

# The California Tech

Associated Students of the California Institute of Technology

Volume LXI

Pasadena, California, Thursday, October 1, 1959

Number 2

## Tech Bringing Modern Jazz To Pasadena

The second annual Caltech Jazz Concert will be held Saturday, October 31 (Halloween), at the Pasadena Civic Auditorium, 8:15 p.m. Guests will be the Dave Brubeck Quartet, Andre Previn, Shelly Manne, and Art Lyman. Tickets will be \$1.75, \$2.75 and \$3.75, with a 50-cent discount to Caltech students on the two higher-priced seats.

Details will appear in next week's Tech, according to Hugh Kieffer, ASCIT activities manager.

## Girls Booked For Frosh Tea

By Lee Molho

Tech frosh are going to get the jump on upperclassmen when 160 girls come in for the Freshman Tea Dance at 2 p.m. Sunday, October 4. Dabney Lounge will sing softly to the five-piece band of Lloyd Kamins.

"The accent is on the casual," said Bob Heath, chairman of the YMCA - ASCIT - sponsored dance. "We're trying to make it easy for freshmen to meet the girls." Several Scripps hostesses will be along to help with introductions, while mixers and New Student Camp entertainment are being scheduled to add extra life to the afternoon. True clue on clothes is the sporty look—sport coat or coat and tie are advised.

Several upperclassmen will join a score of freshmen to transport the girls from Scripps, Pomona, and Whittier Colleges. Attending also will be about 60 girls from Anokaia and Westridge private schools and San Marino High School.

Invited in addition to the freshmen are ASCIT officers, Student House presidents and social chairmen, and all transfer students.

## T To Take Till Tree Time

The Big T didn't come out last year. Nobody seems to now why, except that the editor went into the army. Somebody—again, nobody knows for sure who—plans to have the darn thing out "by Christmas."

Good luck.

## Announcements

### GLEE CLUB

Last chance to join the Caltech Glee Club comes today with try-outs at 4 p.m. in Culbertson.

### GUINNESS MOVIE

Alec Guinness stars in "Kind Hearts and Coronets" Sunday at 7 p.m. in Culbertson. The movie is the first in the Y's first-term film series. Tickets may be purchased at the gate or from appropriate Y members.

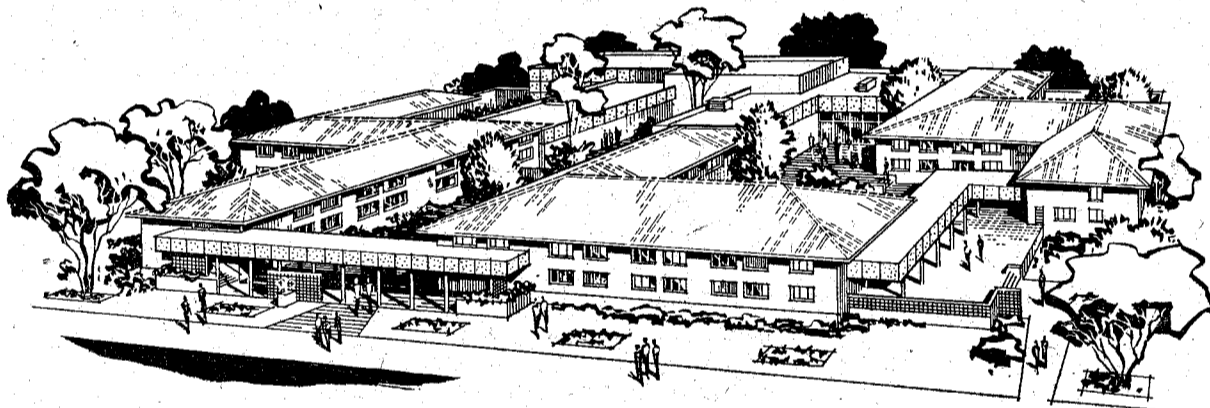
### FOX THEATRES

Neil Sheeley, Blacker, and house representatives are selling student tickets to Fox theatres. The tickets include a 25 per cent discount pass and fringe benefits.

# Blueprints Transformed To Buildings; Program Hits Construction Stage



A placer mining gun breaks ground for the \$2.5 million Keck Engineering Laboratory. The gun symbolizes the hydraulics research that will go on in the lab.



Shown is an architect's sketch of the new Student Houses. Target date for occupancy is next September.

## 'Y' Slates Three Leaders

James W. "Scotty" Reston, bureau chief in Washington, D.C., for the New York Times, is the first tentatively scheduled campus visitor in the YMCA-sponsored Leaders of America program. Reston will probably be on campus early in December. He has headed the Times Washington bureau for six years, and is a nationally known political analyst.

Slated for an April campus visit is Dr. Carl Rogers, professor of psychology and psychiatry at the University of Wisconsin. He is the author of several books on non-directive counseling techniques, which he helped pioneer while at the University of Chicago.

Norman Cousins, editor of the Saturday Review of Literature, will close out the Leaders program in May. He is a member of the National Committee on Sane Nuclear Policy and spent two months in Russia this summer on a well-attended lecture tour.

