Number 12

# Work On Auditorium Begun

# **Bayne Talks** On Israel For AUFS

AND MATT COUCH

In an interview with the international affairs staff of the California Tech (sic), Edward A. (Ned) Bayne, member of the American Universities Field Staff (AUFS) currently visiting Tech, proved himself to be both conversant and witty in discussing recent developments and current problems in Iran, Israel and the Middle East.

During the discussion of Israel Bayne made several salient points: the social implications of the Eichmann trial; the reasons for apparent discrimination against Arabs in the schools; various aspects of the Israeli economic situation, including possible association with the Common Market; the relation between the internal political situation and the connection between religion and state in Israel.

### Eichmann Trial

Bayne sees Ben Gurion's decision to carry out the legalistic formality of the Eichmann trial as an indictment not only of Nazi barbarism but of the assimilation policies of many Jewish communities with respect to the greater cultures in which they find themselves imbedded. He also pointed out the nationalistic overtones of the trial, i.e., the Israeli contention that Israel must be recognized as having a de facto existence prior to its de jure recognition in 1948.

When questioned about the fact that proportionately fewer (Continued on page 4)

### Notices

### **BOD APPROVES MARRIAGE**

In its only significant action last Monday night, the BOD voted 4 to 3 to approve ASCIT Activities Chairman Jon Kelly's recent marriage. Kelly, reportedly still on his honeymoon, was among the two board members absent.

### SCRIPPS CONFERENCE SET

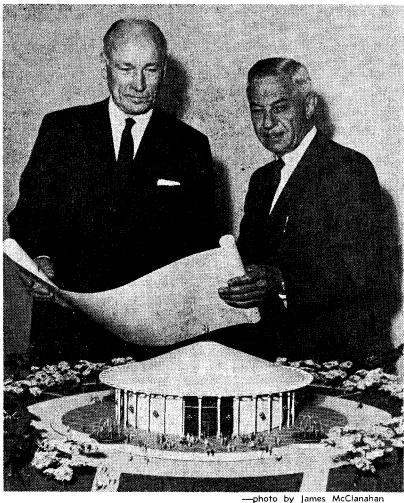
The annual Caltech-Scripps Student-Faculty Conference will be held February 23-25. This year's theme is "Flight from Fear," with subtopics "The Bomb and I," "Education for What," and "Barriers Between." Anyone interested in serving on the planning committee should contact Francis Wilson, Page.

### LIFE SAVING CLASS STARTS

Instruction in Senior Life Saving is being offered at 11 a.m. daily in the Alumni Pool. Those interested should contact Web Emery at the pool for further information.

### TOTEM DEADLINE EXTENDED

Because very few contributions have been submitted, the deadline for the contest which TOTEM is sponsoring has been extended. The new deadline for all contributions is January 22. Hand in material to Ray Barglow, 9 Fleming.



Drs. Beckman and DuBridge study a model of the new auditorium.

### Pike Visit to Begin Leader of Needs Panelists **America Series**

The Rt. Rev. James A. Pike, J.S.D., S.T.D., Bishop of the Diocese of California of the Protestant Episcopal Church, will visit the Caltech campus from February 13 through February 15. The Bishop is the first distinguished guest in the 1961-62 Caltech YMCA "Leaders America" program.

Bishop Pike has an amazingly broad background. In addition to being Bishop of the Episcopal Diocese in California, an acknowledged leader in national church circles, and a former college chaplain (Vassar and Columbia) and instructor, he is a noted author. (His often-controversial works include: "A Roman Catholic in the White House," "If You Marry Outside Your Faith," and "The Church, Politics, and Society," in addition to numerous magazine articles). He was formerly a practicing government attorney and a member of the bar of the United States Supreme Court. The Bishop is also a World War Two veteran.

His interests are exceptionally varied. He is a leading spokesman for the church unity movement, and has always been active in civil rights movements. He is at present a member of the California Advisory Committee to the U.S. Commission on Civil Rights. He also has a keen interest in church-state relations and is an active supporter of public service organi-

While on the campus, Bishop Pike is scheduled to give two evening addresses entitled "Re-

(Continued on page 3)

# Tech TV Show

Students who are interested in appearing on a half-hour television panel discussion on February 18 should turn in their names to the News Bureau by 4 p.m. Friday, January 12. The show, produced by the University of Judaism, will be featuring different Southern California colleges in intellectual discussion and will begin with students from USC discussing "Faith on the Campus" (January 14). The following week will have students from LACC who will talk about "Intercollegiate Football."

A tentative subject, "Science and Religion," has been chosen for the Caltech show, but this can be changed if the panel decides on a better topic.

### Groundbreaking For Beckman **Features Automatic Titrator**

BY RICHARD KARP

Before a crowd numbering more than 100 Pasadena and Caltech notables, Dr. Arnold O. Beckman dedicated the auditorium bearing his name at groundbreaking ceremonies last Monday, January 8, held near the building site.

Previous to Dr. Beckman's comments, Dr. Paul C. Eaton, Dean of Students, commented on the need for an auditorium at Caltech. Eaton mentioned the famous "preference list" which guided the planning committee in its design recommendations, and aroused student (and faculty) emotions. This list of uses, given by Eaton, is as follows (most important firstly):

- 1. Distinguished speakers
- 2. Demonstration lectures
- Convocations
- Smaller meetings Music
- Drama

Eaton also discussed the stipulation of the Beckmans that the building be both beautiful and serviceable, and expressed the feeling of the planning committee that the building, designed by Edward D. Stone of New York, would meet this stipula-

Upon the conclusion of Eaton's remarks, Dr. Beckman was called upon to comment before starting the ground-breaking ceremonies. Dr. Beckman is president of Beckman Instruments, Inc., and a member of Caltech's Board of Trustees. Beckman's first instrument was an automatic titrator, developed by him while he was on the Caltech staff from 1926 to 1940, and it was to this that he turned his attention. Explaining the need for such a device, he poured some water into a beaker ("we know that it's water because it came from a water pitcher") and dabbed some litmus paper in it. After showing the litmus to an

interested crowd, Dr. Beckman explained the color by mentionin that "... this litmus is much like Mr. Nehru — neutral but confused." He then used a homegrown DuBridge Lemon (as opposed to a Sunkist Lemon) to get, logically enough, DuBridge Lemon Juice. This promptly turned brom thymol blue to orange-yellow, and when compared with a basic compound (which was blue), sufficiently moved Dr. Beckman and a colleague of his to sing the University of Illinois "fight" song (or reasonable fascimile thereof); for he had created (with the help of his assorted "chemicals") the University of Illinois school colors.

After thus admirably establishing a need for an automatic titrator, Dr. Beckman mentioned some of the humanitarian aspects of his product. Foremost was that his product bolstered the economy, in that litmus was cheap and his product was expensive. Another important aspect of his titrator, Dr. Beckman felt," was that it presented a challenge to Ph.D.'s ("we always arranged our instructions with certain omissions!"). Another interesting feature, briefly mentioned, was that his machine could also ". . . automatically mix a martini."

Whirr . . . .

After these remarks, Dr. Beckman set in motion his titrator. which titrated the lemon juice with potassium hydroxide. At a pH of 10, a whir was heard, and a canopy was slowly lifted up to reveal a model of the auditorium: Simultaneously, a bulldozer was started up which broke the ground for the auditorium. Except for those of us who waited for (at a pH of 12) choirs of angels to sing "America the Beautiful" and Beckman Auditorium to rise out of the dust, an interesting and unusual groundbreaking was completed.

Sooner Or Later . . .

### Completion enter Nears,

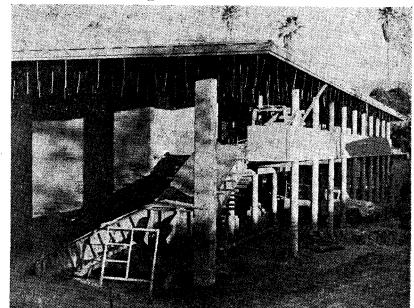
BY JAY LIPPMAN

The P. G. Winnett Student Center, now nearing completion, will soon serve as the main housing for undergrad and graduate extra-curricular activities. Many of the organizations now scattered around the campus will be brought together in the new building.

