

Professor Harry Gray displaying "Rhodium Bombshell," the latest rage at the Ath bar. But will it replace beer?  
Photo-Floyd Clark

## Leading Edge \$12 Million Behind Goals

By Pamela Crane

A little bit of that ol' black magic may make the world go 'round, but unfortunately not Caltech. It is quite a tough business to run. Yes, business, for instead of a product, Caltech sells its talent. Grants are the payment for Caltech's contributions to industry and general enlightenment. It is now the fourth year of the five-year "At the Leading Edge" campaign to raise \$130 million for the Institute, and there are still obstacles to surmount.

When public announcement of the campaign was made in January 1974, about \$32 million had already been collected. If cash inflow had been constant, Caltech would have received \$103 million by the end of August of this year. But due to the vagaries of life, things don't always happen the way we wish, and only about \$91 million had been collected by that time. Proposals totalling \$17.5 million are now out, and another \$22.5 million worth are now in preparation.

Professor William Corcoran, vice president for institute affairs, feels we do quite well in garnering funds, "but it's a hard battle. Thirty-three hundred other colleges are all fighting for money from the same sources. The amount of money we get is a function of how much development we do, as well as the economy, corporation interest, and just luck."

Over 60% of Caltech's revenue applied now comes from the government, either directly

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## Gray Discovers Rhodium Compound at Caltech

Caltech chemists have announced development of a chemical compound that can convert the energy of sunlight directly into chemical fuels. Although the compound is still in the experimental stages, its discovery raises the possibility of converting sunlight into fuel with much greater efficiency than schemes to convert either solar-powered electricity or plant material into fuels.

The chemists—led by Dr. Harry B. Gray, included Dr. Kent R. Mann, an N.S.F. Energy Postdoctoral Fellow and Nathan Lewis ('77). They discovered the chemical, a complex molecule containing the metal rhodium, last year, but only recently have the Caltech scientists found that the chemical could be used in solar power schemes. In a paper delivered at the annual meeting of the American Chemical Society in Chicago, Professor Gray said that when a solution of the rhodium compound is irradiated with light in the visible region of the spectrum, it undergoes a reaction to produce hydrogen gas. The Caltech scientists' work was also reported in the August 1977 issue of the *Journal of the American Chemical Society*.

The rhodium compound which is blue in solution, consists of two atoms of rhodium held closely together by four clamp-like structures composed of carbon, hydrogen, and nitrogen atoms. The compound's structure resembles a windmill, with the metal atoms trapped at the hub and the clamplike structures protruding like the vanes of a windmill.

When light strikes this compound, the blue compound reacts with hydrogen atoms in the surrounding solution to produce hydrogen gas, and changes to a yellow form of the compound.

The new compound solves a major problem that has plagued scientists attempting to harness solar energy using chemicals.

Continued on Page Four

## Ups Price Absurdly

# Kissinger Deal With Caltech Y Falls Through

By Brett Stutz

Caltech very nearly had Dr. Henry Kissinger as a speaker for the fifteenth of November. In a very unusual situation, the cost was to be split among four campus agencies instead of a more normal one or two, but when one of the co-sponsors withdrew its pledge, it became impossible to fund this event.

About eighteen months ago, the Caltech Y made the first formal approach to Dr. Kissinger. After initial negotiations and an unprecedented cooperative effort, an unprecedented sum was raised, only to have Kissinger up the total package cost through an addendum to the contract. On June 22nd, one of the co-sponsors withdrew its support because of internal reorganization and a change of priorities. According to Walt Meader, director of the Y, it still would have been possible to obtain money to fund the addendum had this one group not dropped out. Even though the lecture could have been partially funded by selling tickets, the Caltech Y's long standing tradition of not charging admission to such events precluded this.

Dr. Kissinger had agreed to have a question and answer

session with students and attend a dinner as well as making his evening presentation. At least this concession was made; usually he makes his appearance for the presentation and then leaves as soon as it is over. Many feel that it did little to ameliorate the high price asked by whom Meader called "one of the most exaggeratedly paid persons on the lecture circuit."

The lecture circuit is big business these days. The more desirable a speaker is, the less accessible he becomes because of agents and other staff. Initial contacts must be made one to two years in advance. For this reason, it is almost essential to have continuity of staff in the sponsoring organizations; this is one reason why Beckman Auditorium has a permanent staff.

The Y is the only agency on campus with staff that acts as a department of student activities. As such, it makes initial contacts and becomes the primary contractor. The Y Student Executive Committee has responsibility for deciding how to spend the Y's limited budget to please the most people, a fact to be considered by critics of the Y's programs as the going market prices for lecturers continue to increase.

