relax these restrictions, however the outlook becomes more bleak: in general,

the only consistent way to choose is to submit it to a dictator. Political science thus offers no final answer to the question.

I am aware of the existence of the Union of Concerned Scientists. I do, however, find it difficult to summon much respect for an ostensibly knowledgeable group of people whose primary reaction to Three Mile Island was a premature "I told you so." I did not in my previous article, nor do I now, ask Techers to try to convince politicians that nuclear power is desirable; rather I ask that they decide for themselves on the merits of nuclear power and then inform politicians of both their conclusions and their reasons. "It isn't safe," isn't good enough. That's no better an argument against nuclear power than the fact that uranium is relatively cheap is a good argument for it. For a good example of the poor anti-nuclear articles which find their way into the hands and eventually the opinions of the public, I suggest that Mr. Tajima read "Personal View: Report From Harrisburg" by Loretta Lotman in the April 13-19, 1979 issue of *L.A. Weekly*.

—Carl J Lydick

Working for CS Doesn't Pay

Caltech has been reputed as being one of the leaders in undergraduate education. During my experiences here, I have sometimes had reason to doubt this basic premise and my recent encounters with the Computer Science Department have only worsened my opinions.

Each year this department, among others, hires undergraduates to work as teaching assistants in their courses. These students are hired with the approval of the department and the money is allocated to be spent on their employment.

However, this term, the Computer Science Department decided to try something else. They did not notify the graduate office of the undergraduates who were functioning as teaching assistants. This was not an accident since I personally talked

to Dr. Sutherland's secretary about this fact several weeks ago. Dr. Buffington had also sent a memo to C.S. specifically requesting the necessary information (on April 3rd). He never received a reply.

The answer was very simple. The C.S. department has no money left in its operational budget and simply is waiting for the Institute to bail it out. This is, of course, my opinion since I can see no other reason for their lack of action.

Therefore, one wonders about the quality of a department which can so glibly ignore the education of its students. The department, run (in theory) by Dr. Sutherland, cannot expect us, as students, to treat the option as a viable functioning unit when it cannot even pay its employees and will then not even tell them what is going on.

—David Shenton

Cinematech
 Saturday 7:30
 Baxter
 Techers \$1
 Others \$2

The Wizard of Oz
 Willy Wonka

 Next week:
 High Noon
 Mr. Deeds

ASCIT * Friday Night**
***** MOVIE 7:30 & 10:00**
 ASCIT Members 50¢ Others \$1.00
 Baxter Lecture Hall




Next Week A WEDDING

The Caltech Y..... fly by

- Friday, May 4, NOON CONCERT with NO MO SNO with Rock Howard, J.C. Collins, Bill Farr, Jeanne Richter, Steve Quesnel, and Romney Katti. Presenting rock on the Quad at noon. Bring your lunch. The concert will be in Winnett in case of rain.
- Saturday, May 5, DAY HIKE to Icehouse Canyon. Meet behind Winnett Center at 8:00 am. Bring a lunch.
- Tuesday, May 8, HISTORY OF SCIENCE SEMINAR with DR. OTTO FRISCH, Professor at Trinity College, Cambridge, England and co-discoverer of fission. Professor Frisch will be speaking on "The Discovery of Nuclear Fission" at noon in Winnett Lounge.
- Wednesday, May 9, UPDATE Noon Discussion Series with Dr. Norman Horowitz, Professor of Biology speaking on "Water and Life." At noon in Clubroom 1. Bring a lunch.
- Wednesday, May 9, "ALBERT IN WONDERLAND: Einstein's Visits to California," a multimedia presentation by Dr. Judy Goodstein, Institute Archivist. At 7:30 pm in Winnett Lounge.
- Thursday, May 10, BILL KOSELKA, science advisor to the movie "Star Trek," speaking in Baxter Lecture Hall at 8:00 pm.

Movie Brief

The ASCIT film this week is one that you've probably never heard of, but really ought to see. It's called *Z*, and was an Academy Award winner for "best foreign film." The story is of the death of a Greek pacifist leader who is struck down by a speeding truck in front of a large crowd. The official report lists the death as accidental, but a fullscale investigation leads to intrigue involving the highest government officials in murder and scandal. This is a fantastic and exciting thriller. It stars Yves Montand and Irene Pappas, two well-known European stars. This is really a film not to miss; just ask anyone who's seen it already.

Cinematech is offering two well-known films this weekend: *The Wizard of Oz* and *Willie Wonka and the Chocolate Factory*. *The Wizard of Oz* stars Judy Garland, Bert Lahr, etc. It's the 1939 version, the well-known one, and is one of the most lavish musicals ever filmed. The second film is another adult fairy tale, *Willie Wonka and the Chocolate Factory*. Gene Wilder stars as the somewhat eccentric owner of a chocolate factory involved in the giveaway of a lifetime supply of chocolate to the lucky finders of gold tickets in his chocolate bars. This is in the same fantastic style as *The Wizard of Oz*, and these two films make for a light-hearted evening's entertainment.

