



photos by Dash

The Mudeo began with great decorum . . . . . And ended with slightly less.

## Black Tie Affair

# Frosh Make Muddy Splash

by Bob Dallion

Tuesday's Mudeo was like no other Mudeo has been before. It was revolutionary in many ways. For one thing, according to reliable sources, not one single attempt was made to bribe the judges. In previous years, the financial prowess of the contestants proved to be an important factor in determining the winner. But not this year. The 1968 Mudeo was judged by a hundred per cent impartial jury.

Another novelty was the participation of members of the weaker sex in these manly games. Two girls, Barbara Smith and Chris McWilliams, both cheerleaders for the football team, were the two courageous girls taking part

in the mud games. (Various other girls were also thrown into the mud pit; however, that was not at all part of the program.)

### Muckraking

The digging of the 25-by-45 mud pit was sponsored by Dedrick's Tux Shop of Pasadena. Dedrick's also provided formal attire for the jury of four and the two gents who were to cross the pit on two narrow planks, with the two girls.

The Mudeo received a very extensive coverage; over a dozen reporters, from several newspapers, were present. Channels 2, 5, 7, and 9 also made the scene. (According to someone, it was mainly the TV stations that wanted the added attraction of sex in

the Mudeo.)

At 2:57 p.m., the two girls, wearing formal dresses, appeared on the football field. The unfortunate souls were then led by the two tuxedoed boys to the edge of the pit.

It was exactly one minute after three p.m. when the judge said "go". The couple representing the freshmen fell first, after covering a distance of about five feet. Their example must have appealed to the other couple because they dove into the mud right after. The jury declared the second, sophomore couple winner.

The next event of the Mudeo was the tug of war. About twenty frosh, facing twenty sophomores, grabbed the hundred-foot rope. The former were quiet and defiant, the sophs were loud and boisterous. They thought they would wipe the frosh out early. They did, too. The freshman team lost their foothold in the first second and were dragged across the pit.

### Sock-It-To-Me

The sack race turned out to be another pain for the frosh. They made a poor start and were eventually murdered. Most of the frosh were totally incompetent—while the sophs seemed to be perfectly at home in the mud.

Internal feuds begun to develop within the two camps. The skirmishes grew into such great violence among the sophomores that the judges threatened them with lowering their score lest they behave. (Eds' Note:???)

In the wheelbarrow race, at first it seemed that the sophomores would wipe the new Teckers out with ease. Luck favored the frosh, though. The judges forgot to count the number of laps covered (ten were required) and, giving no clear explanation for their decision, eventually gave the point to the freshman team.

The Mudeo horse-and-rider came next. Before even the race started, the unruly sophomores were penalized one point. The freshmen took the initiative in attack—

(Continued on page 5)

## Unopposed ASCIT Candidates Win

Hubert Humphrey won the presidency in the ASCIT elections on Tuesday, November 5. On the same ballot Mike Stefanko and Joan Weber were elected as ASCIT Social Co-chairmen. They ran unopposed and won by a margin of 120 to 8. Lonnie Martin was elected Senior Class President. Unopposed, he won by a margin of 49 to 9.

In a referendum concerning which of the national Presidential candidates Caltech students would vote for if they could, Humphrey received a plurality with 60 votes. Richard Nixon received 43 votes, and George Wallace got 2 votes. Forty-eight of the students voting felt that they could not support any of these candidates and voted for "None of the above."

## 'Miracle' Engine Explodes, Kills One

One person was killed, and several persons were injured last Monday, when what was hailed as a "revolutionary new type of auto engine" exploded during its first public test.

Several representatives from Caltech were present, including Dr. Richard Feynman and Tech editor Alain Stein. No one from Tech was injured, however.

The explosion came near the end of the test session, which was being conducted by Joseph Papp, inventor of the engine.

The engine, described as "a prototype automobile engine that emits no exhaust, uses no air, and has a self-contained fuel source that will last for 60,000 miles," was being developed by Environetics, Inc., a Gardena, Calif. research firm who was sponsoring the public demonstration. Papp ran the engine, which was mounted in a Volvo engine-block, using an AC power line

and a large storage battery. He also ran the engine for approximately 10 seconds using only the battery.

Papp did not discuss the "discovery" which made his engine unique, however.

The cause of the explosion is currently under investigation.

## Notices

### NEW! COFFEEHOUSE SPECIAL!

This Friday only, the Coffeehouse will offer a delicious plate of spaghetti for only 35 cents! Come early, before its gone!!

### ASCIT MUSICAL—THREEPENNY OPERA

The 1969 ASCIT Musical is Brecht's *Threepenny Opera*. If you are interested in participating in any way see Larry Shirley (Rud-dock 121) to fill out an interest questionnaire and to learn more about the show.

### SKI CLUB MEETING

There will be a meeting of the ski club tonight, Thursday, Nov. 21 at 7:30 pm on the patio between Page House and Winnett.

### DAY: TUESDAY: THURSDAY: TU TUESDAY, NOV. 26, 1968

MEMBERS OF THE AIMS AND GOALS COMMITTEE: we'll be talking about some of the questions before the committee now — the trend toward more humanities courses, the future of the undergraduate school . . . . . a sharing of ideas on what you want out of education at Caltech.

### DAY: TUESDAY: THURSDAY: TU

COMING TO THE Y LUNCH: STOTTEMEER'S FAMOUS AND ORIGINAL EPIC SUPER-SANDWICH!!! (If you're tired of bringing your lunch, phone in an order for a stottlemeyers sandwich, only 60c, we'll have it for you when you come. Leave your order with the Y before 10:00 that day.)

## ASCIT By-Law Changes Affect Officers, Funding

The following is the text of the proposed changes in the By-Laws of Ascit. The amendments will come to vote on Tuesday, November 26. The changes are presented in two sections which may be voted on separately.

IV. Sec. 1. GENERAL OFFICERS. The General Officers of this corporation shall be a President, a Vice-President, a Secretary, a Treasurer, an Athletic Manager, an Activities Chairman, a Social Chairman, an Interhouse Committee Chairman, a Director for Academic Affairs, a Director for Student Life, and two Directors-at-Large.

IV. Sec. 6. DUTIES OF THE ATHLETIC MANAGER. The Athletic Manager shall sit on the Interhouse Committee and be a member of the Athletic Council. He shall be a member of the Honor Point Committee. He shall have charge of all athletic award banquets and assemblies and shall present recommendations for athletic awards to the Board of Directors and procure all awards for the corporation. He shall recommend sports managers for approval by the Board of Directors as provided for in Article XV. He shall keep records of Interhouse and Discobolus sports standings. He shall appoint two members of the corporation to the Athletic Council. He shall be chairman of the Athletic Committee.

IV. Sec. 7. DUTIES OF THE ACTIVITIES CHAIRMAN. The Activities Chairman shall sit on the Interhouse Committee. He shall promote activities of groups on campus and of the corporation, and shall be responsible for assemblies and programs sponsored by the corporation. He shall be chairman of the Activities

Committee.

IV. Sec. 8. DUTIES OF THE SOCIAL CHAIRMAN. The Social Chairman shall sit on the Interhouse Committee. He shall organize the social activities of the corporation, and coordinate those of the Houses. He shall be chairman of the Social Committee.

IV. Sec. 10. DUTIES OF THE DIRECTOR AT LARGE. The two Directors-at-Large shall be members of the Board of Directors. They shall maintain a file of all ASCIT publications. They shall distribute student body cards on registration days. They shall be responsible for conducting the Red Cross Blood Drive and the Consolidated Charities Drive.

(Continued on page 3)

## T.I.M.E. for Open-World!

Caltech is having an open-world exchange the Wednesday before Thanksgiving (November 27 for those of you who use calendars). The exchange will be held at Scott Brown Pavilion on the Caltech campus; a searchlight will illuminate the location of the Pavilion on the night of the dance.

Time will be 9:00 p.m.; T.I.M.E. will be the featured performers. Trust In Men Everywhere, recording on Liberty Records, is one of the many groups trying to "make it" in Los Angeles. Their chances are better than most however: for a sight-unseen group, they received more money for a recording contract than any group has ever received before. Liberty Records has some cause for this display of confidence—the group members have written 50 songs in the past three

months.

The four members of T.I.M.E. play the usual combination of guitars and drums, but their sound is distinctive: hard rock instrumentation softened by their four part harmony.

The group has switched members and producers since they recorded their first album (they now have the same producer as the Jefferson Airplane), so the album is not entirely representative; however, in the interests of Graft and Corruption, each house will receive a copy of the album.

