

dear archie,  
i'm pregnant.

# California Tech

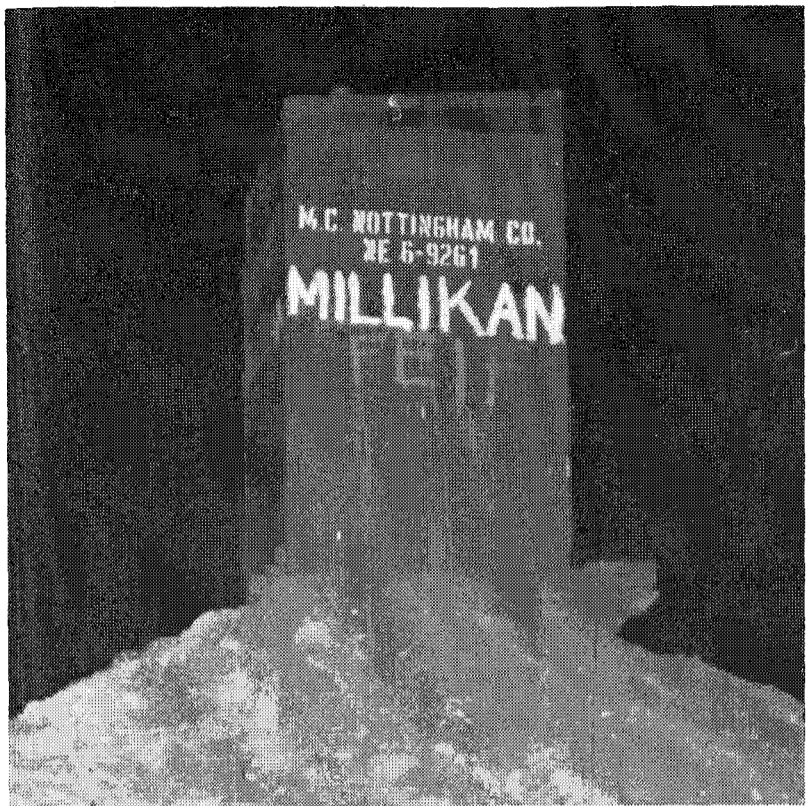
Associated Students of the California Institute of Technology

love,  
mehitabel

Volume LXVII.

Pasadena, California, Thursday, January 20, 1966

Number 14



Bold Techmen, not Turner Construction Company, raise Millikan to unprecedented heights. Evident artistic talent will be put to tasteful use in decorating the fence surrounding Millikan this weekend.

## Socialist speaks at Y forum, attacks US anti-Communism

by Ettin

The YMCA Spectrum series began Thursday with a talk by Mr. Bernard Shapiro, a trade union organizer, representing the Socialist Party of Norman Thomas.

Shapiro began with a critique of our present social structure and a description of the various social and political problems that plague this nation. He admitted that this country has the largest gross national product in the world, and that during the past year capitalism has made some progress in the fields of civil rights and the banishment of poverty. However, he added

that capitalism can make only limited progress in these areas because those in power seek to preserve the interests of their own class.

To Shapiro the biggest crisis facing this country is war. "Unless war is abolished the solutions to the other problems would mean nothing, because another war would end civilization." According to Shapiro the root of the problem is a foreign policy based on "vulgar anti-communism" and a lack of respect for the interests of the other people of the world.

### Super-democracy

"In this economy profit determines economic growth," Shapiro stated. Socialism would eliminate the profit motive. Thus growth would occur as it serves the best interests of the society as a whole. Shapiro envisions that in such a society everyone will have all that he needs, and all goods will be in such abundance as to satisfy the need. He stated that in time this structure would yield a super-democracy among all the nations of the world, and the nation-state would disappear; war would then be abolished.

He went on to say that a change to socialism is possible. "Change is in the air," Shapiro said with reference to the dissent about Vietnam and the current problem of automation. Also, such a change is likely to succeed here because we are already an industrial country and have a large GNP.

### Rheumy party

Finally, Shapiro discussed the structure of the Socialist Party. There is room in the party for many political opinions.

The Y Spectrum series will present 10 programs during second and third terms on the various ideologies in America today. Registered students receive five units for H40 by attending the programs and doing minimal outside work. The next talk will be next Wednesday at 11 a.m. when Nathaniel Branden will discuss "Objectivism."

### Press, tv coverage

## Art contest begins tomorrow; Monday afternoon judging

The First Ever Millikan Library Art Contest is rolling forward to a grand conclusion, announced Dr. Robert Huttenback, Master of Student Houses, Tuesday. Dr. Robert Wark, Curator of the Huntington Art Gallery, has agreed to be on the judging panel, along with Mrs. Jennifer Ross, artistic advisor for the Division of Humanities and Social Sciences and Mr. Morris Smith, director of the Add-Art Gallery in Pasadena.

### Millikan completion delayed

Artists, would-be though they may be, will have two and a half days to complete their chefs d'oeuvre, from Saturday morning to 2:30 Monday afternoon. Huttenback may be overestimating the effect of the creations when he disclosed, "I expect the completion date will be considerably delayed by these masterpieces; the workmen will undoubtedly be loath to finish the long-awaited library, for it will mean tearing down such moving and eloquent testimony to the worship of Apollo." At any rate, the winning House will take home \$50, the runner up \$20, and the one that places \$10.