Dr. Herbert Otwell, professor of Old Testament religion at Pacific School of Religion, will be on campus in January as the Y's visiting theologian for the

school year. He is currently engaged in formulating a "revolutionary" theology of the Old Testament. Otwell's campus stay will be financed by the Danforth Foundation and will be similar to the Leader's visits.

The Leaders of America visits are financed by a bequest made

by the late Dr. Robert A. Millikan. Each year the YMCA brings two or three distinguished people to campus for two or three days, and they spend most of their time in contact with students. Previous visitors under the program include Dr. James B. Conant and Dr. Robert Oppenheimer.

## New Frosh High In English; 18 Win Honors At Entrance

Except in English composition where they were 8 points higher, the College Board scores of this year's freshman class are approximately the same as those of last year's, according to Assistant Dean of Admissions Peter Miller. The English average scores are 685 for the class of '63 and 647 for the class of '62.

Because of the jump in scores on the English test, English 6, a class given the last three years to freshmen with high scores, will not be offered this year. A new frosh English course will be used in its place.

Eighteen members of the class were awarded Honors at En-

## Work Progresses on Keck, Houses, Sloan, Alles

By John Todoroff  
Tech News Editor

Caltech's third major building program is moving from the blueprint stage into the construction phase with one (physical plant) of the 18 new buildings completed and work on eight others now actively under way. Of the \$20 million revised goal, all but \$2.5 million has been pledged to date.

Three new undergraduate houses, north of the Olive walk, currently occupy top construction priority. All effort will be made to have them ready for occupancy next September, bringing 85 per cent of the undergrads on campus. Two houses are planned with 12 single rooms and 36 doubles, the third will

have 13 singles and 37 doubles.

All rooms will be similar in size and facilities to their counterparts in the present four Houses. (See floor plan on page 2.)

Each House will have eight alleys plus an individual lounge and dining room and an apartment for the resident associate. They will share a common kitchen, game room, and laundry.

### Two Houses Unsold

Two of the Houses are yet to be financed, accounting for \$1.6 million of the outstanding \$2.5 million. The third will be called Lloyd House. It is the gift of the Lloyd Foundation in memory of Ralph B. Lloyd and Lulu Hull Lloyd. Mr. Lloyd is a former Caltech trustee.

A new \$400,000 campus cafeteria will be completed next summer and attached to the new houses. It is at present unfunded.

Also under construction and scheduled for completion next May is the five-story Alfred P. Sloan Laboratory of Mathematics and Physics on the site of the old High Voltage Engineering Laboratory. The three upper floors of the building will contain offices of the mathematics faculty and graduate students as well as conference and seminar rooms, a lecture hall and a library.

### 10 Million Volts

The two lower floors (below ground level) will be devoted to facilities for two experimental physics programs. To expand research on the nuclear reactions of light elements, a new 10-million-volt Van de Graaff accelerator will be installed. It is being supplied by the Office of Naval Research at a cost of \$1 million. Also, new facilities for low-temperature physics research are included.

The Gordon Alles Laboratory of Molecular Biology is under way, replacing a parking lot between Church and Kirchoff and should be occupied next summer. It will house research facilities in virology, biochemistry, immunology and psychobiology. This building is financed by a gift of Dr. Gordon Alles, a Caltech alumnus, matched by a gift from the U.S. Public Health Service.

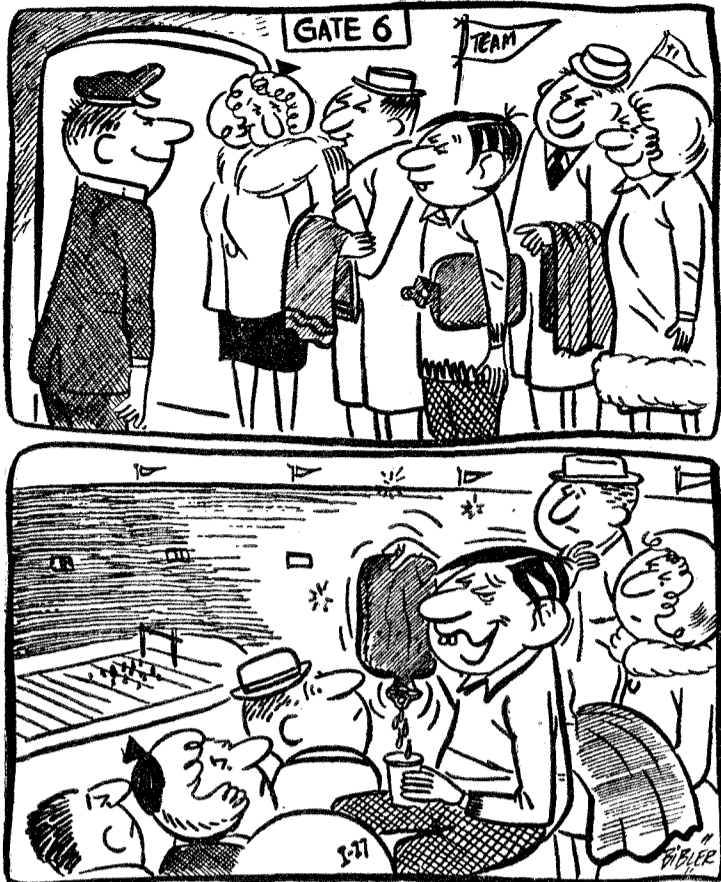
Across San Pasqual, the Campbell Laboratory of Plant Research (Continued from page 2)

## Pregame Rally On Wednesday

To prepare for the Caltech-Redlands football game the year's first pep rally will be held at 8 p.m. Wednesday, October 7, on the baseball diamond. It will be centered around a bonfire to be built of old boards from campus construction.