—Jon Zingman

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Fencers Foil Irvine

by D. R. Tanyan

Tuesday night, before an enthusiastic crowd of four, Caltech delivered a thorough trouncing to the UCI fencing squad, winning three team matches out of four. The Beavers triumphed in spite of being short one man, which forced them to make up for six forfeited bouts. The outstanding fencer of the meet was Rick Morris, who was undefeated in six bouts.

The fun began when the UCI team, having arrived late, turned out to have left their electrical equipment at home. Not being familiar with Caltech's illustrious record in collegiate fencing, they had assumed that we didn't have scoring boxes and reels. This turned out to be a slight advantage for the Beavers, whose clearer style and more cautious fencing produced more clean hits (i.e., point in the middle of the chest and sword bent at a right angle) than the undisciplined UCI fencers could deal with. After each team was split into two squads of three, with Tech's team B having only two people, the squads paired off and fought round-robin matches. The first match, between Tech A and UCI B, was clearly dominated by Morris, who—in spite of not having practiced lately—easily defeated his less experienced opponents. Hicks and Lang also performed creditably, with Hicks winning one and Lang winning one. The opposing squad was led by Skip Lemon, who lost to Morris after making several good compound attacks. The other UCI fencers fought hard, but were not able to make up for their lack of experience. The final victor was Tech A, 5-4.

Tech B vs. UCI A was the reverse, with Techers Scott Prah and Mike Thien unable to make up for the three forfeited bouts. Scott fought carefully, and defeated two of his opponents before losing to George Johnson. Thien was slow to start and lost

all three of his bouts. The match was dominated by Johnson and his team-mate Larry Scullian, who both used fancy moves and running attacks. Scott gave both these fencers a lot of trouble with his good timing and fast parry/ripostes. The final score went to UCI, 7-2, with three of Irvine's victories forfeits. The three forfeited bouts were fought by manager Bruce Prickett, who won with his usual combination of low blows, sneaky moves, and occasional stabs in the back (where else can you hit them when they're running away?).

Tech came back strong in the second pair of matches, with Tech A beating UCI A, 6-3. Morris continued to show good form, and his careful tactics were proof against the wilder actions of Johnson and Scullion. Hicks and Lang also did well, with Jeff overcoming his hatred of foil fencing to contribute two victories. Tech B dealt just as severely with UCI B, with Mike Thien standing undefeated and Scott Prah contributing two victories. The forfeited bouts were fought by Robin Hastings, who won all with his characteristic power and precision. The final score was Tech B 5-UCI B,4, which gave the Beavers the victory in match points 3-1.

What is most outstanding about both teams is their potential. Credit must be given to the frosh who make up the bulk of the team, and to Hicks as well. Some of UCI's fencers also look promising, and they're expected to be much more formidable next year. However, they don't want to wait that long, and have challenged Tech to a rematch within the next few weeks, to be held at Irvine with the full team. This should establish conclusively Tech's superiority on the strip, as we should be able to field a full team by then.

Tennis

by Vic Manzella

After losing all six singles matches, including a tough match lost by first man Gary Yamaguchi (7-6, 7-6), the Caltech tennis team came back strong to sweep the doubles matches in a 6-3 loss to Whittier on Saturday. The match, which was played at Whittier, marked the end of regular season tennis action for Caltech for this year.

In the doubles matches, the team of Yamaguchi and Peterson beat out their Whittier opponents, Amador and Larkam, by scores of 6-3, 7-6. The team of Brackett and Glassmoyer scored a (6-3, 7-5) victory over their opponents Fuentes and Harvey. In the third doubles match, Lutz and McCarthy virtually destroyed Ward and Buckel of Whittier with a (6-1, 6-2) win.

Today, the SCIAC Conference Tournament will begin at 1:00 pm at Whittier. Finals matches will be held on Saturday, also at Whittier.

PME To Return Next Year

In the 1960's, over one hundred Techers and faculty would spend a weekend playing a political military exercise. The Caltech Y sponsored the games, which were directed by Professor Ned Munger.

Scenarios involved southern Africa and the Middle East. Among notable roles were Harold Brown as Tito, Murray Gell-Mann as Nasser, and undergraduate Roger Noll as President Johnson.

Interest in the game has continued, but it took the initiative of alumnus Richard Schwall of the class of 1971 to volunteer, along with friends, to do the dirty work involved. Dr. Munger will again assist, as will Walt Meader of the Y.