Advance sale tickets will be available at the Beckman Ticket Office and the Coffeehouse starting Thursday, November 21. Advance sale prices are \$1.00 for Teckers, \$1.50 for the outside world; on the night of the performance, all tickets will be \$1.75.

**Editorial**

**Vote No, Yes (maybe)**

Once again, by-law elections are coming up. Two very important issues are on the ballot: 1) ASCIT dues, and 2) ASCIT Structure. The two by-law changes are published on page one of this issue. The Tech recommends that our noble readers vote "NO" on the first change and a tentative "YES" on the second.

There are a number of very good reasons for defeating the first proposal. Although the petition stated that half of ASCIT's dues money would go to the houses, the actual effect is to cut ASCIT's dues by 80%. This is a result of the by-law which allots \$8.50 to the athletic Dept. and the Tech. As a result, ASCIT now receives only \$13.50 from each student. Subtract \$11 from that and one can see ASCIT will only have a working budget of \$2.50 per person. ASCIT does have other sources of money (the money given to ARC and ARP did NOT come from dues money), but this money would not carry ASCIT through a year. Therefore the Tech urges all readers to vote "NO".

The second proposal is far more complex. We generally feel that the ideas presented for the new ASCIT BOD structure are good. One major problem exists in the structure under the new Director of Student Life. This office can be very effective if and only if the activities, social and athletics chairmen report regularly to the Director. But we have already seen that ASCIT communications can be very shaky.

As a result, the Tech suggests a "YES" vote on this proposition only if the BOD can present a reasonably successful mode of communication for these offices.

Alan Stein  
Dave Lewin  
Jim Cooper

**Letters**

**Goodman Pans By-Law Changes in ASCIT Funds**

Dear Editors:

The proposed By-Laws change to transfer \$11 a year of ASCIT money to the Student Houses must be brought to deserved defeat. It will do only harm to ASCIT. Off-campus students should note that they will be forced to designate one of the Houses as recipient of their money, whether or not they are affiliated with a House.

For each \$22 of dues, ASCIT already gives \$3 to the Tech and \$5.50 to the Athletic Department. If the initiative passes, only \$2.50 will remain for ASCIT. Very little money will be left for regular expenses, let alone appropriations for clubs and other activities. Members of all clubs should take note that they will be relegated to going to Houses for

money.

Rather than having produced suggestions for workable improvements in ASCIT, proponents of this measure have created a provision that would destroy clubs, end ASCIT's ability to represent all students, and leave the Research Project—the intended target—untouched. Everyone should vote no on the By-Laws amendment on dues.

—Roger Goodman

**Pres. Lauds Rhodes, ARP**

Mr. Joseph Rhodes  
President, ASCIT  
California Institute of Technology  
Pasadena, California

Dear Joe:

At the meeting of the Board of Trustees held on Monday, October 7, I took occasion to give a brief report on the ASCIT Research Project activities during the past summer. I also displayed the "Reddy Kilowatt" trophy which was presented to Caltech as the winner of the "Great Electric Car Race."

The Trustees received this report with a great deal of pleasure and interest, and they asked me to convey to you, to ASCIT, to the participants in the Research Project, and to Wally Rippel and his associates in the electric car race their commendation for the very interesting and constructive work which you all have been doing for the way in which your activities have brought credit to Caltech, and for the fine cooperative attitude which the Caltech student body has shown in forwarding the best interests of the students and of the Institute as a whole. It is a pleasure to add my own appreciation to that of the Board of Trustees for the fine work which you have been doing.

Sincerely,  
Lee A. DuBridge

**Beau's Sing Cool Country**

by Carrol Boswell

The Beau Brummels is a fairly old group from San Francisco. They first began their careers about four years ago. Since then they have survived many trials and tribulations until now there are only two of the original five left. Not long ago, several members of the Beau Brummels were drafted and all those few fans who followed them were sure they were finished. But no. Since then, the Beau Brummels have released two albums. Their newest, **Bradley's Barn**, is primarily what this review is about.

**Bradley's Barn** is an amazing album. To begin with, it is an album primarily of country music but that is not really so amazing. That it is an album of good country music is amazing.

I dislike country music as much as anyone. But after listening to this album, I am almost converted. Not quite, but almost.

**Barn Music**  
Bradley's Barn marks an exciting  
(Continued on page 5)

**Letters**

**Feng Asks 'No' Vote On Cash Transfer**

Dear Sirs:

The ASCIT BOD receives about \$9,000 annually in general funds from student body dues (since \$3.00 automatically goes to the California Tech, and \$5.50 goes to the Athletic Department, only \$13.50 of the \$22.00 per annum goes to the general fund), and this ASCIT BOD has received about \$6,000 from other sources, for a total working budget of about \$15,000 for this BOD. Part of this \$6,000 is a carryover from one Board to the next, and of the remainder, only about \$2,000 is consistently receivable money. Thus, if the proposed by-laws change (to reduce that part of the student body dues of the general funds from \$13.50 per student per annum to \$2.50 per student per annum) passes, the ASCIT BOD will receive approximately \$1700 per year in student body dues for the general fund, leaving each BOD with less than \$4,000 in general operating funds, at no real reduction in expense to each student.

Among the activities of ASCIT that justify the levying of dues are the social program, the athletic program and the support of campus clubs. You will note that for these three items, the BOD has budgeted a total of about \$7,000 this year. The social budget of about \$1,700 is for the losses incurred in Lost Weekend and for holding campus wide events and exchanges. The athletic budget is for athletic and honor awards and amounts to about \$2,500, while the remaining \$2,800 is for the support of such activities as the Glee Club, the Cal Tech Band, the Musical, the Drama Club, Totem, joint ASCIT programs with the YMCA, and Mime Troupe. The proposed by-laws change would make such activities impossible.

The result of giving the \$11.00 per student to the house designate would not only jeopardize the above activities, but would be essentially a universal levy of house dues on all undergraduate students, both on and off campus. The effect would be to reduce the effectiveness of this money by splitting it up since it

is very hard to believe that the houses would be willing to unite and use this new-found money for campus-wide activities that would include off campus students. Thus, the effect of this would be to seriously parochialize the undergraduate student body to the house level.

Except for providing the houses with some increased money, the proposed by-laws change has unfortunate consequences. It means that ASCIT would become involved in the raising of house dues, while it also works to destroy any sense of an undergraduate study body and dangerously decrease a feeling of membership in the student body.

I therefore urge all undergraduates to vote against the proposed by-laws change to transfer part of the ASCIT dues to the houses.

J. Feng  
ASCIT Treas.

**Folksinger Cools Ice House Show**

by Boule

To you poor frosh who haven't seen this column before in your all knowing Caltech paper, I am here to tell you a little about the Ice House and other folk coffee houses in the area.

The Ice House is a well known spot for hearing good music, mostly folk but also pop and other. It's located on Mentor, about half a block north of Colorado in the back alley on the east side of the street.

So much for directions.

Estrella Berowski opens this show which will continue for two weeks. She shows something you rarely see in folk singers, male or female, traditional or modern; she's happy. Her voice, music, and entire stage presence is that of someone who is very happy and satisfied with life.

**CLASSIFIED**

**WANTED**

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Martin Bernheimer, LA Times Calendar

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But we know  
It might be  
an identity crisis...



# ASCIT's Apocalypse On Ballot Tuesday (?)

by Jack Falk

The future of ASCIT as a campus-wide funding organization will be determined on Tuesday, November 26, when the student body will vote on a by-laws proposal, the passage of which would severely curtail the present ASCIT activities.

A petition circulated recently in the Student Houses, calling for a reduction in annual ASCIT dues from \$22.00 to \$11.00 (with the remainder being rechanneled to the individual Houses' budgets), gathered over 170 signatures, thus qualifying it for a spot on the ballot in this special election.

## Prime Force

Ed Murphy (Dabney '69), prime force behind the proposal, suggests that more would be done for the benefit of the individual undergraduate were the extra \$11.00 per student used to augment the budget of the individual House. "I get all my bread and circus from the Houses," says Murphy, "and I know the Houses are poor." Murphy would prefer to create a much stronger IHC-type governing body, in place of the ASCIT organization, since he feels that the House Presidents have more direct lines of communication with the students than do members of the BOD. "Not that the ASCIT leaders are evil or doing anything wrong with the funds," Murphy stated, "it's just that my philosophy is very different from theirs."

Exactly what does Murphy hope to accomplish from his suggested redistribution of campus finances? "I can have no real gripes about individual ASCIT spending, but I think that there are a large number of students who don't want these things done for them."