LITTLE MAN ON CAMPUS

by Dick Bibler



Good Points

There were a couple of comments made in speeches at New Student Camp that we thought were worth repeating and remembering.

Dr. DuBridges gave his usual very interesting talk about the physical and financial structure of the Institute. But he threw in something we hadn't heard him mention before. He said he would like to see the Student Houses place more emphasis on becoming intellectual and educational centers than they have in the past. He pointed out that this will be more easily possible during the transition into the new houses and suggested that the frosh could play an important part in the change. "After all, you ought to get your money's worth," he concluded.

Prof. Ray Owen, in his talk on Caltech attitudes, was discussing the causes of upperclass apathy and cynicism. "You don't need to appear uninterested in science and engineering in order to appear interested in other things," he said. "You can remain enthusiastic about your fields of study and still be a well-rounded individual."

It was a very good camp—the best we've seen in three years—and many other worthwhile points were made, but these two particularly stuck in our mind as things to think about.

—cm

Can't Win 'Em All

The Interhouse Committee met Monday to talk over "the content and the manner of distribution of the Little t publication." The final action they took—a resolution calling the manner of distribution in "poor taste," but pointing out that it was no an official act of a House—was entirely justified. We agree wholeheartedly.

But the minutes (good job Doug, by the way) indicate that the discussion was, on the whole, petty and personal. We realize that this type of thinking is standard IHC procedure and are simply thankful that it did not show in the final resolution.

We might comment in passing that the parking space distribution is not in the best of taste itself.

—cm

The California Tech

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Construction Underway

(Continued from page 1)  
search is under construction.

Keck Under Way

Ground was broken September 2 for the \$2.5 million W. M. Keck Engineering Laboratory (See picture.) Included will be an engineering materials lab equipped with an electron accelerator, research facilities for study of high temperature properties of materials, a new laboratory of sanitary engineering, and a new hydraulics and water resources laboratory. The building should be completed by next September.

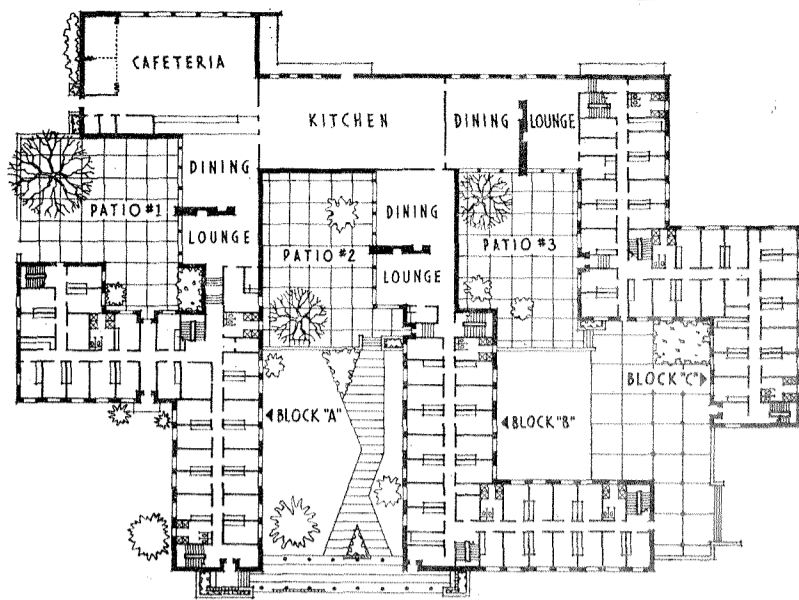
Work will begin on the Winnet Student center next summer when the new cafeteria is completed and the present Greasy, now occupying the future site of the Student Center, can be torn down.

The Student Center will be a two-story building containing offices for the California Tech and the Big T, ASCIT meeting room, YMCA and Throop Club headquarters, a space for shop work, a game room and a lounge.

Two new aeronautics labs were assured with pledges announced by President DuBridges at last June's graduation. Aerojet-General has given \$400,000 to finance laboratories devoted to the study of fluid mechanics and jet propulsion and to be named the Theodore Von Karmen Laboratory.

Dr. von Karmen directed Caltech's Guggenheim Aeronautical Laboratory for more than 20 years and was the founder of the original Aerojet Engineering Corporation. The von Karmen lab is presently on the drawing boards and slated to be built on top of the present hydro lab, in back of Guggenheim.

A \$1,050,000 Firestone Aeronautical Research Laboratory, financed by a gift from the Firestone Tire and Rubber Company, is being designed for the area between the synchrotron and the Olive walk. It will house several types of advanced research equipment, including plasma jets, shock tubes, electric-arc wind tunnels, and hypersonic tunnels operating at speeds up to the equivalent of 12,400 m.p.h. There will be classrooms and lecture rooms for 80 to 100 graduate students.