The scenario may involve East Africa or southern Africa. Mildred Goldberger has agreed to play Prime Minister Margaret Thatcher if Thatcher wins the British election.

Track Finals Open

by Vic Manzella

Starting today at 9:00 am, and lasting until early this evening, is the first half of this year's NAIA District III Finals in track and field. The meet is being held at Biola College in La Mirada (only a half-hour drive if you can find the gasoline).

The decathlon will be the opening event for both days, and the other events will begin at about 3:00 pm and run in the early evening. For Caltech there are three runners who have a chance to qualify for NAIA Division III Nationals. In the

400m, Jim Quilliam will make yet another bid for a 48.2 clocking. In the 1500m Rob Bourret will try once more for a time of 3:54.3 (last week he ran a 3:58.1 on a fairly slow track). Also, freshman Lewis Collins will be running in the 800m, where his goal is a time of 1:53.0.

Anyone who is interested in seeing a good track meet and giving Caltech some fan support is encouraged to drive down to Biola for just a couple of hours before dinner on Saturday. (And remember to bring some friends to pay for gas).

advertisement

THE PHILOSOPHER'S ENERGY

Consider a mass element with uniform density ρ and velocity \vec{V} .

$\rho \vec{V}$ = momentum density

Knowing mass to have internal electromagnetic fields, the philosopher speculates that the momentum is carried in the electromagnetic field

Maxwell's equations yield for the electromagnetic field momentum density = $\frac{1}{c^2} \vec{E} \times \vec{H}$

Philosophically

$\rho \vec{V} = \frac{1}{c^2} \vec{E} \times \vec{H}$

The mass element has length dL , area dA such that $\rho = \frac{m}{dL \cdot dA}$, $V = \frac{dL}{dt}$, while $\vec{E} \times \vec{H} = \frac{\text{energy}}{dA \cdot dt}$ is the Poynting vector power flow per unit area.

Thus we find the philosopher's energy = mc^2

Momentum is field power, mass is energy. Energy is what a particle has, momentum is what a particle has around it.

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Trackmen Make Good Show at Conference Finals

by Vic Manzella

It is very difficult to decide just exactly which factors combine to produce an outstanding performance by an athlete on a given day, whether it be a world record in the pole vault or merely a few shots in an average golfer's game. Last Saturday, at the SCIAC Conference Track Finals in Whittier, it is doubtful that the track surface was one of these factors. In fact, not even the air quality was much of a blessing, although it was a bit better than at the home meet two weeks ago. But despite these conditions, as well as a severe shortage of Caltech fans, several team members gave their best performances of the season, and

Caltech battled to a tie with Redlands for fifth place in the SCIAC Championship.

At the start of the running events, small clusters of Whittier and Occidental fans cheered as their teams' anchormen pounded out of the turn into the final stretch of the 4x100m relay. For Caltech there were scattered cheers, mostly by team members, as anchorman Greg Blaisdell crossed the finish line in 4th place, with an official clocking of 44.05. The other members of this relay team were Mark Morrisset, Jim Quilliam, and John Hattick, and they all contend that their time was actually 43.999999 (breaking them into the 43's—their target

for the meet)—another watch had them pinned at 44.0. In any case, the performance was another season best for this relay team, and a comparable effort could put them close to the top in tomorrow's District Meet. Earlier in the day, Blaisdell, a junior, had placed third in the high jump with a jump of 6'2". This was Caltech's only good showing for the day in the field events.

Shortly after the opening relay event came one of the day's most notable performances by a Caltech runner, as senior Rob Bourret battled with the leaders and finished third in the 1500m run. Although he nearly held on to second place until the

finish, Bourret was not at all disappointed with his clocking of 3:58.1 (roughly equivalent to a 4:17 mile). This was his best performance ever in the event, and if he can possibly trim another 3.8 seconds from this time he would qualify for a spot in the Nationals. Also competing in this event were sophomore Eric Korevaar (ninth in 4:20) and freshman Randy Field.

Yet another fine performance followed as Jim Quilliam chopped three-tenths of a second off his season best with a dramatic second place finish in the 400m run. Quilliam was running in third place behind two Oxy speedsters going into the second turn. As they all came out of the turn into the final 100 meters, Quilliam looked the strongest. He soon passed one of the two and then nearly caught conference champ Steve Henderson at the tape. Q's excellent time of 49.2 still falls short of making Nationals, but he has another chance at tomorrow's District Meet.

