

The California Tech

Volume LXXX

Pasadena, California, Friday, May 31, 1979

Number 31

Faculty Board Passes Teaching Resolutions

by G. Ray Beausoleil
Grand Exalted Poobah

On Monday, May 14, The Faculty Board passed two resolutions that should facilitate constructive change in Institute courses on a year-to-year basis, particularly in the courses of the core curriculum. First, it was unanimously resolved that:

"The Chairman of the Faculty shall appoint an interim committee charged with presenting a report on the core curriculum to the

Faculty each year until either a new or existing standing committee is assigned the responsibility by an amendment to the Bylaws or the Faculty Board Decides to terminate the activity."

Second, it was unanimously resolved that:

The Faculty Board urges each Division Chairman to arrange in his division for some procedure which will provide rapid feedback to instructors, particularly in the core curriculum, and in due time to report back."

Both of these motions resulted from proposals made in a report by the Faculty Committee on Academic Policies, chaired by Professor Leverett Davis. The second resolution was based on an analysis of the ombudsman system presently operating in Chemistry. Under this system, student representatives from each course

continued on page 12

That Was the Year that Was

by Eric H. Eichorn

The year started with the usual onslaught of frosh, 202 of them, plus miscellaneous transfers. A record 33 of them were female.

For the first time in years, most of them were housed in rooms with new paint and wall-to-wall carpeting, products of last summer's rehabilitation program. Each house also received a new kitchen in the bargain.

Another addition to the campus occurred over the summer. We got a real, full-time, permanent president, which we hadn't had for nearly two years, in the person of Marvin L. Goldberger. He came to us from Princeton's Advanced Research Lab, and vowed to make Princeton the second best school in the country.

Look to your left . . .

The frosh, along with upperclass counselors, faculty, RA's, and other hangers-on were shipped off to apparently the last Frosh Camp to be held at Camp Fox on Catalina Island. Harry Gray played Mr. Wizard, there was the usual "talent" show, and *Rocky Horror Picture Show* was shown so devotees wouldn't suffer withdrawal.

continued on page 6

In Memoriam

Richard Schuster

Robert Vaughan

C. A. G. Wiersma

Or Was It???

So What Does the Model Think About All this Hoopla?

To all concerned:

The *Rivet* is for fun; I did it for fun. I assumed the Caltech community would see it as such, and I expected (not to mention hoped for) very little flack from members of either sex, before or after publication. My apologies anyone who feels offended, exploited, or otherwise adversely affected.

—The Rivet Model

In Defense of the WLs

To the Editors:

The letter by Sara Stage and Linda McAllister brought up the issue of sexism on this campus. Sexism is a serious barrier faced by women. Jokes, personal attacks, and semantical arguments are irresponsible ways of discussing or solving the issue. I would hope the alleged social immaturity on this campus is not so large that a responsible editorial in

continued on page 3

Letters

The Final Word—Pro

To the Eds and all the rest:

I should like to disagree with the opinions of citizens Stage and McAllister on the *Rivet*.

The naked human body is very common; all of us have one, perhaps underneath our clothing. I realise that tabus and all, some (most, actually) are a bit (a lot, actually) reluctant to admit they have one.

If a woman were to pose for the *Rivet* under duress, or to be falsely informed of the extent of the distribution of the *Rivet*, or otherwise hurt to any degree not compensated by benefits (if she were proud of her body, and didn't really mind showing it, she might *like* to, or (shudder) even *want* to have it seen and appreciated—which I guarantee it would be—; this is not to say that any woman who doesn't want to

continued on page 3

The California Tech

"The last great bastion of sexism"

Volume LXXX Friday, June 1, 1979

Published weekly except during sexual activity periods by a bunch of people who wish they didn't have to answer to the Associated Studs of the Californiating Institute of Technocracy, Inc. The opinions expressed in all articles (except the ones which are sexist and demeaning to women) are strictly those of the authors and do not necessarily reflect the views of the sexist swine in charge of the *Tech*. ©1979 by the Associated Studs of the Californiating Institute of Technocracy, Inc.

Sexist Editors-in-Chief

John F. Avery
Alan Loh
David C. Younge

Sexist Associate Editors

Eric H. Eichorn
Carl J. Lydick

Sexist Writers

Ray Beausoleil, Jeff Copeland, Chris Juten, Sangtae Kim, Duncan Mahoney, Vic Manzella, Robert Tajima

Sexist Photographer

Joe DiGiorgio

Sexist Production Team

Nick Smith, Fred Vachss

Sexist Business Manager

Al Kellner

Sexless Circulation Manager

Michael Thien

The California Tech Publications Offices are located in Rooms 11 Offices are located in Rooms 105 and 107 in Winnett Student Center on the Caltech campus. But this is the last issue of the year and God knows we aren't hanging around here any longer than we have to when there are beaches to visit and picnics to go on and women to consider as sex objects all around us. So if you want to have anything to do with the *Tech*, you'll bloody well have to wait until September. Ciao. ISSN 0008-1582

ASCIT * Friday Night**

***** MOVIE 7:30 & 10:00**

ASCIT Members 50¢ Others \$1.00

Baxter Lecture Hall

AN OUTRAGEOUS MOVIE!



Released By 20th Century-Fox
Color By TECHNICOLOR® R

Fischer Taken to Task

To the Editors:

Although I will not be here next year, I feel compelled to comment on Mark Fischer's report on the Student Investment Fund which appeared in the *Tech*.

The first thing which caught my attention was the inflated and affected sophistication of the text. Such pseudo-intellectual affectations as "This loss relative to the market is to be expected, as liquidation of any position incurs transaction costs..." seems inappropriate in context and serves primarily to obscure the intent of the statement and to cast doubt upon the understanding of the author. A simpler and more accurate statement such as "The reduction in the value of the fund's assets results from the payment of brokerage fees" is not only simpler, but also more accurate.

In an apparent appeal for students not to expect exceptional performance from the investments made by the committee, Mr. Fischer states that "random portfolios... usually outperform professionally managed funds." This is neither surprising nor an indication of poor performance on the part of the professionals. A random portfolio

would contain a large number of speculative issues which, although yielding a higher *average* return, present a far greater risk of loss than do other issues. Since most professional managers consider it necessary to maintain a minimum return on investment, they must limit their investment in speculative issues, and hence sacrifice a few points off average return in exchange for greater security.

Mr. Fischer goes on to explain the "efficient market hypothesis", which, although not necessarily correct, certainly provides an excuse for the committee to avoid innovation. There have been many economists who have suggested that, over the short run, the performance of both individual issues and the market as a whole is essentially random, with movement composed of fluctuations about a mean.

I think it is also clear to anyone who has followed the market that psychological factors can be as important as, or even more important than, economic factors. In fact, probably more people have made money by outguessing the

psychology of the market than have by outguessing the economics.

The statement that few people have consistently outguessed the market is really equivalent to stating that there are very few exceptional people. The committee, alas, appears to be striving for mediocrity. Mr. Fischer states that they will be pleased if they can keep pace with the market. But if someone had purchased a representative sampling from the Standard and Poors 500 ten years ago, they would find that the value of their portfolio was, in real dollars, less now than it was a decade ago. One would be hard-pressed to call that a successful investment. I wish Mr. Fischer and company luck.

—David C. Johannsen

<p><i>Cinemattech</i> Saturday 7:30 Baxter Techers \$1 Others \$2</p>
<p><i>The Thin Man</i> and <i>All About Eve</i></p>

Pro from page two

pose isn't proud of her appearance, as personal feelings vary), that would be exploitation.

But a woman posing nude of her own free will and fully aware of the *Rivet's* distribution is not being exploited. Indeed, to claim that she is smacks of sexism, as it assumes that

a.) the *Tech* editors, being men, are totally unfeeling monsters who consider women little more than pieces of meat and have no regard for said woman's feelings and tastes, and

b.) the woman involved is less than adult, and unable to decide her personal course-of-action. This brings to mind reaaaally m'shuganish attitudes of earlier days, when women were considered to be little more than children, emotionally. If you believe that a modern, adult woman can be talked into doing anything she really finds very distasteful (straight, high, drunk, or

sober) [even tripped—the eds.], you're skating close to the metaphorical edge between humane concern and sexist paternalism.

I understand your concern, and am glad that anybody cares about anything anymore. But there is a difference between attacking deserving enemies, and wasting your time and effort railing about something which is not worth-attacking (even if it is offensive to you; if so, I'd suggest asking for that amount of your money that was spent on the centerfold back). [which, at \$3 for 31 issues, will net you somewhere around one red cent—the BM]

If you don't want the *Rivet*, don't not buy it.

—Michael Turyn

P.S.—The preceding was serious, though I apologise if it sounded too solemn. Everyone gets polemic now-and-then. M.T.

Defense

from page two

the school paper will always be masked by such rebuttals. A constructive opposing opinion is a more effective and adult method of dealing with an issue.

—Tony M. Conneally

[Check again. The personal attacks and jokes were made in last week's *Tech*, and in letters to the editors, not editorials. Ms. Sigmund's letter of last week has already taken us to task for our semantical "trivializing"; read the May 25th *Tech* for our defense of it.—the eds.]

Fischer Defended

[While it is not normally the policy of The California Tech to permit persons other than the editors-in-chief to reply to a letter in the same issue in which the letter is printed, this is our last issue of the year, and a member of our staff felt singularly qualified to write the following reply, with our permission.—eds.]

I can't let Johannson's attack on the investment committee go unanswered, as then everyone would spend the next three months getting mad at the committee (instead of waiting until October to get mad at the committee). While brokerage fees were the cost incurred by the committee, other transactions costs do exist, such as search costs and depressed values if a substantial

holding must be liquidated quickly (just watch the prices asked for the books all the seniors are selling this week). Fischer simply used the appropriate finance jargon; the problem is the same qualitatively as someone asking to have quantum mechanics explained without reference to anything more advanced than geometry: if you want your audience to acquire a working knowledge of

STUDENTS AND FACULTY: "BRING BACK YOUR BOOKS"

For The Annual

BOOK BUY-BACK

WITH

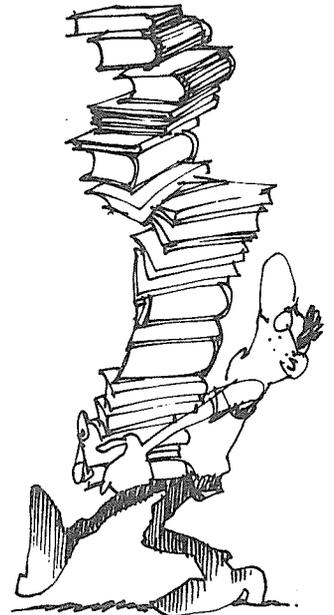
Follett College Book Company

AT THE

CALTECH BOOKSTORE

JUNE 6-7

Trade Old Texts For \$\$\$



what you're dealing with, you don't talk down to them.

The criterion by which Johannson seems to believe "dartboard portfolios" are evaluated is incredibly naive. In fact, adjustments *are* made for the degree of risk in the portfolio, and the random portfolio *still* outperforms many which are professionally managed. Mr. Johannson simply made a mistake which is all too common to

practitioners of the "hard" sciences: he assumed social scientists are stupid.

The theory alluded to in Johannson's fourth paragraph is actually that stock prices form a martingale (physicists, etc. read "random walk"). The best estimate of tomorrow's price is today's price, but there's an error term. The rationale is the efficient markets hypothesis: there are enough people

trying to make a killing in the market by charting past prices that any information they can glean from those prices is immediately reflected in today's prices. True, there must be some delay, but you'd probably need a seat on the exchange to take advantage of it.

As Mr. Johannson points out, there are emotional influences on the market. However, he fails to enlighten us on the subject of what they are and how they operate. In fact, nobody seems to understand them, and in order to gain from them, you'd probably have to devote your career to figuring them out. A more promising line of research would probably be trying to figure out the rules of thumb used by stock market specialists (if you don't know what a specialist is, go pester Bob Forsythe in Baxter Hall. It'd take too much space here) in matching bids and offers. There is evidence that there *is* unexploited information there, but nobody's deciphered it. Once again, a seat on the exchange would be most helpful in exploiting the information.

Yes, the S&P 500 has lost ground in the last ten years (at least if you ignore dividends) in real terms, but what non-speculative investment hasn't? As Mr. Johannson pointed out in his third paragraph, if you want a higher return, you accept a higher risk.

Finally, there's a difference between striving for and expecting "mediocracy". It would be unreasonable to expect the committee members to devote their full time to management of the fund, and nothing short of that is likely to result in substantially outperforming the market.

—Carl J Lydick

More on Caltech Teaching

To the Editors:

(re: Alan Loh's Editorial of 5/18)

During my four years here at Tech I have seen many things which displease me. I have also heard many of my friends express a great deal of displeasure with this place. Alan Loh's editorial reiterated one of the complaints I have heard over and over again—from both faculty and students—why is it that Caltech does not recognize its faculty for their teaching ability? Why is it that a person's teaching is never observed and evaluated by administrators in the department? Why is tenure denied to those who are good teachers, creative people, and scientifically productive researchers (but who may not meet Caltech's criterion of "productivity")? Joyce Penn is just another person who has fallen out of favor at Caltech without having all of her attributes

considered. She is not the first, nor is she the last.

As an undergrad I feel very frustrated with the system at Caltech. I try to help change the system but I feel my efforts to do so are very ineffectual. I don't try any more. I don't channel my frustrations into more minor problems such as ridding ourselves of the *Rivet* centerfold. What I do is remember the bitter experiences I have had here at Tech. I remember the injustice I have seen. I remember this all so that at some point in the future when I am sitting on a committee reviewing someone for tenure, or admission, or reinstatement, I will use these memories in making my decisions, which I hope will be more fair to all people involved than those I have seen made at Tech.

—Dave Wheeler

Student Support Solicited

To All Students:

I am trying to circulate the following letter to the faculty. The more student support there is for the letter, the more seriously it will be taken by the faculty. Please read the letter, and if you agree with most of the points it makes, sign the endorsement. Endorsement lists will be posted in the lounge of each student house and on Flora's door in Winnett. Please sign the endorsement if you agree with most of the letter; the only way this can have any effect is to carry with it strong student support.

To Professor Goldberger:

I am a senior here about to graduate in June with a BS, MS. I have had a long, rather erratic career starting in 1970 that includes three leaves of absence and one full year as a part-time student. I have also taught classes here at Caltech, as an alternate instructor in Karate, and also as an instructor in CS 140.

My reason for the appointment [with you] is to discuss undergraduate education and curricula at Caltech. This is a topic that I have been interested in and have thought about ever since my first term here at Caltech. In fact, I taught CS 140 partly because of these concerns and to evaluate the appropriateness of my ideas about

continued on page 8

White Water?

Important! People interested in the Colorado River Trip next year, 1st term, should go sign up now at the Caltech Y office, leaving a summer address. The trip is Oct. 4-8, 1979, and includes 3 days on the River through the lower Grand Canyon, misses 3 days of school and will cost around \$75. For details see last week's *Tech* or call Mark Fischer, 796-1445 or the Caltech Y, x2163. Sign up now.

That Was the Year that Was

continued from page 1

In between the official activities, people found various ways to amuse themselves. Several women christened the new president by introducing him forcibly to the Pacific Ocean. Ethanol was consumed in staggering quantities.

Old editors never die

At the end of last year the *Tech* editors were Spencer Klein and ed. Bielecki. Unfortunately for the *Tech*, they took a leave and graduated, respectively. With nobody else wanting the job, Beausoleil cajoled ed. into continuing, bylaws be damned.

The *Big T's* arrived on schedule, but with gross printing errors, general sloppiness, and even censorship by the printer (Walsworth, in case you're ever in the yearbook business). Attempts were made to get the book reprinted at their expense, which they received with about as much enthusiasm as you might expect. Rather than having the issue tied up in court for months, a compromise was reached where we got new dust jackets.

Frosh get angular momentum

Rotation happened, giving all the houses a chance to display their diversity. Marc Wold got a lesson in pronouncing names; Wold: "Has anybody met this frosh — Jack Miov?" Ernie Lewis learned to cook steaks.

Roger Noll, a former *Tech* undergrad and *Tech* editor, and more recently a professor of economics, became Chairman of the Division of Humanities and Social Sciences. Noll replaced Robert Huttenback (of Genial Dean fame), who left to become Chancellor of University of California at Santa Barbara. Noll's appointment seemed to signal a strengthening of the social sciences program, and came on the heels of a threatened mass resignation by some of the economics faculty.

May I have the envelope, please?

ASCIT continued its policy of giving Teaching Awards to faculty who received outstanding ratings in the Teaching Quality Feedback Report. Robert Cannon, at that time Chairman of the Division of Engineering and Applied Sciences, received an

award for his teaching of E 13, System Dynamics. Donald Cohen was honored for his clear presentation of AMa 95, a notoriously difficult course. Peter Fay's enthusiasm and concern in his course Europe in the 17th and 18th Centuries earned him an award. Joel Franklin was recognized for his Game and Matrix Theory courses. Valentina Zaydman, Lecturer in Russian, got her second Teaching Award.

President Goldberger was inaugurated on October 27, although he has been president since July 1 (not a moment too soon for Robert Christy, who was acting president). The gala event was attended by approximately 5,000 of the 28,000 of the Institute's "closest friends" who were invited. A party was thrown the night before on the Athenaeum lawn, complete with jazz band.