### Publicity expected

Quite a lot of interest from unexpected sources has been expressed in the FEMLAC, as the

contest is known affectionately. There have been noises about a faculty entry, and three of the four grad houses have tossed hats into the ring. According to the News Bureau, there probably will be television and press coverage of the final judging. The *Star-News* will definitely report on it, but the *LA* newspapers aren't definite.

Today at 12:30 the representatives of the seven undergraduate and three graduate teams will meet in the Master's office to discuss the selection of the panels. None of the blue-painted panels will be used for

the artistry, only the chaste white ones, several to each House. Each House will be permitted to select its best panel for judging.

### Second in series

This is the second in a series of memorable contests associated with the future library. The initial contest, of course, was the First Annual Eucalyptus Chopping Contest, which pioneered the millifung rating system. It is hoped that the success of FEMLAC will spark future creative endeavors on the part of Teckers.

So get out there and start slopping!

## Stanton appointed Professor Emeritus

Dr. Roger F. Stanton has been awarded the title of Professor Emeritus by the Board of Trustees upon his retirement this month. He has been an English professor here for 40 years.

In addition to his teaching duties, Stanton has involved himself in numerous campus projects. He was instrumental in the creation of detailed specifications for the new Robert A. Millikan Memorial Library. From 1949 to 1963 the director of the Caltech's libraries, he was also the co-director of Caltech under-

graduate plays, a member of the acting group of the Pasadena Community Playhouse, and a director of the Coleman Chamber Concerts.

"Roger Stanton has exhibited the versatility and the grace under pressure which the humanists of the Renaissance recommended as the highest virtues," commented Dr. Hallet Smith, chairman of the Division of Humanities and Social Sciences. He has made valuable contributions to many different areas of Caltech education."

## Notices

### SCRIPPS CONFERENCE SIGN-UP

Sign-up for the annual Caltech-Scripps Conference, February 11-13, will be a week from tomorrow in the YMCA office from 9 a.m. to 4 p.m. (The registration will not be on a first come, first serve basis as in the past.)

The conference is entitled "Coming Alive" and features Miss Viola Spolin, an expert on impromptu drama.

Cost will be approximately \$13 per student. If you have any questions, contact Jay Pearlman, Page, or go to the YMCA.

### MATH CLUB

Tonight at 8:15 p.m. in Sloan lounge the Math Club will meet to discuss future programs and activities. Short talks will also be given by the winners of last year's Ward and Bell Prizes. Everyone is invited; refreshments will be served.

### FROSH POLITICOS TAKE NOTE

Nominations for Freshman Class Offices were opened last Monday at the ASCIT Board meeting. Nominations close at 9:30 p.m., Monday, January 24, with the election to be held on Wednesday, January 26. Nominations should be submitted to Fred Lamb, 118 Ruddock.

### BASEBALL

There will be a meeting for all Teckers who want to go out for baseball at 4:00 this afternoon. All frosh and upperclassmen are invited.

## Caltech waits for Godot

Beckman Auditorium will be playing host to *Waiting for Godot*, a two act tragicomedy by Samuel Beckett, on Saturday. *Godot* is a play that has caused 13 years of discussion and controversy as to what it means, if it means anything at all.

According to Richard Bailey, director of the Regional Touring Theater production, *Waiting for Godot* still has great power to evoke human emotions. "This is something like the so-called Morality Plays of medieval times," he claims. "Godot has been cussed and discussed, but it still

has that exceptional power to get an audience in a profoundly emotional way. We welcome the closeness to our audience that is offered by the Beckman stage."

A prime example of the "theatre of the absurd," *Godot* concerns two wanderers, Vladimir and Estragon, (read Everyman) who have an appointment to meet someone named Godot. They arrive at the specified place and wait, and wait, and wait. Their discussions and the people they meet are often comical, but their condition is tragic.

Coming at this time, the play offers juniors who read it last term in En 7 an opportunity to compare the written and acted forms.

The play is brought to Beckman by the Faculty Committee on Institute Assemblies and Programs as a program of unusual interest to the school and the community. *Godot* will star the same cast which won unanimous praise from the Hollywood and Los Angeles critics last Spring.

The production is open to the public. Special Caltech student prices (up to two tickets per Techman) are \$3.00, \$2.25, \$1.75 and \$1.25.



Dumb Lucky leads blind Pozzo in Samuel Beckett's "Waiting for Godot."

## Editorial

## ASCIT, meet the IHC

The ASCIT Executive Committee is now meeting to propose changes in the corporation's by-laws. We strongly feel that its first concern should be to provide a constitutional basis for the Interhouse Committee. As you may recall, we wrote about this last October, urging the IHC to put down some guidelines for itself. No such action was taken by that body. If the IHC refuses to put its own house in order, then the Ex-Comm should do it.

Specifically, we propose that a new section of the by-laws should be devoted to the IHC, asserting its existence and enumerating its duties. This section should include the following points:

At least four Houses must vote affirmatively to pass any legislation. Only in this way would IHC decisions be a true reflection of the opinion of a majority of the Houses.

Minutes must be distributed within a short time after each meeting. Further, a copy of each set of minutes should be bound and saved, thus assuring some year-to-year continuity.

In addition to the duties of handling Rotation and IH Athletics, the Committee should be given jurisdiction over all matters concerning the Houses collectively, such as Interhouse Dance, but most certainly excluding matters concerning an individual House, such as its customs or constitution, dues, or other internal affairs.

