

Faculty approves compromise ROTC measure



Photo by Craig Davis

President Howard Johnson considers the CEP proposal during the faculty ROTC debate Wednesday. Faculty Chairman Walter Rosenblith looks on.

CEP recommends review of contracts, course credit

By Duff McRoberts

A compromise proposal of the Committee on Educational Policy for the study of ROTC on campus gained overwhelming Faculty approval Wednesday. The action authorized the formation of a special ad hoc committee.

The committee members, whom President Johnson said he expected to name by the end of this term, will report by December on a wide range of possible alterations to the military programs, giving special consideration to five suggestions listed in the CEP motion.

should be given only for subjects offered by regular academic departments...

"4. The contractual arrangements... should be reviewed..."
"5. A continuing review system for the ROTC programs should be established by the Faculty."

Proponents of the motion stressed that the five guidelines would represent suggested areas for special consideration by the committee, rather than expressions of current Faculty sentiment.

Segal move delayed

Introduced for the CEP by Professor Frederick McGarry (I), the proposal combined features of several others that had confronted the Faculty last week. Consultation among Faculty members who had formulated the earlier proposals resulted in general support for the compromise motion.

Motion excerpts

Some excerpts from the motion:

"We move that the President appoint a committee to study the following five points including the CEP objectives and other possible alterations in the program..."

"1. The status of the ROTC units at MIT should be clarified... The CEP recommends that the ROTC programs be administered by Special Offices, staffed by representatives of the Military Services."

"2. The procedure for awarding faculty status to members of the Military Services should be reviewed. The CEP recommends that recommendations for faculty appointment come only from a regular academic department."

"3. The award of academic credit for MS, NS, and AS subjects should be reviewed. The CEP recommends that academic credit

Professor Irving Segal (XVIII), whose motion to eliminate ROTC was defeated last week, commented, "I think the present motion is a useful step in the right direction." But he expressed a hope that the Faculty would also go immediately on record against academic credit for ROTC. He introduced a "sense of the Faculty" resolution to that effect, which was tabled.

In other action, the Faculty approved a new program for granting graduate degrees in Ocean Engineering jointly with the Woods Hole Oceanographic Institute. Professor Alfred Keil, head of the Department of Naval Architecture and Marine Engineering, introduced the motion, which met with some question concerning the use of the research, classification, and source of funds. Keil's motion, however, received apparently unanimous approval by voice vote.

Finals schedule

A proposal of the Committee on Academic Performance for 3-day reading periods and 8-day examination periods for the next year was approved, pending a more comprehensive report from the Calendar Committee.

MIT ponders Agenda Days

Edgar H. Schein
Steve Kaiser

Now that the immediate activity of Agenda Days is over, there remains the task of taking stock of what we have learned and how to best benefit from the experience. Many of the departmental, living group, and topical discussion groups sent in group reports. These comments are summarized here and will be sent on to the appropriate individuals or committees. This interim report is an effort to illustrate the range and variety of issues raised and should not imply any consensus on any of the suggestions made.

The ideas and suggestions can best be grouped in terms of the basic categories used for the topical discussions — 1.) relations between MIT and the defense establishment; 2.) relations between MIT and the society around it; and 3.) internal relations and needs within MIT.

MIT and the DoD/society

Many groups grappled with the role of the university in society, identifying at least three such roles — the development of knowledge through research and scholarship, the transmission of knowledge through teaching, and application of technology or science to society and the community. There seems to be a growing feeling that a fourth role is emerging — that of articulate critic of society. Many groups reported the feeling that MIT should take some kind of stand on important political and social issues; that the ivory tower stance was no longer possible; that the university was involved whether or not it liked to be; and that inaction was in a sense a political stance already.

Looking at it another way, it was pointed out that in serving the various elements of society, MIT has to take a stand on its own priorities; MIT has to decide whether its present pattern of service to government, industry, and the surrounding community is in proper balance or needs to be reassessed.

It was strongly argued that MIT cannot be indifferent to the ultimate uses of its scientific and

technical outputs. Nor can MIT be indifferent to the patterns by which its research is supported. Many groups argued strongly against the heavy reliance on DoD funds and called for concerted efforts to find alternative sources of support. To achieve a broader base of support may well require efforts to get the government to reassess its own priorities, which in turn may require concerted efforts on the part of MIT members individually and collectively to influence Congress to allocate more research funds to agencies such as NSF and HEW.

Suggestions were made about coalitions of universities, working through existing organizations such as the Union of Concerned Scientists, or endorsing the Amherst letter, as specific ways of influencing the government. Internal efforts could be made by more seminars devoted to the social consequences of technology and/or a standing committee which would assess the impact of work done at MIT on the social, economic, and political welfare — a "Project Foresight."

Some groups suggested the es-

tablishment of a committee to monitor all research proposals above a certain amount to insure that all work done at the Institute remained in line with its goals. The suggestion of mechanisms of internal monitoring of research activities were frequently coupled with strong statements that MIT should avoid as much as possible any legislative or other government interference in the management of university affairs. There should be legitimate channels for the expression of dissent, and effective internal mechanisms to control disruption or the interference by one group with the rights of another on the campus. If political activism becomes disruptive, the university should take a strong stand to protect the rights of all members of its community.

Internal Relations

Several groups agreed that MIT needs to provide much better guidance and advice to students concerning how MIT really works and how one can effectively plan one's educational path through it. One might provide an intellectual

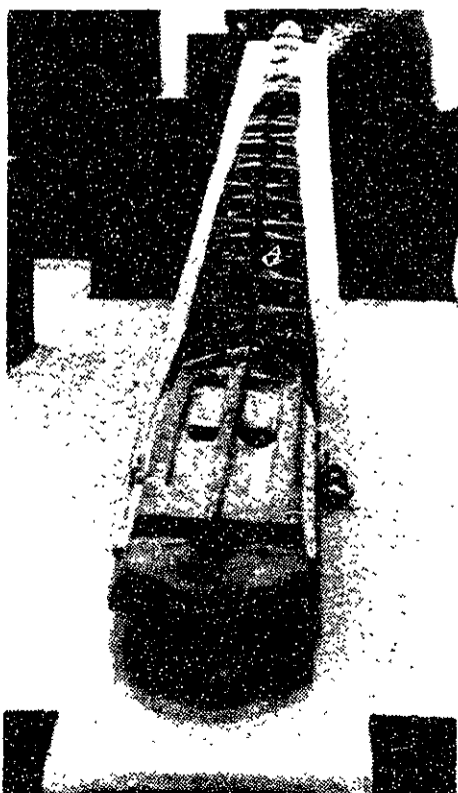
(Please turn to page 7)

African art opens in Hayden Gallery

By Karen Wattel

Around 9:00 Sunday evening, I happened to glance at my little black book and was suddenly reminded that I had been invited to the opening of another art exhibit in the Hayden Gallery. Immediately, visions of the black and white posters sprung to mind.

Hayden Gallery looked good with the pieces from the Tishman collection; the exhibit was just the right size for the room—neither overwhelming nor overflowing, but large and diverse enough to hold one's attention. The Christ figure with an African face, the ivory figurine rubbed smooth on one side from being rubbed against a chieftain's face, and the rare African female mask are among the more interesting items on display. It is intriguing, too, to look at these pieces in the light of their influences on our art today. For this reason alone it is an exhibit worth attending.



Pieces of African art from the collection of Paul Tishman, '24, are now being displayed in Hayden Gallery.



Tishman collected from a "humanistic point of view" pieces representing all major stylistic regions of Africa.

Photos by Karen Wattel

Dear Mr. Galvin:

I speak of the future—the vacuumous invisibility of the coming times. The future has one certainty: the total acceptance by big business of the computer as a replacement for the office worker. Business has followed the times, even paced the times. Therefore, the speed, accuracy, and future creativity of developing computers cannot be denied by future business.

The clerk, the bureaucratic non-entity of business, will be replaced by the complexity, yet practical simplicity of the computer. A computer gathers and analyzes information faster and more accurately than man. The memory lock of any computer offers the most logical answer to any given problem and theoretically possesses an unlimited memory. And if science can duplicate in the machine the DNA code of the human, the creative thoughts of the human could be synthesized in the machine.

The computer's primary code could essentially simulate man's life controlling function regulated by the mysterious DNA amino acids code. When research, as at the University of Chicago, refines its DNA investigation and applies it to cybernetics, the machine could achieve the creative function it now lacks. Thus, it is conceivable the machine could invent an item or develop a thought well beyond man's creative limits.

The final determining force unfortunately is man's selective programming into the machine. Will man thus fear the power of the machine? Will computers be developed to their fullest potential, and allowed to function? More important, will business accept the apparent philosophical implications of a machine having better talents than man?

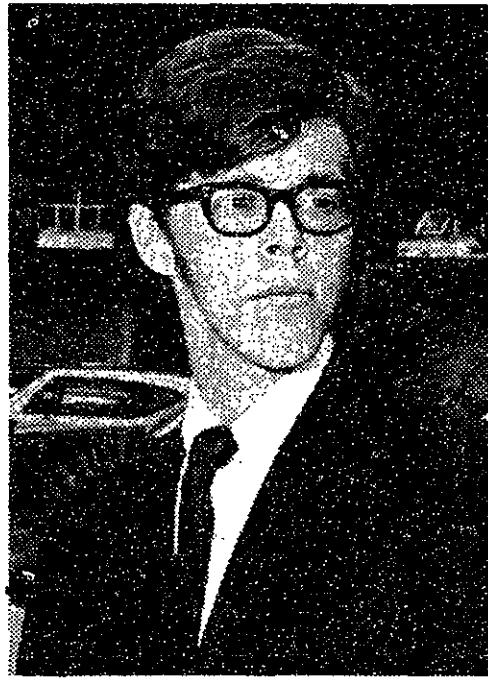
Yours sincerely,



Arnold Shelby
Latin American Studies,
Tulane

Mr. Galvin:

Will Men Fear the Power of the Thinking Machine?



