SHOPLIFTING DAYS

California Tech

Associated Students of the California Institute of Technology

UNTIL CHRISTMAS

Volume LXVI.

Pasadena, California, Thursday, December 3, 1964

Number 10



A random frosh with his blind date walks down the dock to the Ruddock lounge during Interhouse Dance. Note fire inspector in background investigating an unconfirmed report that the courtyard was flooded with alcohol.

Theologians To Y To Fight **Show Techmen** Religious

BY TOM GREENFIELD

This week many will have had a chance to meet one of the visiting theological students. Not only have we had this tremendous chance to broaden our experience by talking to people whose beliefs and dedications differ widely from most of ours, that they too have reacted to our attitudes and questions and consider that they have been enriched by the challenging of their own positions.

"We meet with unconventional rejections of religion here," Bob Martin, the guest of Ruddock pointed out. Students, he said, appear more contemplative here than at a typical State School. But, lest we pat ourselves too much on the back, he also observed the general apathy. He saw us as a group afraid of thinking too deeply about non-rationalistic matters, and therefore impover-

Many denominations of the Christian religion are represented including for the first time, a Roman Catholic, father Berry, who is staying in Mosher-Jorgensen grad house.

On Tuesday an open forum considered the place of sensuality in literature. Wednesday afternoon saw dialogue events in the houses and in the evening dinners in faculty houses. This afternoon at four their will be a discussion in Winnett Lounge. Once again this bi-annual program, sponsored by the YMCA, has given many a greater opportunity to meet with stimulants which keep us moving intellectually, and perhaps help some towards a more profound understanding of our life goals.

BY GAUTAMA SIDDHARTHA

"I hate science!" said a random Caltech troll with firm conviction. The reason for such an outburst is simple and quite natural: he is getting science crammed down his throat whether he likes it or not. This force-feeding of science, although necessary for a good technical education, has resulted in campus-wide anti-science, and even anti-intellectual, sentiments.

Is this anti-intellectualism conducive to an educational environment? Do these sentiments foster personal communication on a scientific level? Do they inspire the student's motivation, the Honors program, or undergraduate research? Many students and faculty members answer these questions with a definite NO! They feel the student's interest in science and other academic pursuits should be fostered. This is one reason for the elimination of freshman grades.

What about upperclassmen? Can anything be done for them? If activities existed which showed the "good side" of science, not merely its grungy aspects, then maybe students would show a little more interest - an unqualified improvement. If tours of JPL and industrial research firms were available, if the 7094 complex were opened to the undergrads, if technical summer jobs could be obtained, if trips to Mt. Palomar or an American Chemical Society Convention were available, just maybe the Caltech atmosphere would improve. No one is sure of anything; however, it's much better to try something than to vegetate.

Hip, Hip, Hooray!

The Y is trying: it has formed a committee to sponsor programs of a technical nature. Previously nicknamed the "Down With Down-With-Science Committee," it is now the "Encouragement of Scientific Interests Committee (E.S.I.)." The chairman is Dick Hackathorn, with Dr. George

Hammond as faculty advisor. A couple of activities are already in the planning stage. Norton Greenfeld of Ruddock is working with Dr. McCann, director of the Computer Center, on a project to allow undergrad use of the 7094 complex through remote consoles. Bud Schurmeier, project manager of Ranger, and Bob Miller of the Public Information Office of JPL, are working on the details of student tours of JPL.

The future may well bring a little non-academic investigation of science and a little personal motivation in general. If you care to help, attend the next committee meeting, Wednesday, Dec. 9, 4:15 in the Y lounge. Save some souls for (from?) Feynman physics!!

Students Invade Campus Saturday

BY JOHN MIDDLEDITCH

On Saturday, December 5, Caltech will be invaded by at least 1350 high school students and teachers. They will be participating in the Fifteenth Annual Student's Day.

According to Dr. Richard M. Sutton, chairman of the Faculty Committee for Student's Day, a total of about 1800 people have been invited from some 220 schools. The 1038 students and 225 teachers who are expected to attend will be given a guided tour of more than 70 campus exhibits during the morning. Houses Beware!

There will be a luncheon for teachers and counselors at the Athenaeum which will be followed by a talk from Dean F. Bohenblust. The students will be the guests of the seven Houses for lunch. This will mean that each House will have about 150 guests!

