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The Tech

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MIT, CAMBRIDGE, MASSACHUSETTS

TUESDAY, MARCH 11, 1975



The Cambridge YMCA may be used next fall to house MIT students until completion of the new West Campus dorm, scheduled for October 1.

Iran reactor deal stalled

By Mike McNamee

Disagreements over re-processing of spent nuclear fuel from reactors which the United States is planning to sell to Iran are delaying negotiations on that sale, according to government officials.

Meanwhile, news of a proposed three-year program to train 54 Iranian students in nuclear engineering at MIT has brought mixed reactions from MIT faculty and students, ranging from support to attacks on the program as "academic prostitution."

US and Iranian negotiators are clashing over safeguard provisions of the sales contracts, under which re-processing of spent fuel will be controlled. Iran is also negotiating to buy a re-processing plant to handle the fuel in Iran, while the US would prefer that the fuel be processed outside of the country under international supervision.

The spent fuel consists of a mixture of uranium and plutonium which can be separated by an expensive chemical process. Plutonium from such fuel can be used as reactor fuel or as explosive material in nuclear weapons.

The reactors which Iran is negotiating to buy — seven or eight reactors, each producing 1000 megawatts of electrical energy — will produce a total of about 2000 pounds of plutonium annually, officials of the Energy Research and Development Administration told *The Tech*.

Iran is a signatory to the 1970 Nuclear Non-Proliferation Treaty, pledging the Iranian government to specific prohibitions against building nuclear weapons. Under that treaty, Iran could be allowed to process spent fuel under international supervision. The United States, however, can specify in the sales agreement that the fuel be processed outside of Iran, as was specified in nuclear reactor sales to Egypt and Israel.

One engineering faculty member criticized the MIT administration for "setting policy without adequate discussion." "This sets a very important precedent. It shouldn't be taken lightly," he told *The Tech*. "This has broad implications for MIT."

MIT's standards for graduate admission would be affected by the program, the faculty member said: "This is contrary to our philosophy of taking the applicants and sifting out the best ones. What if we made a deal with South Dakota to take their ten best students? Would we still say our standards were not affected?"

Nuclear control

Faculty members contacted by *The Tech* were divided on the issue of control of the nuclear reactors. Institute Professor Philip Morrison, a physicist who was involved in early atomic weapons research, said he felt the issues had not been discussed fully enough to allow "dashing off in either direction."

"There is a conflict here between the freedom of scientific information, which is presumed to be international and universal, and fears of nuclear proliferation," Morrison said. "I don't think you can right off the bat that this is good or this is bad without a lot more discussion."

Iran has been "next on the list" (Please turn to page 10)

Reaction

Educational problems with the proposed nuclear engineering training program have drawn criticism from many members of the MIT faculty. Faculty members have called the program "academic prostitution" and "selling a department to the highest bidder" due to some of the unusual aspects of the arrangements.

Students to be housed at 'Y'?

By Stephen Blatt

The Cambridge YMCA may be used to house 150 MIT students next fall until completion of the new West Campus dorm — which is scheduled for October 1.

According to Nancy Wheatley, Assistant Dean for Student Affairs, other alternatives for accommodating the people assigned to the new dorm include using half of Random Hall and using the area in Ashdown which is currently being occupied by undergraduates. The Dean's Office is also considering overcrowding existing MIT dormitories or housing students in faculty homes.

Wheatley said that not all of these options will need to be used if construction of the dorm

continues on schedule. However, if the new dorm is not ready to house the 150 students scheduled to move in September 1, MIT will have to find housing for all 300 students.

Overcrowding in existing dorms will be "just under what we had this year," said Wheatley, unless new dorm students are moved into them temporarily. MIT will have space for 1100 students next fall, but will have a freshman class of 1130 to 1150 students, "assuming the Admissions Office comes in on target," she noted.

The Cambridge YMCA, located in Central Square, has "a very good setup," Wheatley said, describing the rooms as "singlets with beds and desks, comparable to MIT rooms."

Fifty students could be housed in one building of Random Hall. While this might disrupt the operation of the building, which is normally used for MIT transient housing, Wheatley explained that "we want the new dorm people grouped together" (Please turn to page 3)

Registration changes proposed for fall term

By Stephen Blatt

Registration material for the fall term will be available to students at the beginning of the final week of classes this spring, according to Winston Flynn, Assistant Registrar.

In previous years, fall registration packets were mailed out on August 1, to be returned by August 31. The reasons for changing the timing are twofold, according to Flynn, who said that "We can save a considerable amount of money in mailing costs, and can allow foreign students to register early." Under the present system, registration material is not mailed out of the country, so that foreign students cannot register until they return in the fall.