## McReady's Gossamer Condor Fills Ramo

By Spencer Klein

Dr. Paul McCreedy, designer of the Gossamer Condor, spoke to a full house last Monday evening in Ramo auditorium. The crowd was estimated at five hundred people, and about eighty people were turned away.

The Gossamer Condor, a man-powered airplane, won the 50,000 pound sterling (\$87,500) Kramer prize by successfully negotiating a mile and a half long figure-eight course, clearing ten

foot high hurdles before and after the figure eight. This course has been generally accepted as defining a successful man-powered flight.

Dr. McCreedy received his PhD from Caltech in aeronautical engineering. He is the founder and president of Aeroenvironment, Inc. An aeronautics and meteorology expert, he enjoys sailplaning and hang gliding.

Many other people were in-

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Dr. Paul McCreedy explains his man-powered airplane, the Gossamer Condor, to a packed house at Ramo Monday.  
Photo-Don Bacon

## \$2500 Lost on Football This Year

By Mark J. Rosker

The demise of varsity football at Caltech will cost the Institute as much as \$2500, yet it appears that some \$4000 originally earmarked for football will go towards several badly needed improvements throughout the Physical Education Department.

Like all divisions at Caltech, the PE department has never received all the funds it requested from the Institute. But the situation for PE has been particularly acute over the past four years as their monetary allotment has been kept constant despite inflation. This has meant postponement of the purchase of new equipment and has placed limitations on the number and variety of courses offered.

Each year, a large portion of the PE department's money is used to fund the perennial Caltech football team. With the team's temporary disbandment this year, the department was left with bills for purchased football equipment, for reserving game officials and for pre-school room and board costs, a total of about \$2500.

The elimination of football will mean the general PE program will inherit the remaining \$4000. Athletic Director Warren Emery explained the probable

