

Houses Sing Saturday Eve in Beckman

Interhouse Sing will be held at 8:30 P.M. in Beckman Auditorium on Saturday, day after tomorrow. The rules as set by the IHC are as follows:

- 1) Any house awarded two firsts wins.
- 2) Otherwise the house with the least sum of places wins.
- 3) In case of a tie under rule 2, the house with the least sum of the squares wins.
- 4) There shall be three judges.
- 5) These rules are in force until changed by the IHC.

There will be an after-the-Sing dance in Winnett Student Center, to which all are invited, couples especially.



John Middleditch and Michael Meo, the new TECH editors, strike a casual pose in their newly renovated office. They discount the recent rumors about a perverted sex life as "complete and utter fabrication."

Grad students! Do you want to identify with Caltech? Either get kidnapped or see letter on p. 2.

Honor Keys Given to Caltech Leaders

The BOD approved honor keys for 19 Teckers and honor certificates for another 18 last Monday night, February 28, in an extended meeting. The honor keys are given by the BOD to those who have done the most in the past year for campus activities. Honor certificates are awarded for only slightly less significant contributions to extracurricular activities.

Seniors receiving honor keys are Bill Broste, Fred Brunswig, Dave Close, Bill Colglazier, Mike Cunningham, Gordon Myers, Gary Ratner, Sean Solomon, Tim Stephens, John Walter, Tom Williams, and Jerry Yudel-son.

Class hegemony

Seven juniors also received honor keys. These juniors are: Bob Berry, Norton Greenfeld, Dick Hackathorn, Tim Hendrickson, Fred Lamb, Martin Smith, and Eric Young. No sophomores received honor keys, although last year Eric Young captured the sole honor.

The five seniors who won hon-

or certificates were John Eastment, Steve Elliot, Stewart Galley, Howard Powel, and Richard Quint. The largest contingent receiving honor certificates were the nine juniors: Peter Balint, Max Bartlett, Stewart Davey, Doug Eaton, John Eyler, Jim Fishbein, George Sharmon, Bob Parker, and Greg Shuptrine.

The three sophomores who received certificates were Len Erickson, Sam Logan, and Mike Meo. The only frosh to be honored by a certificate was Gary Stonum.

Like last year

The distribution of awards this year follows last year's pattern closely, with 20 honor keys and 19 honor certificates being awarded as compared with the present count of 19 and 18 respectively. One significant change was that some nine seniors and four juniors got certificates last year while this year's distribution divided the honors among six seniors and eight juniors.

The awards will be presented at the spring awards banquet in Tournament Park.

Y Serves Half a Century

The Caltech YMCA celebrated its fiftieth anniversary amid a gala J. Kent Clark dramatic production Friday night in Beckman Auditorium. The program, starting off promptly at 8:30 p.m. with three numbers by the Caltech Glee Club, was climaxed by a benediction given by Institute President Dr. Lee A. DuBridge.

Dr. David Elliot, history faculty member of the Y board, emceed the program with his incorrigibly Gaelic accent and humor. His wit was especially sharp when he described Wes Hershey's 20 years of service with the Y. Elliot described Hershey, the executive secretary of the Y, as the type of person who "could stab a person in the back and be so kind that he doesn't even know it's being done to him."

Hershey replies

After Elliot's "eulogy" (Hershey's own words), Hershey gallantly collected his composure and narrated a pictorial outline of the history of the Caltech Y. Starting from 1916, when the Y was located in an old basement and when one of its major supporters was the late R. A. Millikan, Hershey followed the history until the present day, when the Y owns a "palatial penthouse" for the specific purpose

of planning conferences.

Other pictures of Y activities shown covered conferences, camp outings, and personalities. There was even a film, complete with sound track, of the visit of the Supreme Court Justice William O. Douglas. Hershey also got back at Dave Elliot with an old picture showing him with his wife-to-be.

Another Clark Production

The slides were followed by an even more spectacular performance of J. Kent Clark's production of "A Broader View," starring Ed Hutchings, Gordon Myers, Bob Oliver, Ward Whaling, and an unknown actress. The plot of the musical was based on the plight of the poor Caltech troll, "intellectually gifted, emotionally immature, sexually inexperienced, and socially gauche," who was no longer interested in listening to lectures.

The Y supervisors, lending a sympathetic ear, with the exception of Hutchings, the heartless mathematician, finally decided that the only answer would be to take Gordie "down to the Burbank" (a theater specializing in exotic dancing forms).

Y stripper

However, the Y went one step farther by bringing the stripper

to campus. Unfortunately for Gordie, she had just finished her PhD in psychology at UCLA and planned on giving a trollish lecture. Happily, the Burbank, with all of its finer art forms, won the day.

The play was followed by the short benediction given by President Lee A. DuBridge. Mike Cunningham, president of the Y, gave a short speech after which he presented a commemorative gift to Wes Hershey for his outstanding service.

Poll Praises Tech Frosh

by Ahab

What kind of man reads the *California Tech*? Is he the usual stereotyped troll, four feet 11 inches high . . . thick glasses? Loves Feynman and hates girls?

This year the American Council of Education, through their office of research, took this question upon themselves when they made their freshman survey. In a nation-wide poll, the class of '69 received a third-degree treatment designed to reveal their innermost secrets.

Do it yourself!

One interesting part of the poll was a multitude of self-ratings, including a self-rating of popularity and self-confidence. Although 84.0% of Caltech frosh credited themselves with intellectual self-confidence, and 21.0% said they had social self-confidence, the corresponding over-all figures for all male students score 45.8% intellectually and 34.8% socially.

The Tecker's self-rating of general popularity also wanes at 27.6% versus 41.9% as the national average. His self-rating of popularity with girls also falls behind at 22.6%, less than two thirds of the national average of 37.0%.

The high school dating pattern of Caltech frosh also differs some-

(Continued on page 3)

Houses Elect New Officers

Half of the Student Houses had completed their elections by Tuesday night, which was something of a feat, since there are seven Houses. Blacker came through by filling just half the house offices.

There are two big differences between House elections and student body elections. First, the students care about House elections. Second, and this could be a consequence of the first, drinking comes after House elections.

Blacker has only elected president, treasurer, secretary and athletic manager. The remaining offices will be filled next Monday. The powers that be in Blacker feel that this gives losing candidates time to campaign for other offices. The new Blacker president is Ben Cooper, with treasurer Lee Johnson, secretary Ken Kamm, and athletic managers Sali Ma and Pat Sutcliffe.

Cooper defeated Daniel Erickson for the president's position. Johnson was opposed by Bruce Bailey, Bob Bell and Stu Goodgold while fighting Kamm for the secretary's spot were Jeff Hecht, Jim Leiningtr and John Ottensmann.

Blacker declined to divulge the candidates for Monday night.

Darb Prezy runs away

Over in Dabney John Eyler ran away with the presidency unopposed. The rest of the officers included Rob Gerritsen, vice president, Len Ericson, secretary, Ray Ellis, treasurer and George "Lobo" Fox, comptroller. Also on the winning side were Robert Pelzmann as historian, Tom Burton and Allen Schwenk as athletic managers, and the mob of John Bennett, David Doucette, Pat Kidd, John Lehman, Robert Mitzze and Charles Zeller for social chairmen.