The basement will house a recreation room and the student. shops. The recreation room will have pool and ping-pong tables, card tables, and provisions for television or FM radio. The student shops will have separate facilities for a wood and metal work.

The bookstore will occupy the complete west side of the first floor. It will be largely selfservice and will have, in addition to textbooks, many refer-

(Continued on Page 2)



-photo by Dennis Lomax

Winnett, to be completed in June.

# **Administration Position On New Auditorium Explained By Eaton**

During the past term, and with the increasing frequency characteristic of rumors, stories have circulated about the alleged inadequacies of the Beckman Auditorium for which ground will be broken at the northern end of a new mall on January 8. As these reports have seriously concerned many of the Institute community, including the donors, faculty, and students, it might be helpful to print the following review of what actually have been the planning decisions and the reasons for making them.

At the outset of the Development Drive in 1958, one of the first projected buildings underwritten was the Auditorium, by the generous gift, since increased, of Dr. and Mrs.Arnold O. Beckman. Dr. Beckman is an alumnus, former faculty member, and present Trustee. The only request made by the Beckmans was that the services of the distinguished architect Mr. Edward D. Stone be sought for the design. They expressed the desire to have both a beautiful and serviceable building.

#### Faculty Committee

At about this time President DuBridge appointed a faculty committee to make recommendations to him and to the Trustees as to the location, function, and special features of all the proposed new buildings. This committee, under the chairmanship of Dr. Joseph Koepfli, in turn appointed panels to make special studies for each structure. The chairman of the panel for the Auditorium was the undersigned, with representation from science, engineering, humanities, and physical plant, and the assistance of Mr. Henry Dreyfuss, the industrial designer.

They endeavored to evaluate the frequency of use of the proposed building by the various agencies interested, the size of audiences anticipated, the special equipment and design features essential to each activity, and the extent to which the requirements of each agency could be combined with those of others without impairment to the essentials of each. In this not too simple effort they consulted or corresponded with, among others faculty sponsors and student officers of student dramatic and musical activities.

The final report of the panel in June 1959 listed dramatic activities as sixth in priority of use contemplated for the Auditorium, recommending that design features accommodate, in descending order of importance (based on estimated frequency of use and size of audience): (1) distinguished speakers; (2) demonstration lectures; (3) convocations; (4) smaller conferences in connection with convocations; (5) musical activities.

These recommendations were accepted and actual architectural planning by Mr. Stone and his associates has proceeded in general accordance therewith.

For any multiple-use building, design compromises have to be made, generally in favor of the principal users. Dramatic productions, commendable as they are, are not central to the Institute's major educational objective. Past performance and attendance appear to have been enthusiastic but not numerous, and no evidence exists of significant expansion either in curricular or extra-curricular activity. Consultation was held by the panel with Messrs. Dwight Thomas, Ken Dinwiddie, and Mike Talcott, none of whom foresaw much future interest in full stage student productions in the Auditorium, all preferring a smaller facility (improved Culbertson) or an arena, theatrein-the-round, arrangement,

Despite the low priority assigned, it is the opinion of the panel that plays can, and hopefully will, be produced in the Auditorium if interest warrants, although the probability of more extensive use by other Institute activities precludes the construction of a building primarily designed as a playhouse.

### **Acoustics Studied**

As the use of the building for Glee Club, Band, and Orchestra was assessed to be considerably greater than for stage plays, particular care was taken to make acoustical conditions, instrument storage space, rehearsal areas. and such features correpsond as closely as possible to the recommendations of the late Professor Hunter Mead, Mr. Olaf Frodsham, and others consulted. Acoustical studies made by two national authorities, Drs. Floyd Watson and Vern Knudsen, resulted in a design which should

(Continued on page 3)

### **ACLU** Issues **New Pamphlet**

The American Civil Liberties Union has called for colleges and universities to grant students the right of free discussion in off campus political activities, student-sponsored forums, and in the operation of student newspapers and radio stations. The civil liberties organization also urged an end to discrimination in fraternities and off-campus housing.

The Union's views were made public in a new edition of its pamphlet, "Academic Freedom and Civil Liberties of Students in Colleges and Universities." It was released to mark the 170th anniversary of the final adoption of the Bill of Rights and was prepared by the Union's Academic Freedom Committee, of which Dr. Louis M. Hacker is chairman.

In announcing the expanded and rewritten 15-page pamphlet, Patrick Malin, the ACLU's executive director, paid tribute to the greater role being played by students today in defense of civil liberties. Referring to student protests against racial segregation, bans on controversial campus speakers, and the operations of the House Un-American Activities Committee, Malin said such activity has demonstrated students' concern with making the principles of the Bill of Rights "not merely a historical document of freedom but a living reality."

Heavy emphasis is placed in the new pamphlet on the right of students to engage in offcampus picketing or other type of demonstrations without being penalized by the college administration. "Neither should orderly demonstrations on campus be prohibited," the pamphlet declares, "nor should a college require that special permission be obtained for distribution of pamphlets and petitions, anywhere on campus, except in classrooms."

On the subject of studentsponsored forums, the Union holds that "students should be accorded the right to assemble, to select speakers, and to discuss issues of their choice."

A new section of the pamphlet discusses the Union's recent policy statement on Teacher Disclosure by teachers to government agents and other employers of information about the personal beliefs and activities of former students.

### **Student Center**

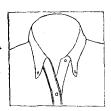
ences, the "better grade" paperbacks, and other books of general interest.

The other large room on the first floor will be the lounge. The lounge has a specially built wall for exhibits and a kitchenette for preparing food for special gatherings. Dances can be held inside or outside the lounge. The east wall will be largely plate glass windows and as an added feature, about four hundred carved bricks from recently demolished Throop Club have been used in the fireplace.

Other rooms on the first floor are the California Tech office, a darkroom, the Barber Shop, the "Big T" office, and the office of the building manager. On the second floor will be the YMCA, the Amateur Radio Club room, two random club rooms, and (Continued on page 5)

our man in the

# Leaques



### BY LARRY McCOMBS

Before Christmas I had just finished reading Ayn Rand's denunciation of bureaucratic interference with private enterprise and was feeling that she had exaggerated the whole problem, when the CAB gave the royal platinum screw to students and airlines alike by pulling a lastminute revocation of the cheap rates for cross-country roundtrip plane flights. I'm surprised that Ayn Rand's books are not more widely known at Caltechtheir strong right-wing attitude, defense of the rights of the superior intellect, and unconventional morality should just hit the spot with the average Techman. And except for a tendency towards essay-writing in places, they're powerful novels. "The Fountainhead" is particularly worthwhile reading.

After hearing all about it for months, I finally saw The Twist being danced the other day. Shucks, that's nothing new! When I was in high school we called it the 'dirty bop" and you got expelled from school dances for doing it.

Excerpt from an ad in a Baltimore newspaper: "The Only Fallout Shelter With a Money-Back Guarantee!"

At a recent party I ran across an innocent-tasting punch which was producing marked results upon the behavior of the partygoers after only one glass or two. I inquired for the recipe and soon found out why. It goes like this: To one large punchbowl and several chunks of ice, add one gallon of sauterne, half a fifth of brandy, and half a fifth of gin. Hide the bottles and serve this in cut-glass punch cups and it well deserves the title of "The Virgin's Downfall."

People are always remarking with horror about the large percentage of young men declared physically or mentally unfit for military service. I just found out the reason. I got an order to report for my physical examination on January 29 at 5:30 a.m.! Who isn't a physical and mental wreck at that time of

A high official in a Protestant church suggested last November that the churches give up on Christmas and turn it over completely to the commercial interests who have taken it for their own. May I suggest a slogan: "Put the X back in Xmas!"

Sid Coleman, former grad student in physics at Tech, is now busily researching at Harvard. I ran into him at a theater in Cambridge, and after the play we adjourned to a local coffee house to talk. While I tried to drink a cup of Capuccino (made, I

swear, with soap suds instead of cream), he disposed of a cup of Earl Grey tea and rambled on in the inimitable and delightful Coleman manner. He mentioned that he had heard that one of the Hollywood nudie companies was planning a western about a shy cowboy who goes around seeing naked women. He suggested the perfect title: "Western of the Playboy World."