Arnold Shelby



Robert W. Galvin

Dear Mr. Shelby:

Why should man fear the machine? It's a tool for the elimination of drudgery . . . for freeing people from limiting routine. Each more sophisticated application opens another door to exciting new functions for the individual.

As to business' acceptance of the apparent philosophical implications of a machine being better talented than man, let's expand your question to include society as a whole. Your suggested potential of the machine's inventiveness, after all, would not only affect the structure of business and its practices but the role of the individual in every institution of the community—education, government, the professions, in fact, man's day to day living environment. Already many of these changes have been manifest.

Think of the brigades of bookkeepers trapped through the years into peering from under their green eyeshades at mounting columns of figures. With perfection of the adding machine and comptometer, their working world assumed a whole new dimension. No more scratching out monthly statements with a steel-tipped pen. Instead, many have assumed functionally more interesting responsibilities by applying the skills, and wider knowledge, needed to use these tools. As a result, the individual gained more capabilities, and industry, more capacity.

The computer has broadened the horizon much further. With its characteristic abilities for sensing, feedback, and self-adjustment—the determination of changing requirements without human intervention—masses of data can be digested and analyzed, and complex calculations made, to meet the needs for which it is programmed.

Its applications already have had a profound effect on almost every phase of our daily lives. Look, for example, at its employment in teaching: programmed lesson plans in a dozen subjects that permit student responses, and instant correction of errors, which enable uninterrupted progress to the extent of each individual's capacity. And the day is not far off when many university libraries will be linked together in a vast information retrieval system. A question te into a machine by you at Tulane may elicit needed data from memory locks at Cornell, or Northwestern, or Stanford.

Its uses in long-range economic policy planning by government, and business are infinite. A projection of population growth concentrations five years ahead, or twenty, will make possible realistic plans for food requirements, or housing starts, or highway construction programs, or the thousands upon thousands of goods and services requisite for further up-grading our living standards.

And what about the computerized services touching all of us that already are taken for granted: programming traffic lights to cope with rush-hour congestion . . . reconciliation of monthly bank statements . . . processing individual income tax returns . . . even notifications from insurance companies when premiums are due.

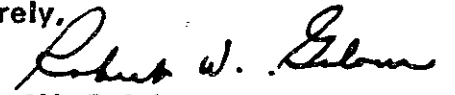
All of this is part of the increasingly fast-paced tempo of our times. Man now demands "more", and he demands it "faster." This poses requirements best met by wider usages of computers, and in turn prompts the need for computers with increasingly sophisticated characteristics to keep pace.

The point is that the philosophic implications arising from the economic and social consequences of computer complexes already has been accepted by society.

Paradoxically, as computerized functions broaden; job losses don't necessarily follow. To the contrary, new fields of employment open, and people directly affected acquire new skills and abilities which improve their earning capacities—to the extent that each utilizes the opportunities proffered. Isn't this a capsulated instance of the force-drive for progress, and man's growth?

No one really knows to what exotic limits computers can be developed. The day may well come when "creative thought" is a characteristic. But I am confident that during the intermediate evolutionary steps, man's own intellectual sophistication will continue to outpace the machine, and assure control over a product of his own making. Certainly there's no real cause for worry, however, until the machine learns how to plug itself in.

Sincerely,



Robert W. Galvin
Chairman, Motorola Inc.

IS ANYBODY LISTENING TO CAMPUS VIEWS?

BUSINESSMEN ARE.

Three chief executive officers—The Goodyear Tire & Rubber Company's Chairman, Russell DeYoung, The Dow Chemical Company's President, H. D. Doan, and Motorola's Chairman, Robert W. Galvin—are responding to serious questions and viewpoints posed by students about business and its role in our changing

society. . . and from their perspective as heads of major corporations are exchanging views through means of a campus/corporate Dialogue Program on specific issues raised by leading student spokesmen.

Here, Arnold Shelby, in Liberal Arts at Tulane, is exploring a point with Mr. Galvin. Keenly interested in Latin American political and social problems, Mr. Shelby toured various countries in the area last summer on a "shoe-string" budget. He plans a

career in journalism.

In the course of the entire Dialogue Program, Arthur Klebanoff, a Yale senior, will probe issues with Mr. Galvin; as will Mark Bookspan, a Chemistry major at Ohio State, and David G. Clark, in graduate studies at Stanford, with Mr. DeYoung; and similarly, David M. Butler, Electrical Engineering, Michigan State, and Stan Chess, Journalism, Cornell, with Mr. Doan.

All of these Dialogues will appear in this publication, and other campus newspapers across the country, throughout this academic year. Campus comments are invited, and should be forwarded to Mr. DeYoung, Goodyear, Akron, Ohio; Mr. Doan, Dow Chemical, Midland, Michigan; or Mr. Galvin, Motorola, Franklin Park, Illinois, as appropriate.

Forum defines Lincoln goals

By Alex Makowski

"The primary goal of Lincoln Labs is organizing interdisciplinary teams to focus on large-scale goals."

The Lab was created to tackle tasks too immense for any one MIT department rather than to serve educational ends. Any attempt to justify the lab's existence on solely educational grounds will fail. These points were emphasized by members of the Lincoln staff at an open forum on the Lab held Tuesday.

Lincoln assets

Many of those participating in the forum were concerned with pinning down the value of Lincoln for the Institute. The potential for vigorous faculty-lab interchange was repeatedly stressed, though the present dearth of such contracts was admitted. The Haystack radio-astronomy antenna was cited as a specific example of the coordination possible.

And the "peripheral activity" surrounding such projects as ABM radar development does attract roughly two dozen graduate students each year. They come to take advantage of the equipment and experience available at Lincoln.

"MIT" prestige

Lincoln, one employee insisted, does need MIT. Comparing the vitality of the Lab with such independent facilities as the MITRE Corporation, he resisted attempts to label the close ties with the Institute superfluous. Another advantage is the prestige that Lincoln derives from the label "MIT." When dealing with outsiders, the Lab need not fear pressure to contract for some undesirable project.

A largely unresolved issue concerned the effect of the lab on departments not directly related to it. One professor voiced his feeling that MIT should loosen its

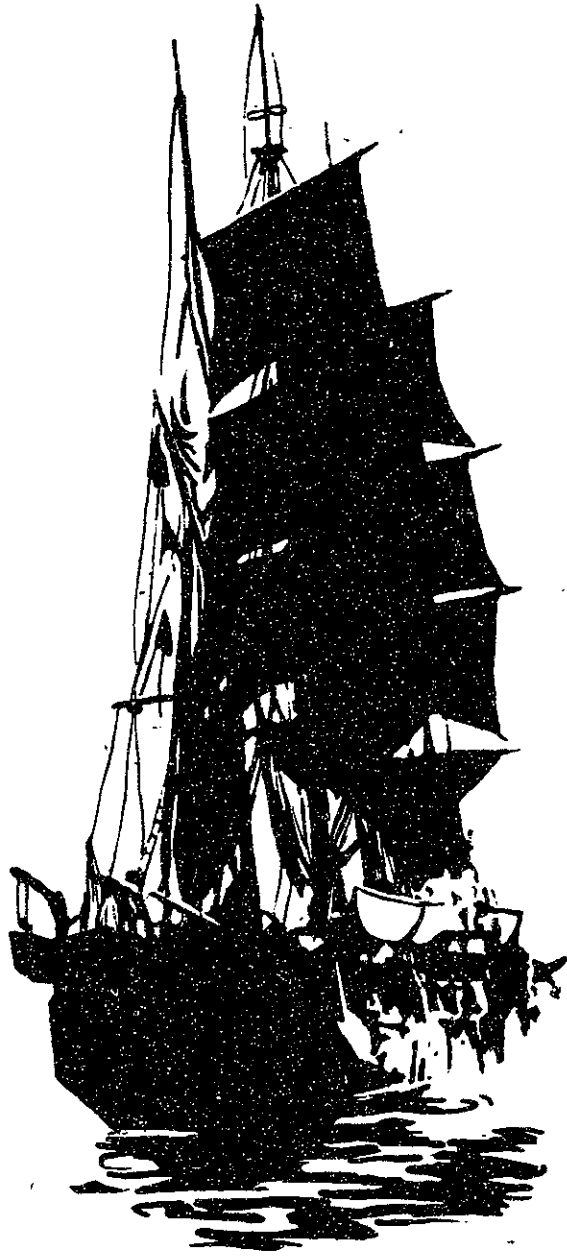
ties with Lincoln, meanwhile forming relationships with industrial labs. His goal was to give other departments the same benefits Lincoln provides.

The forum opened with some general factual information about MIT's controversial facility. Approximately one-third of the 1800 employees are labeled professionals; 200 have PhD's; almost 400 more have a Master's. Fifty percent of the work done is classified.

Security clearance

Security clearance is not required to begin work, although all employees must file for clearance. There are essentially no "closed areas" inaccessible to the staff or their guests. "About the only place you can't see," remarked another staff member, "is the inside of the safes."