## Abolish Funds

Joe Feng, BOD Treasurer, asserts that ratification of this By-law change would render ASCIT impotent. Of the \$22.00 currently paid by each student annually,

\$5.50 is automatically transferred to the Athletic Offices for use of their facilities, and \$3.00 covers the yearly subscription to the *California Tech*, thus giving ASCIT \$13.50 per student with which to supply all campus-wide activities with the necessary funds. If the \$11.00 were to be subtracted from this, ASCIT would be left with only \$2.50 per student, a total of \$1700 with which to carry on for the entire year. Including the \$3500 kickback currently received by ASCIT from the bookstore, there would still be only \$5000 with which to work, and the current fiscal year's budget is more than thrice that figure.

## Some Commitments

At the present time, ASCIT has allotted \$2500 for athletic awards, \$1650 for social events (including Lost Weekend), \$3000 for clubs, \$1000 for the ASCIT musical, and several thousand dollars in loosely committed general budgeting. Feng states that we are threatened with cancellation of athletic awards and of any campus-wide social activities, which would quickly cause several organizations to fold, and would make the continuation of a Glee Club and a Caltech Band tenuous possibilities.

# Booters Win

by Nick Smith

The Caltech varsity soccer team defeated Chapman College last Saturday by the score of 3-0. It was goalie Joe Templeton's first shutout of the season, and it marked a splendid defensive effort by Tech.

For once, Tech started slowly and built to an excellent fourth quarter. In the early Tech defeats, the team played well early and slowed down by the second half.

## Defense Dept.

Two of the Tech goals were scored by Ralph Graham, and the third was by Dick Burton. Particularly distinguished on the defensive side were fullbacks Vesa Junkkarinen and Harvey But-

(Continued on page 6)

# Foreign Crisis Included In Interhouse Themes

by Kevin Savage

Until two weeks before Interhouse, according to long standing traditions, almost no work had been done on construction, and several houses had yet to plan what they were doing. There also seems to be a continuance of the trend away from the monstrous paper-mache Disneyland that used to be traditional with most of the houses.

No one is going to as much trouble as the Ruddock "Polynesian Hut" of five years ago. The Upperclassmen seem to have lost the desire to spend most of their waking hours elbow deep in Bentonite or constructing extensive works out of two-by-four.

## Dubcek in Cords

Ruddock is still doing the whole lounge and diningroom area as in past years, this time building the 'arcade' of a Czechoslovakian Village. Their construction outside, however, while impressive, falls short of the mammoth mountain ranges of past years. Their exhibit promises to be one of the best highlights of Interhouse night.

Lloyd House is the big surprise this year. With a week to go everyone else on campus was assuming they would not participate, when all of a sudden they snuck in 2x4 and paper mache to begin building a "Non Euclidian Space" (P.S. Math proofs are easier in non-euclidean spaces).

## Apathetic Page

Page got off to the earliest start in construction but at the moment has less built than any other house due to a rapid increase in house apathy. They are reviving the theme of "Alice in Wonderland" including such special effects as a Cheshire Cat whose body disappears while his smile remains. Other effects, if finished on time may include a fire-breathing Jabberwok.

Fleming is doing its usual "interhouse" Interhouse. The courtyard will be flooded and there will be the usual sparkling performance of the Fleming Thespian Society and Chorale.

Dabney, for lack of a theme, is borrowing some of the effects

from last year's theme, "The Mines of Moria," but is doing nowhere near the same amount of construction.

## Pomery versus Drake

Blacker is doing something new, "Monopoly," which at first doesn't seem to lend itself to an Interhouse Dance-type environment but some of the props already constructed look impressive and interesting.

Ricketts is doing, to quote a house officer talking to the administration (Jacobson), "a kind of shooting gallery in the court-

## Went-Went

Again this year, the question arises: is this really the Interhouse Dance or the Interhouse Decoration? Several houses will not have bands (Fleming - which is giving a live show, Ricketts, and Blacker). Blacker this year is going to try something new this year. They will have a live DJ emceeing a prerecorded tape, as well as GO-GO girls.

This will not be one of the more impressive Interhouses of recent years, but it will be better than anything that has come along so far this year.

# ARP Protest Ford?

# 'Techna' Shown at Tech

Last Monday, Caltech auto-philosophers had a chance to see the car of their dreams (nightmares?). This moderately impressive vehicle was not completely smog-free, but ARP did not show up to picket. Dr. Dickerson did engage the better ideas from Ford in a conversation regarding the polluting ability of the car.

## In Production

Some of the ideas in the Techna already have been advanced to production. For example, a rear wheel skid-control braking system, similar to that incorporated in the experimental car, will be optional in some of the company's 1969 model cars. Other innovations in the Techna still are undergoing further development to determine their feasibility for mass production.

The basic theme of the Ford Techna is more effective utilization of space for increased function and greater occupant comfort, within a streamlined, 51-inch high profile. The sleek exterior was designed in the Corporate Projects Office at the company's Design Center, and the interior was created in the advanced Interior Department. The car is 209.7 inches long, with a wheelbase of 120 inches and a curb weight of 4,745 pounds.

## Construction

Additional interior space is obtained through use of bonding techniques rather than welding for many of the steel body panels, a honeycombed steel floorpan, a unique rear suspension system utilizing Ausform-treated torsion-

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# By-Law Changes Defined

(Continued from page 1)

They shall maintain a calendar of events which are of interest to members of the corporation. In addition, they shall perform other duties as specified by the Board of Directors.

(IV. Sec. 11. VACANCIES is renumbered IV. Sec. 13).

IV. Sec. 11. DUTIES OF THE DIRECTOR FOR ACADEMIC AFFAIRS. The Director for Academic Affairs shall be a member of the Board of Directors. He shall be responsible for committees formed by the corporation non academic affairs. He shall work with members of the corporation who represent it on faculty committees.

IV. Sec. 12. DUTIES OF THE DIRECTOR OF STUDENT LIFE. The Director of Student Life shall be a member of the Board of Directors. He shall work with Activities Chairman, Social Chairman, and Athletic Manager to coordinate their activities.

V. Sec. 1. MEMBERSHIP. The Board of Directors shall consist of the President, Vice-President, Secretary, Treasurer, Interhouse Committee Chairman, Director for Academic Affairs, Director of Student Life, and two Directors-at-Large. No person shall at one time hold more than one office which will entitle him to a seat on the Board of Directors.

VIII. Sec. 1. NOMINATIONS.

(a) Nominations for the offices of President, Vice-President, Secretary, Treasurer, Athletic Manager, Activities Chairman, Social Chairman, Interhouse Committee Chairman, Director for Academic Affairs, Director of Student Life, two Directors-at-Large. Editor(s), of the *California Tech*, and Secretary of the Board of Control shall be opened at a meeting of the Board of Directors to be held at least

two (2) weeks before the election.

VIII. Sec. 4. GENERAL QUALIFICATIONS

(d) One of the two Directors-at-Large shall be the member of the freshman class at the time of election receiving the greatest number of votes.

XII. Sec. 4. SOCIAL COMMITTEE. There shall be a Social Committee composed of representatives from each House social team, chaired by the ASCIT Social Chairman. It shall plan ASCIT social functions and coordinate House social programs.

XII. Sec. 5. ACTIVITIES COMMITTEE. There shall be an Activities Committee chaired by the ASCIT Activities Chairman. Members shall be appointed by the Activities Chairman with the approval of the Board of Directors. It shall be responsible for organizing assemblies and programs of the corporation. It shall promote activities by and for groups of students, whether or not such groups are formally organized.

XII. Sec. 6. ATHLETIC COMMITTEE. There shall be an Athletic Committee composed of representatives of the Athletic Manager team of each House; the chairman shall be the ASCIT Athletic Manager. The Committee shall keep records concerning Interhouse and Discobolus sports. It shall promote athletics on all levels at the Institute and work towards the interests of the students in the athletic program.

The following by-law is to be voted on separately:

XIII. Sec. 1. Dues, (added the following: Of the remaining \$13.50 in annual dues, eleven dollars (\$11) each year shall be for payment to the House designated by the duespayer, payable \$3.50 first term, \$3.50 second term, and \$4.00 third term."

## California Tech

Published weekly during the school year except during holidays and exams by the Associated Students of the California Institute of Technology. The opinions contained herein are solely those of the newspaper staff.

**Editors:** Dave Lewin, Alan Stein, Jim Cooper, Editors - in - Chief; Craig Sarazin, Managing; Ira Moskatel, Copy; Dave Dixon, Sports.

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**Photographers:** Stephen Dashiell, John Bean, Paul Levin.

