

★ PLEASE!
Somebody

THE CALIFORNIA TECH

DO
something!!

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FRIDAY 2 MAY 1986

World Without Nukes? Library Plans

by Josh Kurutz

Nuclear weapons and their abolition were the subject of Ted Taylor's April 30 STRIVE-and-Caltech-Y-sponsored talk entitled, "A World Without Nuclear Weapons?," held in Baxter Lecture Hall. Taylor presented his views on nuclear weapons, his plans for their elimination, and constructive uses for nuclear technology.

Taylor stated that his goal was the total eradication of nuclear weapons by the year 2000. He also said it would be necessary to go through a gradual series of steps that would progress to this end. One of these stages was to identify activities to avoid. One move to stay away from, he said was the United States' Strategic Defense Initiative, or, "Star Wars."

After reviewing many proposals involved in the program, Taylor concluded, "I can't find any redeeming feature in any proposal at all. They are already opening a series of Pandora's Boxes." Taylor affirmed that this growth would lead to a, "whole new arms race that will be much harder to understand." One major objection Taylor had to the program was that it could not work without breaking a test ban treaty.

Four qualifications were presented that would ensure peace through disarmament, according to Taylor. ① Each step should reduce the probability of nuclear or major war between the Eastern and Western blocs. ② Nuclear rearmament after a period of intended disarmament should carry much more severe penalties than attractive rewards. ③ The process of elimination should not stimulate the production of other weapons of mass destruction. ④ All the steps in the process need to be compatible with irreconcilable differences between the ideologies of the involved nations.

One concern about disarmament treaties is that of verification of compliance. Taylor claimed that space surveillance could be very effective in this respect. By looking for unusual emissions of heat, a camera could determine that a plant was manufacturing material for nuclear arms. "Nothing whatever should be a secret," said Taylor, who noted, "I don't know who to be more worried about cheating—the U.S. or the Soviets." He believes that all surveillance data should be available for public consumption, and that a private agency should be set up to gather its

own information for the public.

Taylor acknowledged the problem that fuel for nuclear explosives would still exist in usable forms and would be difficult to deal with safely. "Fission it!" was his proposed solution. He said that all the explosives' materials could be used up in three years; his more realistic estimate was ten to fifteen years. This would dispose of the plutonium and uranium in an irrecoverable manner as far as weapons would be concerned. Part of the value of such an effort would be that it could be done unilaterally; Taylor coined this stage, "Unilateral Transarmament—First Phase."

Taylor put forth the idea that an ideological shift should take place that would remove conventional military strength as a measure of national security. He proposed that the American and European military systems could be replaced by a system of civilian-based, non-violent defense. This theory asserts that countries could be made unconquerable by making it difficult and unprofitable for another nation to attack. Methods

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by Tony Stirk

As the GSC representative to the Faculty Library Committee for the past two years, I have had a unique view of how the Caltech Library system is changing, but the changes I will describe here will soon be visible to everyone. Most of the following is distilled from "The Changing World of the Library: Annual Report of the Director of Information Services," written by the Director, Glenn Brudvig.

The Library is rapidly computerizing its operations. A DEC computer system has been installed and acquisitions are now fully computerized. Currently, the Library staff is loading existing catalog information into the computer. All new acquisitions are automatically entered in the on-line catalog. The conversion to an on-line catalog will take some time to complete as much of the data entry must be done manually. Currently, tests are being run on what exists of the on-line catalog to determine how to display and access the information most effectively. After further development,

members of the Caltech community will be called in to test and comment on the on-line catalog.

The computerization of the Library is proceeding in stages. Priority is given to functions that require a great deal of staff time (that is why acquisition and cataloging functions are high on the list). After the on-line catalog is added, title pages to current journals will be entered so that patrons can see what articles were covered in their favorite journals. Author and keyword searching of articles will also be available. Boolean searching (AND, OR, NOT) of books and serials will be available later. An on-line circulation system will also be instituted once the catalog is working. Many other functions will be added to the system, but you should have the general idea by now.

A peek at the capabilities of the on-line catalog revealed that its capabilities are somewhat similar to the Pasadena Public Library on-line catalog. The system is presently menu driven and allows searching for a single item or browsing in a general area of interest. The database may be searched by author, title, subject, or call number. Fragments of a title will still tend to turn up the book. A very nice feature of the system is that it gives the status of the book. Since most of the books on the system were new when I tried it, the status often read something like On Order, In Cataloging, or In Binding. When the new circulation system becomes available, we will be informed that the book is checked out or reserved. We will also be able to make our own reservations.

There will be many benefits to the system. The system will check for errors in entry and thus there will be fewer problems with incorrectly cataloged books. Staff time needed for processing functions should decrease, which will allow for more services and more money for books and serials. Space taken up by catalogs will be replaced with books and serials. Retrieval of information will be easier and faster, and you won't have to go to the Library to do it. The Library is already connected to the campus network, so patrons will be able to find, order, and receive books and articles without entering the Library.

The Western Association of Schools and Colleges accreditation team recommended that "① New Library space should be provided that will sufficiently house current collections and allow for future growth. ② Unnecessary fragmentation and duplication of Library materials, functions, and personnel should be decreased by combining related Library services and collections. ③ Library budgets should be increased to a level that will accommodate annual inflation of the journal literature prices and allow for further augmentation of the book collection." Some actions have already been taken to increase the amount of available space and money. For example, conversion to an on-line catalog, increased weeding of books, less duplication of journals, and more efficient space planning have lessened the space problem somewhat. There are increasing pressures, however, to further consolidate Library collections and eliminate overlaps (which also helps the budget), store lesser used books in some type of bulk storage, and convert the use

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Beckman Labs Dedicated to Research

[CNB] The Arnold and Mabel Laboratory of Chemical Synthesis has now been dedicated, and five research groups will soon be setting up shop within. The following are summaries of what the research groups will be doing.

Peter Dervan
Forging New Tools for DNA

Today's genetic engineering revolution depends on scientists' ability to precisely snip apart DNA molecules with naturally occurring enzymes, called restriction endonucleases. While these natural enzymes have proven powerful tools, they are not as specific as biologists would like; that is, they do not allow researchers to cut large DNA molecules such as human chromosomes at one unique point along the strand.

Professor of Chemistry Peter Dervan and his colleagues are developing organic compounds to "read" DNA molecules to seek out a specific sequence, attach to that sequence, and cleave the DNA. Such powerful chemical tools would enormously increase researchers' ability to manipulate DNA. They would also serve as diagnostic reagents to recognize specific diseases by the organisms' DNA. Finally, such compounds could be tailor-made to treat a disease by specifically attacking only that organism's DNA.

To assemble an arsenal of DNA-recognizing molecules, Dr. Dervan studies natural compounds that have the ability to attack microbes, cancer cells, or viruses; these abilities depend on the compounds' natural ability to bind to DNA. The researchers identify which portions of those molecules are responsible for recognizing and attaching to their target DNA sequences. The chemists then attempt to construct simpler versions of those compounds capable of sequence-specific binding.

Such natural compounds only recognize short sequences of DNA—about two or three DNA

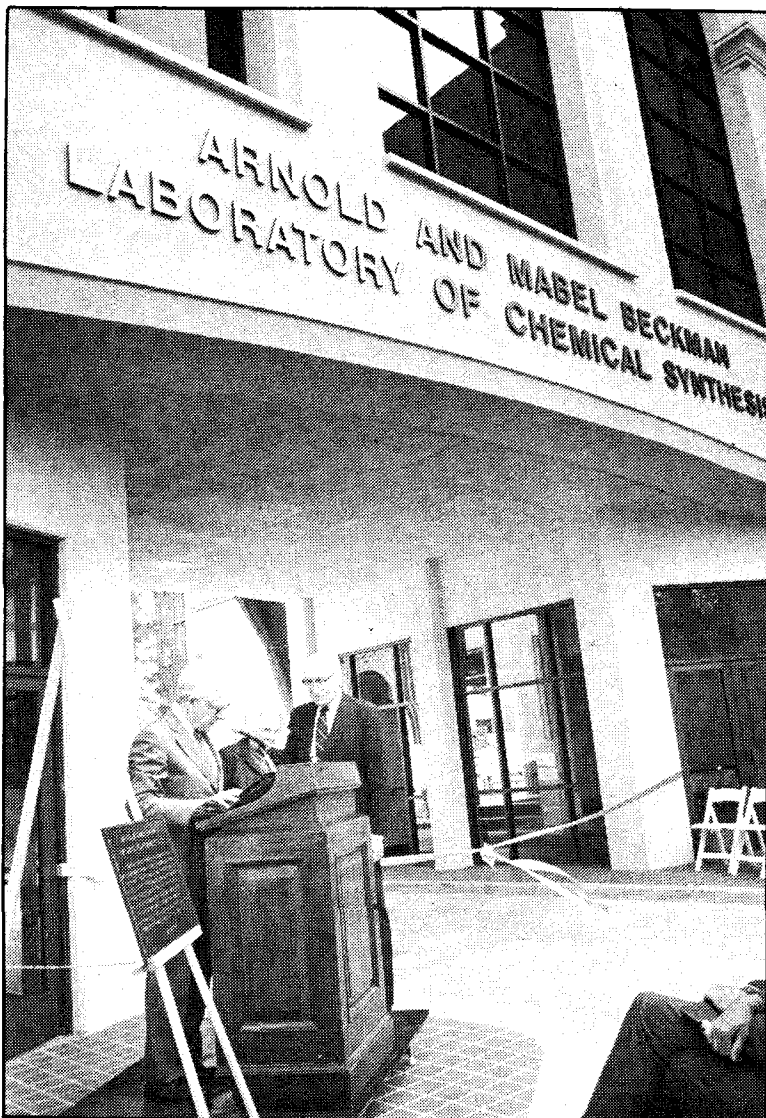
units called bases. A unique DNA sequence in human chromosomes, however, might consist of 15 or more bases. Thus, the Caltech chemists plan to couple a number of these individual DNA-recognizing compounds into "sentences" that read longer DNA sequences.