Floor plan of the three new Student Houses and campus cafeteria, all of which will be completed by next September.



Construction is under way as a \$1.1 million grant from the Sloan Foundation transforms the old High Voltage lab into a new Mathematics-Physics building.

Construction work will begin on the two aeronautics additions next spring. Ground will be broken next summer for the long-awaited Millikan Library, which will bring most of Caltech's books under one roof.

The 1200-seat Beckman auditorium is now slated for location north of San Pasqual and near the Keck Engineering Building, but no date has been set for groundbreaking. The building will include an interfaith chapel, small lecture and conference rooms for dramatic and musical productions, and the headquarters for the Caltech Service League.

Construction should begin next summer on the four graduate houses, which will house 200 unmarried students. They will be located on the north side of San Pasqual Street, between Holliston and Hill Aves. All are paid for.

Caltech's first building program began in 1910 with the acquisition of this campus site and the erection of the building now known as Throop Hall. The second major development program began in 1928 with the erection of Dabney Hall, Guggenheim, Kerckhoff, the Athenaeum, and the present Student Houses.

President's Column

As the 1959-1960 academic year gets under way, it is my great pleasure to welcome back to the campus our happy family of upperclassmen. One of these, however, is regrettably no longer with us, and the fact that Bill Hilchey was the ASCIT Business Manager raises some immediate questions of procedure.

A forthcoming Jazz Concert and certain problems regarding

Forensics Year Opens Tonight

Caltech's forensic activities will get under way this evening with a meeting for all new and returning debaters, orators and speakers.

A clinic where this year's debate topic and other speech activities will be discussed is scheduled for this Saturday at Long Beach State. Arrangements for attending the clinic should be made at tonight's meeting.

The meeting will be held in the speech office, 310 Dabney.

our publications — notably the BIG T — require the existence of a Business Manager in the near future. The By-Laws stipulate that an election should be held under these circumstances, but I would like to propose that we can by-pass official procedure in this case in favor of expediency. My suggestion is that the ASCIT Board of Directors appoint a new man to the office for the interim period out of a group of applicants and according to the now time-honored system of interviews. Anyone who is interested in the post or who feels strongly about the philosophical implications of this issue contact me or some other ASCIT officer. The first meeting of the year shall take place on Monday, October 5, at which time a decision should be made.

In addition, I would like to indicate that next week's copy of the California Tech will carry a statement written by me with reference to (a) the present structure and operation of the ASCIT machine, (b) a philosophy of student activity and par-

ticipation in general, and (c) some thoughts for future action. Until then, I remain

TOM JOVIN  
ASCIT President

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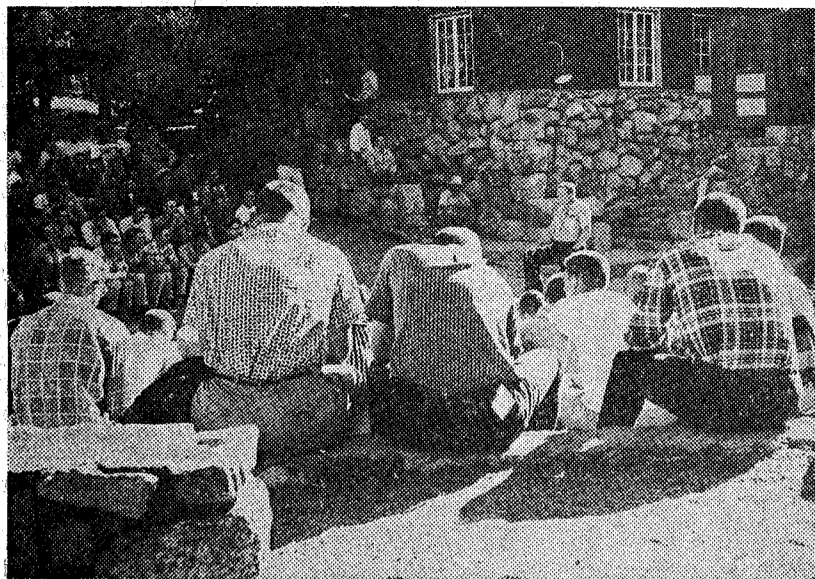
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YOUR NEAREST CLEANER

# Pictures Show '59 Camp A Howling Success



Rovainen begins year with a screech.



Ray Owen stimulates campers' thoughts.



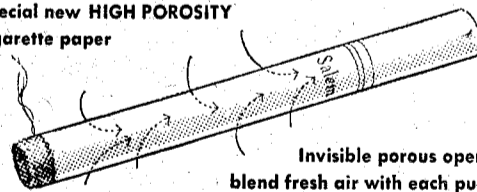
Talent show keeps audience awake.



Jovin slides into third after double to center.

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# Amiin And The Arts

By Joel Yellin

For the year's first column I would like to perform a little experiment. I make no claim of originality, but I think the attempt will prove quite interesting to my discerning and always attentive readers.