**Business:** Jeff Hecht, Manager; Art Selly, Circulation Manager. Bob Curtis, Pat Silverthorne.

California Tech, Publication Offices: 1201 E. California Blvd., Pasadena, California, 91109. Second-class postage paid at Pasadena, California. Registered nationally by National Educational Advertising Services, Inc. Subscriptions: \$1.50 per term, \$4.00 per year. Life subscription: \$100.00. Printed by Bickley Printing Co., 25 South Fair Oaks Ave., Pasadena, Calif. Volume LXX, Number 9, Thursday, November 21.



# Right-Thinkers Organize YAF

by Jeff Ochsner

A chapter of the Young Americans for Freedom (YAF), will be organized on campus in the next few weeks.

YAF, a national conservative organization started in 1960, is dedicated to the preservation of freedom in this country. Political education and dynamic action are the watchwords which have made YAF a symbol of responsible conservatism on college campuses across the country. Since its founding only eight years ago, YAF has grown to include tens of thousands on college campuses and communities in nearly every state. These are young people with a purpose.

## Sharon Statement

YAF's credo, the Sharon Statement, concisely restates authentic Constitutional principles. Although strongly conservative, YAF is broad enough to include young people of both political parties, and of varying political emphases. YAF's advisory board includes over forty members of Congress and over one hundred business leaders, professors, journalists, clergymen and other civic leaders.

YAF members belong to a national non-profit organization. Each member receives THE

NEW GUARD, the official YAF publication, as well as two newsletters, *Action Line* and *Young Americans*. YAF sponsors various activities including speakers and seminars. YAF members meet others of similar political philosophy and are encouraged to participate in inter-chapter functions. In the Los Angeles area, YAF is organized on almost every college campus. (YAF can become a way to meet girls.)

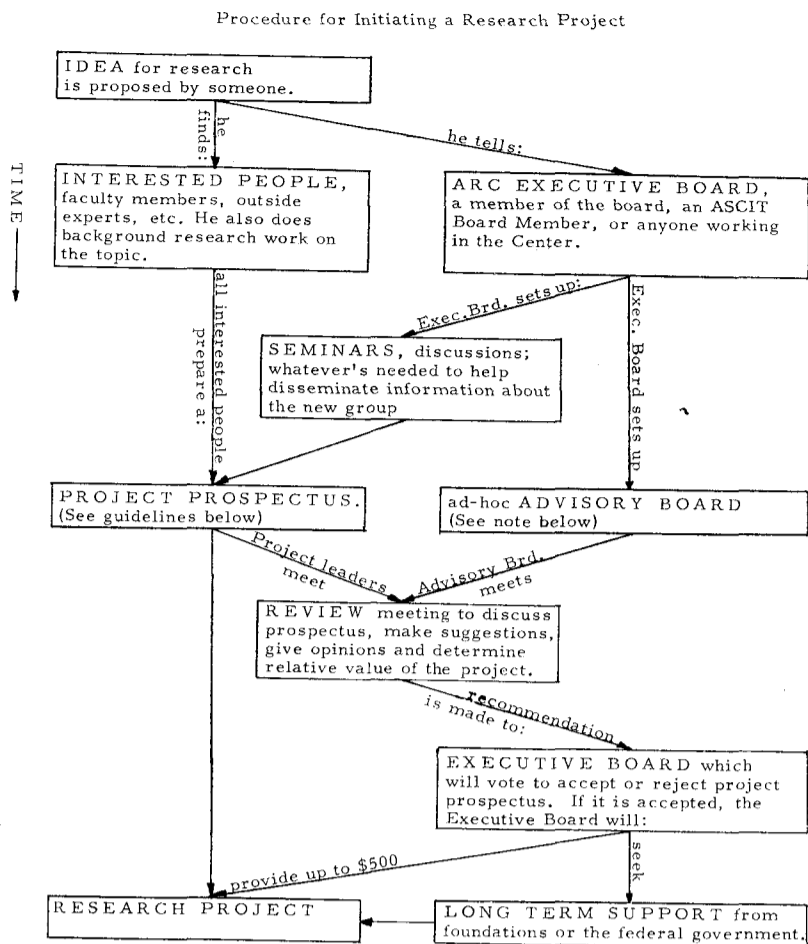
## First Meeting

Caltech YAF will have an organizational meeting shortly after midterm. Plans for the immediate future will be finalized then.

Students who are presently members of YAF are encouraged to contact Jeff Ochsner in 225 Ruddock or to leave a note in the Ruddock "N-O" mailbox. Any other interested students, particularly sophomores and freshmen, are also urged to contact Jeff Ochsner for further information.

The Caltech Chapter of the Young Americans for Freedom, the nationwide conservative youth organization, will hold its organizational meeting Tuesday, November 26, 1968 at 7:30 p.m. in Club Room No. 2 on the second floor of Winnett Student Center.

# ARC Structure Unveiled By Center Director Jim Beck



If you are interested in doing research in a field not related to any of the above, you can start your own project group. One method of beginning a research project is described in the left graph.

The boxes on the left of the chart represent action taken by the prospective researchers. The boxes on the right refer to the bureaucracy of the procedure.

The ARC has funds to provide up to \$500 for a research group plus resources for seeking larger funding.

The ASCIT Research Center is presently working with five research programs at Caltech. These programs are outlined in the right chart. If you are interested in working with any of these groups, contact the person listed under "More Info."

This structure was established by the ARC Executive Board with the help of students from USC, UCLA, P.C.C., and IHC. If you have ideas on the structure of the Center or would just like to get involved with students from other schools, come to the ARC Executive Board meeting on Monday night at 8:00.

NAME	AREA OF WORK	FUNDING	FOR MORE INFORMATION
ASCIT Research Center (ARC)	Provide initial support and follow-up funding for research groups	Ford Foundation \$8,000 ASCIT \$2,000 Master's Fund \$1,000	Jim Beck, Director, ext 2465 or Blacker House Open Executive Board meetings Monday nights at 8:00, Clubroom 1 Also see Joe Rayhawk (Fl.), Steve Gabriel (Da.), Berto Kaufman (Ri.), Glen Spain (Pa.).
Air Pollution Project	New engines, car pools, photochemistry, lead in smog, correlations of smog with its effects	Ford Foundation \$10,000	Dave Perasso, Director, ext. 2466 or 67 Crellin.
Black Research Fellows Project	To bring twenty Negro college students to Tech from Southern schools during second term.	Ford Foundation \$32,000	Bill Hooker, Director (Bl.) or Charles Creasy (Pa.).
Elementary Education	To develop new types of teaching programs for elementary schools and to try them out in local schools.	Possibly Shell Oil Co. or ARC	Gregg Wright, Director (Bl.).
Brain Research Group	Not yet clearly defined, but will probably involve split-brain work and/or equivalent electronic circuits.	Possibly ARC	Rahul Basu (Ri.), Mike Kellman (Ru.).
University Teaching Development	To develop and try new methods of college teaching.	Possibly the Office of Education or HEW	Marc Aaronson (Ru)

### Project Prospectus Guidelines ASCIT Research Center

1. Title of project, your name, address, telephone number, school, and names of other participants.
2. Statement of the problem to be solved or situation to be im-

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- proved. This section need not be long. For example, "A number of fifth-grade children have difficulty acquiring basic skills in arithmetic" or "The problem of air pollution in Los Angeles has never been approached from an interdisciplinary viewpoint" adequately describes possible research problem areas.
2. **Anticipated accomplishment.** Specify as briefly and simply as possible what you want to do in terms of what the out-

- come will be. Examples: a mathematical model for free-way traffic flow, a plan for a teacher training program, a prototype of an electronic diagnostic device.
4. **Rational.** How can the activity best be justified? If someone were to ask, "Why is the ARC spending money on this?" what would be the best quick basis for defense?
  5. **Cost.** Equipment, services, money required. Sketch projected use of funds.

### THE ADVISORY BOARD

The Advisory Board is designed to evaluate the merits of the prospective research projects and to make recommendations to the Executive Board of the Center about these projects. The Advisory Board will consist of:

one permanent member and three ad-hoc members chosen to review the specific Project Prospectus. The Advisory Board will consist of:

- 1 A permanent member who will sit on every Advisory Board. At this moment, no one has been chosen for this position. If you are interested, contact Jim Beck in Blacker.
- 2 A faculty member or other expert on the specific topic of the project.
- 3 A student who has some knowledge in the field of the project.
- 4 An Executive Board member from the school where the project originated.

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# Students Decide Own Program Under ASCIT Plan

by Berto Kaufman

Many students and ASCIT officials have complained of a lack of communication between the students and ASCIT. This article is the first in a series designed to alleviate that lack by informing the student body of the projects being considered or initiated by ASCIT. One such project now under consideration is the Scholars Program.