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# Commentary

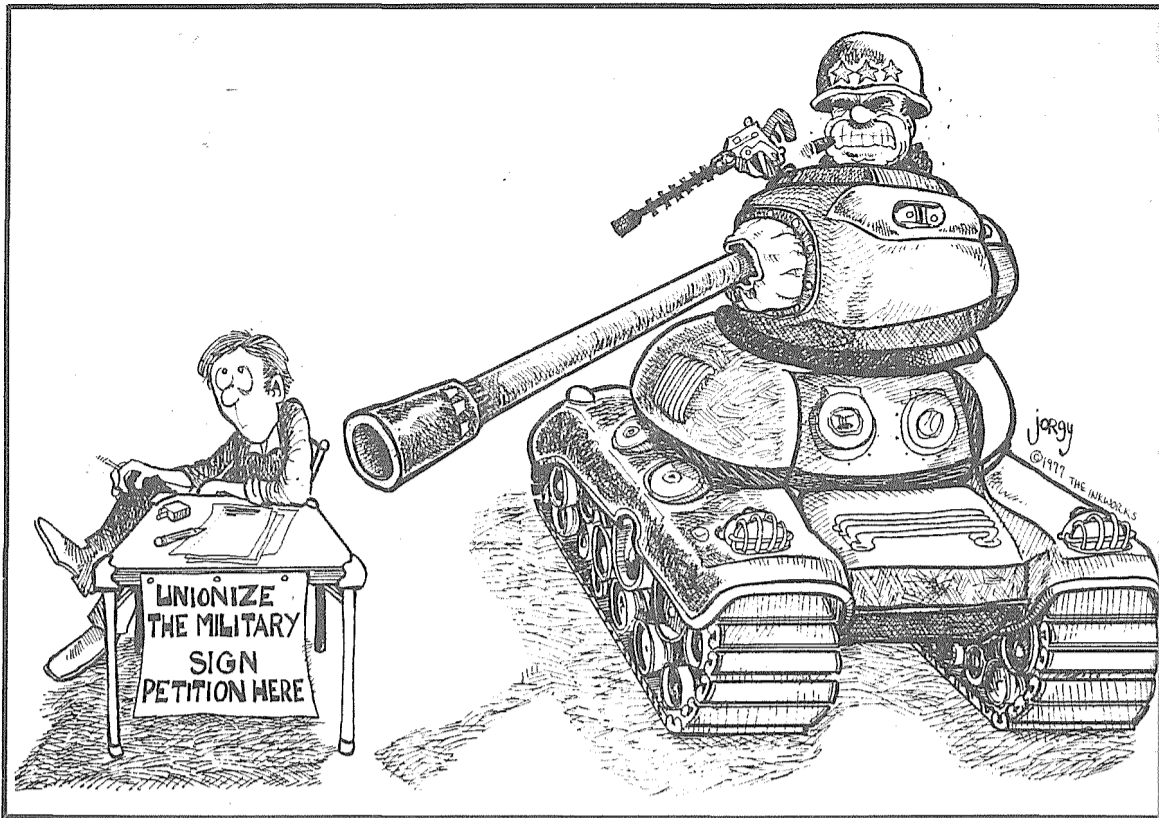
## Collaboration: Key to Learning

The professors in charge of Physics 2 are to be commended for recognizing and correcting a grave error, namely: the deplorable requirement that there be no collaboration on homework assignments. The point of homework is as a learning experience, with fellow students providing necessary insight and guidance after one has made a sincere individual effort. To prohibit collaboration is to severely inhibit the learning process at Caltech, homework assignments become tantamount to examinations and the spirit of scientific cooperation is shown the door.

Ph 2, of course, was a particularly noticeable and irritating error in judgement as it is an Institute requirement. (Some around here call it an Institute anachronism.) Other courses have been brought to our attention as transgressors; Ch 14 being the most noticeable with ChE 63 and ChE 101 not far behind. The professors in these courses must miss the essential fact that the interaction between students is as important to the learning process at Caltech as interaction between students and instructors. It seems senseless for a student who has made an honest effort to solve a problem to be unable to ask a fellow student how to solve the problem. The academic world would hardly be where it is today if thought such as this were its foundation.

The physics professors have come to grips with the problem, it's time for the others.

Sandy McCorquodale  
Al Kellner



## Cinematech, ASCIT Guarantee Laughs

I am beginning this article with an apology to the readers of my Tuesday article. In that story about the Marx brothers, I claimed that the opening dialogue involved the president of Wagstaff college. In fact the speaker was *President Wagstaff* who was the head of *Huxely* college.

For those interested in the Marx brothers, Cinematech will be showing three of their films this Saturday night in Baxter Lecture Hall at 7:30 pm. The

films selected we feel offer the best of the Marx Brothers. *Monkey Business* will be shown first immediately followed by *The Cocoanuts* and finally *Duck Soup*. The first feature was their first original motion picture, the earlier two films being adapted from their stage plays. The Marx ideas of confusion, indignity and, yes, even surrealism are evident. The second feature was their first film and historically interesting for being made in 1929. Soggy papers [?—Ed.] and inferior cutting are part of this early sound film. The last feature, *Duck Soup* is their masterpiece. Truffaut called this film one of the two greatest antiwar films ever made.

common cause or ideal. Our two principals in this love story are a necrophilic teen-ager and a 80-year-old lady. Throughout the film our heroes give jabs at punches to motherhood, the military, psychiatry, and computer dating. Loads of laughs are guaranteed. ASCIT films are shown in Baxter Lecture Hall 7:30 and 9:30 on Friday evenings.

Mike Kurilla

## Y Events

■ Tuesday, October 11, will find Drs. Harry Gray, Murray Gell-Mann and Gerald Wasserburg engaged in a discussion of the nature of creativity. Bring your lunch for this informal presentation, which will be held in the Y lounge at noon.

■ Friday, October 14, blues guitarist Bennie Pearl will be giving a noon concert—watch for him on the quad.

■ Saturday, October 15, Paul Belmont will lead a day hike to Strawberry Peak in the beautiful San Gabriels (you know—those shadows on the horizon occasionally visible to the north). Transportation to the trailhead will be provided. Please sign up in the Y office by next Friday if you're interested.

### ASCIT Movie

For those of you who have Friday night open, consider the ASCIT movie, *Harold and Maude*. This film marks Hal Ashby's second attempt at direction, following *The Landlord*. His first film dealt with racial prejudices and, viewed in today's perspective, the audience feels it has been hit over the head with the theme of the film. His second film shows better style and experience.

*Harold and Maude* is a modern love story, and, like any modern love story, the two lovers are definitely not made for each other by societal standards, but are drawn together by a

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Kevin Drum  
Business Manager

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# McCREADY AND GOSSAMER CONDOR

Continued from Page One  
volved in the project, including two associated with Caltech: Dr. Peter Lissman, vice president of Aeroenvironment, and an assistant professor at Caltech from 1962 until 1969 (he also received his PhD and MS here) and Jim Burke, one of McCready's classmates.

