

The Tech

VOLUME 93 NUMBER 51

MIT, CAMBRIDGE, MASSACHUSETTS

TUESDAY, DECEMBER 4, 1973

FIVE CENTS

Energy unit plan delayed

By Norman D. Sandler

The White House Monday postponed announcement of the creation of a new cabinet-level office to deal exclusively with the energy crisis, and designed to replace the current Energy Policy Office.

The announcement originally planned for Monday was that the new agency, known as the Federal Energy Administration, would coordinate government measures to cut back on energy consumption and efforts to develop new energy sources.

Reportedly chosen to head the new office is Deputy Secretary of the Treasury William E. Simon, who would keep his appointment in the Treasury Department, but would also be elevated to a position as counselor to the President.

The *Boston Globe* reported

Sunday that Nixon would create the agency on a temporary basis by executive order, but will submit a proposal to Congress in order to make the energy administration a permanent office.

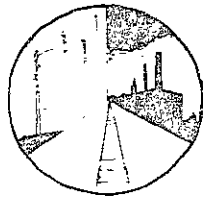
Meanwhile, Energy Policy Office Director John A. Love resigned his White House post and left Washington, following discussions with Nixon regarding future energy policy making. The former Colorado governor's resignation came in the wake of reports that the President was dissatisfied with Love's performance in co-ordinating efforts to ease the energy crisis.

Simon will also be responsible for overseeing the Adminis-

trations allocation program for gasoline and home heating oil ordered by Nixon last month. The new energy administration will also coordinate any gas rationing programs ordered by the President in the future. Nixon has said that in all likelihood rationing would not be necessary, although several ranking members of the Administration, including Love, have predicted rationing would be necessary to cut fuel consumption by early next year.

"Sandbagged"

Administration sources told the United Press International reporters that Love was "sandbagged" by Treasury officials who wished to quiet the stock market's recent downturn.



Energy and MIT



Richardson outlines admissions

By Paul Schindler

(Last Friday's article about the Hecht report was the first in a series of articles examining the issues which face the MIT Admissions Office. Today, the questions of student personality and female undergraduates are discussed by Peter Richardson. The Tech concludes its coverage of the Hecht report. - Editor)

MIT cannot really control the type of students that end up in the student body, according to Director of Admissions, Peter Richardson '48.

One thing is certain though, he said. There will certainly be a record percentage of women in the class of 1978, whose applications are now being processed.

Richardson, in a recent interview with a panel of student reporters, admitted that the "pre-selection" process, by which students decide whether to apply to MIT or not, yields a student body which is "already biased" towards studying to the exclusion of other activities.

The one part of the admissions process that MIT directly controls, admission itself, "works very hard to pick from the group [that applies] those students that have variety and diversity," according to Richardson.

But the third part of the process, acceptance of the admission offer, once again allows students with diverse interests to end up somewhere else; last year 1700 were admitted to end up with a class of 900.

Remedies can be applied to the two parts of the process that MIT can only affect indirectly, according to Richardson. The applicant pool can be increased by bringing MIT's image into closer correspondence with reality, Richardson believes; a recent study by Associate Director of Admissions William Hecht (see story on this page) indicated that the best way to get information to potential applicants is through visits by current undergraduates.

"Any time I can get an undergraduate to talk to a prospective applicant to MIT I am going to come out ahead, if that under-

graduate is at all reasonable in the way they deal with that person. The more I can get undergraduates to talk to applicants, the better chance I have to get them to come," Richardson said.

Similar solutions are likely to be effective in getting a better yield from the admitted group, he stated, although there are many factors involved in an applicant's decision at that point. "Of those who do not accept our admission offer, one-third of the ones we contact cite financial aid as their reason. The most important factor, though, is the reputation of the Institute."

In a concrete move to improve the information flow, Richardson sent out a letter to all students today, encouraging them to visit their high schools, and offering four hours - 2pm to 4pm, December 12 and 13 - during which the Admissions Staff will talk with students planning to make visits.

Richardson was asked if the faculty really wants a student body whose sole interest is studying. "The faculty has many and diverse interests," he replied, "and one of the fun parts of this job is sparring with the various pressure groups who want certain kinds of students. All together, the faculty is interested primarily in the academic stature of its students. Only after this has been assured are they interested in non-academic areas."

Richardson told the reporters that while an attempt is made to estimate what the scholastic success of an applicant will be, via the Scholastic Index, there is no real attempt to estimate, in advance, his or her chances of social "success."

Women

"If two or three years from now, the student body at MIT is not 30 per cent women, we will not have done our job in the Admissions Office," Richardson said.

Richardson was asked several times about the number of women likely to be admitted in

the class of 1978. He hesitated to make an exact prediction, but said, "It won't be 33 per cent, which is the proportion among preliminary applications; it will be somewhere between last year's 14 per cent and 40 per cent. You take your pick."

Richardson attributed the increased number of applicants to a number of sources, including the booklet prepared by a group of female staff and students which his office sent out to female high school students with high math scores on the Preliminary Scholastic Aptitude Test.

He acknowledged that the group was largely non-official MIT people, and then pointed out that "we have never mailed to that particular group of students, and the book was only one part of the mailing. To attribute it [the increase in the number of applications] to that (Please turn to page 3)

Report eyes perceptions of MIT

By Mike McNamee

MIT applicants tend to be attracted to the Institute because of its academic reputation and wide variety of academic offerings, but "still seem to have a pretty good idea of what the Institute is really like," according to William Hecht '61, head of the Educational Council and author of a new report dealing with MIT applicants and their perceptions of the Institute. (See *The Tech* 11/30).

Many influences affect the prospective applicant's college choice, according to Hecht, but the two that MIT applicants put the most weight on are apparently Academic programs and total cost. Variety of academic offerings, availability of special programs, and student-faculty ratio count as big pluses with prospective freshmen, while total cost is the single largest negative factor.

The study, which was conducted by the Educational Council, involved surveying nearly 1000 high school students in three groups: 1) National Merit

Semifinalists; 2) MIT preliminary applicants, and 3) MIT final applicants. The survey was taken before the students had decided on their college choice, which makes it "unique among college admissions studies," Hecht said.

In one part of the study, the students were asked to reply to a series of statements about MIT on a one-to-five scale, with one indicating strong disagreement with the statement and five a strong agreement. "In many important areas, we noticed significant differences between the information that MIT final applicants have and that that our control group of National Merit Semifinalists," Hecht noted. "This tells us that we must be doing something right with our information policies."

The statements ranged from, "The Boston/Cambridge community is an asset to the MIT community," which Hecht ranked as one which probably would be a positive statement for the Institute, to "Even if I

would not be outstanding enough to qualify for a scholarship," a negative statement.

The mean and median reactions to the statements were compiled for the three groups; a mean greater than three indicated a general agreement with the statement, while one less than two meant disagreement.

Hecht stated that he felt that a change in the mean of "about 0.5" or a change of one in the median between the first and third groups would generally mean "that we're getting our message across to the students that are applying to MIT."

"Shifts in favorable directions are noticeable in the statements on whether or not a student has to study all the time to do well at MIT, on opportunities for persons interested in humanities, on the athletic program, and on self-paced study," Hecht said. The greatest shifts in opinions were on the humanities question (mean changed from 3.02 to 3.63, or by 0.61) and the athle-

Problem of 'live-ins' plagues SC Library

By Howard Sitzer and Mike McNamee

Eight years after its opening, the MIT Student Center Library continues to suffer from the problem which *The Tech* commented on editorially as long ago as 1966 - students who use the Library as a dormitory.

Although the Library's official policy has been to discourage students from using the study facilities as a residence, "anyone can see that there are still a lot of people living up there," according to one student.

The "24-hour" policy, which Library officials say is unique in this country but is the main contributor to the problem, was originally proposed to give student access to study facilities at all hours. However, students have taken advantage of this policy since the Library opened to establish residences there.

In an editorial entitled "The Slobs Take Over" (November 22, 1966), *The Tech* pointed out, "the [Library] often resembles a cross between a pippen and a cheap hotel;" the

editorial ended with an exhortation to "get rid of the riff-raff that want to turn it [the Library] into a dormitory."

Policies

Library regulations, which have been "revised regularly to cope with the problem," according to Library officials, prohibit bringing blankets and "sleeping equipment" into the facility. Cosmetics are specifically banned, and the librarians on duty have been given authority to discourage students who "seem to be overstaying their welcome," in the words of one librarian. These policies, however, have been ineffective in many cases.

Many of the study carrels are filled with personal goods, textbooks, and library books. Packaged food is sometimes seen on the shelves in the carrels, despite a sign on the entrance which reads: "No Food or Drinks Allowed in the Library." Many students complain that so many carrels are occupied that it is difficult to find a place to

(Please turn to page 2)

Students living in library cause problems

(Continued from page 1)

study in the library. Although other libraries such as Dewey allow a student to reserve a carrell and/or locker for specified periods of time, the Student Center Library has no such provisions.

The Student Center Committee (SCC), which is responsible for making policy on this issue, has reportedly decided to permit student sleeping in the Library as long as the student involved maintains a residence elsewhere. According to sources within the Library administration, special policies are in effect for some students; one student who frequents the Library has reportedly received authorization from the Medical Department to live there unmolested.

SCC Questionnaire

A questionnaire distributed recently by the SCC in the Library, dealing with furnishings and uses of the facility has led many students to question the Committee's commitment to its stated policies. The questions asked if the respondent felt the furnishings in the Library should allow or discourage sleeping, and whether the respondent felt that the Library should be used for such purposes. Suggestions for



adding coffee and food vending machines to the lobby outside the Library were also mentioned on the questionnaire.