Here is a poem. It was written by a man I met this summer. He writes for his own enjoyment, has done so for many years and as far as I know has never attempted to have his work published. In the fashion of I. A. Richards, I would like you to write a very short evaluation and send it over to me at Ricketts, unsigned, if you wish. I'm sure the results will be thought provoking, and I will publish a representative sample next week.

I have seen the mountains crying  
great gaps of golden-white,  
And the people becoming fecund with  
their hopes, their Christs...  
My mouth has tasted the valleys,  
the sunbeams, the women:  
My heart beats fast and  
I heed the river.  
Every small reward of faithfulness:  
the wondering eyes;  
Every roughness, sudden still capitulation  
is forever mine.  
All my winters and my long summers  
I spent at the sea  
In the shelter of roiled green-white water.  
Now I am free.

\* \* \*

On October 19, Ricardo Gomez productions, Mark I, brings Shaw's *Candida* to Caltech. As yet the details are not clear, but plan on attending. A later column will contain the complete information. A production of Shakespeare's *Othello* is also scheduled, appearing in December.

The writer had the extreme pleasure of seeing Odetta at the Ash Grove last Saturday night, and I highly recommend that you do the same, whether you are interested in folk music or not. The voice is tremendous; the woman herself has great personal magnetism; at \$1.50 per person the entertainment is a bargain.



BY JOHN BERRY

Most consumers of alcohol prefer to take their spirits in form of a cocktail. A wonderfully flexible drink, the cocktail may serve as an appetizer, an after-dinner drink, or an excuse for inhaling some exotic spirit at any odd convenient hour that the drinker may yearn for his favorite concoction.

Since the student drinker will know or be easily able to find out the composition of such old standards as the Martini, Manhattan, Old Fashioned, Daiquiri, Side Car, Stinger and Jack Rose, this writer will deal with the little known cocktails.

In your writer's search for exotica, one of his first discoveries was the fruit-flavored brandies. Apricot and cherry remain his favorites for slow savoring to this day. Also, there are many fruit-brandy base drinks which are well liked by him. An example of how different from its base a very simple drink can taste is the following—The Hoptoad.

### THE HOPTOAD

3 parts apricot brandy  
1 part lemon juice

Drink warm or stir well with ice and strain into glass. (The latter is recommended.)

A similar drink recently invented by your writer is the Leapfrog. It involves Cherry Brandy, Rose's Lime Juice, and club soda. Although the proportions are forgotten, since it was invented rather late on an evening which began rather early, they are probably not very critical.

# Positive Bias

By Pierre Sundborg

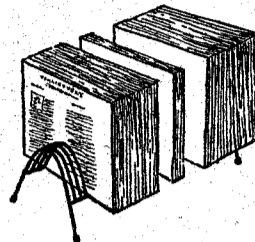
In case you upperclassmen were fooled by the new head, this is just the old "Tarnished Ear" by another name. I finally got around to thinking up a better monicker for this mess of mad ramblings. The "Positive" part merely indicates that I'm relatively sure (don't confuse me with the facts) about what I'm trying to say. "Bias," aside from the E.E. meaning, means that this column is made up of one man's opinions about things hi-fi. I emphasize that it's opinion.

This column is for and about hi-fi at Caltech, and is supposed to be pitched at a critical and well-informed group of readers. If I'm going above or below your level, let me know. My name is at the top, and I live in 49 Ricketts. If I'm not getting across at all, let Cleve know, and he can run TLA ads in this space.

Last year I left off in the middle of a discussion of the relative merits of several record labels. I had discussed the ex-

ceptionally good ones, such as Audiophile, Audio Fidelity, San Francisco (R.I.P.), and Hi-Fi Next week I'll begin on the major U.S. labels. Today, though, I just want to talk about hi-fi around Caltech and vicinity.

There are three stores in Pasadena which sell hi-fi equipment.



The two best are conveniently close to one another on Fair Oaks. Hi-Fi House is half a block north of California on the east side of Fair Oaks. This is the oldest and largest hi-fi retailer in Pasadena, and has proved to be a good reliable firm.

Audio Associates is two blocks south of California on the west side of Fair Oaks. It is quite similar to Hi-Fi House in many respects, but offers two slight

advantages over the latter. First, the people at Audio Associates are familiar with the problems of Caltech students, probably because A.A. is the favorite of most of us. Secondly, A.A. has better facilities for demonstration of loudspeakers on a comparative basis. As you know, the only good way to choose a speaker is to listen to several under similar circumstances, and A.A.'s large demonstration panel makes this simple.

The third hi-fi outlet is Dow Radio, east of PCC on Colorado St. Dow is primarily an electronic parts store, with the hi-fi department relegated to a secondary role. However, if you want to build your system from scratch, this is the place to check first. Don't get me wrong. All of these stores are good, and we're lucky to have them nearby.

The freshmen will soon learn, as the upperclassmen already have, that FM is the only reasonable form of radio in L.A., both in respect to fidelity and quality of programming. FM

(Continued on page 6)



Slide Rule?  
May I help...



