

Bridges Named Braun Prof

Caltech News Bureau

Dr. William B. Bridges, an expert in microwave and quantum electronics and as pioneer in the development of lasers, has been named the Carl F Braun Professor of Engineering at Caltech.

The endowed chair is made possible by grants from the Braun family through the Carl F Braun Trust Estate and C F Braun & Co. The chair's previous holder was earthquake engineer Dr. George Housner, who is now Carl F Braun Professor of Engineering, Emeritus.

Dr. Bridges, 48, received his BS, MS and PhD degrees in electrical engineering from The University of California at Berkeley. In 1961, he joined the technical staff of the Research Laboratories of the Hughes Aircraft Company, where he conducted basic and applied research on gas lasers. In a landmark discovery in laser physics, he developed the argon-ion laser in 1964, a device which is now widely used in such applications as laser surgery, photocopy machines, and laser animation displays in entertainment. His work at Hughes also included the development of laser systems for spectroscopy and communications, including the development of high-powered carbon dioxide and ultraviolet lasers.

In 1977, Dr. Bridges was appointed a Professor of Electrical Engineering and Applied Physics at Caltech. His work at the Institute has included

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Dean Elzinga and Susan Cave play Matt and Louisa in the Theater Arts production of *The Fantasticks*.

The Body Shop

VDTs Dangers for Computer Users

Today, millions of employees and students work on VDT's and their use has become widespread, providing better services at lower costs with great time savings. The tremendous growth in their use, however, has resulted in concern for the health of the operators who work with the equipment for prolonged periods of time.

Four major types of hazards are associated with the operation of VDT's: visual, physical, psychological and radiation.

Visual problems are generally classified as "eye strain" and include symptoms of soreness, itching, burning, dryness and general discomfort, frequently leading to the need for refitting of corrective

lenses. Most of the physical hazards occur because of ergonomic problems and result in musculoskeletal fatigue resulting in back, neck and shoulder pains; whereas psychological stress seems to be produced by the repetitive nature of the work and the feeling that one's performance is controlled by the machine.

Radiation hazards which can include cataracts, cancer, reproductive disorders and general malaise may be produced by the leaking of both ionizing and non-ionizing radiation in defective equipment, but has not been proven to be a hazard in the general workplace.

—Be Leisure, R.N., N.P.
Young Health Center

Fantasticks is Fantastic

The Fantasticks is the "world's longest-running musical," and the Caltech Theater Arts production of this musical is an excellent example of why this is true.

To do the show well requires strong individual performances combined with an easy ensemble intimacy, and the cast fulfills these requirements almost perfectly.

The most outstanding performer is Susan Cave, who plays the part of Louisa, The Girl. Her never-flagging, always-in-tune voice and her vibrant acting bring a particularly poignant edge to the part of the naive girl who learns about the world the hard way. Also excellent is Dean Elzinga as Matt, although his acting seemed a bit stiff at times in the first act.

Demonstrating panache and comedy in their supporting roles are Robert Oliver as The Boy's Father and Howell Johnson as The Man Who Dies. James Garvey, who also produced the show, shines in his dual role as The Girl's Father and The Actor, playing each laugh perfectly, if a little too excessively.

Because the production is staged in Winnett Lounge, the audience is in extremely close proximity to the actors, requiring them to project their characters without appearing to be overpowering. Fortunately, *The Fantasticks* is very intimate in conception and works well in the setting.

Peter Felker as The Narrator and Patricia Houseworth as The Mute provide the necessary sense of magic, mystery, and imagination.

The choreography by Janet

de Ruvo is a bit campy, but then the comedic parts of the musical are a bit campy also, and rightly so. Overall, the actors' movements fit the music easily and are appropriate for the situation.

Most impressive is the cast's boundless energy that forced the audience to become involved. Had this not been the case, the musical would have died a quick and early death in the first act, and no one would have stayed around for the surprises of the second.

The "orchestra" of Wendy Caldwell, Heather Graham, and David Zobel provides excellent musical support for the cast, and their sensitive performances added greatly to the impact of the action.

An important part of the success of this production is that it never loses the simplicity that is a basic element of this musical. It is never pretentious; it merely examines the harsh realizations of youth growing from the "scenic" of the night into the "cynic" of the day. It guides the audience's imagination into the joys and sorrows of love and everyday life. It reminds us that there is always hope for those who believe just a little that we can reach happiness if we try hard enough to overcome the cynicism projected on us by the real world.

The cast's sincerity in reminding us, together with their masterly management of the musical elements of the show make it a wonderful escape from the mundane that goes by too fast. You will want to linger after it is over to savor the experience.

—Bill Craven

Home Sweet Art

American Architecture Opens at Baxter Gallery

Caltech News Bureau

Two exhibitions, "The Common American Bungalow" and "Tile, Stucco Walls and Arches: The Spanish Tradition in the Popular American House," will be shown simultaneously at Baxter Art Gallery from November 10 through December 11. Both exhibitions are in collaboration with the "Home Sweet Home: American Domestic Vernacular Architecture" project organized by The Craft and Folk Art Museum in Los Angeles and involving 15 southern California institutions.

The "Bungalow" exhibition is curated by Robert Winter, professor of the history of ideas at Occidental College, and the "Spanish Tradition" exhibition is curated by David Gebhard, professor of architecture at UC Santa Barbara.

Three public events will be presented in connection with the exhibitions: a docent tour

of the exhibition by gallery director Jay Belloli, on Tuesday, November 15, at noon at Baxter Art Gallery; a joint lecture by curators Winter and Gebhard, "Shingles and Arches: The Popular Bungalow and the Spanish House," on Tuesday, December 6 at 8 pm in Baxter Lecture Hall; and Bungalow Day, a program cosponsored by the gallery and Pasadena Heritage on Sunday, November 20, from 10 am to 4 pm. The latter event will include an open house of the exhibition, with curator Winter present to answer questions from 1 to 3 pm, and a self-guided tour of an area in Pasadena called "Bungalow Heaven." All the events are free except for the self-guided tour.