"It seems to me," one student told *The Tech* "that they're asking whether the Library should be a place to study or another dormitory. I don't think that having people live there is a proper use of the facilities."

The SCC questionnaire cited sleeping on the existing furniture as one reason for the high rate of wear that has plagued the Library's facilities. The furniture has been provided directly by Physical Plant in the past; there

are, as yet, no indications that this policy will change, as the results of the survey are still being processed.

Questions of Access

According to Student Center Librarian Francis E. Haslett, other problems enter into the consideration of the Library's use. The checkers at the door, for instance, have been given discretionary power to determine if users of the Library are members of the Institute community, due to problems when the Library opened with use of the facilities by students from other colleges in the area.

Haslett explained that Institute identification is not required at all times of persons entering the Library, but that the checkers challenge only those people whose MIT affiliation is open to question. "Some students, who see someone walk in ahead of them without being challenged, complain that they are being unjustly harassed, while it might just be that the checker is not as familiar with them," Haslett said. "We feel that the majority of the users will benefit by these policies."

Usage Declined

Haslett told *The Tech* that usage of the Library had declined in recent years, due to the increased numbers of departmental reading rooms and other library facilities. She pointed out

"where work and isolation can be so much of a strain, emotionally and physically."

Haslett cited problems with users who don't return books to the shelves, or who hide or remove books, as an important problem for other users. "Ten or twelve years ago, students had a smattering of respect for regulations and courtesy," she said. "The students are much more unscrupulous on that kind of thing now."

owned and managed by Harvard MBA's
Expert service on foreign cars



Auto-torium, Inc.

412 Green St. Behind the Central Square YMC.

Mon.-Fri. 6am to 8pm



The Historic OLD VILNA SHUL
16 Phillips St., Beacon Hill, Boston
invites the Jewish students to our Traditional Orthodox Services.
FRIDAY: Sundown SABBATH: 9 am
followed by a delicious Kiddush

MIT Community Players present

RASHOMON

Thursday December 6-8, 13-15
Friday 6-8, 13-15
Saturday 8:00 pm

\$2.50

Kresge Little Theatre MIT
For reservations call 253-4720



Mass. auto insurance, explained.

Mass. automobile insurance can get a little complicated. And if you're under 25, it can get expensive. We'll simplify things. And we'll help you keep your premiums as low as possible.

W. T. Phelan & Co.

Insurance Agency, Inc.

11 Dunster St., Harvard Square (next to the Holyoke Center).
876-0876. Representing Aetna, Travelers, Hartford.



classified advertising

Leitz 35mm f/3.5 Summaron w/optical finder for M3. Very good condition, sharp, w/filter, \$60.00. Call Dave Tenenbaum at d18765 or x3-1541 (253-1541).

Travelling to exotic places over IAP? Avid collector needs bear cans from Central and South America, Africa, Japan. Will buy or trade. Martin Landey, Draper Labs 258-1159 days.

Looking for architectural student in last year of school interested in designing vacation home in wooded mountain area for young couple. Reasonable fee. Please call evenings. 485-2431.

Sail the Bahamas. Spring Break Mar 24-29. Six days aboard a sailing yacht. Happ Hours, all food and accommodations included aboard ship. No experience required. \$150 from Miami. To reserve enough space, interest must be expressed by Dec 20. Call 498-4820.

Boston Export Sales, and international marketing consulting group providing technical marketing services for student near completion of degree work. Part time work available until completion of degree with the objective of career employment on graduation. Please call 890-2311 for appointment.

STOWE VERMONT — members wanted by ski club with modern lodge. Full and half shares available. For details write Vince Cocivera, 11 Charles bank Rd. Newton, Mass 02158.

STUTTERERS needed for Federally funded research program. Age 16-50. Subjects will be paid. Anne Newman, Psychology Dept., Northeastern University. 437-3077. Mon-Fri 9-5.

The MIT Student Artists Association is sponsoring a one night holiday film festival. For the first time in years in the New England area the silent film classic "The Tramp" will be shown. This is the film in which Charlie Chaplin creates the character that made comedy history. Another classic is the Chaplin film "The Gold Rush" voted Best All Time Comedy in a critics poll of 40 nations. Plus the Chaplin film "The Pawnshop."

I've been typing Masters and Ph.D's
Full Time
for 4 years (and still love it!) I'd be happy to help you. (IBM Correcting Selectric) 894-3406 (Weston).

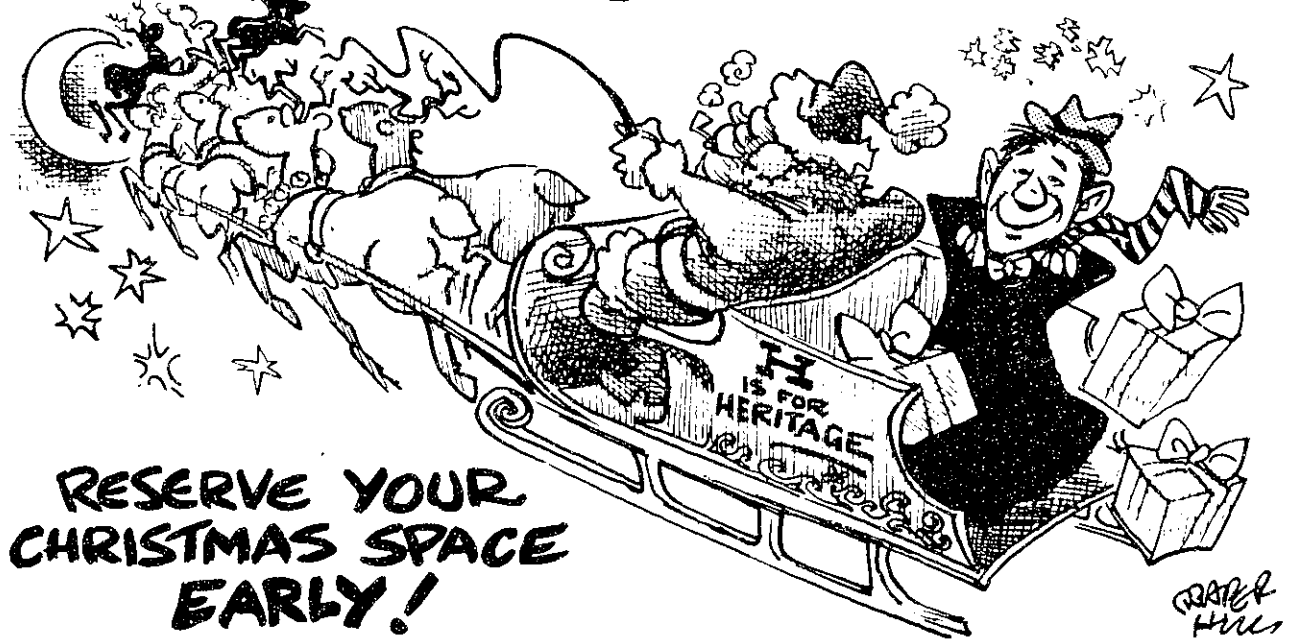
On the same bill will be the Mack Sennett Production of W.C. Fields in "The Fatal Glass of Beer." Also showing will be "The Great Chase" and "The Great McGonicle," all starring W.C. Fields. An extra attraction will be the Keystone Kops in "Dollars and Sense."

20% — 50% OFF ON ALL STEREO EQUIPMENT. Stereo Components, Compacts, and TV's, All new, in factory sealed cartons. 100% guaranteed. All major brands available. Call Mike anytime 891-6871.

The Festival will be held on December 17, Monday, at 8:30pm at Kresge Auditorium, MIT Campus. Tickets are only \$2.00 and can be purchased in advance at the TCA office, MIT Student Union or Paul's Shoe Repair Shop, 698 Mass Ave, Central Square, Cambridge. Info: 253-4885.

Wanted: good used winter clothing for consignment sale. Also wanted: customers for new thrift shop in Cambridge. The Spare Closet, 101A Magazine Street. 661-1357. Closed Monday.

LOOK HOMEWARD... (CAMEL?)



RESERVE YOUR CHRISTMAS SPACE EARLY!

Now is the time to assure yourself of Christmas reservations. See MIT's convenient travel agent, Heritage Travel, Inc. . . . where quick reservations are a specialty.

No longer need you rely upon undependable mail order ticketing or make unnecessary trips into Boston. Heritage is ready to process all your travel needs in minutes. And our staff of economy-minded professionals will be able to save you dollars.

Ski tours and cruise offerings available.

Heritage's street level office is just one block from the Sloan Campus, in Kendall Square. Call or visit our office; we're open from 8:30am until 5:30 pm, Monday through Friday, and from 9:00am until 1:00pm on Saturday 'till December 15th.

Heritage Travel, inc.

One Broadway, Cambridge, Mass. 02142

Tel. 868-2666

SQA from Washington

WASHINGTON, Dec 2 -- Ten years ago last week the funeral cortege wended its sad, slow path from the Capitol, to the White House, to St. Matthew's Cathedral, to the final resting place on the Arlington hillside. The family priest (by then a Cardinal) spoke, the great, reminded of their mortality, stood mute, his wife stoically composed, his brothers shattered, his son saluted, and the country tried to pick up the pieces. The intervening decade has seen the fabric of our social compact torn further asunder rather than sewn together. Why? Whence now?