Attendance at the forum was surprisingly poor, as the six staff members from Lincoln were met by roughly the same number of MIT professors. Only one graduate student was present, and undergraduates were totally absent.



Before you sail away, pick up

PACKING SUPPLIES

As you prepare to set sail from Cambridge-on-the-Charles, make a quick one-stop shopping trip to our stationery department for all the packing supplies you need.

| | |
|---|------------------|
| Kraft Sheet 40 x 48 | 2/15¢ |
| Nea Tape | 25¢, 39¢ |
| Wrapping Kit Rolls | 39¢ |
| Polished India Twine | 50¢ |
| Polished White Twine | 75¢ |
| Packing Sealing Tape | |
| Sizes 1/2 x 150 to 1 1/2 x 1000 | 39¢ to \$1.49 |
| Scotch Strapping Tape 1/2 x 360 | 79¢ |
| Jute Ball String | 29¢ |
| Label on Tape | 59¢ |
| Labels (Fragile, Special Delivery, First Class, Air Mail) | ¢ ea. |
| Baggage Tags | 15¢ to 25¢ |
| Address Labels | 85¢ |
| Coop Box 13 x 18 x 30 (4 cu. ft.) | \$8.95 |
| Corrugated Cartons 18 x 14 x 12 | 45¢ ea. 3/\$1.25 |
| Maxifold reinforced carton | 70¢ ea. 2/\$1.30 |
| Padlock | 89¢ |
| Trelock (bicycle) | \$2.50 |
| Locks | 65¢ to \$1.32 |



HARVARD SQUARE

Open Thurs. 'til 9.

HARVARD BUSINESS SCHOOL
MEDICAL CENTER

Longwood and Brookline Aves., Boston

M.I.T. STUDENT CENTER

The Collegiate Department Store

GET ANOTHER VIEWPOINT

On students,
politics, civil rights,
Vietnam, Nixon.

On love,
life, books,
art, music,
drama, films,
fun.



THE WASHINGTON POST

Available every morning at:

OUT OF TOWN NEWS - Harvard Square

NINNI'S CORNER NEWSSTAND - Harvard Square

FELIX NEWSSTAND - Massachusetts Avenue

READING INTERNATIONAL - Brattle & Church Street

MONTROSE SPA - Massachusetts Avenue

M.I.T. COOP BOOK STORE - Massachusetts Avenue

HOLIDAY INN - Massachusetts Avenue

TREADWAY MOTOR INN - Mt. Auburn Street

BENCE PHARMACY - Massachusetts & Chauncey Street

COLD CASH FOR YOUR TEXT BOOKS

Tech students, turn in your textbooks for quick cash at the MIT Coop in the Student Center.





VOL. LXXXIX, NO. 27

MAY 23, 1969

The university of the future

As we look back on this year at MIT, we cannot help feeling that we have witnessed the beginnings of a major change in the nature of the universities within our society.

The major change which the universities (particularly schools such as MIT) must face is that they are becoming ever more important and influential in all operations of our society. Our socio-economic structure is based on expertise, and there is no better source of this quantity than the academic community.

As we have seen in the issues raised this spring, as the nation draws more and more heavily on the universities' expertise, these institutions policies on research, funding, and other areas take on enormous political implications. Once apolitical, the academic community as a whole can no longer escape the fact that on some issues, not taking a stand as a community may amount to an endorsement of the status quo, which is of course a stand in itself.

Based upon reports from Agenda Days, it seems that many members of the community have reached this conclusion. Extrapolating the developments of this year into the future, it seems to us altogether possible that the time may come when great universities may be forced to take stands far more "political" than such policies as Harvard's ban on classified research or the Amherst letter.

This problem has been most clearly recognized in relation to defense research, because this area is the one in which university-government relations have progressed the farthest. We foresee the possibility that university involvement in such pressing

problems as urban renewal, welfare, and other areas may well embroil academia in new and possibly bitter political hassles. This, and the fact that the current high school situation suggests that incoming freshmen may come "pre-radicalized" in the future, leads to the conclusion that further involvement of the universities in the nation's policy decisions is inescapable. Affluence has given students the opportunity to be concerned with principles as well as earning a living, and they are taking that opportunity seriously.

In this situation, we see a need for a new type of education which we feel that MIT is uniquely qualified to provide, if it recognizes the opportunity and rises to it. In a technical society, the mark of the educated man will not be a grounding in the arts, but rather a sophisticated understanding of the principles and limitations of science and technology. The basic education will not be the liberal arts, but "liberal technology." Men with a technical background but with a much broader perspective than is traditionally associated with the engineer will be the leaders of such a society. Given its strong technical base, MIT will be well qualified to offer this type of education if current efforts at achieving liberalization and "relevance" are pursued in a meaningful manner.

We see this trend in education at MIT as entirely consistent with our thoughts on the role of the university of the future. In our view, this approach to education (coupled with traditional professional training) will be an extraordinary advance in which MIT must take a leadership role.

ROTC-ad nauseum

Wednesday's second faculty meeting on ROTC demonstrated most clearly how ill-constructed the faculty decision-making process is for making the sort of academic/political decisions it will probably have to face with increasing frequency in the near future. The tedium of the meeting also demonstrated the small degree of concern about this issue among most members of the student body and faculty. Comparatively little noise was raised by the liberal/radical segment of the community, probably because most felt it to be of little importance, and "a good issue to lose."

In adopting the modified CEP proposal, the faculty again disregarded the efforts of its committee structure, passing instead a crazy quilt motion spliced together from the ideas of several groups which couldn't co-ordinate their efforts in

the month they had to plan prior to the previous faculty meeting. The committee formed will probably produce a report recommending minimal changes which will receive a ho-hum response next winter.

We still favor the initial CEP motion, but we are also inclined to believe that when compared with other problems the ROTC issue is of sufficiently slight importance (assuming that one does not take the position that ROTC on campus constitutes approval of the war) that it is not worth a major committee effort. It is interesting to note that the initiative on this matter came from within faculty ranks, rather than from the students. The latter, for the most part, seem to be addressing more substantive issues.

BOARD OF DIRECTORS

| | |
|--------------------------------|---|
| Chairman | Greg Arenson '70 |
| Editor | Steve Carhart '70 |
| Business Manager | Julian James '70 |
| Managing Editor | Reid Ashe '70 |
| Editorial Associates | Carson Agnew '70, Robert Dennis '70 |
| Production Manager | Bruce Weinberg '71 |
| Night Editors | Randy Hawthorne '71, Carliss Baldwin '72 |
| News Editors | Greg Bernhardt '71, Jay Kunin '71 |
| Features Editor | Karen Wattel '70 |
| Sports Editor | Ray Kwansnick '71 |
| Entertainment Editor | Steve Grant '70 |
| Photography Editor | Craig Davis '71 |
| Advertising Editor | Dave DeWitte '69 |
| Editorial Consultants | George Flynn '69, Tony Lima '69 Tom Thomas '69, Mickey Warren '69 Steve Kinney '70, George Wood '70 Ron Cline '70, Jeff Gale '70 |
| Associate Production Managers | Bob Young '71 Vicki Haliburton '72 |
| Associate News Editors | Joe Kashi '72, Alex Makowski '72 |
| Associate Features Editors | Pete Lindner '71, Charlie Mann '72 |
| Associate Sports Editors | George Novosielski '71, Don Arkin '72 |
| Associate Entertainment Editor | Bob Furer '72 |
| Associate Photography Editor | Gary DeBardi '71 |
| Associate Advertising Editor | Steve Bailey '72 |
| Controller | Stan Gilbert '71 |
| Accounts Receivable | Doug Coonley '72 |
| Accounts Payable | Pete White '72 |
| Circulation Manager | Ed Markowitz '70 |
| Typographer | Mike Bromberg '70 |

| | |
|---------------------|---|
| Production Staff | Al Goldberg '69, Dave Patton '70, Ray Azzi '72, Mark Linsky '72, Sandy Wiener '72 |
| Night Staff | Becky Donnellan '72, George Flint '72, Ron Francis '72, Jay Pollack '72, Gail Thurmond '72 |
| News Staff | Tom Pipal '71, John Jurewicz '71, Harvey Baker '72, Dave deBronkart '72, Larry Klein '72, Duff McRoberts '72 Bill Roberts '72 |
| Sports Staff | Pete Peckarsky '68, Jeff Goodman '70, John Light '70, Bill Michels '70, Dave McComb '70, Steve Sondheimer '70, Bill Mammen '71, Jay Zager '71, Ron Hollander '72 |
| Entertainment Staff | Bob McCall '71, Bob Gross '71, Steve Shladover '72 |
| Photography Staff | Terry Bone '69, Li Liang '70, Steve Loeb '70, Mike Venturino '70, Brad Williamson '70, Harriet Kang '71, Dave Simansky '71, Bill Swedish '71, Jon Borschow '72, Dave Davis '72, Dave Fish '72, Bob Mayer '72, Greg Resker '72, Steve Saunders '72 |

Second-class postage paid at Boston, Massachusetts. *The Tech* is published every Tuesday and Friday during the college year, except during college vacations, by *The Tech* Room W20-483, MIT Student Center, 84 Massachusetts Ave., Cambridge, Massachusetts 02139. Telephone: Area Code 617, 876-5855 or UN4-6900, extension 2731. United States mail subscription rates: \$4.25 for one year, \$8.00 for two years.