Other showings included a 6th place finish by Morrisset in the 100m dash and a 5th place finish by Blaisdell in the 200m (at a personal best of 23.8), but the real highlight of the meet came with the last event of the day. As the lights were turned on and the mosquitoes began their evening meal, some of the less

dependable fans left for home—but down on the track four Caltech quarter-milers were making last second preparations for the 4x440yd relay. As the starting gun fired a surprising second shot was heard and false-starting Occidental College was out of the race. Left on the track—Whittier, Claremont, Redlands, and Caltech's team of Hattick, Collins, Bourret, and Quilliam. The second start was clean, and John Hattick, running his first quarter of the season, turned a fine clocking of 53.7, staying right with the leaders as he passed to freshman Lewis Collins. Collins roared into the lead with an excellent time of 50.8. He then passed the baton to Rob Bourret, who held onto the lead with a 55.2 clocking. As Bourret handed the baton to ace anchorman Jim Quilliam, Oxy fans lined up along the track and began chanting "CAL-TECH... CAL-TECH...". Quilliam again scorched the Whittier track, this time with a 49.8. The final clocking of 3:29.5 gave Caltech the conference championship in the 4x440yd relay, and after a long day Caltech had finally "grabbed some gold", bringing home four first place medals.

Meet Scores:

(1) Occidental	120
(2) Pomona	53
(3) Whittier	48
(4) Claremont	37
(5) Caltech	19
(6) Redlands	19
(7) La Verne	5



1979 SCIAC Mile Relay Champions: (from left) Hattick, Collins, Bourret, and Quilliam.

SURF City, Here We Come!

Applications are being accepted for the Caltech Summer Undergraduate Research Fellowship (SURF) program. The fellowships will pay a stipend of \$2000 per student for a 10-week project to be undertaken under the supervision of a member of the Caltech research community.

Selection will be based on perceived merit of both the

proposed research project and the student. Choice of sponsor is at the discretion of the applicant, and the research project should reflect the mutual interest of both the applicant and his or her sponsor.

Applicants must be Caltech students in good standing who are US students. (The latter requirement is a condition on the

endowment which will finance the program. The administration will be discussing the program with the donor to review this condition in the future.)

Application forms and additional information are available from Carolyn Merkel in the office of the Faculty Officers, 114 East Bridge, between 10 and 3 daily. Deadline for application is May 15.

by Spencer Klein

"Murdering baby-killers"

was how Dr. Jane Goodall, famed chimpanzee expert described Pomp and Passion, two of the chimps she has been studying at the Gombe Stream Reserve in Tanzania. This was just one of the many anthropomorphisms she used as she described her studies on chimpanzee childhood in Tuesday's Leakey Lecture.

Dr. Goodall has been studying chimpanzees at the Gombe Reserve for the last eighteen years. In this time, judging from her talk, she has come to regard them almost as people, assigning them human emotions and motives. She told how chimpanzee mothers tend to bring up their babies as they were raised; how some mothers

are much more protective than others. She explained, for example, that a mother will begin to carry her babies on her back when the babies are about six months old, but those mothers who started earlier often had been started earlier by their mothers.

Dr. Goodall began by describing the first five years of a typical chimp's life. At birth, he huddles in his mother's arms, suckling for nourishment. For his first three years, he suckles for about three minutes once an hour. Gradually, in his first few months, he ventures further from his mother, but still is reluctant to let go of her. At about six months, he begins being carried around in a ventral position

riding on his mother's back, rather than clinging to her stomach.

A little later, the chimps begin to play. According to Dr. Goodall, this play has many of the traits of human play, and is a basis for much of the chimps' later interaction as adults. At about three years of age, weaning begins. This takes the form of the mother pushing her child away when he/she wants to suckle. At first, she will give in if pressed, but later she will be more forceful. As weaning becomes more intense, between 4½ and 5 years old, the young chimp will become djected and morose, and spend long periods of time sitting or lying near the mother, without attempting to suckle, according to Dr. Goodall. By the age of six, the weaning process is usually over, and the

mother often has another infant to care for.

Dr. Goodall then went on to describe some of the unusual cases that she observed during her research. For example, she told of the birth of a set of twins, Gyre and Gimble (she has given all the chimps names), the first set of twins known to be born in the wilderness. She told about the troubles Melissa, the mother, had trying to carry two infants around at once. The twins spent long periods of time suckling Melissa, trying to get enough milk, she said. Unfortunately, Gyre contracted a flu-like infection and died. Melissa carried the body around for a day after he died, in contrast to the three days or so that a chimpanzee mother will normally carry a dead baby around. Pomp and Passion, the

a workout on the track at 5 pm consisting of several timed miles. This will give runners a chance to find out what they are getting themselves into, and everyone who can possibly make it is expected to be there. Friday, May 11, is the deadline for runners to sign up. Sign-up lists are posted at the gym and at the Page House mailroom.