To start at the beginning, Jack Kennedy had an indefinable quality-class. He spoke the truth and exemplified an age of youth, style, and elegance in sharp contrast to the Eisenhower years. John Kennedy also had the intelligence and background to reject the ill-founded advice of his brain trust as his successor was unable to do; he had an elemental decency and respect, glaringly missing from the profile of his current successor, for those less privileged than he. Saying all that does not bring him back, nor does it erase the last ten years of national travail, but it may provide a slim clue as to where America should head from here.

A basic shortcoming of national government in the last ten years has been the paucity of mutual confidence, trust, understanding, and respect between the people and their employees -- the government bureaucracy and politicians.

During the Cuban Missile Crisis, an Assistant Secretary of Defense for Public Affairs attempted to claim that the government had the right to lie to the people in the name of national security. There are those who trace the seed of the prevailing notion that certain facts essential to the informed judgement requisite to our participatory democracy must be kept from the people to that assertion made during the Kennedy Administration. However, Kennedy was open and forthright in his numerous press conferences. The practice of lying to the public did not become institutionalized in his term of office. Kennedy did not evade responsibility for and involvement in the Bay of Pigs fiasco. Similar doses of the truth, in place of lies on the grounds of national security, might have kept this nation out of the quagmires of Vietnam and Watergate.

When the news was bad, when this country found itself in perilous times, when we peered over the brink and into the abyss of nuclear war, John Kennedy himself gave the news to the American people -- straight from the shoulder. He did not send his Secretary of State before the cameras to further deceive the nation, nor did he flee to Camp David rather than face the music. JFK was believed because he spoke the truth and leveled with his constituents; he distributed pictures of the missile sites rather than having his spokesman promise an accounting for the military alert he ordered and then renege on the promise. When the immediate danger of the Cuban Missile Crisis had passed, Kennedy forbade his aides and advisors from speaking publicly or forcing the Russians to back down. He did not crow over the Russians' discomfiture nor did he attempt to further humiliate them. How far we have fallen.

Kennedy had his failures, but he learned from them and did not attempt to transform a smashing defeat into a seeming success with public relations

shams. Kennedy failed at the Bay of Pigs, failed to pass as much of his domestic program as he would have wished, failed to realize the effect of dispatching American troops to South Vietnam.

It is unrealistic to demand that all future Presidents be independently wealthy so they will not scheme for private profit at public expense, or at charisma, style, and grace be prerequisites for the highest office. It is, however, reasonable to ask that this nation, not only its leaders, but all of its government officials and employees return to a higher standard of truthfulness in their dealings with each other, with the Congress, and with the American people.

The people of this country can stand

News judgement for The Tech

By Paul Schindler

The Tech will admit in a minute that both the *Boston Globe* and the *New York Times* have greater facilities for national and international news than we do. So why bother to run any?

There are several reasons, and they are based both in my perceptions of the MIT audience, and in what I believe the purpose of *The Tech* to be. As "a newspaper of the MIT undergraduates," and the only one which even attempts to cover news at MIT, it is our responsibility to bring to the attention of the students news which is informative and useful.

Not just what they want to know, but what they should know. And the fact of the matter is that the decay of our American political processes brought on by the Nixon gang has to be of concern to every citizen. So we will continue to print Watergate stories.

Many MIT students live in Cambridge, and a lot of them vote here. So the paper will continue to provide coverage of the voter registration situation in the city. In the coming months, some attention will be devoted to development in the areas around MIT, particularly Kendall Square: development which may have a very substantial impact on the living environment of students.

Science policy, the way the federal government spends your tax money on research and development, is a critical issue which may well receive more coverage in *The Tech* than in any general circulation newspaper. Scientists and engineers of the future must learn from the mistakes of those that went before. Some older engineers seem to believe that their jobs are being buffeted by forces of nature beyond their control, when in fact they are being buffeted by the whims of an Imperial President and his staff who are sometimes susceptible to pressure groups and concerted lobbying efforts. In order to create an awareness of the political processes that affect funding priorities, *The Tech* prints articles about the formation of science policy.

The energy crisis is a national problem with direct effects at MIT, which the paper reported on. It has, and will continue to take advantage of the pool of experts at the Institute to provide "home-grown" commentary on continuing developments. At the same time, there are aspects of the story in which MIT plays no part; yet they need reporting here to, to outline the opportunities for bold engineers and scientists if nothing else.

The Tech applies an MIT perspective to stories that come from off-campus, in an effort to present a package attuned to

the truth, however grim it may be; they have displayed the capability, with respect to both Vietnam and Watergate, to act on that knowledge in a responsible manner. Both of John Kennedy's successors have heard the people's message.

Now an eternal flame flickers above a grave overlooking the scene of his triumphs and defeats; it is a guide to those crossing Memorial Bridge and never fails to stir my heart. There can be no finer tribute to the memory of John Fitzgerald Kennedy than for the people of this country to demand the truth from their national leaders, to face those truths, and to act on them to put our nation back on the path from which we were sidetracked ten years ago.

the needs of the student body.

On-campus news

Events that occur on campus are a different, and more difficult matter to explain. While it is easy enough to figure out which national events merit page one in the *New York Times*, the task facing the editors of *The Tech* is much more subtle and complex. The complexities arise from our definition of news, and the paper's student audience.

Students, to speak of them again only briefly, are here to be exposed to new ideas. Thus, the paper operates under an obligation greater than that of mass circulation newspapers to thoroughly cover the "ideas beat," the mass of new knowledge of general scientific interest that is being discovered every week here and elsewhere.

It is a sad commentary on the training of most scientists and engineers that they are inept at communicating most new discoveries to an audience any wider than that which reads the specialized journals of their own narrow field. Covering the ideas beat is more a problem of unearthing new discoveries than it is one of reporting them, at least at MIT, where the entire student body is minimally capable of understanding scientific jargon and concepts.

You can't send a reporter out to a lab and say "see what they have discovered," you have to wait around to hear about it. Often, you have a very long wait.

Finally, a comment on all the rest of the news in *The Tech*, very little of which is news in the conventional sense. The paper cannot merely cover the events which happen; it must "create" events (conduct interviews) and cover areas of interest to the student body which do not generate hard news, but must rather be reported on as continuing processes.

Deciding which areas to cover is a difficult task under the best of conditions, but it is even more difficult here, where the editors operate in a vacuum devoid of serious reader feedback or competition from the other campus papers. The only paper which occasionally covers a continuing area of student concern before we do is *Tech Talk*, which very seldom beats us to a story.

Things were easier once, when riots and demonstrations were a common occurrence at MIT. That is the simplest kind of news to cover. The real test of the abilities of this newspaper comes now, when nothing visible is happening, because in fact decisions are being made and actions taken which will affect the course of the Institute for decades to come. All we have to do is figure out where.

by Fred Hutchison

Letters

To the Editor:

In his interview with Paul Schindler, reported in the 27 Nov issue of *The Tech*, Professor White was asked whether the current energy crisis is a result of oil company greed.

His reply, essentially, was that it was not greed ("That's a stupid position to take"), they were just trying to maximize their profits, for the stockholders, of course.

Is there a difference?

Anthony Ades

To the Editor:

To correct any wrong impressions your readers may have received from the article, "Staff Education Program Changes" (*The Tech* November 20, page 1), we urge you to print the following information about the Tuition Assistance Plan.

1. Courses at MIT are not "free of charge" under the Plan. An individual on any payroll who satisfactorily completes a job-related MIT course (subject) is reimbursed 75% of the tuition and certain fees. The same reimbursement, 75%, applies to a daytime course taken by a member of the staff at another college or university.

2. Evening courses at other schools qualify for 100% reimbursement up to a yearly dollar maximum. The effective maximum under the present reimbursement formula is \$625 not \$750, and the proposed change would make this maximum a flat \$625, not \$750.

The headline and opening paragraph of your story might tend to mislead readers. Tuition assistance for all employees of the Institute is already being administered in a single office. No "unforeseen problems" had been encountered -- merely minor difficulties in assembling statistics concerning participation.

Priscilla E. Mead
Assistant to Personnel Officer

Continuous News Service

The Tech

Since 1881

Vol. XCIII, No. 51 December 3, 1973

David Tenenbaum '74; Chairman
Paul Schindler '74; Editor-in-chief
Norman Sandler '75; Executive Editor
Storm Kaufman '75; Managing Editor
Stephen Shagoury '76; Business Manager

Carol McGuire '75, Steve Wallman '75,
John Hanzel '76, Jim Miller '76;
Night Editors
Michael McNamee '76, Barb Moore '76;
News Editors
Neal Vitale '75; Arts Editor
Sandy Yulke '74, Fred Hutchinson '75;
Sports Editors
Roger Goldstein '74, David Green '75;
Photography Editors
John Kavazanjian; Advertising Manager
Tim Kiorpes; Contributing Editor

Robert Elkin; Managerial Consultant
Tom Hopkins '76; Accounts Receivable
David Lee '74; Circulation Manager

Bill Conklin '77, Margaret Brandeau '77;
Associate News Editors
Julia Malakie '77;
Associate Night Editor