The "Bungalow" exhibition will trace that style of architecture from its development in Bengal prior to the 18th

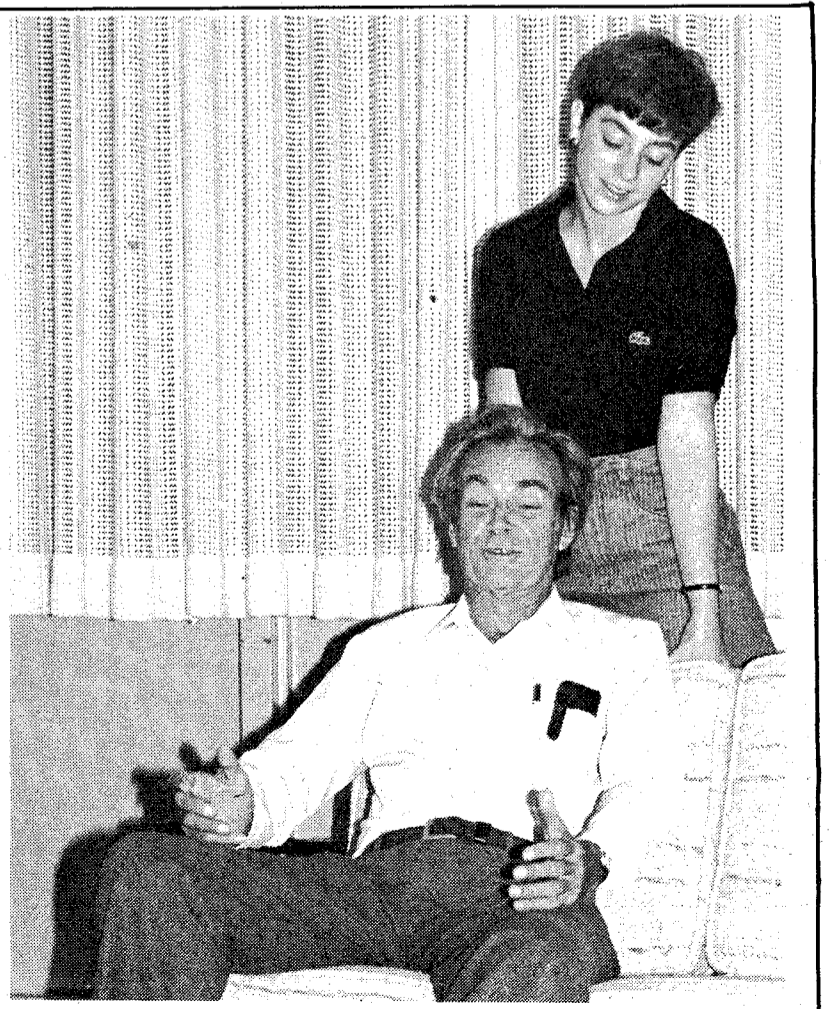
continued on page 4

Subduction

Kimberly Carr seduces Dick Feynman in *Subduction*, a dramatic sketch by Greg Tomkovic. This will play with *Solstice* and *The Twa Corbies* this weekend and next weekend.

	Showtimes
Nov. 4	8:00 pm
Nov. 5	8:00 pm
Nov. 6	2:30 pm
Nov. 6	8:00 pm
Nov. 11	8:00 pm
Nov. 12	8:00 pm

All shows are in Ramo Auditorium. Tickets are \$5 general and \$3 for students and are available at the Office of Public Events. For further information, call 356-4652.



the gadfly

No. 3

An examination of student life at Caltech

Centers of Attention

Given that this campus often acts more like seven campuses than one, there should be more establishments around that are dedicated to non-house affiliated gatherings. Two possibilities are a campus student center and a general dining hall.

When students are done with classes, they go back to their own house and lounge in the particular spot in the house that most house members lounge in. There, they read the newspaper, trade small talk and unwind. Even within a house, there are many such gathering spots. At 6:30, the Caltech campus becomes utterly deserted because that is dinner time in the houses, regardless of whether everyone is hungry yet, or if it fits in with students' schedules. Dinner is a major social event of sorts when everyone in the house sits down to eat and then shares announcements concerning house activities and school-wide events. If you are not present at dinner, there is no way of finding out what went on unless you ask someone who happens to have remembered all the announcements. It is hard to pinpoint a single place on campus where a person from any house can go to be filled in on what's happening because there is no such place.

A really nice way to accommodate meals, news, relaxation, and activity in a more flexible and unified fashion would be to have a student center and something resembling an all campus dining center. Winnett Student Center may be a center, but not of students. Chandler Dining Hall is not suited for students on board and can not come close to servicing even half the campus at any given time.

In all the schools that I have visited, the student center is a bustling focal point of students and activity. They usually consist of a bulletin board serving as a message and information center, a ticket booth to events, a place where students can buy some food (burgers, drinks, etc.), and plenty of comfortably informal chairs to sack out in. Other common features in student centers are newspapers and magazines from all parts of the nation, a campus radio center, a bar/cafe, a post office, a bookstore, and some recreational features ranging from video games to a bowling alley. The main purpose of such a center is just to serve as a convenience for the students. It is a place to stop over between classes, to catch a bite before dinner, to meet friends, to unwind and relax or to become informed about what is going on on campus. It is also a useful place to buy stamps, books, cards, tickets, or make phone calls. Such a center is invaluable to off-campus

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The Caltech Y Fly-by

Friday...November 4

Noon Concert—The Robin Flower Band on the Quad. Presented in conjunction with the OWC.