The Scholars Program is a plan providing for personal determination of one's course of study with the advice and consent of a faculty member or committee of faculty members. Its purpose would be to tailor the B.S. degree to the academic needs and interests of the individual, rather than the reverse. The plan as now proposed would be strictly experimental, with membership in the program determined by a faculty committee, but if successful, it could be expanded later.

The operation of the program would rest with each scholar and his advisory committee, who would work out the latter's course of study rather than depend on standardized option requirements. Some have even suggested the abolition of a total unit requirement. The faculty committee, nonetheless, would be in a position to safeguard academic quality, though this would be primarily the student's responsibility.

### Princeton Program

According to Joseph Rhodes, ASCIT president and a strong proponent of the program, some variant of this program has been successful at Princeton. Norman Davidson, faculty chairman, has expressed some interest but insists that the evidence from the Princeton program be thoroughly evaluated first.

There is some adverse student opinion; one student in particular who declined to have his name mentioned stated that he cannot conceive of a legitimate academic interest for which courses are available at Tech which would not fit easily into the present option structure. In

point of fact, there is at least one student now petitioning for variance of the Engineering Option AM95 requirement in favor of statistics and numerical analysis for an interest in information theory. The program's proponents point out that if the course is necessary a breakdown in communication has left the student unaware of this; if not, he must formally petition in order to optimize his undergraduate educational experience.

Rhodes points out that the operational utility of the program, while valuable, is not its most crucial aspect. He feels that individual responsibility for one's own scholarship would encourage better scholarship, as the Honor System encourages better behavior by emphasizing individual responsibility.

### Science Interns

Rhodes has also indicated that such a system could not only

aid in course planning, but could also facilitate the suggested Interns' Program. The Interns' Program, if approved, would provide for academic credit for time spent in study other than at the Institute: at Brookhaven or Argonne National Laboratories, at another university, or, perhaps, in the Department of Defense. One term, or one year, or even longer in such a position have been proposed. With the Scholars Program, one's faculty advisory group would be able to decide with him whether this would constitute a valuable part of the undergraduate educational experience.

Questions and comments regarding this article or any other to appear in this series are encouraged, and are to be directed either to the Tech, an ASCIT BOD member, or a member of the ASCIT president's staff.

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# Barn Blast

(Continued from page 2)

tension of the experiments the Beau Brummels were carrying out in their last album, **Triangle**. However, this new album is infinitely more tasteful. It appears that the Beau Brummels are gradually perfecting their own style.

"The Loneliest Man in Town" is the most obvious country song on the album, primarily because of the steel guitar used in it. Nothing can ever make a steel guitar sound good, and this song ranks as the worst song I've heard them do.

Another very country song is "An Added Attraction." It is a very well done ballad. In all of these songs there are excursions into blue-grass music. Even banjos sound good at times.

The best song is undoubtedly "Cherokee Girl." Not only is this the best song on the album, it is about the best song they have ever done. There is an orchestra, or at least the strings of an orchestra used on this song, skillfully woven into the song in an amazingly expert way.

So go out and risk the money and buy the album. You might even begin to like country music. All you have to lose is your good taste.

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# No Bribes?

(Continued from page 1)

ing. Soon twenty other freshmen and twenty sophomores joined in. The result was general mob warfare.

### Frosh Jube

At the end, the jubilant freshmen were declared winners. This raised the score to four vs. three, in favor of the tyros.

The last event, the tire pull, had wisely no rules. This presented the frosh with opportunity to demonstrate their superior mght. They won by obtaining the needed ten tires after an agonizing battle for the winning tire.

For the second year in a row, the freshmen were declared winners of the Mudeo. The score was 6-3; the sophomores lost miserably. The judges were suitably rewarded by the losers with "mud-ponding". This, however, didn't change the score.

The great feat done, the freshmen went back to the houses to clean themselves and to continue working on interhouse. The sophs also returned—to snake.

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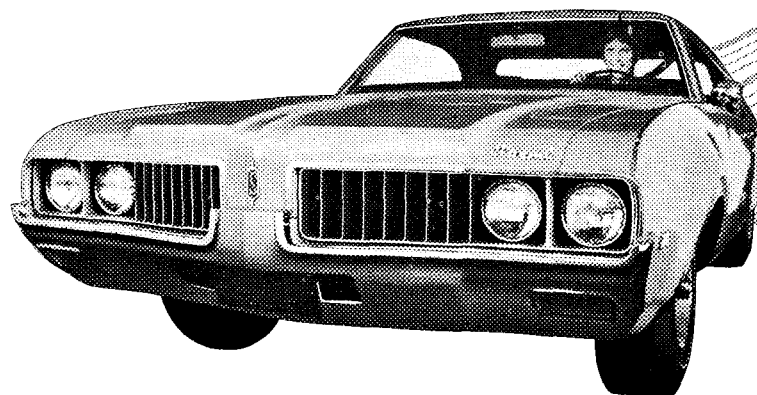
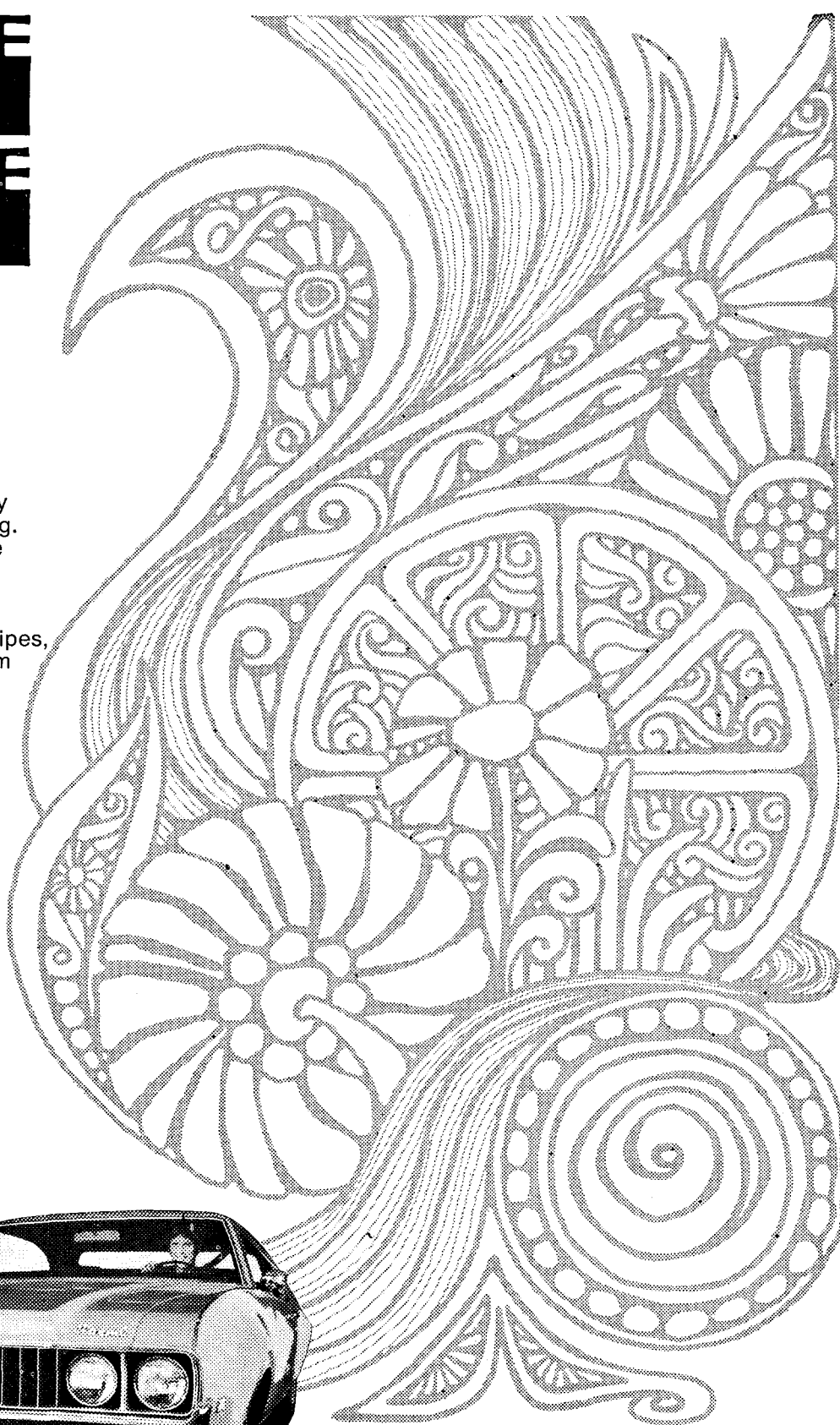
Or order it up with a console-  
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 get in sync with what's happening.