Mud and guts

After losing its first three games, the football team rallied and came back to tie its season by beating the La Canada Ducks, the La Verne JV, and Tijuana Tech. It was the first non-losing season since 1973, and the first three-game winning streak since 1957.

Returning to the tradition which was interrupted last year, the frosh won the Mudeo. For lack of construction sites or landscaping projects, it had to be held in a vacant lot on Del Mar.

Rum, Hell, and WWII

Interhouse came with the traditional rain, which fit in just fine with Blacker's waterfront bar. Dabney built an air raid shelter, which got conveniently bombed during the evening (as did many of the visitors). The Dabney House Elastic Band kept the crowd entertained between raids. Fleming had an English pub in its lounge, with the Thames running by in the courtyard. The play was *My Fair Lloydie*. Lloyd was Hell. [Nu? —Ed.] Page had a western mining town, and upheld tradition by attempting an elaborate ride which they could not finish on time. There was an Oktoberfest in Ricketts, complete with oompah band. While the rain was good for Blacker and Fleming, it didn't do the wild west town in Ruddock's courtyard any good. Fortunately, a lot of the action

was inside in the saloon.

The Master's Office was open as the First Aid Center for the Walking Wounded and Wandering Wasted, staffed by Jim Mayer, Betty Mayer, and Carmela Kempton. They had bread and cheese for nourishment, and punch for general anesthetic.

Fucks, Flags, and Fish

The Men of Fleming visited the Annex in an attempt to improve their sex lives. The residents thereof were unimpressed, and some were offended. The Fleming flag disappeared, only to reappear in Baxter Pond encased in cement. A fish is rumored to have been killed in the process. A Lloydie got a free haircut.

As the term ground to a close, the Snake rattled his tail.

Reelect the president

Second term arrived, and with it ASCIT elections. Genital Ray Beausoleil ran unopposed for a second term as president, becoming the second person ever to be ASCIT president for two years. The first person to do so is Joe Rhodes, who currently holds a seat in the Pennsylvania Legislature. The outgoing BOC secretary, Jim Jensen, ran unopposed for ASCIT vice-president, as is customary. The other officers elected were: R. C. Colgrove, secretary; Glen George, treasurer; Larry Friedrich, IHC chairman; Barry O'Mahony, director for academic affairs; Sue Fuhs, director for social activities; Dan Ohlsen and Sue Vandewoude, directors at large; Bryan Dunkeld, BOC secretary; Jon Zingman, activities chairman. The real losers were John Avery and David Younge, who became *Tech* editors.

The Houses had their elections, too, and the IHC was formed as follows: Bill Schmidke, Blacker; Chris Finch, Dabney; Rono Mathieson, Fleming; Pat Walp, Lloyd; Alan Kamei, Page; Ron Merkord, Ricketts; Jim Fruchterman, Ruddock; Larry Friedrich, chairman; Greg Gaudet, secretary.

Some weird sculptures turned up in the Court of Man.

You got trouble, my friends

The ASCIT Musical, *The Music Man* played for five shows, all of which sold out. The play was directed by Shirley Marneus (who has since been hired as the head of a

---- Or Was It?

newly formed Drama Department) and starred Barry Johnson and Jean Goodenberger. There were cameo appearances by such notables as Murph and Mildred Goldberger and Gentle Ray Beausoleil.

The Sun was eclipsed by the Moon, and many Techers traveled to Washington to see it in totality. Some drove cars, but a group of approximately two dozen Darbs chartered the Geology bus.

As second term was about to fade into history, the Snake said "Beware the Ides of March."

Rats onto a sinking ship

Third term saw Alan Loh promoted to Editor-in-Chief, joining David Younge and John Avery. It also saw him promoted to non-student. In a clearly suicidal move, veteran Editor Eric Eichorn rejoined the staff as Associate Editor.

Stan Johnson donated \$50K worth of stock for a Student Investment Fund. A student Board of Directors was elected to manage it, consisting of Wally Walter (chairman), Jim Angel (secretary), Tony Conneally, Mark Fischer, Grace Mah, Les Niles, Arley Anderson, Jeff Eriksen, and Bernd Trebitz.

ASCIT had its annual budget meeting, which included the usual conflicts between different groups wanting the same money. In the past, the meetings have just dragged on until agreement is reached by a majority of the BOD. This year, they came up with an innovative compromise: they budgeted \$1328 that they didn't have.

Hey kid! Over here!

Engineering overtook Physics as the leader in the frosh option derby. The next most popular option was Applied Math, which came out of nowhere.

In a move to rope more women into the freshman class, Caltech put on a four day orientation program for admitted women. With help from a Ford Foundation grant, the Institute paid half of the round trip air fare for each of them. They were treated to a barbecue on the president's lawn, talks about student life, and visits to *real* classes. To top it off, ASCIT just happened to schedule a typical seven-house party for the same weekend. Miraculously,

a record number of women accepted admission.

The Coffeehouse moved its hours from 9-2 to 8-1. The Physics Department decided to eliminate two-track lower division physics. No Mo Sno played its farewell concert on the quad.

Room at the top

Robert Cannon left his post as Chairman of the Division of Engineering and Applied Sciences to go to Stanford, leaving yet another division chair up for grabs. This one was filled by Roy Gould, formerly Executive Officer for Applied Physics, and more formerly a Darb.

William Corcoran has tendered his resignation as vice-president for institute relations, effective July 1. A major part of his job has been heading up the Institute's "Leading Edge" campaign for contributions, and now that it is nearly completed, he is returning to research and teaching. In recognition of his valuable efforts for the Institute, both in research and administration, he is being named as an Institute Professor, an honor shared by only two other professors.

Days of our lives

"Space Day" was held on campus and at JPL in celebration of the 9.8th anniversary of man walking on the Moon. There were various talks and exhibits about the NASA space effort. But there were other ways to celebrate, too.

Polish Constitution Day was celebrated in the usual way by the usual house, but things got a little out of hand. Blacker's dining room looked like a bar room after a brawl.

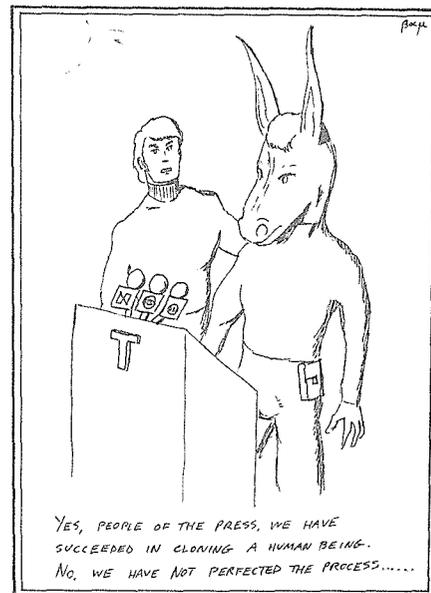
Ditch Day and Drop Day turned out to coincide, which many found convenient.

We bid you goodnight

Next year Frosh Camp will be in the mountains, rather than on Catalina Island. It will be considered a Rotation violation for unauthorized upperclassmen to show up.

The *Hot Throbbing Rivet* was published over the objections of a few members of the Caltech community. We hope that they will get over being bothered by it soon, and have a pleasant summer.

And as third term winds down, the Snake coils.



Schaffer Letter

I'm writing this here in my house, alone in the middle of the night because I am angry and cannot sleep. If my words are confused and incoherent, I don't apologize; life itself is chaotic at times and this is one of them.

It was already after dark when the doorbell rang. I had been talking with a friend on the phone and I thought she had decided not to come over, but perhaps she had changed her mind or another friend was paying me an unexpected visit. Since it was dark, I called out, "Who is it?" through the door and when there was no reply, I realized that something malevolent was waiting for me outside. Ordinarily I would have left the door locked and called Security, but I recalled with horror that I had left my cherished French racing bicycle outside. It doesn't have much intrinsic value anymore, but over the past eight years it has carried me through many lives of pain and glory and is an old friend not to be deserted. To not go outside could cost me this bicycle, and only three months after the theft of my custom Masi! I shut off the inside light and turned on the porch light and opened the door.

I slowly opened the door to

continued on page 10

Random Numbers

Well, I was going to get high and write this, but when I did get high, it turned out that the last thing that I wanted to do was write this. Such is life. This is the last of these and while I won't be able to write them

over the summer in order to retain my sanity, I hope that I won't have to worry about such trivia. After all, I was only mildly insane before I came to Tech. Of course, I'll miss a lot of you but, . . . I think I'll survive.

So, what mundane trivia should I write about this week? Sex, of course. Yes, I know that wasn't a complete sentence, but then, I hardly think of myself as an example to the rest of the world when it comes to writing. Well, I thought that I would share some news headlines and stories with you as they might appear in the paper in the past, present, or future.

GIANT UNIDENTIFIED DOUGHNUT GETS A RINGER ON MILLIKAN

About 2:00 am this morning, a
continued on page 11

Goldberger

Letter from page five

teaching.

My concern is that my interactions with the undergraduates leads me to conclude that the majority of students (80+%) here have a very bad experience. The visible evidence is the burned-out seniors who are turned off by science. Less apparent is the approximately one-third of every freshman class that flunks out or leaves along the way. Certainly some of these people transfer to another school and do just fine, but I believe that most of them do not have nearly so positive an experience. Most seniors here that I know share my opinions; I know only a few that do not.

The reasons for this state of affairs, I believe, are:

1. Teaching here is abysmal. Worse, there is no evaluation by faculty or Deans to support or contradict this claim. Also, there are no guidelines for interested new faculty on teaching effectiveness.

2. Faculty show little concern for the undergraduate environment and its effectiveness. They attend committee meetings but realize that this is first and foremost a research institution. There is no reward, hence no motivation, for good teaching.

3. There are serious "administrative" problems, viz:

a. The quarter system is devastating because the pace is relentless. There is no way to lose two weeks for physical or mental reasons and survive. A semester system would be better.

b. Our grading system and

uniting policies are strict by comparison with other universities' standards. This is a faculty prerogative but students get screwed by their GPA and unit credit when transferring units. In spite of the Caltech myth, having gone to Caltech is not necessarily the magic command that opens all doors; a majority of people and institutions do not treat Caltech graduates in any special way.

c. There is no evaluation of what Caltech does to or for a student. Certainly our graduates do well but is this *because* of Caltech or *in spite* of Caltech? There is no comparison with a standard; in experimental terms there is no control group. Also, there is no feedback, everything is done open loop.

4. There is a general, widespread faculty misunderstanding of how the undergraduates feel. For the most part undergrads are just trying to survive, and incidentally get some education. It is the rare exception rather than the rule that a student is doing well in his classes and is seeking more challenge; ironically, these people seem to have little trouble satisfying these desires, yet the faculty seems to feel that this is the problem. To give specific examples, I take issue with two statements given in your inaugural address.

a. "The material in the undergraduate curriculum is necessarily difficult, but it is also frequently boring and the students become disillusioned and impatient." The way to make students more excited is to educate them and give them things they can do, not snow them.

b. "As part of the educational experience . . . I want to suggest that

b. "As part of the educational experience . . . I want to suggest that the faculty consider a requirement of independent study leading to a senior thesis for all students . . ." Most undergraduates would see a senior thesis as a big final obstacle. Sophomore year is a killer; about the only thing that gets people through it is the feeling that the remaining two years are easy by comparison. The effect of a thesis would be to instill a fear of senior year in the students, which is not what you want to accomplish.

5. The academic load is very demanding. However, the reason the students feel oppressed is not the load but the lack of reward. Again contrary to popular myth, students do not become demoralized because they are doing poorly by comparison; rather they become demoralized just because they are constantly being told they are doing poorly. All the reinforcements are negative; very few people get positive rewards. Those instructors that do give positive rewards and express concern for students are well liked and well thought of; but these instructors are few and far between, in my experience.

The tone of this note has been rather negative, I know. In spite of this, I do feel that things can be done to make things much better. I have been concerned with these problems for almost nine years now, and I do have ideas about solutions. Some ideas seem reasonably straightforward; others, I admit, are much more difficult. I am hopeful, especially, that at least my ideas and experiences can be communicated and will be helpful to you.

—Tim Rentsch
Dabney House

Preface:

It was the year 19--, and like all years ending with two dashes, it had been an uneventful one. So it was not without comment that the strange case of the even stranger transformation of the *California Tech* came to light, and much note of it was made in the talk of the local townsfolk—though hushed in those ‘better’ circles comprised of those who fancied themselves their neighbours’ betters.

At first, all had seemed normal and true with the staff of the *Tech*. They occupied their time as would any their circumstance, living a virtuous life of chastity (albeit enforced), poverty (albeit unwelcome), and endless back-breaking work (albeit albeit) but gradually, a change seemed to come over the *Tech* staff; its friends and familiars remarked to each other on the seeming mood of withdrawal which had come upon it. Timid questioning of the staff revealed little, save that the staff had become interested in certain matters of an occult nature. This so aroused the curiosity of the *Tech*’s companions that a break-in was arranged of the

Tech offices. All seemed normal at first; nothing interesting had shown up since the placing of the ceremonial tape over the office lock.

But the erstwhile burglars soon were shocked and stunned to hit upon a secret cache of documents well hidden on the desk top. Cryptic drawings and formulas, reminiscent of runic scrawls, were mixed with correspondence, much of it similar to the following extract:

“Gone t’ coffee-house . . . must talk w. you on subj of thngs to come . . . We will need at least two girls for this on which we have decided, and hve. met little success in’t.”

But it was with a feeling of absolute and unmistakable horror that the intruders found the collection of Arcane Books . . . *The Gay Grimoire* . . . *Malleus Ionus Enricus* . . . *The Feminine Mystic* . . . and, horribly: *The NecrophiliCon* of Abdool ibn Harzhrid, the mad Arab of Jamaica . . . Therein, they found spells for baldness prevention, and worse—how to call up demons, daemons, and punks . . . rituals for

draining the wealth of another to one’s own advantage . . . and the solemn, bizarre, pointless ceremonies for calling-up the dreaded Spyro, the disgusting Abhoreth, the abominable Znomun, the DREAD CAPITAL LETTERS, the irascible Jug-Sukkoff, and the unmentionable -----.

With fear and loathing in their hearts and minds, the party gathered the horrid tomes to their breasts, gathered their breasts to their rib-cages, and departed, leaving only a metric tonne of rigatoni in evidence of the foray. After a grueling half-minute’s drive home, the wretched reading material was beaten sadistically about the face and neck, burned, or kept for future lonely nights. Done with its weighty deeds, the party went off to bed, it being an *extremely* lonely night. All was thought well.

Until the next morning, when the *Tech* was discovered missing, without a trace. Yet there were some who held that it had not disappeared at all, but instead had undergone a bizarre, wicked, horrid, evil, pointless, banal, wretched* transformation.

For in its place had been found . . .