Stanford Marching Band—Do not miss the concert at 2 pm on the Ath steps.

Art Workshop—Let your creativity run wild...3-6 pm, the Y Workroom.

Party and Concert—A party for the Stanford students will be held on the Olive Walk, 9 pm until ?. The Y presents 'The Press' for your listening enjoyment. Everyone is welcome.

Sign-ups—Today is the last day to sign up for the L.A. Philharmonic's November 10 performance.

Wednesday...November 9

Noon Update—'Radio Jets', (No, not high performance RC) Roger Blandford, professor of theoretical astrophysics at Caltech. Brown bags welcome.

For more information, please call 356-6163.

letters

"Changes Should Be Very Carefully Considered"

To the Editor:

Over the last three weeks, I have become involved in the current questioning of the student house system and rotation procedures, and although I have heard many people voicing misgivings about the current system, I have also met many people who seem reluctant to make changes, even though these people feel that such changes might be of benefit. The reason for this reluctance is obvious: the system presently in existence may have flaws, but changes should be very carefully considered, because of the danger of producing a system with even worse problems.

I myself held this attitude during the controversy over the Honor System last year, and during the first part of this year, when the Open Freshman Letter came out, but I have since learned more about the history of the present system, and have changed my mind. I think that there is good evidence to indicate that such extreme caution need not be exercised when considering altering the rotation procedures, or the structure of the student houses. This is not to say that such changes should not be closely examined, but I do not think that the danger of instituting worse problems, and that argument alone, should deter the possibility of changes.

It is true that the present system has existed unchanged since 1961, when a change in the rotation procedure was made. At that time, freshmen

listed all of the houses, in order of their preference, and there was considerable pressure to put on the more popular freshmen to list one or another house first on their list. At that time, there was much disagreement about the advisability of making changes to the existing system, just as there is now, but the changes were made, and many of the problems which seem to have been of concern no longer exist, although there are other problems which were not solved. I feel that this is only partially due to the care with which the changes were considered before being made, though I do not intend to say that the care used was unnecessary or that the

people who were responsible for the changes succeeded by accident.

I think that the reason for the success of whatever changes were made is that they were not followed blindly, but were slightly revised in practice, as time went by and small problems became apparent. From the historical material I have read and the conversations I have had with faculty members involved in the last set of changes made, I received the impression that even the system we have now is not quite what was intended. It has been slightly altered in both procedure and intent as time

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Social Notes

Stanford; Party; Beerball

by Dan Schwartz

Tonight at 9 pm on the Olive Walk, the ESC is pleased to end midterm week with an incredible 7-house party with the Stanford Marching Band. Students at a couple of other schools in the area have also been invited.

"The Press" will perform dance tunes until about 1 am and the Ruddock Bar will be serving up your favorite beverages. Free beer, soda & munchies too!

Special note—please do not park your car on the Olive Walk Friday. Also, please move your bikes or other

assorted stuff from the walk so it won't interfere with the party. Thanks!

Remember to wake up in time for the Frosh-Soph Beerball game tomorrow at 1 pm. All classes are invited.

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See the Colors, Digitally

by John South

This weekend the Pasadena Center Conference Building will be the site for Color Expo 83, a collection of exhibits and seminars for Color Computer enthusiasts. Sponsored by Computer Publishing Company (*Color Computer Magazine*) and hosted by the Los Angeles Color Computer Users Group, the show will feature educational applications of the Color Computer. The education theme has garnered proclamations from the mayors of Los Angeles and Pasadena declaring November 4-6 as Color Computer weekend.

The hardware focus will be on the Radio Shack TRS-80 Color Computer and its workalike, the TDP-100 and Dragon computers. Recent price reductions and expanded capabilities have increased interest in a wide range of uses from games and educational programs to accounting, engineering calculations, external systems control, graphics, and word processing. Hard core computer buffs like the 6809E assembly language and the options of BASIC and C compilers with an OS-9 operating system.

The local Color Computer users group initiated the idea for a Color Computer exposition here, then secured the Mayoral proclamations and the

sponsorship of Computer Publishing Company. Members of the users group will be at the Expo to answer questions and welcome anyone interested in the Color Computer or its workalike. Group members will also be showing the results of their cooperative project, an adventure program of a motorcycle race through the desert. Players at the show will be able to climb on a Suzuki ATV wired to control the software driving the video screen display.

There will be a wide variety of exhibits, with the latest in hardware and software and a good selection of computer books. Color Expo 83 features many hands-on exhibits and a chance to question well-known authors on the Color Computer. Seminar topics include programming, graphics, animation, and how to write your own computer games.

Tens of thousands of Color Computerists are expected from all over the country, so having the Expo in Pasadena presents a special opportunity for Techers. Admission is \$8, but discount passes are available at The Caltech Y. The show will be open 4-10pm November 4, 10am-6pm November 5, and 10am-4pm November 6 at 300 East Green Street.

For related story, please see VDTs on page 1.

The Inside World

Blacker: Blacker house got off to a rather clumsy start when two Rose Bowlers were caught in the act and had to spend the better part of two days in the Pasadena jail. Soon after their return, the house pyros tried the old shaving-cream-can-in-the-fireplace trick. Fortunately, only the newly acquired fire screen was destroyed.

David Letterman fans got a thrill when John Dyvik (a Blacker alum) appeared on the show as a guest and told Molack jokes. Blah blah blah blah Blacker blah blah blah Blacker blah. [? - Ed.] The weekend's Disneyland trip ended earlier than planned when they were expelled from the park for hanging a sign from the Matterhorn. The sign's contents remain undisclosed for security reasons. The Cannes-Upper P doorway was finally installed during Tuesday's gopher attack. Also on Tuesday, Piglet returned after an extended vacation, who knows where (but he's not telling).