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# Relativity Lives In Emsw Culbertson Flicks

by Bill Crisman

The November 9 CINEMA-TECH featured a complete showing of the "Works of Ed Emswiller."

Emswiller is a technical experimenter, and as such his filming-editing technique approaches flawlessness. His films, apparently contrasting the elements of motion and repose to create a complete picture of the visible man, are, as units unto themselves, impeccable pieces of filmcraft — his themes of Men's Futile Attempt to break out of the womb-like presence of his being, to commune with the outer world, to establish some juxtaposition between motion and repose are powerfully handled. Yet I found very little sympathy with the overall scope of the works themselves. Emswiller has gone out of his way to create "art for art's sake." His technique leans so much to the visual "gimmick" that all the other senses are left far behind. Whether the artist likes it or not, plot-line is the single most important element of sympathy between himself and the viewer — and to leave this vital element out is tricky, and in a long film close to disastrous.

In my estimation, Emswiller came the closest to success in a film entitled "Thanatopsis" — again, a visual-effect experiment dealing with the impenetrable contrast between repose and motion this time, through the facial expression of the actor,

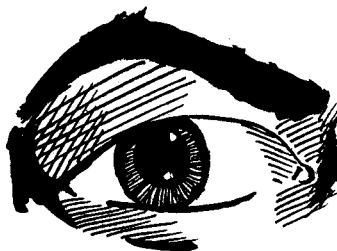
Emswiller establishes some common ground between himself and the viewer. The blank eyes surrounded by the blurred and hurrying image of a girl not only managed to get its "message" across, but also proved quite dynamic in the sense that there was some modicum of vital communications between myself and the actor. The other films, for the most part, failed to achieve this. I had the feeling that the actors themselves were merely spectators, as if they themselves were watching something that I could never possibly see . . .

### Painted Lady

I found Emswiller's introduction of fast moving "paint" scenes to create a college effect quite interesting — especially the "Dance Chromatic," a series of scenes in which layers of paint are superimposed on the figure of a dancing girl. It is his paint alone which captures the mood of the dance; the dancer herself is a part of the dance only in her reaction to the ever-changing patterns of color — the motion is not her own. Quite effective to express his theme of the inability to escape the self through motion . . . yet, again, an exercise.

On the whole I found Emswiller quite satisfying in an intellectual capacity — his films are exercises in the visual. Yet I found it difficult to be caught up in them in any other sensory direction.

# Towering Eyeful



## Forboding Planet

by Marc Aaronson

**Forbidden Planet**, appearing at a free showing last Friday in Beckman Auditorium, is one of the few science fiction thrillers containing a significant message ever produced. Produced in 1956, the movie stars Walter Pidgeon, Leslie Neilson, and Anne Francis.

In the twenty-second century an interplanetary flying saucer captained by Commander J. J. Adams (Leslie Neilson) is assigned the task of landing on Altair 4 and contacting the colonization party sent twenty years previously to that planet. As the saucer approaches Altair 4, Adams receives a warning not to land from Dr. Morbius (Walter Pidgeon), a philologist and a member of the original colonizers. Disregarding Morbius, Adams lands his spacecraft and is met by Robbie the Robot, the grooviest hunk of tin you've ever seen.

### Look! A

Morbius explains to Adams how shortly after landing on Altair 4 all of his fellow colonists, except for his wife, were brutally murdered by some mysterious life force, which has since vanished. A few months later, Morbius' wife died of natural causes leaving him with a baby daughter named Altaira (Anne Francis). As you may have guessed, Altaira is a beautiful blonde who eventually makes the scene with Commander Adams.

As the film progresses we learn of the Krell, a fantastic race of super-technologically advanced creatures inhabiting Altair 4 a million years before. The Krell were on the verge of finishing a greater "project" when they were all completely destroyed. Among the wonders left by the Krell and discovered by Morbius are a brain booster which multiplies one's intelligence by several factors, an eight thousand cubic mile energy machine, and an entire history of the Krell civilization obtainable from a small viewer. Morbius has spent the last twenty years in deciphering this history and trying to discover what wiped out the Krell.

### Twenty Mile Cube Of

The mysterious life force appears again and begins slaughtering members of Adam's crew. Suspicion, of course, falls on Dr. Morbius. In an intriguing and exciting climax, the fatal secrets of the Krell are uncovered and

## Booters Win

(Continued from page 3)

cher, as well as center halfback Jon Hall. Wing forward Ron Stevens also played an excellent game after being switched from the defense less than two weeks ago.

The Tech offense and defense were both clicking in this well-balanced game. Chapman was hard-pressed for much of the game, and it was only erratic shooting by the Tech forwards that kept the score from being much higher.

The soccer season ends this Saturday with an away game at Biola. This year Biola has a very tough team, but Tech was one of the few teams to beat them last year, so it should be a good game.

them a higher form of poetry and beauty.

The company has a varied and interesting repertoire. Presented Friday night were three one act plays and a selection of poetry. The play "The Love of Don Perlimpin and Belisa In the Garden" concerned a tragic marriage. All actors were deaf and dumb, but technical ingenuity turned this into a theatrical advantage. While on center stage the principals were gesticulating their emotional flow, off to the side shadowy figures in veils were providing the narration. The words seemed to flow in and out of one's consciousness.

### Tobacco Is Harmful?

Performed next was "On The Harmfulness Of Tobacco" by Chekov, a monologue concerning a man whose spirit has been decimated by a domineering wife. The coordination between narration and gesture was flawless. The gestures aroused feeling of pathos and humor which could not be duplicated by mere recitation.

The poetry, too, was extremely interesting. It was truly amazing to see the poetry of music and love, transformed by the authors into the poetry of print, become poetry of motion. The sequence of poems included "The Tiger" by William Blake, "How Do I Love Thee?" by Elizabeth Barrett Browning, and the lighter "Jabberwocky" by Lewis Carroll. It was a collection of children's poems that proved most effective. The interpretation given all poems was most insightful; but one must remember that children place more emphasis on gesture than adults. This emphasis, somehow lost when forced into print, reappears pleasantly in the sign language interpretation.

### Italian Comedy

The final play "Gianni Schicci" was a comedy adapted from an Italian folk tale. The narration was done by two lovers, who paralleled by their gestures the movements of the company. This was the weakest part of the program. Gesture implies a significant amount of emotion, but the low form of humor of the play had none. However, it was an entertaining play.

Despite the excellent menu of selections, however, it must be pointed out the new medium of theatre supercedes the content of its program. The primary reason for the success of the National Theatre Of The Deaf is that the orientation of the theatre as we know it is essentially visual. Therefore, the visual power of gesticulation of sign language adds much to the program, and the separation of the auditory detracts little.

It is hoped the achievements of this group will help the development of totally new forms of theatre. As the company's purpose is to "enable the general public to become involved with the theatre, and to discover its many rewards and satisfactions," it must be considered an outstanding success.

### Instrumentals

Also, there were instrumentals done by the folk orchestra of the group. These included solos by rare instruments such as the pan-pipes, taragot (similar to a clarinet), kavel, fluiet (types of flutes), and the cymbaloms (similar to a dulcimer).

The program was hindered by the necessity for choreographers to prove that they are useful to a folk-dance group by introducing delicate ballet steps to a gutsy folk dance. In general, however, the dances and numbers were lively and interesting, providing a good insight into the culture of the Romanian people.

## Folk Ballet

by David Linker

Imagine a small village in Romania about thirty years ago. You see the women coming home from the fields. You see the dances of the men and the women, and you are witness to a wedding. These are the experiences that were offered if you went to see the Romanian Folk Ballet at the Dorothy Chandler Pavillion of the Music Center.

The program of dances ranges from the athletic and exciting **Calushari Dance** to the tender **Girls of Capilna**, telling the story of a girl preparing the bridegroom's shirt for the boy she will marry.

# "Fourth?"

by Robert Geller

### North

S K 10 5 2  
H Q 9 3  
D A Q 4  
C 9 6 2

### West

S 8 7 6  
H 10 6 5 4 2  
D 5  
C 8 7 5 3

### East

S J 9 4 3  
H J 8  
D J 9 8 6  
C K Q 4

### South (D)

S A Q  
H A K 7  
D K 10 7 3 2  
C A J 10

### East-West Vulnerable

South West North East  
2 NT Pass 4 NT Pass  
6 NT All Pass

West led the four of hearts.