We want to avoid the situation where the IHC assumes what powers it sees fit. We want it to take its job more seriously. Since the IHC itself doesn't seem to feel that this change is needed, it becomes necessary for ASCIT to do the job. We therefore urge the Ex-Comm to include the IHC in its proposed changes to the by-laws, and we urge the student body to support the measure with its votes.

—Bob Berry  
Norton Greenfeld  
Tim Hendrickson

## Letter

## Vietnam criticism rebutted

## Editors:

Mr. Farber stated in his letter published in last week's **Tech** that it is estimated that 70 to 90 percent of the Vietnamese population is opposed to our actions. I would like to ask if these figures are from our High Command in Saigon or the National Liberation Front.

He stated that our bombing has been ineffectual and has actually caused our position to deteriorate. The facts are that since the start of the bombing there have been greater numbers of desertions from the Viet Cong, and these people tell of the decreasing morale of the enemy. In North Vietnam it has slowed the transport of material from a steady stream on the railroads during the day and night, to a meager flow on foot during the night.

## Precedent Jefferson

He stated that the war in Vietnam is unconstitutional, in that the right to declare war belongs to Congress. It is significant to notice that the Constitution has been "short-circuited" before. In 1803, President Thomas Jefferson sent the entire force of the United States Navy against the Barbary Pirates. This certainly is war, and yet there was no declaration of war. We did this rather than appease, or pay tribute to, the pirates of the Barbary Coast. Is Mr. Farber suggesting that we withdraw from Vietnam and appease the communists? If this is his suggestion, I would point out that in every case, the appeasement of an aggressor has led to a large scale war. If we get out of Vietnam, will China be satisfied with the Asian mainland? And after that, it will take only Formosa to keep them happy. And then just the Philippines or Japan to make them content. Where will we

draw the line and say that we won't give up any more ground? Where will we prove that we are not a "paper tiger"? China will go to war to prove that we lack the moral stamina to fight for our beliefs, **unless we show them now that the United States will fight for a principle.** It is a shame that Americans have to die now in Vietnam, but is it better that we save them now, to fight in a much larger scale war in the Pacific and Southeast Asia?

## Buy bonds

He stated that a United Nations peace force could be instituted. The question then becomes: How is it to be paid for? By issuing bonds, which the United States would buy; thereby paying out the same amount as now, but relinquishing control over how it is spent to a group, run in part by a non-paying member of the United Nations? And would Mr. Farber reunify Vietnam in the same manner as Korea was reunited?

One further point is that President Johnson and his advisors are paid to know the facts, are in a better position to make decisions than Mr. Farber, although he may feel himself omniscient.

Charles H. Fisher

Some very interesting things go on at ASCIT Board meetings that never come out in the minutes: we have it from a usually reliable source that a motion to censure Eaton, Logan, and Walter for consistently poor attendance was passed 6-0-0.

SHOULD A GENTLEMAN  
OFFER A LADY A FAG?

## Folklore of Throop gargoyles

by Middleditch

When you go up campus, do you get sick of looking over a high fence only to see a huge mound of uninteresting dirt? Well then, turn around and take a closer look at the Calder Archways above the doors leading into Throop. These detailed sculptures are the results of the labors of Alexander S. Calder and date back to their unveiling on February 5, 1910.

The actual sculptures came out of the ferment of the brains of architects Myron Hunt and Elmer Grey, who were associated with the builder, William C. Crowell. Hunt also designed the magnificent mansions which are now open to the public as the Henry E. Huntington Memorial

## Smith explains reasons for new options

"We expected about six students to sign up for the new option," said Dr. Hallet D. Smith, Chairman of the Division of Humanities and Social Sciences, in an address to the Caltech Service League Tuesday evening entitled, "The Humanities Option at Caltech." "We got nine," he added, "which indicates an error of 50 percent in prediction."

Instead of the response to last year's action, Smith's main topic was the reasoning behind the faculty decision to offer a Bachelor of Science degree in English, economics, and history.

## Not my son . . .

Many profs here at Caltech, he noted, when confidentially pressed, would not send their sons to Caltech, mainly because the balance of interests on campus is so overwhelmingly scientific. The sentiment expressed by many of those connected with the Institute is, "One gets an education not only from labs and classes and lectures, but also from bull sessions in which differing disciplines are compared." Besides, graduate schools nowadays are notoriously eager to have students who have a good background in fields other than that of their specialization.

## No need transfer

When a bright student transfers, remarked Smith, he usually will get into the school of his choice, but he has difficulties; the campus loses by his leaving, too. Now a student disillusioned with science as a career need not transfer, but can change to a humanities option. Smith painted a glowing picture of the future of those who majored in the humanities, indicating unlimited opportunities in law, government, and business. The unique aspect of a Caltech humanities degree is its indication of a thorough background in science, which places its recipient in a key position, able to communicate with both disciplines.

## Nor geology

In answer to a question whether the present humanities majors were composed of those students who could not master their scientific studies, Smith said it was too early to draw conclusions. Although he is undisputed by the small quantity, he didn't want to draw any sweeping generalizations on the basis

(Continued on page 6)

—paid ad

Dear P. Bear,  
Sorry. I thought  
you were dead.

—Big O

Library and Art Museum.