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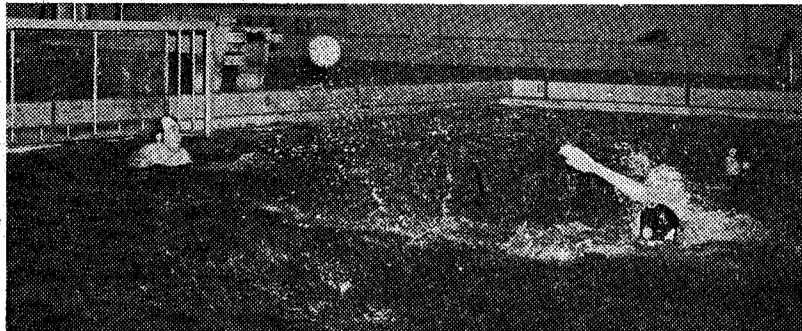
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# Strong Water Polo Squad Prepares For First Test

One of the most promising water polo teams in Caltech history reported for practice on Monday, with three of last year's starters returning. If Coach Emery finds a replacement for goalie Don Wiburg, the team is expected to be in serious contention for the SCIAC championship.



The Caltech water polo team, shown here on the offense in a game last year, promises to give their opponents real trouble

Nine regular players are back from last year's varsity team and several strong men will be up from the frosh squad to provide depth and speed which have not been present for years. The opposition should be able to make far fewer shots than in recent years. The one problem is the goalie position, according to Coach Web Emery. There are

no experienced men for this position, but Mike Mann, from last year's varsity, and Rick Green and John Smith, from last year's frosh, will be vying for the position.

The season opens on Saturday,

October 10, when the varsity plays the Caltech alumni. The first league game takes place on Friday, October 30, when Caltech travels to Claremont-Harvey Mudd. The frosh schedule opens with a game against PCC on Friday, October 23.

# The California Tech SPORTS PE Program Gets Facelififting

A totally new physical education program, based on part on recommendation from the ExComm PE Poll, has gone into effect for all undergraduates. Key change in the program is the initiation of a pass or fail grading system replacing the old letter grading system. This is as a result of recommendations from the ExComm Poll.

Another major change is in the acceptance of medical excuses. All medical excuses must be presented to the instructor on the scheduled hour in person with the bearer required to take instruction but not required to participate. Only deviance from this policy is if the bearer of the medical excuse is confined to bed.

This change necessitated the setting of a minimum attendance requirement, set by the Faculty Committee on Physical Education at 31 days for the first term.

A maximum of three days' credit per week, one hour per day, will be permitted. All absences must be made up in the sport first registered for.

Emphasis will be directed toward instruction in six sports, with each student required to attend classes according to a schedule he makes out himself. Instruction will be offered in badminton, basketball, swimming, tennis, track and field, and volleyball. Class hours in each sport are listed in the sheet passed out at general registration and in the athletic offices.

Only persons allowed to participate in instruction in more than one sport per term are those who are making up previous deficiencies.

Persons playing on interhouse teams must also fill out a schedule and adhere to it after the close of the interhouse season. Those persons out for interhouse teams may receive up to five days' credit per week.



## Beaver Chips

By Noll and Koh

### Coaching Staff Among the Best

If the Caltech football team doesn't make the grade this year, it won't be the fault of the coaching staff. The Beaver varsity is indeed lucky to be coached by some of the best men in the business—men as good as those at many so-called athletic schools.

Head man on the gridiron is Bert LaBrucherie. Bert used to be the head coach at UCLA, and in 1946 was named Coach of the Year by the Football Writers' Association when his Bruins were undefeated.

Caltech's line coach, Shelby Calhoun, is also a three year letterman at LSU, he has coached line for USC, UCLA and the now departed New York Yankees pro team.

Rounding out the staff are Ed Preisler, Hal Woody, and Bill Long. Coach Preisler is in charge of the freshmen team, with assistance from Coach Long. Hal Woody helps Bert in coaching the backfield.

Backing up this coaching staff is possibly the number one trainer in the business, Doc Hanes, who has seen service with the Olympic team.

### Future Opponents Look Rough

Elsewhere in the football picture, hopes for a victory against Cal Western dimmed as Oxy went down to defeat in their game with the boys from San Diego. Viewers of the game report that Cal Western has been vastly underrated, and that they probably will prove to be one of the toughest foes we'll have this year.

Other future opponents of the Beavers' have fared well in pre-season games. Pomona looked very good in losing a reasonably close game to tough Colorado College. LaVerne lost 33-0 to Redlands, which is an indication that LaVerne may not be as weak as first assumed.

### New Look in PE

A shift in the philosophy of the athletic department with regard to undergraduate physical education has the net effect of considerably toughening the PE program.

Results gained from the ExComm PE Poll last year indicated that large number of students wished instruction in various sports as part of the program instead of merely turning out to class for regimented exercise. Therefore, the athletic department has set up a program of instruction designed to make the average student reasonably proficient in a sport which he might not have even played before.

This program has brought about two major gripes. First point of conflict is in the number of days, 31 for the first term, required for a passing grade. This figure, set as a minimum for all students, is about the number of days required for an "A" grade last year under the old letter-grading system.

The figure, arbitrarily set by the faculty committee on physical education, was arrived at by taking the figure of three days per week, as listed in the catalog, and taking into allowance two cuts per term.