We need more timers and training room helpers. Please sign up! The shifts are only four hours long. Several veterans of previous relays have opted to be timers this year, saying "discretion is the better part of valor."

two baby-killers mentioned earlier, are a mother/daughter team that have attacked at least three mothers, then stolen, killed and eaten their babies. They are suspected of killing as many as ten more babies, and have attacked at least two mothers without success. Why they do this is a mystery. Dr. Goodall hypothesized that it might have something to do with both of them being aggressive and egging each other on. She also suggested that a desire for meat (chimpanzees are omnivorous) may have been a factor.

Dr. Goodall's talk was part of the Leakey Foundation Lecture series. A survey was passed out to the audience, asking whom they would like to hear speak in future years. If you have opinions on this, you should make your feelings known.

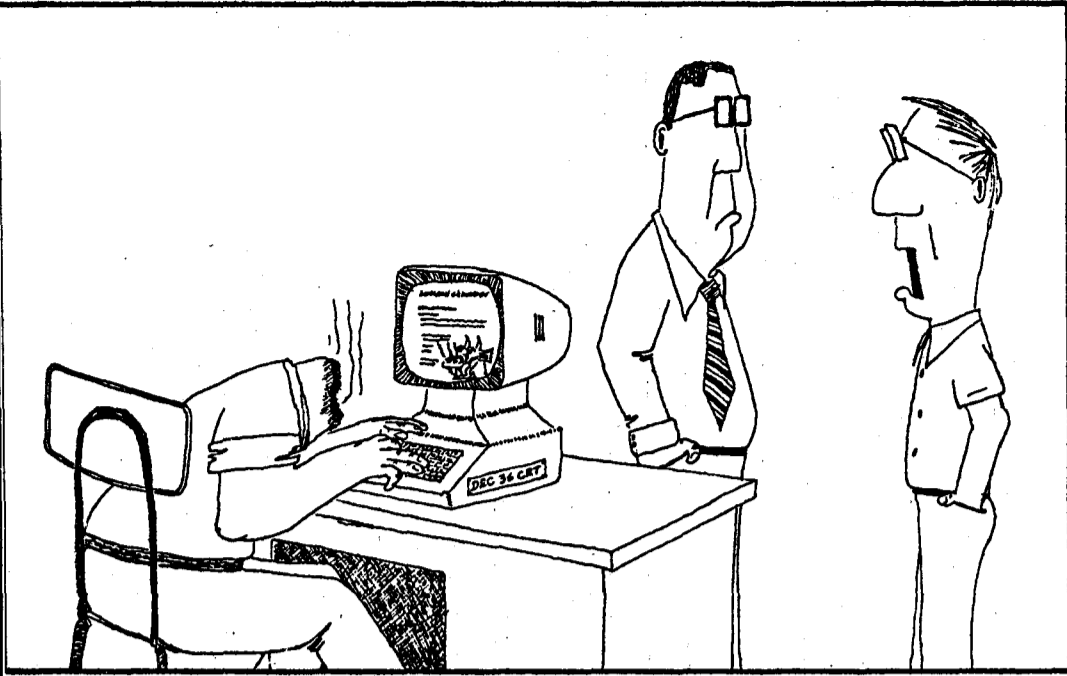
THE

KELROF Are Coming!!!

by Bill Gould

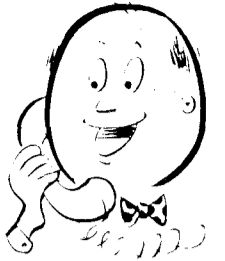
The 3rd Annual KELROF 24-Hour Relay is now just two weeks away, and preparations are in full swing. Over fifty people, enough for five teams, are already signed up. Blacker has a full team of ten Moles to run, while Lloyd and Ruddock have both nearly finished organizing house teams. If anyone else is trying to organize a team, he should contact Rob Bourret (x2831 or 793-1930) immediately, even if the team is not complete yet.

All prospective runners should take note of the following dates: Wednesday, May 9, there will be



Nonsense! What could possibly be dangerous about "Dungeons & Dragons"?

the R.F.V.T
are coming!!



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New Club Started

Well, folks, you probably know by now that we now have a Theatre Director here on campus (or will in a couple of months), and it looks to me as though we really ought to take advantage of that fact. In particular, this seems like as good a time as any to try to restart the Caltech Drama Club, an organization which has been defunct for some years now as a result of lack of leadership. To this end, there will be an organizational meeting for the new drama club on Tuesday, May 8, at 8:00 pm in Clubroom 11, Winnett. If enough people show up, we will be electing temporary officers and attempting to troll out just what this group will do. One possibility is reviving the custom rumored to have existed some twenty years ago) of an annual Greek tragedy to be presented by students on the steps of the athenaeum. Anyway, if you're interested in joining the club, and especially if you have any ideas about what the club should do, show up on Tuesday. Who knows, you may become the club president.