After lunch the students will be entertained by the Caltech Glee Club in Beckman Auditorium. This will be followed by an address by President Lee A. Du-Bridge, "Preparing for 1980." This year for the first time the afternoon program will be given in Beckman.

Exciting Talks

"What's Exciting About Biology," an address by Dr. James A. Bonner, will follow DuBridge's speech at 1:45 p.m. After a short intermission of about ten minutes, Dr. James Adams of JPL will lecture on "T.V. from the Moon." However, there will undoubtedly be much more to Adams' talk than just a lecture.

The conclusion of the program will be "The Origin of the Elements," a talk given by Dr. William A. Fowler of the physics department.

For the morning program the teachers and students will be divided up into groups, about ten groups of 22 teachers and 62 groups of 18 students each. Eleven

Caltech students are chosen from each House to act as guides for the tours. The head guide is George Sharman.

Girls!

This year will be the second in which a fairly substantial number of girls will be in the program. However, the students will be largely juniors since the date of the program conflicts with the College Boards given to the seniors.

For the Student's Day program the Institute invited some 290 secondary schools of which about 75% responded. Each school is given a quota of three to ten students, depending on its size and previous response to the Student's Day programs. Over the past few years the attendance to the pro-

(Continued on page 3)

Notices

THE ESQUIRE THEATER

wants your quarters for the last show in its series of low-priced presentations. Featured will be Phaedra and Oedipus Rex, two racy sex thrillers.

EMPLOYMENT SEEKERS

Any candidates for undergraduate or advanced degrees who desire information on interview and placement procedures are invited to a discussion on Wed., Dec. 9 at 7:15 p.m. in 206 Dabney. Donald S. Clark, Director of Placements, will be in charge.

YES, VIRGINIA, THERE IS A CHRISTMAS DANCE

Saturday, Winnett Lounge, 8:30. Dressy (i.e. dark suits for you cats, party dresses for the women folk). Corsages optional, but discouraged; save your dough for the better things in life (i.e. booze, women, music, cars, bribes for your ASCIT Social Chairman)

LAST CHANCE

to attend the one and only ASCIT dance class, Thursday, 8-9 p.m. **SENIORS**

So that we may reserve space for you in the BIG T, please get write-ups and photo proofs into the BIG T office by the end of the term. Those who returned proofs by Nov. 20 may pick up personal orders in 51 Blacker on or after Friday, Dec. 4. MATH CLUB

Dr. H. O. Pollack, research mathematician at Bell Telephone Laboratories, Inc., will speak at a meeting of the Caltech Math Club on "Some Applications of Combinatorial Mathematics" at 8 p.m., Monday, Dec. 7. Everyone is in-

COLLEGE AGE CHRISTIAN FELLOWSHIP GROUP

A number of college students from Caltech, Glendale College, and PCC meet every Sunday evening at 7:00 p.m. at Knox United Presbyterian Church for study and fellowship. Come on out and meet your fellow students. Knox Church is located just one block north of the campus at 225 South Hill Ave.

THE MESS IN VIETNAM

will be the subject at a discussion with Mrs. Dorothy Guyot, instructor in political science, at the home of Robert Woodbury, new instructor in history, on Sunday evening, Dec. 6. Sign up at the Y office or see Dan Metlay, Ricketts.

ROTC Sophs Level Los Angeles As Juniors Defend In Vain

BY HANK SUZUKAWA

Los Angeles was leveled by a thermonuclear attack Wednesday, November 25, as bombers and missiles guided by the sophomore ROTC cadets penetrated the defense systems under the command of Capt. Donald Stearns and the junior cadets.

The attack was part of the annual ROTC defense exercise held by the Caltech detachment and climaxed five weeks of planning by the sophomores and juniors. The exercise was designed to give the cadets a feeling for the complexities of planning offensive and defensive measures around a prime target area. The sophomores planned and executed the attack, while Capt. Stearns and the juniors planned the defensive. **Duck and Cover**

The sophomores chose January 1, 1965, as the date to launch their attack of 12 B-52 type bombeds and several minuteman and polaris type missiles. The juniors guessed that the attack would come at this time and had their defenses ready, but the wily sophomores managed to minimize the effect of the defense aircraft through skillful use of their decoy missiles.