If one asks the average player about his bridge ability, he will admit that his bidding and defense are not quite what they might be. But he will probably insist that he will match his card play technique with anyone. While he may not be familiar with advanced plays like endplays and squeezes, he never has the opportunity to make such plays. If only he were dealt the hands which experts were, he could make such plays too. To see whether or not you are kidding yourself if you say this, put yourself into the South seat, and cover the opponents' cards. Then see how you do, compared to the expert who played the hand.

When the hand was actually played in an East coast duplicate game by Lawrence Robinson of New York City, he won the opening of the four of hearts in his hand, cashed the ace and queen ten, after West discarded a heart on the second round. At this point Robinson saw that he could make all thirteen tricks if the jack of spades was singly or doubly guarded. But Robinson also saw that he could take all the tricks on a squeeze if the two high clubs and the jack of

spades were in the same hand. So Robinson cashed the ace and queen of spades, the ace of hearts, and his two high diamonds, producing the following position as the last diamond was led.

### North

S K 10  
H Q  
D —  
C 9 6

### West

Immaterial

### East

S J 9  
H —  
D —  
C K Q 4

### South

S —  
H 7  
D 2  
C A J 10

When the last diamond is led, North and East discard clubs. Now when South leads a heart, East is squeezed. He must keep both clubs and both spades, and he is unable to do so. Simple? Maybe so, but not one of the other pairs made seven. Did you find the correct line of play? Then if you're not getting hands like this, you're just not playing enough bridge.

### Knockout Team Of Four

The draw for the first round of the Caltech Fall Knockout Team of Four Tournament consists of two three-way matches. If each wins one match and loses one match, the three-way match will be decided on quotient—the ratio of total imps won to total imps lost. The winner of each three-way match will play the second place team from the other half of the bracket. The first round match between Carter (Barkus, Fisher, Bosworth), Delaney (Geller, Ma, Wu) and Ballard (Gubman, Haberly, Stevens) will be played at 7:30 this Sunday in Clubroom 2. The site of the match between England, McDonnell, and Unger has not yet been determined.

# Oxy Triumphs 47-14

The Caltech Beavers played inspired football for one half last Saturday, but they could not avoid Occidental College's determined onslaught in the second half, and the Tigers breezed to a 47-14 win at Patterson Field. The loss ended Caltech's one game winning streak and brought the Beavers' 1968 slate to 1-6; Oxy is now 2-5-1.

In the first quarter the Caltech defense was better than it has been all year as it limited the Tigers to nine offensive plays and three punts in three series. Mean-

while, the Beaver offense bewildered Oxy's defense with a wide open and tricky passing attack. These factors combined with full-back Mike Brennan's 2-yard dive to paydirt late in the quarter to give Caltech a 7-0 lead.

Occidental was not to be denied, however, and the Tigers started to put their offense together in the second quarter. They broke the ice early in the period on a long pass from **Bruce Berger** to **Steven Auerbach**. Midway the second quarter Oxy's fleet halfback **Gene Moore** took

a pitch from **Berger** and skirted right end untouched for 21 yards and a TD. The kick after TD was missed, and the Tigers led 13-7. With time running out in the half Tech QB Tom Burton was dumped in his own end zone to give Oxy a 15-7 halftime lead.

Shortly after the start of the second half, it became clear that the Beavers were running out of steam. They played determined football, but the use of six players both ways took its toll. The only Caltech score of the second half came on a touchdown pass from Burton to tight end Bill Nichols. It was Nichols' first touchdown in a Beaver uniform.

Meanwhile, Oxy's offense rolled with Auerbach grabbing the passes, Moore providing the outside rushing, and the offensive line opening holes in the middle. When the gun sounded ending the game, the scoreboard read



Tom Burton (Eng. '69) receives the Adohr Farms plaque as the So. Cal. college football player of the week.

Oxy 47, Caltech 14.

Tomorrow the Beavers travel to Pomona to challenge Claremont-Harvey Mudd in the final game for both teams. Kick-off is scheduled for 1:30 p.m. In order to win, Caltech must throttle CHM's potent passing attack led by Steve Jarvi, SCIAC leading field general.

## Ducks Win

The Caltech water polo team continued its winning ways as it upped its record to 14-5 by downing Pomona and UCSD. The Beaver ducks are now in second place in SCIAC standings with a 4-2 record.

The Beavers downed Pomona 5-3 as the Teckers played a good defensive game. Mikowicz played his usual good game and was the outstanding player of the meet.

On Saturday, the Engineers downed UCSD in an interesting contest. Only six fouls were called during the game. This compares with the normal 40 fouls per game that are called. The referees did not call any underwater fouls. Therefore the game was extremely rough and the whole game was a wrestling match. Outstanding players were Sheffield, 3 goals, and Mikawicz, scoring two. Wright and Hunt each scored one.

## Mason Is 8th

by Martin T. Smith

Lane Mason placed 8th, but otherwise the cross country team had a dismal day in the 5 mile N.A.I.A. Regional Meet Saturday at Mount S.A.C. For Caltech, Ratch Higgins followed Mason in 29th place with a creditable effort, with Smith a somewhat disappointing 39th, and Hermeyer 62nd, surprisingly ahead of Tardiff who finished 66th.

Caltech was far out of contention in the team standings. Westmont beat Occidental for the top honors with 38 for Westmont, 50 for Oxy. Biola took 3rd, with Redlands 4th.

Individually, Dennis Savage of Westmont won, followed by Oxy's Bob Deines and Phil Como second and third, respectively.

## 'Better Idea'

(Continued from page 3)

leaf springs, a swept-away instrument panel, and three-quarter length frame.

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(Continued on page 8)

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in  
**INTERLUDE**  
co-hit  
Orson Welles, Carol White  
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# Engineers, Mathematicians: At NSA, our successes depend on yours.

Because of the nature and scope of the National Security Agency's mission, our successes are in direct relation to your achievements.

At NSA, we are responsible for designing and developing secure/invulnerable communications and EDP systems to transmit, receive and analyze much of our nation's most vital information. The advancing technologies applied in this work are such that they will frequently take you beyond the known and accepted boundaries of knowledge. Consequently, your imagination and resourcefulness are essential qualifications for success.

### The Career Scene at NSA

ENGINEERS will find work which is performed nowhere else... devices and systems are constantly being developed which are in advance of any outside the Agency. As an Agency engineer, you will carry out research, design, development, testing and evaluation of sophisticated, large-scale cryptocommunications and EDP

systems. You may also participate in related studies of electromagnetic propagation, upper atmosphere phenomena, and solid state devices using the latest equipment for advanced research within NSA's fully instrumented laboratories.

MATHEMATICIANS define, formulate and solve complex communications-related problems. Statistical mathematics, matrix algebra, and combinatorial analysis are but a few of the tools applied by Agency mathematicians. Opportunities for contributions in computer sciences and theoretical research are also offered.

### Career Benefits

NSA's liberal graduate study program permits you to pursue two semesters of full-time graduate study at full salary. Nearly all academic costs are borne by NSA, whose proximity to seven universities is an additional asset. Starting salaries, depending on education and experience, range from \$8845.00 to \$15,000.00, and increases

will follow systematically as you assume additional responsibility. Further, you will enjoy the varied career benefits and other advantages of Federal employment without the necessity of Civil Service certification.