Dr. McCready began his talk by tracing the history of man-powered flight from Icarus' and Daedalus' feathered wings through early twentieth century attempts, such as a 1935 Russian design which actually got off the ground and won a small prize. With vast improvements in powered flight, interest died down for a while.

In 1956, interest revived with an inflatable wing plane. In 1957, the Royal Aeronautical Society set up a man-powered flight group. The Kramer prize greatly stimulated interest in 1959.

In the next eighteen years, many designs were proposed and tested. About fifteen of them got off the ground, but none could negotiate the full mile and a half figure-eight course. These designs shared several problems. First, they were hard to repair. Most

were built with conventional ribbed construction, and a single crash could take 2,000 man hours to repair. They were also too heavy, and had short wing spans.

McCready said the Gossamer Condor was designed to avoid these problems. It was built from mylar-covered aluminum tubing construction. This made it easy to repair and saved weight. The final weight was seventy pounds. Dr. McCready said that if, after a few flights, a part didn't break, it was replaced with a thinner, lighter one, to conserve weight. The wingspan was ninety-six feet because the power needed is inversely proportional to the wingspan.

The Condor was designed to fly slowly, about ten miles per hour. It has flown as slowly as six miles per hour. This makes it extremely easy to handle, requiring no flying experience. It also cut drag, and allowed the use of wire bracing, instead of heavy struts. It uses a large, twelve-foot diameter propeller, which turns slowly (110 rpm).

### Turning the Condor

Turning is accomplished through wing warping. The Condor has no rudder. A 2-3 degree change in wing attitude is enough to turn, as all turns are gentle, with a 2-3 degree bank. McCready said the Condor uses an unusual system for turning; instead of the wing warping increasing the lift, it increases the

Continued on Page Six

# LEADING EDGE CAMPAIGN

Continued from Page One  
through NSF grants and the like, or as student aid and JPL overhead. Tuition now amounts to 10%. Gifts and endowments make up most of the rest. Professor Corcoran commented that Caltech would like to be less dependent on federal sources, but that this is not easy to accomplish. Individual professors secure their own funds, and it is not very often from some government agency. A major portion of "At the Leading Edge" is allotted for endowed professorships, grants, general research funds, and to help defray the costs of the Seismological Lab and Palomar Observatory. This assists in keeping down the amount of government money needed.

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Caltech. Many alumni are in key positions in management, and this often helps. The proposal is designed to match Caltech's interests with those of the company. This may seem like a tedious and costly operation, but it is very necessary. According to Professor Corcoran "Caltech has the lowest cost per dollar produced in the U.S. [academic system]. We try to be cost-effective."

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# GRAY'S BREAKTHROUGH: CONVERTING SOLAR ENERGY DIRECTLY TO CHEMICAL FUEL

Continued from Page One

Until now, such experimental compounds because of their structure have been able to utilize solar energy to activate only a single electron at a time. However, pairs of electrons are needed to create chemical bonds, such as the production of hydrogen gas—a compound of two bonded hydrogen atoms—from the individual atoms in solution. But the rhodium compound contains two rhodium atoms in each molecule, each of which yields an electron when irradiated. Thus two electrons are available to create a chemical bond.

### Several Advantages

The rhodium compound also has several other advantages which makes it promising as a sun-capturing chemical. It reacts most readily with light in the visible region of the light spectrum, where solar energy is most concentrated. Also, the undesirable "back" reaction, in which the yellow compound absorbs hydrogen to change back to the blue compound, is very slow. This means that the hydrogen fuel produced will not be absorbed before it can be removed.

According to Dr. Gray, considerable work must be done before the compound will be useful in solar conversion systems. For one thing the efficiency of the system is quite low—100 photons of light are required to produce 4 molecules of hydrogen. An efficiency of 30

molecules of hydrogen per 100 photons would be excellent, he said, and such efficiencies should be achievable. The ultimate limit of the efficiency of the process is unknown, said Dr. Gray.

Another problem of the system is that it utilizes but a small portion of the spectrum of sunlight.

### 'Fine Tuning' the Molecule

To solve these problems, the Caltech scientists plan to "fine tune" their molecule, changing the structure to alter the distances of the rhodium atoms from one another. They will also attempt to fit other metal atoms into the structure in place of rhodium. Other candidate metals include iron, nickel, cobalt, platinum, and palladium. If iron, nickel or cobalt turn out to work well in the compound, the economics of the system would be greatly improved, Dr. Gray pointed out, for these metals are the cheapest of the candidates, and much cheaper than rhodium.