A second major gripe is in the way the requirement must be fulfilled. No more than three days credit, one hour per day, are permitted per week. This maximum weekly credit was probably established to insure an even distribution of instruction throughout the entire term, allowing the student to gain the maximum benefit from his instruction.

According to the sheet circulated by the athletic department, a passing grade will be based on attendance, participation and that most popular intangible, attitude. This could conceivably mean that a student could fail for a "bad" attitude toward exercise and exertion.

On the whole, however, the new program looks like a big improvement. The letter grading system, a farce since no one paid any attention anyway, has been revamped into a more sensible system.

Attempts will be made to segregate students into groups of roughly the same ability with each instructor allowed freedom in his course. The new program takes a step along with the trend toward instruction aimed through future and lasting enjoyment and as such should soon gain favor. Indirectly, it will even probably prompt many into greater participation in interhouse athletics, also a desirable point.

### Swim Test Given To All Freshmen

A swimming test was required of all freshmen for the first time this year in order to identify the weak swimmers in the class. All frosh are required to swim for 5 minutes if possible, and those who have difficulty in completing the test will be strongly advised to enroll in swimming classes for PE credit.

In addition to its value in uncovering the weak swimmers, Coach Emery points out that the tests will help locate prospective water polo and swimming stars.



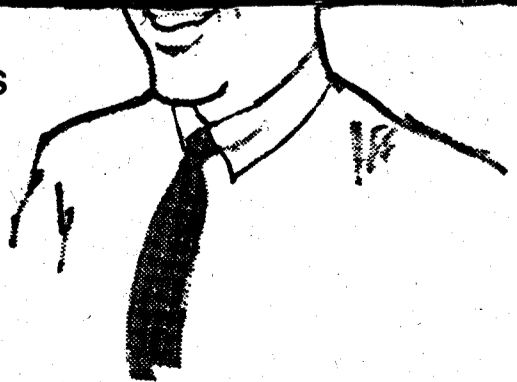
**When first impressions matter...**

The man in command of the situation is, of course, perfectly groomed. And, a good-looking shirt—with masterful tailoring—is one of the essentials. We respectfully submit the flattering Arrow "Tabber" with the authentic British Tab collar—as a fitting background for the well-dressed man. Luxurious "Sanforized" fabrics—oxford and broadcloth. \$5.00.

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# Gridders Open Season Against UCR Saturday

The Caltech varsity football squad officially inaugurates the new season Saturday when the Beavers host the University of California at Riverside on the home field at 2:15. Although only 25 men are expected to suit up for the game, the Beavers are expected to win. River-

side, though improved from last year, is expected to be fairly weak. In last year's edition of the annual game, the Beavers won 26-7.

Several top players have turned out for football during the last week, and should help the squad materially. Lee Hood, starting halfback of last year's team, will be ready to go Saturday, although he has been out for just over a week. John Arndt, one of the stars on the frosh team last fall, is back, and has looked very impressive.

The Riverside game figures to be a wide open affair, with neither team possessing a really good defense. Both teams are considered weaker in the line than the backfield, a fact which could set the scene for some fine breakaway running.

Practice for the frosh started last Monday in preparation for their season opener October 17 against Oxy. The frosh team should be one of the best in several years, with several high school lettermen reported out for the squad. Coach Preisler is expected to use the same offense as the varsity, a winged "T".

## Darbs Picked In Interhouse Softball Race

Interhouse competition starts anew with softball first on the athletic agenda. Practice starts next week with the five-game schedule slated to begin two weeks after the start of practice sessions.

Dabney, winner of the Interhouse Trophy last year and defending softball champs, again looks like a good bet to top the list. However, results will definitely be influenced by this year's frosh class, reputedly the best bunch of athletes ever collected under the Caltech banner.

Other first-term interhouse sports include swimming and cross-country.

## DuBridge Lists 21 Promotions

Promotion of 21 Caltech faculty members by the Board of Trustees was announced last week by President L. A. DuBridge.

The promotions, effective July 1, are as follows:

From associate professor to professor: Julian Cole, aeronautics and applied mechanics; Samuel Epstein, geochemistry; Yuan-

Cheng Fung, aeronautics; Robert Leighton, Matthew Sands and Robert Walker, physics; Harden McConnell, chemistry; Guido Munch, astronomy, and Charles Papas, electrical engineering.

From assistant professor to associate professor: Clarence Allen and Gerald Wasserburg, geology; Felix Boehm, physics; Donald Cole, aeronautics; Richard Dean and F. Brock Fuller, mathematics, and Dino Morelli, mechanical engineering.

From instructor to assistant professor: Jon Mathews, physics

From research fellow to assistant professor: Toshi Kubota, aeronautics.

From research fellow to senior research fellow: Marjorie Caserio, chemistry; Ricardo Gomez, physics, and Thomas Matthews, astronomy.

## Feynman Wins Tolman Award

Dr. Richard P. Feynman has been named the Richard Chace Tolman professor of theoretical physics, the Board of Trustees announced recently. The new chair in physics has been created to honor the memory of the late Dr. Tolman, an internationally known theoretical physicist and chemist who for years was dean of graduate studies at Caltech.