*Give me lots of adjectives

THE

HOT

THROBBING

RIVET

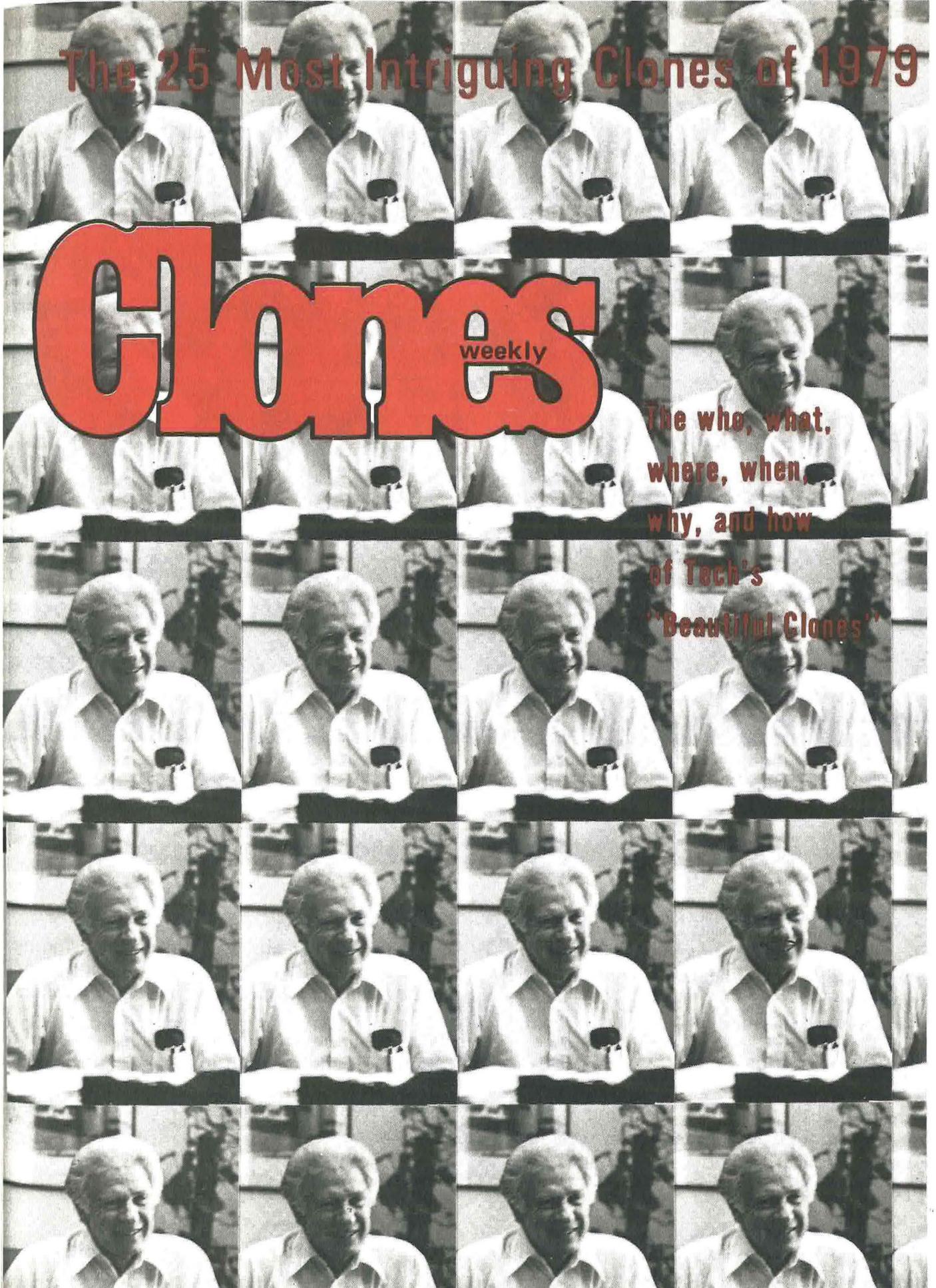
-T. I. Lustcraft

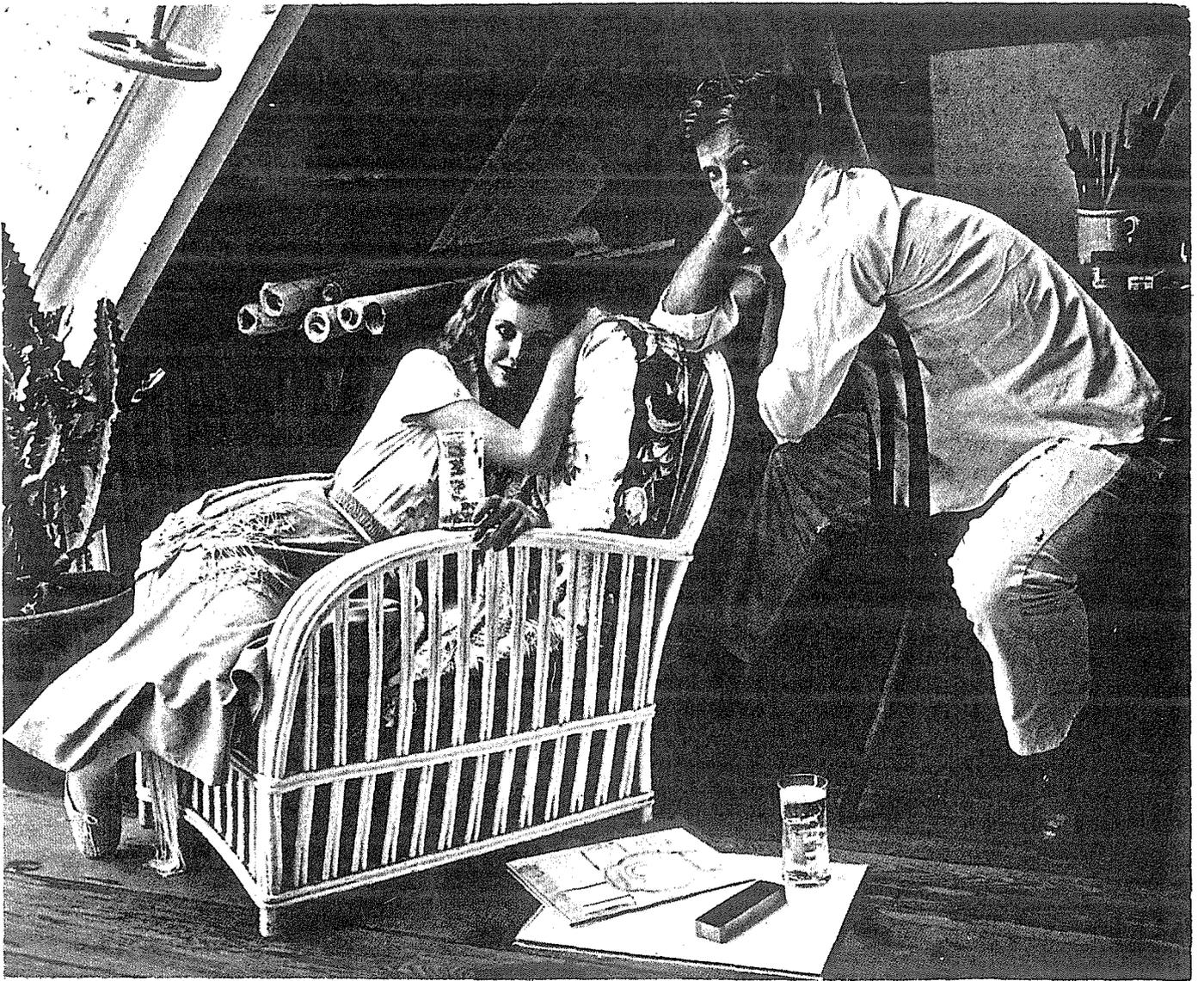
The 25 Most Intriguing Clones of 1979

Clones

weekly

The who, what,
where, when,
why, and how
of Tech's
"Beautiful Clones"





Oscar told us about GNPs at a party at Studio 54...

We had heard about Oscar during training, of course, but meeting him was something entirely different. The magnetism was just incredible.

—He was a little luded.

—Well, he just kind of sat in the corner, breathing. Breathing heavy.

—Anyway, the gestalt was so right that soon everyone at the party was breathing. It went on and on, and the karma was so complete, until a physical therapist from San Francisco hyperventilated and passed out.

Oscar also turned us on to GNP speakers that same evening. We were listening to Fleetwood Mac and the sound was so,

so....well, the vibrations were perfect. Soon we found that all of our friends, including some of Matik's friends from Bryn Mawr, and and my editor from *Dissent* had Bill's speakers.

We moved out to the coast the next summer, and met Bill in person. He's pretty remarkable, but nothing could compare to our first evening with Oscar. We've been breathing ...

—And listening...

...And listening ever since.

GNP

"Speakers for the
extremely mellow"

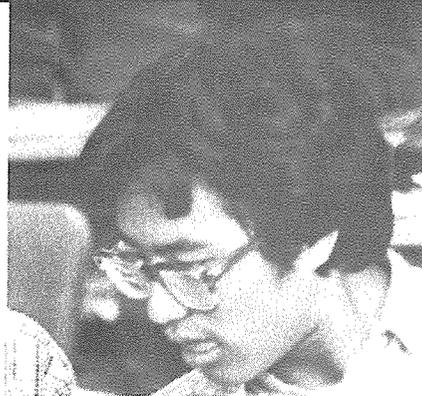
OnThe Cover □

The twenty-five most intriguing clones of 1979½ are featured on the cover of this month's double issue. See below for the close-ups in the magazine; look at the clones in *CLONES* this week.

Clones weekly

Couples □

To the undergrads, they're **Murphberger** and **Milberger**, but this Caltech couple is planning to beef up the Institute.



Lusty editors, 17

Out of the Pages

Alan Loh, **Eric Eichorn**, and **Dave Younge** restore the Tech Trio of yore—but with a Hot Throbbing Controversy

Food □

The Hippy Homemaker drops off her helpful hint for the week, sure to raise interest.

Winners □

Ray Beausoleil may look like a wild animal at times, but don't worry; he's as gentle as the ride on a Girald radial.



Dusty President, 21

Clones Packs & Pins □

Sgt. Henderson describes tense moments in the courtroom in his fast-rising book based on the hit off-Broadway play

Grace Bell has written a thorough, but dry overview of contemporary American Life

Gregory of Tors
Gregory of Tours has a delightful new history of Europe

Kaddish is a poignant musical expression of classical Hebrew values

Discovery □

Two Pasadena Ph.D's are making advances both in and on their subjects.



Trusty Arizonan, 19

Star Tricks □

See our centerfold for the latest in a long sexist controversy

Clones Puzzle □

Chatter □

For A Song □

Three original compositions this week; a report from a strangely familiar music school and two new rock songs.

Food Hint of the Week—Carrots

Selection

Look for firm, thick, smooth specimens

Storage

If kept cool, carrots may keep

Storage

If kept cool, carrots may keep indefinitely. However, long storage tends to cause swelling.

Preparation

No special implements are needed for carrots, although some enjoy using them. Carrots can be simply rubbed with your hands, or if you prefer, washed with something warm and moist. Swollen carrots especially deserve attention.

Eating

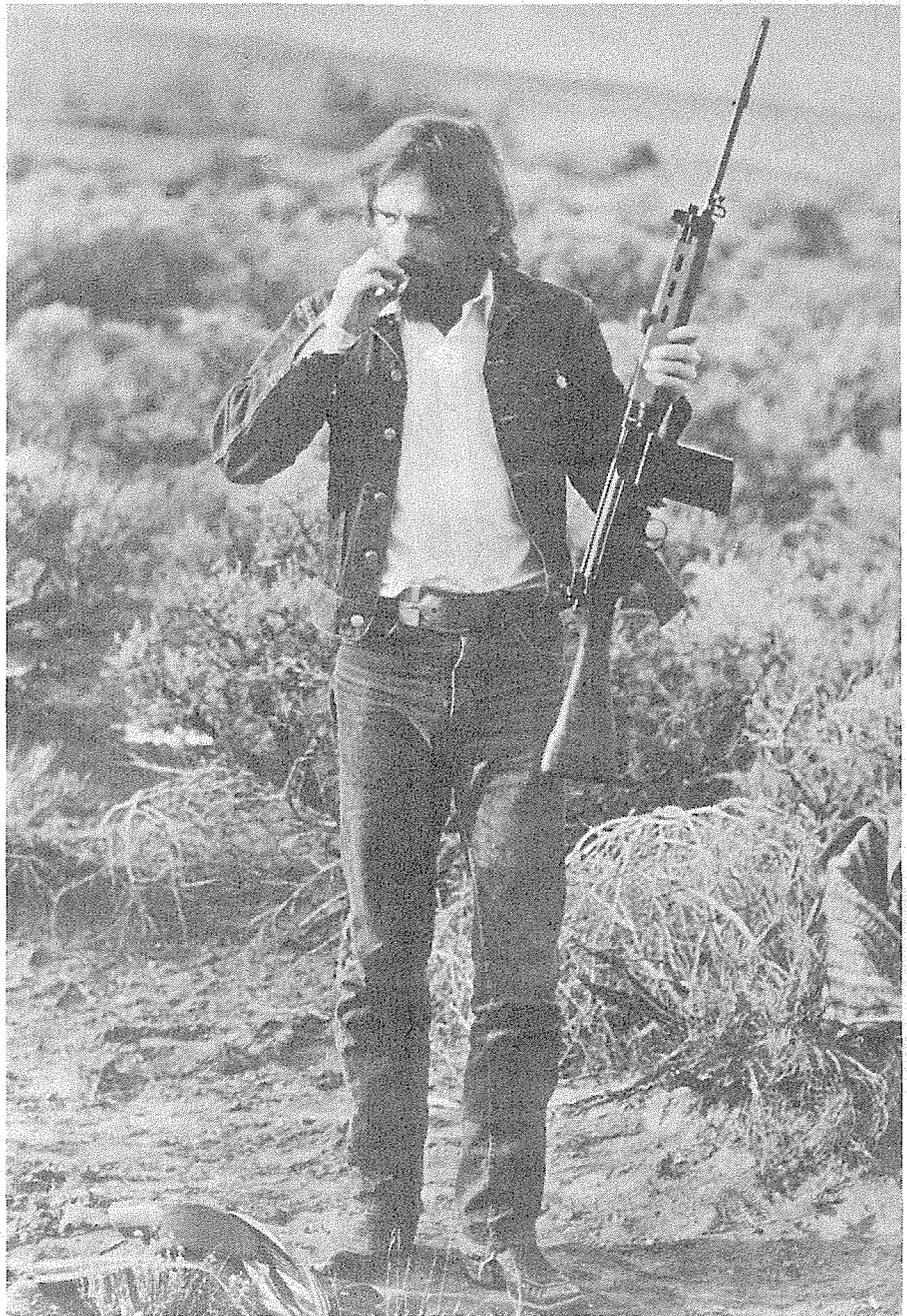
Well-prepared carrots will give off a heady perfume that the connoisseur will find irresistible. Cook carrots if you must with no more than gentle heat from friction. Carrots, of course, are best eaten raw.

Seeds

Occasionally, carrots will violently go to seed. Do not be alarmed, but catch it in an appropriate container. Planted and well cared for, carrot seeds will, in the course of time, mature into fine new carrots.

—Pam Phillips

Amaze Your Friends! Scare the Shit Out of Your Enemies!



Clones

WEEKLY
NEXT WEEK

O'Mahoney's Other Side

A visit at home with the mild-mannered member of the ASCIT board reveals a love of rock and roll music and strawberry daiquiris.

Farewell to Flora

One last afternoon in Flora's office after he six-and-a-half years at Caltech, before she returns to college life.

**THE RIVET ARE HERE,
ANY COMPLAINTS
SHOULD BE DIRECTED
TO BARRY, OF
OUR COMPLAINT DEPT.
SEE PHOTO ABOVE**



DECADE IN REVIEW

Photographs by

Sherry Tian

of Photo 69

(CLICK)

Ciao to the Seventies

Well, we're at the end of a decade again. Through the useful trick of surviving

Teenagers
Sandy Biery
Young-il Choo
R.C. Colgrove
Jose Helu

(CLICK)

Ciao to the Seventies

Well, we're at the end of a decade again. Through the useful trick of surviving ten years, most of us will be around to watch 9's change into 0's all over the country. Well, what was it all worth?

A whole generation of young

people went into the streets to protest the fundamental injustices of our society, only to find that—oh, sorry, wrong decade.

(CLICK)

A whole generation of young people went into the junior colleges and offices to get theirs, regardless of the fundamental injustices of the whole schmeer. This marked contrast to the activities of previous years can be traced (a) to the stagnation of the world economy, leading to anxieties over winning the share of the Sweet Money River which is the time-given right of children of all ages who want *more* ... and (to be fair) which is vital for decent survival in this apex of civilisation,



and (be) to the abandonment by many of the principles that change for the better is both possible and worthwhile as a goal.

A case in point: THEY want to draft us again. No matter what THEY say, the intention is clear: to inculcate in our American youth the honoured values of discipline, obedience to authority, outward respect for the patently absurd, and violence as a moral alternative at any level of conflict (be it classroom, home, or country). Those who advocate a compulsory National Service are perhaps less to be held with contempt, but they seem to miss the point: it's not right to force people to do things contrary to their wills if their wills won't lead them to hurting through their activities. And, as libertarians might perhaps remember, this applies to economic activities

But what has been the extent of the protest? Small. Existent, but small. People seem to have abandoned responsibility, beginning with the worse-off people, and ending with themselves.

Instead, we've got discos and est. They're clichés, but clichés become clichés by being known to just about everybody. About disco: Though it's been said about all new musical forms, the phrase 'It's not music.'

comes to mind. Maybe it is music . . . but, then, 'UFO' candies are food.

Back to the spiel. ('Mike, don't you think you'd better wipe the foam from your mouth?')

What I said before isn't totally true. Nuclear power can be taken as an example. Some people care. On one hand, we have those who make no distinction at all between nuclear power plants and nuclear weapons . . . and on the other hand, we've got Dr. Jerry Pournelle, who seems to link nuclear power with the salvation of humanity and our sacred mission to fill all available outer space. Makes one want to send out for some apathy.

But then again, at least they care. Maybe it's anachronistic of me, but I just wish there were a more general sense of . . . well, you know.

(CLICK)

Oh sorry

About the Seventies:

Nixon dropped lots of stuff on Vietnam, and got our boys out with terms so generous that they could have been negotiated before the Seventies. And it would have saved him the trouble of attempting to hide a small invasion of Cambodia. And the names of Kent and Jackson States come to mind.

Watergate and the cover-up not

only proved what many knew all along . . . but proved that the Trickster was an *inept* crook.

(Few remember the memos discussing the calling-off of the '72 election . . . or the unsinkable Alexander Haig's orders to the effect that Nixon's orders, in the final days, were to be disregarded should they indicate that he wanted to stage a coup.)

For a year or two, Norman Lear seemed to offer the promise of marginally decent teevee shows. No dice (Coming Next Fall: 'The Ropers'!!!).

Some good things are around, or were in music—but you either know about them, or will. Disco hasn't taken over . . . probably.

The movie *Sergeant Pepper's Lonely Hearts Club Band* failed miserably. There were some decent movies made.

Cassette decks became better and better.

Women came to Caltech in appreciable and appreciated numbers.

Overt racism or sexism isn't fashionable—at the moment.

But the whole mess seems a bit adrift.

And I'm frightened by some of the potential captains floating around.

(CLICK)

PACKS & PINS

Pages

A WALK INTO TRAFFIC COURT by Sgt. Henderson

As a writer myself, I could not avoid feeling that question referred to me when the Judge (Sir James Justice) called "are you guilty?", in Henderson's new stage success "The Trial." In a rather simplified plot, Sgt. Henderson illuminates our mores, and falcon-eyedly examines the basis of being in our classes, justifying the ridiculousness of the Convict (Bertram Harrington) as opposed to the acute, docile severity of the Judge. As ambiguity is approached, the plot would exterminate the remnants of ordinary behaviour of the wide public and the almost beastly cohesion of our society. This play establishes itself as a monument to the mastery of Terry Holmes-Adams as Prosecutor. It is not recommended for the wide audience; only for that rare person amongst the readership who would comprehend the message of this climactic drama.