The play at which I met Sid was an original script by a student of the Yale Drama School. Called "Dr. Plantagenet," it was set in the void and concerned the troubles of the denizens thereof as they tried to foil God's plans to bring lost souls into their realm. God is a rather neurotic character who created a world out of all his frustrations -"His name is Nathan Weltschmerz, and he's sick!" Although the symbolism gets a bit confusing at times, the play was hilarious and featured some fine lines. For instance, "A policeman is a uniformed sadist with an inferiority complex." Or God's remark as he describes the new world he's going to create: "I'll write a new Bible. It'll be perfect. Everything will go right. I'll sell a million copies and become famous!"

Overheard in a Cambridge restaurant: "He only wants to be loved. Of course, with his personality that'll take some doing!"

Sign in a high school chemistry class I visited recently: "Science is not a subject, it is a Way of Life." This is living?

\* \* \*

Another of those little differences between California and New England: here if you ask for "a cup of coffee" or "regular coffee" it comes with cream and sugar. Gaak!

\* \* \*

Boston is all shook up over the recent scandal when a nationwide television program showed several Boston cops going in and out of a supposed bookie joint. I was sorely tempted to walk up to one of the stalwart laddies and inquire: "You look familiar. I think I've seen you somewhere. Haven't you been on television recently?" Fortunately I overcame the temptation.

Line from a recent biology lecture: "The basidiomycetes' development of somatic fusion represents a definite improvement over ordinary sexual reproduction-in efficiency if not in recreational value."

The horrible thing has happened: I'm becoming acclimatized to this miserable weather. I was rejoicing because it was so nice and warm today-then I looked at the thermometer-38 degrees!

### Al Green To Speak On Christianity

A series of four weekly lectures on "Christianity - its Historical Development and Relevance Today" are to be given by Al Green of the Caltech Y from 7:30 to 9:30 on Thursday evenings, beginning January 18. They will be given at Wes Hershey's house at 391 S. Holliston. A discussion period will follow each lecture. All interested students and their wives or girl friends are invited. Those interested in attending all four sessions should inform the Y office (campus extension 555). Only the first thirty who do so can be accommodated.

Published weekly during the school year by the Associated Students of the California Institute of Technology, Incorporated.

**Editors** 

Bruce Abell, Dave Benson, Lee Molho

News Staff

Walt Deal, Richard Karp, Bob Liebermann, Jay, Lippman, Pete Lippman, Charles Michener, Bill Pence, J. C. Simpson, Evan Suits, Marcia Thamm, Hal Wyman, Bob Greenwald

Feature Staff

Lon Bell, John Berry, John Crossman, Marc Kaufman, Roger Leezer,

Dave Sellin, Bill Tivol, Bjo Trimble, Carl Rovainen

**Sports Staff** 

Peter Ford: Editor Vince Hascall, Steve Hall, Bill Howard, John Letcher, Roger Noll, Julian Prince, Tom Sallee, Bruce Sirovich, Gary Chamness

**Business Staff** 

William Rosenberg, Manager

Circulation: Howard Monell

The California Tech, 1201 East California Blvd., Pasadena, California.

Member of The Associated Collegiate Press
Second Class postage paid at Pasadena, California
Printed by Bickley Printing Co.
Represented nationally by National Advertising Service, Inc.
Subscriptions: \$1.00 per term, \$3.00 per year. Write: Circulation Manager.

# a hand of BRIDGE

BY DAVE SELLIN AND BILL TIVOL

### NORTH

S—K 2 H—Q 10 9 8 7 2 D—Q 5 C—K 10 3

#### WEST

S—A 10 5 H—6 4 D—J 10 9 8 C—9 8 5 2

#### EAST

S—Q 8 7 6 4 H—A J 5 D—7 6 C—Q 7 6

#### SOUTH

S—J 9 3 H—K 3 D—A K 4 3 2 C—A J 4

#### Neither side vulnerable; South deals.

SOUTH	WEST	NORTH	EAST
1 NT	pass	3 H	pass
3 NT	pass	pass	pass

#### Opening lead: Jack of diamonds

In this week's hand the bidding is straightforward enough. Allowing 15-point no trump openings, South's bid is correct, if not excellent. The three heart response was devised for hands like North's, and South would rather be in the three no trump—or so he thought.

The opening lead was the jack of diamonds. South won on the board, and led the low heart. To his joy, the king held, but that joy was to turn to horror. South led his remaining heart and lost the finesse for the jack; back came a diamond. South took the king and, in desperation, took the club finesse. It lost. A club was returned and taken on the board. A heart lead and then a club return undid hapless South. He led the ace and a small diamond. The defense collected two hearts, two clubs, one diamond, and one spade.

What a shame South had not bid four hearts! Or, too bad South could not play no trump contracts. South went wrong on the most critical trick in no trump. See what happens if South takes the opening diamond lead in his hand. He can then lead the king of hearts. So far this play seems to get him nothing, but wait. Remember that South was allowed to win the first heart trick before. He then needed two more board entries to run the hearts. If South is allowed to win the first heart again, he will have two board entries; furthermore, if the first heart trick is taken with the ace, he will still have two board entries. There is no reason to expect that East, not seeing the lethal spade shift before, will see it now. Assume he leads the diamond. South loses another heart trick, but the defense can do no better than to give South a free finesse in one of the black suits. South makes four heart tricks, three diamond tricks, two club tricks, and his free finesse. He makes four no trump. Even if East finds the spade shift, South still has the heart finesse to fall back on. It doesn't work, but it is better than the chance that South gave himself.

# graduate rattle

### BY FLETCH MURPHY

Who says the grad student hasn't time for culture? Grad students turned out for the Bach concert Sunday as if it were a free cocktail party at a movie studio. Some feel, it seems, that Bach is more than just another four-letter word. Several of the tribe also were seen at "Flower Drum Song" and found it a fine movie, but advise waiting till the prices lower. A theatre 5% filled at \$2.40 a seat won't last long. Miyoshi Umeki is the essence of lovable femininity, for those who like femininity.

### Big Fat Flub

Everyone is disappointed at the failure of Techmen to gimmick the UCLA card section at the Rose Bowl. Something like "Caltech Forever" (sounds like a judge's sentence) or "Go Gophers — Go to Goa" might have been appropriate.

At 12:01 a.m. on January 1, a motorcycle upset and burned on Hollywood Boulevard to the horror and delight of thousands. A fellow was heard innocently asking his date, "I wonder if that was accidental?" This his date, who fought off the

week's bravery medal goes to temptation to answer his question.

A look at the news:

"Snow buries the Midwest; Twisters hit the Southeast" just like they did last summer. Homework's Getting Tougher

Sobolchevky's "Encyclopedia of Stress Functions," although untranslated from Russian, has every elasticity problem known to man worked out. This text showed up in the Aero Library this fall and was immediately checked out. Some of the amateur elasticians on campus have found it to be quite an aid in homework. But catastrophe has struck. Not only has the book been stolen from the checkoutee, John Klineberg, but the library has been pressuring him to bring it back. A 100 ruble reward is being offered for info leading to the reconfiscation of the book.

Several grad students who offered to rent the Keck House coffee maker for a sixpack of beer a month for use in the Aero building were refused their request for undisclosed reasons. The rumor is that Keck House already has a brewery.



### "THE MADWOMAN OF CHAILLOT"

at the Alley Theater weekends through February 17

"Time was, a cabbage would sell itself; now, every cabbage has its pimp. The pimps will sell the earth!" That is the danger from the new race of moneygrubbers, grayflannel suiters, Snopses: they are tearing down everything that is delicate and beautiful, and creating a greedy, ugly, mechanical world. That particular windmill has been tilted at quite a lot by now, but thanks to the wit of Jean Giraudoux it's still exciting theater.