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NEXT WEEK
ROTO

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EDITORIAL

Ease Up, Guys

This past Wednesday was Polish Constitution Day. Polish Constitution day is an annual Ricketts house event. The Scurves celebrate it with beer. Enough beer so that the House Polack can perform his duty and biological want over the Ricketts house pot. This commences the real fun.

The Scurves visit each house making lots of noise and singing lawdy drinking songs. Well, this year the other houses were ready for them. It seems that many people here are violently opposed to this Ricketts House activity. There were bottles thrown, windows broken, and even people hurt. Now showering and ponding people is supposedly done in the name of fun. I went around taking pictures and listening in and I wonder whether some of the comments I heard and some of the night's activities really do stand up in the light of day.

I don't set myself above anyone right now. I've included something that I said that night. I wonder again whether it was actually me speaking or some influence the mob had over me.

I know that I spoke the words. I know that I'm ashamed.

-Alan Loh

(Supported by) -David C. Younge

Photos by Alan Loh

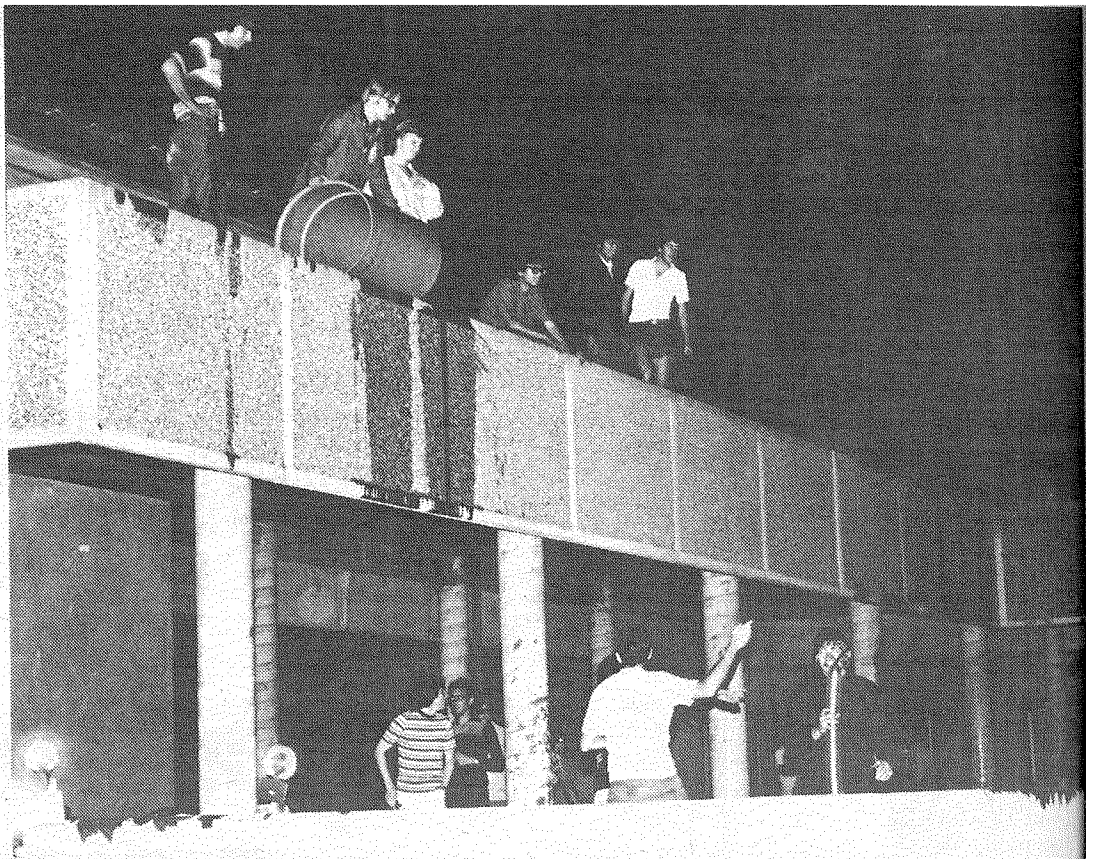


Lloydie: Don't get the Flems wet, they're helping out.
Myself: Don't get the Flems wet? What are you talking about?



Scurve: Why do you want to shower him? He's already wet.

Flem: If we shower the dry guys, the wet guys shower us.