In blaze of glory the junior defenders shot down six of the eight decoys, but only four of the twelve bombers were prevented from dropping their weapons. Edwards and Vandenberg Air Force Bases were rendered into a charred ruin. Long Beach, San Diego, and Palmdale were quickly reduced to similar conditions.

As the sophomores closed in for the kill, Capt. Stearns and the juniors realized that their last defenses had been penetrated and begged for mercy. But there was none forthcoming, as the malicious sophomores proceeded to drop over 150 megatons of nuclear destruction on the L. A. targets. Then, having uniquely solved the smog problem, the cadets adjourned for the Thanksgiving vacation.

Editorials

To Our Visitors:

Today you are seeing what goes on at Caltech. The exhibits you have seen in the laboratories are characteristic, in many cases, of the type of research normally conducted at Caltech, the type of research that has made us famous the world over. But there are other sides to the story besides the burbling of a vacuum pump, or the chatter of a Geiger counter.

Take a look around the student Houses after lunch, talk with a few Techmen. The Houses are the very heart of undergraduate life, organized much like fraternities and only vaguely resembling the dorms of other campuses. Although the average student here is embroiled in scientific subjects through most of his waking hours, he manages to find some time to devote to activites outside the curriculum. The range of possible outside activities is not as great at Tech as at some other schools, but these activities are often a major factor in making life here tolerable. Let's face it: no matter how much one may love science, it can't be absorbed continually, without a break. And the break can come in enough different forms to please anyone.

This importance of outside activities is true for other colleges, too. You may be considering applying for entrance to Caltech, or you may not. But whatever field you enjoy most and hence decide to enter as a major in college, whatever colleges you choose to apply to, be sure not to underestimate the importance that the students and activites around you will have in your life at college. If you are thinking seriously about coming to Tech, be sure to get an idea from students themselves of how life is here as a whole.

And to all of you, welcome and enjoy yourself.

—Stuart Galley Wally Oliver



BY J. C. SIMPSON

The Ice House is offering a real hodge-podge show at present, and though not up to the overall level of some of its more recent shows, it is nevertheless enjoyable, and a worthwhile venture.

The 11 p.m. show Tuesday night opened with a "special bonus" named Mike Shy who does comic impersonations of anything he can think of in rapidfire order. His act, which has absolutely nothing to do with folk music, is a novel idea but can use a good deal of polish and more continuity before it rates any raves. It is funny, though, and drew a good response from the audience.

Jugheads

The second act, which will be the first act in a normal show, was the Grand Street Jugheads. This group is not a true jugband, so three of the four play the banjo, guitar, and mandolin. (This makes them a good deal better than they would be if they tried to be a true jugband.) The fourth member plays a jug or combines a washtub and broom handle bass with a kazoo — and he's even good. The singing, and the act in general, is fair; they need to be a bit more lively and a few jokes between songs would help too.

Next was Mason Williams, a stand-up singer who brought his own rooting section. He has an excellent baritone voice and is very good on his serious songs, and on a few comic ones. Unfortunately he spent a lot of time expounding short ditties, most of which were original and none of which were outstanding. Although this took away from his act, he might be able to control himself in the future, and stick to the type of song which he sings well.

Highlight of the show by far was Casey Anderson. I described him as good the last time I reviewed him, so I can only describe him as great now. Casey

can sing just about anything superbly, and does during the show. He ranged from folk songs and blues to popular and Broadway, all of which were excellent. His forte however is singing blues. Perhaps I have heard better, but rarely have I enjoyed them as much. Casey really enjoys himself on stage and got great audience reaction and even a rousing encore from the dozen or so people still around at one. His best song was a Civil War ballad he wrote himself and is one of the most poignant I have ever heard.

If you need further recommendations, two-thirds of the Kingston Trio spent evening sitting through both shows.

At Idaho State

Caltech representatives participated in the Western Speech Association Tournament held at Idaho State University at Pocatello, Idaho, Nov. 26 to 28. Teams from nine western states participated in this tournament.

Representing Tech were Roger Davisson in debate, Gary Scott in debate and interpretation, and Dave Close and Fred Lamb in debate and extemporaneous speaking. In debate Davisson and Scott compiled a record of three wins and three defeats while Close and Lamb won two of their six rounds. In individual events Scott and Close each missed being placed in the final round in their respective event by one speaker rating.