"This timetable is really pushing the departments more than the students," Flynn said, noting that the departments, in order to have class schedules included in the registration material, must finish planning their schedules earlier than in previous years.

The 1975-76 catalog, however, will not be ready any earlier this year than in previous year, according to sources in the Registrar's office. Last year, the

catalog was not available to students until they returned to MIT in the fall.

According to Flynn, seventy percent of the students return the registration material for the spring term, given out in December, "almost immediately." May 23, the end of finals week, was originally planned as the deadline for returning the forms.

However, because of scheduling conflicts, the deadline for returning the forms has not been set. It will be later than May 23, noted Flynn, who said that the Registrar's Office would like the forms returned as soon as possible.

"We've got work to do to process them, and we'd like to do it over the summer so we can handle the freshmen's forms in September," said Flynn. "I don't expect all the forms back by May 23, but I'm hoping for as much cooperation as possible."

The registration packets will be given out in the Building 10 lobby on May 12 and 13 with same procedure as is used to distribute the spring registration material each December. As in previous years, freshmen will pick up their fall registration material when they meet with their advisors during R/O Week.

MIT humanities: what role?

(Professor Bruce Mazlish was recently named head of the Department of Humanities. In an interview with *The Tech*, Mazlish discussed his ideas on the role of humanities in an MIT education.)

By Leon Tatevossian

The Tech: What do you think the role of the Dept of Humanities at MIT should be?

Prof. Mazlish: Well, I think that it should be plural, a number of roles. One role is quite obviously to offer the best possible work in humanities to students who are mainly majoring in science or technology. And later on we might want to talk about what the word "humanities" means, because it can cover a multitude of sins and virtues. Then it seems to me that the dept. also has a role in supplying another perspective to the scientific or technological one for anyone and everyone at the Institute, the so-called humanist way of looking at materials, which is soft rather than hard, tends to delight in ambiguities and ambivalences instead of certain truths.

I think another role is to allow the students who decide that the science or technological students who decide that the science or technological path is not for them, and yet don't want to transfer out of MIT, to remain here but to major in humanities.

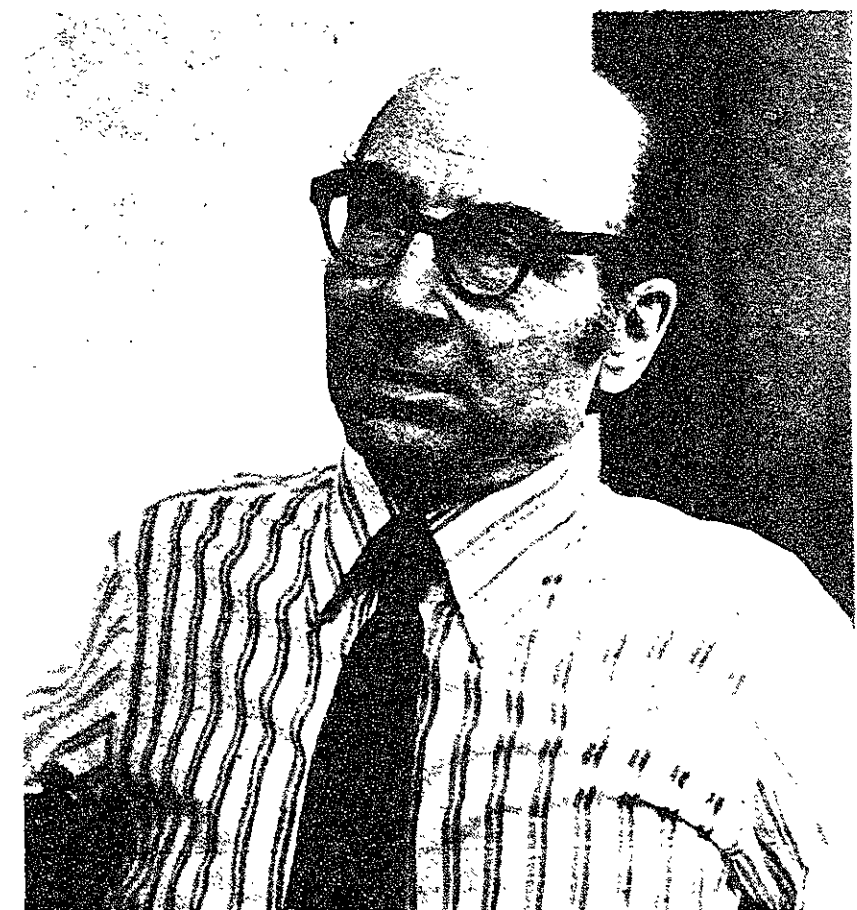
Another role, and one that must become increasingly important, and has been in the last year or so, is for the Department to become integrated into the full intellectual life and work of the Institute, in other words to become involved with the people in engineering and science in trying to understand problems