Stacy Langton was defeated for the vice-presidency by Gerritsen. Other losers at Dabney were Denis White, treasurer, Mark Bartelt, historian, and, as a team, Paul Bartlett, Harry Jeffrey and David Kuehn for athletic

managers.

The new sergeant-of-arms Scott Jennings was elected by virtue of an arm wrestling de-

(Continued on page 3)

Notices

THE METHOD

The Drama Club is going to decide on its director for their big spring production at their meeting on Sunday, March 6 at 3:00 p.m. in clubroom No. 1. Suggestions will also be taken in regards to the play that is going to be presented. All actors, prospective actors, people interested in any aspect of drama, and girl chasers are invited.

GRADS HAVE A CHANCE

to be Resident Associates in the coming academic year if they are in their second year of study or beyond and if they apply to Dr. Huttenback before March 18. The position is open to faculty members also.

TALENT—LAST CHANCE

Five acts have volunteered for ASCIT's May 28 Student Talent Concert. There is room for only two or three more acts. If you have talent and want to use it in a good cause contact Joe Rhodes in Blacker soon!

ASCIT NEWS

Applications for all ASCIT appointive offices are now open. They will close next Monday at 9:00 p.m. File applications with Kermit Kubitz in Fleming. The board discussed Catalina and Disneyland as trips for Lost Weekend. Contact George Sharman to express strong preferences.

SCHOLARSHIP APPLICATIONS

for 1966-67 are available at the admissions office, 112 Throop. Deadline for filing applications is May 2. Everyone wishing scholarship help from LIT must file an application, including holders of four-year scholarships awarded by CIT. No application is needed if the scholarship is not awarded by CIT, unless additional assistance is sought from CIT.

Antidisestablishmentarianist

Dr. Max Rafferty, the controversial California State Superintendent of Public Instruction, will deliver a lecture on "Education—the Storm Center" at Beckman Auditorium tonight at 8 p.m. He will be sponsored by the Committee on Institute Assemblies and Programs and the Caltech-Oxy Young Republicans Forum. Tickets will be \$.50 for students and \$1.50 for the general public.

The author of the book *Suffer, Little Children*, Rafferty has been a spokesman for conservative educational and censorial

views. He has a weekly column in the *L. A. Times* and other newspapers in which there was a discussion recently concerning public school librarians' freedom to buy questionable books. Rafferty's argument was that objectionable books such as *Mein Kampf* breed crime.

There will be a question-and-answer period after the speech open to opponents of his views. Whether you agree or disagree with progressive education, Rafferty is reported to be an effective and interesting speaker, well worth the four bits.

Editorial

Ban Frosh Grades Forever

With the end of the second term drawing near, the time for the faculty to decide on keeping the pass-fail grading system for freshmen approaches. There are a number of reasons for the very liberal, conservative, or just disillusioned members of the faculty to vote to end the experiment, but in our opinion the system should be made permanent as of this year.

In the minds of some students and faculty members, Caltech's concentrated teaching approach and its emphasis on science are so Spartan that undergraduates get only half an education. The typical product of four years at the Monastery is said to be a potentially brilliant scientist whose humanistic feelings have been drowned in a sea of science courses. The solution to unrest among the undergrads, it is said, is to reduce the entire course load, to allow time for the freshman and sophomore to stop and think, perhaps to grow up. This proposition, so contrary to the usual Caltech outlook, should not be an alternative to no grades. If the freshmen do not get a broad survey of chemistry, math, and physics when they first enter Tech, when will they get the opportunity?

A number of students in the recent EPC poll indicated that they were unclear about the status of their grades. In all of the sciences, tests are graded by the problem, and a numerical score is passed back. When a student knows the average score, he knows his standing in the class. In the humanities, each paper usually has comments about the quality of the work. Caltech's small size means humanities instructors can be easily approached by undergrads. Under the no-grades system, students are no more in the dark about their standing than undergrads.

Probably the most potent argument against extending the pass-fail system is that freshmen do not use their liberated extra time to good advantage. The faculty who have the sophomores this year are the best judges of their preparation last year, and their judgment last term was an enthusiastic one. The average GPA of the sophs was 2.8 to 2.9, whereas in previous years it has hovered around 2.7. Statements by profs in charge of freshman courses have yet to reveal one who thought that less pressure meant significantly less learning. Finally, frosh honors work has boomed under the no-grades system.

The students who have experienced it like the pass-fail system. Its good points are multitudinous, but the greatest advantage is the release from pressure for one year. The incoming freshmen have to make a tremendous adjustment from high school during their first year at Caltech; the no-grades policy greatly eases this adjustment.

—Michael Meo
John Middleditch

Help!

Each year when the old order passes on, the new **Tech** editors find themselves in an unusual predicament. Our trouble is due to many factors; among them is lack of experience, efficiency, wit, and particularly lack of copy staff.

These problems are particularly rampant during third term when seniors flake out, juniors and sophomores succumb to an epidemic of "care", and frosh contract virulent apathy.

So do the **Tech** a favor and show up Monday night and ask about all the glamor involved in working for the paper. We can offer such lucrative benefits as three units of A, power, prestige, and your name in the **Tech**. It also snows girls and grad schools.

—John Middleditch
Mike Meo

EDITORIAL POLICY

For the information of its readers, the **Tech** presents the following summary of its editorial policy:

The first signature following an editorial indicates the author of that editorial. The next signature, if any, indicates approval by the remaining editor. Both editors' signatures on the editorial indicates that editorial represents the opinion of the **California Tech**.

In general, column writers have complete freedom as to the content of their columns. No column will be eliminated from any issue of the paper solely because of the opinions represented in that

column. Column writers represent their own opinions only and not necessarily the opinions of the **California Tech**.

The **California Tech** welcomes all letters, whether or not they agree with editorial opinion. All letters must be signed, but the author's name may be withheld from publication on request. Letters are edited (or left out) solely on the bases of space, decency, and the desire to present letter opinions in proportion to the amount of mail received. As with columns, the opinions stated in letters are not necessarily those of the **California Tech**.

Letter

A Modest Proposal

Editors:

A lot has been said about the need for an increased awareness on the part of the grads and the undergrads of each other's existence, as well as a better relationship between the two groups. The following suggestion, if implemented, would, I feel, help achieve this understanding and relationship. I have presented it only in general detail, because specifics must be worked out, and I don't want to get bogged down in a lot of details here.

Now, what would make the grads and undergrads take an interest in each other, like each other, and respect each other? Easy. Create antagonism!

Crime Weekend

The best way to do this, I think, is to have a "Crime Weekend" twice a year. It would be at the end of, say, the first and second terms, so as to interfere as little as possible with schoolwork. One term, the grads would be the good guys and the undergrads the bad'uns, and vice-versa the next term.