Caltech's overall record in debate against 35 schools is now .500 in 64 rounds of debate. The team's next forensic event will be at California State College in Los Angeles where the Pacific Southwest Collegiate Forensic Association Championships will be held on Dec. 4 and 5.

Caltech Debate Carmina Burana and TeamCompetes I Pagliacci At Shrine

BY JOHN ROUSE

The first show on last Saturday's bill at the Shrine was Leoncavallo's I Pagliacci, a two-act opera about a crying clown with homocidal tendencies. Following was swingin' Carl Orff's Carmina Burana, a campus favorite ever since Surfin'k Tony Dahlen introduced it 'way back last year. The show drew the full-house crowd, who cheered the performance to a standstill more than once.

In I Pagliacci, the spotlight was on Jon Vickers (Canio), Mary Costa (Nedda), Robert Weede (Tonio), and Andre Montal (Beppe). This is the plot: a troupe of players, lead by the clown Canio, is setting up for a show. Canio is angered at stories that his wife, Nedda, has a lover, for he is the unit jealous husband.

Will the Real Lover . . .

When Canio et al. leave, the hunchback Tonio enters and professes love for Nedda, who repulses him with a whip. He scurries out threatening revenge. Then Silvio, Nedda's lover (aha!) enters, and the two promise to run away together after the play that night.

Tonio overhears them and fetches Canio. Canio enters and Silvio flees without being recognized. Canio asks Nedda at knifepoint to reveal her lover's name, but she refuses. Beppe intervenes to prevent a premature end of the opera, and so ends Act I.

Act II is a play-within-anopera, and is supposed to be a (Continued on page 6)

Letters

Apology

I wish to apologize to Caltech's football players for my part in the thoughtless "cheer" that went on during the Occidental game. Our athletes deserve more consideration than this. I hope you players will believe that our bad taste was based on thoughtlessness rather than ill feeling.

Tom Williams

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International Relations Game To Simulate World Problems

In January of next year, a group of Caltech students and faculty interested in international affairs will gather to play a game of Inter-Nation Simulation. Games like this, developed by the Center for International Studies at MIT, attempt to put international relations on a serious game basis in which international situations are simulated.

Organizing the games is Dr. Edwin Munger, professor of geography. He will be assisted by Dr. John Raser from the Western Behavorial Sciences Institute of La Jolla and other experts from UCLA. The chief script writer for the game is Charles McGruder, a senior. He is also in charge of all arrangements.

It is expected that there will be seven teams participating in the game. Each country is represented by five players who are its officials. These players are confronted with a crisis and it is their task to formulate a statement of their general policies in dealing with this crisis. Factors influencing each country are numerous so actual situations will be closely simulated. The game is played in two-hour periods, each representing days or weeks.

During the actual playing of the games, real countries will be used. Rhodesia and adjacent countries will be represented as well as the major world powers.

The progress of the games will be interesting to watch because of all the rapid decisions that must be made during a crisis. These games should provide a insight into human nature placed in a situation where an incorrect decision could result in a major

conflict. LAKE AVE. CALIFORNIA INTER CENTER **CALTECH?** We're practically next-door neighbors! 605 South Lake Avenue Telephone 792-6121 Wm. M. McCullagh, Manager

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December 4

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From Books

In a school located in such a climate as Caltech is, one prominent sport usually is surfing. Also, however, in a school the size of Caltech the lack of transportation and surfboards present a problem. A simple solution to this problem is a surfing club and indeed one has been organized here. The idea came about last year during the third term when a group of surfing-minded students realized that a surfing club would make surfing more convenient as well as more enjoyable. Go, Surfers, Go

The club now has about 30 members who are interested in body and board surfing alike. ASCIT has given its support to the club and has agreed to contribute one dollar to the surfers for every two dollars collected in dues.

Membership in the surfing club is open to both graduate and undergraduate students as well as faculty. Warren Emery, Director of Athletics and Physical Education, is adviser to the club.

The club's officers are Lenny Fisher, president; Barry Dinius, vice-president; Ted Jenkins, secretary; Steve Hall, treasurer; and Jim Crabtree, meteorological consultant. Besides the above positions there is still another office, but as yet the holder has not been elected. That office is chairman of the board, surfboard, that is.

Students Day

(Continued from page 1) grams has increased more than 50 per cent.