## Gentle joy

The three arches above Throop's doors are divided into two spandrels apiece, in each of which there is one main figure. On the left spandrel of the far left arch is Pan, signifying nature by "piping his gentle joy of life." Dr. David Jordon, then president of Leland Stanford Junior University, said, "He stands for the unspoiled and unchanged realities of the non-human world, the world which forms the background for all man's achievements." On the other side of the Arch, "Art" resides in the form of a poet, who is describing his solution to life, or his answer to the most recent English 21 test. "Art," in the romantic tradition, is what man makes of nature.

The next spandrel in the left side of the central arch reveals a well-muscled bod who is making off with his friend's dead body, so the vultures can't clean the bones. He stands for the unused energy of the universe. The figure next right stands allegori-

cally for science, which is needed to make energy purposeful, and is gazing intently at the sun-symbol over the center of the arch.

## Batman!

The first figure in the right arch is winged, not unlike Batman, and signifies the free and unlimited flight of the imagination. The last figure guards the bound tablets of the "Law," and may very well be the image of officer Newton in his younger days.

Further inspection reveals decorations on the pilasters between the arches, which include a sunflower (relating to nature); a terminal bust of Minerva, protectress of the Arts; likewise a bust of Mercury, for science; and on the far right the emblem of the law. Beneath the sunflower is, among other things, a skull, which along with the other details represents Life, Death, and Eternity (Dr. Zorba's Man and Woman unfortunately aren't in this one). Below the Science pilaster is the hammer and an-

(Continued on page 5)

## AUDIENCE

by Hunk Balint

Akira Kurosawa's latest film, **Red Beard**, has finally arrived in the Los Angeles area. This masterpiece from the director of other such greats as **Rashomon** and **The Seven Samurai** is now playing at the Toho La Brea at La Brea and Ninth Streets in Hollywood. It is a movie well worth seeing.

At first sight, the plot seems like a simple doctor story, such as a Dr. Kildare type, but Kurosawa knows what to do with his story and his characters. Instead of a shallow melodrama, he comes up with a film of deep meaning and importance. The plot, at times gory, at times humorous, and at times depressing, continually presses toward its point that, although it may appear otherwise, there is good in the world. "Good" does not mean obedience or respectability, but rather a compassion for one's fellow human beings.

## He doctors heads

Red Beard, played by one of the greatest actors in the world, Toshiro Mifune, is the head doctor in a public clinic. Kayama, a young man who has hopes of becoming a court doctor, is assigned to the clinic despite his objections. He is so upset that he starts off by disobeying all the clinic rules and refusing to work. He is nearly killed when he allows himself to be seduced by a beautiful, but insane, pati-

ent, who tries to stab him. Red Beard arrives just in the nick of time to save him, and so begins Kayama's conversion. He starts treating a 12 year old girl who had been rescued from a whorehouse, and the obsession to fight poverty and disease, which Red Beard feels, comes over him also.

## Line of good

Everyone believes that bad begets bad. But in his film Kurosawa presents a novel idea, that good also begets good. The line goes from Red Beard to Kayama to the little girl, and then to a seven year old whom the girl takes under her wing. In such a cynical age as ours, it is hard to believe in such a "line of good."

If you are tired of the crap that Hollywood turns out and are looking for an escape from the vast wasteland of the silver screen, **Red Beard** is the movie for you.

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Bob Berry, Norton Greenfeld, Tim Hendrickson

John Middleditch, Feature Editor

Peter Balint, Sports Editor

Bil' Orr, Copy Editor

Judi Kelly, Typist

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## Business Staff

Stuart Galley, Manager

Circulation: Bob Parker, Manager

Ed Kelm, Mike Pollock

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# Martian probes explained Sharp offers new theory on desert dune formation

by Meo

"The failures can't last forever," noted Dr. Bruce Murray, associate professor of planetary science, Monday in 155 Arms. "The Soviet Union, in terms of total effort, launch capability, and future prospects," is ahead in the exploration of Mars. A distinguished audience attended the geology seminar on "US and Soviet efforts to explore Mars."

### Unmentionable geology

None of Murray's remarks could strictly be applied to geology, but he pointed out early in the lecture that the United States tends to take a myopic attitude towards the Soviet efforts at planetary exploration. At Caltech, he remarked, "such an amateurish approach would be unreasonable."

The first point developed was the very great difference be-

tween NASA's program of 1960 and its accomplishments. Initially, the Atlas-Centaur was to be used to carry Mariner II to Venus; the Atlas Centaur is now scheduled for 1967.

An evolutionary, step-by-step program was envisioned in 1960, but because not enough money has been made available, improvisations have accounted for our successes up to this point. The pattern will continue at least until 1971.

In spite of the fact that he stressed the easy availability of information concerning the Soviet launchings, Murray had less to say about the Soviet program. He pointed out that since 1962 the Soviets have made 15 attempts to launch 2000-pound planetary probes, compared with the 750 pounds of the Mariners.

Although very sophisticated,

the Soviet probes have all failed so far. But warned Murray, "They have spent five to ten times as much manpower and money as the United States. They are not going to let this technology go to waste." He demonstrated that the Russians have a reliable booster—tested for more than three years—large enough for a one-ton payload.

### Penny pinching

In conclusion Murray showed how reluctantly the United States has spent money on its program for planetary exploration, and contrasted Russia's willingness to invest. He revealed the future plans of the US (one shot in '69, one in '71, none in '67) and ominously predicted a Russian effort (two launchings each in '67, '69, and '71) that may well put them far ahead in interplanetary exploration.