Dr. Dervan's work has already led to methods of revealing how individual antibiotics bind to DNA, a key to their ability to kill microorganisms. For example, in a method called "affinity cleaving," they equip an antibiotic with a DNA cleaving molecule, which chops apart the DNA next to its binding site. By analyzing the pieces of DNA, the chemists can discover exactly which segments of DNA was cleaved, and, thus, the point of attachment for the antibiotic.

Dennis Dougherty:
Host Molecules for Drugs

Because many useful drugs are insoluble in the watery environment of the body, dissolving only in organic solvents, they may not reach their targets effectively. Associate Professor of Chemistry Dennis Dougherty and his co-workers have developed a new class of water-soluble molecules that can grasp organic molecules, carrying them into aqueous solution. Using these host molecules, called "bridge anthracenes," to shelter these drugs could not only enhance their solubility, but could also enhance the drugs' specificity. This could be achieved by developing hosts that recognize particular molecules in the body, enabling them to carry drugs to sites containing those molecules.

The chemists may also be able to build such host molecules that shelter substances such as hormones, from breakdown in the acid environment of the stomach. This protection would allow such drugs to be given orally, rather than by injection. Finally, Dr. Dougherty hopes to learn to use such com-



First names were the order of the day at last Friday's dedication of the Arnold and Mabel Beckman Laboratory of Chemical Synthesis. Shown here are Murph, Mabel and Arnold.

pounds as the basis for artificial enzymes, capable of catalyzing reactions that can not be done by natural enzymes.

Robert Grubbs:
New Roads to Plastics

The chemistry of polymers, the basis for all plastics, is far from being fully exploited, despite the profound importance of plastics in today's society. Polymer chemists believe that a whole new range of plastics are possible with improved properties of toughness, resiliency, and even electrical conductivity. Plastic conductors, lighter and tougher than metals, could replace metals in a wide range of electrical and electronic devices.

Professor of Chemistry Robert Grubbs and his colleagues are exploring catalysts that could enable the creation of organic conductors and other new plastics. These substances, called transition metal complexes, are those that catalyze a reaction known as olefin metathesis. Dr. Grubbs is exploring this reaction as a means of stringing together complex polymers from individual units, called monomers, that are introduced into the reaction as ringlike molecules.

Olefin metathesis can be used to open the ring of a monomer at a given point and attach the ends to a growing polymer chain. This ring-opening reaction allows far

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Photo by Bob Paz

Beckman

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more complicated polymers to be made because of the relative ease of increasing the complexity of the individual ring units. Chemists can use olefin metathesis to much better control the sequence and length of the polymer, and thus its properties, compared to current methods in which a variety of subunits are simply linked together.

Dr. Grubbs is also drawing on his knowledge of polymerization to develop a plastic that can be injected into the eyes to replace lens fluid clouded by cataracts. Currently, surgeons implant tiny plastic disks in place of the natural lens, but these disks do not flex as does the natural lens, thus distorting vision.

In developing an improved implant material, the Caltech chemists were faced with the problem of developing a compound that, before polymerization, was fluid enough to be injected through a small needle, but which could be made to polymerize within the lens sac into a clear plastic that would not leak from the incision. So far, the scientists have designed a compound that can be successfully injected and polymerized within the eye, and they are now working to optimize it.

John Roberts: Magnetic Ways to See the Body

Perhaps the most promising new technique for seeing inside the body is nuclear magnetic resonance (NMR) scanning. Basically, NMR scanning involves subjecting the body to high, but harmless, magnetic fields, which cause hydrogen nuclei in the body, contained primarily in water molecules, to align themselves like so many spinning parallel tops. Short pulses of radio waves, also harmless, cause the hydrogen nuclei to flip-flop, and after an instant they right themselves, re-emitting some of the absorbed energy. Detectors sense the amount and timing of this re-emission and feed the information to a computer, which transforms the signals into an image. Unlike X-rays, NMR scans yield detailed pictures of the body's soft tissues.

Institute Professor of Chemistry John Roberts and his colleagues at Caltech and at the Huntington Medical Research Institute (HMRI) in Pasadena, are working toward the next major advance in NMR. They are developing NMR techni-

ques to monitor the status of phosphorus, carbon, and nitrogen within the body. Molecules containing these elements, in particular phosphorus, are intimately involved in metabolic processes, making them useful for studying body chemistry.

Dr. Roberts and his colleagues, using advanced NMR machines at Caltech and HMRI, can measure the relative amounts of phosphorus bound up in the various molecules of the body's energy-generating systems, such as ATP. These measurements yield an indication of the status of that system. For example, phosphorus NMR of the living heart enables them to detect when the heart is under stress due to a constricted artery. Because of its scarcity, phosphorus is 10,000 times harder to detect than hydrogen, but the Caltech-HMRI researchers are developing new detection systems and radio-frequency probes that should allow this new tool to come into wider use.

Andrew G. Myers: Building Complex Molecules

In addition to housing existing faculty, the Beckman Laboratory will be occupied by two new organic chemists, one yet to be named. The other, however, will be Assistant Professor of Chemistry Andrew G. Myers, who will join the faculty this summer after completing Ph.D. work and postdoctoral research at Harvard.

Many molecules can be constructed as mirror images of one another, left-handed or right-handed versions differing only in the stereochemical arrangements of molecular groups around certain carbon atoms called asymmetric centers. In his research, Dr. Myers will aim at developing improved catalysts for reliably producing pure left- or right-handed products.

Such an ability, called "enantioselective synthesis," is important because compounds, including many drugs, may exhibit quite different properties, according to their "handedness." It is said, for example, that the harmful side effects of the drug thalidomide are due to the contamination of the compound by a small percentage of its mirror-image version, or enantiomer.

Dr. Myers will also work toward synthesizing complex compounds with biological properties, such as antibiotics or toxins. His aim will be to provide pharmacologists with scarce substances that might be useful as medicines and to develop new ways of building complex molecules.

Nukes?

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used would include actions such as general strikes and refusal to obey orders. Cited as examples of this theory in action were the achievement of India's independence, the non-violent resistance encountered by Soviet invaders in Czechoslovakia, and the American Revolution. The last did not need to be so violent, according to Taylor, who lauded non-violent demonstrations such as the Boston Tea Party.

Taylor worked at Los Alamos between 1950 and 1956 designing nuclear bombs. "I was obsessed with the limits of efficiency of fission bombs," said Taylor. He was in a, "totally exciting situation," in which he met interesting and famous people and was free to do research into intriguing topics with no bureaucratic hassle.

He left Los Alamos to work at General Atomic, a division of General Dynamics, where he was able to work on nuclear energy for peaceful purposes. One project Taylor worked on was Orion, a spacecraft propelled by directed nuclear blasts. Shortly after the craft's inception, it was decided to make several takeoff designs, including converting the four thousand pound vehicle into one bomb capable of incinerating an entire hemisphere. One design that received much attention was that of arming the craft with one thousand half-megaton warheads. A model of this was seen by President Kennedy, who was infuriated at the invention. Aside from the spinoff programs, Taylor asserted that Orion, the unarmed spaceship, became the "prototype for nuclear disarmament."

Dr. Taylor earned his B.S. in Physics from Caltech in 1945, and his doctorate in theoretical nuclear physics from Cornell in 1954. In 1967, he established International Research and Technology, which has done research in nuclear safety, solar energy, and inventive uses for ice. He has earned the Lawrence Memorial Award (1965), the Meritorious Civilian Service Medal (1966) from the Defense Department. In 1976, he became a Professor of Mechanical Engineering at Princeton.

LETTERS

Strung Out

To the Editors:

I'm sorry that not everyone who wanted to escape the Watson Lecture on Superstrings was able to get out: it seems that there were several hundred people trapped inside the auditorium. Perhaps that Murray Gell-Mann guy was one of them. Who is he anyway?

The following is a list of inquiries about his revisions published in *The California Tech* on April 25 of Josh Kurutz's article published in *The California Tech* on April 18, containing questions that would bring the revisions closer to describing the actual state of my mind.

Yours sincerely,

Steve Gómez
255 S. Hill Ave.
(the house with
beautiful curtains)

• Why is he trying to use shoestrings to make an infinite number of particles?

• If you can only experiment with "merely hundreds" why not ask the Arabs for some oil? They got it up the wazoo.

• I conducted a scientific survey and 3 out of 3 Caltech students do NOT get distressed when a new particle is discovered. So who would these shoestrings calm?

• I'm guessing that the "single theory to describe all elementary particles and forces in a single elegant equation," is that Holy Grail of Physics, the Unified Field Theory. Why all this trouble? Both Dabney and Blacker Houses have copies of the Unified Field Theory. All you have to do is write the Maharishi Mahesh Yogi in Switzerland and he'll send you a copy. FREE! Why this waste of taxpayers' money?

• Since everyone is being so cruel to the gravitational force by leaving it "out in the cold," I invite it to stay at our house. Then we can say "The Force is with us."

• I would like to know how to get in touch with Schwartz and Scherk to ask about their theory that "could be applied universally to solve everything." If that's the case I want to know how to solve the problems of getting a date for the ASCIT Formal and the money to pay for it.

• What kind of particle is a

"strange, real, charmed, green beauty?"