"Madwoman" is a humorous tragi-farce. The problem of Snopses is insoluble, and Giraudoux knows it; his solution is to invent a zany mad world in which the problem can be solved by wishing. The Bad Guys have discovered that there is oil under Paris; they're going to tear the city down so they can get the oil and make war. Enter Madwoman, whose madness consists in seeing the world not materially, as do the Snopses, but as it ought to be, by means of wishful illusion and rosy memory. She and her friends, the Poor People of Paris, decide the Snopses have to go, and poof! they are gone - consigned direct to hell, in fact. Sounds crazy? Though it be madness, yet there is method in it. Every other line is an ironic comment you'll wish you'd made yourself; the characters and situations are lively and cleverly constructed; the story rattles right along to its loony climax. In short, "Madwoman" may not be philosophy, but it is certainly art, and quite a lot of fun, be-

Appealing as it is, the play is a natural for amateur groups (Westridge did it a couple of years ago, remember?) — but the Alleyites are a notch or two better than amateur. Few people seem to know about the Alley Theater, probably because it's hidden behind a metal foundry in darkest Van Nuys, and one feels intuitively that the Valley is about as conducive to serious theater as the Gobi Desert. But there they are, with an excellent stage and an experienced and high-spirited repertory company. The atmosphere is informal and very gemuetlich, and if you chat with the actors afterwards you'll find that some of them have worked with our own mad genius Mike Talcott at the Playhouse. The principal players, nowever, are older pros; in particular, the madwoman and her mad friends are entirely delightful.

This is the kind of non-soporific theater that's altogether too hard to find. But if you take the trouble to call Information and locate the proper Alley, you can count on a pleasant evening. Unless, of course, you're a greyflannel-scientist type, in which case he's talking about you.

### "THE INNOCENTS" at the El Rey Theater

Perhaps you too think that it's impossible for Hollywood to make a good movie; well, there must have been an accident somewhere, they've gone and done it. The secret, of course, is that they got a good writer for this one; for if you read the very, very fine print in the ads, underneath the words "shocking," "magnificent," "compell-

### By Steve Schwarz

ing," and so forth, you will discover that "Innocents" is in reality "The Turn of the Screw" by Henry James. Not that the genius of Hollywood couldn't have ruined it anyway. Remember what happened to "The Pit and the Pendulum"? By the time they had the Inquisition deleted and the love interest put in, it resembled Poe less than it did the fun house at P.O.P. But perhaps director Jack Clayton ("Room at the Top") has somehow escaped corruption by his environment, for "Innocents" is faithful to the Master, and most of its subtlety, the rarest of all qualities in Hollywood's product, has been preserved.

To be sure, "Innocents" is a ghost story; but not the kind we're used to. No sepulchral clankings, groping hands, or grinning skulls come out of the screen at you; there is some question, in fact, as to whether there are any ghosts at all. But evil there definitely is; a wonderful, delicate, tenuous web of evil, that maybe isn't there, yes, there, I saw it, OH! It's a marvelous thing to hear the crowded theater around you grow more and more silent as each person is caught up in horror, while their popcorn stays forgotten in their boxes. Deborah Kerr turns in an outstanding performance as the haunted governess, and Pamela Franklin and Martin Stephens look just as possessed as ten-year-olds can possibly be. This one may make it to the local theaters eventually, but if you're fond of James or of ghosts, you might want to pay the extra four bits and play it

### CLAREMONT NOTE

"Arms and the Man" will be played at Pomona College this weekend by Siddons, the Associated Colleges' "other" drama club. The Scrippsies, Sagehens, and Mudders usually do an adequate job, and G.B.S. will give you plenty to argue about afterwards. Saves driving. Balch Auditorium, 10th & Columbia; Friday, Saturday, and Sunday at 8:15 p.m.

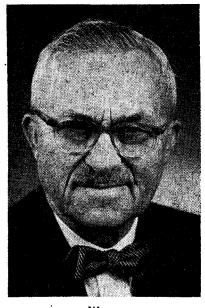
### **Bishop Pike Visit**

(Continued from page 1)

ligion, Science, and Technology," and "The Future of Civilization." Informal discussions open to all students will be centered around the topics, "Radical Left, Radical Right, and Radical Center," "Family Planning," and "The Movement for Church Unity." The Bishop will eat his meals in the Student Houses and also hold some afternoon office hours to give Techmen still more opportunity for personal content.

The "Leaders of America" program was established in 1954 with a portion of the funds left to the Caltech YMCA as an endowment bequest by the late Dr. Robert A. Millikan. Since then this fund has been used to bring leaders of national repute to the campus for lectures, informal discussions, and personal contact with the students. In the past, students have had the opportunity to get to know such outstanding people as Margaret Mead, Martin Luther King, Ralphe Bunche, Justice William O. Douglas, S. Radhakrishnan, Victor Reuther, Clarence Randall, James B. Conant, Abraham Maslow, Norman Cousins, and Archibald MacLeish.

### Warner Heads Industrial Associates



Warner

Dr. Arthur Howard Warner has been appointed executive director of Caltech's Industrial Associates. Warner was first technical director of the Cape Canaveral Missile Test Center, and is a widely known consultant in space technology and related fields.

Dr. Warner assumed new duties January 1, after an extremely varied and extensive career in academic research and teaching, and in military and industrial development projects. Warner has received numerous honors for his contributions.

The Industrial Associates is a group of more than 40 corporations that give Caltech financial support. The Institute, in turn, provides them with visiting lecturers, technical reports, and information on the progress of its research programs.

### Letter

(Continued from page 2)

provide good acoustics for the intended uses. Not every request for space could be accommodated, of course. But there is every reason to believe that in the Auditorium, Caltech musical activities (except the Musicale, which prefers to remain in Dabney) should have a base for rehearsal and performance inferior to none on any campus. The facilities for lectures and scientific meetings are excellent.

It is hoped the foregoing will clarify the situation. Decisions had to be made, and decisions of this kind include possibility of error and of giving incomplete satisfaction to those who hold special interests, however worthy. It is the confidence of all who participated in the decisions about the Auditorium that the building which will rise on the ground broken on Monday will be not only a pleasing ornament to an expanded campus but, more essential, a facility for the enhancement of the greatest possible number of all aspects of Caltech educational and community life.

> P. C. Eaton Dean of Students

FOR SALE
Friden Automatic Calculating
Machine — Model St
21 Digit Product Accumulator
11 Digit Quotient Accumulator

11 Digit Quotient Accumulator \$290.00 D Fritz, 659 S. Lake Ave., Tel: 449-2688

### **Bayne Visit**

(Continued from page 1)



Bayn

Arab children attend school, Bayne gave two primary reasons. First, the Arabs are less technologically and culturally developed than the Jews and hence have less interest in education, and second, the lower economic status of the Arabs make them less able to devote time to education. Also, the fact that the Arabs are a potential or actual fifth column in Israel leads to outright discrimination in many cases.

#### **Economics**

In discussing Israeli economics, Bayne pointed out that Israeli must rely on a value-added economic formula of raw imports re-exported as finished goods. Because of this, and because of the economic fact that developed states trade mostly with other developed states, Israel has applied for associate membership in the Common Market. Bayne reports that there is some opposition to Israel's admission because the ultimate aims of the Common Market go beyond economics and involve political integration of its members which would not be a reasonable political goal for the State of Israel.

### Dancers Plan Balkan Series

The Caltech-Associated Colleges folk dance group is beginning a series of Balkan nights, learning Greek, Yugoslavian, and Bulgarian dances with guest instructor Dennis McDonough of Pasadena. For the next few weeks their Sunday night meetings at Renwick Gym at Pomona College will feature these dances.

These Balkan dances, nearly always line dances and not couple dances, prove to be very popular, perhaps because of their rather subtle rhythms and hypnotic melodies. The Yugoslavian kolos are among the most extensively danced folk dances today, as many a visitor to Yugoslavia can attest. Furthermore, interesting differences can be found between Bulgarian, Greek, and Yugoslavian dances, differences which perhaps can be traced to national temperament.

This group, first organized a year ago, began from scratch this fall, so beginners can still profitably join and catch up in a few weeks. There is lots of room, and everyone is welcome. Caltech students who desire transportation can meet at the Athenaeum parking lot at 6:45 p.m. Sunday.