The object would be for the bad guys to commit a non-destructive crime during a given time interval. It is the job of the good guys to prevent the crime, or to detect it and bring the criminals "to justice" with, say, 24 hours after the crime has been committed. Naturally, the "crime" can't be destructive, nor can it be one in which the Pasadena Police Force would have jurisdiction, even if someone did not press charges. Kidnapping would be a good choice, and would probably prove very popular. Some supervision and a lot of common sense would be necessary to prevent abuses, but this should be no major problem with Tech students.

Problem

The main problem in all this would be getting the students interested in such a crazy game. It is rather more intellectual than physical, and for that very reason might be greeted with great disinterest. The rabid chemists and electrical engineers could use these games as an outlet for their crazy schemes and inventions, but they would be in the minority. Perhaps the best inducement the first year (If the games are fun, there won't be any need for inducement the second year!) would be cash prizes to the Houses that provide the "detectives" who catch the criminals, or the "criminals" who commit the "perfect crime". The main inducement, however, in any year, should be grad vs. undergrad pride!

The question might arise of what to do the third term. Maybe the winning students could challenge the faculty.

I hope this idea will be given careful and serious consideration. It would be much worse if it were a bad idea and got adopted, than if it were a good idea and were thrown out.

name withheld by request



Sex to Be Seen At Culbertson

by Hunk

The Caltech Drama Club, lead by two non-Teckers, has decided to come out from under wraps and put on a staged reading for the Caltech community. Hopefully this will include students, also. They will present "Born Yesterday" by Garson Kanin tonight at 7:30 in Culbertson. This is the play from which the famous movie, starring Judy Holliday, was made.

Filling in for the late Miss Holliday in the role of Billie Dawn will be Caltech's own (well, almost own) sex symbol, Helen Peters. She is not only talented and experienced, but also beautiful. Playing opposite her as Harry Brock, the junk magnate,

the club has J. K. "The jock" Evans. This role is easy for him, for he portrays a person like himself. The good guy, newspaperman Paul Verrall, is played by suave Jay Romney, who is forever getting seduced in the Drama Club productions (type casting?). Other random roles are played by random people. Chris Dede is responsible for the technical details, so blame him.

The production will be put on in the form of a play, with the exception that the actors will carry their scripts around with them in case they forget their lines. Seeing as how the play is an excellent one, and the Drama Club is competent, and the show is free, it is a worthwhile event to attend.

H.I.S. Finds Fair Housing

The Housing Information Service (HIS), a group founded by residents in the Pasadena-Alhambra area, has been recruiting volunteer workers from this campus and general area for the past week. The purpose of the organization is to facilitate the buying, selling, and renting of housing in the San Gabriel Valley on a non-discriminatory basis.

HIS president, E. C. Rearden, outlined the goals of the group: "We will cooperate with interested neighbors and church and community leaders to encourage the acceptance of minority group families in the neighborhood and to allay any fears or hostility."

No polls

Rearden continued, "We do not poll neighborhoods; the right of an individual to buy, rent or sell housing does not depend on the votes of the neighbors." HIS will keep the names of prospec-

tive buyers or renters confidential while advising them of opportunities for obtaining housing, and will negotiate directly with the seller or broker.

Since all its work is being done by volunteers, HIS offers its service free of charge. HIS makes no commitment to sell or rent housing; . . . headquarters for the organization are located at 2509 N. Lake and are open from 10 a.m. to 4 p.m. daily including weekends.

California Tech

Editors: John Middleditch and Mike Meo, Editors-in-chief; Bob Firestone, Feature Editor; John McCord, Managing Editor; Joe Jeffrey, Copy Editor; Peter Balint, Sports Editor.

Staff: Stephen Alfin, Jerry Austin, Bill Boyd, Frank Ettin, Kim Gleason, Jeff Hecht, Fred Lamb, Les Fettig, Bob Pelzmann, Greg Shuptrine, Martin Smith, Jim Woodhead.

Business: Stuart Galley, Manager; Bob Parker, Circulation Manager; Ed Kelm, Mike Pollock.

Two Locations

at the ICE HOUSE (S)

GLENDALE
234 S. Brand
Reservations Phone
245-5043

PASADENA
24 N. Mentor
Reservations Phone
MU 1-9942

FOLK MUSIC and COMEDY
Twice the Music
Double the Fun

THE GREENWOOD COUNTY SINGERS
THE TEXAS TWOSOME
Coming Tuesday
THE ASSOCIATION

THE TRAVELERS 3
DICK ROSMINI
CAROL HEDIN
Coming Tuesday
PAUL SYKES

Bonner Tells Frosh of Biology to Come

Men with built in telephones or microwave antennae and possibly a third or even a fourth arm may exist in the future. At the Frosh Dinner Forum of February 11, Dr. James Bonner, Professor of Biology here, stated that current discoveries are rapidly making these things possible.

Very little of modern Biology is still concerned with classification. Instead, two types of experimental biology have emerged: molecular biology and "brain" biology.

Miscegenation

Using an entertaining mixture of almost child-like phrases and technological terms, Bonner described the current knowledge about the cell, and where cellular studies will lead in the future.

A cure for cancer may not be far in the future if "bad guy enzymes which convert DNA to monomers" can be unleashed in a manner affecting only malignant tumors. Already this technique has cured cancer in rats.

Through the study of genes and developmental biology man is learning how to control the growth processes. Today biologists can regenerate whole plants from a single cell. Tomorrow it may be possible to invent whole new organs. Bonner predicted such exotic things as built-in antennae and extra limbs for man will be feasible once know how to "program" a cell's growth.

Powerful brain

Just as potentially powerful is the study of the brain. Only recently, through the invention of electronic computers and advances in neural biology, has such a sophisticated level of brain research been possible.

Both through computer simulation and direct study, current research is revealing much about the logical processes of the brain. Soon similar studies of the emotions will be possible. The results of this research are almost limitless in their prospects. A symbiotic man-machine relationship is not inconceivable.

All of Bonner's predictions will probably not come true, but they are possibilities. In any event future discoveries in biology will have profound effects on the human race and its well-being.

Infinite House Elections

(Continued from page 1)
feat to Fred Elston.

Jim Gould will be leader of the new dynasty in Fleming. Following his lead will be Vice-President Randy Harslem, Secretary Dick Wright, Treasurer Mike Saulne, Athletic Managers Martin Dowd and Jim Stanley, Social Chairmen Steve Boone, Erick Storm and Chuck Wolfe and Librarian Dave Lackey.

The presidential battle saw Gould defeat Ed Kelm. After that Harslem took the vice-presidency away from Cliff Tedder, and Ulli Hartmann saw Wright win out.

Efficiency!!

Lloyd held its elections last night but even the efficiency of the Tech couldn't get the results in time. However, Bob Piccioni seemed confident of taking the top spot as he was unopposed. The other battles saw George Balanis, Farrel Hinkle and Gray Jennings fighting for the vice-presidency, Gary Berman and Les Fishbone for the secretary's spot, and Doug Osheroff and Bill Sampson for the treasurer's position.

The office of social chairmen saw an unopposed team of Mike Decker, Bob Dukelow and Norm Whitely taking over while Bob Vance and Jim Woodhead will be taking office as athletic managers.

In addition the Lloyd electorate had two constitutional amendments to vote on.