• Gell-Mann claims that bosons "love to be in the same state." Which state are they in? I think it must be California where all the bosons hang out. After all, it's the state that gave us Richard Nixon, Ronald Reagan, Wally George, hippies, surfers, B-movies and the three-Perrier lunch with toffuti for dessert and a California Cooler to sip while selling sophisticated weapons to starving peoples. Where else would one find bosons?

• Is this guy a bigshot or something? I mean he just deleted an entire paragraph with very little effort at all. Maybe he could do the same with all these stupid letters of complaint about the food in Chandler. [Looks like he did—Eds.] Maybe he could make them go to McDonald's for lunch?

I wish I was in México drinking beer on the beach with seven lovely señoritas. Oh well. Since I can't, I guess I'll do my math. It ain't fair, is it?

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ERTOIDS NI FECHI
Jens Peter Alfke • Josh Kurutz

NINE-TEN-MATTER ERTOID
John Fourkas

POHOT ERTIOD
Ron Gidseg

PROTSS ERTOID
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The Caltech Y Fly-by

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Noon Concert. Caltech Jazz Band.

Drawing for prizes 5-7 PM on the quad. Benefitting the Caltech Children's Center.

Tuesday... May 6

"Females of the Species". Bettyann Kevles, LA Times science writer. 7:30 PM. Ask at the Y for more info.

Wednesday... May 7

Leadership Evening. 7 successful alumni dine in the student houses. 7:30 PM Winnett lounge ice cream reception.

Movie Night at the Y Selections TBA

Friday... May 9

Noon Concert Band TBA

Until May 26
Renaissance Faire Half-priced tickets at the Y.

Any questions, comments, or ideas?
Come see us in the Y office or call x6163

ENTERTAINMENT

The Joy of Sushi

by Nick Smith

Sachi Sushi
694 E. Colorado Blvd.

Just west of Stottlemeyers there is a collection of shops and restaurants called The Arcade. They run south from Colorado to a parking lot that faces Green. Some of the business in this arcade have lasted for decades, others turn over every few months, or so it seems. At the very front, along Colorado, is a location that is normally a restaurant. I remember it being an ice cream parlor, and then an Italian restaurant. Well, now it's a Japanese restaurant, and a good one.

What caught my eye was the sudden transformation from the Pizza and Pasta to Sachi Sushi. Let's face it, the difference is pretty obvious when you walk by. I decided, what the heck, I'll give them a couple of weeks to settle in, and then give it a try.

The first thing that you notice in Sachi is that it is a very small restaurant. It makes Ai in South Pasadena look spacious by comparison. There are a few tables, and a very cozy sushi bar that seats maybe ten people. This all means that none of the food has to travel very far, and the service is very personalized and simple. None of this "I'm going on my vacation now, and this is the substitute waitress," type of thing that happens at some larger restaurants.

Well, my companion and I sat down at the sushi bar. We were quickly shown that the mass-produced pictures of sushi that were posted at the bar were not adequate to show Sachi's menu.

For those of you not familiar with sushi, it usually consists of some type of raw seafood or vegetables, blended with seasonings and often wrapped in sticky rice and/or a seaweed wrapper. Sushi is ordered in small quantities, usually two pieces of a specific type at a time, or perhaps a more elaborate grouping made into a 4-6 piece roll. Each order normally costs a couple of dollars, which isn't cheap, or you can often buy combinations of the simpler varieties, kind of a sampler, for a lower per-piece price. The point is that you shouldn't go to a sushi bar if you aren't willing to spend a few dollars and experiment a little.

The sushi chef at Sachi speaks very little English, and one of the

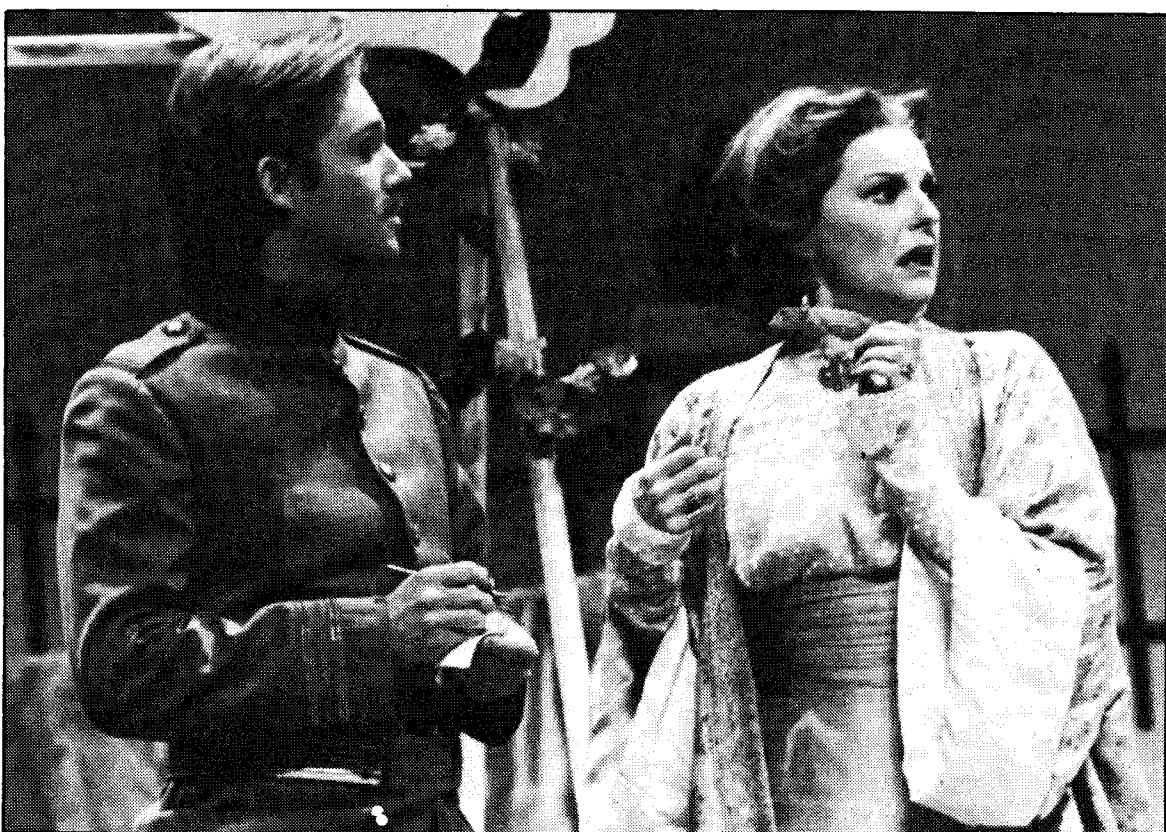
people running the place would occasionally translate for customers. What he *can* do is make outstanding sushi. He prepared the simple, standard sushi out of fish, shrimp and other seafood. His real talent came in with his special dishes. The house specialty is a rolled sushi that is made up of several different kinds of fish, all of different colors and textures, wound in a spiral tube filled with rice, seaweed and other things, and sliced into pieces. As a special dish for my dinner companion and I, he made up a concoction out of abalone, mushrooms and various other goodies (this is the only place I've found that has *tender* abalone—normally, it's like a leftover Adidas sole), placed in a shell and baked in a toaster oven. This looked very strange, as does much of the work of a sushi chef, but the result was delicious.

This particular chef likes to use smelt roe in a lot of his work. For those of you unfamiliar with it, smelt roe is a lot like caviar, but bright orange. In the right dishes, it is very tasty. At Sachi, it's in the right dishes.

Part of the fun of sitting at a sushi bar is watching the food being prepared, but that's not everyone's dish. A lot of people just want to sit down and eat. No problem. You can still order sushi at the tables, as well as Sachi's menu of tempura and teriyaki dishes. During the time I was there, everyone seemed to be quite vocal about their enjoyment of the food.

Sachi is not especially cheap, but they aren't expensive for the food that they serve. You can expect to have a good meal for less than \$10 a person if you stick with normal fare, and you can spend more if you are adventurous. The two of us really pigged out for about \$25, including buying a beer for the sushi chef (he deserved it) and a glass of plum wine each.

Overall, I highly recommend Sachi as a place to go when you feel like celebrating something with a few friends, or when you feel like eating some high-class sushi. It doesn't have as many individual table-booths as a place like Masa or Ai, so if you want total privacy, you're probably out of luck. For a good time and good food, try Sachi.



Here at last, actual pictures of Richard Thomas and Carole Shelley, appearing in the Pasadena Playhouse's production of George Bernard Shaw's *Arms and the Man*. For a full review of the play, see last week's *California Tech*.

Photo by Jan Butchofsky

My Beautiful Laundrette

by Astrid Golomb
My Beautiful Laundrette
Directed by Steven Frears

Life in Britain is not all Monty Python, the Royal family or episodic BBC TV introduced by Alistair Cooke... honestly. England, and most particularly London, is teeming with people "on the dole" and immigrants called "wogs." In other words, most of the cultural export from Limeyland is unrepresentative of many aspects of day-to-day existence that become horrifyingly obvious to visiting Americans. Among them are racial discrimination ("Paki bashing," for example) and organizations like the National Front, a neo-Nazi group remarkably popular with teenagers, most notably in Brixton, famous for its riots. Fortunately, hand guns are illegal in England, so most gang fighting is done with knives, bricks, and lead pipes.