"Where the Desert Wind Blows"—a lecture on geomorphology—was given by Dr. Robert P. Sharp, professor of geology and chairman of the Division of Geological Sciences, Monday night in Beckman.

After first warning the audience that some of his colleagues might groan or suddenly get up and leave, Sharp began by awing his listeners with the beauty of wind-wrought wastes, using lantern slides of White Sands, New Mexico, and other desert regions.

Sharp then delved into the manner in which sand and other debris is moved by winds. Using his own "cartoons" to illustrate theoretical experiments, Sharp showed the audience that the smallest particles are not those most easily moved by air cur-

rents. Close to the ground shearing off of wind velocity and air turbulence cause very fine particles to be missed. In fact, fine, dust-sized particles require high wind velocities to be picked up.

Even when the wind is great enough, the debris does not get very high. First the particles start rolling, then they begin bouncing or hopping forming a saltation curtain. However, this saltating curtain usually remains within 12 to 16 inches of the surface; the larger the particles the higher the saltating curtain.

Particles too large for the wind to pick up are still moved due to a phenomenon called impact creep. Small airborn particles striking the larger particles push them along.

Once the particles are moving it is inevitable that a small pile will form. As the pile gets larger it begins to take the form of a sand dune. Just how dunes are formed has been the subject of some controversy. Traditionally it is believed that an eddy forms on the lee side of the dune. Sharp has reason to believe that instead the saltating curtain leaves the surface of the dune, and airborne particles fall out of it. Studies made with smoke pots indicate that the air on the lee side of the dune is calm, lending support to this theory.

Sharp gave these examples of questions geomorphology is helping answer: Where was the north pole many eons ago? How rapidly are the craters on Mars being erased? In a few years, will sand dunes jeopardize the All-American canal which supplies water to the Imperial Valley?

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# TECH Sports

## Interhouse football outcome almost certain

With the Interhouse football season about two-thirds finished, the outcome seems already determined. Page, having won its first four contests by lopsided scores, has just about clinched the title. Fleming and Ruddock will come in second and third, with the other four Houses far behind.

### Page over Blacker

Last Wednesday, Page walked over Blacker, and Ricketts edged Dabney. Blacker was just no match for the Page powerhouse: quarterback Larry Brown, despite a bad back, ran circles around the Blacker defense. Brown took in three touchdowns himself, and when he wasn't running, he passed for three more scores. Meanwhile, Blacker could do little against the rugged defense. Norm Uyeda's passing and running came up with one TD early in the game, and then scored again later against the second string. The final score was 37-12.

### Ricketts edges Dabney

The Ricketts-Dabney game was extremely close. Ricketts scored first, getting a 13-0 lead. Dabney closed the gap to 13-12, but was unable to come up with the conversions. The teams then exchanged touchdowns, and Ricketts was able to run out the time to win 19-18. Quarterback Phil Paine had one of his better days, completing 13 of 25 passes with three TD tosses. He was most effective on short passes to halfback Richard Russell and long ones to speedy end Terry Smith. John Eyer of Dabney was also passing well, spreading out his passes among all his ends and halfbacks. The last score came on a sneaky sleeper play to John Lehman. The Scurves were completely fooled, so he was all alone in the endzone to catch the scoring pass.

### Fleming flattens Blacker

The predictions for Thursday were that the Fleming-Blacker game would be a close one, and that Ruddock would have an easy time with Lloyd. But that was not to happen. Blacker, playing its second game against top teams in two days, could muster no offense and very little defense. Fleming's offense consisted mainly of center Randy Harslem's down and out pass patterns. Harslem beat the defense almost every time, caught 10 of Fleming's 13 completions, and scored all four touchdowns. Meanwhile, Uyeda was snowed under by the hard Flem rush, especially that of Phil Pfaffman. Under so much pressure Blacker could not get going, and lost 26-0.

### Ruddock wins Lloyd by hair

Highly-touted Ruddock was given a real scare by the hustling Lloyd team. Lloyd scored first, using a double pass from Bob Vance to Marshall Hall, then back to Vance. This and other razzle-dazzle plays kept Ruddock constantly on their toes. But the Ruddock defense stiffened after a slow start and the offense went to work. Les Fettig, though not passing as well as usual, moved the team by passing to ends

Greg Brewer and Allan Lee, and by running the ball himself. Ruddock scored twice, but it was the safety scored between the TD's that proved to be the winning margin. A high pass from center put the ball in Lloyd's endzone and Vance was tagged by Tom Williams before he could run it out. Ruddock seemed safe with an eight point lead and only minutes remaining, but Ron Peterson intercepted a Fettig pass and ran it to the endzone from 20 yards out. This made the score 15-13, but the men in blue were able to run out the clock to win by a hair.

### Page dashes Dabney

Friday's games were easy wins by Page and Ruddock over Dabney and Ricketts respectively. Page, although playing its second string through a large part of the game, ran up the highest point total scored this year, 45 points. Brown passed for two touchdowns and ran for two more; second string quarterback Bill Colglazier also passed for two scores. While the offense managed to score almost at the drop of a hat, the defense kept Dabney tightly bottled up. The Darbs could score but once, and had five passes intercepted. In fact, one of the passes was intercepted by lineman Dave Posner, who took it in for a TD, an act which all defensive linemen dream of. The lopsided score was 45-6.