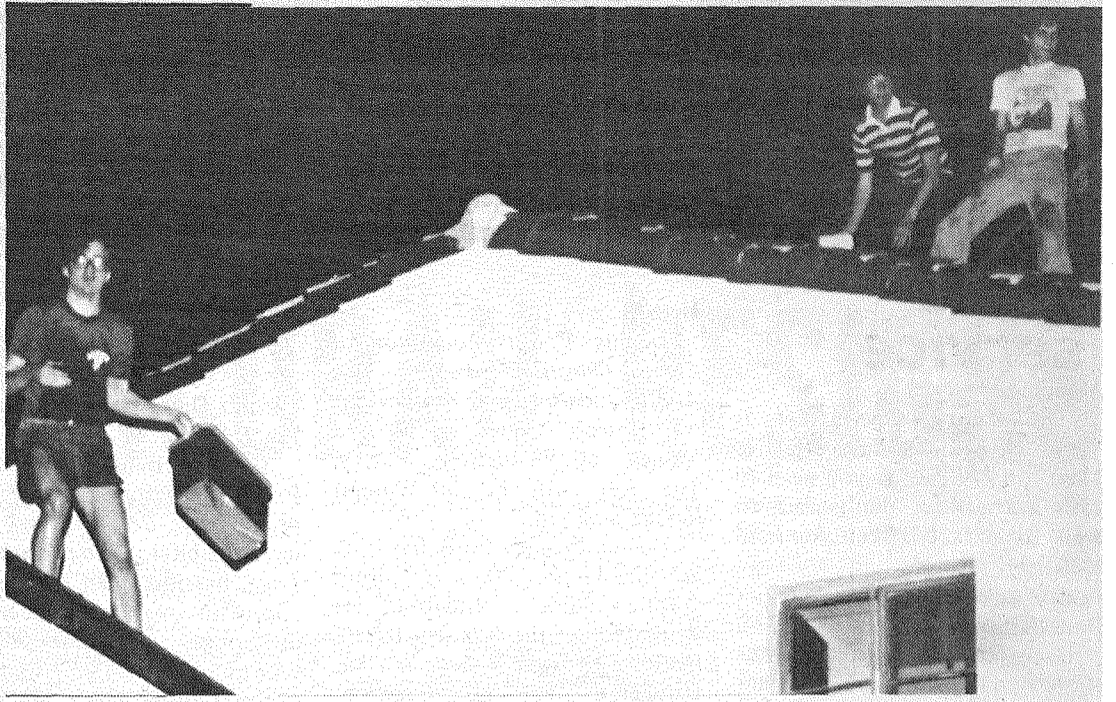




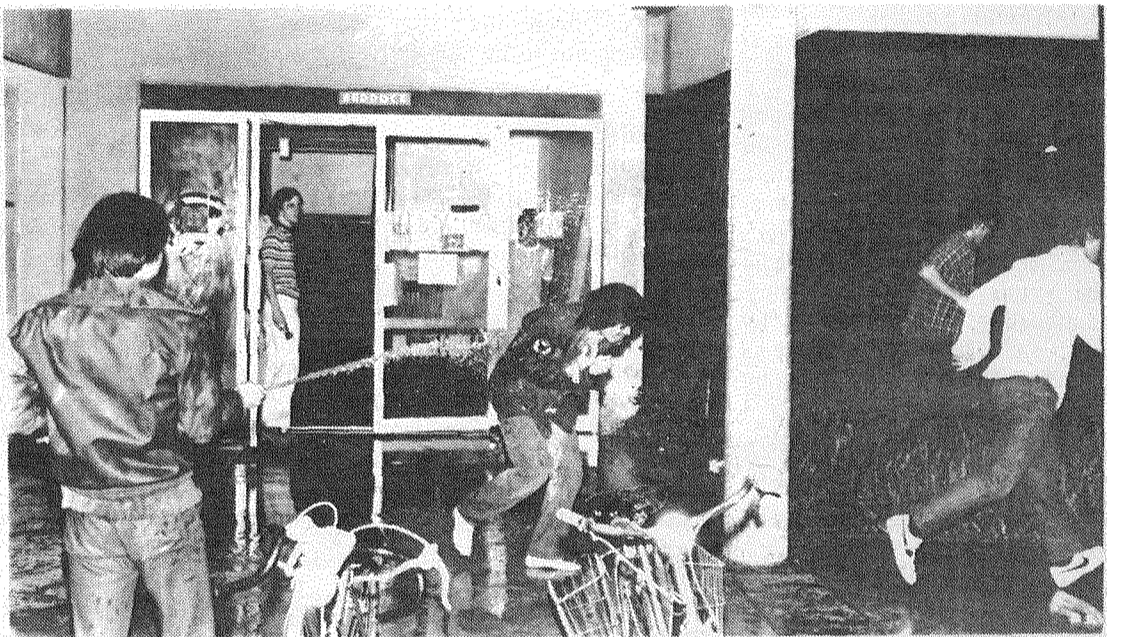
Mole: Fucking Scurves.

Josh: Why do the Scurves do this??