My Beautiful Laundrette, while comedic at heart, is about such stuff as nightmares are made of. Without being didactic, *My Beautiful Laundrette* introduces us

to wonderfully clever and interesting characters in post-modern (not Edwardian) London. It follows the career of Omar—a Pakistani youth equipped with survival skills and ambition, a graduate of one of the British "comprehensive" schools that are more like "Borstal" or a crèche than like an institution of learning. His best friend from school, Johnny, is the leader of the local gang of thugs. Both young men are forced to make choices between their friendship and loyalties to their people—Omar's family, Johnny's gang. I will even go so far as to say the movie is about male bonding, but the writer and director are clever enough to introduce us to a few independent women who are held back by their circumstances but won't succumb without a fight. It is a strength of this film that though the women are shown in traditional roles—wife, mother, daughter, mistress—they are not two dimensional characters who play background roles, as might easily have happened.

Before seeing the film, I overheard a conversation in the

ladies' lavatory: "What was the plot of the film? There wasn't any." "To keep your laundry clean." Well, no, that's not it. Perhaps to an audience used to fast-paced films like *Back to the Future* and *Raiders of the Lost Ark*, this movie will be boring and seem to lack a plot. But if subtlety does not elude you, you may like the film.

I don't believe in telling the plot in a review, but I will reveal that *My Beautiful Laundrette* does indeed have those three favorite ingredients movie moguls worship: ① defiance of authority, ② destruction of property and ③ attractive people taking off their clothes. But this movie is not *Porky's*. This movie is about friendship, and about life in a real place that you can visit. A place where they even claim to speak English.

My Beautiful Laundrette is showing at the Beverley Cineplex, located in the heart of the lovely and upscale Beverley Center at Beverley and La Cienega.

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FEATURES

'It's The Law'

With Mike Roberts

On the Hill of Death...

I continued to pedal up the Hill of Death. I tried to think back to my undergraduate days, when I biked up the Hill regularly; I could not remember exactly how long it took. I thought that the next curve might well reveal the terminus, and I would be done with this horrible ride.

Slowly, I came around the hillside. The wacky music and dancing lab assistant were still gaining on me. Would this be the last turn? Would this be the top of the Hill of Death? The road crept along under me. Inch by inch, the hillside gave way to the road beyond. I could almost see it—I peered in desperate hope that I would see the end. Finally, I could see around the curve. It was not the end. The road continued incessantly.

I quickly fell into a state of despair. I continued to pedal, though without enthusiasm. My eyes didn't stray from two feet ahead of my front wheel for several minutes; I looked up to see if there was anything in front of me—and there was: a tall young college student, with curly hair, large plastic-rimmed glasses, and a sort of

bemused expression.

I screamed to a stop, swerving to avoid him. He just stood there, arms crossed, and sighed deeply. "I don't know, I don't know," he said. He sighed again. "This story has been going on for—what, four weeks?" He muttered something as he pushed buttons on a calculator watch he was wearing, making swift but approximate calculations. "Well, four weeks if you don't count the weeks without a *Dabney House Inside World or It's the Law*. I mean, it's really sad."

I looked up at him, still rather winded from the riding he had interrupted. "It's not my fault," I said. "It's this author. He refuses to write me out of this mess."

The man smiled. "Sigh," he said. "You could find a way out yourself." I shook my head, seeing that he just didn't understand the situation. "What, you don't think there's free will?"

"Not for a fictional character, there isn't," I replied.

He sort of smirked and shook his head, muttering something about how annoying atheists are, then sighed deeply, and said, "I don't know, I don't know."

"Okay," I said, "what do you suggest I do?"

"Well, hmmm... let me think. Hmm... presumably, you could ride downhill, right?"

"I guess so," I replied. "I never thought of that. What about the weird scientist and his assistant and their wacky music?"

He nodded, indicating his annoyance with them as well. "I don't know. I suppose we could ask them to stop." He walked down the hill a little ways to where the two were. "Excuse me," he said to them with a little irritation in his voice. "Could you go do that somewhere else? We're trying to have a conversation up here." The scientist took off his glasses, put them into his lab-jacket pocket, and he and the lab assistant walked down the hill, bitter and confused.

I got back on the bike. "I don't know quite what to say," I said. "I guess I can go downhill now."

"I suppose so," the man said. "Now, let's get this story underway again!"

Next: Getting the story underway again!

Libraries

from page 1

of on-line indices or microfilm indices (*Chemical Abstracts* alone takes up a tremendous amount of bookshelf space).

Journals are different than books in that they are a continuing commitment. When their costs go up, to avoid gaps in the journals, the book budget is decreased. Last academic year, due to the strong dollar, a budget increase, and a decrease in journal duplication, the book budget increased 24%. Now, however, the dollar has dropped and journal costs in this country and abroad are rapidly increasing. This will cancel out the gains made in the book budget last year. The Library is also being asked to carry more and more journals. Currently, the Library is carrying 6450 journals compared to a year previous when it had 6185.

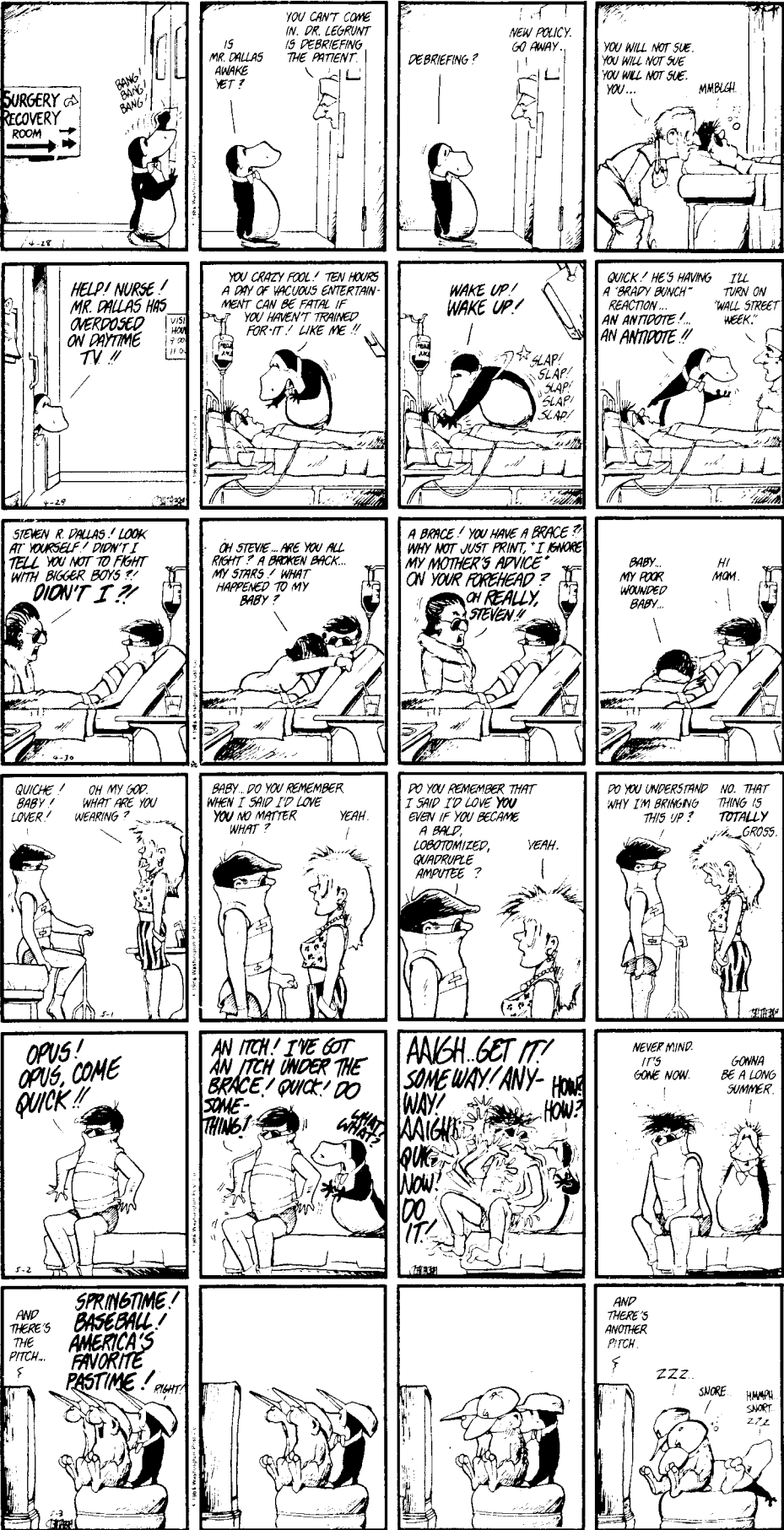
A proposal for an Engineering Library combining eight of the smaller engineering libraries into a single building was well received by the Faculty Library Committee and was endorsed by the Board of Trustees. There are many advantages to this consolidation: ① Fewer library staff will be needed to run the combined Engineering Library, saving money. ② Duplication of holdings will decrease, saving both money and space. ③ Departmental library space will be freed for other uses. ④ Services will be available that

could not be reasonably provided in the small departmental libraries. And, ⑤ the money saved will be available for purchasing new materials. Currently, more money is being spent on salaries and benefits than is being spent on books and journals.

The Engineering Library is planned to be between Thomas and Spaulding where the old Steam Plant (Building #43) now lies, making it easily accessible to its patrons and conveniently close to Millikan Library. Millikan's Engineering Library will move to the new building. Millikan will then house only the Science and Humanities and Social Sciences collections as well as the Library administration and most specialized service functions. Current plans are for Chemical Engineering to occupy the top of the new building, but this may change. Donors are still being solicited for its construction.

The use of the photocopy service is growing steadily and is a major source of Library use on campus. 59,000 photocopy requests were made last academic year, averaging 12 pages each, while only 56,000 book loans were made. Many patrons have been asking for a high-quality self-service copier in addition to the photocopy service. This copier should avoid some delays, cut costs for patrons and the Library, allow for the copying of non-Library

continued on page 5



Blomo Nycotu

by Rebekke Thabdeer

Despronso by the Caltech Y



Eve Arnold/Magnum

Apartheid means starvation in a land of plenty.