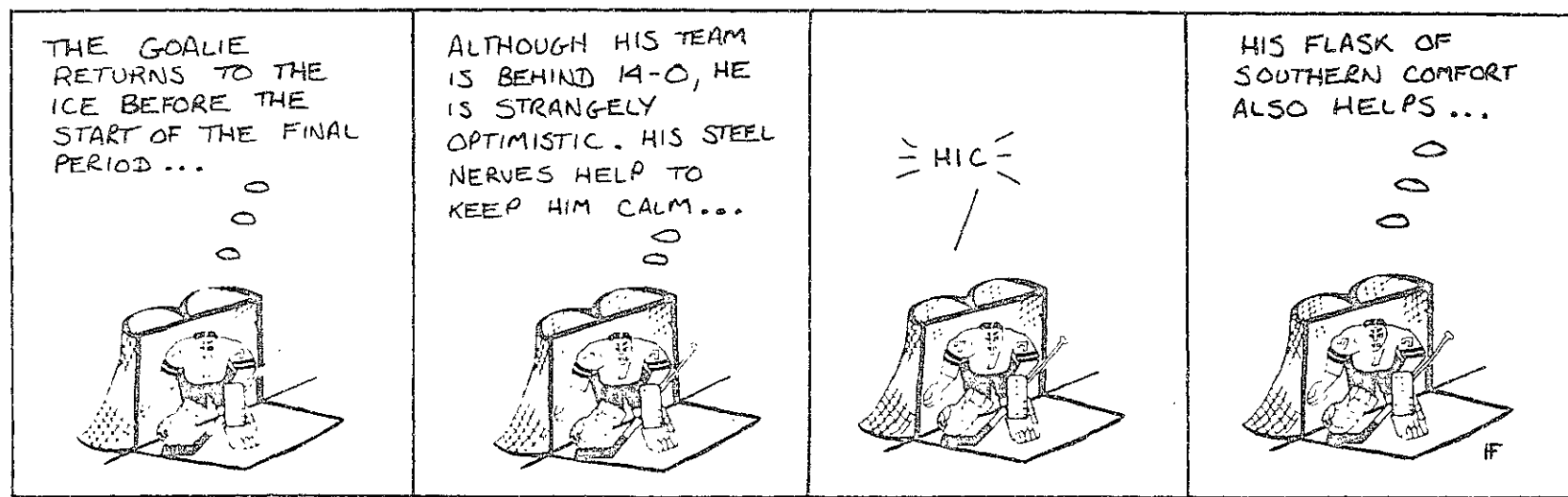
Production Staff
Ken Isaacson '75, Frank McGrath '75,
Larry Appelman '76, Tom Birney '76,
Michael Graves '76, Robert Nilsson '76,
Cathy Medich '77, Vincent Richman '77

News Staff
Howard Sitzer '74, Curtis Reeves '74
James Moody '75, Ken Davis '76
Wendy Peikes '76, Henry Frechter '77
Steve Keith '77, Stephen Mallenbaum '77
Jules Mollere '77, Alan Shapiro '77
Vincent Stanton '77

Sports Staff
Paul Bayer '73, Randy Young '74,
Dan Gantt '75, David Katz '75,
Donald Shobrys '75,
Glenn Brownstein '77

Second Class postage paid at Boston, Massachusetts. *The Tech* is published twice a week during the college year, except during college vacations, and once during the first week in August, by *The Tech* Room W20-483, MIT Student Center, 84 Massachusetts Avenue, Cambridge, Massachusetts, 02139. Telephone: Area Code 617, 253-1541. United States Mail subscription rates: \$5.00 for one year, \$9.00 for two years.

NUTS & SCREWS



Technical Notes

* GE is completing an automatic data collection platform to aid in the design of a world-wide navigation and communications satellite system for ships and aircraft. The proposed system will consist of a series of satellites in synchronous orbit, with each serving as a relay point for communications among ships, aircraft, and communications centers. Working in pairs the satellites could provide triangulation for location of vessels and planes within about one-tenth of a nautical mile. Initially the ground-based platform which GE is working on will receive and measure strength variations in L-band radio signals transmitted from ATS-5, a NASA satellite above the Pacific. The platform is designed to gather information about signal strength variations caused by atmospheric conditions to permit design refinements in the actual system.

* GE has developed a new method of uranium exploration which minimizes environmental problems and saves substantial man-hours. The Track Etch Service uses radon gas detection to find uranium ore by relating the amount of gas to the presence of uranium or radium (both emit radon). A special type of film which is affected by radon gas is placed in small plastic cups which are buried a few feet underground over the area being explored. By leaving the films in place for several weeks, variations in radon concentration caused by diurnal and barometric effects are averaged to obtain measurements of the radon levels. With the film cups spaced from 50 to 2000 feet apart in a regular grid, there is sufficient data to plot the position of uranium or radium in the soil. The data is analyzed with the aid of a computer and a contour map is drawn. Tests in areas of known deposits have been "promising."

* HEWLETT-PACKARD is marketing a Laser Measurement System with measurement capabilities including straightness, squareness, and

parallelism in addition to distance, flatness, and angle. It is therefore the first laser interferometer to measure geometry and enables a single instrument to calibrate a machine tool or measuring machine. Accuracy is 0.4 micrometers per meter and is unaffected by air turbulence.

* RAYTHEON has developed a down-to-earth antenna array to receive microwave energy beamed to earth from orbiting satellite as part of a NASA-funded study program into the development of the solar power potential. Solar cells aboard a satellite fixed in position above the earth and high enough to be in continuous sunlight would change solar energy into direct current electricity. This would be converted to

microwave energy and beamed to earth where giant arrays, like the model produced by Raytheon, would receive the energy and reconvert it into usable electric power. The scheme employs proven components. Although not presently economically competitive with contemporary electrical generating systems, the solar power proposal has the advantage of conserving fuel resources and avoiding pollution. The system could eventually solve many of our energy problems but present difficulties lay in satellite launch and maintenance, development of high density (energy) microwave beams, and the ability to work through the variety of atmospheric conditions without adverse effects on efficiency and environmental quality.

GSC urges Congress to impeach Nixon

By Bill Conklin

The Graduate Student Council recently passed a resolution urging Congress to impeach President Nixon. The text of the statement appears below.

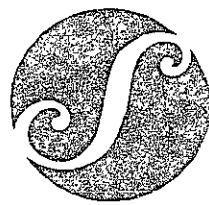
In a meeting which followed the passing of this resolution, Karel Kovanda, vice-president of the GSC, and Mike Pustajovsky, secretary, resigned leaving Johnny Lin, treasurer, the only

active Council officer (the Council had no president at that time.)

The resignations followed the defeat of a motion by Alan Robock to disband the Council.

Elections for new officers will be held in February. Until then, discussions will be held to reorganize the Council, according to Robert Sacks, a member of the Council.

The Graduate Student Council of Massachusetts Institute of Technology strongly urges the immediate impeachment of President Nixon. This would benefit the nation as a whole, and graduate education in particular. (By the illegal impoundment of federal funds for education, he has caused a crisis in MIT graduate student financing.) We call on the members of Congress rapidly and effectively to bring Mr. Nixon to trial before the Senate, and to convict him and remove him from office. Mr. Nixon's crimes against the American people, the people of Southeast Asia, and the rest of the world must be stopped and not allowed to recur. He has violated his "mandate from the people."



THE CANTATA SINGERS
and Ensemble

Philip Kelsey conducting

Sanders Theatre, Cambridge
Wednesday, December 5, 8:30 PM
Bach: Cantatas 5 and 77 Schutz: Psalms 84, 103, 137
Tickets: \$5, \$3.50, \$2.50, \$1 at Harvard Coop and door

INTERACTIVE LECTURES

COSMOLOGY

by Prof. Philip Morrison, MIT

IMPLICATIONS OF THE APOLLO 11 LUNAR MATERIAL

by Dr. John A. Wood, Smithsonian Observatory

SYMBIOTIC THEORY OF THE ORIGIN OF HIGHER CELLS

by Prof. Lynn Margulis, Boston University

EXPERIMENTS ON THE ORIGIN OF LIFE

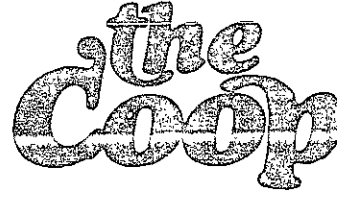
by Prof. Carl Sagan, Cornell

LEAF INSECTS, BIRDS, AND HUMAN COLOR VISION

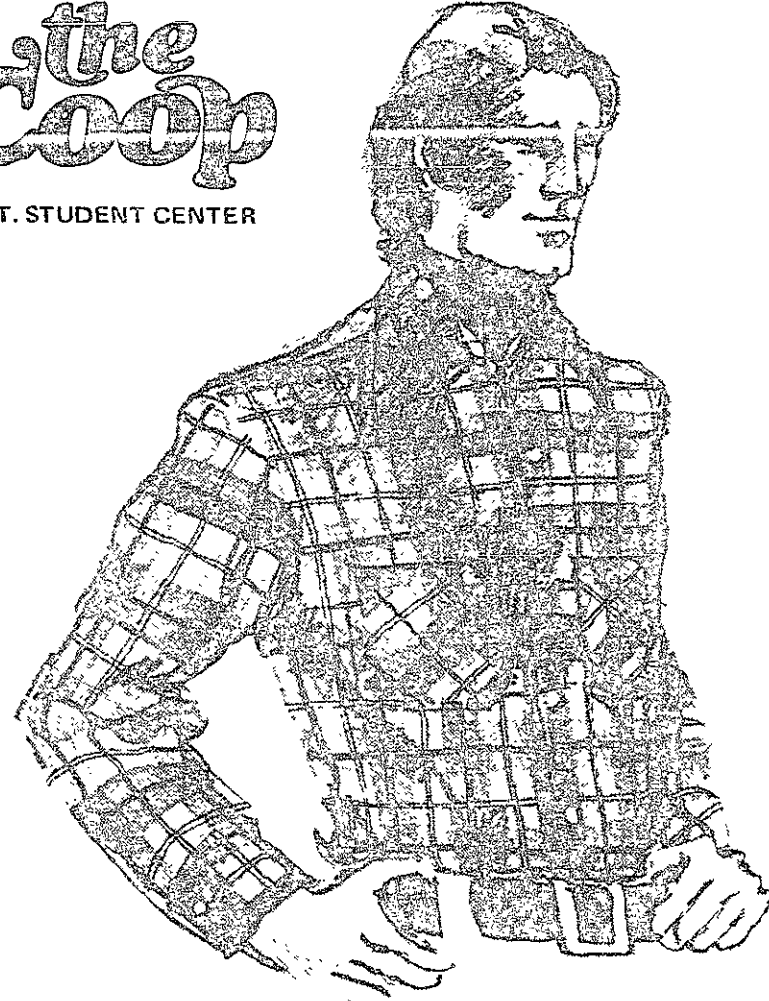
by Prof. Jerome Lettvin, MIT

Students who are curious about the topics above are invited to use an experimental system that offers the opportunity, through recordings, to learn directly from these people. The lectures are unique in that they permit alternating at will between the main discussion and a great many answers to interesting questions. The speaker's voice is accompanied by his own sketches which evolve on a sketchpad unit. The overall feeling is surprisingly personal and responsive.