Dabney: The BDR Party was a fine success. We'd like to thank all the people who made it possible, especially the Dean, the Master, and ASCIT.

The interhouse mud wrestling tournament has been cancelled due to lack of taste.

A growing community of chess fanatics seems to be making the lounge more interesting, and a good old fashioned late '60s vintage pinball machine seems to be snapping up spare minutes of time, as a few wizards manage to pull off ten free games at a shot.

Fleming: No entry.

Page: No entry.

Lloyd: No entry.

Ricketts: After two trips away from it all to Disneyland and Magic Mountain, Ricketts settled in to weather midterms week. An attempted assumption of power by a freshman was timely averted by two sophomore waiters when the freshman's misconceptions about reality became apparent to all. Also, Ricketts House members turned out for a "recreational" Discobolus soccer game with Fleming on Sunday. A good time was had by all. (Note: 32 days and still 6 showers left thanks to help from 2 sophomores and a senior who reverted to froshhood. How did we get a frosh for president anyway?)

-The Original Blender

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William Bridges

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studies of opto-galvanic effects, optically-assisted laser isotope separation, millimeter and submillimeter wave systems, and laser spectroscopy.

Dr. Bridges is a member of the National Academy of Sciences and the National Academy of Engineering. He is a Fellow of the Institute of Electrical and Electronics Engineers and the Optical Society of America. Included among his many professional activities is service as a member of the Optical Society Board of Directors and Chairman of the

Society Objectives and Policies Committee.

In addition to his research and administrative work, Dr. Bridges has been highly regarded as a teacher by the students of his optics courses. He has twice received Distinguished Teaching Awards from ASCIT, in 1980 and 1982.

In addition to the Braun Professorship, the Braun family has also contributed significantly to the Institute in the construction of Braun House (the graduate residence); new athletic facilities, including a swimming pool; and the

Braun Laboratories in Memory of Carl F and Winifred H Braun, Caltech's largest biological research facility, dedicated last year.

Carl Braun, a mechanical engineer, founded and headed C F Braun & Co, one of the world's leading engineering and construction companies, in 1926. He served as a member of the Caltech Board of Trustees, and from 1937 until his death in 1954, was a member of the Associates. His wife, Winifred, also active in both Institute affairs and community service, died in 1980. The Brauns' son, John G Braun, has been a member of the Board of Trustees since 1959.

Stan Waterman

Beckman Goes Under Water on Saturday

Five short films highlight diving in different parts of the world in "The Stan Waterman Show." Caltech's scuba diving club, the "Kelpers," in cooperation with Caltech Public Events brings this presentation to Beckman Auditorium on Saturday, Nov. 5 at 8 pm.

"Lost Treasure of the Concepcion" is an excerpt from a special produced by Waterman for CBS-TV. In this film, Burt Webber, a small-town boy from Pennsylvania, discovers and salvages the richest wreck of our time after years of search, poverty and near misses. This segment focuses on the final discovery of the "Concepcion" and the way in which it was salvaged.

Filmed as an ABC special "The Sharks of Stella Maris" features Dr. Silvia Earl and author Peter Benchley hand feeding bull sharks in open water on the reefs off Stella Maris in the Bahamas.

"The Sea of Cortez" won Waterman an Emmy nomination for his work on this film. Produced in the Sea of Cortez the film shows massed school of hammerhead sharks. The two also chance upon a half dozen manta rays, one of which allows the divers to ride it.

A sailing yacht provides the setting for the film "Roughin It in the Coral Sea." View shark action, sea snakes, giant squid, and more.

continued on page

Frosh Vs. Soph Beerball

TOMORROW AT 1:00

Freshmen and Sophomores Show Your Prowess!!!

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The festivities will go 'til 4:30 and
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TEACH IN JAPAN

Persons with a degree or job-experience in such fields as engineering, business administration, finance, pharmacology, linguistics, languages or computers wishing to teach Japanese adults for one or two years in Tokyo and other parts of Japan should write to:

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10-7, Dogenzaka 2-chome, Shibuya-ku
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Information on salary, transportation and housing can be obtained by providing International Education Services with a detailed resume and letter indicating an interest in the position.

Personal interviews will be held in Seattle in December 1983, and in San Francisco and Los Angeles in early January 1984. Selected applicants are expected in Tokyo March through August, 1984.

Consider Changes

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has passed, and now works fairly well, in spite of whatever objections were made to it (probably valid ones) when it was being considered.

I feel that the many changes made in the student houses and rotation system in the past, and the lack of disastrous results after any of these changes, indicate that even changes which would cause problems in theory may in practice be found to be usable. This position is shared by many of the faculty members I have spoken with, who see much room for improvement in the present system, and feel that the bottle-

neck in the process is the students. This is not to say that the students are not willing enough to change, but that no change can be instituted by the faculty without the student full agreement, and that students do not seem to realize their power to correct problems. I strongly urge considering experimental modification of the existing house system and rotation procedures, on the grounds that improvement may result, and even if unsuspected problems arise, they will not be as disastrous as many students seem to think.

-John Beahm

Home Architecture

from page 1

century, to its popularity in America between the world wars, when firms published bungalow pattern books for individual builders, and companies offered ready-cut, prefabricated houses to assemble.

A more individual expression in home-building developed simultaneously in southern California and Florida. "Spanish Tradition" will feature this middle class American "spec" house characterized by tile roofs, arched entrances, patios, and stucco walls reminiscent of Moorish Spain and the California mission period. Many of these homes had names like "The Cortez," "Siesta," and "Senorita." Like the bungalow, the Spanish house spread

throughout southern California and became an identifying feature of this geographic region. Both shows will trace these forms of architecture through the present.