Letters to The Tech

Thoughts of an alumnus

To the Editor:

I am not a concerned parent. I am a concerned alumnus who has had the privilege of being moderately active in Alumni Affairs.

The Challenge of the American young citizen I find refreshing and useful. What limits should contain the manifestation of the challenge? I do not intend to delineate the limits for that is not the motivation for this letter.

I would like to bring up my basic criticism of the young citizen's message. When you look at the world that is about to be passed over to you, your eye tells you "It's a lousy dish." Agreed! And I hope you will be willing to work to make it better. I say this because so many of the older people whom you label as apathetic and/or stupid and/or selfish are disappointing to you - fine. But I suggest you reflect once in awhile on history and note a few facts.

I do not think the slums of today are as bad as they were 100 years ago.

I do not think the Black today is as badly off as he was under the cruelties of slavery.

I do not think our country is as self-centered globewise as it was 40 years ago.

I do not think labor is as beholden to "the establishment" as it was 30 years ago.

I do not think American business has as free a rein as it did ante-1929.

I do not think the poor are as poor as they were in the early 20th century.

I do not think our government is as deal to social reform as it was 40 years ago.

I think the conservationists have much more influence than they did 50 years ago.

The point is that you see a sorry situation. I agree to the adjective "so ty."

But realize that the visibility of our

sores has been magnified many, many times by the mass communication system. But an important point is that the sores fester less than they did.

I like your challenges. I welcome your intrusion into areas that up to now have been closed to you with a pat on the head and a condescending "Father knows best."

But I ask you to know that there is the element of relativity in the times of man and the liberals (it was not a dirty work then) of the 1900-1950 era did fight battles. They did take abuse from the reactionaries. They were called dangerous and they did work hard.

If they did not include the young in their crusades (and in some cases "crusades" they were), let it also be recalled the young did not ask to be

included.

So keep on with your questions, couple them with a willingness to work for reform constructively and do not be sure that all people over 30 are no good. For in my 40 years over 21, I have seen reforms, great reforms and they have resulted from hard questions, hard work and a dedication to a better world. I am proud to think I have contributed a tiny bit.

Gregory Smith '30
Anti-CAM

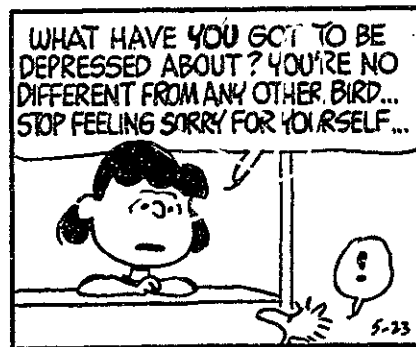
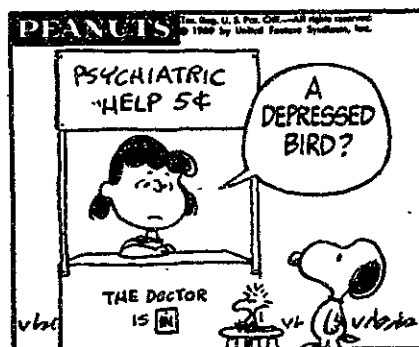
To the Editor:

As engineers with extensive behavioral science interests who affirm the positive potential of computers in behavioral science research, we agree with and applaud Prof. Weizenbaum's letter published in *The Tech* May 16.

We would add one point. Academic arguments for the Cambridge Project. But in the larger scheme of things this leads to a contradiction when the research—however well intended—is funded by, and therefore may be used to enhance the prestige and soften the image of an agency whose primary function is to coerce human behavior rather than educate and persuade.

We understand the "facts of life": ARPA is where the money is for computers in behavioral science. How do we change the facts of life? At least let us publicly indicate our displeasure with soliciting funds from the DOD, our reluctance to cooperate with the situation as it is, and our desire to see

(Please turn to page 5)



An agenda day report: I meet the I-Labs

When I learned that the I-Labs people were coming over to our dorm, I gleefully rushed up to my room to prepare for the impending battle. I washed my hair to make it stick out and look even longer. I slipped into my wire-frame glasses and bellbottoms and pressed my loudest tie into service as a belt. Finally, I donned my official "Tonto" Indian headband, put on my love beads, and, completely assured of my Yippie image, went downstairs to confront the ogres from up the road.

Spotting a lively argument between One of My Own and an obvious pig, I stepped in and with my most self-righteous tone, flamed, "Don't you think that

your work is endangering world peace?" The pig gave me a cutting look and replied, "Not really. I'm a graduate student in linguistics."

Oink. I shrank to three inches. Mumbling something about "but he was wearing the uniform!..." I withdrew, the One of My Own following in my wake.

We rapped for awhile, he and I, knocking the war, knocking Nixon, knocking the arms race, comparing notes about trips we'd taken, until I asked, "What are you studying?"

"Nuclear physics."

"Good Lord! You mean...you must be one of them!"

I cringed—I had been sucked in by a hawk in dove's feathers.

The Tech awards 6 prizes for best kite contest entries

About 15 people entered kits in last Friday's *The Tech* kite contest, with the entries ranging in size from six inches to ten feet. Six of the kites won prizes.

The largest kite flown was Sigma Nu's ten-by-ten foot newspaper model, which weighed between 15 and 20 pounds, depending on what sort of tail was used.

The most original structural design was a three-foot tetrahedron flown by Don Wassall '72 of DKE.

Bridget Bauer (age 11) of Newton won the prize for highest-flying with her "Super Chicken" kite made from a green plastic garbage bag. Since several entries

flew almost out of sight, the highest-flying contest was quite close. Because Bridget's kite was the only one of these which was homemade, she got the prize.

Bridget's father, Joseph A. Bauer, Jr., a Research Associate in Psychology, won the prize for most original artistic design with his bird-shaped kite made from copies of *The Tech*—to Joe Posey and Robert Lotz, both Graduate Students.

Since entrants in the annual contest are encouraged to build their kites from copies of *The Tech* the prizes will be one-year subscriptions.

Why, he could've been an agent for...the CIA (gasp!). Nevertheless, I was intrigued. This cat was obviously hip. So why, I asked him, are you working for the Military-Industrial Establishment?

Because, he replied, I am infiltrating from inside. Besides, who would you rather have doing this stuff: me, or some desk jockey from the Pentagon?

He had me there.

So we spent the rest of the night talking about the Movement, communal living, sex, grass, and life as it is lived in general and how one day the country will wake up to find that guys like him are running the show...

I asked him how old he was.

"How old do you think I am?"

"Twenty-three."

"Twenty-nine."

I fell through the floor. And here I'd thought there was almost a glimmer of a chance that we were saved from Draper's Demons.

"That's too bad," I said.

"Why?"

"Cause I can only trust you one more year."

Through a Jaundiced Eye

The radicals and MIT.

Yes, fans, agenda days have indeed come and gone. And, like March 4, they turned out to be days and not movements.

One really has to admire the skill with which the Institute defused the situation that began to heat up following the Harvard bust. "Agenda Days"—really! I think John Kabat of SACC best expressed my feelings on the subject when he disdained the use of the door at Baker House on the I-Labs meeting of April 30, entering through the window instead. Not that talk is necessarily bad—far from it—but as a substitute for facing the issues, as a replacement for action, well...we'll see.

Between SACC, SDS, the Resistance and the *Up Against the Wall Street Journal*, the Movement has nearly talked itself to death on this campus. Perhaps the administration knew this. I think they knew that if they simply forced the Left on this campus to keep talking it would burn itself out. As of this date, it really seems that it has. And that saddens me, because I am in sympathy with most of the New

Left's (whatever that is) goals. But an honest evaluation of politics on this campus must lead to the conclusion that the radicals have failed miserably this year in attempting to change anything.

Example: Sanctuary. For a week or so, it was beautiful. We could almost say with pride that we had a community going here; that maybe because it was happening at MIT, something would explode to shake the Establishment. But the administration was not so easily stampeded as was Harvard's this spring, and Sanctuary ended, not with a bang, not even with a whimper, but with stifled yawns in the miserable, rainy, predawn darkness. Score: Establishment 1, Resistance 0.

So things muddled around for a while, and suddenly there appeared SACC to tilt with the windmill labeled war research at MIT. By now, we've heard any number of statistics on the level of work being done at MIT. So? If Agenda Days did nothing else, it convinced me of the futility of trying to build a "Movement" at MIT that is going to aim at situations at MIT.

The reason is simple. The Left wants to end the war, abolish the draft, and get the nation to concentrate on social justice here at home. Great. Well, I've got news for you, comrades—the answer isn't here. Take that research out of I-Labs and the government will simply put it somewhere else. You want to see a higher level of commitment at MIT to problems of social welfare, right? Fine, but, who's going to pay for it? The answer to those problems—housing, food, health—is not going to be produced by doing research, but by applying the resources we have now to those problems on a massive scale.

The real problem the Left has had on this campus is that it has refused to let go of the SDS rhetoric and refused to come out of the clouds and be realistic. Nobody is listening anymore, SACC! Even us, your liberal-to-radical sympathizers. You know things are wrong. So do we. But dammit, what do we do? Too often, we have been guilty of action for action's sake. The reason the movement has failed to take hold at MIT is: (choose any of the following):

A. Doctrinal splits (SDS vs SACC)

B. Irrational, emotional tactics

C. Lack of alternatives

The last means that while we radicals have bitched a lot, we have offered no practical alternatives. Really, now, can we seriously expect the Institute to close down the I-Labs? What are those displaced people going to do for jobs? The only way to end war research is to replace it with something else, and the only place that money to fund this something else can come from is Big Daddy in... you guessed it...Washington.