If you would like to try the system, please call 864-6000, ext. 2800, or write a short note to Stewart Wilson, Polaroid, 740 Main St., Cambridge (near MIT), mentioning when you might be free and how you can be reached.



M.I.T. STUDENT CENTER



A SHIRT TO WARM UP TO
FOR ONLY 3.99

Just right for the cold weather, nothing feels better than our classic flannel shirt. Nicely tailored with a good measure of warmth in 100% washable cotton flannel. In red, brown, or blue plaid. A real buy at this price.

BEAUCOOP SHOP

ARE YOU A COOP MEMBER?
OUR LATEST REBATE IS 6%
ON YOUR COOP PURCHASES
JOIN NOW... MEMBERSHIP IS ONLY \$1.00
Membership is open to students, faculty, alumni, and employees of Harvard and MIT.

SKI THE ALPS



AUSTRIA • FRANCE

\$269

1-week, per person, double, from New York or Nassau. Add \$98 from Chicago. Singles add \$11

Features round-trip jet to Luxembourg, RT bus to Kitzbuhel, 2 meals daily, double room in chalet, Dec. 14 and weekly in Jan. Add \$10 Feb. and March. Also, 1-week ski tours to Chamonix and 2 weeks to Kitzbuhel or Chamonix. Lowest-cost ski tours to Europe of any scheduled airline.

\$250 Car or Rail Tour*

One week, per person, double, features round-trip jet from New York to Luxembourg and car with unlimited mileage—or \$260* unlimited rail travel in 13 European countries for singles. Add \$98 from Chicago. Offered Nov. thru March.

SEE YOUR TRAVEL AGENT
All prices subject to change.

To: ICELANDIC AIRLINES
(212) 757-8585
630 Fifth Ave., N.Y., N.Y. 10020
Outside N.Y. State: Toll Free
(800) 221-9760

Send folder CN on tours to Europe from N.Y. , from Chicago , from Miami/Nassau .

Name _____
Street _____
City _____
State _____ Zip _____

My Travel Agent is _____

ICELANDIC
3056

SUNDAY THROUGH THURSDAY

back off

For Each Adult Member of Your Party

PITCHER OF BEER PLUS

ALL THE SALAD YOU CAN MAKE PLUS

Lusciously Tender STEAK

with French Fries

ALL FOR JUST

\$2.95

Regularly \$3.95

Cash Purchases Only

WITH THIS AD

EMERSONS, Ltd.

FRAMINGHAM, MASS. 879-5102

1280 Worcester Rd. (Rt. 9)

PEABODY, MASS. Rts. 1 & 128 N. 535-0570

NEWTON, MASS. 965-3530

1114 Beacon St. at 4 Corners

LAWRENCE, MASS. 687-1191

75 Winthrop Ave. (Rt. 114)

E. PROVIDENCE, R.I. 434-6660

1940 Pawtucket Ave. (Rt. 44 & 114A)

Not Good with Any Other Promotion

This Offer Supersedes All Other Advertising

Emersons Ltd. 1973

Experts address social change

By Howard D. Sitzer

MIT students have a wide variety of professions to choose from if they want to affect social progress in the future, according to a panel of social-planning experts.

The panel, which addressed a Political Science Forum on "The Role of the Expert in Social Change" last week, stated that, "The many facets of social policy today require a comprehensive planning and implementation process." This, they added, has encouraged specialization in fields affecting social policy, which in turn "emphasizes the options open to an MIT student who wants to select a career relevant to social change."

Ellen Feingold, an advocate planner employed by Justin Gray Associates of Cambridge and president of the Civil Liberties Union of Massachusetts, reflected on her profession's utilization of specific tools relating to the physical environment. She emphasized that lawyers and planners are limited in having been "taught to solve certain problems with an understanding that differs from the world's view of handling the same problems."

The planner finds himself involved in a public planning process in which a community confronted with an issue must create a means of grappling with it, Feingold added. She described an eight-month struggle she was involved with in New Bedford, Massachusetts, attempting change in a zoning law which had been an obstacle in planning an apartment complex with ample parking facilities.

Gary Bellows, a teacher at Harvard Law School, asserted that "the legal profession is more attuned to preserving the status quo in problems involving institutions, rules, agency and personnel." The profession stresses a system of social relations and has an enormous stake in the dependency on a specialized group in the system, he said. Bellows sees this trait of the profession as an impediment to applying law to social change.

"As in other professions," Bellows continued, "in law you become a technician." He cautioned that law and legal theory is presented without any of the premises of modern liberalism. "There is a separation of fact and value in the discipline. Lawyers are predictively detached and dispassionate in their professional relations. They are only partially critical due to the binding nature of the intellectual categories in which they are trained."

Bellows was disturbed that legal rules are disembodied from social and economic processes. "Despite my enthusiasm for the legal profession, I regret that lawyers are susceptible to the problems of competency and autonomy shared by all profes-

sionals who try to step out of training molds."

Howard Margolis, a research associate for the Center for International Studies, discussed the specialist's work with details in the less familiar areas of policy analysis. "The expert is used before the decision is actually made," he pointed out, "in order to gain a sense of the task at hand and the various options in solving the problem."

Margolis distinguished between the counsel-advocate role of the lawyer and the inflexible role of technicians. "The technician is concerned with presenting and accurate and objective study based on quantitative methodology. The ethics of the profession forbid the intervention of any political process."

Each panelist agreed that his profession takes on a social rather than private orientation when focussing on social change. "Individually, each contributes a significant area of expertise in approaching the different aspects of social problems," one pointed out. "For those committed to social change in the world, particularly at MIT, many alternative occupational fields exist for the realization of this goal."

KENDALL DRUG

NEW MODERN PHARMACY
238 MAIN STREET, CAMBRIDGE
Right in the heart of MIT
(Near Kendall Post Office)

"CATERING TO YOUR PRESCRIPTION NEEDS"
FULL LINE OF COSMETICS, GIFTS, SUNDRIES

492-7790

Tech Coop Optical

Conveniently Located
MIT Student Center
Lower Level
Next to the Post Office

Quality Service
Latest Style Frames
for Men, Women, and Children
Patronage Refund

84 Massachusetts Avenue
Cambridge, Massachusetts
491-1938, MIT ext 81950
491-4230 ext 50

Mon-Fri 9:15 am - 5 pm
Lunch 2-3 pm (closed)

the Coop

STUDENTS FOLLOW STUDENTS TO B. A. HOLMES

FOR THE

BEST DEAL ON FURNITURE RENTALS OR SALES

RENT FURNITURE BY WEEK, MONTH OR YEAR
Complete Apartments - Individual Pieces
BANKAMERICARD - MASTERCHARGE

B. A. HOLMES, Inc.
1096 BOYLSTON ST., BOSTON - 536-4421
1 Block from Prudential Center

FREE DELIVERY

LSC
Friday, December 7
The Concert for Bangladesh
7 & 9:30 - 26-100

Saturday, December 8
The Godfather
7 & 9:30 - KRESGE

Sunday, December 9
Bonnie and Clyde
8 - 10-250

We Deliver
10% Discount to MIT Students
on pizza purchased on premises
Open till 2 a.m. Weekdays
3 a.m. Weekends

ROYAL PIZZA
450 Mass. Ave.
Ph. 491-7293

Why not take a chance?

\$1.00 can win
you a **\$1260** *
tech hifi
stereo system!