Documentary essays by each of the curators will appear in the "Home Sweet Home" catalog, published by The Craft and Folk Art Museum. The 160-page, black and white illustrated catalog, which will include essays for all of the exhibitions in the project, will be for sale at Baxter Gallery for \$17.50.

Baxter Art Gallery is located at the north end of Baxter Hall, and is open from noon to 5 pm seven days a week. The gallery will be closed Thanksgiving Day. Admission is free. For more information call 356-4371.

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the
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Centers

from page 2

and commuter students, but it is also a great way to gather in some place other than in the same old house you live in. You can encounter the whole campus rather than just house members.

For such a center to work, it would have to be open and available at regular hours convenient to students, such as 8 am to 10 pm for five or even seven days a week. It cannot be open from 4 to 7 every other day of the week, because unless a student can count on its being there when he needs it, he will not get into the habit of using it all the time. It should be run to fit the students rather than the employees or profits, otherwise, why have a student center at all? For those moments when something a little more quiet is preferred, there are the houses or one's own room which will always still be there. But it is nice to have something on a larger scale available as well.

Dinners should be equally informal and comfortable on a larger scale. A common dining cafeteria for either on or off board contract students would be ideal in many ways. A dining cafeteria open from 11 to 1 and 5 to 9 would mean that lunch and dinner could be taken at times convenient to students rather than an arbitrarily set dinner time. Staggering the meal hours would also make it easier to serve all 800 people without having to have 800 places and servings instantly available. That would allow you to have dinner with any friend regardless of his house. Again, it makes the campus more as one than seven because no one is strictly excluded from any set of announcements or goings-on. The student center and regular house meetings would replace the daily after dinner announcements. A weekly house meeting would be sufficient to discuss particular house issues and all else can be picked up at the student center. For food quality and cost, this idea could only result in good. It is less expensive for the food service company to serve dinner cafeteria style than by waiters. Waited dinners mean food that is wasted, sometimes cold by the time it reaches the tables and poor, rushed service in some cases. Why keep something that is more hassle and more expensive? In a cafeteria, one can eat at his own pace, rather than whatever pace suits the waiters.

Of course, there is the physical problem of the existing seven separate dining halls and the fact that there seems to be no room on campus for an all campus dining center to be built. To utilize existing structures, there could be two general dining centers, one in the south houses and one in the north. All the new house dining halls are already situated in a way so that they are connected to the same kitchen and connected to each other. It would not be so hard then, to simply eliminate the common walls and make one large cafeteria that surrounds the existing kitchen. The same is true of the old house kitchen arrangement. Even if the dining halls are not physically together, just introducing cafeteria style dinners over waited meals at a set time will remove the most confining barriers in the present dinner arrangement.

- Lily Wu

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Guarneri Quartet Returns to Tech

Sunday Afternoon at Beckman

Returning to Caltech for the ninth time, the Guarneri String Quartet will appear Sunday, Nov. 6 at 3:30 pm in Beckman Auditorium. This is the second concert of the Coleman Chamber Music series.

Included on the program will be Beethoven's Quartet in E-flat Major, Op. 74; Kodaly's Quartet No. 2 in D Minor; and Schubert's Quartet in D Minor, D. 810 ("Death of the Maiden").

Arnold Steinhardt and John Dalley, violins; Michael Tree,

viola; and David Soyer, cello, are the original members of the Quartet, which was founded in 1966 at Vermont's Marlboro Music Festival. Arnold Steinhardt made his solo debut at the age of 14 with the Los Angeles Philharmonic Orchestra.

The Quartet has toured cities throughout the United States, Canada, Europe, New Zealand, Australia and Japan. All members of the Quartet have been appointed as Professors of Music for the 1983

academic year at the University of Maryland.

Fifty free tickets and 50 tickets at \$4.00 each will be available to Caltech students with a Caltech student I.D. beginning Tuesday, Nov. 1 at 10 am in the Caltech Ticket Office. Regular student prices to this concert are \$9.50-8.00-6.50-4.50. The Caltech Ticket Office is located just north of the Beckman Auditorium parking lot. For information, call campus extension 4652.



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Weekly Sports Calendar

Day	Date	Time	Sport	Opponent	Location
Fri.	11-4	7:00 pm	Women's Volleyball	L.I.F.E.	L.I.F.E.
Sat.	11-5	TBA	Cross Country	Pomona Invitational	Claremont City Cl.
Sat.	11-5	TBA	Water Polo	SCIAC Tournament	Whittier
Sat.	11-5	10:00 am	Soccer	Redlands	Redlands
Sat.	11-5	1:00 pm	Fencing	UCLA	Cal State L.B.
Sat.	11-5	1:30 pm	Football	Mexicali Spartans	Caltech
Sat.	11-5	2:00 pm	Women's Volleyball	Pacific Christian	Caltech
Tue.	11-8	7:30 pm	Wrestling	Biola (Scrimmage)	Biola
Wed.	11-9	4:00 pm	Water Polo	U.C. Riverside	Caltech
Wed.	11-9	7:00 pm	Women's Volleyball	Christ College	Christ College
Fri.	11-11	7:00 pm	Wrestling	Cal State Long Beach JV	Caltech
Sat.	11-12	TBA	Water Polo	SCIAC Tournament	Whittier
Sat.	11-12	10:00 am	Soccer	Soccer Club	Caltech
Sat.	11-12	11:00 am	Cross Country	NAIA Dist. 3 Meet	La Mirada Park
Sat.	11-12	1:00 pm	Fencing	U.C. Santa Barbara	U.C. San Diego
Sat.	11-12	1:30 pm	Football	Edwards Air Force Base	Edwards AFB
Sun.	11-13	TBA	Water Polo	SCIAC Tournament	Whittier

Football Team Wins Again!