There the trouble lies. The Federal government with its billions of tax dollars controls the life of this nation. The only way to change things, short of revolution, is to put the pressure right there on the pulse—or purse, as the case may be. Only a cut in Defense Department funds can curtail war research; you don't get us out of Vietnam by screwing ROTC—you get us out the same way you got us in, by executive order.

In short, unless we opt for real revolution (and are we really prepared to shed blood?) the only way to effect change is to build a fire under the White House. I don't know exactly how it can be done, but for starters, why don't we try doing what Amherst did? The president, faculty, and students in overwhelming majority sent a letter to Nixon urging him to get off his seat and do something about our domestic problems. Of course, one such letter does little, but suppose every college sent one? There are over six million college students, and virtually all will vote in 1972. Will Nixon ignore that?

I don't know. He might. LBJ ignored an awful lot. But action like that can't possibly hurt; certainly, it cannot hurt the Left's cause as much as all the tactics of confrontation and obnoxiousness we have seen this year. MIT is not some jerkwater state college; people here take pride in being reasonable (even if it's only a pose) and all the efforts of the radicals here have produced only alienation, disgust, and opposition. Face it: the Movement just isn't popular enough here at MIT. It can only make waves—it cannot change the course of the boat.

INSTITUTE FOR THE STUDY OF NONVIOLENCE

(founded 1965 by Joan Baez and Ira Sandperl)

announces the first two Eastcoast seminars at
Woolman Hill, Deerfield, Mass. 01342
June 17-30 and July 17-30

Each group is limited to 25. Tuition and housing is \$35 per week, with some scholarship help available. Food is cooperatively purchased and prepared by the participants.

For details, write

Igal Roodenko (chairman, War Resisters League)
330 Lafayette Street, New York 10012

For the Westcoast program write to the
Institute, P.O. Box 517, Carmel Valley, Cal. 93921

HARVARD-MIT COLLOQUIUM

on
The Spanish Civil War Thirty Years Later

Friday, May 23

Professor William Watson, MIT

"The Spanish Civil War of Hugh Thomas:
a classic historical fraud."

Boylston Hall Auditorium, Harvard Yard, 4 pm

Lillian Hellman, Visiting Professor, MIT

"Reflections on that war."

Boylston Hall Auditorium, Harvard Yard, 8 pm

Saturday, May 24

Dr. George Shuster, Asst. to the President of Notre Dame University, and former editor, *Commonweal*.

"The Day *Commonweal* Stopped Supporting Franco."

Rev. Donald Crosby, S.J.

"The Boston Irish Catholic Reaction to the War."

Green Building, MIT, Rm 54-100, 10 am

Foreign correspondents and their reports on the Spanish Civil War
Lawrence Fernsworth, Correspondent of *The Times* of London in Spain, and author of *Spain's Struggle for Freedom* (Beacon Press, 1957).

George Seldes, Correspondent of *New York Post* in Spain, 1936-37, and author of *Tell the Truth and Run* (Greenberg, 1953).

Alexander Uhl, Associated Press Bureau Chief in Madrid, 1936-37.

Vincent Sheehan, Correspondent in Spain, 1936-38.

Green Building, MIT, Rm 54-100, 2 pm

Letters to The Tech

(continued from page 4)

social science research supported by appropriate agencies.

Come on, boys, let's get together and convince congress and the taxpayers to establish sources of money where they should be for more direct applicability to our society's problems.

William R. Ferrell

Ronald C. Rosenberg

Thomas B. Sheridan

Department of Mechanical Engineering

Art

To the Editor:

Professor Wayne Anderson and his Committee on Visual Arts are to be

congratulated on the magnificent piece of sculpture "Smashed U-Haul Van, 1969" which was erected on the Memorial Drive center strip last Friday. This is certainly the most dynamic and relevant work of art to be presented to the MIT community in recent years, and sets a new standard of excellence which the Committee will find difficult to surpass.

In a more serious vein, those responsible for the superb exhibit of African art now appearing in the Hayden Gallery deserve our thanks for their efforts. Although we can hardly condone the plunder which led to the

removal of these religious and cultural treasures from Africa, we must be grateful for the opportunity to see them first-hand in such a beautifully designed exhibition.

Walter Bass '66

Publications

To the Editor:

The recent burst of new publications on campus answers a need that has existed here for sometime. The general trend towards emphasizing the issues of the day, and not including sports and entertainment coverage is a valid one, so long as at least one all-encompassing newspaper still exists.

Therefore, I find recent trends in *The Tech* exasperating. Seemingly in response to the general sentiment among the other publications, there were no on-campus reviews of either the recent Dramashop or Gilbert and Sullivan productions. *Thursday, Ergo, SACC Newsletter*, etc. can only present serious competition to *The Tech* if you decide to follow all the political puppies which were born from the 89-volume-old non-political bitch.

Mort Jonas '70

PARTHENON RESTAURANT

AUTHENTIC GREEK CUISINE
EXCELLENT EUROPEAN AND AMERICAN WINES
ALL KINDS OF LIQUOR
UNIQUE HELLENIC ATMOSPHERE FEATURING
THE ANCIENT GREEK PARTHENON

OPEN EVERY DAY

11 a.m. to p.m.

Extremely Moderate Prices

For Reservations Call 491-9592

924 Mass. Ave.

(BETWEEN HARVARD AND

CENTRAL SQUARES)



Course XVII thesis shows ABM worst alternative

By Peter Peckarsky

Copyright 1969 by the Board of Directors of *The Tech*

(Ed. note: Peter Peckarsky '69 here summarizes the main points in his senior thesis for Course XVII. The figures obtained from his simulation accompanied Provost Jerome Wiesner when he testified before a Senate subcommittee last week. Reproduction of this article in whole or in part without written consent is prohibited.)

An Anti-Ballistic Missile (ABM) system is the worst possible response to the threat of a Soviet first strike against the United States. This is one of the two main conclusions reached in a thesis entitled "Computerized Cost-Effectiveness Study of Assured Destruction Capability Defense Alternatives." The other main result is that the most efficient way to defend the US assured destruction capability is to procure an additional 20 Polaris submarines equipped with Poseidon (MIRV-carrying) Sea-Launched Ballistic Missiles (SLBMs).

Scenario

Secretary of Defense Melvin Laird has announced that the Russians have the capacity to attempt to gain a first strike capability against this country (i.e. the ability to destroy the US strategic retaliatory forces in a surprise attack). The scenario for the computer simulation was a Russian first strike against the US strategic forces followed by a US retaliatory attack against the Soviet Union's population centers and industrial plants (bombers were excluded from the analysis).

Fixed Budgets

It was assumed that the US, for a fixed 5 year budget of \$4 billion could meet the Soviet threat by making one of the following four changes in its force structure between now and January 1, 1974:

1. Increment the Minuteman force from 1000 to 1570 missiles each carrying 3 MIRVs (Multiple Independently-targeted Re-entry Vehicles). Each MIRV has a warhead yield which is the equivalent of 200 kilotons (KT) of TNT.

2. Increment the Polaris fleet from 41 boats at present to 61 boats with 16 missiles per boat. Fifty-one of the submarines would carry 10 MIRVs apiece with a warhead size of 50 KT per MIRV. Ten of the ships would have missiles carrying one 1-MT weapon apiece.

3. Superharden the current 1000 Minuteman silos to withstand up to 1000 pounds per square inch (psi) of blast overpressure. Currently, according to a derivation based on Deputy Secretary of Defense Packard's testimony before various Senate committees, the Minuteman silos are hardened to withstand up to 300 psi of blast overpressure (i.e. 300 psi above atmospheric pressure).

classifieds

Lost, sitting in McCormack gym on Fri., May 2, a round black sitting cushion. Contact D. Nelson KE6-1300 or X3616.

Boat trailer-'66 Comet, capacity 500 lbs., for a small boat. 2 years. Call 288-8114 after 6:30

For charter, May 24-June 20 (4 weeks) at very low rate: Princess Moon, 34 foot sloop. Sleeps 5 in two cabins. Fully equipped, inc. electronic gear. Experienced sailors only. Brighton, 782-9012.

4. Deploy a hard-point ABM defense, consisting of two Sprints (short range interceptors) per silo, for the current 1000 Minuteman silos.

Two measures of effectiveness were utilized to determine the efficiency of each of the four options in responding to the Soviet first strike. The number of warheads delivered on the Soviet Union outside of Moscow and the number of warheads delivered on Moscow by the US attack were the criteria chosen. These measures were chosen because the assumption is that the USSR would never launch an attack if it knew there was a high probability

determination of the crossover point. The crossover point, measured in terms of the number of SS-9s (Soviet ICBMs), is the point below which a given option is more effective than the Polaris option and above which the Polaris option is more effective than the option with which it is being compared.

The major uncertainties in the strategic equation are the number of SS-9s (the SS-9 is the newest, most accurate Soviet ICBM with a payload on the order of 15,000 pounds) which will finally be deployed, their accuracy, the effectiveness of the Soviet anti-submarine warfare forces, the

finer as the radius of the circle whose center is the point at which the missile was aimed, within which the weapon lands 50% of the time. This assumes the missile is tested over the distance it is supposed to travel in combat. The accuracy (SUCEP) ranged from 3000 feet (the current assumed SS-9 accuracy) down to 2000 and 1000 feet. An accuracy of 1000 feet means that a missile aimed at Bldg. 7 from a distance of 8000 miles would land somewhere between East Campus and Burton House.