### Ruddock defeats Ricketts

Ruddock's offense won their game for them over Ricketts, but their defense was porous enough to keep the game from being a rout. Fettig was passing well, especially to Brewer; he passed for five TD's and ran another one himself. The blue defense was especially poor, and Smith of Ricketts took advantage of the loose coverage to snag nine passes. He scored two touchdowns and set up the other one. But in the end the Ruddock offense was strong enough to make up for the weakness of the defense and to win 39-19.

### Fleming triumphs over Ruddock

The big game of the season took place on Monday between Fleming and Ruddock; it probably decided second place. Despite having two of the best terms pitted against each other, it was a sloppy game. In all there were seven interceptions, three by Fleming and four by Ruddock. In the end it was Ruddock's porous defense that lost the game for them. They gave the Flems too many chances, while their own offense could only move sporadically against a strong Fleming opposition. Flem quarterback Rich Touton, though not having one of his better days, passed and ran well enough to win. Most of his passes went to center Harslem and end Peter Wyatt. Ruddock fought back gamely from 12-0 and 19-6 deficits, but most of their attacks were cut short by interceptions. In the end Fleming triumphed 19-12.

(Continued on page 5)

## Fencers lose their opener

Friday evening, the Caltech fencing team had its first match of the season, hosting San Fernando Valley State College in Scott Brown gym. It was a single-weapon match including only four-man foil teams from each college. Caltech succumbed to the more experienced team by the score of ten wins to six wins. Dan McCammon, the number one man for the Beavers, posted a three win, one loss record. Two more wins were contributed by Murray Smigel and one win by Greg Kourilsky.

The team fences a foil and sabre match next Wednesday at Los Angeles Valley College.



This is what real rugby looks like. This particular play happens to be a "line-out," an inbounds play. The two teams line up side by side and the ball is thrown down the center of the line from out of bounds. Then the free-for-all begins.

—by Balint

## Wrestlers win one, lose heartbreaker

This past week saw the Tech wrestling team split two of the tightest meets in its history, each being decided by the very last match. Wednesday we hosted Biola, formerly an easy opponent. The changed Biola team showed it was giving nothing away with the first match, a sluggish contest that went scoreless into the third period, where Biola's lightest man gained a decision.

### Record-breaking pin

Our forfeit of the 130 class gave the opposition an 8-0 lead, but MacLeod boosted morale and our score with a team record-breaking 38-second pin. Biola then proceeded to capture falls in both 145 and 152. This flood was stayed, however, as Crenshaw drove to a solid 9-3 decision. Then Sacks executed his opponent neatly with a first-period guillotine that brought his season total to three pins in four matches.

Counting the forfeit we had coming at heavyweight, the score was tied, with freshman Deviny bearing the weight of the meet. His first match of the season proved a charm and a pleasure, however, as Deviny stacked his man into a first period pin, giving us a 23-18 victory.

### Strong Pomona

Saturday's meet was against Pomona, a new team with several surprisingly strong positions. Forfeits were traded at 123 and 130; Gorbet, who had shown up depraved, found himself deprived, having to settle for a come-from-behind pin of Pomona's 130-pounder in an exciting, high-scoring exhibition. MacLeod pinned again, also waiting till the

## Rugby begins on an optimistic note

For the first time in history, Caltech fielded a team in that free-for-all sport, rugby. Seeking experience, the team arranged a friendly game with one of the losers in the Southern California Rugby Football Union tournament, which was held at La Canada High School Saturday.

The game was played with a team fielded by the Australian Navy.

### Mistakes

Our team, new to the game, made several mistakes during the game and gave the Australians many scoring chances. But

sheer determination pushed the opposition back from within inches of the goal line many times. The Navy team scored first on a penalty kick through the goalpost from about 25 yards out, a sort of a field goal counting three points. This kick was awarded for one of the many offsides committed by Caltech.

The Beavers scored first when a tough defense forced a bad pass; Dick Lipes intercepted and ran in from 15 yards out. This touchdown or "try" also scores three points. Minutes later the Aussies scored on an almost identical play to forge ahead once again. Mick Mortell ran off some good yardage, and with time running out, John Galivan booted a "field goal" from 25 yards and a wide angle to tie up the game.

### Tie

The 6-6 tie is a very good showing for the inexperienced Caltech team. The Australians were a seasoned team, but small in size; their knowledge of the game helped the Beavers immensely in building for the future. The team still needs players, so anyone interested in playing this rugged and interesting game should contact Mike O'Sullivan in 07 Thomas.

## CIT, HMC to play football


At the suggestion of Harvey Mudd College student body president Steve Dequer, Caltech and HMC are going to play two touch football games on Saturday afternoon, January 22, in Tournament Park. There is going to be a game between the freshmen and sophomores of the two schools, and another game between the upperclassmen. The games are going to be eight-man touch football with rules almost exactly the same as Interhouse football rules. Varsity players are not eligible; cleated or spiked shoes are forbidden.

The athletic managers of the Houses, together with the sports editor of the **California Tech**, have chosen two teams from among the Interhouse players to face Harvey Mudd. Most, but not all, of the players chosen said that they will be able to play.

If all goes well, the HMC teams should arrive around 1 p.m. and the games will begin simultaneously at around 2 p.m. Everyone is invited to watch these precedent-setting contests. They will certainly be exciting not only for the players but also for the spectators.