Gary Schneulle and Dave Van Essen took over the top two positions at Page House by acclamation as no one ran against them. Gene Smith beat Bill Dresser for the secretariat and Lou Felder and Dave Kolb lost to Martin Cooper for the treasurer's spot. The team of super-athletes Don Curry, John Frazzini and Dennis Schneringer were unopposed for athletic managers while in contrast, Peter Balint, Terry Reedy, Kevin Savage and Danny Villani battled for control of Page's soon-to-be-started \$800 library. Balint was the victor; however, due to certain misprocedures, the office may be jointly occupied by Balint and Savage.

Keepers of the it

Probably the office that raised the most interest, being closest to the hearts of Teckers was that of social chairmen. The team of Paul Dimotakis, Larry Ruzzo and John Steven opposed the team of Bob Drew, Jay Romney and Pete Theisinger; the latter trio won.

Ricketts will be holding its elections this Sunday night. Tony Gharrett appears to be heading for an unopposed victory in the presidency. Tom Bostick and Pete Cross will vie for the runner-up position. Burt Marsh and Eric Wickstrom will contest the office of secretary

and Chris Dede and Tom Soifer will try for the treasurer's spot. Peter Bloomfield, Howard Hoffman and Bob Matteyses are, so chairmen's position and the same is true for Ed Rehbein, Richard Russell and August Schultz for athletic managers.

Ruddock holds out

Rudock also waited until Wednesday night to hold elections. The contest for the presidency was between Bob Dickinson and Greg Shuptrine. Norton Greenfield was scheduled to run alone for the vice-presidency, and Les Fettig was unopposed for secretary. Dick Harley, Ed Sequine and Mike Wolf contested the treasurer's spot while Gary Cable, Ed Kort and John McCord were all campaigning for librarian.

Erno Daniel and Jay Chapyak were unopposed for athletic managers and the team of Mike Henerey, Mike MacLeod and Gary Stonum ran alone for social chairmen.

The results of the elections held this week will be in next week's issue of the Tech. Don't ask anyone for them, wait.

Class of '69 Socially Gauche

(Continued from page 1)

what from the national average, although surprisingly enough, not by very much. The pattern is sub-divided into five classes: one steady date; a series of steady dates; a series of dates, none steady; playing the field; and those who seldom or never date. The major differences found were that only 7.1% of Teckers had a series of steady dates versus 22.7% of all males in the class of '69, and that there was a large percentage of Teckers who dated seldom or not at all. The figures for non-participant Teckers run as high as 40.4%, nearly three times as high as the national average of 13.7%.

Cheer up!

However, things do not look completely glum for the class of '69. For example, 47.5% of Teckers could claim an A or an A-plus average in high school, against only 6.4% among the other male students. A majority of 88.9% of Tech frosh also had the audacity to suggest that they would try to get a PhD, while in the outside world only 19.5% of males were as ambitious.

Teckers also did exceptionally

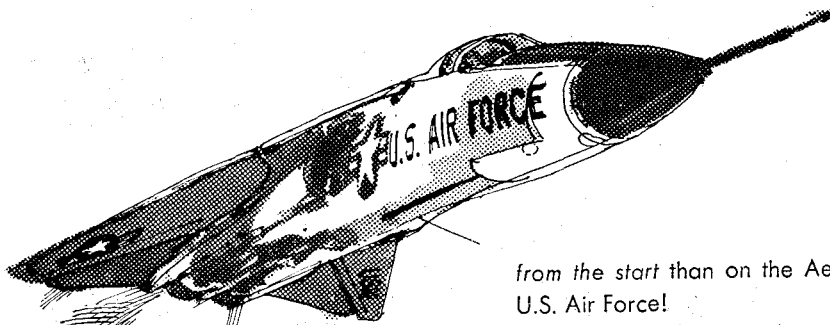
well in almost all other forms of scholastic achievement with exceptions in thespian participation, varsity letters, and art awards.

Inquisitors Arise

Among the religious preferences, the patterns are similar, with Teckers being in general less religious as a group than the national average. More than a third (36.4%) of Caltech students expressed no religious preference while only 8.1% had no religious background. These figures compare with 2.1% and 8.3% from all other colleges. It is not clear whether the Council classified hard-core atheists with the "no preference" group or with the "other" category, which scored an 8.1% here versus 4.6% for other male students.

The cross-section of political opinion among frosh ran almost even between conservative and liberal, with the liberals winning out narrowly by 37.0% to 35.5%. This compares to a similar ratio of 25.1% to 23.4% for other male students. Thus Teckers were more politically conscious than their male counterparts in other colleges.

Have astronauts made pilots old hat?



Sure, the boys who go off the "pads" get the big, bold headlines. But if you want to fly, the big opportunities are still with the aircraft that take off and land on several thousand feet of runway.

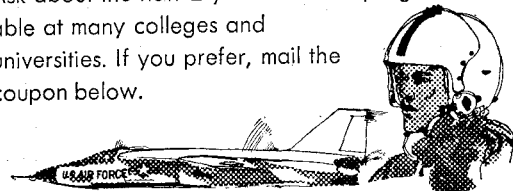
Who needs pilots? TAC does. And MAC. And SAC. And ADC.

There's a real future in Air Force flying. In years to come aircraft may fly higher, faster, and further than we dare dream of. But they'll be flying, with men who've had Air Force flight training at the controls. Of course the Air Force also has plenty of jobs for those who won't be flying. As one of the world's largest and most advanced research and development organizations, we have a continuing need for scientists and engineers.

Young college graduates in these fields will find that they'll have the opportunity to do work that is both interesting and important. The fact is, nowhere will you have greater latitude or responsibility right

from the start than on the Aerospace Team — the U.S. Air Force!

Interested? The place to find out more is at the office of the Professor of Aerospace Studies, if there is an Air Force ROTC unit on your campus. Ask about the new 2-year AFROTC program available at many colleges and universities. If you prefer, mail the coupon below.



Officer Career Information, Dept. RCN 62,
Box A, Randolph Air Force Base, Texas 78148

Name _____ Please Print

College _____ Class of 19 _____

Address _____

City _____ State _____ Zip _____

UNITED STATES AIR FORCE

CHANDLER'S PRESCRIPTION PHARMACY

Free Delivery

Robert Chandler

1058 E. Green St. — SY 2-2211

185 S. Euclid Ave. — SY 3-0607

Pasadena, California

UNDERGRADS, CLIP AND SAVE

Attention SENIOR & GRADUATE MEN Students—U.S. Citizens
NEEDING NOMINAL FINANCIAL HELP TO COMPLETE THEIR EDUCATION THIS ACADEMIC YEAR — AND THEN COMMENCE WORK — COSIGNERS REQUIRED.
SEND TRANSCRIPT AND FULL DETAILS OF YOUR PLANS AND REQUIREMENTS TO
STEVENS BROS. FOUNDATION, INC.
610-612 ENDICOTT BLDG., ST. PAUL 1, MINN. A NON-PROFIT CORP.