3. Approximately 25% of the Polaris fleet was assumed to be in port for maintenance at any given

at the city of Tallinn in the northwest and 400 along a line centered at the city of Odessa in the south.

5. The hardness of the Minuteman silos (USMMSH) in the superhardening option was varied at 400, 700, and 1000 psi.

Results

For SUASW = 0%, there is no crossover between Polaris and any of the other three options. This means that if Polaris boats are invulnerable while submerged, they are the most effective means of coping with the assumed Soviet threat to the US deterrent.

The maximum crossover points for each of the three options in comparison with Polaris are:

| OPTION | SUASW | SUCEP | USAM |
|----------------|-------|-------|------|
| Minuteman | 75% | 3000 | 0.3 |
| Superhardening | 75% | 3000 | 0.3 |
| ABM | 50% | 3000 | 0.9 |

SUAMSK CROSSOVER

| | | |
|----------------|-----|------|
| Minuteman | 0.3 | 820 |
| Superhardening | 0.3 | 1050 |
| ABM | 0.9 | 820 |

In cases where the Minuteman forces were essentially destroyed, the Polaris fleet was the only component of the US retaliatory force remaining. It alone accounted for the damage inflicted on the Soviet Union. In addition, the Polaris option delivered its best response more frequently than the other options and its worst response fewer times than the other alternatives.

The general conclusion which may be drawn is that the Polaris option delivers better coverage across a wider range of Soviet Union force structures and capabilities than do any of the other options. Succinctly put, ABM makes a lemon Edsel look like a very good buy.

"ABM makes a lemon Edsel look good"

that its society would suffer an unacceptable degree of damage in return.

Former Secretary of Defense Robert S. McNamara has defined unacceptable damage as the loss of 30% of the USSR's people and 75% of its industrial capacity. McNamara calculated this degree of damage could be inflicted with 400 1-MT bombs or their equivalent. In terms of immediate blast damage, neglecting long-term effects such as fallout and firestorms, this amounts to 2800 50-KT weapons or 1200 200-KT weapons.

One means of analysis is the

effectiveness of the US and USSR ABM systems, and the degree to which the Minuteman silos can be superhardened.

Thus, the analysis was carried out over the following ranges of variable values:

1. The number of Soviet Union ICBMs (SUICBM) was varied from 300 to 4000 SS-9s each carrying 3 MIRVs with a warhead yield of 5 MT (the entire Russian missile force consists of SS-9s in the model).

2. Missile accuracies are measured in terms of circular errors of probability. In this context, circular error of probability is de-

time. These boats can be destroyed with a high degree of confidence. The Soviet anti-submarine warfare capability (SUASW) is the percentage of the ships not in port which the Soviets can destroy. This variable ranged from 0% to 75%. Currently, most members of the defense community feel that the USSR would be doing exceptionally well if they were to kill 3% of the Polaris force on station (i.e. one boat).

4. The single-shot kill probability (SSKP), or probability that a given interceptor (in an ABM system) can destroy a given incoming object was given high, medium, and low values of .9, .6, and .3 in both the US ABM (USAM) and Soviet Union ABM (SUAMSK) systems. The Russians were assumed to have 100 interceptors around Moscow, 2000 along an arc anchored

Announcements.

* The first formal meeting of the Student Information Processing Board (SIPB) will be at 8 pm, Monday, May 26 in the Green Room of McCormick Hall. Everyone is invited. Discussion will center around activities during the summer and plans for next year. For further information, contact Ed Fox at 491-1108 or Dave Burmaster at 734-0648.

* At Columbia University, a Student Homophile Committee was organized recently to fight for the rights of homosexuals, to promote discussion and understanding between the straight and gay communities, and to sponsor homosexual social events. Anyone interested in a similar group at MIT should call Terry at 868-5630.

* The executive committee of the Class of 1969 will present Graduation Eve at the Stratton Student Center on Thursday, June 12, from 8 pm until midnight. Featured will be the Spectras, the Don Russell Orchestra, Doc Edgerton and his friends, and an assortment of refreshments. Admission is free to all seniors, their parents, grandparents, siblings, and other assorted relatives and friends, members of the faculty, and administration. For further information, contact Mike Mann, X3283 or 547-6283.

* A report on the Concentrated Study plan for college course will soon be available from the Education Research Center. Under Concentrated Study, students and teachers spend their full time on a single course for a short time instead of spreading their efforts over many courses for a full semester. This ERC paper is expected to be available the first week in June, and all interested persons may obtain copies in Room 20C-228.

* The MIT-Wellesley Bus service will suspend operations on Friday, June 6. The final run from MIT will be at 6:10 pm and from Wellesley at 6:50. The Wellesley Bus Office will close for the school year on May 26. Anyone interested in purchasing bus tickets for the two week period beginning May 26 must do so at either Dean Hamerness' Office, W20-343, or the Student Center Bowling Alleys.

College Relations Director
c/o Sheraton-Park Hotel, Washington, D.C. 20008
Please send me a free Sheraton Student I.D. Card:
Name: _____
Address: _____

We're holding the cards.

Get one. Rooms are now up to 20% off with a Sheraton Student I.D. How much depends on where and when you stay.

And the Student I.D. card is free to begin with. Send in the coupon. It's a good deal. And at a good place.

Sheraton Hotels & Motor Inns 
Sheraton Hotels and Motor Inns. A Worldwide Service of IIT



**WISE CATS
KNOW
you save
when you buy
COOK'S
TRAVELERS
CHEQUES**

STILL ONLY
75¢ issuance charge ON \$100

available at:
Heritage Travel, Inc.
238 Main Street



Grooves

By Jeff Gale

With a rush, a new group has come out of the Chicago area to join Blood, Sweat and Tears in the jazz-rock arena of horn sections and blues singing. The name of the group is The Chicago Transit Authority and their new two record set on Columbia shows so much promise that if they ever get it all together, they are sure to be a major influence on the pop scene.

The group is made up of seven highly gifted musicians, including five vocalists. This gives a tremendous amount of versatility to the vocal arranging. Robert Lamm, Terry Kath, and Peter Cetera all do some lead vocal work according to the album notes. Although who does what is not identified, the vocals on the album range from tough blues to smooth commercial sounds.

The instrumental arrangements are excellent. James Pankow, the trombonist, did the brass arranging and this is the group's strongest point. Lee Loughnane plays an exciting trumpet but Walter Parazaider's woodwind work is often hard to hear. Dan Seraphine, on drums, and Cetera, on bass, provide a very good base for the group's sound. On the keyboards, Lamm shines several times in the album but is not used as much as his musicianship merits. Terry Kath, on the other hand, is a guitarist with an amazing fixation on the fuzz-tone and the overuse of this gimmick mars several otherwise excellent numbers.

The album starts out very well with the first three numbers de-

monstrating the versatility of the unit. *Introduction* features an excellent display of solo work by both Pankow and Loughnane, an introduction to the overuse of the fuzz-tone and an easily adequate vocal in a piece which changes tempo several times and is designed to show-off the instrumental qualities of the group. *Does Anybody Really Know What Time It Is?* opens with a piano solo in a jazz mode by Lamm broken by a brass ensemble which leads into a surprising vocal more reminiscent in sound to the Association than to a group of musicians. The only thing detracting from the piece is a voice in the background which could have been eliminated. *Beginnings* is another strong piece with good vocals and excellent brass work.

Unfortunately, the quality tends to decrease with the distance into the record. *Questions 67 and 68*, *Listen* and *South California Purples* are all very reasonable and would have made an excellent album if they had been included with the first three. However, *Poem 58*, *Free Form Guitar*, and the Yardbird's *I'm A Man* are ponderous.

The last side of the album could have been the highlight of the album had it been more carefully prepared. It is apparently a suite put together by the group with their producer James William Guercio concerning the events which occurred during last summer's Democratic Convention. *Prologue* is an interesting conglomeration of the sounds of the crowds which were in the city for the event. *Someday* is a fast moving piece which uses the sounds introduced in the previous number as instruments within the framework of a musical composition. *Liberation*, though, is a fifteen minute piece which tends to drag after about five minutes.

Chicago Transit Authority is a group with all the talent to make a lasting impression and exert a lasting influence on the area of rock. To see what they can do, try to catch them when they are at the Tea Party toward the end of June or next year, for they will certainly be back again.

Agenda focuses on social role

(continued from page 1)

ombudsman or consultant, or write a good educational "guide book", or provide better training for advisors to insure that they know how and where to find the answers.

Student-Faculty relations

In many of the departmental meetings it was revealed that students want a closer relationship with each other, with graduate students, and with their faculty. They want advisors who will be friends as well as oracles; they want opportunities to participate in research projects; they would like to know each other on a more informal basis through sharing an occasional lunch or dinner together, or through having faculty spend more time visiting living groups. Faculty could be assigned to living groups and be expected to eat an occasional dinner there. To help students to get to know

each other, recitation sections could be kept together for more than one semester and could maximize membership from given living groups.

A closely related issue which was covered in many groups concerned the students' role in the governance of MIT. It was proposed that students might have a greater voice in departmental matters where they have both an interest and competence. For example, students might influence faculty appointments and tenure insofar as they can judge teaching competence; they might influence admissions decisions insofar as they have insight into both departmental and student characteristics; they might influence the curriculum insofar as they develop competence to judge the relevance and quality of subjects, especially the required ones.