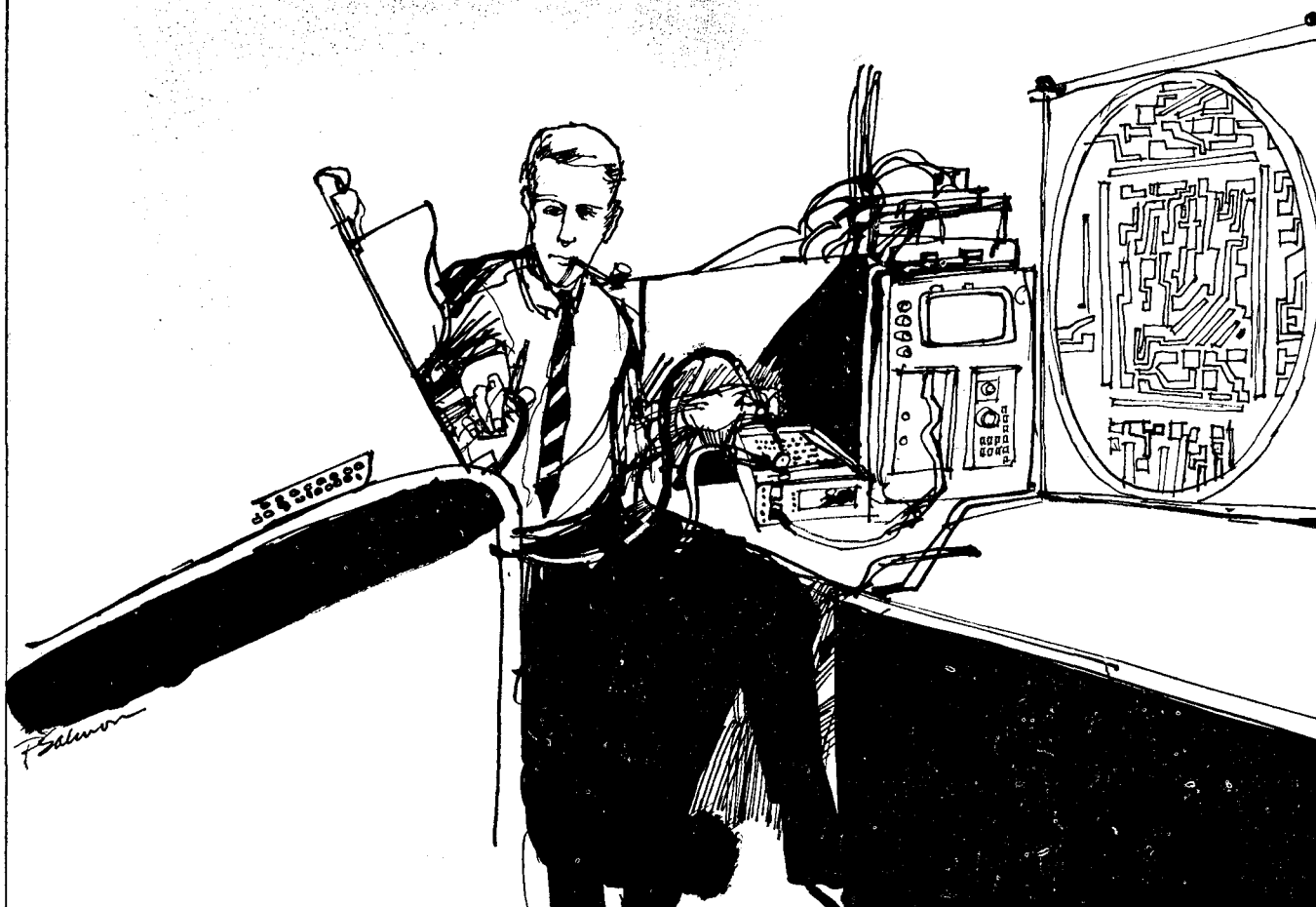
Check with your Placement Office for further information about NSA, or write to: Chief, College Relations Branch, National Security Agency, Ft. George G. Meade, Md. 20755, Att: M321. An equal opportunity employer, M&F.

Campus Interview Dates:

DECEMBER 4



**national security agency**



... where imagination is the essential qualification



# 'Better Idea'

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hood to provide easy access for most routine maintenance checks, such as oil, coolant, transmission fluid, power steering, carburetor and distributor.

### Improved Controls

The conventional Ford automatic transmission in the experimental car utilizes an electric

shift mechanism, which eliminates the familiar gear shift lever in favor of a rotating ring control. The electric control of the transmission also is wired to prevent the doors or trunk from being opened while the car is in a driving gear. Instruments also include a speedometer operated by electronic sensors rather than a cable.

In addition to conventional rear lights mounted within the

rear bumper, supplemental brake and turn signal lamps are located in the rear window. These high level lamps may be seen through successively following cars in heavy traffic.

The interior of the Techna combines a large number of luxury, convenience, and safety features into one package. Included are flush-mounted control switches, a high-backed front seat with integral lap and shoulder

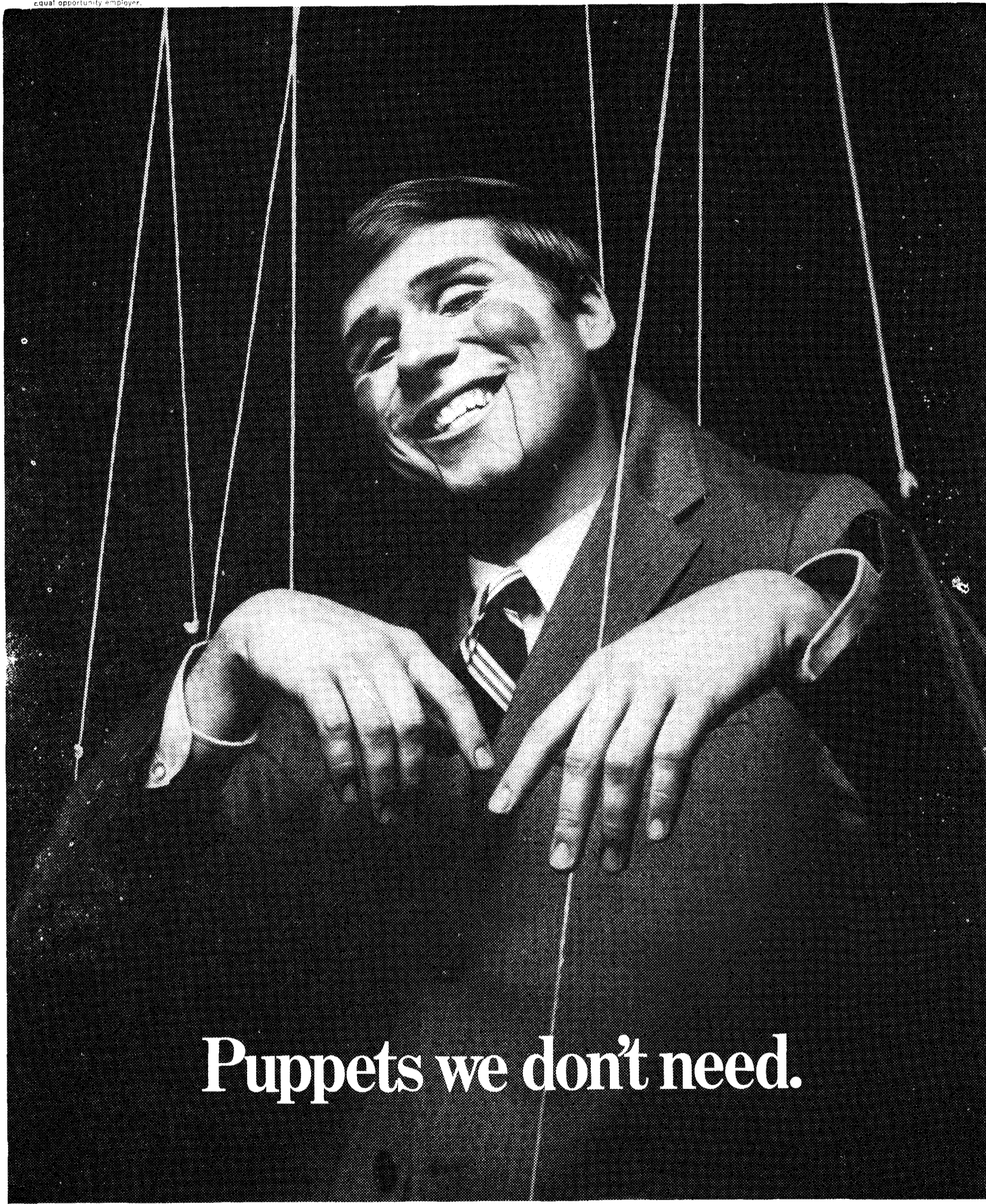
belts, and expanded use of energy-absorbing trim.

Rather than moving on a track, the front seat is fixed while the controls are movable. The energy-absorbing steering column tilts for driver comfort, and the brake and accelerator pedals are mounted on a power-operated movable toeboard with a six-inch back-and-forth adjustment, to accommodate a wide range of driver sizes.

welcome to the  
**Campus Barber Shop**  
 in Winnett Center

**Three Barbers to Serve You**  
 7:45 to 5:15 Monday - Friday

**Paul A. Harmon**



## Puppets we don't need.

We happen to be involved in one of the fastest growing fields in the world. Communications.

And because we also happen to be growing right along with it, we need people who can think for themselves when they are handed responsibility, not become confused by it.

Individuals. The kind of people to whom a challenge is a goad, not an excuse.

Who won't be content to just sit around until they get a gold watch and a pension.

There's a lot to be done. Interesting, provocative work for almost every kind of engineer and scientist.

For example, in our Applied Research Laboratory, the newest sectors of theoretical and applied research in the areas of mathematics, physics, computer systems, electro-optics, information systems, and

operations studies are explored.

Whether you lean toward designing electronic switching systems for our telephone companies or the development of electroluminescent devices for Sylvania, we think we have a place for you.

On one condition.

That there are no strings attached.

**General Telephone & Electronics**