Flem: This guy deserves Baxter pond...Showering's too good,



Scurve: What are you going to do to me?
Mole: Shower him! Turn on the hot water! Scald the guy!



Somebody: Next year, when they come...



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CIT/JPL faculty & staff: \$4.95 Gen. Adm. CIT students \$4.40 or RUSH TICKETS (\$2.00) on day of performance, if tickets remain. Tickets available at Caltech Ticket Office (332-92) at Michigan & Lura St. Phone ext. 1652 for VISA/MC orders.

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public service

Munchies!!

The Pantry supermarket is open 24 hours a day, effective May 1, 1979. So, if you need to cash a check or don't want to walk to Market Basket, you're in luck.

Health Answers Done Right

Practitioners will answer phone inquiries between 8:30 am and 10:30 am Monday-Friday on any medical question. If we don't have the answer, we'll get it or tell where to get it. Call Health Center, x2394.

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.

events

A Light Formal

The Ath formal will be Friday, May 18. The cost will be \$15 per couple, including dinner. "Light", a seven-piece dance band, will be playing. Sign-ups are up in all the houses or contact Sue Fuhs (FI) or Sue VandeWoude (LI).

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.

Heth?

Dennis Prager, co-author of *Eight Questions People Ask About Judaism*, will be speaking on "Jewish Values vs. Modern Values" on Wednesday, May 9. The talk will be in Winnett lounge at 4 pm.

Dennis Prager's book has been acclaimed as "the intelligent skeptic's guide to Judaism." He is director of the Brandeis-Bardin Institute in Simi Valley, and has travelled to 60 countries including China, the Soviet Union and several Arab countries. He is also an excellent and dynamic speaker. His talk here is open to all, and something not to be missed.

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.

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.

Twelfth Night In Eight Days

A contemporary production of Shakespeare's *Twelfth Night* will be performed by the New Shakespeare Company of San Francisco in Beckman Auditorium on Saturday, May 5. The performance will begin at 8 pm. Admission is \$7.20-6.30-5.40 for CIT/JPL faculty and staff, \$6.40-5.60-4.80 for Caltech students. For information call x1652.

Le Mans On Foot

Sign-up sheets to run in the 3rd annual KELROF 24-Hour Relay (May 19-20) are still up in the gym and the Page House mailroom. Timers and training room assistants are also needed. For more info, contact Rob Bourret (x2831) or Eugene Loh.

Go To The Icehouse Free!

The Caltech Y is having another of its day hikes this weekend. The hike is up Icehouse Canyon, near Mt. Baldy. We will be going at least to Icehouse Saddle, a hike of about four miles, with 2600' elevation gain. From there, there are a number of options. There are a few mountains nearby, among them Mount

Cucamonga and Mount Ontario. There is also a trail camp nearby, Kelly's camp, for those who might choose not to climb a mountain but would like someplace nice to eat lunch. We'll be well west of here and near 8000' elevation, so there should be great views and little smog. Come by the Y today and tell us if you'd like to join us. We'll be leaving from behind Winnett at 8am tomorrow, May 5, and transportation will be provided.

g&c

New Prez

for CWC Velma Muhleman will be installed as President of the Caltech Women's Club at a Japanese program on Thursday, May 10, at the Athanaeum. Members to take office with Mrs. Muhleman are Lynn Casani, Vice President; Ellen Purcell, Secretary; Denise Soifer, Treasurer; and Astrid Ellersieck, Bulletin Editor. The program was planned by Laurie Sieh and Barbara Jennings. The membership of the Caltech Women's Club includes women associated with the Huntington Library, JPL, and the Hale Observatories as well as the Caltech campus.

ASCIT Corner

Gentle Ray Beausoleil is hunting for volunteers to fill Barry O'Mahony's Educational Policies Committee, Sue Fuhs' Executive Social Committee, and the assorted Faculty Committees. A new Director-at-Large is also needed to fill Dan Ohlsen's BOD seat, and (sophs and juniors) next year's Junior and Senior Class offices are open for candidates.

Being on the EPC gives you a shot at an easy \$50 for assisting with TQFR editing, and the ESC affords a great opportunity to expand your social horizons (read "meet women from other schools"). The BOD Director-at-Large will be handling the purchase of a new ASCIT bus, so give this one some thought if you're a drug runner or your father owns a used car lot. The class officers—what can ya say? There're only two (President and Treasurer) this year, in official recognition of the offices' impotence. The sign-ups are in Winnett on Flora's door; the Faculty Committees come down on May 11, so get it in gear.

private

Ed:

Don't get flustered and don't lose your sense of humor. Good luck!

—Cricke

Have neither gun nor spacesuit. Will not travel.

—BGDA Strike
Again

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