On a broader scale, it was

suggested that one might consider permanent student representation on all departmental, school, university, and corporation governing bodies; that one might have a student-faculty committee whose recommendations would have to be put on the agenda of the faculty meeting; and that one might have a rule that any petition signed by at least 5% of the students must be put on the faculty meeting agenda.

Several suggestions dealt with the curriculum. For example, in view of the success of freshman seminars, should not one have a similar series for upperclassmen as well as for graduate students? Should one not have more funds available for student research on their own or their faculty's problems? Should there not be wider educational opportunities for studies of the environment, the social implications of science and technology, the application of technology to the solution of our major social ills, and the process of higher education itself? Two groups noted that MIT's expenditure on its libraries is much less than at other schools and called for improved library facilities.

Finally, most groups who reported felt very positive about Agenda Days because of the amount of communication and exploration of issues which they facilitated. Many groups suggested setting apart regular times during each semester for such discussions, and some groups suggested procedures for polling the groups and arriving at community consensus on important issues.

The Arrangements Committee would welcome receiving other group reports, comments, and reactions for incorporation into its final report, which will be presented in early June. All reports will be sent to the committees or offices which are most concerned about the topics discussed in the report. The Arrangements Committee hopes that living groups, departments, and other groupings will continue to meet and discuss the important issues which have been raised during the Agenda Days.

Announcement

This is the last regular issue of *The Tech* for the spring term, 1969. There will be a *Daily Reamer* appearing next week.

rock...

'Pinball Wizard' heads Who's rock 'n' roll opera

By Steve Grant

Eight nights ago, at the Boston Tea Party, the Who reaffirmed their position as the quintessence of what a rock 'n' roll band can be. As part of their magnificent two-hour show (!) they performed what may be the most important work yet to have hit rock.

Before they came on, Roland Kirk blew out a jumping set on several instruments, often playing two or three of them simultaneously. He's more of a showman than a musician, though, as his parade through the audience proved at the close of his set.

Then lightning struck. Led by guitarist Peter Dinklage, the Who did some of their older material, topped by a crashing "I Can't Explain." Dinklage was a marvel to behold. Jumping, grimacing, flailing away at his guitar in huge thundering chord, he showed how much an appealing visual performance can add to rock. He isn't really an outstanding guitarist, but he sure looks like a genius the way he plays. (Mick Jagger is another good example of a visual expert - is he really as good as he looks?)

But Dinklage isn't just an exhibitionist. Sometimes choking off a chord, sometimes letting it stand out full, he has timing and taste matched only by Steve Cropper of Booker T. and the MG's. In Tom Rush's words, he knows which notes to play and, even more important, which ones to leave out.

Drummer Keith Moon shows the same abilities. Ginger Baker could play him under the table

with one hand, but there is more to the story. During the intro to "Pinball Wizard" Moon banged away at the empty air in breathtaking non-riffs - leaving out just the right notes, namely, all of them.

Since the rise of Joe Bisaccio, "Pinball Wizard" has probably become the favorite single around campus. (The flamenco-ish intro got a standing ovation at the Tea Party.) It is also, as is well known by now, part of *Tommy* the first full-length rock opera. Some of *Tommy* is deadweight, but "Pinball Wizard," "The Acid Queen," and some of the others are sensational.

Tommy had its beginnings with "A Quick One While He's Away," a nine-minute rollicking mini-opera of sorts. This composition of Dinklage's inspired Keith West and Mark Wirtz to write *A Teenage Opera* that was a huge hit in Britain 18 months ago.

All too soon the opera was over. For a change of pace, they did a smash of a "Summertime Blues" (did you know that their "Heat Wave" is pretty fair, too?) and a rather disjointed "Shakin' All Over." Then Keith Moon abandoned his drums for klavars and "Magic Bus" was rolling. Dinklage gave a pretty exhibition of his chording style mixed in with some very John Fogerty-ish lines. He and Roger Daltrey then traded off vocal solos until the rest of the band, Moon and bassist John Entwistle, took off on an improvisational tangent. The music degenerated into noodling when one of Roland Kirk's sidemen came out to join in. Finally it was time to go.

I keep thinking about *Tommy*.

HARVARD SQ. UN 4-4580

"THE KILLING OF SISTER GEORGE"
1:30, 5:25, 9:20 plus
Christopher Plummer in
"THE HIGH COMMISSIONER"
3:45 and 7:40

BRATTLE SQ. TR 6-4226

Last 2 days of Fellini week!
FELLINI'S "8½"
5:15, 7:30, 9:45
Saturday matinee at 3:00

Relax and Divert
CAMPUS CUE
590 Commonwealth Ave.
(Opposite B. U. Towers)

Pocket Billiards
"Great for a Date"

City Council plans renting restriction

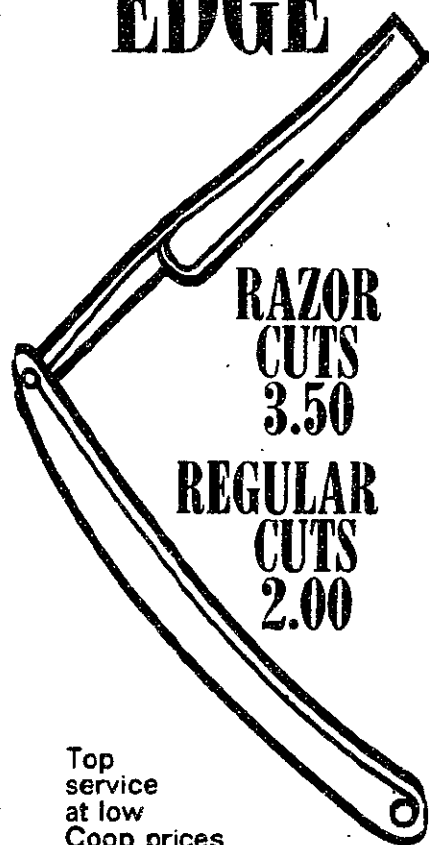
The City of Cambridge has moved to limit the number of occupants in apartments normally utilized by Harvard and MIT students to no more than two unrelated persons per living unit.

The Cambridge ordinance tentatively approved last week provides that landlords found guilty of "apartment-stuffing" shall be fined \$20 per day. The law, which would go into effect on July 1, does not affect dwellings already housing more than two people; it would apply only to new residents.

Brookline has already enacted a similar statute. State laws place the maximum number of non-related residents at four.

Now featuring
at our
2 Barber Shops

THE RAZOR'S EDGE



RAZOR CUTS
3.50

REGULAR CUTS
2.00

Top service at low Coop prices

THE COOP

TECH COOP AND "B" SCHOOL COOP BARBER SHOPS

You and "The System"

deferments. physicals. conscientious objection. rejection. appeals. alternative service. counseling. legal aid. prison. foreign travel. emigration. filling out forms.

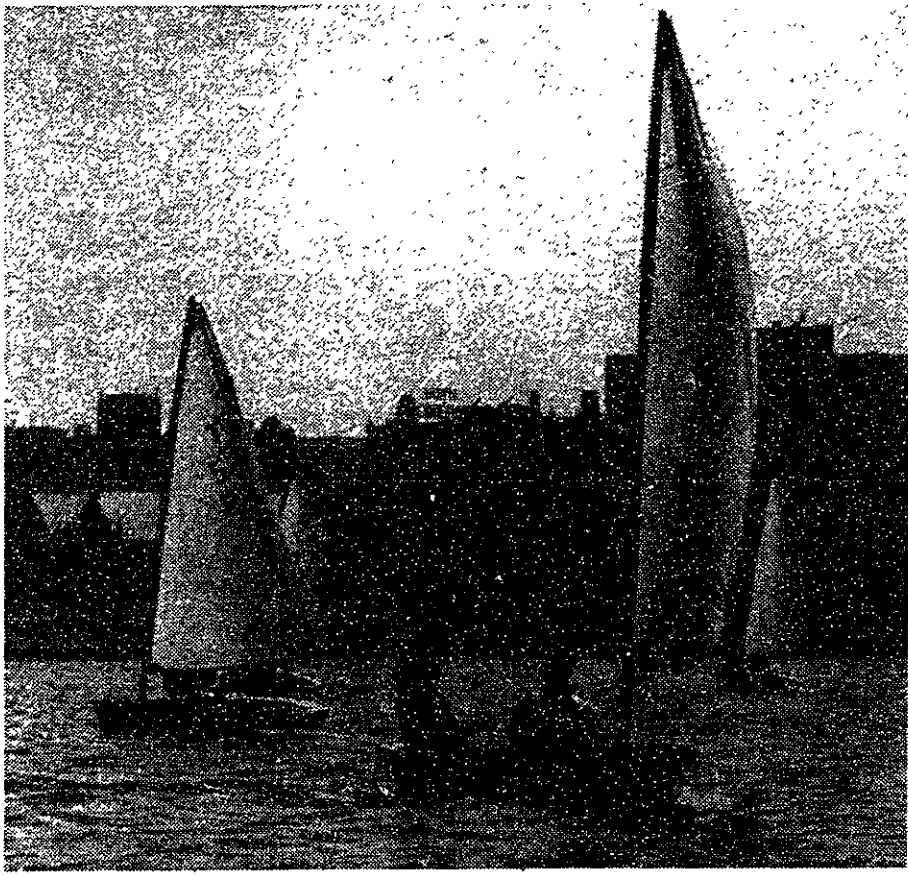
The most accurate and complete book available!