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## Next week in sports

### VARSITY BASKETBALL

Fri.	Jan. 21	8:30 p.m.	Cal Lutheran at CLC
Tue.	Jan. 25	8:30 p.m.	Occidental at Occidental

### FROSH BASKETBALL

Fri.	Jan. 21	6:30 p.m.	Cal Lutheran at CLC
Tue.	Jan. 25	6:30 p.m.	Occidental at Occidental

### WRESTLING

Sat.	Jan. 22	2:00 p.m.	C-HM at Claremont
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## Interhouse football roars to a grand conclusion

(Continued from page 4)

### Blacker beats Dabney

The other game of the day, which attracted little attention, put Blacker against Dabney. Uyeda's running and passing quickly put Blacker ahead 13-0, and it looked as if the game would be a slaughter. But in the second half, Dabney came back, mainly on passes to Dennis White, to pull within a point at 13-12. Blacker came through with a TD late in the contest to put the game on ice.

### Page routs Lloyd

Tuesday found two top teams facing two bottom teams, and

the results were disastrous. Page beat Lloyd 38-7 in Page's fourth consecutive rout. Brown had a poor day, and the second string played a large part of the game, yet the team was still much too strong for the Rowdies. The defense sparkled, intercepting four passes. Dan Hammons picked off two and ran both of them in for touchdowns. That just about decided the contest, but meanwhile Brown, though only completing seven passes, threw for four scores. Lloyd had one bright point: their double pass set up a touchdown which was scored by Marshall

Hall.

### Fleming crushes Dabney

Fleming and Dabney both played poorly, but the Flems were by far superior, winning 19-0. Fleming intercepted seven passes, four of them by Kimbrell, and Dabney picked off three. Touton passed for three touchdowns, one each to Harslem, Miller, and Wyatt. Dabney, having both quarterbacks Eyler and Harstein ailing, put in Len Erickson. He did well enough, 11 for 22, but could not overcome the strong defense.

The offenses of the teams have been as expected, but the defenses have varied greatly from game to game. The defenses have improved immensely since the beginning of the season, but, with the exception of Page and Fleming, they are still porous. It has been Ruddock's, as well as several other teams', downfall.

## Gargoyles galore

(Continued from page 2)

vil, which used to be part of the seal of Throop Institute. Below the Art pilaster is a mask, while underneath "Law" there is an open book, grasped by a hand.

### Windy Bridge

The ceremony accompanying the unveiling began with a few remarks by Dr. Norman Bridge, then chairman of the Board of Trustees, and was followed by an address by Dr. David Jordan, which turned out to be shorter than Bridge's incidental remarks.

Some further remarks were made by Dr. James A. B. Scherer, then president of Throop Polytechnic Institute. Scherer concluded his speech by reading the interpretations of the sculptures written by Calder himself. The actual dedication of Throop was held at the following commencement.

## Pep band undefeated

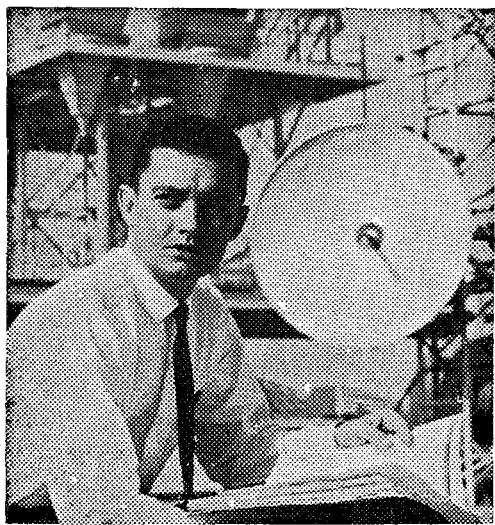
The Caltech Pep Band played its season premier last Saturday at the Caltech-CHM basketball game. The 13-piece band, under the baton of Dan Nemzer, snowed random spectators with a wide selection of spirited marches and college songs.

A trivial group of purported musicians from Claremont tried to offer competition, but soon proved no match for Caltech's undefeated Band. Unfortunately, the inspirational time-out seranades were not sufficient help to overcome CHM's powerful basketballers.

The Pep Band plans to play at more games this season, both home and away. Their repertoire will include Dixieland and German Band music, in addition to the ever-popular Sousa marches.

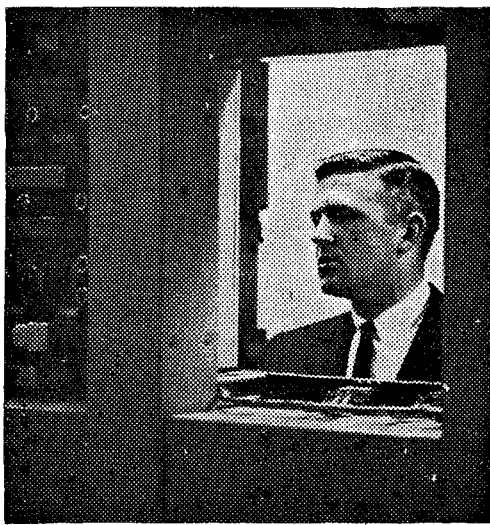
# Could you noodle out solutions like these...right after graduation?

(Then see our man on campus. He's got a career for you.)