MAR 8-13—ONE WEEK ONLY

EDDIE BROWN of

JOE & EDDIE

MAR. 18-27 BROTHER DAVE GARDNER
CLOSING SUN. MAR. 6 JUDY COLLINS

At... Doug Weston's

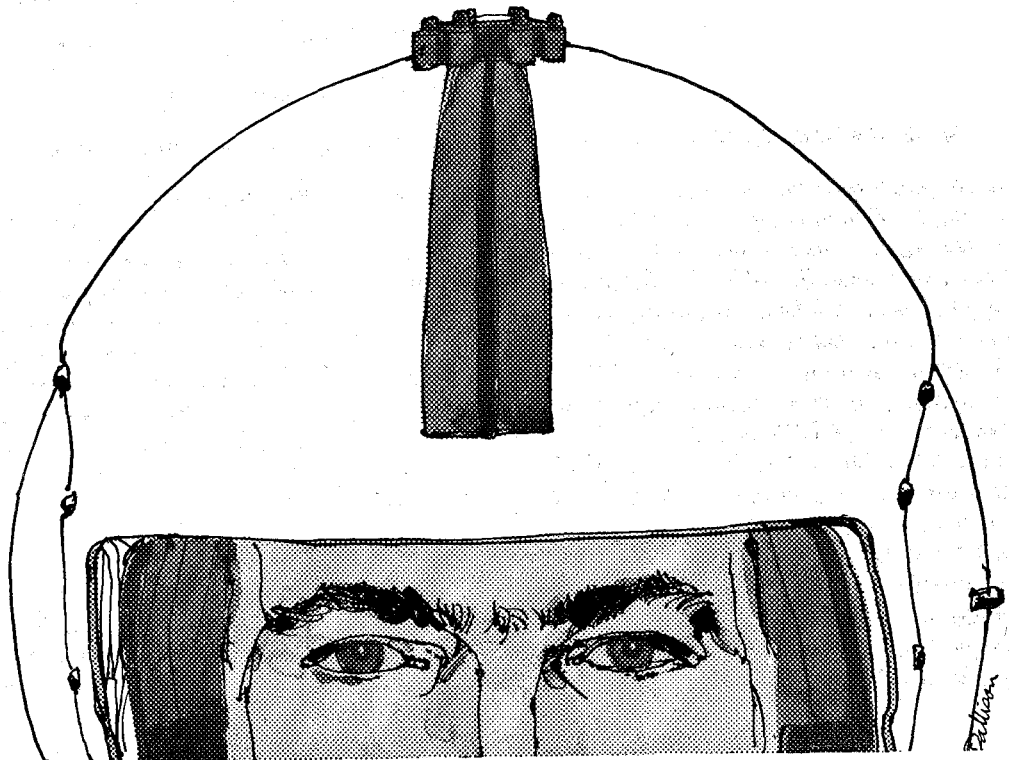
Troubadour



RESERVATIONS
CR 6-6168

9083 Santa Monica Blvd. at Doheny, L.A.

TV'S FUNNIEST BROTHERS—THREE DAYS ONLY
MAR. 15, 16, 17—PHONE NOW CR 6-6168



TECH Sports

Track Team Loses, Distance Men Win

The Occidental Track team traveled to Caltech Tuesday. It was the Tigers' first meet of the season and they were up for it (with so much talent it was impossible to be down). Caltech was smothered in the sprints. Oxy's Chuck Kanoy (9.8-100, 21.7-220) and Vance Peterson (49.5 in the quarter mile) were outstanding. Tiger hurdlers Cody and Hahn, and distance aces Jordan and O'Connor (9.29.6 two mile) also added to the show of strength.

Tech's Pete Cross made an outstanding effort in the mile (4.23.1), missing the school record by 0.4 seconds. Lane Mason shone in the two mile (9.58.0)

and Denis Schneringer turned a 1.57.8 half mile. Schneringer, who had to be coaxed to come out this season, has proved to be the most surprising freshman addition to the team. Other notable performances were Walt Innes in the pole vault (13'0") and 440 intermediate hurdles (59.0), Gus Schultz in the high hurdles, and George Fox in the triple jump (39'½").

Conference Relays

On Saturday Caltech ran in the conference relays at Whittier. Tech's distance strength made itself felt in the four man four mile, with the team of Schner-
(Continued on page 5)

IH Volleyball Baseball Starts Off Slow, But Promising

Interhouse volleyball has barely started, but the results are already almost certain: the top three teams, Page, Ruddock, and Fleming, have already played each other.

Page completely demolished Fleming in the first game of the season on Friday. The spread was 12-0 before Fleming could get a point, and the final score was 15-1. In the second set Page relaxed and coasted to a 15-10 win.

The Page-Ruddock game was extremely close all the way. But Page finally triumphed 15-11 and 15-12.

Ruddock beat Fleming in three games after the Flems tried an illegal maneuver of keeping their spikers in the front row all the time. This was disallowed, and Ruddock went on to win 12-15, 15-8, 15-5.

In other game Lloyd beat Ricketts beat Dabney, and Dabney beat Blacker. These second-division teams do not compare to the first three.

Outstanding players up to now have been Herb Jubin and Craig Maxwell of Page, and Gregg Brewer of Ruddock. All three are excellent spikers.

The crack of bat on ball and the hysterical cries of "Steal, Paine!" and "Atta boy, Firestone!" signaled the start of varsity baseball's practice game schedule last Friday at TP. Hosting Cal State Fullerton, the horsehiders put on a fine show to spark hopes for a more successful baseball season than Caltech has been used to, especially to the minds of Coaches Ed Priesler and Dean Bond.

Fielding a team that consisted of four sophomores, three freshmen and two seniors, solid prospects for a good forecast were unmistakable. Fullerton came out on the top end of the 3-2, 7-inning squeaker by virtue of only three Caltech errors, scraping an unearned run off each of the Tech hurlers, John Frazzini, Craig Helberg, and Les Fettig. Down by a run as they came to bat after an errant throw down to third in the top of the first, a walk to Dan Hammons with one down and a line shot up the right center alley by Fettig sent the tying run, but a combination of slow-motion leg-work, unde-

cidied base coaching, and a fine relay from the gym to the plate cut down the go-ahead. Bob Firestone knocked in the second run with the score 3-1 in the Caltech sixth, much to the glee of the Page rooting section as the pop shot plopped in front of the Fullerton right fielder.

Saturday's doubleheader against Pasadena College revealed the weak spots in the team effort, as the practice schedule is intended to do. After the three errors of the Fullerton game were matched in the first game, the weary players blossomed with six in the second. Coach Priesler dabbled with a Frankenstein pitching staff that yielded such results as Jay Chapyak's 22.50 ERA, while a total of five different spikes toed the rubber, four of them yielding five runs apiece on the day in as little as one inning for final scores of 8-6 and 15-4.

The first game was well within reach for the Beavers, with Fettig turning in a rather wild four innings, but only three runs, one earned, and leaving with a 6-3 lead. Enter Chapyak, striking out two of the first four men he faced, then being bounced all over the field as the Pasadena players psyched out his curve. Final score: 8-6.

The second game's 15-4 score looks worse than the team's actual showing. Tech bats came alive with an unheard-of team average of .281 for the game supported by nine hits, of which Hammons bags-full triple was the highlight. Tom Resney and Chapyak also chipped in with two hits apiece.