South Africa is among the top seven food exporters in the world. Every year it exports more than a billion dollars worth of beef, grain, vegetables and fruit.

Yet every day 136 black children die from hunger.

The problem is not a lack of food but a lack of justice. It is apartheid—South Africa's system of racial domination—that keeps the black majority hungry.

Blacks are 70% of the population but can own land in just 13% of the country.

Blacks can own no more than 4 acres of land, while white farms average 3,000 acres.

Black workers earn as little as \$30 per month, and unemployment is over 25 percent.

Blacks are denied basic rights such as voting and deciding where to live.

There can be no end to hunger in South Africa without an end to apartheid.

Enclosed is a contribution for \$ _____ to help spread the message about hunger in South Africa

Send me more information on how I can help stop apartheid

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

Institute for Food & Development Policy
1885 Mission Street
San Francisco, CA 94103-3584

I Want to Help Stop Apartheid!

The Inside World

from page 4

documents with the features of an advanced copier unavailable to departments due to cost (for example, sophisticated reduction capabilities would be great for maps and charts), provide for after-hours service, and decrease the number of journals checked out for photocopy elsewhere. The machine will be purchased as soon as the funds are available and a suitable location can be found for it.

As the use of different media for recording and accessing information increases, the Library must evolve into a multimedia center. The Library is currently developing plans to deal with collections of tapes, records, videotapes, microfiche, computer software, and other information sources. New equipment will need to be purchased to utilize this information and new storage and tracking techniques will need to be developed to ease access and encourage use.

Finally, it should be mentioned that the Library is not doing everything on its own. Significant parts of the Library collections are due to donations from individuals. The Friends of the Caltech Libraries (FOCAL) have, over many years, provided funding and books to the Library as well as volunteer effort. On Friday, May 2 from 8:30 am to 2:30 pm, FOCAL will hold a book sale of gift books or culled Library books in the Millikan Board Room whose proceeds will benefit the Library. Do your bit to support the Library by buying a book you like.

Students check out more material from the Library than faculty, staff, and non-Caltech people combined. Make sure your current and future information needs are met by communicating those needs to Library staff members or representatives of the Faculty Library Committee (both ASCIT and the GSC are allowed representatives on the Committee).

Blacker: What's wet, hangs from the ceiling, and smells like an odiferous swamp? No, it's not Matt taking a shower. The Cannes Swing'n'Spray made its debut last weekend for a night of fun and destruction. Nothing could match the might of the "elephant gun". A war broke out between the forces of Strainor, evil master of buckets and trash cans (bless you for using warm water!) and that new-wave subversive, Marc the Wonder Weenie. The outcome was unclear; Strainor lost his stronghold, I lost my bathrobe, and Rob and Tom lost their cool. Restitutions were readily made to all.

Let me tell you something: erythromycin poppers do not hallucinate, but 16-year-olds with wild imaginations sometimes do. As for Linda P., we have yet to sight this legendary waitress; keep an eye peeled for a "blond bombshell" (direct quote).

Frosh, keep your throats clear—150 days is here! Simon says drinking an entire bottle of vodka will kill you, but if Room 21 keeps its quota, I will eat a Super Rose. If Tracey can down six, I will eat two. Diet Cokes don't count! And keep those bathroom lines short!

Dabney: Dabney House is pleased to announce that Saturday, 3 May 1986, at 1:00 AM, marks the start of the final 1000 hours of the year. (For the purposes of this calculation, the year ends at 5:00PM on the Friday of finals week. For graduating seniors, fiscal hour-1000 [FH-1000] occurs at 6:00PM on Friday the 2nd.) No extensions on this 1000-hour block will be granted without special petition.

Fleming: The cannon finally came back after a large fiasco, somewhat reminiscent of what the Boys would call a "successful operation." Luckily, the Master was able to run over and beat some sense into the Mudd and everything turned out OK. Thanks to Chris, Bernie, and the "Fleming Cannon Task Force" for all of the time spent.

Last Saturday, after the horde of alums plus the baseball-playing frosh barely squeaked by the upperclassmen in an exciting game of softball, there was Casino Night. One of the year's best parties, I should think. Thanks to the Social Team and the Savage Toad for a job well done / party well thrown. This Friday it's the Ice House. Be sure to get tickets from Burlly ASAP. By the way, all girls get free drinks at future Fleming parties, so show up and drink up.

In discobolus, we kicked the Lloydies' yellow balls all over the field and won handily. Next Sunday it's soccer vs. Ruddock, so let's get out there. As far as Interhouse goes, well at least football is coming up soon. UCC pick has been rescheduled for Monday, May 5, so there's that much more time to sign up.

Until next week... Prevent missing children: learn to hate them now.

Lloyd: Beach trip was a real party. Earl started in early on his SURF: Thermal Conducting Properties of Silicate. The frosh tested the might of Joe Fierro, and were tested in turn by Fingal himself. The ceremony went as planned, though the fevered cries of the local priests did at-

tract the curious. While the frosh were thinking "wet", the upperclassmen were thinking "cops", but it all came out in the wash.

The world's beating a pat to the doors of Sahib, Beast, and the Tiger. Stop by for your own new and improved #B230413. This lobster trap is foolproof, with a failsave mechanism designed to catch even the trickiest of Keiths. Is this why Rosema says, "I'm not smart!"?

Sandy joined the "I can't drive 55" club—Tommy's run tonight! But why does Katy have two sinks in her room?

Ice skating tonight with the Moles. Jean's going to teach us all, so grab your mittens and come on out!

"Min does his homework, stays up until four... It's hard to leave when you can't find the door."

Go Juggernaut!

—Mutt and Jeff

Page: CONGRATULATIONS FLEMING on a job well done. We're sure those Mudders will think twice before messing with the herd again.

Just so Scott Karlin knows, **Cobra Spaghetti Night** is May 23rd. Sign up now for your official movie kit.

This weekend Page is having another blow-out. This one features the spectacular **Captain Sex and the Five Seamen** (Doug "the captain" Roberts, Boyd "first mate" Bangtleihagr, Eric "the skipper" Scharin, Chuck "bone" Neugebauer, Mickey "sloppy second mate" Spiegel, and Jeff "the beater" Hekantdic).

In Dumpster Alley even the soda monster doesn't know what soda will appear with Potluck selection. Bruning's breathing problem has not improved, and neither has Chicken's. Weight Alley's John Beck is still complaining of Goda's loud music which drowns out his and Candy's mood enhancement music.

Maverick Alley has a new paint job courtesy of Sam and Steve. The computer room has a new LaserWriter (sorry Lodge, it's not quite a gigawatt—but it will have to do). Generic Alley a.k.a. *The Zone* is attempting to start a competing computer room. Who Cares?

In Counter-Weight Dean learns that rooming with Cotter has its ins and outs. Out every night, in every morning, and several repetitions in between. In Scooter Alley, Godickee has moved in and declared that Scooter is a "Fat Tub of Goo".

Due to popular demand (and a recommendation by Chris Chu) Syndicate Alley is now selling raffle tickets for twenty-five cents. The winner of the raffle will spend one night in Syndicate. [Do losers spend two?—Eds.] Benefits include immunity from public humiliation for the duration of the stay. Contact your favorite Syndicate alley member for details.

—The D.K's

Ricketts: RICKETTS HOVSE discovers The Taco Truck. It's big, it's silver, it's parked at a gas station, it's the newest trendy food place in America—The Taco Truck. Come and visit Fred (his regulars call him Freddie) in beautiful downtown Eagle Rock. The Taco Truck rocks and squeaks as Freddie moves about preparing tacos, burritos, quesadillas and tostadas. His hot chocolate is the finest Swiss Miss—Instant Cocoa. The quaint "gas station" atmosphere promotes a feeling of camaraderie among the clientele. If you think the Espresso Bar is hip, try the Taco Truck. (Brought to you by Larry Siegel and Peter-Pete)

In response to the slanderous statement in last week's Blacker Inside World, I would like to point out that none of the so-called "dyslexic dishwashers" participated in the creampuff attack on the tyrannical Blacker leader. Mad Dog Jason, although he has been a dishwasher in the past, was cast out of our order long ago because of his inability to accept the brutal reality of RICKETTS HOVSE evening feeding sessions. It was the dyslexic diners that were taken in by Jason's fiendish call to arms. We dishwashers prefer to use peaceful means to reach our ultimate goal: to have Blacker announcements limited to 20 minutes or less.

Don't miss the Bad Taste Party Saturday evening. Come dressed as your favorite BC dinner (delicious, delicious).

Pleeeeee Nanceeeeee!

—Saxy

PS: Contrary to last Thursday's *Days of Our Lives*, Britta is *not* dead. (Not yet, anyway)

Ruddock: The Ruddock basketball team came through and toasted Fleming last Friday, as expected. Rumor has it that they didn't accept our Discobolus challenge in basketball either. We're playing them in soccer on Sunday. Tennis started with a bang too, as Ruddock beat Blacker Monday afternoon. Go big Rudd!

The ping-pong tournament is still going on. Play your games so the next round can start. Last week's beach trip came off well and left several people looking rather Ruddy. This week's social event is "mmff..." but sign up for the formal and pay your bar bills.

Alleys 1 and 5 will play one-legged basketball sometime soon, and no, Taney, there won't be any kitten juggling. Wayne says 1 3 5 6 4 2 or something like that.

And I say, "I don't want to work, I just wanna lay on the beach all day..."