NUMBERS AND SOCIETY by Grace (Ma) Bell

"Elliott Dan 781-5255"
"Mike's Hamburgers 811-7113"
"Local and nearby dialing areas" I found this book to be intrinsically most amusing, with its careful, detailed inspection of life in our society, and most of the subtleties of the rural community. However, I found this volume unpleasantly reminiscent of past decades, with their overly decadent obtrusions into the inner self. Nonetheless, I do recommend this book to those who are young at heart, despite the grief and the sorrow of this rudimentary era.

FRANKISH LIFE by Gregory of Tours

"Charlemagne was great, but Pippin was a Shortie." In his new book, Gregory reviews the history of the Franks in a most interesting manner. Poetically, he remarks: "I also wrote some other books." Gregory also introduces to us a most translucent review of those mysterious, mist-shrouded days, when men were men and giants walked the still fresh, moss covered earth. This massive tome, a monument not only of historical creative writing, but also a grand encounter of man and culture, supplies our needs for a basic ground on which to stand. (Abbott Press)

DISCS

KADDISH E 16th St. Synagogue Cantor, Brooklyn

This piece, combining motives of tones as old as civilization and the latest of so-nicknamed underground music, not only presents to us our existence, but also acts so as to emphasize it. In its fragrant voices, one notes the work put into that quiet, however sophisticated composition. In its impact on us, we do feel, nay, become part of ourselves. Jewish values, reflecting life itself, resound in its tones, and in addition to moral importance, I find it, to use L. L. Morgan's expression, "a classic revival of truth and continuity."

And now, the best-selling novel of the year is finally in paperback. More than two weeks on the bestseller list of the Church of Latter-Day Scurves.

It's a story of power and passion, of greed and lust, of the animal desires which drive a major scientific institute; yes, it's

The Professor, including such strong characters as Melvin Goldblatt, the "freshman" president of the Institute trying to fight his way through the old bureaucracy to help the students;

Bob Gangran, the success-hungry metaphysics professor who'll do anything to get published, no matter how many graduate students work themselves to death in the process;

Linda McMuffin, the beautiful, yet typical, undergraduate who's too busy with her studies for men until she meets . . .

Juan Cortez, a handsome, bright Mexican cheated out of his own college education by a poor childhood, forced to work on Buildings & Grounds just to be near the famed Institute.

These are the people who make the Institute tick; who make life there more exciting than your humdrum, dreary existence could ever possibly hope to be.

PEARLS BEFORE SWINE

The California Conservatory of Music was known throughout the world as a place unequalled for musical instruction. Its reputation was due to a large extent to the many eminent musicians on its teaching staff, most of whom were internationally known performers. The Conservatory prided itself on maintaining a small but select body of students, all of whom were encouraged to relate to the members of the faculty on an individual basis if possible.

There was once a young violinist named Margaret who had heard of the Conservatory through the ravings of her mother, a woman who had been an accomplished (although limited) amateur musician. Often as a girl Margaret had wondered at how exhilarating it must be to study music at such a place, and ever since she chose to pursue the violin as a career, she had aspired to go there.

Margaret had made this decision at the age of fourteen, which was relatively late in life compared to a typical student at the Conservatory. Many of the students there were the offspring of professional musicians, and most had known ever since they were very young that they were destined for the stage in some capacity or another. Although Margaret's mother saw to it that each of her children took music lessons, Margaret never really had a major musical force in her life. Furthermore, she was very shy, and when her mother died at an early age, Margaret was reluctant to assert herself in her desire to play the violin. Being the oldest daughter, much of the responsibility of running the household fell to her, and it made her feel guilty to take time out to engage in playing the violin which she enjoyed so much. When this was combined with her natural insecurities about making her own way in the world, it made her decision to be a professional violinist a difficult one indeed.

However, once it was made, the decision was a good one. For although Margaret did not realize it, she had a natural playing ability the likes of which the world sees only rarely. On many occasions she had held her listeners totally spellbound, enraptured as they were with the beauty of her playing. To be sure, her playing was not always perfect technically, for Margaret had ~~not~~ yet developed her technique to its full maturity, but her audiences never cared about this as usually they never even noticed.

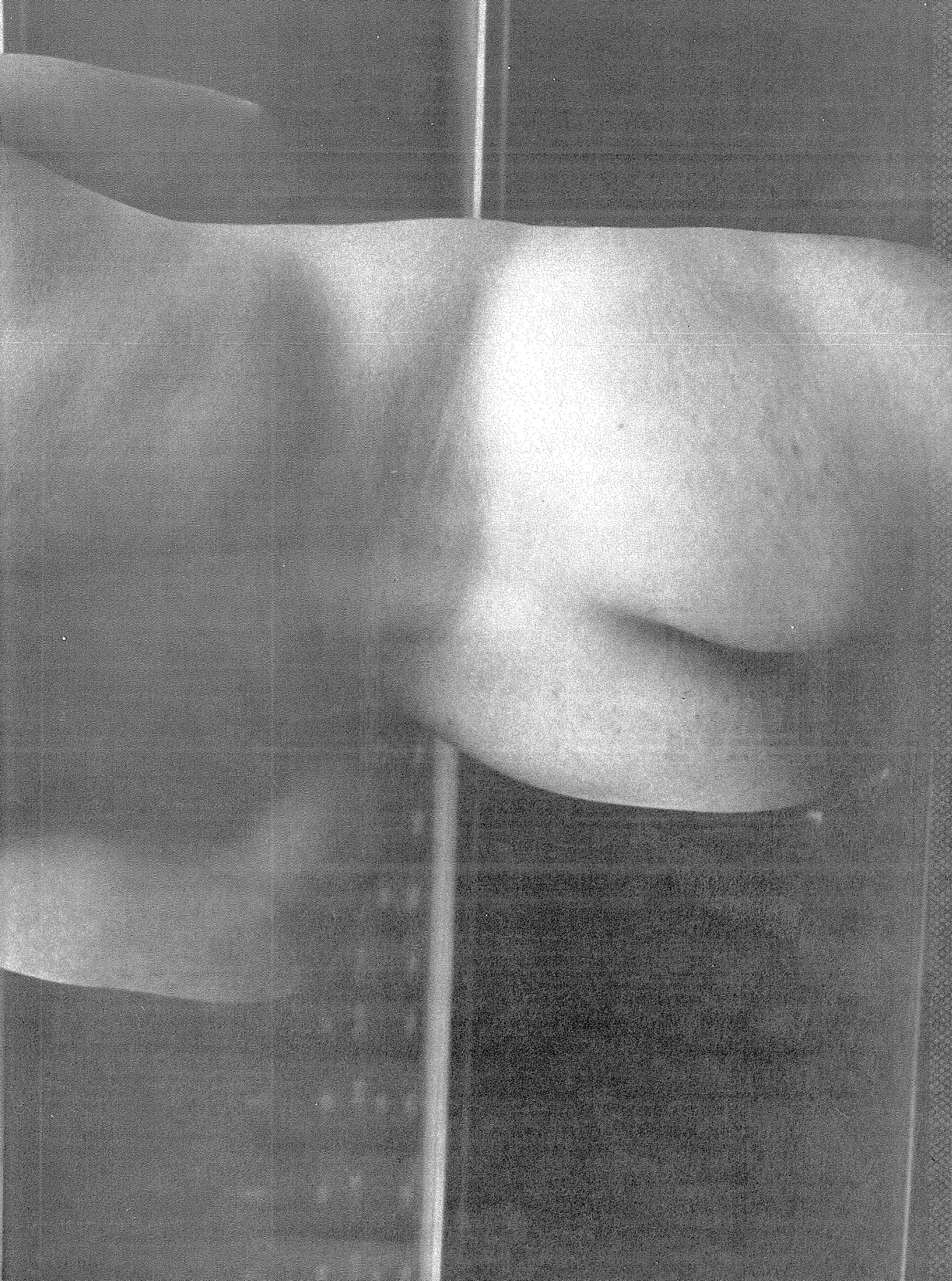
When it came time for Margaret to apply to the Conservatory for admission, she did so in the usual manner. This consisted of submitting a recommendation from her violin teacher and partaking in a number of tests of which the results were reported to the admissions committee. These tests consisted of sight reading, transcribing musical notation by ear, choral singing (even for those not destined to become singers), and an audition in which the applicant performed music of his or her own choice on his or her instrument of specialty.

By and large, though, those on the admissions committee felt that this procedure left them with insufficient information for evaluating an applicant's true worth. The recommendations from the applicants' instructors were universally good. (This, of course, is the tendency in any walk of life, but for the committee members the problem was aggravated since music teachers everywhere would like to boast of their students being admitted to the Conservatory.) Furthermore, the auditions always showed the applicants in a good light. They were always well rehearsed and certainly within the applicants' abilities. All in all, the admissions procedure allowed the committee to weed out only half of the applicants. Of those who remained (and Margaret was among them), about half again

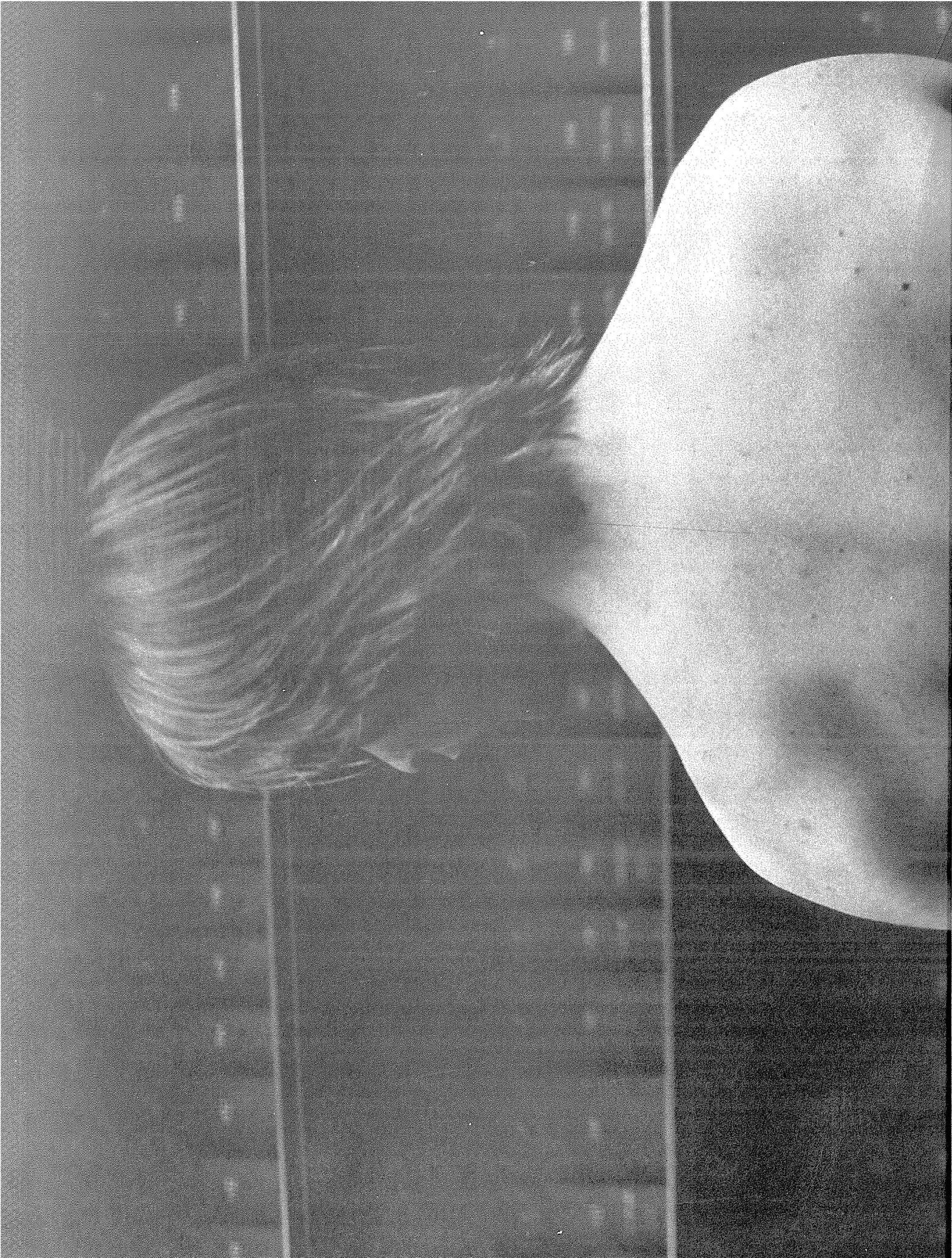
needed to be eliminated.

Now one must understand at this point that it was felt the judgment of the admissions committee should be rather strict. The competition to get into the Conservatory was quite keen, and those who were to be admitted were going to begin a very important transition period in their lives. Hopefully during the years of their study they were going to change from bright and talented amateurs into skilled musicians capable of earning their living by performing. They were about to enter a world in which the praise of high school audiences would no longer be enough to guarantee success, and the admissions committee saw itself correctly as the students' first encounter with this world. The committee members felt entirely justified, therefore, in the setting of their high standards reasoning that by disappointing an applicant at the time, they were probably saving him or her from a greater disappointment later in life.

But since the admissions procedure offered so little basis for discriminating between those who remained, they were required to take yet another test in which they would play selections for evaluation. However, unlike the auditions, this time the admissions committee chose the music and the applicants would be given essentially no opportunity to rehearse. Moreover, unlike the sight reading examinations, these selections were no mere exercise but intricate and complicated works such as one would expect to hear at a concert. The applicants were then to be judged by professional concert standards. Although the admissions committee considered all relevant information, it was basically the results of this test which determined whether or not an applicant would get in. For those who had made it this far in the screening process, all the other "relevant" information was irrelevant.







PIG JEWELS

When Margaret went in to take the test, she found herself confronted with one of the senior students of the Conservatory. He was one of many such people who had been assigned to conduct these tests as part of their duties as teaching assistants. Even though Margaret knew what the test was going to be like (she had read about it in the Conservatory's catalog) he explained the rules anyway:

"Since your instrument is the violin, you will be given three violin selections to play for evaluation. You will not be able to rehearse these, but you must play them as you confront them here on the spot. You are allowed to play each selection twice: the first time to familiarize yourself with it, and the second time to be judged as a performance. That is all. Do you have any questions?"

Margaret had none.

What the examiner did not tell her, however, was that he would be scoring her while she played. Each selection was worth twenty-five points so that the maximum possible total was seventy-five. It turns out that the majority of those admitted to the Conservatory scored above sixty on this test, with virtually all of them scoring above fifty. A score below forty-seven or so was the "kiss of death".

"Well then," he said, "since you have no questions I guess we should begin."

Margaret waited a moment while he got the first selection out of a box of sheet music marked "Violin". He had two copies in his hand, one of them being for him so that he could follow along without having to look over her shoulder. Margaret had never played this piece before, but it was straightforward and (at least for her) not overly difficult. Her first playing was not continuous since she would stop and start from time to time to "get her bearings", but her second playing went along relatively well, containing flaws to be sure, but adequately enough for a person who had never seen the piece before in her life until that moment.

"That wasn't so bad," the examiner said. "It wasn't perfect by a long shot but considering the fact that you are probably nervous" (which of course she was) "it was

played pretty well."

On a piece of paper out of her sight he marked down a fifteen.

Margaret felt reasonably confident at this point since her playing of the first selection went better than she had expected.

The second selection was one which Margaret had played before many times. In fact, she had even considered using it for her audition. She did not bother to play the piece through the first time, but simply played the first few bars to get it set in her mind. She told the examiner that she was ready to be judged and then proceeded to play the piece through with an exquisiteness and sensitivity that only she had.

The examiner was very impressed. "That was great," he said. "That was just great. You missed a note here and there and some of your runs were rather slurred, but otherwise it was absolutely superb."

On the paper he marked down a twenty-four.

Margaret of course was quite pleased at this, and she sat there anticipating the final selection with some eagerness.

This time, however, she was in for a rude shock. The third selection was a tremendously complicated piece that Margaret had always felt was beyond her abilities. She had seen her violin teacher and some of his more advanced students play it from time to time, but she had never attempted it on her own except out of curiosity. (She never got very far.) Now she found to her horror that she had to play it straight through as well as possible without even rehearsing, and the outcome would play a crucial role in determining whether or not she would be admitted to the Conservatory.

Margaret did not know what to do. She almost felt as if she were the victim of some cruel joke.

"Are you sure this is what you want me to play?" she asked.

"Certainly," the examiner said. "Why not?"

"I don't think I can play it, at least not without rehearsing."

"Well look, you get one practice try, and you are only being judged against the other applicants, not against absolute perfection. They are all in the same boat you are. So come on, take it carefully, bit by bit, and then play it as slowly as you

not be held against you."

Margaret was totally crestfallen. She saw nothing else to do but to begin playing. Slowly she lifted her bow to her violin and began to work on the piece measure by measure. Some of them she could play, others she could not play at all. After she had gone through them all once she collected her nerve to begin her second try, the one that was going to be judged. Basically it sounded much like the first except that there was more continuity owing to the fact that she did not stop at the end of each bar.

"Oh no," he said, "that was really too bad. I thought for sure you would do better than that."

He marked down a five.

Margaret sensed that she had done very badly indeed.

"But look," she protested, "if I were to play this in an actual concert it wouldn't be until I had rehearsed it thoroughly and felt completely at ease in playing it. This test really doesn't give any indication of how well a person would do in an actual performance."