This system includes
Harman-Kardon 930 w/ walnut cabinet
Two Ohm B loudspeakers
Miracord 50H w/ walnut base and dustcover
ADC 100Q induced magnet cartridge
Arivont 201 cassette tape deck with Dolby noise reduction



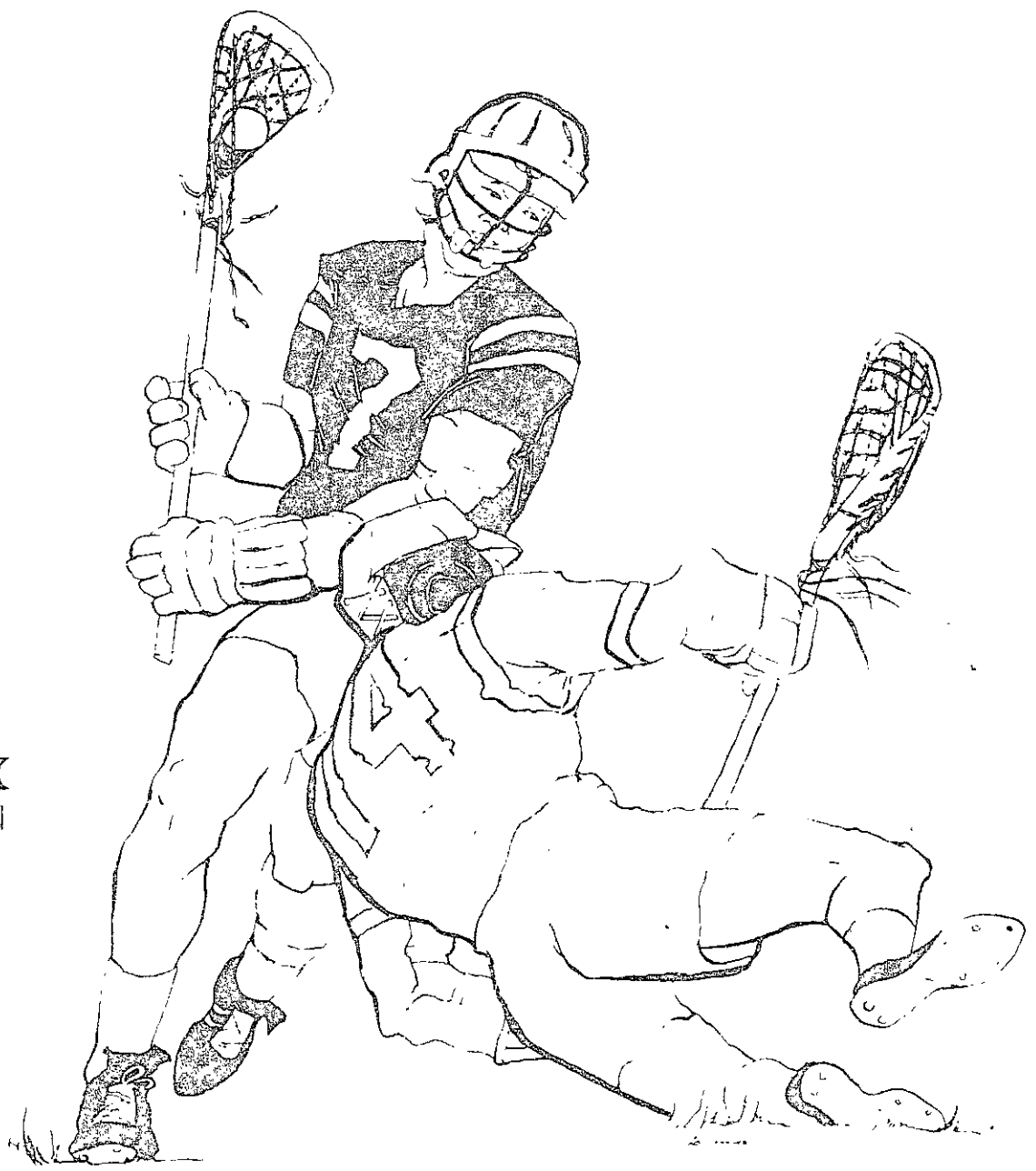
You can buy tickets at any intown Tech Hifi store

(MIT, Harvard Square, or 240A Newbury St.)

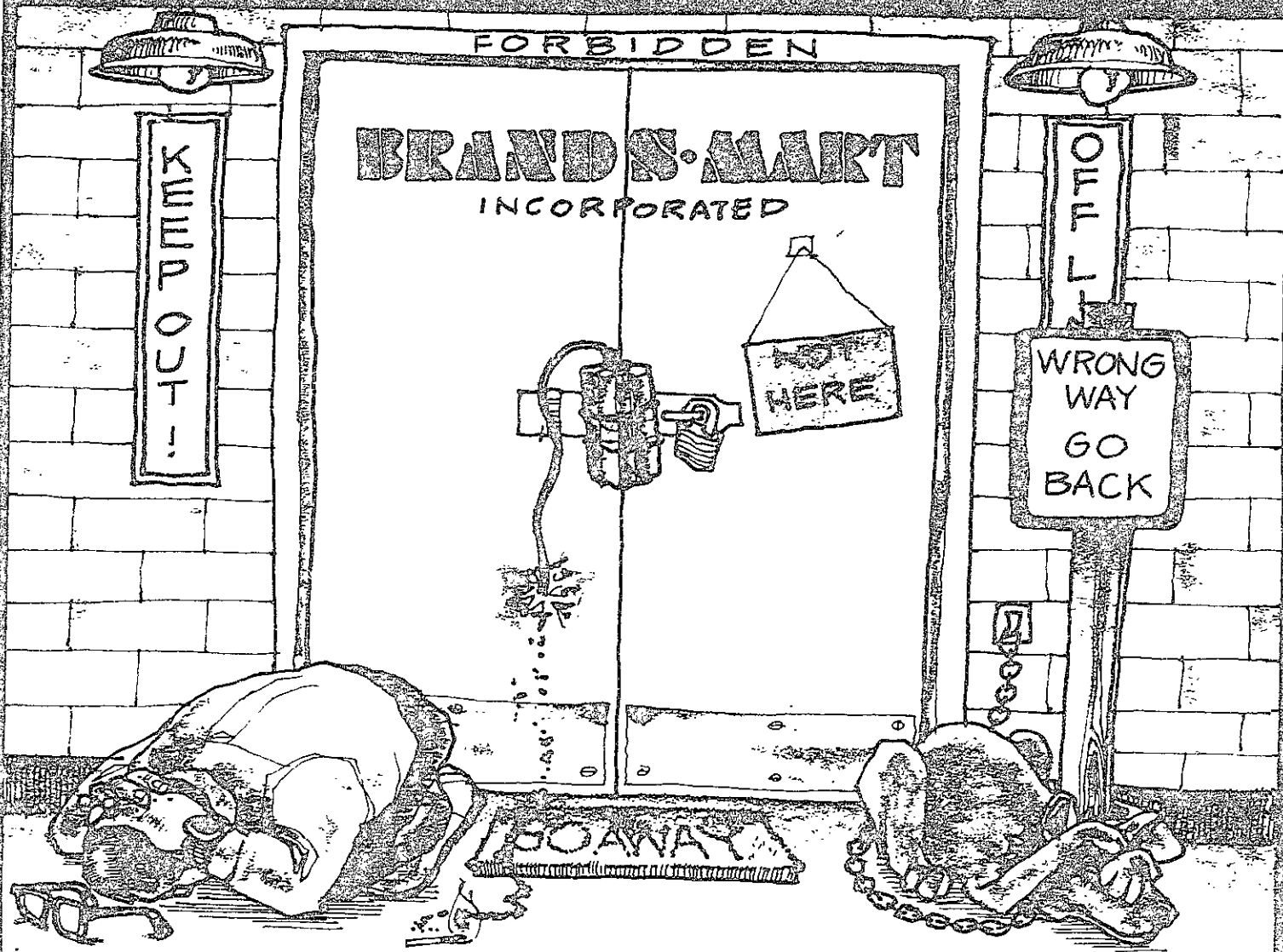
or see any MIT Lacrosse player...

(He'll be easy to find — He'll be wearing his
Tech Hifi/MIT Lacrosse T-shirt.)

* Tech Hifi price is considerably less than list price.

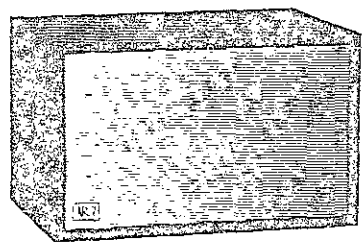
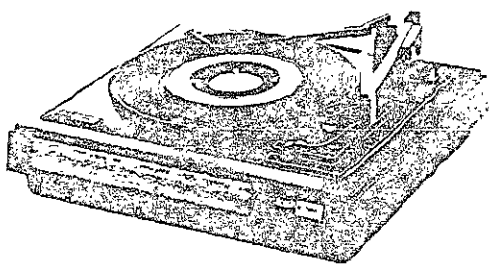
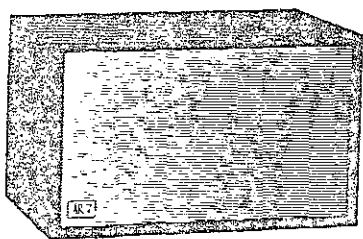
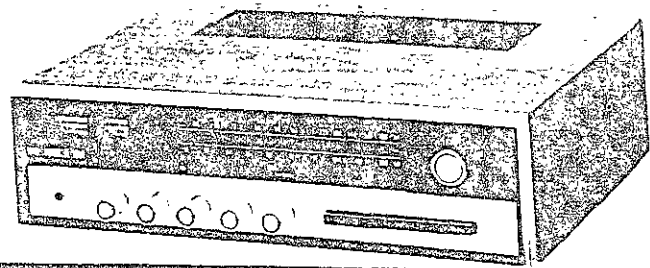


System donated by Tech Hifi. Your contribution will
go to support the MIT Lacrosse Team.



WHOLESALE INDUSTRY OPENS ITS DOORS TO STUDENTS

**YOU SAVE \$150
ON THIS QUALITY SYSTEM**



BSR 310 AXE TURNTABLE \$86.80
 KLH 55 RECEIVER 199.95
 AR-7 SPEAKERS @ \$65.00 130.00
\$416.75

**OUR PRICE:
\$266.75**

Turntable: BSR 310 AXE with full-sized changer, damped cueing, anti-skate, base, dust cover and ADC cartridge. **Receiver:** KLH 55 — 26 r.m.s. watts power output, AM/FM multiplex, tuning and signal strength meters. **Speakers:** 2 AR-7's, the new 2-way speakers from Acoustic Research.