### Religion

Bayne drew attention to the problem of the exact nature of the relation between religious law and secular law in Israel. to the structure of the Jewish religious system. The problem now is whether or not the religious structure should be integrated into the now existent national structure. Although the problem is heightened by the existence of many political parties, each with a different interpretation of the proper relationship between church and state, a partial solution is made possible by what Bayne refers to as henotheism - faith in a social group under God, as opposed to pure monotheism, direct individual faith in one God. That is, the structure of the church is incorporated into the Israeli social system, rather than the national government.

Next week the international affairs staff will conclude its report on the Bayne interview with a discussion of Iran.

Bayne, who has been with the AUFS since 1953, is a writer and political observer who for nearly 20 years has been closely (Continued on page 6)

# ACLU Brings Special Film

"Walk in My Shoes," the story of the Negro in the United States and what he is thinking today—told entirely by Negro Americans—will be shown free of charge by the Caltech ACLU chapter and the YMCA on Monday, January 15, at 7:30 p.m. in 22 Gates.

Produced by the ABC News Special Projects Division, and made available for use by Bell and Howell, "Walk in My Shoes" explores the world of the American Negro, and listens to him in many voices.

The Negro will tell the entire story: a Black Muslim taxi driver in New York; comedian Dick Gregory at the "hungry i"; city people and country people all over the country.

"Walk in My Shoes" was produced by Nick Webster, who employed advanced camera techniques to bring viewers into the world of the Negro. Lou Lomax, an author and reporter, did most of the interviewing, employing some of the bluntest questions ever used in a report on a subject generally skirted cautiously.

### Diners' Club To Feature American Universities Field Staff Members

The Caltech Y's Upperclass Diners' Club began for second term last Monday, January 8, with a discussion by Dr. McCormick, of the CIT Civil Engineering Department, of the draft. Interested students mobbed Chandler to find out from McCormick, who is a local draft board member, about being drafted (but mainly how to avoid it).

McCormick's speech was the first in this series of the Diners' Club, which schedules the following programs for the remainder of this term: On Tuesday, January 16, Edward A. Bayne of the American Universities Field Staff (AUFS) will speak. Bayne is an expert on Italy, Iran and Israel. On Monday, January 22, Caltech stu-

dents will hear Kal Silvert, AUFS specialist on Latin America. Charles F. Gallagher, AUFS specialist in North Africa (specializing in Algeria), will speak on Monday, February 12; and Reuben Froden, AUFS expert on West Africa, will speak on Tuesday, February 20. Final speech of the term will be by Dr. John R. Weir of CIT, on the topic of "Student Testing."

Meetings are held in Chandler Dining Hall at 6:30 p.m. Dinner is included for undergraduate resident students. Those interested in the speech alone may arrive at 7 p.m. For the four AUFS programs, both the Upperclass and Frosh Diners' Clubs will meet together. It should be noted that two of the meetings are on Tuesday.

# FRENCH SPANISH GERMAN RUSSIAN ITALIAN JAPANESE

THE BERLITZ SCHOOL OF LANGUAGES PASADENA, 170 SOUTH LAKE AVE., SYcamore 5-5888

PRIVATE INSTRUCTION
SMALL CLASSES STARTING NOW
Native Teachers Day or Evening Free Trial Lesson

testing... Some say we go overboard, the lengths we go to in testing Ford-built cars at "Hurricane Road"-our wind-andweather lab in Dearborn, Michigan. And for practical purposes—we do. You might call it "testing in depth." Ford scientists and engineers have devised a gigantic test tunnel that creates monsoon rains and tornadic winds in a matter of minutes. Super glub, glub! sun lamps boost temperatures from 20 below to 160 above zero. Fog and drizzle, snow and sleet-all at the twist of dials. Huge cylinders beneath testcar wheels imitate every kind of road: from flat, smooth turnpike to rutted mountain trail. Out of it all comes knowledge of how to build better cars-cars that are built to last longer, require less care, and retain their value better. This constant aiming for perfection is just one more way in which research and engineering are earning for Ford Motor Company its place of leadership. The American Road, Dearborn, Michigan PRODUCTS FOR THE AMERICAN ROAD . THE FARM · INDUSTRY · AND THE AGE OF SPACE

# YMCA Brings Art Students For Weekend

Under the sponsorship of the Caltech Y, several art students will visit the Caltech campus on the first weekend in February, right after midterms. They will eat, live, and sleep in the Student Houses (except the girls, who will stay in the Athenaeum). Arriving Friday afternoon and staying until Sunday, they will spend the weekend debating and discussing with students, and perhaps demonstrating some of their creative talents.

As an example of what can happen, Bob Marvin reports about a conversation he had with one of the artists, a graduate student from Otis Art Institute in L.A. The two finally decided that the highest purpose of science was to enrich man's intimate knowledge of his world, and that this could serve as a fair, general definition of art as well. From here one can toss around definitions and decide that science is an art, or vice versa. These art students will have many valuable ideas on such subjects and lively discussions are sure to ensue.

In addition, a display of the works of some of these students will be put up in Dabney Lounge the week before they arrive. Help is needed, and this will be an excellent opportunity to meet the artists intimately over their work. One may contact the Y if interested.

### **MIT Worries About Grades**

The following editorial, from MIT's newspaper, "The Tech," may prove a small consolation for the myriad of students who won't get into the grad school of their choice because they came here instead of UCLA for their undergrad years. (Note that MIT GPA's are based on A equals 5.)

"Graduate admissions each year become the concern of the larger portion of MIT's senior class. Students whose cumulative average is between 3.0 and 4.5 are faced with the task of selecting a school which is likely to admit them and which offers the best program in their field. It is a sad reflection upon many schools that some of these people are excluded without a hearing. Graduate schools fall into two general types: those which have a cumulative average cutoff point, and those (like MIT) which do not. A student who has earned a 3.2 in his four years at MIT will find that his application is not considered by a school which decides that a 3.5 is requisite for admission while his colleague from a state university is admitted with a 3.6. Since there are differences in the quality and difficulty in undergraduate education it seems unfair that many, if not the majority of graduate schools do not give consideration to this factor. From the standpoint of professional competence it is downright dangerous.

"The ideal condition would be for each graduate school to give qualifying exams commensurate with their standards to all applicants. In the absence of this, the departmental weighing of grades and recommendations used here is probably best. But to think that either of these plans will be adopted is whistling in the dark. If MIT feels that its 3.5 represents a higher level of attainment on the scale of overall graduate applicants then it should do something to reflect this. Perhaps an adjustment upward of the mean would help, but this is not the whole answer. Over the years one hears of many radical proposals to change the grading system so as to maximize this factor or that. We do not suggest MIT should "soften up," but we do hope that the faculty which has shown itself willing to be open minded where knowledge is concerned will keep the same open mind to proposals which bear on this situation."

### Student Center

(Continued from page 2)

ASCIT offices. Access to these rooms will be by the balcony on the east side which has stairways at both ends. The additional stairway to the deck above the bookstore will be for emergency use only.

The outside of the building will be mostly cement with irregular planted areas. The cemented area may extend to Firestone Lab. The construction should be finished around May 1. The completion date for the finishing and furnishing of the interior is the middle of June. The Physical Plant planning department hopes to have the building finished by commencement and it will be in everyday use by the beginning of next year.

## Tech Fame Reaches New Heights Mountain Named For Institute

BY JIM EDER

At the headwaters of the Kern River in Sequoia National Park there stands a lofty and remote mountain that now bears the name Caltech Peak. The name become official last December 14 when it was approved by the Department of Interior's Board of Geographic Names. At 13,832 feet, it is one of the highest peaks in the Sierra Nevada west of the Sierra Crest. Located just south of the Kings-Kern Divide between the main crest and the Great Western Divide, its summit commands an inspiring view of a large part of the Sierra. Many major Sierra peaks, including Brewer, Williamson and Whitney, are visible from the summit rocks.