"Well yes, that's true." (The examiner had heard this many times before.) "But that is not what the test is for. If you have to discriminate between a lot of good people to find out who are the better musicians, you can be pretty sure that those who can play spontaneously like this are going to be very good. Of course it does not mean that you are going to be bad if you can't, but the admissions committee needs some way to make a decision, and this is one way. Besides, the results of this test are not the only thing they consider."

However Margaret felt, and rightly so, that her chance of getting in was actually very slim. It was, in fact, non-existent; her score was forty-four.

"Is there any way I could take the test again?"

"Yes, if you think that your playing today was not representative of your true ability you can request to take it another time with a different examiner. Frankly though, what you had today is a good indication of what you would be getting, so things are not likely to improve simply by taking the test over."

Margaret saw that nothing would be gained by taking it again. She was

defeated. She tried desperately to keep her tears back since she was determined not to cry in front of this "know-it-all", and slowly she made her way out of the examining room. When she was alone, though, she wept bitterly.

"Down the drain," she thought to herself. That was where all her hopes, all her dreams, all her plans she had made for the last four years now lay. Down the drain. She found it ironic that five short minutes out of an entire lifetime could have such significance. And yet that is all it took. Five minutes. Her life would never again be the same. Amid the tears a flurry of emotions came swimming up to her consciousness: anger, betrayal, depression, gloom. She had given them her best, and they had taken it and trampled it in the mud. In five minutes her hopes had been dashed just as surely as if they had fallen under the headman's ax. In a whimsical moment she imagined that she herself was being led up the fateful steps of the headman's scaffold, all taking place in some ancient and distant country vaguely resembling Tudor England. As she knelt to place her head on the chopping block the headman with his evil black hood and long heavy ax asked her if she had any last words. "No," she imagined herself saying, "just make it quick."

Zzzaakk!

No, Margaret was not admitted to the Conservatory. A year later her skill had reached the point where she could have passed the entrance test with ease. However, by this time, her career as a violinist had begun to move in other directions. She was coming under the guidance of other master musicians and felt that attending the Conservatory would no longer have been in her best interests. As time went on, Margaret became a very well-known and respected violinist, a fact which was not surprising, considering her talent. She drew universal praise from critics, with one cantankerous conductor asserting that she even "justified the century." Ironically, the performance that prompted this remark included the piece that had been her third selection in the entrance examination.

As for the Conservatory, it never changed its ways, and to this day it continues to fill itself with students whose main distinction is that they were all exceptionally good sight readers at the age of eighteen.

—Jeff Hamilton



There are really no words to describe it. That magic connection between machine and man which somehow brings the impossible much closer.

Example? While investigating new sources of copper for their machines, B&G managed to misplace a swimming pool. Or rather the pool was still there, but the water was misplaced.

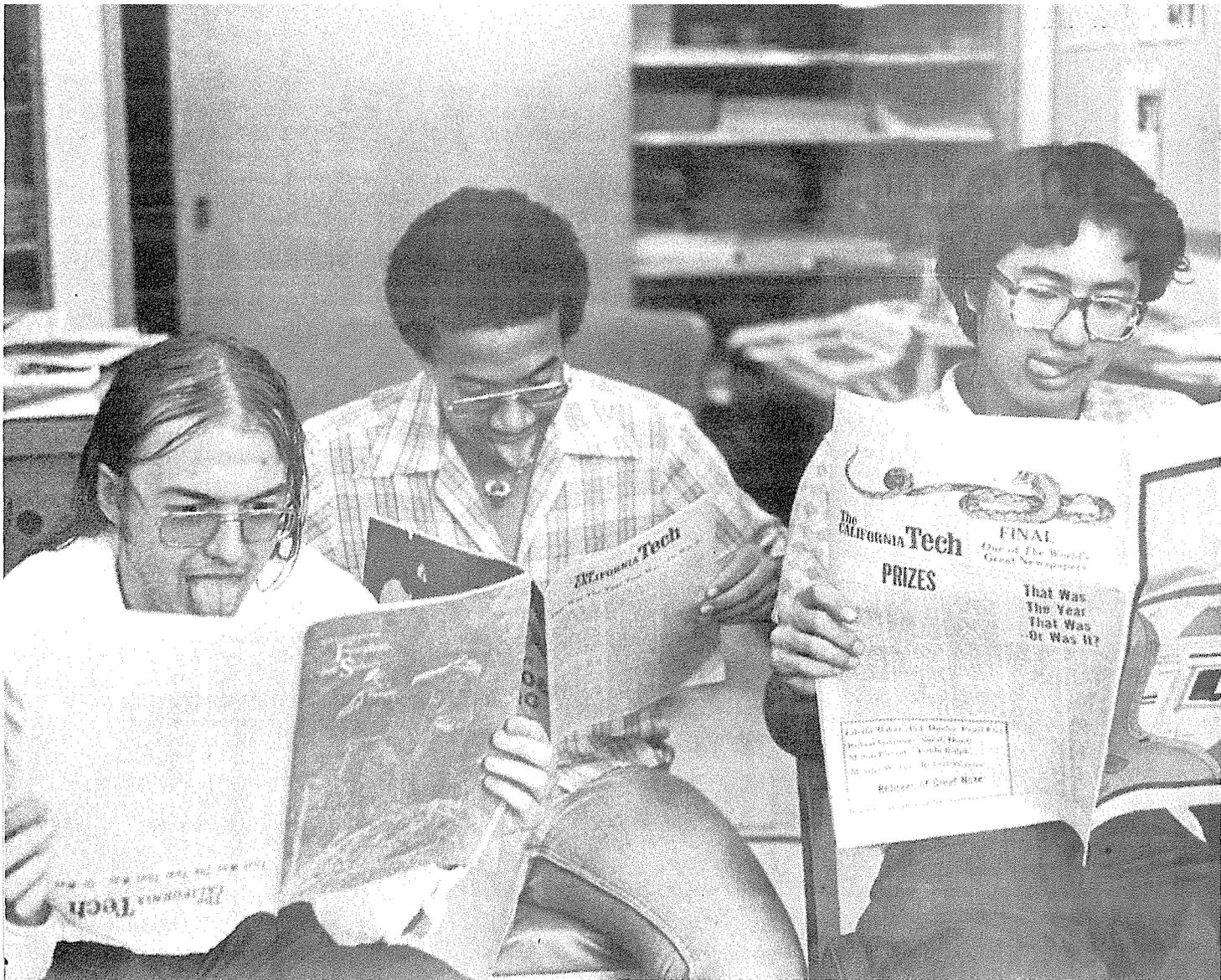
B&G planning came right to the rescue. Spring pruning was ingeniously rescheduled to allow for the gathering of forked rods with which to divine the location of the

missing water. The speed and efficiency with which B&G employees put off their assigned tasks to volunteer for the search was astounding. Drinking fountains, Coke machines, and endless cups of coffee were duly investigated for traces of the missing fluid.

Such was their zealosity that for weeks after the "25-yard pool" incident climaxed, B&G clones could be seen rambling about the campus, forked twig in hand. That kind of dedication between man and machine is rare these days, but at B&G, rarity is a way of life.

B\$G

There's No Explaining It!



THEY MAY BE GREAT GUYS AND WONDERFUL TECH EDITORS, BUT CAN THEY LIVE WITH BEING SEXIST PIGS?

by Cheap E. Shot

For the better part of a term now, Chiefs Alan Loh and Dave Younge, with Associate Eric Eichorn, have been working together on the *Tech*, Clones' parent publication. Eric Eichorn, the late comer in the group ("his technique is awful," cried one coed, "but the results are exciting") was a *Tech* editor before and a member of the legendary Tech Trio. The *Tech's* amazing success and popularity this term is directly attributable to his arrival at the paper. Alan and Dave recall, "One day this squirrely-looking guy walks up to us and asks us 'is this where I get my Big T?' From then on, the *California Tech* has never been the same." And indeed it hasn't. The *Tech's* fantastic rise led one knowing observer to remark, "Well, hell, it's

the only student paper on campus." A while ago Alan was asked to explain what the paper owed its success to. His reply, deep and incisive, was, "Well, errr, I guess it's because we don't print 'Marci' and 'Izzy' in 8-inch letters anymore." "That's right," said Dave; "That's right. Marci and Izzy. They're out—gone—forget 'em. In the dumper, in the dumper. Hello? No Marcis at this paper. No Izzys. No more; down the toidy, whoooosh."

Nicknamed the Tremendous Trio, Alan, Dave, and Eric have pretty much managed to keep the *Tech's* raving success and popular acclaim a secret amongst themselves. Recently they came under fire from an organization known as the Sisters Against Reproductive Activity, which

claimed that the printing of a nude centerfold was sexist. In the weeks following, the Trio started receiving unappreciative letters, including one calling them sexist pigs and another from a recently hired institute administrator. "Everything started going bad," said Eric. "I almost lost my girlfriend until I discovered a trick involving about a dozen pre-1978 RIVETS, a little mayonnaise, a rubber balloon, a can of Spam, soapy water, two whole beef patties... The other two were similarly concerned, not only about themselves but about the worsening condition of their friend and Tech hero, Eric... pickles, onions... They had just gone through the agony of seeing another friend an

Continued on 19

CPLUOZNEZELSE

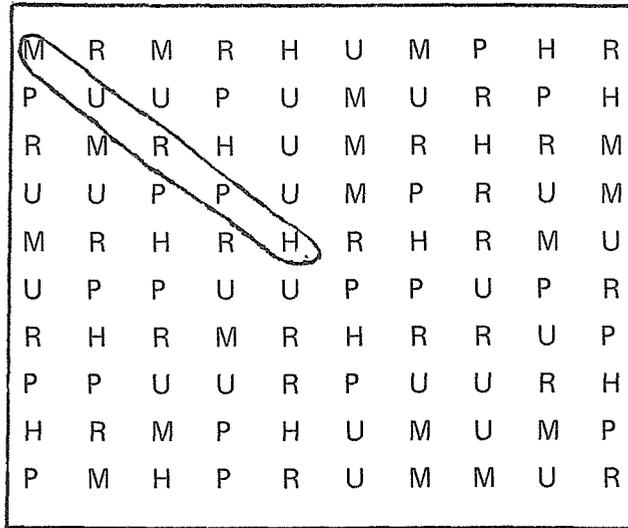
By C. Y. Achmet

The names of 20 prominent clones are hidden in the maze of letters. How many can you find by consulting the brief clues? The names read forward, backward, up, down, or diagonally, are always in a straight line and never skip letters. We have started you off by circling MURPH,

the answer to 1 in the diagram. The names may overlap and letters may be used more than once, but not all of the letters will be used. Super CLONES sleuths should be able to identify 15 or more names. Answers in next week's issue.

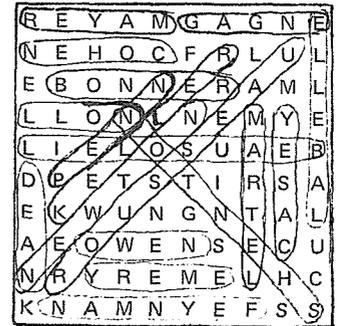
Clues

- 1 . Who
- 2 . is
- 3 . the
- 4 . first
- 5 . Caltech
- 6 . Prez
- 7 . to
- 8 . step
- 9 . in
- 10 . elephant
- 11 . droppings



Answers to last week's puzzle

1. Ray Beausoleil 2. H.B. Keller
3. Jenijoy LaBelle 4. Fig Newton
5. Marrie Casey 6. Dave Shenton
7. Lyman Bonner 8. Harry Gray
9. Richard Dean 10. Robert Gagne
11. Hardy Martel
12. Jim Mayer 13. Ray Owen
14. Dick Feynman 15. Ken Rousseau
16. Warren Emery
17. Don Cohen 18. Roger Noll
19. Joyce Penn



FEELING HORNY?

FOR A GOOD TIME CALL X2188

Our lovely ASCIM inspected and licensed girls will enable you to fulfill your wildest fantasies in our plush, well equipped (B&D, S&M?) studies.

Reservations are recommended.

For those of you who value your time too much to walk across campus for it, our convenient out-call service may be right up your alley. We will deliver anytime, and anywhere on campus. How about having an orgasm in Jorgasm, or maybe you religious types would prefer making it in Church.

Special discounts are available for Third Floor Millikan.

*QUAD FORMS, MAJOR CREDIT CARDS &
MOST FOREIGN CURRENCIES ACCEPTED!*



SEX EDS.

FROM 17

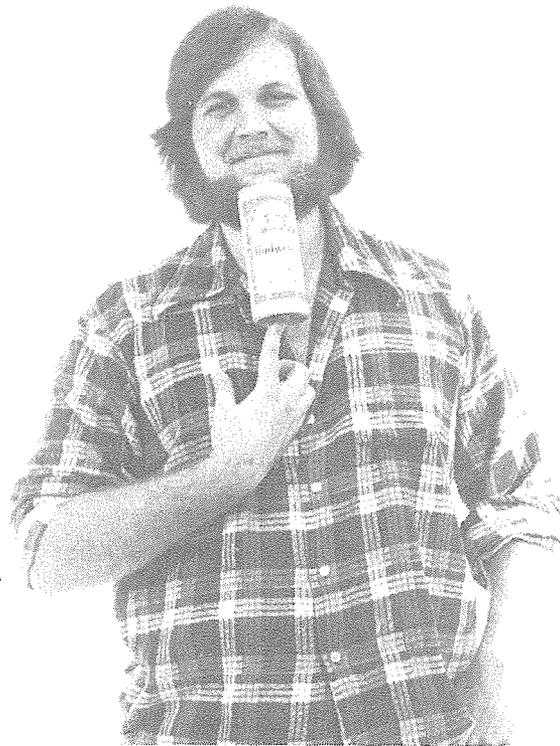
Tech editor succumbing to the bad craziness only one term before Eric arrived. John Deane ended up taking a psychological leave of absence from the paper, but is currently doing very well at the California Institute of Technology.

Actually, the Trio was rather shocked when they first learned they were accused of being sexist. "They're calling us sexist?" asked Alan; "That's patently (oink) ridiculous (oink, oink)!" Two weeks later, the Trio got together to talk about the feminist attacks. "I never have any fun anymore," lamented Dave. "I used to really enjoy going out on Friday and Saturday nights and treating women as sex objects."

In an interview, the three editors were asked to give their opinions of the women who had attacked them. "Dumb cunts," shouted Eric. "Stupid slits," chimed in Dave. "Well, they're really poor spellers," added Alan, "just awful."

Amazingly, the Trio has maintained their sense of humor. In the same interview, two of them gleefully reached down to their pants when asked to explain the Trio's nickname. Meanwhile, Alan had become unavailable for comment.

Eric likens this situation with a popular children's story, as he does with everything nowadays. "You see, it's like this. There are these three pigs, right; that's us, and this wolf, that's them, and the wolf juffs and she puffs and ends up eating all but one of the three pigs." "I wish!" comments Alan while the two other editors sneak a grin at each other.



THE PREZ REDUX: BUT HE STILL 'LOOKS LIKE A GERBIL'

Looking at the disheveled figure in the lumberjack shirt and jeans, one would not suppose that he wielded such power. As Ray Beausoleil sits in his favorite watering hole (he invariably orders a beer pitcher full of whiskey sours) he doesn't look at all powerful.

Beausoleil, 21, a native of Phoenix, came upon power in the form of the presidency of ASCIT, a small corporation, with about 800 shareholders in southern California.

Ray claims he came to southern California to study physics. Though from his easy California manner, one would think it was because he belonged amongst the smog and freeway, instead of out in the desert and clean air.

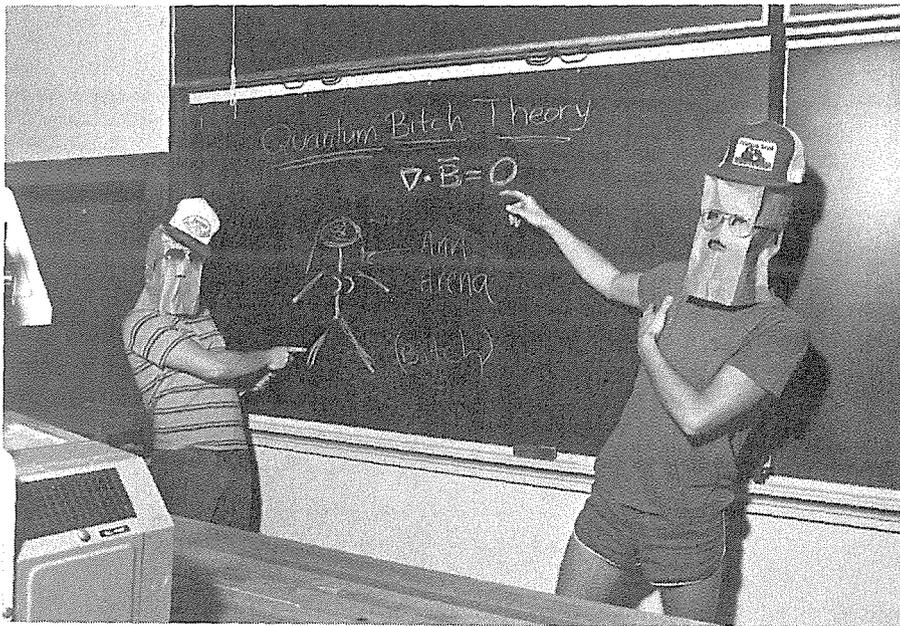
The wife of a close friend once referred to him as looking "like a teddy bear... a big teddy bear." With his beard and longish hair, he actually looks more like a gerbil. From his easy manner with the woman bartender and the ladies in the Friday afternoon crowd, one can see that whatever animal he resembles, women are attracted to him. (He consistently denies rumors of an involvement with any of the female members of the Board of his

corporation—even though one sued him for assault and battery.)