BRANDS-MART INCORPORATED

2nd Floor, 280 Friend Street
 Boston
 742-2029
 723-9230

OPEN
 Monday, Tuesday, Friday: 9-6
 Wednesday & Thursday: 9-9
 Saturday: 9-2

STUDENT OR FACULTY I.D. REQUIRED FOR ADMITTANCE

Similar pricing available on all of our brands, some of which are listed below:

AUDIO

ADC, Admiral, Akai, Altec, Ampex, Benjamin, BMI, BSR, Concord, Dokorder, Dual, Dynaco, Electro-Phonic, EMI, Empire, Fisher, Garard, Janzsen, KLH, Koss, Kraco, Marantz, Miida, Musonic, Pickering, Pioneer, Sanyo, Sherwood, Shure, Sony, Superex, Toshiba, Zenith.

RADIOS

TV'S

Sony, Admiral, GBC, Hitachi, Panasonic, Philco, RCA, Sanyo, Sylvania, Zenith.

CALCULATORS

Bomar, Casio.

WASHERS & DRYERS

DISHWASHERS

RANGES

AIRCONDITIONERS

FREEZERS...AND

REFRIGERATORS

(from mini's to maxi's)

Amana, Airtemp, Caloric, Corning, Fedders, GE, Gibson, Hardwick, Indesit, Kelvinator, Kitchen Aid, Lanz, Litton, Norge, Olympic, Philco, Tappan, Waste King, Westinghouse, Whirlpool.

JEWELRY

CLOSED CIRCUIT TV

FURNITURE

CARPETING

NEW CARS, TIRES

CAR LEASING

SPECIALS

BMI

Quality speakers with complete 5-yr. warranty, over-counter exchange policy.

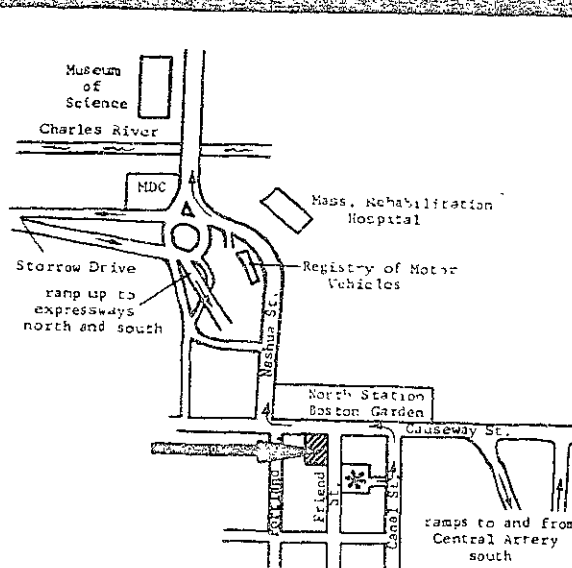
SUPEREX

PRO-BV Headphones, \$60 list: our special price **\$24.95**. Supply limited.

FISHER

XP-56S Speakers each regularly list for \$89.95: buy a pair here for less than even one at list. Our super price — **\$79.95/pair!** 8" Woofers, 3 1/2" Tweeters.

VISIT OUR SOUND ROOM



Sports

Basketball squad wins opener

MIT basketball team rolls over Yeshiva 83-52 on Saturday

By Glenn Brownstein

The 1973-1974 version of the MIT basketball squad opened its season Saturday night at Rockwell Cage with an overpowering 83-52 victory over Yeshiva.

After a slow start in which Yeshiva gained an early 6-2 lead on MIT missed shots and turnovers, the Engineers took full control of the game, shooting 58% from the floor in the first half.

Yeshiva was unable to stop MIT's outside shooting to any degree and their resulting dilemma enabled MIT to go inside for many easy lay-ups.

The first half ended with the Engineers sporting a 45-22 lead, led by Campbell Lange '76, who scored 19 points in the first half.

In the second half, MIT got off to a fast start, hitting five of six shots early in the period for a 50-27 lead.

For the next seven minutes, though, the Tech hoopsters could do nothing right as shot after shot missed and many turnovers were committed. However, during this period Yeshiva could only manage a 7-1 advantage, and the Engineers bounced back to take command of the game and build up their final 31-point margin.

MIT shot nearly 50% from the floor (35 for 71) against Yeshiva's 34%. Also, MIT out-rebounded Yeshiva 56 to 44, the difference being in defensive rebounds. As turnovers and fouls were fairly even, the key to Saturday's win was good ball movement that enabled MIT to

gain good shooting and rebounding positions. This was amply supplied by MIT's starting guards, co-captains Alan Epstein '75 and Bob Roth '74.

A major reason for MIT's domination of the boards was Peter Jackson '76, who pulled down 13 rebounds with his excellent jumping ability as well as scoring 13 points.

This year, the MIT starting squad should remain virtually intact as four of last year's starters return. Sophomore forwards John Cavolowsky, Jackson and Lange are expected to provide good shooting and board strength for the Engineers. The guards, Epstein and Roth (who played little last year), are going to be the ballhandlers on the squad and are hoped to provide both outside shooting and movement to MIT's offense, as well as tough defense on the other side of the court.

In addition, the team includes a number of players returning from last year. Gerry Adolph '75, who started Saturday in place of the injured Cavolowsky (broken arm), is considered to be the most improved player on this year's squad.