In addition to the Faculty Committee for Student's Day, there is also the Student's Committee for Student's Day, with George Brackett and Lee Neidengard as co-chairmen.

Surfing Takes The Mind Tech ROTC Visits Edwards Air Force Base

On Wednesday, December 2, Edwards Air Force Base hosted a visit by AFROTC Detachmen 65 from Cal Tech. Once or twice a year such visits are made to various bases in order to acquaint the cadets with Air Force life and activities.

The day's activities included a

guided tour of the base facilities, socially at a formal military func-NASA's X-15 test facilities, the XB-70 Test Flight Hangar, and School. In the evening, the detachment held a Dining-In ceremony in the Officers Club. In the Air Force a Dining-In provided an occasion for officers to meet

tion and an opportunity to recognize individual and group achievements.

The guest speaker for the evening was Col. Charles E. Yeager. the Commandant of the Research Pilot School. He is the man who, in 1947, piloted the first aircraft through the sound barrier.

Mad Scientists!

Student Geniuses!

Fun-Loving Engineers!

CALIFORNIA FASHION DESIGNERS (a non-profit organization of professional apparel designers for the fashion industry) invites you to join us in developing ideas for our 16th ANNUAL

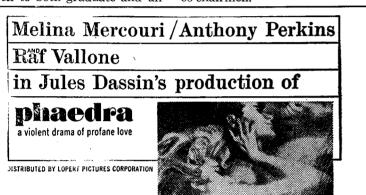
Mardi Gras Costume Ball "OUT OF THIS WORLD"

Launching Pad: Beverly Hilton International Ballroom Blast-Off: Friday, February 19, 1965, 9 P.M.

We plan a pageant of beautifully costumed girls, "Heavenly Bodies," from Outer Space. Would you like to plan how they get here?

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Please get in touch with Mitzi Stein, Executive Secretary, California Fashion Designers, 625 S. Kingsley Drive, L.A. 5, DU 2-3638





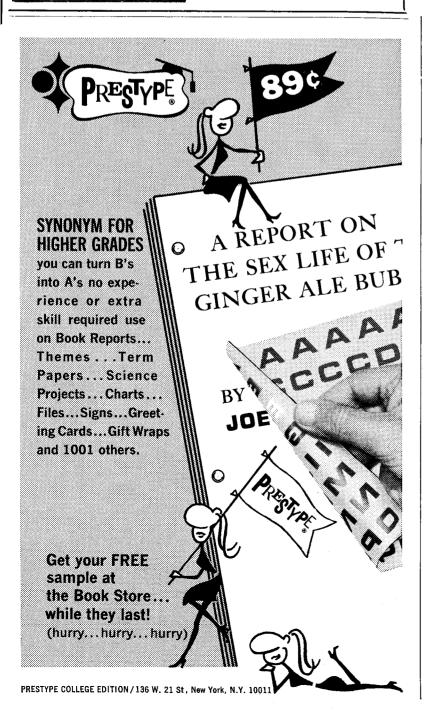
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Interviews January 12-13

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SPORTS

Frosh Harriers Shine In Conference Finals

The Caltech varsity and freshman cross-country teams finished their schedules with the SCIAC finals meet at Mt. SAC on Novem-

Prior to the meet, the freshmen had defeated every other team in the conference except Oxy,

Athletes Get **Sports Awards Monday Night**

BY DOUG JOSEPHSON

The gala festivities of the Fall Sports Awards Banquet will take place on campus this year in Ruddock House, next Monday at 7 p.m. The banquet will be highlighted by the presentation of awards in football, water polo, cross-country, and soccer, with the awards being made by the coaches of each sport.

The guest speaker will be Lee Hansen, professional sports photographer, who will present film clips by himself centering mainly around his trip to the 1964 Olympic Games in Tokyo.

Good Food!!?

It is hoped that holding the Sports Banquet on campus will make it easier for all athletes to attend, since no transportation will be necessary and there will be no charge to Student House residents who participated in fall athletics. The entertaining program and lumberjack-size steaks should also make it an enjoyable evening for all of those attending.

against whom they had not run. Although the league meet was just for individuals and no cumulative team score was kept, the combined scores of the Caltech team was less than that of Oxy.

Bill Putman finished second and Dave Kolb placed seventh to win medals. Steve Poltrach was eleventh and Mike Meo fourteenth. Putman thus lost his first race this year, although he ran 18:07 for the rough 3.2 mile course.