Recycling the chemical is

perhaps the most important problem to be solved before the compound can be used to make fuels from sunlight. After hydrogen is produced using the blue form of the compound, the resulting yellow form must regain its lost electrons, reverting to the blue form before it can be used again. Dr. Gray and his colleagues are now experimenting with various ways to do this, including heating the compound in solution to reconvert it by reacting the compound with oxygen atoms in the water to produce oxygen gas. They are also collaborating with Dr. Mark Wrighton of the Massachusetts Institute of Technology, who has developed a system to generate oxygen from water and sunlight that at the same time might be able to convert the yellow compound back to the blue one. If the two reactions could be linked in this way, the result would be a full-fledged chemical system for using sunlight to split water into hydrogen and oxygen.

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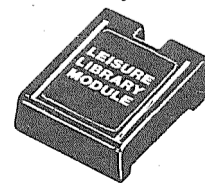
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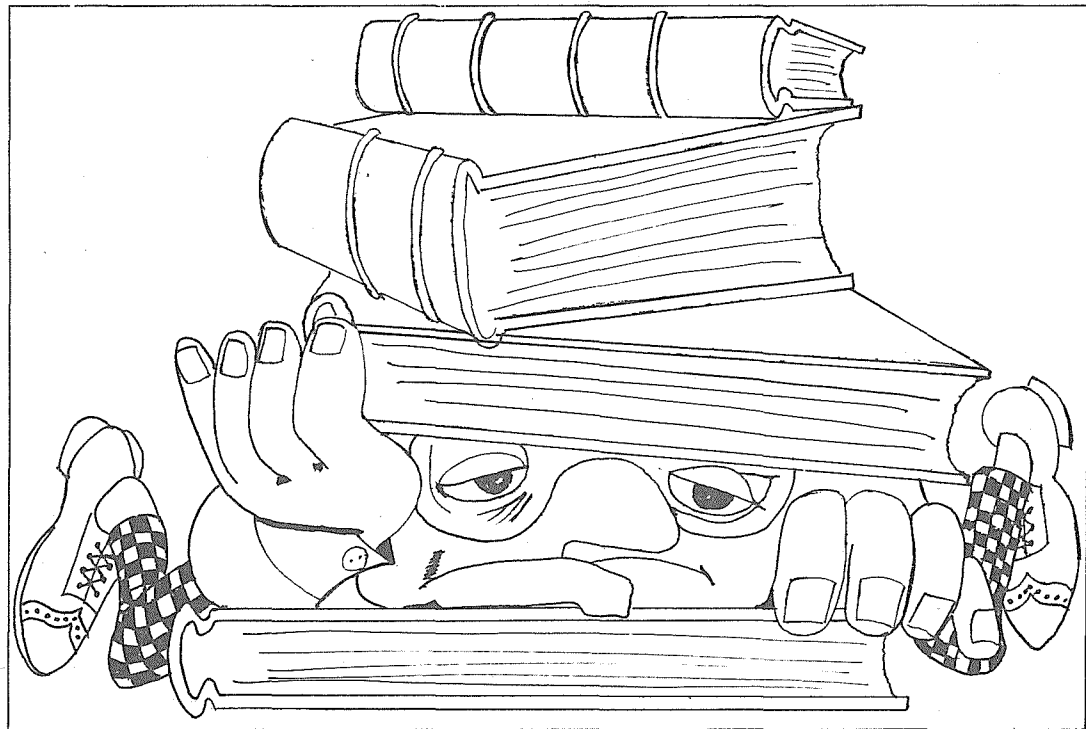


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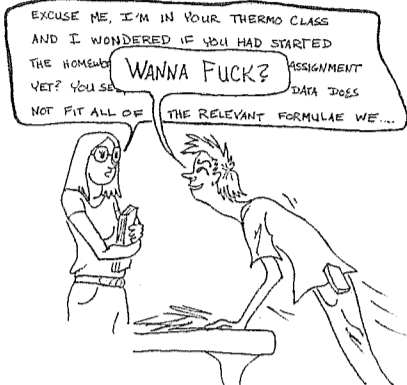
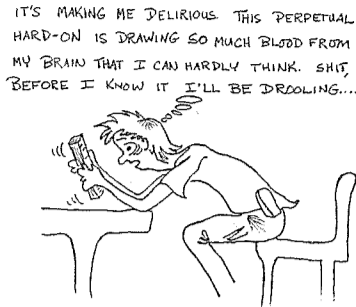
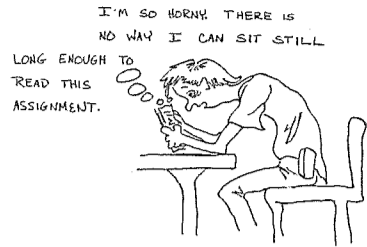
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# Thuncan

by P.M.