In June of 1961, Ted Matthes and Dick Jali, graduates of Tech, and I climbed the then-unnamed peak with the intention of suggesting the title Caltech Peak to the government. (Ours was the third recorded ascent; the

others were in 1927 and 1953.) Upon returning, Dick contacted the appropriate offices in the Department of the Interior. Later correspondence led to the favorable decision of last month.

The 26-mile roundtrip climb needed to reach Caltech Peak although non-technical, is long and arduous. But the rewards are many and varied. The Symmes Creek country abounds in flora and fauna, which provides a striking contrast to the barren Tyndall Creek Plateau. Above all, the sweeping panorama from the summit is unparalleled by many Sierra Peaks. If you're interested in getting there, see this writer in 36 Fleming.

# HARRY'S ★ ★ CAMERA

COURTESY DISCOUNT TO ALL
CALTECH STUDENTS AND FACULTY
910 E. California Mu. 1-1388

Free Parking

UNITARIAN PUBLIC FORUM
ABC News Analyst WILLIAM WINTER
Speaks On
"ASIA AND THE WEST"

Friday, January 12 8 P.M. First Unitarian Church, L.A.

Donation \$1.00

Question Period



Minds are different, too. You can't ink them and roll them and press them on hard-finished white paper. But you can test them, mold them, nurture them, shape them, stretch them, excite them.

And challenge them. At Cal Tech's Jet Propulsion Laboratory, that's all we do. The products of these minds are spacecraft and instruments that will explore the Moon and planets and communication systems to probe outer space.

It's a big responsibility. And it requires the finest young scientific and engineering minds this country has to offer. Many, many minds that work as one. Minds such as yours, perhaps. Won't you come in and talk to us? If you have a mind to?

JET PROPULSION LABORATORY
4800 OAK GROVE DRIVE, PASADENA, CALIFORNIA

Operated by California Institute of Technology for the National Aeronautics & Space Administration

January 23 — Contact University Placement Office for appointment.

On campus interviews:

All qualified applicants will receive consideration for employment without regard to race, creed or national origin / U. S. citizenship or current security clearance required.

## frets and frails Seeger Updates Banjo Book

I have lots of scraps this week, none of them worth a whole article, so you will have to bear with me.

I was back in Boston (Home of Country Music) over the Christmas vacation and while there picked up Pete Seeger's third edition of "How to Play the 5-String Banjo." The book has been completely revised and enlarged and is a wise investment for any aspiring banjo-picker, even if you already have the second edition. Also, I noticed (but did not hear or buy) a new instruction record to go with it.

Included in the book is a long section (eight pages) on bluegrass banjo. This is a marked improvement over the last edition and indeed over anything available presently. However, there is in the offing (according to usually reliable sources) a book by the master himself, Earl Scruggs. In fact, I was told this by Scruggs himself when he was here at the Ash Grove. A friend of mine at Harvard, checking this lead, found that the book was actually being written by some unknown archaeologist and Scruggs is reading it over to check the results. In any case, it will be out sometime this year and will be very interesting, although I am not convinced that too much Scruggs Style can be taught via the printed page.

Also, one day while I was in Boston I fought my way through the snow to the Vega Company, maker of banjos, guitars, and various other instruments. As a number of people have been questioning me about the price of instruments, I thought I would pass on what I had learned. The Pete Seeger model (long neck) 5-string has just gone up in price to \$340. The Earl Scruggs model (short neck, with resonator and Scruggs pegs) which was \$375 is now out of the question. A twelve-string guitar can be had for only \$250, however.

As for folk music in the area: The Ice House (24 North Mentor in the alley) is now featuring two groups. I have not heard them except on records. The first group, Art and Paul, I found more dynamic and interesting on their recording "Hangin', Drinkin', and Stuff" (Columbia CL1702) than the other, The Shenandoah Trio, on theirs, "The Shenandoah Trio" (Dot DLP3393). However, I hope to have heard them in person by next week and will give you a fuller account.

Appearing at the Ash Grove for all you blues fans are Sonny Terry and Brownie McGhee-always an excellent show..

### Bayne

(Continued from page 4) associated with economic and social development in Africa, Asia and Europe, most recently studying the Middle East from his base in Florence, Italy.

Bayne is staying at the Athenaeum. His schedule for the remainder of his stay at Tech fol-

Prior to the existence of Israel as a secular state the structure of the Jewish "national state" could in some sense be equated

Today at Noon he will attend the Graduate Sack Lunch in the 'Y' Lounge. At 6 p.m. he will attend an Athenaeum dinner, speaking on, "Iran, Israel and Somalia: Problems of the Establishment."

Tomorrow, Friday, Jan. 12, Bayne will speak to Professor Gilbert's 8 and 11 a.m. Econ 100 classes. That evening he will dine at the home of Mr. and Mrs. L. W. Jones.

Sunday, Jan. 14, he will attend a lunch and discussion at the home of Miss Gloria Gartz. At 7:30 that evening he will head-up a discussion group of the Inter-Nations Association.

Monday, Jan. 15, at 4 p.m. Bayne will attend a Humanities Faculty Seminar in 208 Dabney. That evening he will join Dr. and Mrs. Harrison Brown for dinner at their home in La Canada.

Tuesday, Jan. 16, at 11 a.m. he will give his second H5 lecture, discussing "Iran: Politics and Problems," followed by lunch with the H5 staff. At 7:30 p.m. he will meet with Dr. Munger's H124 class

Wednesday, Jan. 17, Bayne's last day on campus, he will join the Geology Lunch Club at noon in 151 Arms. That afternoon between 2 and 4 he will participate in a Technical Cooperation Seminar in 210 Thomas.



### BY JOHN BERRY

Let it not be said that the Barfly is unaware of current events. This Monday ground was broken for Beckman giant cloudchamber. This puts me in mind of a famous cocktail which is appropriate to the festivities.

### THE MOLOTOV COCKTAIL

- 1 quart vodka
- 1 quart of gasoline
- 1 dirty rag
- 1 match

Drink vodka, pour gasoline into empty vodka bottle. Stuff the dirty rag into the neck of the bottle, making certain the rag is dampened by the gasoline. Carry to site of the proposed Beckman scaled-up model mushroom, light with match. Throw against any forms, construction equipment, or passing Caltech official. Run like hell.

Neither of this week's drinks have been tried by me, but they have been highly recommended, and I pass them on for what they are worth.

### THE WITCH'S BREW

bottle of coffee liqueur 1 bottle of apricot brandy Pousse Cafe glasses Small quantity of dry ice

Chill the bottles of liquor for some hours before serving. Make a two-layer Pousse Cafe (apricot on top). Just before serving add a chip of dry ice to the glass. The fumes and bubbling make a really impressive sight according to report. Care should be taken not to swallow the dry

# Observer Digs Sand, Saga Sales

BY THE LIP

Noteworthy observations for second term of the 1961-62 Tech year are here tabulated for the information of would-be wellinformed individual all over campus. Provocative interpretations are also offered as a general guide to Correct Thinking, but it should be emphasized that the party line is somewhat flexible, and somewhat modified interpretations may also be acceptable.

Item One: B & G, sometimes referred to by members of the outgroup as The Physical Plant, has not yet replaced the sand between the bricks on the Olive Walk this year. Last year, as all those who are present will recall, B & G diverted a complement of several of its most efficient personnel to the critical task of removing all the old, dirty, bad sand from between the bricks, and replacing it delicately with new, clean, good

This apparent oversight must necessarily be interpreted as the result of extensive B & G surveys and questionnaires, circulated among faculty members, employees and graduate students to determine the effect of mid-campus construction and the presence of the new grad houses on Olive Walk pedestrian traffic. Reduced usage of the bricks doubtless calls for a postponement of the sand-replacement function for a few weeks.

Item Two: Student House management last term installed a battery of refreshment-dispensing machines under Fleming House. This has obviously cut into the already-decimate ice cream and coke trade at CDH, but not enough to permit a manpower reduction in that establishment. Thus it would seem that in the overall view the Student-House-Saga staff is even less efficient than previous-

### Efficiency

Again, however, it can be shown that careful consideration has gone into this move. To begin with, the Student-House-Saga staff could not possibly be less efficient than previously, so part of the deceptive impression must be discarded a priori. More important, however, is the challenge to the Fighting Men of the Greasy (known to those of the outgroup, numbering among whom is the writer of the previous paragraph, as CDH) to improve the appeal of the Greasy to the ice cream and coke trade.