Pete Cross was the top placer for the varsity squad in nineteenth place with a time of 23:11 for the mountainous 3.85 mile course. The next two finishers for Caltech were Bob Miller in thirty-third place, followed by Larry Dillehay.

TrackNow Legal For Discobolus

The IHC adopted track-andfield as a new Discobolus sport in the major sport category on November 24.

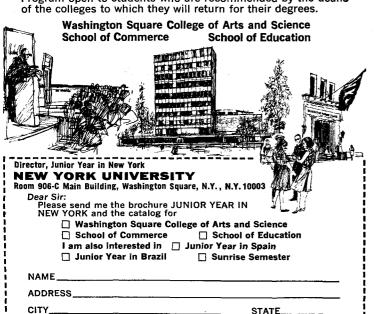
The events to be run are similar to the Interhouse events. The 100 yard dash, 660 yard run, 110 yard intermediate hurdles, shot put (12 pound), high jump, and four-man 880 yard relay race will be run in the order of the Interhouse events.

No man may enter more than two events, exclusive of the relay, and each team is allowed three entries in each event, but only one relay team.



Three undergraduate colleges offer students from all parts of the United States an opportunity to spend their junior year in the stimulating environment of the University's Washington Square Center. Small classes; new residence halfs

Program open to students who are recommended by the deans



Webmen Lose, Share Title

The varsity water polo squad failed to overcome the final obstacle on the road to an undisputed league title. A fired-up Oxy team took advantage of home conditions and a lot of enthusiasm to defeat the Beavers 13-3. Caltech was able to keep pace through the first quarter when Oxy led 3-2. Oxy caught fire in the second quarter as they became impossible for the Webmen to handle.

The frosh played their finest game of the season at Oxy. Their defense was the keynote as they held the Oxy team to three goals. Due to their trouble in launching an offensive, they were held scoreless and defeated 3-0.

Championship Tie

The final game of the season left Caltech and Oxy deadlocked for the conference championship. All in all, the season was more successful than most people imagined previously. Each year it seems as though so much talent graduates that creating a new team is nearly an impossibility.

However, new skills and talents are always acquired in time to give Caltech a reasonably success-

Congratulations to Coach Emery and his fine water polo squad.

DiscobolusRoams

in Discobolus competition, but then no House seemed willing to defend the trophy as the challengers won the last three chal-

Dabney halted the long winning streak of the Flems two weeks ago by crushing the Big Red in handball. Jerry Gowen, Paul Swatek, and Craig San Pietro won six straight games; despite this, the match was wellplayed and four of the games were very close.

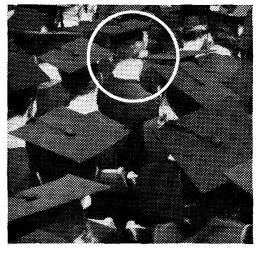
Page had the next challenge and chose the sport of basketball, among others; the basketball game was played just before Thanksgiving and ended with Page winning by a scant three points in a low-scoring game, 32 - 29.

The most exciting challenge pitted Ruddock against Page in football last Monday. Ruddock won scoring two touchdowns in

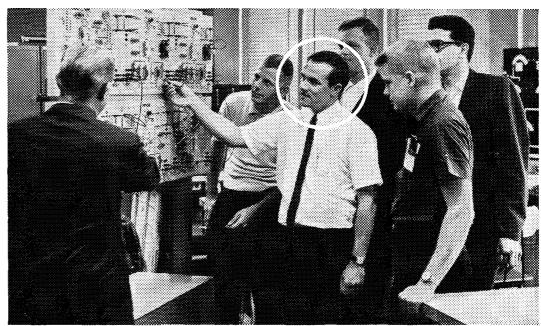
Fleming finally met its match the third quarter on passes to Steve Blumsack, set up by short passes to Jay Chapyak, Ken Brown, and Mike Rosbash, all thrown by Murray Sherman.

> Page took an early lead following several short passes down the right sideline; meanwhile, Lee Myers plagued the Ruddock backfield with innumerable blitzes. However, Ruddock moved the ball downfield, setting up a safety, as Francis Nakamoto caught Page's backfield napping.