—Butch

PS: Coach... when do I get my Lucky?
PPS: Happy Birthday, Sam!

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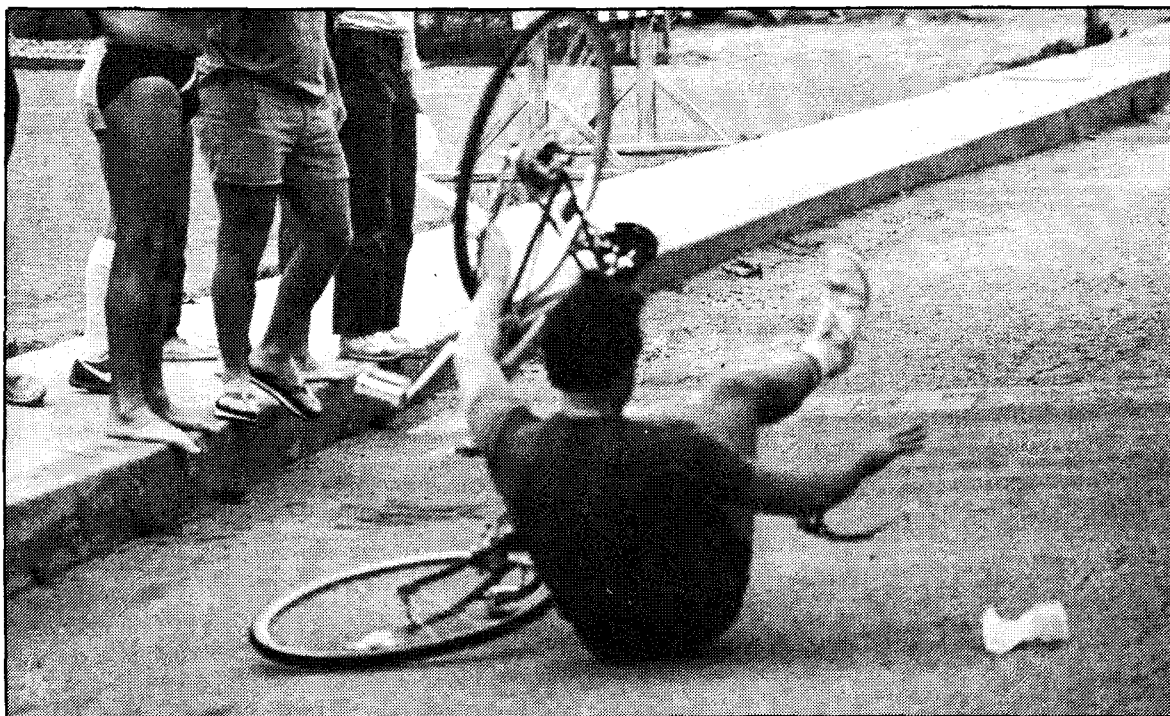
Minimum of 3 Toppings

ONE COUPON PER PIZZA
COUPON EXPIRES 5-9-86

Wanted: Business manager for the California Tech. Duties include organization of advertising, and ad layout. Fantastic pay and benefits.

For details, contact Dave Goldreich, x6154.

SPORTS



Most people were having a better time than this at last year's terrific Sports Day, trust us!

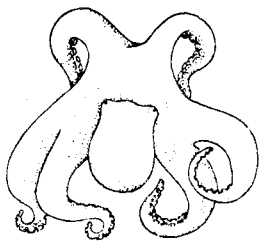
Sports Day Soon

Saturday, May 10th is the exciting Sports Day. The fun includes softball, tennis, basketball, ultimate frisbee, soccer, volleyball, swimming, water polo, tug-of-war, polyathlon (one for jocks and one for novices), free food, free drink, and a glorious Southern California spring day!

So, just what the heck is a polyathlon, you ask? Well, the "jock" competition consists of a 500-yard swim (10 laps), a five-mile bike ride (BYOB), and a three-mile run; teams as well as individuals are welcome. Meanwhile, for the rest of us, we have the "picnic-style" polyathlon, consisting of pie eating, inner tube water racing, beer chugging, and the ever-popular four-legged race (teams of three).

Undergrads, grad students, faculty, staff and alumni are all urged to come out and play. Teams can be matched up on the spot or beforehand. Sign up on any of the sheets posted around campus, or just show up at the athletic field on Sports Day.

SCHEDULE:	
Soccer	10:30-12:00
Swimming and Water Polo	10:30- 4:00
Tennis	10:30-12:00
Volleyball	10:30-12:00
FREE LUNCH	NOON
Softball	1:00- 4:00
Basketball	1:30- 4:00
Ultimate Frisbee	1:30- 4:00
Tug o' War	2:30
Polyathalons	3:30



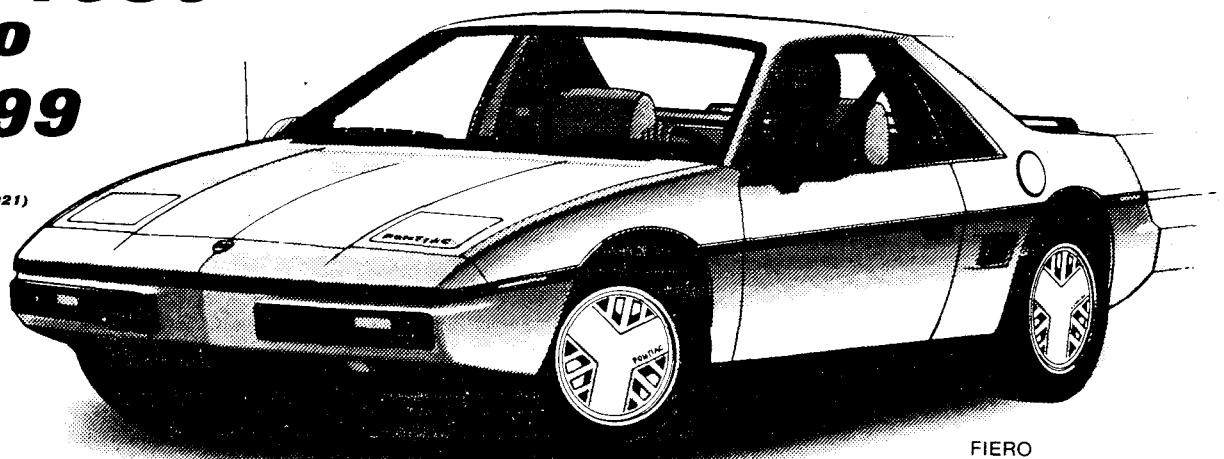
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A FULL WEEK OF PUBLIC EVENTS SCHEDULED

This weekend the distinguished Michala Petri Trio concludes the Coleman Chamber Concert series on Sunday, at 3:30 P.M. in Beckman Auditorium. Making its only Southern California appearance this season, this award-winning Danish trio will play recorder, harpsichord and cello works by Handel, Telemann and Vivaldi, as well as contemporary Danish composers.

Coleman Chamber Music Concerts offers Caltech students the extraordinary discount of one free ticket and one ticket at \$5.00 to the Michala Petri Trio. (Limit one free ticket and one at \$5.00 per student). These tickets are on sale now at the Caltech Ticket Office, but hurry - there are only 50 free tickets and 50 tickets at \$5.00 each available! This offer is limited to Caltech students with I.D.

You won't want to miss next Wednesday's Watson Caltech lecture, "The Exploration of Halley's Comet" at 8 P.M. in Beckman Auditorium. Marica Neugebauer, senior research scientist at JPL and investigator on the Giotto Mission, will speak. Admission is free!

"The Romance of Vienna" comes to Beckman Auditorium next Friday, May 9 at 8 P.M. when Chris Borden personally narrates this Armchair Adventures travel film. Vienna is a city of two million people, but with the feel of a village. It offers flower-filled parks, musical and gastronomic treats, historic sites and festivals. Tickets for CIT students are priced at \$5.00; CIT student I.D. required.

Also offered on Friday, May 9 is the Caltech Jazz Band and Wind Ensemble's annual Bandorama. This concert will be held at 8 P.M. in Ramo Auditorium and features music from swing and jazz to classical. It's also free!

All tickets can be purchased at the Caltech Ticket Office, located just north of the Beckman Auditorium parking lot. The Ticket Office also serves as a Ticketron outlet. This means you can purchase tickets to summer concerts at the Greek Theatre, Pacific Amphitheatre and others. Call campus extension 4652 for information.

WHAT GOES ON

Sex—Comm

Friday, May 9th at 6:00pm the Caltech Y will hold a barbeque and informal discussion about dating and social life at Caltech. Your ideas will become the basis of a program to address these issues on campus, through speakers, workshops, and social events. Please sign up in the Y office (upstairs Winnett, directly above the Center of the Universe) so there will be enough food for all.

Girls, Girls, Girls!

This Saturday, May 3, there will be a women's water polo tournament at the pool. Eight teams from Southern California universities will be competing. The tournament should last all day.

Another Final Offer

The Poetry Workshop that meets in the Y Lounge on the second and fourth Tuesday evenings of each month now has copies of its book *Another Final Offer*. They are on sale for \$2 (cheap) and are available in the Y Office. New members are always welcome. Bring your poetry to share.

Italian-American \$\$\$

Undergraduate scholarships and graduate fellowships are available to Italian-American students. Please stop by the Financial Aid Office, Room 10, Parsons-Gates, for additional information or write to:

The National Italian American Foundation, Educational Scholarship Program, 666 11th St. NW, #800, Washington D.C. 20001, Attn. Dr. Maria Lombardo, Education Director. Phone (202) 638-0220. Application deadlines are between May 9 and May 30, 1986.