**Joe Lacey** B.S. in Electrical Engineering, Stanford.

**First assignment:** Find the best possible way to replace isolated mountain-top repeater stations in case they were damaged. **Solution:** Joe produced a design for an 18-foot truck trailer microwave repeater unit. One that could be moved quickly to even the most rugged location. **Good idea?** We ordered 22 of the trailers built at a cost of about \$2 million.



**Don Turley** B.S. in Physics-Electronics, San Diego State.

**First assignment:** Analyze the effect of atmospheric conditions on microwave transmission in the Imperial Valley. Don also had to design microwave radio relay routes, take field explorations, note transmission measurements and analyze the appropriateness of the selected sites. **Result?** Don's study will influence the design and construction of future microwave systems all over the country.



**Howard Herbert** B.A. in Business Administration, University of Redlands.

**First assignment:** Develop a procedure for non-management training and supervision of all records and reports in the Santa Ana Traffic District. **Job well done?** We made Howard coordinator for all facility arrangements involving moves and enlargements in that office.



**Iver Trebon** B.A. in Liberal Arts, San Fernando Valley State.

**First assignment:** Study and analyze the district sales and collection activities and develop a program for improvement. **The outcome:** We liked Iver's ideas so well that we put him in charge of an exchange where he successfully carried out his own recommendations.

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## Humanities Dept. gets new name

The Division of the Humanities and Social Sciences became the official title of the Division of Humanities on January 10 when Caltech's Board of Trustees approved the name change voted by the faculty at their December 6 meeting.

The division, which is offering undergraduate degrees this year for the first time in the Institute's 74-year history, proposed the new name in order to describe more accurately the fields it covers.

### Expanding social sciences

According to Dr. Lee A. DuBridge, "This change reflects the fact that for several years Caltech has been expanding its teaching and research in the social sciences and intends to proceed even further in this direction. The reason is that scientists and engineers are increasingly involved in the problems of society—in such problems as those of defense, over-population, and air and water pollution. It behooves them to learn more about the people and institutions upon which their work has so great an impact." However, DuBridge stressed that Caltech has no intention of diminishing its emphasis on science and engineering.

Under the new plan eleven students are working to earn the first Caltech humanities degrees—two in English, two in history, and seven in economics.



# Brewins



The first meeting of the class of incredible Pearly Checker, lecturer in Hand-waving, Fields, and Hair-pulling 2b was enhanced this past week by the appearance of two who in normal life are residents of one of the Houses. The dynamic duo, mild mannered Kubit Kermitz and not-so-mild-mannered Sawdust, members of Plumbing house, attended class as usual that portentous Monday morning. Checker sensing nothing (as usual), launched into a description of Snow Fields.

### ... in his belfry

Then, without a shred of warning, the illumination was extinguished, and the sign of the bat appeared on the center blackboard. Quickly the lights were turned on, and up left Kermitz, who, upon shouting "Come on Robin" to the waiting Sawdust, exited at high speed to the Batmobile.

Poor Parles so shaken was he by this turn of events, that the remainder of his twice-weekly farce caused the great God of Science, Richard P. Snowman, to

shake his head, groan, curse, nap for a while, and finally, before the interminable hour was complete, to leave the Hall of Science in disgust. To the unfortunate

### Smith explains

(Continued from page 2)

of nine students. He pointed out that, in a survey taken two years ago, it was found that the students taking more than 25 percent of their credits in the humanities, were in general in the upper academic half of the class. The judgment of their profs and deans was that these students, presumably the most likely to be attracted to a humanities option, were leaders in student affairs.

Of course the Division of the Humanities and Social Sciences is continuously developing its programs; the staff has been slightly enlarged to accommodate a wider variety of courses. The choice of requirements for humanities majors has not yet solidified. The opportunity is even being investigated to offer post-graduate work in the humanities, concluded Smith.

Plick, we offer the Brewins Bat Guano Award.

### What girl?

Beak also reports meeting Smutty at the latest campus wide It-procurement seminar, where the magnanimous Martin commented on the latest mistake of Eatonsit (no relation to Dean Eatonisit), "Did you come to see the girl?"

Beak (conveyence levitation division) also sees several trollish types assaulting the vehicle of their Father image, causing it to appear in a place previously not expected (he should have learned from Picconi).

## Caltech gets Wilson funds

The Woodrow Wilson National Fellowship Foundation has granted Caltech \$12,000 for graduate education, announced Dr. Lee A. DuBridge, Institute president.

Caltech was one of 74 universities to receive funds for its graduate school through the Wilson foundation. The school now has six Woodrow Wilson Fellows studying here.

Since the program began in 1958, the foundation has awarded more than \$15,000,000 in such subsidies. The program was made possible through grants from the Ford Foundation.

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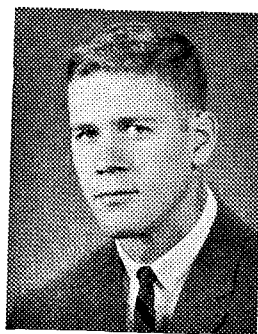
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Jim came to Ford in February, 1963. His first assignment was in marketing analysis where his principal job was evaluating present and potential dealer locations. For a time, he also gained experience in the actual purchasing of dealer locations. Later, an assignment forecasting sales and market potential with Ford Division's Truck Sales Programming Department gave him the background he needed to qualify for his present position. His job today? Only three years out of college, Jim is now a senior financial analyst in Ford Division's Business Management Department.

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