Now at 4-1 after San Diego Victory

by Ath Man at Large
The Caltech Beaver football team defeated the San Diego Cougars, 7-0, last Saturday, raising their season record to 4-1. The game was filled with mistakes, with the defenses dominating on both sides.

Caltech broke the scoreless tie in the first quarter as Jonathan Brown scored on a 24-yard run. Phil Scott added the extra point, and the scoring for the day was complete. Caltech moved the ball well in the first quarter, as Brown rushed for 86 of his 153 yards in that period.

The last three quarters were made up of a series of good defensive plays, punts, turn-

overs, and penalties. Cougars' defense held Brown to only 67 yards on 21 carries and pressured Phil Scott much he could not set up an effective passing attack.

Caltech's defense, led by George Kailiwai's four interceptions, repeatedly repeated Cougar scoring efforts, forcing the San Diegans to punt over and over, and stopping them inside the Beaver 10 on the final possession of the game with under a minute to go.

The Beavers, who ranked ninth nationally by the National Collegiate Football Association, will face Southern California Oldtime tomorrow at 1:30 here at T

GSC Volleyball Scores

Results of Wed. Oct. 26

A LEAGUE

Face beat Ruddock by an unlisted score
Jet Setters strafed Brute Force 15-12, 15-10
Tapir nosed out Up-Setters 15-7, 15-5
Kong's Killers mangled Fleming 15-5, 15-7
HP's outlasted Page 10-15, 15-3, 13-6
Six Hitters ganged up on Aesops 15-6, 15-7

B LEAGUE

Smashers smashed Chow Dogs 15-4, 15-6,
Tire Irons stopped Magnum Force 15-10, 15-13
Reynolds Numb-ers outpointed Overpaid Amateurs by a little
Scurves drained Hydraulic Jumps 15-5, 15-12
Face came on like Gangbusters 15-7, 16-14
Strange Bruise contused Jerry's Kids 15-5, 13-15, 13-7
We're Mudd splashed Besops 15-13, 3-15, 15-3

Women's Volleyball Team Dives and Jives

"Physics Sucks" Strategy Not Used

by Busy Sue

Last Friday, October 28, the women's volleyball team played great!!! We blocked, we hit, we dived, we jived!! And you will have the chance to see us play twice more at home on Saturday, Nov. 5 at 2 pm against Pacific Christian and on Monday, Nov. 14 at 7 pm against Oxy.

Friday's game was against Pomona. They beat us in two games, 15-10, 15-9. They are way taller than we are and it seems that breathing smog

only makes them play better. No wimps on their team. on the other hand, are scientists—we could easily measure their vertical jumps in a number of precise and creative ways, but out-jump them. FORGET IT!! But on Friday night we outdid ourselves. We did not let the ball drop given half a chance, we put it down on them. Maybe we would have won if we'd go serious and given "PHYSICS SUCKS" a try...

Anyway, see you Saturday 2 pm.



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BY GREG SUSCA

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Runners Take Fifth

by Thor Feet

Caltech's men's cross country team was stopped short of its goal at the SCIAC Championship on October 29. After beating Claremont a week earlier, Coach Leroy Neal's runners were looking for at least fourth place. But Claremont came back to narrowly edge Caltech for the third time this season, and leave the Beavers in fifth place.

As usual, Senior Steve Stahl led the Caltech effort with a 25:45 clocking on the 4.7 mile course at Redlands. This was good for 20th place overall out of 41 runners. Bob Kelly, running one of the best races of his career, came across the finish line in 26:25. He finished second on the team, 25th overall.

Next for Caltech came three freshmen, John Beck, Mike Jensen, and Darin Acosta. Their respective times of 26:51, 27:56, and 28:11 gave them 27th, 32nd, and 33rd places, and rounded out the scoring for the team. Following them were Robbie Dow (34) in 28:13, and Brian McLain (35) in 28:32. The race was won by Dave Francis of Pomona-Pitzer in a course record time of 23:37.

The team title was claimed by Occidental with 28 points. They were followed by Pomona (41) and Redlands (70). Claremont barely gained fourth with 133 points, and Caltech finished on their heels with 137. Whittier (160) took sixth, and La Verne failed to field a complete team.

Caltech's women's team was also incomplete, but four runners competed anyway. Jennifer Haase grabbed the 12th spot in a field of 34 runners.

Her time of 18:39 (3000 meters) placed her just two minutes behind the winner, Cynthia Nagle of Scripps. Nagle broke the course record, which she set last year, with a 16:49 clocking. Clea Bures (27) finished in 22:32, closely followed by teammate Diane Creveling (28), who ran a 22:33 time. Marit Jentoft-Nilson (34) came across in 26:20 to round out Caltech's effort.

Occidental's women took a cue from their men's team and also scored 28 points to claim the SCIAC title. Pomona-Pitzer (44) took second, and Claremont-Scripps (59) took third. Whittier took fourth with 102 points. The remaining schools did not enter the required minimum of five runners.

Caltech has a practice meet today (November 4) at the Claremont Country Club and the teams will then run their final meet, NAIA district, November 12.

Outfenced by Fullerton

by Chien-Wei Han

The Caltech fencing team lost again to Cal State Fullerton last Saturday afternoon. The men's foil team had a disappointing loss of 0-9. The three foil members, Kurt Anderson, Andre Burgoyne, and Scott Grossman, each succeeded in making several touches against their opponents. Scott fought bravely and almost beat one of his opponents, but lost by one touch.

The men's epee team, James Bell and Kenny Bell, lost 1-8. James Bell, with his brute-force style of fencing, finally won his first bout of the season. Kenny also made some fine movements on his opponents.