Guitar Classes

The Beginning Guitar Class (no experience necessary) has been reformulated to include not only classical repertoire but a new jazz and folk chord system as well. This will give the student a strong classical technique and enable him to branch into other forms of guitar if he desires. For further studies in classical and flamenco, Intermediate and Advanced classes are also offered. Classes are free to Caltech students (and other members of the Caltech community, space permitting). Undergraduates can receive 2 units of credit if they choose. Classes are on Tuesdays in Winnett Basement as follows:

Beginning guitar, 4:30-5:30 pm
Intermediate, 3:30-4:30 pm
Advanced, 5:30-6:30 pm
Private instruction can also be arranged on any level with instructor Darryl Denning. For further information, call Mr. Denning at (213) 465-0881.

Genocide

The 1981 Academy Award-winning documentary *Genocide*, narrated by Elizabeth Taylor and Orson Welles, will be shown in honor of the Days of Remembrance. The first showing will be Tuesday, May 6 at 12 noon in Winnett Lounge; the second showing will be Thursday, May 8 at 7:30 pm in Clubroom #1 of Winnett. This film tells the story of the Holocaust and the Nazi regime in a concise and unforgettable way. There is no admission charge and all are welcome.

Club Pre-Med

Interested Pre-Med students luncheon meeting on Monday, May 5 at noon in the Health Center lounge. Dr. Billy Rankin (Dean of Admissions) Baylor Medical School and Dr. Jeff Rosen will discuss Baylor's Medical School Curriculum in Houston, Texas, with special emphasis on opportunities of M.D.-Ph.D. program. Please call the Health Center (x6393) for your luncheon reservation.

Holocaust Remembrance

There will be a brief interfaith memorial service on Wednesday, May 7 at 12:30 pm on the Winnett Quad. This is held to honor the memories of the six million Jews and all others who perished in the Holocaust. It will also be to honor the memories of the two million Armenians who died at the hands of the Turks in the years around 1915.

Well Baby Clinic

The Caltech Service League is sponsoring a clinic for the children of undergraduates, graduate students and research fellows. It is designed for children up to two years of age, and will be at the Health Center on Wednesday, May 7. Call Mrs. Vogt at 796-2604 for appointments and more information.

Special Campus Tours

The Architectural Tour Service here at Caltech (bet you didn't know we had one) will offer guided walking tours of architecture on the Caltech campus, as their contribution to the Pasadena Centennial.

The free tours, which will last one hour and fifteen minutes, will take place on Saturday, May 31 from 10 am to 4 pm. They will trace the Institute's architectural history, beginning with the work of architect Bertram Goodhue, who designed four Caltech buildings, as well as the original plan of the campus in 1916.

The Caltech Architectural Tour Service is a docent group recently organized by the Caltech Women's Club. For tour reservations, call Bonnie Baker at the Caltech Public Relations Office, (818) 356-6228.

Summer Housing

Summer housing information and contracts are now available in the Master's Office and Housing Office. Deadline for returning contracts to the Master's Office is May 16.

Summer In A Grad House

Summer housing information and contracts for the On-Campus Graduate Houses (Braun, Keck, and MJ Houses) is available in the Housing Office. The deadline for returning contracts to the Housing Office is Thursday, May 15.

Grad Student Housing

Graduate student housing information packets and applications for 1986-87 are now available in the Housing Office. If you are interested in obtaining information for next year, stop by the housing office and pick up a packet or call x6178 and a packet will be sent to you.

Grad Housing Rates

Housing rates appearing in the 1986-87 Graduate Student Housing Options Information Packet have been adjusted and are substantially lower, as follows:

On-Campus Graduate Houses
\$7/day for a single room (\$210 for a 30-day month).

\$7.33/day for a suite room (\$220 for a 30-day month).

Catalina Graduate Apartment Complex I (four-bedroom apartments)
\$8.26/resident/day for a single room (\$248 for a 30-day month).

Catalina Graduate Apartment Complex II (two-bedroom apartments) Two residents:
\$9.16/resident/day for a single room (\$275 for a 30-day month) or Family: \$18.32/day for the apartment (\$550 for a 30-day month).

Please remember that new incoming Graduate Students who submitted housing applications by April 15, 1986 will be given first priority. All other Graduate Students are to return housing applications by May 1, 1986. If needed, a lottery will be held at that time. Any applications received after the lottery will be assigned on a space available basis by order of date received.

If you have any questions, feel free to contact Linda Chappell in the Housing Office (x6178).

Campus MacUsers

I need your ideas for Macintosh software and hardware development on campus. Call Kent Noble at 792-4493.

SPORTS

Track Triumphs Women Beat Nine Records

by Steven E. Lodge

The Caltech Invitational, a non-scoring meet, was held last Saturday with ten teams in attendance. The Women's Track Team put on a spectacular performance, setting nine new school records.

Jarita Holbrook broke the school record in the 100-meter dash with a time of 14.21 seconds. Holbrook also ran the 100-meter high hurdles for the first time and set a new school record of 19.15 seconds. The time places Holbrook eighth in the conference and fourth in the meet. Trina Juzang beat the school record by one second in the 200-meter dash with a time of 30.06 seconds. In the 800-meter run, Clea Bures won the event with a time of 2:33.90 and beat the school record by three seconds. Bures ran a negative split race where the second half is run faster than the first.

In the 1500-meters Bures ran a 5:39.59 to beat the school record by 20 seconds and finish second. Dee Morrison placed third in the discus with 88'9.5", her second best throw of the season.

The 400-meter relay team, composed of Juzang, Bures, Morrison and Holbrook, running in that order, placed third with a time of 60.27 and defeated the old school record by one second. The same relay team run in the order of Holbrook, Morrison, Juzang and Bures shaved 50 seconds off the old school record to finish first with a time of 5:03.67. Another school record fell to Juzang when she extended the triple jump record by a foot to 30'6" for a third place finish.

Katrin Rodriguez threw for an eighth place finish in the javelin competition and a seventh place position in the shot put. At sixth in the shot put competition, Morrison set a new school record of almost two feet further with 29'4". Morrison also earned fifth in the javelin with her second best throw of 81'3".

During the normal season, the women compete in a double meet and each person normally participates in five or more events. This time each member only had to do three or four events, so the team was more competitive and was able to set nine new records.

The Caltech Men's Track Team steamed through the meet Saturday. Currently, the team has a 6-4 record for the year. This makes them the first winning track team in the last 19 years.

In the 5000 meter run Chuck

Lee achieved a new personal record of 17:23.49 for fourth place and was immediately followed by Gary Bloomberg in fifth. With a time of 18:25.17, Bloomberg also set a personal record. Eric Smith ran a 65.16 in the 40 meter intermediate hurdles for a fourth place finish.

Two more personal records were attained in the 3000-meter steeplechase by Ray Hu and Todd Kaplan. Hu placed sixth with a time of 11:30.10 while Kaplan had a time of 13:15.00, coming in eighth.

Caltech won the 400-meter relay with a time of 47.5 seconds. In the 1600-meter relay, Caltech placed third in 3:44.13 and was followed by the CIT Grad Students in fourth place.

Dave Gallup tied his personal best of 13'6" in the pole to take fifth place. Smith also tied his personal best of 11'6" to get ninth place in the pole vault. Robbie Dow threw for 146'8" to capture third place in the javelin competition and establish a new personal record. Dow also earned sixth in the high jump with 5'6" and fifth in the discus with 108'6".

In the 100-meter dash, Dave Gates was second in the first heat and fourth overall with a time of 11.70 seconds. Tom Tetzlaff placed fourth in the first heat while Smith came in sixth. In the 200-meter dash Tetzlaff came in fifth in the first heat. James Davilla won the first heat of the 400-meter dash with a time of 55.88 seconds. Jeff Willis came in second in the first heat of the 800-meter run and was followed by Matt Penn in fourth, Sean Hillyard in fifth, and Hu in seventh. The second heat of the 800-meter run saw Alex Athanasopoulos set a personal best of 1:58.57 to come in second overall. Jim Sterling, a CIT grad, finished third overall with a time of 1:58.58. Clemens Glaffig, another graduate student, finished eighth in the heat.

Athanasopoulos won the first heat of the 1500-meter run with a new personal best time of 4:28.81. Hillyard, Penn and Lee followed in second through fourth, respectively. John Gehring placed second overall with a new personal record time of 4:10.07. Bloomberg finished seventh in the second heat while Sterling won the event with a time of 3:59.84.

The track teams will attend the SCIAC Track and Field Championship trials on May 1 and the finals on May 3 at Claremont.



Here, live and in person, is the Caltech Women's Track team, who last Saturday broke nine Caltech track records. Left to right: Katrin Rodriguez, Jarita Holbrook, Clea Bures, Dee Morrison, and Trina Juzang.

Photo by Steven E. Lodge

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WHAT GOES ON

Females of the Species

Los Angeles Times science writer Bettyann Kevles will be giving a talk on "Females of the Species: Sex and Survival in the Animal Kingdom," on Tuesday, May 6 at 7:30 pm in Room 24, Beckman Labs. The talk is sponsored by The Caltech Y.

Career Counseling

"Careers in Small, Medium and Large Firms" will be the topic of the next Career Counseling Program on May 8, from 7 to 9 pm at the Alumni House, 345 S. Hill Ave. A panel of three alumni will discuss advantages and disadvantages of careers in different size firms. Undergrads and grad students are welcome. Refreshments will be served. This event is co-sponsored by the Alumni Association and the Gnome Club.