Ray speaks with genuine interest of his hobbies: drinking and sheep ranching. Drinking was something he learned when he bought his first six-pack of beer at the age of fourteen. He claims that when he first moved to southern California (to take up surfing, one would guess), circumstances forced him to drink in the neighborhood of a quarter keg of beer a week. He took up sheep ranching as a way to escape from the pressures of business—looking at him it seems to have worked.

As a kid who was brought up in the seventies, Ray claims he doesn't use any drugs. "Just a bottle or two of one-fifty-one to relax at the end of the day; he bring us some more popcorn, would ya." From all this drinking, one would think that he would have a weight problem. "Nah," he says with his usual candor, "I keep it off by avoiding bar fights." When one of the folks at the table expresses disbelief at this, Ray holds up his hands, and says, "Look, no scars—have I ever lied to you?"

When asked about his plans for the future, all Ray says is "Let's drink ourselves under the table."



SCIENCE MARCHES ON: A NEW BITCH THEORY

With all the success that physicists have managed in applying the field concept to their theoretical work, it is sometimes puzzling that other disciplines have not utilized this very ingenious tool. Finally, however, after years of waiting, Caltech has lured two field theory specialists to the renowned laboratories of Beckman Behavioral Sciences. Dr. Quinton Queef, a leader in Quantum Bitch Theory, and Dr. Samuel S. Megma, who specializes in Hardon Field Theory, have taken up residence as two of the newest and brightest members of the Caltech community.

Dr. Queef claims that the simplicity of Dr. Bitter's theory is, in fact, the beauty of it: "When I met Dr. Bitter two years ago, he was still gathering evidence to support his ideas. This year our working relationship has blossomed, and now that I am here at Caltech there is potential for some great advances in Q. B. Field Theory." The basic law of this theory is very simply stated: $B =$ "non-bitch" or "conjugate bitch." So the given equation indicates that there exists no monopole or point-source of non-bitchiness. In layman's terms: "They *all* are" (otherwise stated as "They're *all* bitches.") Bitchiness is quantized, and the lowest state is nonzero, having a small but detectable amount of bitchiness.

When asked to cite evidence in

support of his stand, Dr. Queef simply replied with the challenge, "Name me one monopole!" To be honest, I was unable to put forth an immediate example. Then Dr. Queef pointed out the years of agonizing work which Dr. Bitter has done in documenting his original postulate. "The man has sacrificed himself to brutal abuse at Caltech in the last four years alone trying to once-and-for-all prove his point. He even has associates doing low-temperature on B-fields in Minnesota." Queef did claim that all his experiences were consistent with the theory. His earliest notable experience came at age seven at the hands of a 9th-grad baby-sitter. This girl had him use a screwdriver (not the kind you drink) on her in a very unimaginative manner. When he got hard (a very precocious youth), he thought he had to go to the bathroom. It wasn't until five or six years later that he realized what he had been doing, but all along he suspected that something was wrong with that baby-sitter and the aching balls she had caused him.

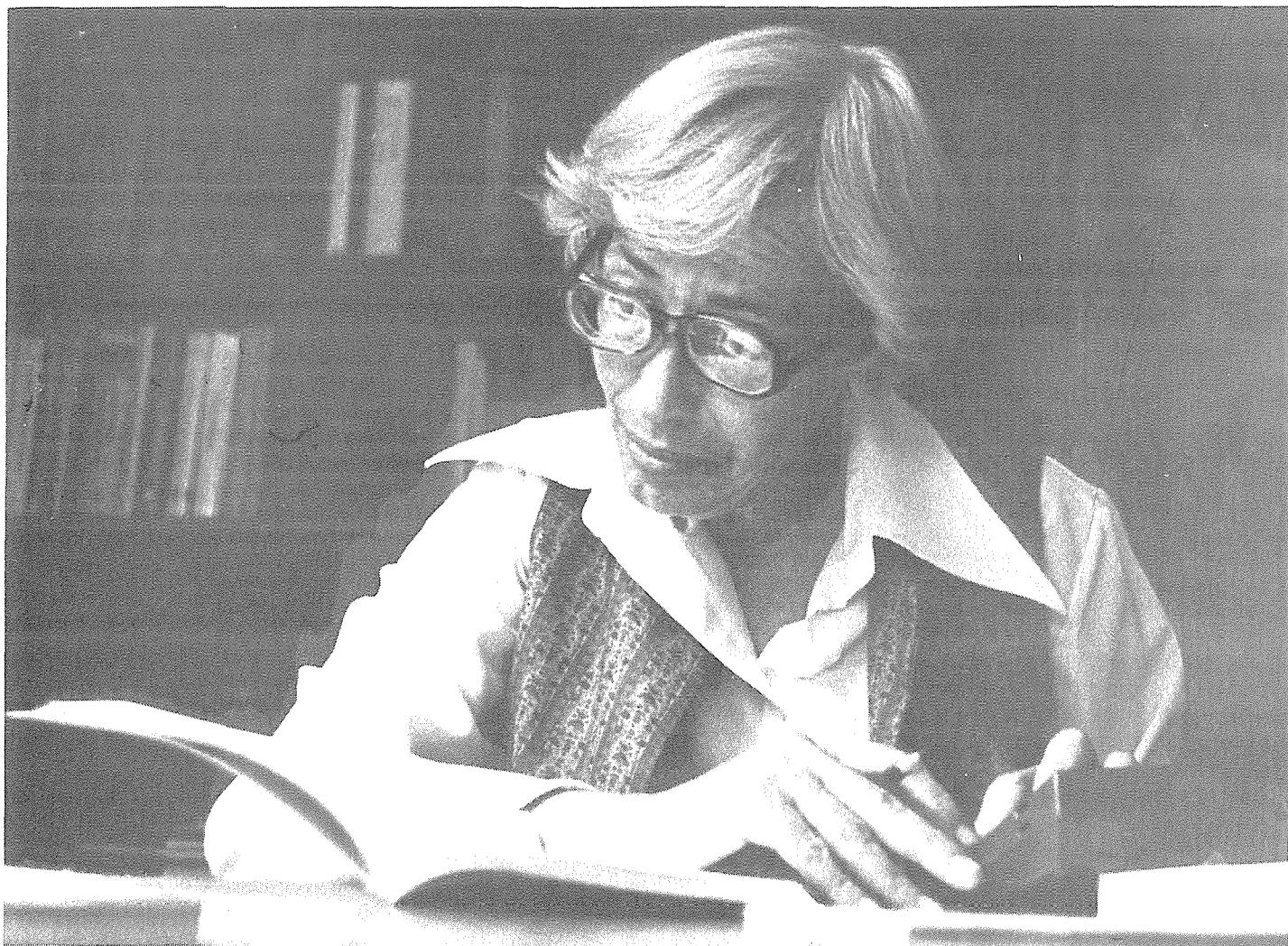
Dr. Queef admits there are still problems to be worked out of Bitter's theory. Many foreign researchers have claimed to have located and verified the existence of monopoles. For example, Dr. Poon Tang, a Chinese specialist, claims to have documented many such cases. But Queef still insists that such documentation is "pure horse-shit."

There is an inherent problem in the detection of a monopole. You see, a monopole will never burn you. BUT...you may *think* you have found a true monopole—it may last weeks, months, or even years. Then—SCORCHED!! A suspected monopole can burn you in a minute; just turn your back and it may be all over. The uncertainty is always there."

Very closely related to Q.B. Field Theory is a new and exciting development known as Hardon Field Theory. Again, the early theoretical work must be credited to Dr. Bitter, but Dr. Samuel S. Megma is now leading the way into more advanced research into the nature of hardons. Dr. Megma summarized the theory rather well for me: "No one really knows who first discovered hardons, but we do know for certain that they exist only in excited states. The problem in studying them is that they tend to decay in quantum leaps... Hardon emissions are known to have extremely high tunneling coefficients, with obvious consequences. Finally, some of our more recent findings show that lack of satisfactory decay of a hardon results in an alternate state known as "blue ball." Blue ball states have been known to decay at an extremely slow rate."

Dr. Queef and Dr. Megma have already encountered some interesting problems in their research here at Caltech. They have noted a marked lack of hornions here on campus, yet somehow the Hardon Field is still quite dense—a paradox which is, as yet, unsolved. Also, Dr. Megma has had an extremely difficult time measuring hornion levels here due to certain postulated anti-particles known as "anti-hornions." Even Dr. Bitter is still a bit puzzled by this problem, but he has proposed that anti-hornions do not create hornions but actually accelerate their decay. Instead, they result in the creation of a very strange anti-particle which has been labeled the "vomiton." Much work is still needed in this area.

The two new members of Caltech's elite research staff say that they are honored to be here on campus. They expect that next year's record number of female freshmen could give quite a boost to their researching capability, and they are certain that within the next couple of years they will be able to establish once-and-for-all the credibility of Dr. Bitter's theories.



MURPH AND MILDRED, THE NEW FIRST FAMILY: BUT WHO WEARS THE PANTS

When Dr. Marvin Goldberger accepted Caltech's offer of the Institute's presidency, the CIT Board of Trustees didn't realize they were getting two for the price of one. For, while Dr. Goldberger—'Murph', as he is affectionately known to everyone from Jimmy Carter to David Duke—comes to work each day, handles the job's paperwork, and attends the endless banquets, receptions, and ceremonial dinners, his wife, Mildred, is actually handling the top-level decisions, steering the college's goals toward fulfillment. "I thought being president would be just like my old job at Princeton," explains Murph; "you know, bombarding tin-foil, figuring out perturbations, that kind of crap. But when I got here, I found out it was a whole different story. Everything's so much harder at Caltech, especially since I'm used to being at the front of my department. I mean, I really thought I was hot shit before; physics

has always come so naturally to me. But here it's all I can do to keep up with the new discoveries. It seemed like I was always falling behind and I was getting about ready to pack it in . . ."

Mildred nods. "Finally," she says, "we just decided that getting the material down was more important than Murph killing himself trying to stay afloat with all the other parts of the job. That's when I took over the administrative duties of the school and started running it my way. Of course, Murph still keeps all the physical trappings of the job, but I'm really "the Big Gold M" the students talk about.

How is Caltech's silent steward faring with her top-level decisions? "Are you kidding?". Mildred lets us know, with obvious pride, "Why, this last year alone, I've raised female and minority enrollments—two of CIT's biggest problem areas—more than 28%. And, look, look over here." She

points the lawn of Tech's Olive Walk. "When we got here, this grass was disgusting. Now it's a bright natural green! Oh, I know what you're thinking: that was winter, this is spring, right? Don't you believe it, buddy. In Southern California this is nothing short of a miracle. Mental concentration, that's what does it."

Do the Goldbergers think that Murph will ever catch up on the physics program far enough to resume his presidential duties? Here, the usually concurrent couple split.

Murph: "I don't know, really. The studies here are such a bitch that right now just stayin' alive is a big enough challenge to keep me busy. And, holy Chist, next year, I'll be on faculty evaluations instead of hire/fire grading. I really don't know."

Mildred: "I hope not. This job is a blast!"

AHMET ENULU

Dr. Hardy Martel, the Trustees' Secretary and Exec Assistant to the Big Gold M, found himself in the same boat recently with E&AS' Dr. Donald Cohen when both fell victim to mischeivous RF'ers with the legendary CIT flair.

Martel was lured to Millikan Library by the GDBG (of "screw Millikan" renown) and instructed to put on a breathing-screen mask. After an unplanned ride to the top of the monolith's elevator shaft, he found himself being buried under several hundred pounds of styrofoam packing pellets! As the pile reached his waist, he commented, "I hope you have more than this," but became strangely silent as it grew to submerge his chin. As if to add insult to injury, the Moles then sent Martel down to the third floor Administration Offices and opened

the cage doors, spilling the hapless prof and his cargo into the hall.

Dr. Cohen, on the other hand, was not besieged so directly. On coming to his office a sleepy Friday morning, Cohen found his room missing, replaced in the night by another two feet of wall. The joke was executed the night before, when the RF'ers plastered over a form covering Cohen's door. After exactly matching the paint of the hallway to the new section of wall, the industrious pranksters executed the *coup de grace*—a picture of the good doctor, captioned by his career in academia, followed by "Professor Emeritus, 1979—." Cohen's first order of business for the day then became some down-home swinging with an ice ax.

Dick Dean and Brock Fuller, who did that disastrous gig in *Ma II*, have not seen the end of it. It seems the audience was so unhappy with the series of shows that they are demanding their money back. The forms are in court for a class-action suit, charging that they were taught French, not linear algebra, and demanding \$50,000 in damages plus \$50,000 in punitive damages. The famous comedy team has a good chance of getting off, though, since there are fewer and fewer eyewitnesses.

The publicity about the suit has put damper on advance ticket sales for each's upcoming solo act. Only three people have written in for Dick's *Ma 5*, in which he does his hit single, "Snyder's Theorem" and a mere five have signed up for 'Brock the Rock's *Ma 108*, in which he does a new arrangement of "Cartan Blues" which went over so poorly in *Ma II*. Know a good lawyer, boys?

"You Must Be From Tech"

by Bill Graham, Marc Wold, & Doug Tally
(to the tune of "Go to Hell" by Alice Cooper)

For doing your physics problems all through the night
For being a nerd
And getting all the answers right
For all of the coeds that you have put to flight
You must be from Tech.

For spending your time in Jorgenson constantly
For gaming until you think it's reality
For choosing to be a living obscenity
You must be from Tech.

You're someone who's never had a shower
You even make Jim Mayer sick.

You borrow your best friend's books and then cut his throat
At parties you eat so much you begin to bloat
You memorize every postulate Feynman wrote
You must be from Tech.

You're something we call a social monster
You're basically a piece of shit.

For doing all your physics problems all through the night
For being a nerd
And getting the answers right
For all of the coeds that you have put to flight
You must be from Tech.

"No Friction at All"

by D. C. Younge
(to the tune of "FM" by Steely Dan)

Hand me a pencil, mama, we'll square the sine
Give me your calculator; it's motion time
The rope don't seem to mind the tow
As long as the μ is low
Nothing but pounds and newtons
'Cause string and momentum are conserved.

Give me some friction forces; the rope's too fine
Lay down some heavy masses, all in a line
The rope don't seem to care
That it's light
As long as the μ is right.
No friction at all

No friction at all

No friction at all

Physics!

Shoot off a tough projectile: it falls real far
Figure the friction forces on a crashing car
The brakes didn't seem to work
At all
Because μ was much too small.
No friction at all

No friction at all

No friction at all

Physics! (No friction at all . . .)

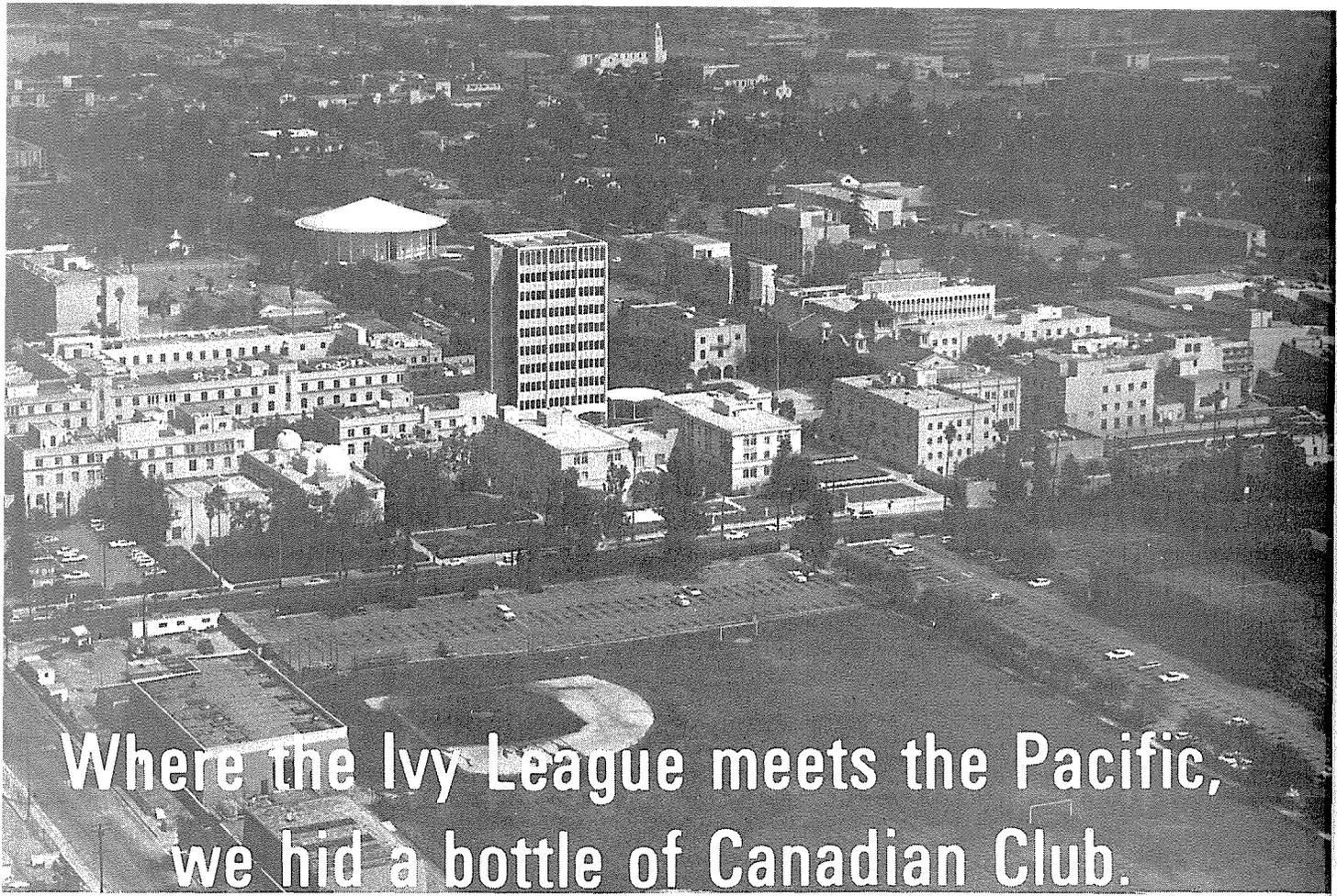
Caltech's



WANTS YOU

(as an experimental subject)

Despite our excellent reputation (*no* dissatisfied subject has *ever* left Baxter Hall) we are having trouble finding cooperative experimentees. We really don't want you to force us to resume the early-morning raids on the houses (theyre *so* unpleasant), so why not make it easier on yourself and your fellow students and come to us. Contact Charlie (Scissors) Plott or one of his associates in Baxter Hall before we come looking for you.