Yesterday, the same Pasadena College team played the TP boppers in a home game before the team goes on the road for a doubleheader with Biola on Saturday.

PROGRAMMERS

• TRW SYSTEMS • TRW SYSTEMS • TRW SYSTEMS • TRW SYSTEMS •

COME JOIN THE ACTION!

with TRW Systems, who participate in 9 out of every 10 U.S. space launches and has built and orbited more spacecraft than anyone.

TRW diversification and growth means unlimited career opportunities exist for BS/MS graduates desiring Computer-Oriented professional positions. You are invited to discuss these opportunities in Los Angeles and Houston, with members of TRW Systems' Computing Center when they visit your campus

MARCH 8th and 9th

• TRW SYSTEMS • TRW SYSTEMS • TRW SYSTEMS • TRW SYSTEMS •

BS/MS degree candidates in Computer Science, Mathematics, Physics, Chemistry, and Engineering are invited to investigate careers at the Computation and Data Reduction Center (CDRC) of TRW Systems' new ultra-modern facilities in Redondo Beach, California (near Los Angeles International Airport) and in Houston, Texas. GROWTH has been the by-word of TRW Systems since its founding over a decade ago. Having established standards of TECHNICAL EXCELLENCE in aerospace and related fields, TRW now has new and important opportunities for graduates who are or want to become computer-oriented specialists.

At TRW Systems specialists in scientific programming are actively advancing the application of computer technology to underwater defense systems, Gemini and Apollo mission planning and analysis, advanced ballistic missile studies, advanced space probes, Mars studies

and space communications systems. Our more than 250 programmers and scientists are utilizing their backgrounds in mathematics, engineering, physics, chemistry, and computer science both to resolve problems of the aerospace environment and to further advance the capability of computers and the computer sciences.

Vitally involved in the nation's major space programs, TRW Systems provides its personnel in scientific and business programming with three IBM 7094 systems. Installation of an advanced GE 635 system is scheduled for 1966.

Please make arrangements with your Placement Office for interview appointment. Or, write College Relations, TRW Systems, One Space Park, Redondo Beach, California. TRW is an equal opportunity employer, male and female.

TRW SYSTEMS

Swimmers 4th

Tech swimmers did moderately well in the conference relays at CHM last Saturday, coming in fourth behind CHM, Redlands, and Oxy, and bettering Pomona and Whittier. (This was with two of our best swimmers, Lutz and Kright, out with the omnipotent flu.) Best performance by the Techmen was in the 200-yd. freestyle, in which the team of Anderson, Held, Kalisvaart, and DeWitt turned in a 1:35.0, only 0.9 second behind Oxy. In the 200-yd. backstroke Teckers Pearson, DeWitt, Held, and Anderson came in third with 2:03.3. Fourth places were taken in the 200-yd. breaststroke by Brown, Hunt, Gibson, and Armstrong, and the 400-yd. freestyle by Dimotakis, Gerritsen, Hunt, and Kalisvaart.

The next event for Caltech will be the dual meet against CHM on Friday at 4:00 p.m. here at the alumni pool. CHM has a tough team as demonstrated in the conference relays, but the return of Wright and, hopefully, Lutz will greatly improve the Beavers' chances.

Europe

London, Paris, Madrid, Tangier, Rome, Budapest, Berlin, etc.
Charter flight, \$430. 58-day tour, all-expense, \$997. Free brochure: 794-5131.

ATC — Professor Warren
2275 Santa Rosa, Altadena

Gorbet Best Wrestler in SCIAC at 123

The wrestling team wrapped up its season Saturday in the SCIAC league tournament. Pomona won the meet, followed by Whittier, CHM, and Caltech.

Larry Gorbet was the only winner for Tech, taking the 123 pound class over Scott of Pomona in the finals. Both co-captains, Russ Crenshaw and Jim Woodhead, also gained the finals in their weight classes. Crenshaw lost a close match at 152 to Smallsreve of Pomona, who was named the meet's outstanding wrestler. Woodhead, wrestling despite doctor's orders, lost to a strong George Mills of Pomona at 167.

The only other place for Tech was a third taken by frosh Mike MacLeod at 130.

Hampered all year long by a shortage of wrestlers, the team finished with a 6-9 record for the year and hopes for a larger turnout next year.

Lloyd Wins

Lloyd House upped its Discolobolus point total to 22, twice that of second-place Blacker, Sunday with a 33-6 come-from-behind victory over Ruddock in football.

At the kickoff, the Lloyd machine looked a bit rusty, fumbling twice before recovering the ball near their own 20-yard line. Greg Brewer of Ruddock picked off a pass on the first play of the game, and Ruddock proceeded to march to a touchdown and a 6-0 lead before the game was three minutes old.

Lloyd got into gear after the kickoff and began to grind out yardage. Bob Vance put together short passes to Grey Jennings and long bombs to Marshall Hall, good for the tying touchdown. With the conversion Lloyd went ahead for keeps.

Hampered by Lloyd's strong rush, Ruddock quarterback Bo Barbosa was unable to sustain any drives for the rest of the game. With blitzing Lloyd linebacker Craig McAllister chasing him out of the pocket into the waiting arms of Jim Woodhead, Barbosa just couldn't get time for his receivers to break free.

In contrast, Lloyd quarterback Vance was given ample time throughout the game by the blocking of Hinkle, Hartman, and Williams. Losing the ball to Ruddock only twice more, Lloyd dominated the remainder of play, picking off four passes and scoring four more touchdowns to win 33-6.

Ricketts gets the next crack at Lloyd, having challenged in basketball, wrestling, and horseshoes. The challenge will be played off in basketball.

Droll Dessingerism

In a small town in Minnesota, there was a very popular bar. The owner had obtained thousands of small plastic birds of ten varieties, and was placing one of them in each mug of beer. Of course there was a prize for the collection of a complete set.

The owner noticed that certain brands of beer were selling unequally, so he decided to experiment with the number of birds he put in the different brands. After six months of experiment- (To be continued next week)

Ruggers Win First

The Caltech ruby team won its first victory in its short history by getting a well-deserved win over Pomona on Saturday by the score of 9-0. Caltech spent most of the game on the attack; however, lack of experience resulted in many mistakes which frustrated further scoring attempts. The Pomona team had a hard-tackling defense, but most of their attacking plays were successful, foiled by a rugged Caltech defense. Mick Mortell at fullback was outstanding in driving Pomona back with long kicks to touch (out-of-bounds).

Caltech's first try (touchdown) came after a line-out (in-bounds play) one yard from the Pomona goal line. Jon King grabbed the ball from the throw-in and with the help of the rest of the forwards, barged across for a fine

try. John Gallivan narrowly missed the conversion attempt.

Tech soon scored again when Jim McWilliams completed an excellent run by reverting to primitive football tactics and crashing through the defense for the try. The conversion attempt was again unsuccessful, making the score 6-0.

In the second half both teams were tiring, and a 35-yard penalty kick was the only other score.