In fact, the Greasy's employees have accepted the challenge with admirable esprit de corps. and have taken to hiding between the bricks in the Olive Walk, seizing unaware passersby and removing them bodily to the cash register line in the Greasy, shouting the while their battle cry, "TITAOTGTTICACT" (see end of last paragraph). This has resulted in an 86.3% increase in cash receipts, without any increase in food consumption!

Item Three: The 1960-61 Big T has not yet gone to press. At first glance this may appear to be indicative of gross ineptitude, stark unreliability and passymeasured pavinity on the part of the editorial staff. This, however. is not the case: these sensible, forward-looking individuals are actually holding up the preparation of the annual deliberately, while waiting for a snapshot of Wes Hershey pouring sand from between the Olive Walk bricks onto the refreshment-dispensing machine under Fleming, while Bud Taylor stands ready with a barrel of tar and a basket of feathers, with which to coat the pushbuttons.

Item Four: The California Tech staff includes two females. Since this is the largest female concentration (by weight) in any undergraduate organization, it might appear to the casual observer that the editors of the Tech are spirited, debonaire individuals possessing a good deal of personal magnetism.

In actuality, however, the large proportion of females on the Tech staff demonstrates the stupidity of the editors, who are too busy while the girls are around to do anything about it. Furthermore, the young ladies in question are actually spies from the Big T editor, assigned to take snapshots of people pouring sand on the machines outside in the hall.



## "NAVIGATION IS **OUR BUSINESS"**

# **AC SPARK PLUG**

### The Electronics Division of General Motors

Our current projects include development and production of Inertial Guidance Systems for the TITAN II, THOR and MACE missiles. We are also the Systems Integration Manager for the modified B-52C&D Bombing Navigation System. In the commercial field, AC has developed and is now producing a new mobile radiotelephone. Research and development programs include navigation systems for mobile ICBMs, space vehicles, supersonic aircraft and ocean-going vessels.

AC is seeking qualified engineers and physicists to fill permanent positions in Milwaukee, Boston and Los Angeles. You may qualify for employment if you have a BS or MS degree in Electrical Engineering, Mechanical Engineering or Physics. Advanced positions are also available for men who are completing their doctorates with specialization in navigation and related fields.

To provide a transition from academic learning to practical career development AC offers the following training programs:

Career Acceleration Program — A twelve-month program with formalized classroom instruction given in conjunction with rotating job assignments in Manufacturing, Reliability and Engineering. Courses include:

**Ballistic** and Cruise Missile Laboratory Sessions Advanced Servomechanisms

Principles of Airborne Digital Computers

Basic Principles of Inertial Guidance Semi-conductor Technology **Probability and Statistics** Philosophy of Reliability

Field Service Program — Two- to four-month classroom and laboratory training on inertial guidance systems or bombing navigation systems. Domestic and foreign assignments follow completion of program.

### **BOSTON**

Advanced Concepts Research and Development On-the-Job Training Program — AC's Boston Laboratory is engaged in developing advanced inertial guidance equipment primarily for application in earth-bound

### LOS ANGELES

Advanced Concepts Research and Development On-the-Job Training Program — AC's Los Angeles Laboratory is occupied with advanced guidance research for space vehicles and ballistic missiles, plus advanced research in special purpose digital computers.

See your College Placement Office regarding an appointment for a personal interview with the General Motors and AC Representative.

### **CAMPUS INTERVIEWS**

Wednesday, January 17, 1962

If unable to apply in person send résumé to Mr. G. F. Raasch, Director of Scientific and Professional Employment, Dept. 5753, 7929 South Howell, Milwaukee 1, Wisconsin.

An Equal Opportunity Employer Ask your Placement Officer for AC's new Employment Brochure.

AC SPARK PLUG

### The Electronics Division of General Motors

MILWAUKEE . LOS ANGELES . BOSTON

AChiever Inertial Guidance Systems for Titan II, Thor and Mace. Bombing Navigation Systems for the B-52C&D and B-47. AChieverfone Mobile Navigation Systems for Radiotelephone Systems.

# SPORTS



All-Conference pick George Argyropolis battles for ball possession.

### 1. I 6

# Caltech Soccermen Tie UCLA; Six Are All-League Mentions

BY DAVE OSTAS

After a guest kickoff by an attractive young lady with an alarmingly talented toe, the Beaver soccer team managed to turn their attention to the field and hold perpetually league-leading UCLA scoreless for 90 minutes. Unfortunately the Techmen weren't able to hit the nets either and had to settle for a tie ball game. The teams played about evenly throughout the entire game, each having many strong attacks and many narrowly missed shots which could have meant victory.

### Postponed

The game last Saturday was postponed from first term by request of UCLA. This was the team-from-Westwood's second tie game with Caltech in the Bruins' claimed streak of 78 games without defeat.

Don Wieberg, Beaver goalie, was responsible for holding the visitors scoreless as he surpassed his usually spectacular game. He consistently broke up the UCLA attack by his aggressive pass interceptions. The Techmen played well and seemed to suffer only minor trouble from the Christmas layoff.

### Fleming Netmen Defeat Ricketts in Discobolus Match

Fleming defeated Ricketts in tennis last weekend to take possession of the Discobolus trophy. The Fleming attack was led with victories in first singles (Barglow over Blinkenberg; 6-0, 6-0), second singles (Green over Smith; 6-4, 6-2), and third singles (Lin over Chong; 6-2, 6-3). The only victory for the men of Ricketts came in fourth singles (Larsen over Webber; 6-2, 6-3). Doubles were not played.

The Fleming victory leaves them in a distant second place to Dabney. The standings at the present time are as follows:

repello time an	
House	Trophy Points
Dabney	15
Fleming	7
Ricketts	4
Blacker	1
Lloyd	1
Page	1
Ruddock	1

Ruddock has the next challenge.

The tie gives the Beavers a final record of 5-3-2 which places them third in the conference behind UCLA and Pomona. An interesting point is that the Techmen lost three games by a grand total of only four goals.

### All-League Mention for Six

Three Caltech players have been named to the All-League Team and three more were awarded Honorable Mention. Goalie Don Wieberg and forwards Joel Kwok and George Argyropolis were named to the first team, while fullbacks George Silestead and Wes Shanks and forward Jerry Davis received Honorable Mention for their efforts during the season.

# IH Football Drills Start

BY PETER FORD

This week marks the official opening of InterHouse football practice. All Houses appear to have large numbers of eager masochists willing to subject themselves to all sort of bruises and stiffened joints for the glory of the House and the joy of playing touch football.

No legitimate predictions can be made now concerning the outcome of the football season, but if the season at all resembles the outcome of last year, we should expect a close and exciting race. One thing adding to the interest in football this year is the closeness in the overall InterHouse Trophy race. Lloyd is presently clinging to a precarious lead of three points over Ricketts with Ruddock in third place. The first games are a week from Monday.

The InterHouse standings at present are:

HOUSE	TROPHY POINTS	
Lloyd	51	
Ricketts	48	
Ruddock	42	
Fleming	33	
Page	33	
Dabney	30	
Blacker	15	

# Basketball Team Defeated By Three Opponents In Close Games

RICK WEINGARTEN

Missing the services of firststring guard John Arndt and second-string center Pat Dunn, the Caltech varsity basketballers dropped three games in a row over the first basketball weekend of the term. The first game was lost to Upland, 54-49, the second game to Riverside, 72-69, and the third game to Pomona, 65-55.

### Upland

Though the Beavers led most of the way against Upland, they lost to some accurate freethrowing in the closing minutes of the game. It was obvious that the two-week layoff had taken the edge off the varsity, but they played well enough to win. Noll led the scoring with twelve points, and Gerber followed close behind with eleven. The Upland hero, Fisher, was held to one point in the first period, but came back with a splurge of points in the second half, many on free throws, to score nineteen points and swamp the arsity.