Ebell Scholarships

The Ebell of Los Angeles is offering scholarships to single undergraduate students who: are residents of or are registered to vote in Los Angeles County; maintain GPA's of 3.25 or better; and who have financial need. In 1984-85 the scholarships were for \$2,750. Applications are available in the Financial Aid Office, Parsons-Gates room 10. Deadline is May 30.

Bridge Championship

The Bridge Club is having a Charity Club Championship next Monday (May 5) at 7:00 pm in the Red Door Cafe. Don't miss it! If you don't know what it is then here's your chance to find out. Lots of Master Points to be awarded (well, more than usual). And don't forget our regular Monday night game every week, same time, same place.

Summer Jobs

The Alumni Association, in conjunction with the Career Development Center, has generated some summer job possibilities. These positions are currently available, so if you are interested in summer employment, you should come by the CDC as soon as possible. We expect to have more jobs available so please check with the CDC (Room 8, Parsons-Gates) on a regular basis.

Class Officer Nominations

Nominations for Junior and Senior Class President and Secretary-Treasurer will remain open until later today, Friday, May 7th. Elections will be held the following Monday, May 12th. Signups are on the MOSH's door. Candidates are encouraged to send statements to the *California Tech*.

The Senior class officers shall: be members of the Convocation Committee, be responsible for setting the date of Senior Ditch Day, decide upon a Senior Class gift, and help organize the graduation banquet.

The Junior class officers are responsible for Sports Day and for obtaining a speaker for their class's commencement exercises.

Give Blood! Buy Books!

The Los Angeles Science Fantasy Society (LASFS) is sponsoring a blood drive and book sale on Saturday, May 3, from 10 am to 3 pm. The books are priced from 10¢ to \$1.00, and include a lot of science fiction and fantasy; for your blood, you get cookies, juice, and a good feeling. The events are at the Society facilities, 11513 Burbank Blvd., North Hollywood (1/4 mile east of the Hollywood Freeway).

Sports Day Fun

Homecoming Sports Day is to be held on Saturday, May 10. All Alumni, Faculty, Students and Staff are invited to participate in the sports or be a spectator—all are welcome! Special free buffet lunch at noon with events and entertainment. Details in this very newspaper.

Band-o-Rama!

The seventh annual Bandorama, featuring the Caltech Monday and Thursday Night Jazz Bands and the Caltech Wind Ensemble, will take place Friday, May 9, at 8:00PM in Ramo Auditorium. It's free! Guest artist Gary Foster, who has played with Shelley Manne, Toshiko Akiyoshi, Clare Fisher and others, will play saxophone and clarinet, not at the same time. Come and dig it! For more information, call x4652.

Women's Week Forum

A variety of topics and speakers will emphasize that "A Woman's Place is Anywhere" during JPL's advisory Council for Women's (ACW) Women's Week Forum '86, to be held May 5-9 at JPL. This year's theme stresses that women should place no limitations on themselves, that opportunities for growth and advancement do exist. Daily noontime presentations will be held in JPL's von Karman Auditorium.

On Monday, Sheena Paterson, Associate Editor of the *Herald Examiner* (and first woman editor of a major metropolitan newspaper) will outline "Who Gets Ahead and Why."

Tuesday, KTLA "News at Ten" co-anchor Debby Davison will talk about "Women in Broadcasting."

Wednesday, Dr. Shirley Fannin from the Communicable Disease Control office of the L.A. County Dept. of Health Services will discuss her role in dealing with public health issues and address the epidemic of AIDS.

Thursday, Attorney Sheila James Kuehl, a law professor at Loyola Marymount University, will expound on legal rights in her talk, "Women at Work: There Ought Be a Law (And There Is)."

On Friday, California Secretary of State March Fong Eu will ask "What's a Country Girl Like Me Doing in a Place Like This?"

On Wednesday, May 7, various community service organizations will have displays on the Mall from 11:30 am to 1:30 pm. Representatives from many organizations will be available to explain their services.

Campus faculty, staff and students are invited to attend Women's Week Forum activities. You must bring your badge. For more information, call Forum Chair Shari Asplund at 77-8143.

Benzer's Flies

Caltech biologist Seymour Benzer will discuss how scientists study the modest fruit fly for insights into how genes control behavior, in a free lecture on Wednesday, May 7. Dr. Benzer will deliver his talk "Genes, Neurons, and Behavior in the Fruit Fly," beginning at 3:30 pm in Baxter Lecture Hall on campus.

The lecture, which is open to the public, is part of Caltech's 1985-86 Lecture Series for Secondary School Students, administered by Lee F. Browne, director of secondary school relations. Dr. Benzer is the James G. Boswell Professor of Neuroscience at Caltech.

Ascension Thursday

Mass will be celebrated for Catholic faculty and students at 5:00 pm in the Y Lounge on Thursday, May 8th, to commemorate the Ascension, a holiday of obligation. Refreshments will follow after Mass.

Rocky Horror Anniversary

Come to the Nuart Theater dressed up as your favorite Rocky Horror Picture Show character and join in the 10th Anniversary Celebration of the Rocky Horror Midnight Show. The Time Warping begins at midnight on Friday night, May 9, 1986 with eats and prizes for the best outrageously dressed Rocky Horrorophile. We are honored to also have in attendance the MY FAVORITE OBSESSION case who can no longer sit still for the movie and whose interpretation is indeed entertaining.

Bring your suppressed friends and join in the fun, 'cause we're really excited about this. See you there, if you recognize us that is!

The Rocky Horror Picture Show plays every Friday at Midnight. For more information call (213)473-8530. The Nuart is located at 11272 Santa Monica Blvd. in West L.A.

Caltech Outing Club

There will be an organizational meeting for a Caltech Outing Club at 6:00PM in the downstairs bar of the Athenaeum. All faculty, grads, undergrads [those who can sneak in—Eds.], and staff interested in going on regular outings are invited to attend.

5,000 Bargain Books

Over 5,000 hardback and paperback books and magazines on all subjects will be sold at bargain prices at the annual Friends of Caltech Libraries Book Fair today, May 2, from 8:30AM to 2:30PM. The sale will take place in the Board Room of Millikan Library. All proceeds go to benefit the Caltech Libraries.

Prices for hardbacks will be \$1.00, paperbacks 50 cents, and magazines 10 cents, although some expensive books may be slightly higher.

Also on sale at the Book Fair will be FOCAL's "Let's Be Friends" T-shirt, a fashion necessity at Caltech.

Cinco De Mayo Party

Come and join us for a Cinco de Mayo celebration at the Athenaeum's Rathskeller today (Friday, May 2). Free tortilla strips and salsa! Tostadas prepared by our talented chef will be \$1.00. Special drink prices include Corona, XX, Pacifico (introductory low price) and Margaritas. Fun guaranteed. Members and their guests only please [No undergrad riff-raff!—Eds.].

Kelroff Soon

Kelroff is going to be run from 9:00AM May 17 to 9:00AM May 18. Kelroff is a relay team running for 24, count 'em, 24 hours. There can be a maximum of 10 people on each team. Each member of the team runs one mile during his/her leg of the relay. After the tenth person has finished it goes back to the first runner. This goes on for 24 hours, and whoever survives and runs the most miles is the winner. Food and drinks will be provided for the runners. If you want to run on a team, or if you have a team that would like to run, contact either Dave Gallup or Jeff Willis at x3774.

Attention Alumni

For those of you who have recently received letters from the *Big T*: please disregard the April 25th deadline. Due to our poor estimate of mailing and printing times, the deadline has been extended to June 1. Thank you for your support.

White Rose

There will be a showing of the dramatic film *The White Rose* at Occidental College on Tuesday, May 6 at 7:30 pm. This dramatic film tells the true story of University of Munich college students and a professor who resisted the Nazi regime. It was an Academy Award Nominee for Best Foreign Film in 1982. The Caltech community is invited to attend. For directions or any transportation problems contact Myra at (213) 208-4427 or 356-6163.

Renaissance Faire

It's time again for the Renaissance Pleasure Faire in Agoura! Come one and all for great food, entertainment, costumes, and wonderful crafts! The Y is selling tickets for \$6.50 (they normally cost \$12.50 at the gate). Tickets are good for any weekend through May 26! Transportation may be available.

Look, Up In The Sky...

Preliminary findings from spacecraft and ground-based studies of Halley's Comet will be discussed by JPL comet expert Marcia Neugebauer in the next Watson Lecture, "The Exploration of Halley's Comet." The lecture will be on May 7 at 8:00 pm in Beckman Auditorium. In her talk, Neugebauer will emphasize which theories about comets were confirmed and what surprises Halley's Comet presented. Neugebauer is a senior research scientist at JPL and an investigator on Giotto, the European spacecraft to Halley's Comet.

Too Busy For Real World?

If you find yourself too busy to follow the news, there's an alternative. Read *The Outside World*, a weekly, 2-page summary of world news published by STRIVE. Copies are mailed to subscribers and distributed to Millikan (front desk), Baxter (Public Affairs Room) and the Y. To subscribe (free of charge), sign up in front of the Y office in Winnett or contact the editors: Hasok Chang, 1-59, and Paresch Murthy, 1-59. Also, if you're interested in helping with writing, research and production, please contact the editors of the newspaper.

Spring Formal Dance

Get out those dancing shoes, it's time once again for the Spring Formal. It will be held May 16 at the Altadena Town and Country Club. Tickets are \$30 per couple and should be paid to house Social Teams. Couples will be dancing and dining into the late hours of the night. Last chance to sign up is May 9, so ask that special someone soon!

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Nominations for Junior and Senior Class President and Secretary-Treasurer will remain open until later today, Friday, May 7th. Elections will be held the following Monday, May 12th. Signups are on the MOSH's door. Candidates are encouraged to send statements to the *California Tech*.

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