Roger Chalkley had a good game at scrum half, combining well with McWilliams and all other backs made good individual runs. The forwards are also improving with every game: in the scrum, Atkinson did a great job of hooking, and in general play King and Karlton were outstanding.

Occidental Wins Again

(Continued from page 4)

inger, Meo, Mason, and Cross running 18:15.6. (An average time of 4:34 per man). The sprinters, in better condition after the mets with Redlands and Oxy, bagged two second places—one in the 440 relay (Wyatt, Lamb, Tarjan, Harley), and the other in the 880 relay (Wyatt, Harley, Lamb, Tarjan). Walt Innes put in an outstanding individual performance — taking third in the pole vault and fifth

in the high jump.

As expected, Redlands topped the meet with 74 points. The Bulldogs' sprint crew and their weight man Hugh Johnson were too much for the other conference teams. The other scores were CHM 63, Whittier 51, Pomona 47, Caltech 46. The closeness of these is an indication of how close the dual meets should be. Pomona will be at Caltech this Saturday. It should be an exciting meet.

CARMELO'S ITALIAN RESTAURANT

THIS AD WORTH 25¢ ON ANY LARGE SIZE PIZZA OR DINNER.
NOT VALID ON WEDNESDAYS. (EXPIRES FEB. 28)
WEDNESDAY SPECIAL: 2 COMPLETE DINNERS
FOR THE PRICE OF 1.

Open 11:30 a.m. to 12:00 p.m.
1111 E. Colorado Blvd.

Closed Tuesdays
449-9201

Pass this difficult and challenging 7-part test and win a free GENIUS button!

"DIFFICULT AND CHALLENGING 7-PART TEST"

Part 1. Write your name and school. _____

Part 2. Write your street address. _____

Part 3. Write the city where you live. _____

Part 4. Write the state where you live. _____

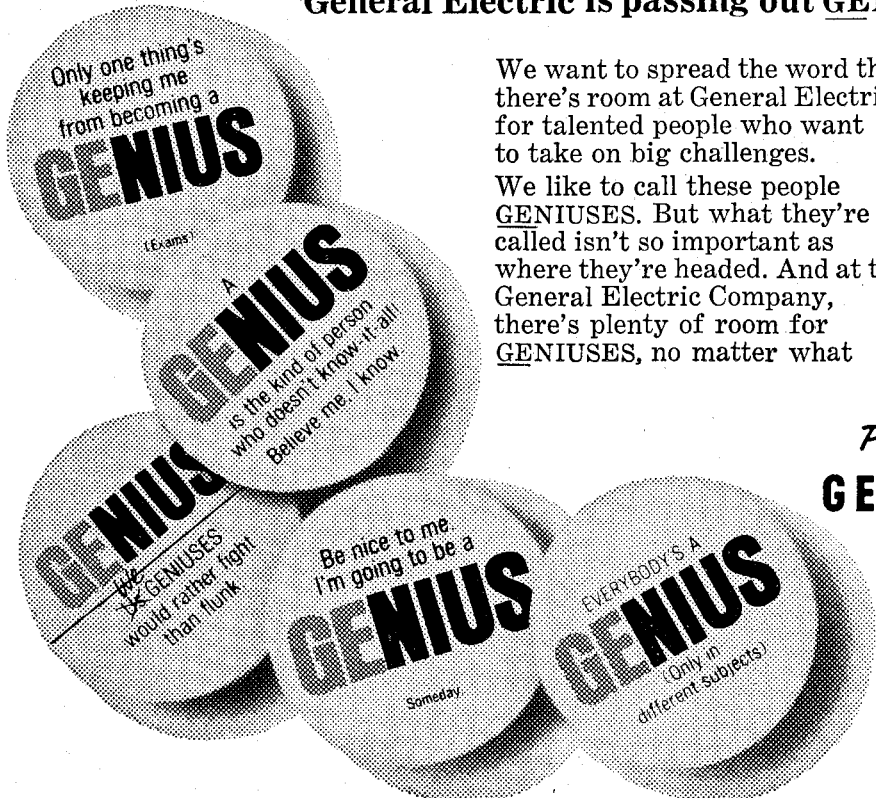
Part 5. What year are you in at college? _____

Part 6. What field do you plan to be a GENIUS in after graduating? _____

Part 7. Now, cut out and mail the coupon to General Electric, at this address.

"Room for GENIUSES," General Electric Company,
P.O. Box 215, Church St. Station, New York, N. Y. 10046

General Electric is passing out GENIUS buttons. What's the point?



We want to spread the word that there's room at General Electric for talented people who want to take on big challenges.

We like to call these people GENIUSES. But what they're called isn't so important as where they're headed. And at the General Electric Company, there's plenty of room for GENIUSES, no matter what

their particular field of interest. If you want to be recognized for your talents come to General Electric, where the young men are important men.

And be among the first on your campus to own a genuine GENIUS button. It will serve as a reminder that G.E. . . . and GENIUS . . . and important challenges . . . all go together.

Progress Is Our Most Important Product
GENERAL ELECTRIC

PAT'S LIQUORS AND DELICATESSEN

1072 E. Colorado SY 6-6761

Open to midnight daily,
1 a.m. Fri. & Sat.

Keg Beer Party Supplies

Glee Club Will Go East During Spring

by Tom Miller

Forty selected men from the Caltech Glee Club, directed by Mr. Olaf Frodsham, will journey back East during spring vacation for the Glee Club's annual spring Concert Tour. This year's tour includes concerts in colleges, high schools, and churches in Corning, Elmira, Oneida, and Long Beach, New York; in Milford, Connecticut; and in Paramus, Dover, and Parsippany, New Jersey.

The Glee Club also appears annually in the Southwestern Intercollegiate Choral Association Festival, where southland colleges are adjudicated by national and international choral authorities. The comments of Harold Decker of the University of Illinois are typical of the Glee Club's rating: "Exciting and virile singing . . . excellent choral tone . . . one of the finest male choruses."

The Glee Club sings for many activities at Caltech as well. In December the Athenaeum members are serenaded with a full-length concert, and the high school students are snowed on Students' Day with Glee Club singing in Beckman.

Last Friday the Club appeared in the Y's 50th Anniversary celebration and a short program for the Caltech Associates is still to come on March 28.

Several groups associated with the Glee Club are also busy all year. Some Glee Clubbers sing in the Madrigal Society, some in the Catech Quartet. There is also a Chórale, led by Mrs. Priscilla Remeta, the Glee Club assistant director, which provides new men with a year's singing experience after which many can enter the Glee Club. Frodsham and Mrs. Remeta both give free voice lessons weekly to many Techmen.

The Glee Club extends the palm in several directions to finance its transcontinental peregrinations. The Club is primarily self-supporting through tour and local concert fees, the Annual Home Concert on May 6 and 7, and record sales in the bookstore. ASCIT makes a donation every year in exchange for free Caltech student admission to the Home Concert. Also, the Service League contributes a substantial sum, and the Institute makes up the remaining deficit.

White Dwarfs in Monday Nite

Dr. Jesse Greenstein, Professor of Astrophysics, delivered the Beckman lecture Monday on the topic of "Dying Stars". Greenstein began by explaining that most stars can be placed on a curve on a graph of temperature versus brightness. These "main sequence" stars, which include the sun, contain large amounts of hydrogen and release energy by "burning" hydrogen into helium.