# Calendar

**Dave Guard, The Modern Folk Quartet and Skip Stevenson, The Ice House,** 24 North Mentor Avenue in Pasadena (681-9942). This triple bill of music and comedy continues through Sunday.

**Laserium I & II,** Griffith Observatory (997-3624). See and hear the incredible laser light show. I plays Tuesday through Saturday at 9:15 pm. II plays Tuesday through Saturday at 10:30 pm and Saturday through Sunday at 6 pm.

**Doobie Brothers,** Inglewood Forum, Sunday, October 16, at 7:30 only.

**Chapter Two,** Ahmanson Theatre, 135 North Grand Avenue, Los Angeles (972-7211). A romantic comedy that portrays the second chapter in the life of a widower and a divorcee. Opens today and will continue through November 26.

**Larry Coryell & Alphonse Mouzon,** Santa Monica Civic Auditorium, Pico and Main in Santa Monica (393-9961). Today only with special guest Earl Klugh in the series "Jazz at the Santa Monica Civic."

**Chorus Line,** Schubert Theatre, 2020 Avenue of the Stars, Century City (553-9000).

**Gethsemane Springs,** Mark Taper Forum, 135 North Grand Avenue, Los Angeles (972-7211). Plays through October 16.

**Half a Deck,** Coronet Studio Three, 368 North La Cienega Boulevard (273-7275). Runs indefinitely Friday and Saturday evenings at 8:30.

**Hold Me,** a play by Jules Feiffer, Westwood Playhouse, 10886 Le Conte Avenue in the Contempo Westwood Center (477-2424).

**Purse Strings,** La Mama Theatre, 1276 North Van Ness Avenue in Hollywood (995-0248). Presented by the Public Works Improvisational Theatre Company. A comedy dealing with the confusion of today's society in dealing with money, power, self-esteem and love. Sunday and Monday evenings at 8:30.

## SF's Hugo Award Winners Announced

Where *Late the Sweet Birds Sang*, Kate Wilhelm's novel of a clone society developing from the ashes of present civilization, received the Hugo award for the year's best science fiction novel at Suncon—the 35th World Science Fiction Convention—held Labor Day weekend.

The convention membership, which met this year in Miami, Florida, honored two stories as the best novella: "By Any Other Name" by Spider Robinson, and "Houston, Houston, Do You Read?" by James Tiptree, Jr. (who recently revealed herself to be Alice Sheldon, a retired schoolteacher).

"The Bicentennial Man," by Isaac Asimov, was the best novelette. Joe Haldeman's short story "Tricentennial" was the winner in that category.

No award was given for Dramatic Presentation. The nominees were *Carrie* (which, in my opinion, deserved to win), *Futureworld*, *Logan's Run*, and *The Man Who Fell to Earth*. (*Star Wars* received a special award, but is not eligible for the Hugo until next year.)

Ben Bova, for the fifth straight year, was voted best professional editor. Rich Sternbach received the award for best professional artist.

A tie occurred for best fan

writer between Dick Geis and Susan Wood. The best amateur magazine was Geis' *Science Fiction Review*. Best fan artist went to Phil Foglio.

The John W. Campbell Award for best new writer was C. J. Cherryh. The Gandalf Award, which recognizes lifetime contributions to fantasy, was given to Andre Norton.

No runner-up or vote totals were announced.

—Gavin Claypool

## PAUL MCCREADY AND HIS GOSSAMER CONDOR

Continued from Page Three  
drag, which yaws the plane in the opposite direction from the way a normal plane would go into the same turning configuration.

The highest the condor has flown is thirty feet, although the usual limit is ten feet, for safety reasons. At ten feet, the disappearance of the ground effect cuts needed power by ten percent.

McCready said a bicycle racer was used as pilot because a lot of strength and endurance was needed. He said finding a light enough one was a bit of a problem. The pilot on the prize-winning flight was Brian

Allan. Several other people flew the Condor during flight testing and design.

The Kramer prize was originally put up in 1959, by a wealthy British industrialist. It was originally 5000 pounds, and limited to British flights, but was later raised twice and opened to everyone, after there were no winners. When asked where Mr. Kramer got the money for the prize, Dr. McCready replied that he didn't know, and that when he received the prize, he didn't intend to ask. He also said that about half the prize money would go for expenses.

Dr. McCready's talk was sponsored by the Caltech Y.