Where the Ivy League meets the Pacific, we hid a bottle of Canadian Club.

Caltech.

If you ever wanted a good excuse for trekking to this beautiful campus in Southern California where the geniuses of the world work, train, and play, now you've got one. Because somewhere on the Caltech campus we've hidden a bottle of Canadian Club.

Ready for the search? OK; start at a tree which holds more than memories of the old building which used to be next to it. Pull out your trusty compass (for you geometers, we mean the other kind) and head north, detouring when necessary, but always looking for an X inside a square. When you find it, step on it and assuming your height to be 20mm for each year of the Institute's age, look 30° east of north and frame a window. Find the number of the room that window is in and walk up that many stairs in the "House that Mudd built." Enter the nearest floor, note its number and descend.

Still with us?

Add the floor number to the building's mail code and head for the place where your sum is the mail code. Enter from the sunset side and walk straight until you meet a picture. Salute the subject with "The Best in the House," then add the year of the portrait to its property number. Prepare to take that many steps (assuming the same height as before): $1\frac{1}{2}$ steps north for each year the campus phallic symbol was stipulated to remain a silly millimeter

east for each year Caltech's chemists have had their appropriately-named house of worship; 1 step south for each of CIT's Institute Professors; and, the rest west.

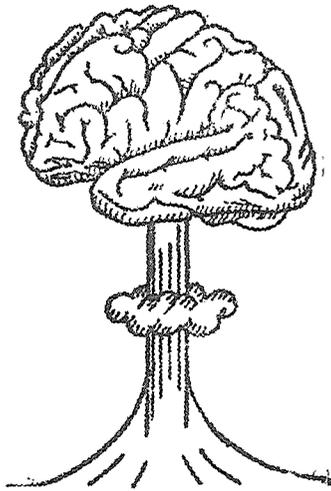
Descend halfway.

Descend half of the steps available to you and enter the nearest door. Bear east, turning left, right, left, left, left, right, and right (including forced turns). Continue straight after that last right turn. Get to the highest point accessible with just the steps there and look for an arrow. Egress and follow the arrow to a hydrant. Go to the -2nd floor of the building dedicated when the hydrant was a year old (by elevator) and enter the fifth door on your right as you face east.

You're getting warm.

It's turning time again: the first right, the second right, the first left, the first right, the first left, the first left, the first right, the first left, and the second right. Head west to the first door on your left, go up or down three levels, and exit. Go down four steps, take fourteen steps to your right and look south. There's only a little dirt between you and the next visible wall, and a few inches down in some of it is a long, tall fifth of a gallon of 6--or perhaps by this time, 7--year old blended Canadian whiskey. Those who would prefer to track down the elusive $Fe^X dx$ can score with C.C. at any of Pasadena's bars, restaurants, or liquor stores with the simple words "C.C., please."

from the



cerebrum

"Hey nigger-boy where're you going?" A voice behind me, I turn to see what's going on. A white man trots up to me. "Hey nigger-boy" he repeats, how do you like the sound of that?" I turn away from him and keep walking. "Better get the fuck out of here!", he says and perhaps adds something more, but I don't hear it. I walk away from a fat middle-aged white man who called me nigger-boy. A while later I turn around to see what street it is, in order to relate the incident more fully later on, and am a little relieved to see that the white man is gone. I get the name of the street, but a few blocks later I find I have forgotten it entirely.

That was the first time in my life a white man really called me a nigger to my face. I didn't like the sound of it. I hated the feel of it, but I walked away. I had made up a couple of nick-names for fellows in my house based on rhymes with their names and one of them had come up with Armando Coward for me. I pretended to be mad at him, saying he had over-stepped the bounds of his authority, but actually I wasn't much bothered by the name. I was willing to accept the fact as true. It didn't hurt me at all to be called Armando Coward, until the name came into my mind as I walked back south to Tech on Lake Avenue after this incident.

I am not going to write a treatise on race or courage, or anything else.

I am not going to write an analytic, or even a structured, work at all. I do not expect to see this letter published, especially as this is Rivet-time. I would be lying if I said I didn't care whether it was published or not. I would be extremely pleased to see it published, but I don't expect or need it to be. The letter column provides an institution to which I can write the letter which I want to write but don't have any person I want to write it to. Sometimes talking to a brick wall serves a purpose.

I was going to write a letter to the *Tech* before the white man called me nigger somewhere on northern Lake Avenue. I was going to sign it "El Busto" and include a commendation of everyone involved in the sex-exploitation debate for providing an amusing little argument and the theory that no one had commented about the professor who didn't get tenure because we automatically set aside issues that we sense are "too big" from the conscious action agenda. I was thinking of denouncing the "intellectual elite" and analyzing Tech psychology, especially the concept of "the real world". I would have gone on and on expounding and ranting without ever giving a clue as to where, if anywhere, I was serious.

Of course I use "would have" loosely. There are all sorts of things that I'm always "going to do" but never actually do and the letter was as nebulous as any of them. I no longer intend to write that letter or think I should. I am sending this one because the fact of the incident is something I know is more important. More important than that this can't get published, or that my grammar and spelling are bad, or I'm losing my intelligence, or it's incoherent, or I'm not eloquent anymore or never was. I don't care that all these extra words (that are as valid an indication of my reaction as there is) clutter things or confuse the issue in the eyes of the hypothetical critic. I want this letter to be real, not realistic. It is true. It happened.

I hear people shouting "more!" I am writing this in the Lloyd House library (it is filled with cross-outs (I mis-spelled "hear" as "here" for example) and I will either type or copy it over later) and tonight is the night of the Spring Extravaganza. I just heard someone outside

commenting in disgust "they're ugly bitches". Nevertheless, the event sounds successful from a distance. I haven't been to see for myself. The Black Students Union tried to hold a party last night, that was not successful. They had invited their counterparts from Occidental. None came. It seems it was too close to finals for them to spend time partying over here.

I just realized something awful. I am beginning to remind myself of Duncan G. Mahoney. I must be in poor shape indeed if my prose now imitates his style. Originality having collapsed from lack of skill to support it, even a half-healthy literary subconscious would find a better model than that to attempt to copy. Maybe it's just that chaos is chaos, one disordered style of writing looks in overview like any other, just like the macroscopic identity of many not-specifically-arranged states that is the basis of the entropy phenomenon.

Returning to the party, they had expected a number of women among their Oxy guests, and without any, it just collapsed. I left fairly early on. I don't know how to dance anyway. In thinking about the party I'm tempted to say I deserted. But the somewhat grandiose sound of it loses its comic appeal for me when my mind returns to that white man calling me a nigger-boy. I find nothing funny in being charged with deserting my race when I ponder the latter incident. I don't know whether a brave man would have responded with words or violence, or both or neither. Maybe he would even have walked away, but he would have been prepared with his courage.

It occurs to me that I described the man who called me a nigger-boy as white and neglected to point out that the fellows in my house who were involved in the nick-name business were also white. I was going to go on and talk about an incident of race-discrimination ("no room at the inn") on an eclipse trip in Washington; it is the only immediate one to me that I can recall, and other things. I have again changed my mind, however, largely because I feel I have been writing long enough to suit my purpose.

On a Gel field trip I took a detour to avoid a barking dog who

Continued on page 14

Shaffer Letter

continued from page 7

find . . . nothing! The worst! He, or they, wanted to draw me out into the open, into the light where I would be more vulnerable. By this time there was no doubt in my mind that I was being paid a personal visit. My spreading fame in the past few weeks has rendered it impossible for me to take a walk around campus or the outlying neighborhoods without receiving some sort of recognition. My existence had drawn some horribly sick person out from under his rock to come and teach me some bizarre lesson. It occurred to me that I would be an excellent target for bullets if I stepped out under the porchlight. After all, Harvey Milk was killed for less, and he understood the world so well that he made plans for his replacement before the inevitable assassination occurred. Knowledgeable people have predicted that I would be shot. (Dear editors, I am remembering you, I looked 'knowledgeable' up in the dictionary to make sure I wouldn't misspell it and suffer the same fate as the hapless feminists who wrote you two weeks back. Since when does spelling count at Caltech? Correcting someone's language is a cheap way to trivialize an important issue.) [Since you digress, we reply: your point about spelling at Caltech is well taken, but incorrect. In yours, theirs, or any other letter to this publication, the grammar, syntax and spelling are left intact and *exactly* as written if there are any doubts about whether the writer would welcome corrections, or are corrected if, as in your own case, the writer indicates that he or she cares, and simply makes a careless error along the way. Also, it is a long-standing journalistic tradition that 'sic' and other indications are utilized to indicate that the error, indeed, was that of the author of a given piece, and not that of the newspaper. The fact is, this method is used mainly when, in the opinion of the publication, the writer of a piece has attempted to use verbiage that is beyond his or her level of skill, and has blown it. In other words, if you want to verbally

snow a newspaper, you'd better do it right. Okay? —eds.] But anyway, getting shot wasn't my greatest concern, far more likely I would be met by an adventurous rapist looking for an exotic thrill. But fear exists only to be overcome. I stepped out onto the porch.

I wasn't far wrong; it was a psychological rapist, a flasher. There he stood, tall but flabby wearing nothing but a T-shirt pulled up over his head to hide his face, he was displaying what Sylvia Plath so aptly described as looking like a turkey neck and gizzards. My fear evaporated and turned to loathing. Without thinking I cried out, "Get the hell out of here." On second thought, I grabbed an empty flower pot off the porch and threw it at him. Damn, I hadn't taken time to aim and missed. By the time I picked up a potsherd to get a second shot he was over my fence into the next yard. I really regret not inflicting any physical damage.

Well creep, you hid your face from me because I would have recognized you as one of my classmates so I know you will read this in the paper. The symbolic significance of your act is not lost upon me, but it is redundant; I need no reminder that I am living in a male supremacist society. I have been fully aware of this all my life but will never accept it or quit working to change society. By the way, were you surprised to find me in jeans and a T-shirt? Did you expect spike heels and glitter perhaps? Do you secretly fantasize about what the life of a transsexual must be like? Do so no more, for I will tell all. It means getting up and going to school when you feel so sick you would rather stay in bed in fetal position. It means going out in public every day, even when you look like death warmed over and know it. My face looks much older than my twenty three years yet I take it out into the day and display my wrinkles and circles like the battle scars that they are. Perhaps this long night will leave me with another mark. But at least my

life is lived out in the open, unlike yours, you who sneak around in the darkness and hide your face while performing your sick deeds. So don't gloat so much that you have managed to blight a small part of my life. I am graduating from this institution after only three years despite having to withstand unheard-of psychological and physiological stresses and will forever be your superior in ways you cannot fathom, even though I am now just a strange and unsettled woman, writing along in the dead of night and listening to the buzz of a fluorescent desk lamp.

Now that my little story is told I can hear the murmurs in my reading audience. Why did she make such a big deal about an isolated event caused by a single deranged person? But the tale doesn't stand alone, I could have written just as much about the person who once recommended me for a scholarship and later refused to write me a job reference due to "ethical considerations". Or, just as well, I could have written about all the people who once claimed to be friends of mine but will no longer associate with me. Each story is unimportant in itself, but the summation of all of them defines a valid experience.

Yet, lest I leave the false impression that my experience on campus has been all bad, it is also true that I have made more new friends recently than in the past several years combined. It would be impossible to list all the faculty members who have helped and supported me because this would include practically all the biology division and more besides. Not only that, but I am one of the few people who can expect a friendly smile wherever I go, in Spalding, in Dabney Hall, the Health Center, the Library . . . Although I am not the person quoted in the May 18 *Tech*, it really is true that Caltech is like a warm friendly family. But it is also true that every family has its share of Uncle Ernies.

—Joy Shaffer

Random Numbers

giant unidentified flying object in the shape of a doughnut came slowly out of the sky and descended slowly until it was poised over Millikan Library over at Caltech. The round object then descended until it rested about the base of the library. It then began to bounce up and down until a ring of red and yellow lights began to flash wildly. It then ceased all movement for a brief period before finally rising out of sight. Campus officials reported no damage to the library aside from finding a slippery rubber coating over the surface of the building that had to be removed and was promptly purchased by the Trojan company. The Guinness Book of World Records and the Masters and Johnson sex clinic both had representatives present. (Didn't know I had it in me, did you?)

CALTECH BIOLOGIST DISCOVERS A TRUE

APHRODISIAC

A noted Caltech biologist was last seen this morning running from his lab yelling "I gotta have a fuck" and wearing nothing but a lab coat. After flashing four secretaries, who all later attested to the validity of his discovery, he was seen running in the direction of North Hollywood. One secretary said when questioned later, "I've never seen anything quite as large, not even a zucchini." Authorities are withholding the name of the biologist pending the notification of his next of kin.

WATER SAVING SUPER SUCTION TOILET INVENTED AT CIT

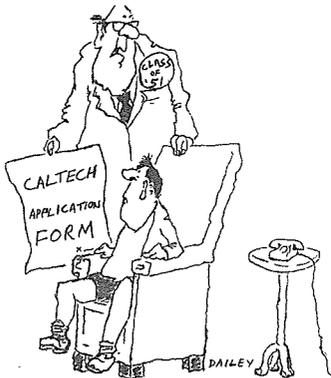
A noted Caltech Hydrologist recently invented a toilet that uses only one fifth of the water used by normal toilets because it uses the principle of super suction. He reports that his biggest problem so far has been the unexplainable disappearance of his lab assistant who has not been

seen or heard from since the last time he was running tests on the effectiveness of the toilet. Concerning the disappearance, the scientist said, "I heard this big slurping noise and looked into the lab but he wasn't there."

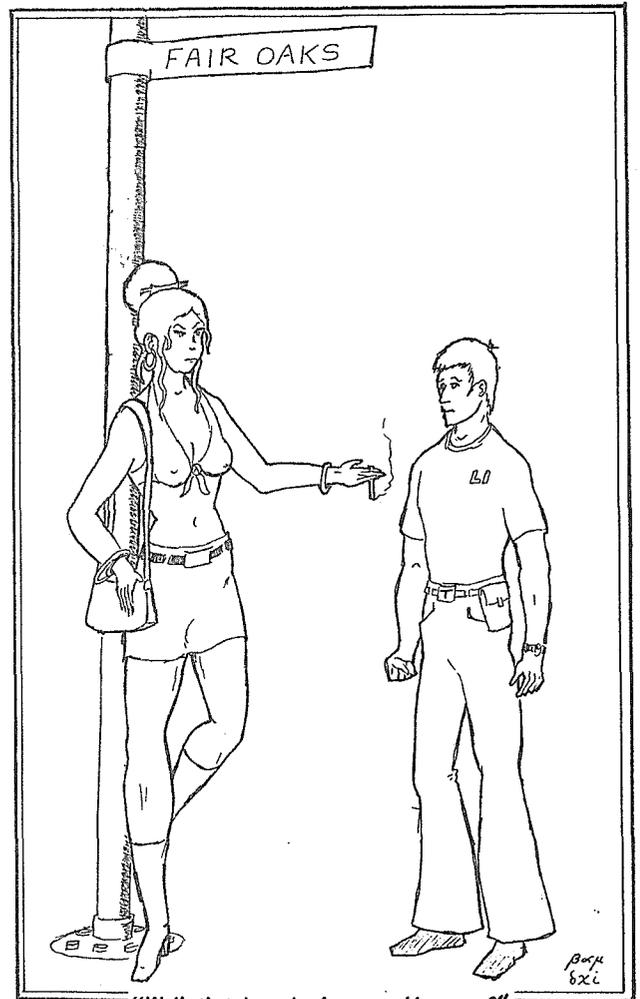
CLONING PERFECTED AT CIT

A Caltech Senior has reportedly perfected cloning. While he has declined to reveal any of the secrets of his process, he did say that, for a limited time only, he would be offering clones of either Cheryl Lad, Jaclyn Smith, or Suzanne Somers at very reasonable prices. Unfortunately, he said that he would only be dealing with the other students at Caltech in an effort to keep the initial demand within a reasonable limit.