Going

After a star has used up most of its hydrogen, it reaches a critical point in life. At this point the star leaves the main sequence and becomes several orders of magnitude brighter for a short time on an astronomical scale. After this, the star undergoes a dramatic change and falls for below the main sequence in brightness. From there the star very slowly cools off and fades away.

Current theories suggest that the reason for these changes lies in the fact that stars use the energy obtained from the fusion of hydrogen to create a back pressure to counteract the force of gravity. As the hydrogen is used up, the star can no longer keep from collapsing, and it gradually shrinks. Finally a new

process called electron degeneracy takes over, supporting the star from further contraction.

Going

At this time the star has reached fantastic densities, on the order of tons per cubic centimeter. Now the white dwarf can slowly cool off, in the process throwing off vast quantities of matter. It so creates a planetary nebulae, a huge cloud of expanding gas.

Gone

Greenstein also mentioned a theory that in really massive stars electron degenerate pressures may not be enough to support the star against gravitational attraction. The star may contract again to a neutron star, where a star with a mass of many times that of the sun may have a diameter of about ten miles and densities approaching billions of tons per cubic centimeter. This type of star exists only in theory; the one suspected observation in the crab nebulae turned out to be a false alarm.

FLICK GUIDE

ACADEMY
1003 E. Colorado 796-3192
Admission: Afternoon/Evening: \$1.25/
\$1.50 w/U.A. student card,
\$2.00/2.25 w/out.

Admission: \$1.50 w/Fox student card.
\$1.75 buys a card and admission.
Friday:
Take Her, She's Mine—12:30, 4:04,
7:36, 11:07.
Do Not Disturb—2:15, 5:45, 9:20.
No schedule available for Saturday
before press time.

COLORADO
2586 E. Colorado 796-9704
Features are The Ugly Dachshund and
Winnie the Pooh. No schedule
available before press time.

CROWN
129 N. Raymond 796-3131
Admission: \$1.50 w/student ID,
\$2.00 w/out.

Friday:
The Great Race — 7:00, 10:00.
Saturday:
Ditto — 12:30, 4:00, 7:00, 10:00.

ESQUIRE 793-6140
2670 E. Colorado 684-1774
Admission: \$1.25 w/student ID,
\$1.75 w/out.

Friday:
The Railroad Man — 7:00, 10:40.
Before the Revolution — 8:45.
Saturday:
RM — 1:45, 5:25, 9:10.
BR — 3:30, 7:15, 11:00.

HOMES FOR SALE

CAPE COD

3 bedrms, family rm, 2 baths
Completely fenced back yard
New furnace—Nice kitchen
Formal dining rm
Beautiful carpets and drapes
Breakfast rm, large service area
Quality home — 5 min. east
of Tech
Taxes: \$774 — 2300 sq. ft.
— \$44,500 or submit offer

SPANISH CHARM

3 bedrms and 1 bath (upper
level)
Liv rm, din rm, den, 4th bedrm,
and bath (middle level)
Large playrm, bar, laundry rm,
tool rm, and garage
(lower level)
Lighted badminton court and
fenced backyard with fishpond
Long-term escrow available for
occupancy in June
San Rafael area—
Walk to elem sch
3000 sq. ft. — \$45,000

Homes available—every location
every size—every price

Cynthia Rusch

John Grech Realty

449-1181

799-9482

The Critical Ear

THE WORLD OF MY AMERICA

by Hendrickson

Miss Pauline Myers, an accomplished Negro actress of considerable Broadway and LA stage, screen, and television experience, presented "The World of My America" Saturday night in Beckman. It was not long after the curtain opened on the darkened stage, before Miss Myer's versatility and dexterity as an actress had won her the rapport of the audience.

All Miss Myers' world was divided into three parts: readings of thirteen of Langston Hughes' poems; a dramatic biography of Sojourner Truth, the famous Negro freedwoman who did much to further the cause of the Gospel and the Negro up to her death in the middle of the nineteenth century; and readings of eleven of Paul Laurence Dunbar's poems. The material was interesting, though perhaps a little lacking in variety of style.

The looking glass

Miss Myers wore many faces that night in her characterizations, including those of a child, a hard-working washwoman, a mother giving advice to her son, a landlady, a roomer griping at his landlady, a melancholy chip-pie, and a coaxing bride-to-be. If there is any criticism to be leveled at all to Miss Myers, it is that her performances were so well done on diverse material that the effect was kalaidoscopic; one would like to have seen more of some of those faces.

The poetry itself was fascinating. Paulene Myers, often in the American Negro dialect, brought out the many moods— from the "lonesome blue" of Hughes' "Midnight Chippie's Lament," where "when a two-bit woman gives love away, she's through . . ." to the happy piquance of "A Dream Deferred": ". . . and there came Nancy Smothers, lookin' just like an Easter lily, 'cept that she's chocolate . . ." and "Love is worse than hell!" "The World of My America" was a good, well-received show; it was an opportunity for one to see our America from another perspective.



FOR THE FUN OF IT... get caught in rain, no strain. With Cactus Casuals, you look your best, fair weather or foul. New India Whipcord weave is designed for both casual and dress wear. Shrugs off wrinkles; permanently creased. Completely washable—never needs ironing. True Classic Ivy styling. 65% Dacron® polyester, 35% combed cotton. They come in India tones of Blue, Grey, and Brown. Now, for but a pittance, dress like an Indian prince. Only about \$8.95.

CACTUS PRESS'D

CACTUS CASUALS
BOX 2468, SOUTH SAN FRANCISCO, CALIFORNIA

Bertolucci's 2nd BIG WEEK So. Calif. Premiere BEFORE THE REVOLUTION

Prima Della Rivoluzione

"A TRULY GREAT FILM . . . BREATHTAKINGLY beautiful . . . Bertolucci uses dazzling techniques to form the superb structure of his story . . . a bravura style that indicates a complete mastery of the medium of movies."—KEVIN THOMAS, L.A. TIMES



"REVELATION OF N.Y. FILM FESTIVAL"
N.Y. TIMES

A masterwork of modern film-making . . . that ultimate moment in the arts when profound emotional impact is achieved through intellectual exposition.—Gene Youngblood, Herald-Examiner

LOS FELIZ 1st Program On
1822 ITALIAN SERIES
North Vermont Series tickets available
NO 4-2169 6 Programs at \$7.50

Co-Hit: Vittorio de Sica's

UMBERTO D

Hailed as one of the all time Greats

"BEAUTIFUL AND HEARTWARMING... DESERVES THE 'BEST' AWARDS GARNERED AT SIX INTERNATIONAL FILM FESTIVALS!"
—Judith Crist, Herald Tribune

ESQUIRE

Second Feature

CONTINENTAL

**Achtung!
Attenti!
Pozor!
En Avant, Marche!
¡Alto!
Stanna!**

**Berlitz Gives You A
Command of
Any Language!
Berlitz**

170 South Lake Ave.

Pasadena

SY 5-5888