The men's saber team had a tough competition and also lost 1-8. Lee Sunderlin made some nice parries and cuts. On several occasions he outmaneuvered one of Fullerton's best saber fencers. Lee came close to beating another opponent, but lost by one touch.

Peter Konopka also performed well. He was mobile and made good parries. Chien-Wei Han had a difficult bout against his last opponent. His opponent charged at him, and Chien-Wei did the same back. The result was clashes with neither side getting touches. Eventually, using a little bit of finesse, Chien-Wei beat his opponent.

The women's foil team came close to winning, but lost 7-9. Karla Peterson and Daniela Bonafede had good bouts. Kathy Sheedy was the leading scorer, winning three bouts. Next came Barbara Turpin and Phyllis Li; both won two each. After the match was over, Kathy and Barbara said they wished they had won those bouts which they came so close to winning.

This Saturday the team members will meet Cal State Long Beach and UCLA at Long Beach. The fencing team hopes they can make enough bouts to win a match.

from page 4

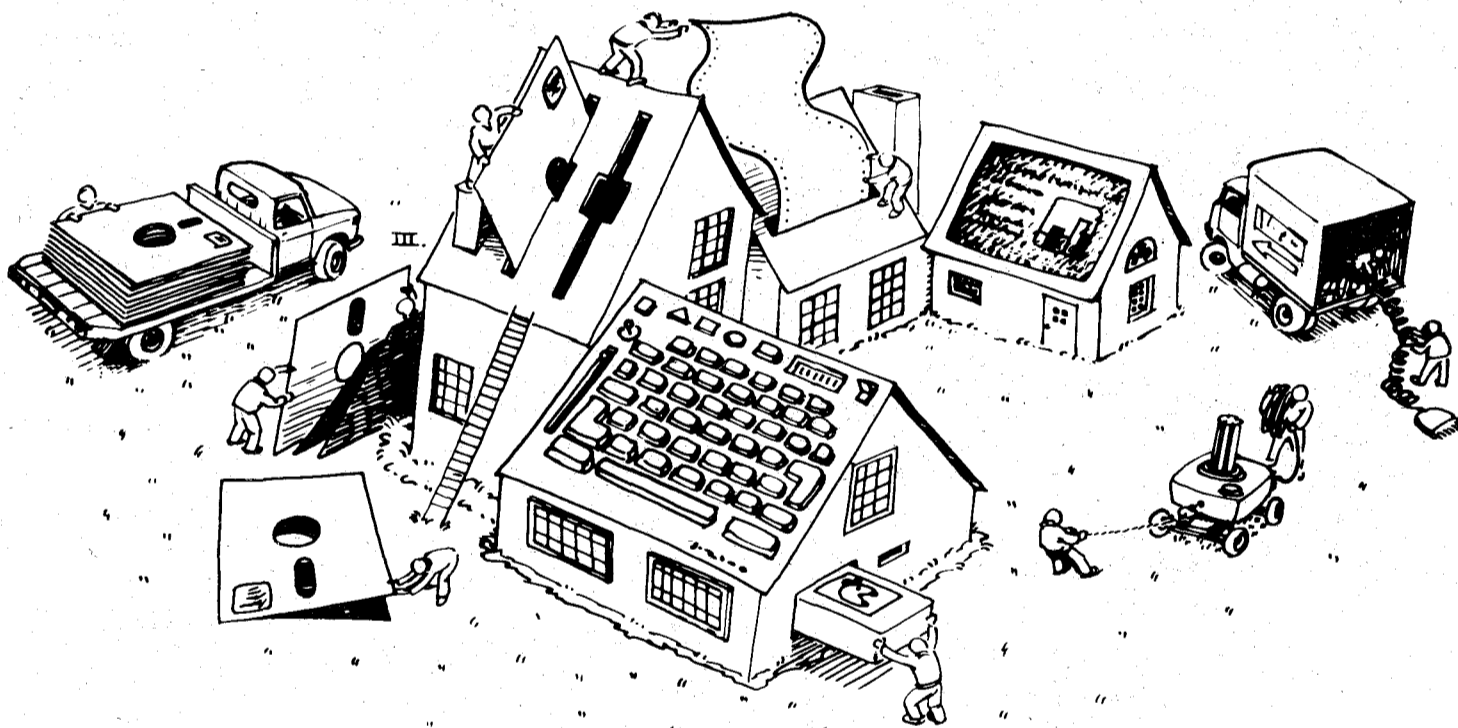
turtles and rays on the wreck of the "Yongala."

Closing this presentation will be "The Sinai Reefs." Waterman and his daughter explore the Red Sea waters along the eastern coast of the Sinai Peninsula. Deep wrecks, venomous reef fish and "The Green Hulk," a 350-pound Napoleon wrasse are set in the framework of the Sinai Desert and the isolated reefs of the Straits of Tiran.

Waterman has been a documentary film maker for a quarter of a century. He has produced films for all three major networks, winning an "Emmy" for Cinematography for his work with ABC's "The American Sportsman Show."

Tickets for "The Stan Waterman Show" are priced at \$7.00; students \$5.00. They are available at the Caltech Ticket Office, 332 S. Michigan Ave. For further information, call 356-4652.

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CLAGS Doings!

PICNIC this Sunday at Lower Arroyo Seco Park (same place as last year). We will meet at Winnett (with cars if you have one) Center at 2:00. Bring food, frisbees, beer, etc.

There is a dance scheduled for Sat. Jan. 14 (second term) which may be co-sponsored by Occidental. Other events include a trip sometime 3rd term to (?) S.F., Mexico, mountains or basically anywhere *far*.