Well, dream on guys. All I know is that it's about time for me to rest my typing finger. After all, I hope to put it to a better use this summer.



"C'MON, SON --- YOU KNOW YOU DON'T LIKE GIRLS ANYWAY."



"Well, that depends. Are you odd or even?"

FacBoard

from page one

taught in the Chemistry Department meet with the department heads to discuss how those courses are proceeding. The department heads then works with the instructors to improve their classes. According to Professor Bill Goddard, the ombudsman system helps to dissolve barriers between students and faculty, enabling information to travel quickly and easily.

Some of those present felt that the Chemistry system might not be optimal in their particular departments, so the resolution calls for a "rapid feedback system" rather than specifically for the ombudsman.

The Academic Policies Committee, at the beginning of this school year, set out to examine the quality of the education offered to undergraduates at Caltech. The core curriculum (Physics 1 and 2, Math 1 and 2, Chem 1 and 2, and the Humanities and Social Sciences) constantly presented itself, and the committee decided to focus on those courses in particular. It was felt that the information gathered was important not only for the APC but also for the Faculty, so it was organized into the form of a report and prefaced by a summary and student comments. Hence, the APC has functioned as the first "Ad Hoc Core Curriculum Committee," the one set up in the first resolution. The summary begins:

"The Core Curriculum is the expression of an important idea — that all Caltech students receive rigorous instruction in the fundamentals of physics, chemistry, and mathematics, are made aware of the methodology of the social sciences, and encounter the humanities in a serious manner. As much as possible, all students receive the same instruction. Thus, neither 'Physics for Poets' nor 'Poetry for Physicists' is in the Caltech manner. Our engineers are known for their breadth of training, and our biologists do not fear quantum mechanics.

"The idea is endorsed by the Faculty; the Core Curriculum is an Institute Requirement. But, does it work? One ingredient for success is a remarkable body of students. We have that. Another is the will

of a large enough number of faculty to aid the Core through careful teaching and planning. Here, our inquiries have shown, improvement is needed."

After reflections on the specific courses of the core curriculum, a report by the student members of the committee discusses the undergraduate program as a whole:

"We agree wholeheartedly with the opinions and observations expressed by Arthur Noyes in section 1.2 of the Policies and Procedures Manual:

'The four-year undergraduate engineering courses of the Institute shall include an unusually thorough training in the basic sciences . . . and a large proportion of cultural studies . . . It is hoped in this way to make the undergraduate courses of the Institute a combination of a fundamental scientific training with a broad cultural outlook, which will afford students with scientific interests a type of collegiate education which avoids the narrowness common with students in technical schools and the superficiality and the lack of purpose of many of those taking academic college courses.

'Every effort shall be made to develop the ideals, breadth of view, general cultural and physical well-being of the students of the Institute. To this end the literary, historical, economic, and general scientific subjects shall continue to be taught by a permanent staff of men of mature judgment and broad experience; . . . moderate participation of all students in student activities of a social, literary, or artistic character, as in the student publications, debating and dramatic clubs, musical clubs, etc., shall be encouraged . . . It is the purpose of the Trustees to create as rapidly as possible additional facilities for these student activities by the erection of a student union, a gymnasium, and dormitories . . .

. . . As students are not admitted on the basis of priority of application, but of a careful study of the merits of the individual applicants, the limitation (of the number of students) has the highly important result of giving a select body of students of more than ordinary ability . . . 'For the

same reasons it is the intention of the Trustees not to allow the work of the Institute to be extended into new branches of science or engineering until all the existing departments are brought to the highest efficiency and until the needs of student life are more fully provided for . . .'

We agree as strongly with (the) summary of the report of this committee, particularly in section E2: 'The instruction in lecture hall and recitation room must be unusually good. These are, simply, the most important courses taught at Caltech. Many students have had their careers seriously affected by unnecessarily bruising experiences in core courses.'

As noted by Dr. Noyes, a great deal of attention is given to the admissions process: students are considered as individuals. If the faculty (individually and as a body) continued this consideration once the students were enrolled, a large number of the difficulties considered by this committee during the last six months would be well on their way to solution."

Are You Necessary?

The Technical Marketing Society of America is announcing its first scholarship for undergraduate students. In order to qualify a student must be a U.S. citizen, be enrolled in and pursuing an undergraduate degree in science or technology, have a grade-point average of B or better, and be interested in the entrepreneurial side of business and science as opposed to the basic research side.

In order to apply a student merely needs to write a typewritten statement concerning why he or she considers his or her science or technology field responsive to a national need. The essay must be more than 200 words but less than 400 words. The essay should be submitted to the Office of Financial Aid no later than Monday, June 11.

Although the 1979 award will be for \$500, it is extremely possible that the stipend will grow in the future. If you have any additional questions, do not hesitate stopping by the Financial Aid Office and talking to Ursula about it. Financial need is not a prime consideration in the awarding of this scholarship.

by Grace Mah

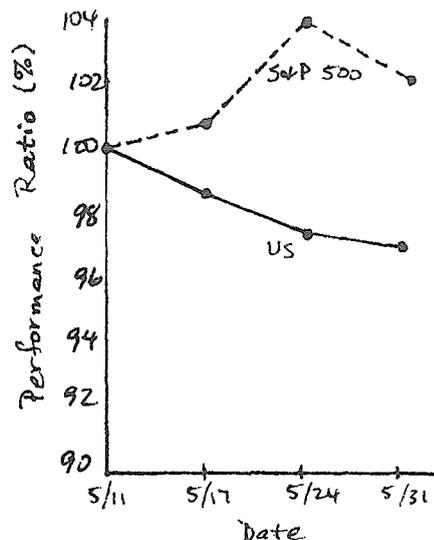
Your trusty investment fund directors have made their final decisions on our money for the summer. Our present status, as of closing time on Thursday, is as follows:

Cash=\$7,000.00
 Common Stock:
 100 shares H&R Block=\$2,175.00
 50 shares of J. P. Morgan (=)\$2,268.75
 50 shares Eli Lilly =\$2,650.00
 100 shares I.T.T. = \$2,775.00
 50 shares Geosource = \$1,650.00
 25 shares IBM (pre-split) @
 \$=\$7,600.00
 Treasury Bills:
 \$10,000 T-bill to mature on
 10/4/79 (present value, \$9,641.87)
 \$20,000 T-Bill to mature on
 00/00/79 (present value, \$19,400.00)
 Savings Account: =\$5.07
 Total= \$55,165.69

The Olive Walk Journal

Our cash is in the Merrill Lynch Ready Asset Fund, a big investment fund. Their charter reads similarly to ours (by the way, our final bylaws are available on the PDP 10 under [29971, KJE]; Jeff Eriksen is the chairman of the bylaws committee. Thank you!) and they yield about 9.51%. Although the ready asset fund is not insured, it is relatively safe.

Our choices of companies are in fairly safe ones: IBM, ITT (International Telephone and Telegraph Co.), Eli Lilly (pharmaceuticals), J. P. Morgan, and H&R Block. These five are pretty large and are not really volatile. You've probably heard of all of



them. Geosource is our most speculative stock presently. It is an oil service company which checks for oil in the ground. According to research conducted by Mark Fischer, Geosource is a good reliable buy. By a narrow vote (5-4) we decided to buy it. It's probably going to be a more interesting stock to watch this summer, too. Hopefully, this fall, we will pull the money out of our T-bills to buy more interesting stocks (like Spacelabs and Pertec...) Any of you who get any hot stock tips, keep a little record of how it does this summer, and bring it up at our first meeting this fall.

Our overall financial performance situation can be summed up in the graph. It shows four pairs of points starting with our initial status on May 11. The comparison is again with the S&P 500, normalized to their figure on May 11—98.52—and our initial assets of \$57,100.

The first point, on May 11, was our "clean plate", where we have 100% return on our stock investment. In other words, we hadn't lost any money yet. At the next point, on May 17, we had \$56,129.30 (due to transaction costs) resulting in our 98.3%. S&P was up to 99.47, giving them a normalized ratio of 100.96%. Our last point comes from dividing our total worth, \$55,265.69 into \$57,100, resulting in 96.79%. Thus, our financial state of affairs ends up about 5% below S&P 500. Not too bad. Let's hope this summer is profitable to us all!

(These figures are correct to about \$20.)

4-Day, 36-Hour Week!

INTERACTIVE GRAPHICS PROGRAMMING

California Computer Products, Inc., a leader in the field of computer graphics, has several programming positions open in interactive graphics applications that we wish to fill with June graduates

The successful applicants will be in such areas as raster graphics, man-machine interfacing, utility mapping, and development of sophisticated interactive packages for 2D drafting. Also will be involved with minicomputer systems programming on interactive graphics systems.

Requirements include a good working knowledge of FORTRAN and/or PASCAL. Exposure to various minicomputer systems would be desirable. A degree in Computer Science, Electrical Engineering or other related technical discipline is required.

For further information, please send a copy of your resume to:

Don Modie
 2411 W. La Palma Ave.
 P.O. Box 3250
 Anaheim, California 92803



CALIFORNIA COMPUTER PRODUCTS, INC.
 An equal opportunity/affirmative action employer

cerebrum

seemed within biting reach of us, because I am afraid of dogs. I got lost and held up the group considerably. One of the T.A.'s told me not to go off looking for the bench-marks alone because they knew where it was generally and I shouldn't stray off from the group. I kept silent, not telling him it was not to make my own search but merely to rejoin the group by a route that became ever more circuitous due to my additional fear of falling (we were in mountains) that I had separated from them. I was so thankful for the opportunity to appear stupid rather than cowardly that I would say nothing to disturb it.

I intended to write my mother

So What Does

UNCLE Stand For?

The Final Affair is David McDaniel's last and unpublished *The Man from U.N.C.L.E.* novel. For the publication date and pre-publication price (when they become available), send a s.a.s.e. to: Gavin Claypool, 161 W. Trafford St., Long Beach, CA 90805.

The Great Book Migration

The humanities books stored in Dabney Hall will be removed to the old steam plant. The books are being removed to create space for EQL (Environmental Quality Lab).

The old steam plant is located between Thomas and Spalding Labs. The books will be placed there temporarily, and gradually be absorbed into the main library, with the Dewey Decimal System being replaced by the Library of Congress system.

about that incident, which had a massive emotional impact on me that this "nigger" episode does not in any way approach, and tell her the whole story, as soon as I got back. I also intended to tell her I was unfit and quitting Caltech then and there. I cooled down on the way back and decided to say only that I ought to quit. When I arrived in my room I wrote a couple of words, tore them out and threw them away, repeated the process, and then my enthusiasm cooled more and I gave up the whole idea.

In the light of that I am somewhat surprised that I have written even as incomplete a letter as this about this incident. Taking my note-book from my room to the library and starting on this immediately after I got back I did just as I told myself I would while I was returning. Something about this has impressed me, and I think part of it is that I have finally recognized the Real World. I considered this phrase a Techer's affectation; Tech seems painfully real to me and I was thrown into a depressed mood upon first arriving here by the shock of finding it so. I

mentioned planning to use the phrase as the meat of a game of psycho-analysis in a letter to the *Tech*. That was motivated by a real resentment at the attitude of alienation that I perceived as an unjust and hypocritical attempt on the part of self-serving elitists to usurp the holy cross that was my birthright as a "true" outcast.

I felt that I had been forced to live in the Real World all my life, my stay at Tech being no exception. I did not want to look for a world any more real. But I found one anyway. The Real World concept was once a hoax to me, and maybe it will be so again when I wake up tomorrow, or maybe even fifteen minutes from now in a conversation. But there is a feeling in me that that white man, wearing an undershirt, standing in one of the blackest parts of Pasadena I've seen, calling me a "nigger-boy" and myself walking away, was more real than anything that's happened to me in a good long time. I don't know if it's true, but it's one hell of a strong feeling. And I don't like the feel of that either.

—Armando Howard

CONGRATULATIONS!!

1979 GRADUATES

INTERSTATE ELECTRONICS wishes you the most in you new careers. Perhaps, you, too, may be a part of our future!

Exciting things are happening at INTERSTATE ELECTRONICS. New high technology products — Plasma Display Terminals and Voice Data Input Systems — are under way! New opportunities in On-going activities in Submarine and Flight Test Instrumentation, Signal Processing, Commercial Test Equipment, Environmental Data Instrumentation and Data Acquisition Systems and Oceanography.

If you are interested in establishing your future with a Leader in the fields of ELECTRONIC ENGINEERING and Computer Sciences, call:

Tony Pardi, (714) 772-2811 to set up an early interview.

INTERSTATE ELECTRONICS CORPORATION

SUBSIDIARY OF



707 E. Vermont Avenue
Anaheim, CA 92805

An Equal Opportunity Employer M/F

**HAVE AN
INTERNATIONAL
EXPERIENCE AT HOME**

**Host a Swedish Student
for 30 days**

**Call Dr. Ben Ali
792-7662**

AUDIO CONVENTION DRAWS NEAR

Chicago, Ill— The Semi-annual
Audio Convention will be

BAD NEWS.

The Chicago Audio Convention is coming.

Sounds like a lot of fun, doesn't it? Flying into Chicago, economy class (we're not JBL, you know). Staying at the luxurious Holiday Inn. Checking out regional delicacies at McDonalds.

But it's worse than that. When you get to the Convention and rush to your favorite supplier, expecting a big hug for buying all those tweeters, you're greeted with a blank look.

"You understand," they say, "The Franc is strong against the dollar, the price of varnish..." We usually don't stay to hear all of it. We wouldn't go at all except for eternal optimism and the chance to personally pour the rest of our white wine down the hostess' dress.

Seriously, price increases hit us quick and hard because we are so small. As an essentially custom manufacturer, we don't keep a lot of stock on hand.

GOOD NEWS

The summer is our slow time; we do nearly all of our business with students, and when they go home for the summer, the orders dry up.

What we'd like to propose is that you talk to us now, before you go home. This way, we can build your speakers while we have plenty of time and components before the Chicago disaster.

Talk to us now about any audio equipment, not only GNP speakers, but also amplifiers, turntables, receivers, all at just above cost.

After all, who needs bad news?

The logo for Gross National Products (GNP) features the letters 'GNP' in a bold, stylized, sans-serif font. The 'G' and 'N' are connected, and the 'P' is slightly larger and more prominent.

Phone 990-3474

GROSS NATIONAL PRODUCTS Bill Gross

Manufacturers of SOUND MIRROR® speakers.

PUBLIC CORRESPONDENCE PRIVATE NOTICES

**for
sale**

STARSHIP AMERICA
Newsletter premier issue will be available July 4th. The new project building interstellar class spacecraft is described. This type of spacecraft employs field drive and energy storage based on recent results of unified field theory of real hyperspaces.

All manner of new age activity is working with this project. Individual participation and opportunity is explained in the newsletter. Caltech people are especially encouraged to join Starship America project activities. For your personally registered issue, mail \$1 U.S. by June 13th with your name and address to:

Starship America
Box 8325
La Crescenta, CA 91214.

For Sale:

X-large Kelty Tioga Backpack. Top-quality pack. Blue, with rain cover. Total retail value \$115. Just \$70. Call Dan Huntington, 792-8905.

House for sale. Open 2-5, Saturday and Sunday. 306 S. Craig Ave., Pasadena. Extra deep lot on quiet street. Very attractive yard, with many trees (including orange, lemon, and apricot), arbor and brick patio. 3-bedroom, family room, fireplace, new roof, master bedroom overlooking enclosed back yard. Easy walk of 1 mile to Caltech. Good condition. \$92,000. By owner. 578-1232.

help wanted

Microcomputer programmers sought now by Little Systems to work on data processing programs. Full or part time. Flexible hours. Call Steve Engel at 747-2209.

WANTED:

A 'whiz' at electric technology to make an electric vehicle. Please call (805) 659-0432. Ask for Bob.

typing

Typing Services. All phases of secretarial work. IBM Selectric typewriter. Call Ginger or Nell, 684-4483 or 791-0922.

Barbara's Typing Service: Resumes, college papers, master's theses, dissertations, minor editing and corrections, will pick up and deliver. (213) 335-4263.

Typing: Accurate expert. Theses, resumes, manuscripts, dissertations, term papers. IBM, assorted styles; \$1.00 per page. 799-6023 or 388-2415; Phyllis.

Professional typing by executive secretary, papers, reports, MSs, resumes. Spelling/grammar corrected. Fast, dependable.

PUBLIC CORRESPONDENCE PRIVATE NOTICES

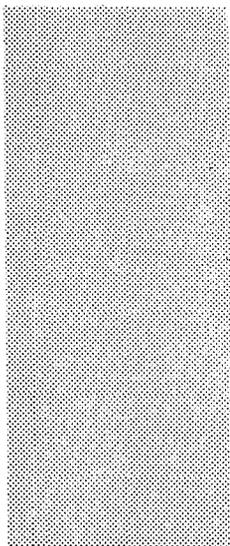
For a mere cost of \$1.00 for up to 25 words and \$2.00 for 25 to 50 words, you can get your classified message across to *The Tech's* readership. Payment must accompany order. Personals and Briefs are free of any cost.

Got it straight? Good. Send 'dem messages in now and send 'dem in often. Our address:

The California Tech
Caltech 107-51
Pasadena, CA 91125

or drop them off at our
offices in Winnett Center,
Room 107.

The California Tech reserves the right to refuse any advertisement without giving reason. Please include your name, address, telephone number, and desired heading.



63793