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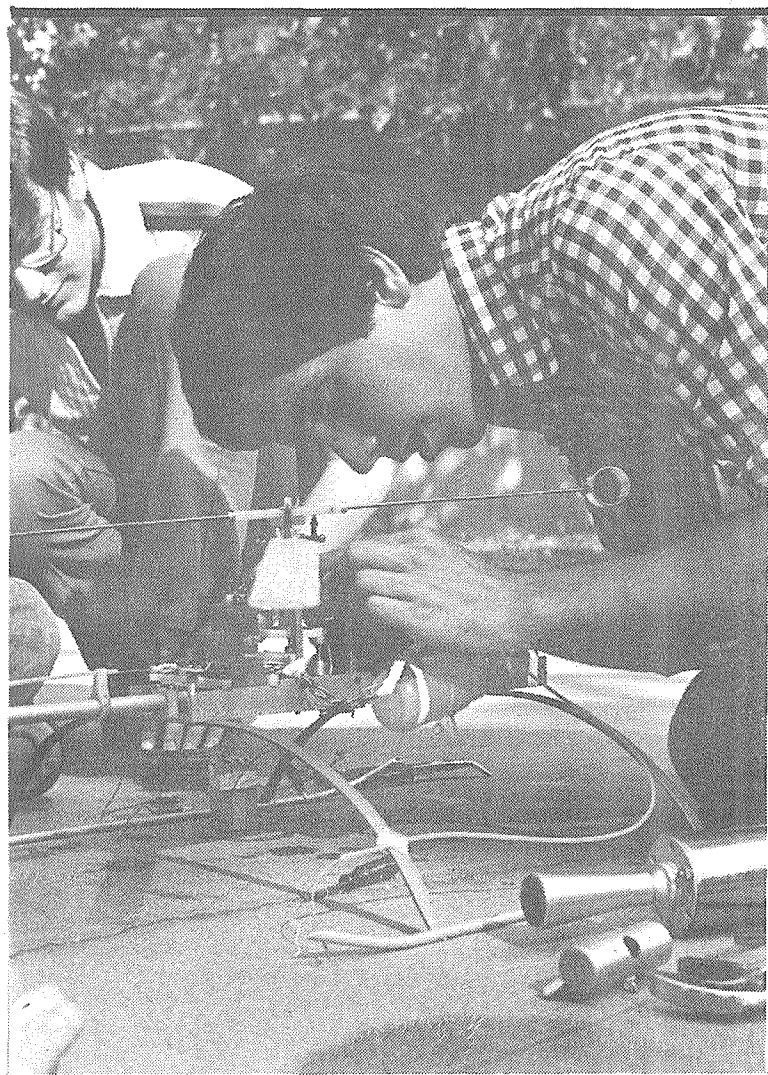
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Cough-cough-sputter-sput-sp . . . popity-popity-wheeze-pop-pop-BANG. Al Cocconi attempts to get his home-built, radio-controlled helicopter airborne. Photo-Greg Bone

# Football Finances


**Continued from Page One**  
use of this money: first, a second term of ice skating, a sport new to the PE program next term, will be added to the schedule. Most of the remaining funds will be used to purchase new equipment, such as uniforms and balls, requested last year by PE instructors but removed from the submitted budget in order to stay within the department's monetary allotment. Should enough of the \$4000 be left after that, the purchases of a tennis ball throwing machine and of uneven parallel bars will be considered.

Interestingly, among the more fortunate recipients of the benefits from the football funds are members of the Caltech faculty and staff. After all possible budget cuts had been made last year, the PE department had still exceeded its allocation by some \$2000. In order to help balance the books, the department proposed charging faculty and staff nominal fees for lockers and PE classes. Caltech is almost unique among colleges in that it does not charge for such PE services. Any chance that such a policy would be enacted over faculty protests died along with the '77 football team. With the influx of

football money, the general PE program was lifted out of the red. With this in mind, the administration squashed the proposed faculty and staff charges.

The football savings, of course, will hardly end the severe fiscal crunch in the PE department. In an effort to obtain funds, the department recently launched a fund drive among alumni lettermen. Money was requested for the tennis ball throwing machine and the uneven parallel bars as well as a baseball pitching machine, a new basketball scoreboard, a football blocking sled, stationary rings, a standard for the three-meter diving board, and supports for badminton and volleyball nets. About \$4000, one-third of the expected price for these items,

was raised eventually. This alumni money, like the funds left over from football, will be spent to improve the PE program—accruing benefits for all members of the Caltech community.



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**THE FACE OF A CHECK** All checks have certain features in common. The following explanations are based on the sample check shown on this page.