GUIDE TO THE DRAFT
by Arlo Tatum and Joseph S. Tuchinsky

\$5.95; paper, \$1.95

At your bookstore, from draft counseling services, or direct from:

Beacon Press
25 Beacon Street
Boston, Massachusetts 02108



Lightweight crew entered in Henley, England regatta

By Bill Mammen

After a very successful season, the MIT lightweight varsity crew is now preparing to row against the finest European crews at the Henley regatta to be held on the Thames in early July. The team will pay for their transportation to England this summer, while the Athletic Department covers the rest of the expenses.

The decision to allow the team to go was made last week after the varsity lights finished second in the Eastern Rowing Colleges Sprints held on Lake Quinsigamond in Worcester.

In past years a crew had to place first in the sprints before they were sent abroad. But this year, to recognize what Coach Gary Zwart calls "the fastest crew I've ever had the pleasure to coach" and to bolster crew at MIT, the athletic department made an exception.

The crew has demonstrated a willingness to work and stiff spirit in the face of strong competition. The department is convinced that

the already fast crew has not reached its full potential and will get faster in the next months.

Part of the spirit of this crew is evidenced by the vigor with which they have begun raising the money for their share of the expenses. Their goal is \$4000 and they need it by the middle of June. Right now the team is selling donuts in Building 10. Other means of raising money are being discussed.

Since all applications for the Henley Regatta have not been processed, the crew is not sure who its competition will be. However, rumors have it that the Northeast Cambridge gang is planning to go also.

Tech's boatings for the regatta will be Bryce McIntyre '71-bow, John Malarkey '71-two, Roger Doxsey '69-three, David Lee '69-four, Henry Baker '69-five, Captain Bruce Anderson '69-six, Bruce Parker '69-seven, Don Saer '70-stroke, and Willie Vicens '70-cox. The alternates will be Joe Boddiford '71 and Paul Sullivan.

Burton captures intramural track meet with seven firsts

Burton House captured first place in the intramural track meet with seven firsts and 55 points out of the 14 events. Theta Chi came in second with 34 points, while Baker finished third with 29 1/2.

There were three double winners in the meet. Joe Richmond won the two mile and one mile with a 10.18.3 and a 4.46.4 respectively. These were exceptionally good times for the two events. Paul Roeder took first in the 220 yard dash (23.0) and tied for first in the 100 with Ed Raska (10.3). Both times were IM records, but they won't be official since there was a strong tail wind.

Roger Cappalo's 9'6" was good enough to win the pole vault while Larry Burgess and Vern Renshaw shared first in the high jump. The pole vault, two mile run, 440 relay, and mile relay were all introduced for the first time in this year's meet.

In the finals of the winner's bracket of softball, SAE scored a tight 1-0 shutdown of SAM. Slow pitching Don Paul of SAE tossed a one-hitter, the lone hit being a ground ball single in the first inning, but he was soundly rocked a number of times only to be

saved by some fine fielding gems. The single score off fireballing Paul Sitkus was unearned. After a SAElor single was misplayed into a three-bagger, SAE executed a perfect squeeze bunt to bring home the run.

The Sammies now face PDT, which defeated Bexley 'A' 6-2.

Freshmen nine best team ever

By Steve Goldstein

Bucking tradition and breaking records, the Tech freshman baseball team has compiled an 11-2 record with one game remaining, making the Tech nine one of the strongest teams in New England. In the past, no MIT freshman baseball team has ever had a winning record, or even defeated another college team. Good hitting, fine pitching, and the inspired leadership of coach Richard Goldberg accounted for the break in tradition.

The team's hitting was led by Bruce Alborn, batting .409 with 13 RBI's; Kent Weisshaar, hitting .360 with 17 runs; Steve Gass,

Sailors bid for championship

In the last team event of the sailing season, the MIT Varsity distinguished itself, finishing number two in the New England Dinghy Championships. Each year, the top two teams from each of the seven nation-wide associations compete in the North American Championships, which will be held this year in Bellingham, Washington. An MIT team has not been represented in the North American since 1964, although Tech won more titles in this event than has any other school.

In collegiate racing, a typical regatta involves twice as many races as there are schools participating. Each school fields a skipper and crew to sail in each of two divisions, and an average finish of second place is often good enough to win handily. In New England, however, there are an unusual number of top teams. Thus, individual regatta results are highly unpredictable, and the only seasonal evaluation of a team's performance can be meaningful.

The first MIT Varsity event was the Boston Dinghy Club Cup at Coast Guard April 5-6. Steve Milligan '70 and Dave McComb '70, with Captain Dick Smith '69

and Chuck Wayne '70 as crews, managed a slow fifth, perhaps because of limited practice time.

In the George Owen Trophy, sailed the following week, the same pairing equaled in score of home team Kings Point, but were awarded second place using the appropriate tie-breaking methods.

Dana Pettengill '71 and McComb took second again to Harvard on April 19, at the MIT Open Regatta on the Charles. The following day, six Tech skippers sailed a poor third in the Geiger Trophy, an event in which they were favored.

But Milligan and McComb demolished all competition in the Dartmouth Bowl the next weekend, winning eight of the twelve

races sailed. And, on April 27, Pete Nesbeda, Smith, and McComb repeated that impressive performance by winning twelve races and the Greater Boston Championship.

In the Friis Trophy, May 3-4, Nesbeda and McComb had a bout with bad luck, finishing third behind Tufts and New York Maritime. But in the New England Championships, Milligan and McComb outsailed seven teams including second ranked Yale to finish close behind Coast Guard. By qualifying for the North Americans, the Tech squad proved they are able to survive in the toughest competition, and all look forward to the Washington trip with great expectations.

Tech blanks NU 7-0, behind DeWitte's two hit pitching

By Jag Zager

Last Monday night, Northeastern University's Denny McCarthy was named to the Greater Boston League All Star Team as a starting pitcher. Last Tuesday afternoon, Dave Dewitte, MIT's Kangaroo Kid, gave the Huskie senior a pitching lesson as he fired a two-hitter to help the engineers defeat NU on a 7-0 whitewash. The victory was the first for MIT in the GBL and gave the Techmen a 1-6 final mark in the League.

Johnny Compton parlayed a good hustle into two early runs as he reached base safely in the second and fourth innings, and scored on a hit by Tom Pipal and a Huskie error. In the home sixth, Pipal led off with a walk, and was forced at second by Dewitte. With

two down, Lee Bristol singled, and Bob Dresser reached on an error. Jeff Weissman, an All Star in his own right, came through with a two-run single to left, sending the engineers out in front by four.

But the batsmen weren't quite finished with McCarthy. Compton led off the seventh with his second hit, and when Moose Freyberg walked, McCarthy was yanked in favor of Jeff Sonnes. Sonnes retired the next two Tech hitters, but Dewitte lined a double to right center, and the margin reached 6-0. Captain Lee Bristol's hit to right brought Dewitte home, ending the day's scoring.

While McCarthy had his troubles, Dewitte breezed along for his first varsity shutout. Last year against NU, he took a 1-0 lead into the ninth only to have his defense collapse around him and yield two unearned runs. But this year was a different story. An infield squibbler in the first inning, and a seeing-eye grounder in the second were the only hits Dewitte surrendered. He did not hit the Huskies for the last seven innings, and in the ninth, when he tired and walked the first two batters, he rallied to set down the next three men to nail down the shutout. All in all, he walked seven, but was most effective with men on base. Once in the fourth inning, he walked three men in a row, but came back to retired the sides on a pop-up.

The victory game gave the varsity a 6-14 record, with only the Bently game, on Briggs field today at 4:00 pm, remaining on the schedule.

On Deck

Tomorrow
Track (V,F)—New England's at BC
Rugby—Dartmouth, home, 2 pm



Photo by Gary DeBardi

Mark Scher '71 steps towards an incoming pitch in final game of the 1969 spring campaign. The Tech nine ended the year by blanking Northeastern University 7-0'

hitting .310; Dennis Biedrzycki with 14 runs; Dom Camardella, batting .333; and Joe Edwards with 13 RBI's. The general caliber of the team's hitting is shown by its high .268 average.

Pitching has also been a strong point as indicated by the 2.70 team ERA. The pitching staff was led by southpaw Chuck Holcom, with a 5-0 record and a 1.97 ERA. Al Dopfel racked up an average of 1 1/2 strikeouts per inning, while compiling a 3-0 record with a 2.81 ERA. Rounding out the staff is Art Kilmurray with a 3-2 record and a 3.35 ERA, including exceptional performances against Northeastern and Trinity.

On the way to attaining their

fine record, the Tech frosh defeated some of the perennial baseball powers in the New England area, including Tufts, Northeastern, Boston University, and Trinity. The only losses of the season came against a powerful Harvard squad, and in a heart-breaker against Bowdoin. One of the highlights of the season was Chuck Holcom's one-hitter against Lowell Tech in which Tech hitters exploded for 15 runs. Probably the most exciting and important game of the season was Art Kilmurray's 4-1, five-hit victory over Northeastern. With this freshman team moving up to the varsity next year, MIT has a potential future GBL winner.

Second-class postage paid at Boston, Massachusetts. The Tech is published every Tuesday and Friday during the college year, except during college vacations, by The Tech, Room W20-483, MIT Student Center, 84 Massachusetts Ave., Cambridge, Massachusetts 02139. Telephone: Area Code 617, 876-5855 or UN4-6900, extension 2731. United States mail subscription rates: \$4.25 for one year, \$8.00 for two years.

Friday, May 23, 1969

Bindery
Room 14E-210