> The men in blue put up a formidable defense that caused Page problems all afternoon (and evening); Sherman, Brown, and Blumsack picked off one, two, and three passes, respectively, while Levin et al were putting pressure on the Page quarterback. The defense weakened in the waning moments of the fourth quarter, making the score a close



Graduation was only the beginning of Jim Brown's education



Because he joined Western Electric

Jim Brown, Northwestern University, '62, came with Western Electric because he had heard about the Company's concern for the continued development of its engineers after college graduation.

Jim has his degree in industrial engineering and is continuing to learn and grow in professional stature through Western Electric's Graduate Engineering Training Program. The objectives and educational philosophy of this Program are in the best of academic traditions, designed for both experienced and new engineers.

Like other Western Electric engineers, Jim started out in this Program with a six-week course to help in the transition from the classroom to industry. Since then, Jim Brown has continued to take courses that will help him keep up with the newest engineering techniques in communications.

This training, together with formal college engineering studies, has given Jim the ability to develop his talents to the fullest extent. His present responsibilities include the solution of engineering problems in the manufacture of moly-permalloy core rings, a component used to improve the quality of voice transmission.

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Photo by H. A. Hole

Steve Hall throws a long pass against CHM while Brennan (42) and Scott (23) block. Tech lost 17-0 while playing a fine game.

Tech Plays Finest Game

BY J. K. EVANS

The Beavers almost went out in a blaze of glory, but the wet blanket of questionable officiating cooled the flames sufficiently for CHM to pull a 17-0 victory out of the ashes. The fired-up Techmen muzzled CHM's fine QB Frank Kelsey well enough to keep the outcome in constant doubt, but two Tech scoring threats died on that Interhouse Saturday when fourth-and-short line bucks failed by inches.

The CIT defense, so formidable in previous games but so porous against Oxy, regained its former solidity after giving up a TD the first time CHM got the ball. For the rest of the half, bruising line play combined with Kelsey's slight inaccuracies (he was a little off that day) to kill three CHM drives and force the Stags to boot

a 18-yard field goal.

Behind 10-0 with four minutes left in the half, CIT drove from their own 30 to the CHM 9, where on fourth-and-3 Frazzini bucked over right tackle. The ball was not marked down on the spot but moved clear across the field; then the yardage was measured and it was short of a first down by inches. One wonders . . .

The Techmen returned ready to go for the second half. When a Stag blocked his own punt, Powers recovered it on the CHM 34. On the fullback draw, Frazzini ran 27 yards to the CHM 7. Three line bucks later it was fourth-and-two for the goal. Frazzini bulled into the right side of the line and disappeared in the melee. When the bodies were cleared, the officials declared that he was two inches short of a TD; yells of

protest arose to no avail.

CHM, taking advantage of this handy opportunity, then drove 100 yards for a touchdown to make the score 17-0. Tech offense and defense dominated the remainder of the game, highlighted by runs of 31 yards by Brennan and 16 by Scott, Hall's escape from hordes of tacklers to connect on a 10-yard pass, Scott and McWilliams' good secondary defense, and strong line play by Kampe, Myers, Josephson, Kawal, and Jackson.

The Beavers showed that they could absorb a beating and bounce back; one can't ask much more of a football team than that. The fine work of the young and inexperienced men give bright hopes for the future, since only three of this year's starting team will be lost through graduation.



Advt. for Falstaff Brewing Corp. of San Jose, Calif., dedicated to lovers of winter sports, to lovers of splendid beer and to lovers...

Carmina and I

(Continued from page 2)

comedy. The action of the play exactly parallels Act I, but this time Canio kills Nedda; her lover jumps from the audience, and Canio kills him, too. The opera ends with Tonio gasping: "The comedy is ended."

Wine, Women and Song

Carmina Burana has no real "star"; the chorus is all-important. The setting is what appears to be a ruined circular temple, bathed in red light. The bulk of the chorus is dressed in purple robes, and clustered in between

breaches in the wall. Soloists and dancers take up the center of the stage.

Carmina is broken into five parts. Fortune Rules the World is played like a pagan ritual. Springtime is a gay dance. In a Tavern is a wild orgy, with songs by a disappointed lover, a roasted cygnet, a worldly abbot, and a chorus of drunk monks. The Court of Love is the wooing of a fine lady by a handsome troubadour. This superb work is closed as it began, with Fortune Rules the World Forever.

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