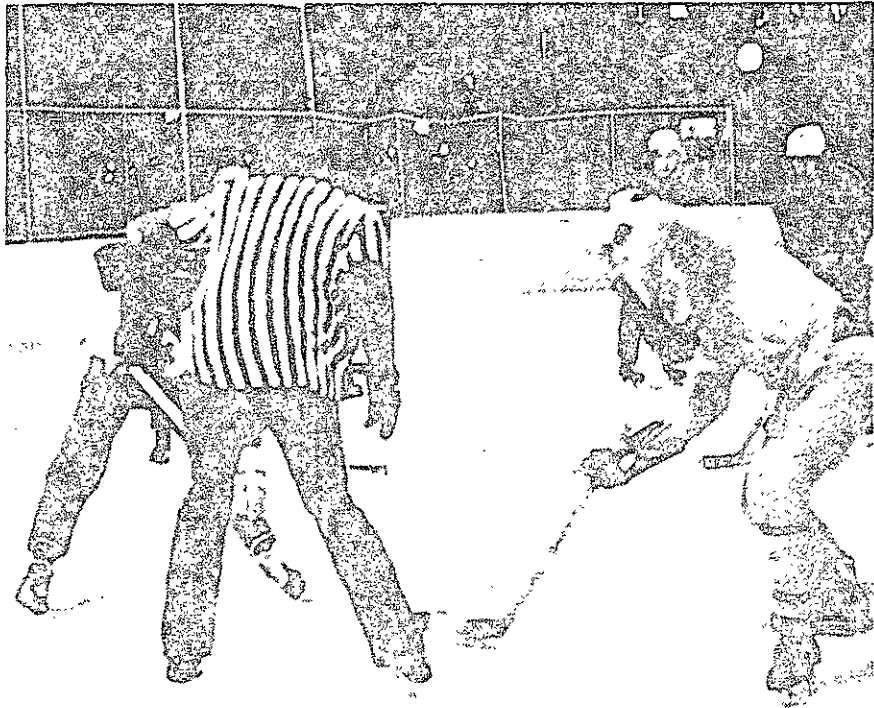
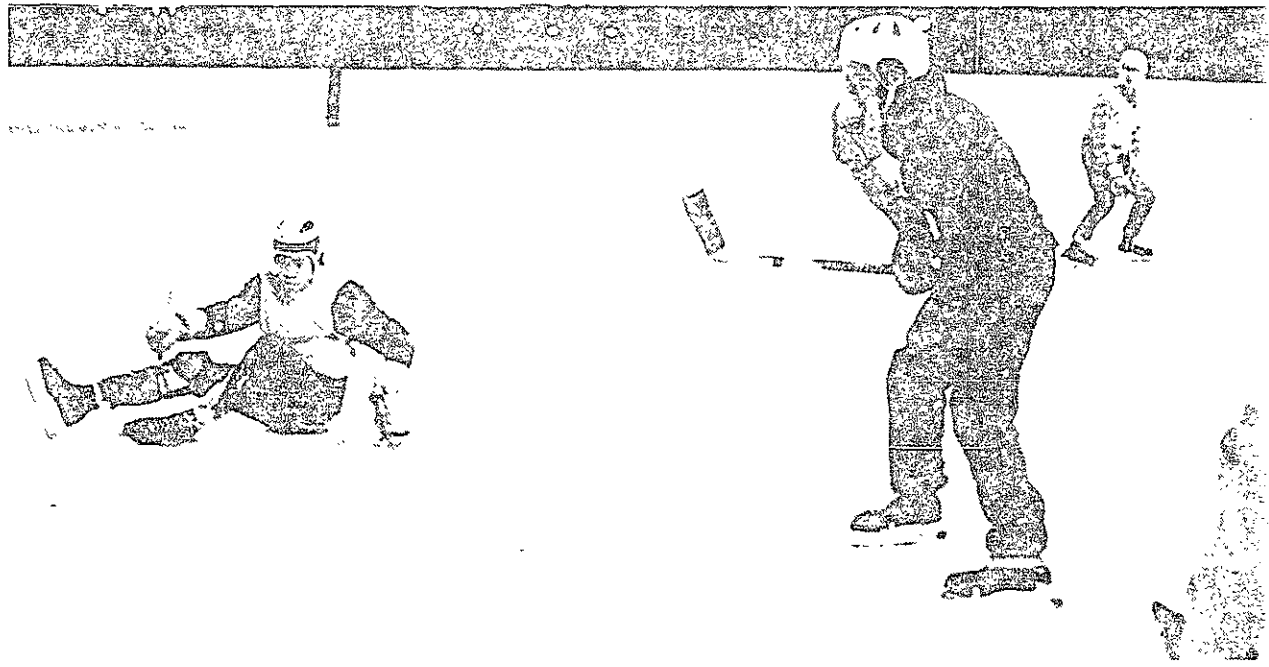
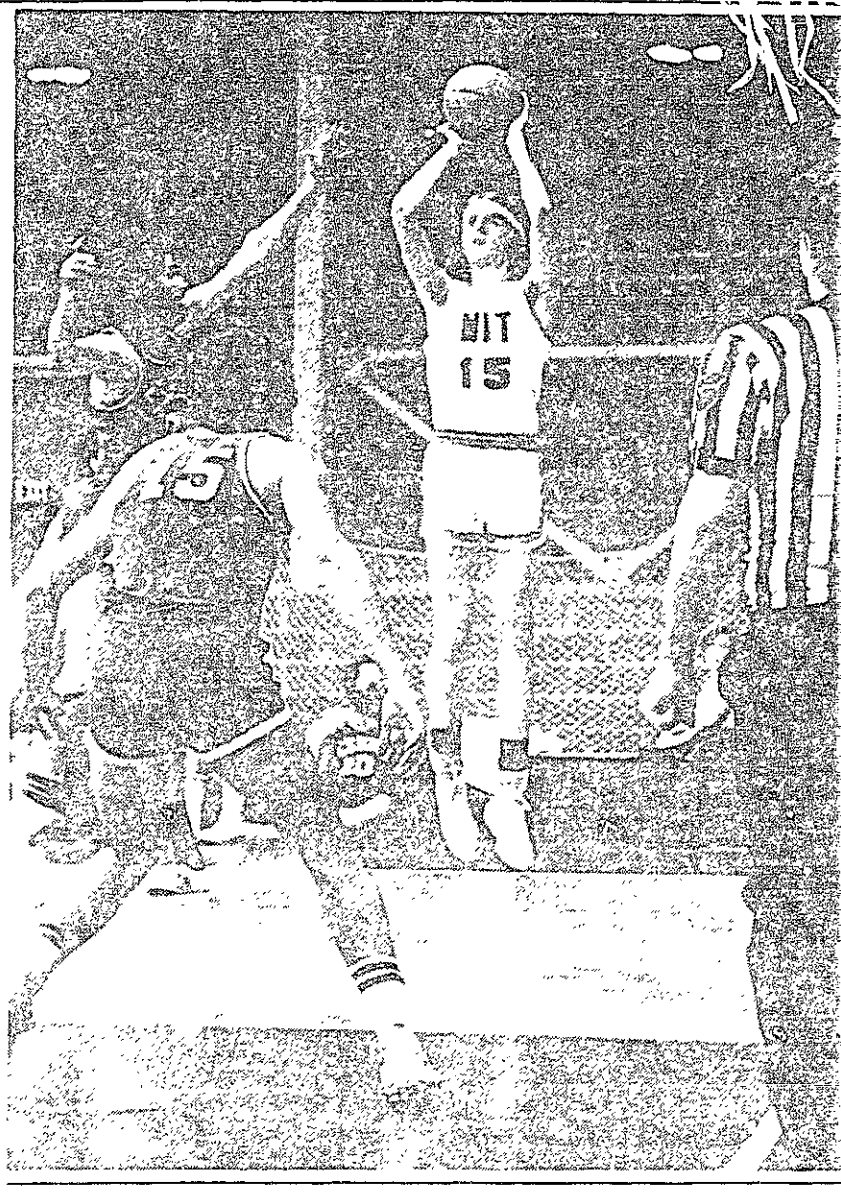
John Mills '75, who had a good second half season last year, is back, although not in top shape, as he is coming off a broken ankle suffered earlier this fall. In addition, the Engineers have center Bill Courtright '76 and guards Richard Porter '76 and Roy Henriksson '76 (who played freshman ball last year). Henriksson tore knee cartilage in

August and is not yet ready to play.

First time performers include forwards Marc Thompson '76 and Ben Mallard '74, as well as backcourt men Peter Maimonis '77, Glenn Perkins '77, Kenneth Armstead '75, and Samuel Denard '74. Perkins will be out for about a week with a sprained ankle.

This year's squad, despite early season injuries and a tough schedule that includes a Florida trip and highly-rated teams like Brandeis, Howard, Chicago State, and Maine, is expected to improve on last year's mark as well as gain experience for future seasons.

MIT's next game is Tuesday night against Brandeis at home at 8:15. The freshman/JV team, which lost to Huntington Prep 61-46 Saturday, will face Brandeis at 6:15.



The IM hockey season has started. Shown above is the DTD-CSC contest which CSC won 3-1. Photos by Tom Vidic

MIT gymnasts beat BSC

Squad sets school records in last two events to pull out win

In a stunning upset, the MIT men's gymnastics team beat Boston State last Saturday in a nail-biter of a meet, 128.45 to 128.10. Down by six points with two events left, the Tech gymnasts set team records on the last two events to pull out the victory. It was the first time in four years that MIT has been able to beat Boston State, and the 128.45 score required to win

was a school record.

Perhaps the biggest surprise of the day was how MIT won the meet: squad depth. Unlike previous years, the team was able to put up the maximum five men in four events and four men on the other two (the top three scores count). This had a psychological affect on Boston State who put four men up on two events and only three men on the other four. In addition it had a real affect on the score, as two men whose scores were not expected to count (Neil Judell '76 on pommel horse and co-captain Larry Bell '74 on high bar) actually did finish in the top three and their combined margin over the next highest scorer was .4, just enough to tip the balance to MIT.

Although the squad only took two firsts and two seconds, they gathered third place finishes in five of the six events.

Outstanding individual performances by the gymnasts were turned in almost all the way across the board. As has been true for the past three years, it

was Larry Bell leading the way with 33.2 points, including first place on parallel bars. The other co-captain John Austin '76 scored 23.25 points, 8.1 of that being clutch points, as he was the last man up on the last event and had to hit to pull out a victory. Austin's score broke the previous school high bar record but earlier in the meet Neil Davies '74 threw a great routine for a score of 8.3 for both first place and the new record. Al Razak '75 was third in total scoring, placing in both events he worked - second on parallel bars, and third on vaulting.

The highlight of the meet was seeing three MIT gymnasts finish with doubt back dismounts. Bell scored 6.0 and Jon Johnson '76, 7.0 before Jarvis Middleton '76 stuck his dismount on his leg for 8.25, missing first place by .15. The other MIT placings were Bob Barrett '74, second on floor exercise, Bell and Austin tied for third on the floor, and Rubel '74, third in a 1-2-3 sweep on parallel bars, and David L '77, tied for third on vaulting.

There was one real sore spot though, for the engineers, the pommel horse. With a total of 13.2 the pommel horse team was 8.6 points behind the next worst event, partly because of missed routines of Lu, Bell, and Wes Taylor '76. The horse's only bright spot was Neil Judell's 5.0. All-in-all, it was a real team victory. The gymnasts go in Saturday's home opener against Lowell Tech with plenty of confidence, and much practice.

INTRAMURAL COUNCIL MEETING

Wednesday - December 5, 1973

7:30pm

Varsity Club Lounge

BUSINESS: Eligibility of JV soccer players for IM Soccer

ELECTIONS: Manager of Soccer & Softball

Swim team destroys RPI

By Rick Bauer

The MIT swim team opened its season last Saturday with a convincing 71-42 win over RPI.

The victory over RPI was especially satisfying because of last year's big upset over MIT by RPI. The win should also give the swimmers the kind of start they need for a good chance at a winning season this year.

The MIT swim squad jumped into the lead as the relay team of Dave Deacon '75, Dave Schloerb '76, Dave Schneider '74, and Chris Christenson '76 won the medley relay event.

MIT continued to slowly build its lead until it was able to clinch the meet before the final

freestyle relay event. Coach Charles Batterman felt that gaining an early lead in the meet was necessary because the team's chances of winning the last relay seemed shaky.

As it turned out, MIT did win the free relay, but only after a big coming from behind effort by Al Efromson '74.

Efromson also won a close decision in the 100 yard freestyle and took second in the 200 yard freestyle event.

The other winners from MIT were Chuck Sheffield '76 in the 50 yd. free, Dan Bethencourt in individual medley, Deacon in the backstroke, and Schloerb in the breaststroke. Rick Ehrlich '77 won both diving events for MIT.

RPI came into the meet with only nine swimmers, but showed some excellent, developed talent. Al Ehrhardt beat MIT's Peter Schultz '75 in the 500 and 1000 yard freestyle events, and Greg Wroclowski won the 200 yard freestyle and 200 yard butterfly for RPI.

The team will travel to Tufts tomorrow night and will have its last meet before vacation this Saturday at home against Springfield.

Tufts should prove to be weaker than RPI; MIT will hopefully be able to improve its winning record before meeting some of the harder teams on its schedule.