**March 23, 1977** As of this date—day, month, and year—the check is payable if not cashed or paid on the date. It is void if not cashed or paid on or after the date.

**A "postdated" check is one dated for some time in the future. If you receive or write a postdated check, the bank may refuse to honor it or may hold it until the date.**

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**Bank's guarantee will not cash stale dated checks.**

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**Pay to the Order of** Either this phrase or one of those which follow—Payable to Bearer, Payable to (name) or Bearer, or Payable to (name) or Cash—must appear on the check to make it a legally negotiable instrument.

**Color Guaranty** The guaranty's signature is attached to when the check is written or cashed at the bank.

**\$18.27 (eighteen and 27/100 cents)** You write the amount of the check in two ways—in numbers and in words—as a precaution against error. It is not a difference between the two, the entire amount will be paid.

**Mary D. Smith** Your signature is kept on file at your branch. Always sign your name on the signature card when you open a new account. Your signature may not be recognized and your check may be returned.

**Multiple Branch** The name of your branch is on the check. It is on the check so that your branch can be located and the check processed and paid.

# For Your Eyes Only

## Techies

### Office Nominations

Nominations are open for the office of ASCIT Athletic Director, all of the junior class offices, and sophomore class treasurer. Those interested may sign up on Flora's door in Winnett. Nominations close Thursday, Oct. 13.

### Student Shop

A meeting of the student shop will be held for all persons interested in joining the student shop on Saturday, October 8, at 1:30. All members holding summer keys should attend, since locks will be changed at this time. The shop is located under Winnett Student Center, next to the door to the Gameroom.

### Arts & Crafts Classes

The Saturday afternoon classes in ceramics, drawing, and stained glass, offered by the Master's office, go from 1:00-4:00 pm in the Art Workshops in the Dabney House basement. Classes are open to both undergrads and grads. Cost of the courses is from five to seven dollars per quarter. Interested persons may sign up for these classes at the next class (tomorrow afternoon).

### How to Get a Job

PhD Candidates: The Placement Service is again presenting two seminars on "How to Approach Getting a Job" according to Director, William F. Nash, Jr. Both seminars are from 4:00 pm until 6:00 pm.

The first seminar will be held on Tuesday, 11 October 1977, in 147 Noyes. Dr. William H. Corcoran, Vice-President for Institute Relations, Caltech, will speak on employment with academic institutions.

Mr. Donald L. Rowe, Director of Industrial Relations, Aerojet Ordinance Manufacturing Company will conduct the seminar on employment with industry, Thursday, 13 October 1977, in 153 Noyes.

Topics to be covered: The initial contact with industry, academic institutions, and government agencies. The resume of experience and letter of transmittal. How to interview after successful contact: appearance of applicant, questions to be prepared to answer. Homework required before inquiry and interviews: knowledge of organization to be interviewed. Follow-up interviews: How? How often?

Candidates for B.S., M.S., and Engr. degrees are welcome; however, a seminar is planned for this group in January. If you have any questions please contact the Placement Office, Room 8, Dabney Hall.

### Company Recruiting

Company recruiting for PhD Candidates and Research Fellows will begin the week of October 10. During the first week the following companies will be on campus to interview potential employees: 10 October—Mostek; 11 October—American Hospital Supply; 13 and 14 October—Du Pont; 14 October—Exxon. Sign-ups for interviews may be made through the Placement Office, Room 8, Dabney Hall.

### Naval Engagement

There will be a naval miniatures game in Dabney Hall Lounge tomorrow night (Oct. 8) at 8 p.m. Beginners welcome (please bring a pencil or pen) to play or watch. Also, D&D, Traveller, and other fantasy gaming on Friday and Sunday nights at 8 pm in Clubroom 1 of Winnett Center.

### Speed Reading on Campus

Evelyn Wood Reading Dynamics is offering a special discount course to students at Caltech. The class will be specifically oriented toward student materials with emphasis on concentration, comprehension, retention skills, and study techniques. The seven-week course, one three-hour session per week, will be held here, on the Caltech

campus, beginning Monday, October 17, 7-10 pm in Clubroom 1 of Winnett Student Center.

Evelyn Wood Reading Dynamics guarantees to triple your reading efficiency or refund your money. The discounted tuition includes class materials and supplies as well as a lifetime membership, free of charge, which is applicable nationwide at any time.

Come to one of the free lessons being held Monday through Thursday, Oct. 10-13, in Noyes 147 at 8 pm. You will actually increase your present reading rate at this free lesson and win a chance at a course scholarship.

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