### HERE'S YOUR CHANCE

This issue of The California Tech is being sent free to parents, friends and anybody else we think might want to subscribe for the paltry sum of \$2.50 for 31 fun-filled issues.

On-campus enthusiasts can receive the Tech on their doorstep for only \$1.50 a year, or can take their chances on beating the crowds to the house lounges, the Greasy or Lower Throop for a copy.

If all else fails, we plan to save one copy each week which we will put on display in the main library.

## Fellowship Slates Film Showing

The Caltech Christian Fellowship will sponsor a showing of "Prior Claim," produced by the Moody Institute of Science, tomorrow night at 7:30. The film includes descriptions of some unusual characteristics of animals and plants, with a Christian message at the end. The meeting will be in room 206, Engineering.



With needed help from many new players, the soccer team hopes to be a real championship contender this year. Shown here is a typical ballet in an important game.

## Large Turnout Enhances Caltech Soccer Fortunes

Spearheaded by five returning lettermen and an unusually large frosh turnout, Caltech's soccer team takes on Santa Ana JC Saturday in the exhibition opener.

The Beaver booters, third in the conference last year with an over-all 3-4-2 mark, are again coached by Lee Andrews. Andrews, former star of the UCLA varsity, is starting his third season as coach here.

Ellis Cumberbach and Irian Jones, both grad students from England, return as starters at the forward posts. Other returnees include Dick Chang, forward, and Francis Wilson and Julian Noble, defense men. The latter three are sophomores.

## Positive Bias

(Continued from page 4)

works well in the Houses, even with short wire antennae on the floor or simple dipoles behind desks. So if you're thinking of getting a radio tuner, make it FM.

Many stations program music which is well suited to concentrated studying. If you want quiet music along the classical lines, try KFAC at 92.. Their programming, especially after midnight, is superb. For variety, jazz, and some classics, I strongly recommend KRHM at 94.7. This station is far-and-away the Caltech favorite. Highlights are Fran Evans' jazz show from 1 to 5, and Skip Weschner's "Accent on Sound," from 10 to 11. Skip talks with a lot of good sense about hi-fi and plays some really excellent music.

For records, Pasadena doesn't leave much to be desired. Colorado Street is lined with record stores. I suspect that the Record Center store, across from Dow Radio, is the Caltech favorite, and with good reason: they sell all records at discount prices.

An example is \$3.98 records selling for about \$2.70. Be warned that this store has no facilities for record listening; you have to know what you want before buying. This slight inconvenience is greatly outweighed by the fact that all records are guaranteed factory fresh. You have no fingerprints or scratches to worry about.

In Los Angeles, the two most popular record stores are Music City, at the corner of Sunset and Vine, and Tectron Records, on Melrose. These stores have huge selections and are sure to have anything you could ask for. Tectron usually sells at reduced

An important addition to the roster is the presence of Joel Kowk, grad chem student, and a four-year letterman at Cal at Berkeley.

Up from last year's junior varsity are Jim Yoh, Bill Dowd, and Bob Tate, who all look certain to grab starting roles.

About 17 men reported for the first practice Monday, including a large percentage of freshmen. Key hole to be filled in the lineup is at goalie, where departing Mike Jones and Brent Banta will be sorely missed.

Other losses include All-Conference forward Larry Tenn, Glenn Converse, Lew Linson, and Luis Baez.

Caltech will compete in a league with UCLA, UC at Riverside, Pomona and Redlands. Of these teams, only Caltech and UCLA will field junior varsity outfits.

Santa Ana, perennially tough, handed the Beavers a 4-2 thumping in last year's opener.

prices, too.

As I mentioned last year, the most popular brand of hi-fi equipment at Caltech is Heathkit. The Heath dealer for Los Angeles is Kierulff Electronics on Olympic Boulevard, just east of the Harbor Freeway. They have all the popular Heathkits in stock, but the prices run considerably higher than in the catalog. However, if you get the urge, as I sometimes do, to build something right now, Kierulff is the place for you.

Several hi-fi manufacturers, such as Stephens and Altec, have their main plants in the L.A. area. If you're interested in seeing these plants, maybe I can arrange something. The Altec people, in particular, are very nice about showing visitors through their beautiful new plant.

Well, I think that's about it for this week. Next time, let's get down (and I mean way down in most cases) to the major record labels.

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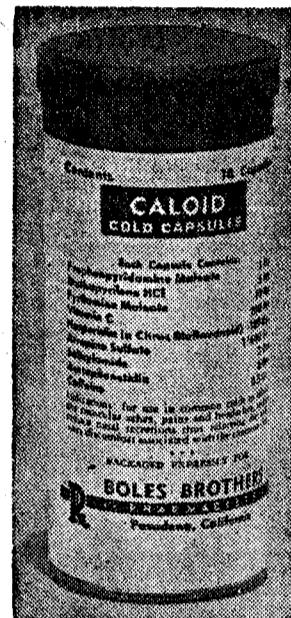
Jeff Chandler, Jack Palome  
"Ten Seconds to Hell"

## STATE

770 E. Colorado, Pasadena  
SY 2-7139

Marilyn Monroe  
Tony Curtis, Jack Lemmon  
"Some Like It Hot"

Danny Kaye  
Tuesday Melder  
"5 Pennies"



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