Riverside Edges Tech

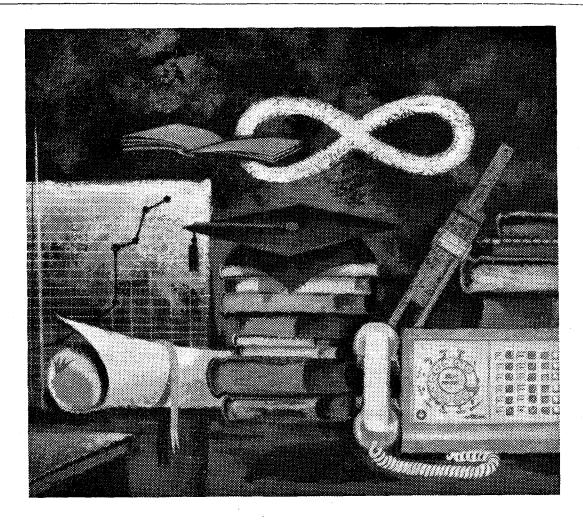
With the forward line looking

very sharp, Tech jumped off to a fine lead against Riverside's man-to-man defense. The plays worked very well with Weiss and Dahlman getting a lot of points. However, the Riverside five came back in the second half and caught the Beavers off guard with a shifting zone defense and quickly passed up the confused Techmen, leading at times by as many as ten points. In the last ten minutes of play, Tech, led by Noll's ten points and Bopp's five, caught Riverside and forced the game into overtime. Then the exhausted Beavers lost by a heartbreaking three points. Three of them had played almost the entire game. Even so, Coach Preisler's strategy of removing Tom Bopp, who had been like a vacuum cleaner on the defensive boards all night, with a minute left was looked upon with astonishment by most people present.

Pomona Wins

The Pomona game was again a story of leading at the half and folding in the second half. Again the plays worked fine against the man-to-man defense, but the zone thrown at them in the second half caught the varsity off balance. It seems that perhaps too much emphasis is being placed upon set plays which, of course, are worthless against the zone defense. When the varsity gets back into the swing of improvising (which they do very well) it is too late. Bopp and Noll both scored heavily against the zones.

One encouraging statistic which indicates that all is not yet lost is that in all the losses this week the Tech varsity has scored more field goals than the opposing team. This was true even in the Pomona game, the one with the biggest point spread. With the games coming this close perhaps the team can still work themselves up a winning season.



### Learning never stops for engineers at Western Electric

There's no place at Western Electric for engineers who feel that college diplomas signify the end of their education. However, if a man can meet our quality standards and feels that he is really just beginning to learn... and if he is ready to launch his career where learning is an important part of the job and where graduate-level training on and off the job is encouraged — we want and need him.

At Western Electric, in addition to the normal learning-while-doing, engineers are encouraged to move ahead in their fields by several types of educational programs. Western maintains its own full-time graduate engineering training program, seven formal management courses, and a tuition refund plan for out-of-hours college study.

This learning atmosphere is just one reason why a career at Western Electric is so stimulating. Of equal importance, however, is the nature of the work we do. Our new engineers are taking part in projects that implement the whole art of modern telephony, from high-speed sound transmission and solar cells to electronic telephone offices and computer-controlled production techniques.

Should you join us now, you will be coming

to Western Electric at one of the best times in the company's history. In the management area alone, several thousand supervisory jobs are expected to open up to W.E. people within the next 10 years. And our work of building communications equipment and systems becomes increasingly challenging and important as the communications needs of our nation and the world continue to increase.

Challenging opportunities exist now at Western Electric for electrical, mechanical, industrial, and chemical engineers, as well as physical science, liberal arts, and business majors. All qualified applicants will receive careful consideration for employment without regard to race, creed, color or national origin. For more information about Western Electric, write College Relations, Western Electric Company, Room 6206, 222 Broadway, New York 38, New York. And be sure to arrange for a Western Electric interview when our college representatives visit your campus.



Principal manufacturing locations at Chicago, III.; Kearny, N. J.; Baltimore, Md.; Indianapolis, Ind.; Allentown and Laureldale, Pa.; Winston-Salem, N. C.; Buffalo, N. Y.; North Andover, Mass.; Omaha, Neb.; Kansas City, Mo.; Columbus, Ohlo; Oklahoma City, Okla. Engineering Research Center, Princeton, N. J. Teletype Corporation, Skokie, III., and Little Rock, Ark. Also Western Electric distribution centers in 33 cities and installation headquarters in 16 cities. General headquarters: 195 Broadway, New York 7, N. Y.

### Summer Job Story Told

January is the best month to begin job hunting and to look into possibilities for foreign education positions. Most of the better positions are nailed down by those who begin looking early, even by those who merely fill out an application to be placed on file.

Those who want foreign education positions especially should begin now, in order to allow ample time to complete application procedure for September 1962 positions. There are positions open for teachers in almost every foreign country.

Those who want specific data, including the salaries and qualifications, for teaching, research or other scientific positions may find this in the International Issue of "Crusade for Education." This journal is published by the Advancement and Placement Institute, and is available in the Placement Office.



Pass the Butter

Reports trickle to Beak on escapade of unnamed House over disgraceful outside-class experimentation. Latest indications show that approximately 500 slices of good(?) bread, fresh from Saga staler, were coated with the high-priced spread and released from a height, subject only to laws of gravity. Purpose of experiment was to determine the truth of old adage (invented by Beak in 1933) that bread subjected to treatment described above will tend to contact surface over which it is released with coated face. No quantitative result are available.

#### Weak Weekend

Toad is unable to report this week, having found himself

sober on New Year's Eve.

#### Never Trust a Cop

Tech Ossifer Fig has learned to his dismay that one should remain alert when in company of Pasadena Protectors. Our brave Brooklyn lieutenant was idlely conversing with boys in blue, who were guarding money in Cuthbertson on registration day, when he suddenly found that his own handcuffs were firmly fastened - one end to his left wrist, the other to his belt. His outcries were silenced when it was pointed out that he was out of uniform. Closer inspection reveals that the badge of Fig has disappeared. Beak left before already blue-tinged air became darker.

#### Furd Falls

Tech sports editor Furd was a bit of a sport himself at recent Ableparty. Several quanta of certain organic beverages had released sub-personality of Furd. Gyrations about house were closely followed by reconstruction crew. Wild dance with J. Heller consummated proceedings. Sharp movement by Heller included similar movement by Furd. Furd's movement, however, continued in downward direction. Luckily fall is broken by hardest part of body — his Unfortunately, edge of coffee table is rather sharp. Gash over eye is hurriedly stopped by Able who dislikes blood stains on carpeting. Comments Furd, "That stuff is a pretty good anesthetic."

Drugs Sundries Cosmetics Tobaccos
CALIFORNIA REXALL

PHARMACY

555 S. Lake SY 2-3156

Lunch

**Breakfast** 

THE CAMPIIS

## THE CAMPUS BARBER SHOP

New Location:
South End of T-4

ALL HAIRCUTS \$1.50

Two Barbers to Serve You

### ALVIN'S Photo Supplies

Finest Camera Store
With Competitive Prices
Processing +
504 South Lake
SY 5-4327



# when Jimmy grows as big as his shadow

...the free world he lives in will be using almost a million gallons of petroleum every minute.

That's about 60% more than it uses today—by 1971.

Where will it all come from?

From hundreds of places on earth you might never expect oil to exist. Right now, for example, Standard's exploration teams are probing the ocean floor many miles out to sea ... trekking across Arabian deserts, marked "inaccessible" on maps.

Others are climbing over glaciers in Alaska, pushing through the snow into the frozen interior of Canada, slogging through the jungles of Latin America.

In the last ten years, geologists from Standard and its affiliates explored in 47 countries on six continents.

Is the search paying off?

Yes. In the United States alone, we found two new barrels of oil for every barrel we took out of the ground.

The search will continue to help make certain that Jimmy and his generation will have the oil they need for an ever-expanding number of homes, cars, mechanized farms and industries... and provide chemicals from petroleum that will help make possible more exciting new products.

planning ahead to serve you better

STANDARD OIL COMPANY OF CALIFORNIA