Currently work is being done on providing a sexual preference non-discrimination clause for the Caltech/JPL hiring policy. There is now a CLAGS library with books on political, medical, moral, and sexual awareness issues. Also included are novels and information on seminars, rap groups and other resources available in the L.A. area. The library is located in room 14 Dabney, and everyone is welcome to come and peruse. Meetings are being held as usual Sundays at 2:00 in room 210 Baxter—come and join in on what's going on!

announcements

Visual Dynamics

A number of complimentary passes are available for Techers to go to Visual Dynamics: Showcase '83, SIGGRAPH Computer Graphics Conference, here at Tech on November 19 and 20, in exchange for helping out with the administration of the event. Interested? Call Nancy Collier, 439-5194.

Prose Reading

Janet Kauffman, noted poet, will be reading some prose from her upcoming collection of short stories, "Places in the World a Woman Could Walk", on Thursday, Nov. 17 in the Judy Library at 4 pm. She is also the author of a book of poems, "The Weather Book", which is an AWP Series Selection.

House System Discussion Planned

On Tuesday, November 22, at 8:00 pm in Ramo Auditorium, there will be a large-scale meeting of the students, faculty, alumni and administration members on the student house system, rotation procedures, house traditions, and the general social atmosphere at Caltech. The meeting is being organized by the Master of Student Houses and The Caltech Y, among others. Students who are interested in giving five to fifteen-minute speeches on a topic of present concern should contact The Caltech Y at mail code 218-51, extension 6163. Please give your name and an idea of what you would like to talk about. If you wish more information, contact John Beahan, at 356-9322, or the Y office.

Oxy-Caltech Orchestra

The Occidental-Caltech orchestra will present a concert in Dabney Lounge this coming Wednesday, November 9, at 8:30 pm. Featured works will be Dvorak's *New World Symphony*, Honegger's *Pastorale d'Eté*, and Nicolai's *overture to The Merry Wives of Windsor*. This concert will mark the first appearance at Caltech for this organization in three years.

The orchestra, composed of students, staff, and faculty from both schools, has over 60 members, of whom more than 20 are affiliated with Caltech/JPL. Its director, Dr. Allen Gross, is serving in his first year at Occidental/Caltech, coming from five years in a similar capacity at the University of Louisville.

The concert is free and the public is invited.

Freshman Meeting

On Wednesday, November 9, at 8:30 pm in 469 Lauritsen, there will be another Freshman Perspectives meeting. These discussions are intended to collect those concerned about student life, both grad and undergrad, to develop possible remedies to specific social problems. **THESE ARE NOT JUST GRIPE SESSIONS!!!** We are trying to get answers to many questions, such as:

Why do most undergrads have so few friends in other houses?

Why do most undergrads know so few grad students?

Why do most undergrads see the above questions as irrelevant?

If you are a freshman, or otherwise—faculty, grads, and upperclassmen are invited too—and you have opinions, either positive or negative, about Caltech social life, please come and voice them.

Shabbat & Potluck

There will be a Shabbat service and potluck dinner tonight (Nov. 4) at 7 pm in the Y Lounge. Bring a veggie/dairy dish if you can. Sponsored by the Caltech Hillel-Jewish Community.

Win At Hackenbush

Elwyn Balekamp, co-author of the recent best-selling book *Winning Ways*, will be on campus November 10 to talk about mathematical games. The talk, also entitled *Winning Ways*, will be in 151 Sloan at 4 pm. Dr. Balekamp will talk about some or all of the following: generalized Nim (Hackenbush), Frogs and Toads, Dawson's Kagsles, Cutcoke, and uncountably many more. After hearing this talk you will be able to amaze even more of your friends than usual.

Russia Trip

Interested in visiting the Soviet Union over spring break? The 2nd/3rd year Russian instructor at Caltech is planning to take a group of 7 or more students to Moscow and Leningrad for 9 days over the break. The cost will be about \$1300 each (including air fare!). A group roster of at least 7 students must be complete by next Wednesday, so anyone who is seriously interested should contact Dave Zobel (578-9079) or Eliza Sutton (x6200) for more information ASAP.

World Affairs Forum

The Caltech World Affairs Forum is a new group devoted to increasing the awareness at Caltech in politics and human affairs. We will bring prominent speakers to Caltech—people who are known for their knowledge or views in a variety of different subjects. Also, we will conduct regular meetings which will be informal discussions on a particular topic of interest, often with invited guests. The first such meeting will be on Monday, November 7th and the topic of discussion will be American involvement in Lebanon. The meeting will begin at 7:30 pm in the Y Lounge on the second floor of Winnett. Between 7:00 and 7:30 we will be conducting club business and anyone interested may join us then.

The World Affairs Forum does not endorse any specific political viewpoint—it is an open forum where many different ideologies will be presented. All members of the Caltech community are welcome to join us. For information, please call Mark at x4580, Craig at x4840, Ed at x4786, or Andy at x6892. Our mail code is 218-51. We hope to see you at our first meeting.

STANFORD!

The Leland Stanford University Marching Band cavorts on the Athenaeum terrace steps this Friday afternoon at 2.

The 160-member band being presented for your listening pleasure by the irrepressible Caltech Y. The University of Southern California has a little something to do with it, too. The Stanford Indians play the Trojans in the Coliseum Saturday afternoon.

The Stanford Band is making a return appearance at Caltech. The Y brought it to the campus three years ago. Sometimes it shows up at the Rose Bowl as well.

A party honoring the band will be thrown its way Friday night at 9 on the Quad. A smaller band will provide the music, and Dan Schwartz asserts that the whole campus community is invited.

Members of the Stanford band will spend the remainder of Friday night sleeping on gymnasium floor at Polytechnic School. Saturday morning they embark for USC.

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