that are related to the creation of a new kind of world by science and technology. I think that the engineers and scientists are very aware of the way in which value questions, social context, and historical context are integral now to their own work, and I think both sides have a great deal to offer to each other; in some ways in the future the only way you'll be able to do good science or technology is by having a very keen awareness of the humanistic and social sciency component.

Tech: Do you think the Institute has been too slow in realizing the humanistic aspects of technology? Moreover, as Mike

Albert claims, do MIT students lose sight of the humanistic viewpoint?

Mazlish: Obviously, one would like to sort of snap the finger and have this new perspective, this new view, but you're dealing with real human beings, with traditions, and a whole series of things that are supposedly important in the humanities. On the other hand, you're dealing with a felt need for change, and that's also important, I mean, to understand how change can and does come about. But I don't want to pass judgment on whether it's too slow, too fast, too this, too that: the important (Please turn to page 2)



Bruce Mazlish, head of the Department of Humanities

Tom Kilmowicz

Mazlish examines humanities

(Continued from page 1)
 thing is, is it taking place to meet what we see as new conditions, and there it seems to me that the Institute shows a great resiliency. I don't think it's a question of trying to place blame somewhere, I think the thing is to see what the problems are and to move on them, without substituting rhetoric for some of the realities.
Tech: Do you think there has been a major increase in the number of people who come to MIT as humanities majors?
Mazlish: No, I don't think that has taken place. MIT is obviously, for the foreseeable future, going to remain predominately a scientific and technological institution, but I think there is room for an increased number of students who will want to

emphasize the humanistic or social science side, and I think this will come about in the next two or three years, but I don't think it has for the moment.
Tech: The freshman requirements being rather restrictive, do you feel that the MIT atmosphere is not geared for a seventeen or eighteen year old freshman who has yet to discover his or her field of interest?
Mazlish: I don't think MIT is unique in this problem. All universities have requirements that must be met. In fact, MIT is extraordinarily open to a student who wishes to learn the ropes and then move as he or she wishes once past the first year.
Tech: Do you think MIT students tend to be narrow and limited in perspective?

Mazlish: Some are and some aren't. But in general, I'm very impressed with the openness brought to the Department by so many of the students.
Tech: Are there any plans to establish a graduate school in the Department?
Mazlish: Not a formal graduate program, but it might be of enormous intellectual benefit to have a very small number of specially picked graduate students, for example, someone particularly interested in electronic music. MIT is flexible enough so that you don't need a set graduate program.
Tech: Do you foresee any changes in the Department in the near future?
Mazlish: I'd like to use that question to make a point about humanities. The word humanities is really somewhat ambiguous. There are certain disciplines that are normally covered under that term. Some of the subjects traditionally defined under the term are history, literature, philosophy, music, fine arts, linguistics, sociology, in other words, an enormous range. The Dept. of Humanities embraces four major disciplines or fields: literature, history, music and archaeology/anthropology. To begin with, this is a great range, and these disciplines are extremely different. Literature, for some involved in teaching, is more a matter of higher criticism, for others, literature is politics, for others, it's primarily a question of literary history.

Then we have a number of other programs, for example, a fairly vigorous writing program that has been emerging, and a music section that is becoming more and more involved in a program throughout the Institute. Then we have the Cambridge Humanities Seminar, we have Crossroads, possibilities in American Studies or Russian Studies, and the different XXI majors. So when you say what's
(Please turn to page 9)

NOTES

* The Number Six Club is a coed fraternity temporarily displaced in Cambridge. We will be returning to our newly renovated home on Memorial Drive (between Burton and MacGregor) in September, 1975. The new house will house 48 people. Because the membership of the Club will be increasing from our reduced number we are instituting a Spring Rush. This is to balance the classes for next year. Anyone living in a dorm or off-campus is invited to come meet us. We will sponsor a number of activities to talk with interested people. The first will be a dinner at the temporary home of the Club, 36 Irving St., Cambridge on Saturday, March 15th at 6:00pm. A shuttle will transport people from 77 Mass Ave between 5:30 and 6:15. We hope to see all interested at dinner. For more information call 494-9833.

* The MIT Community Service Fund and the Quarter Century Club is sponsoring an annual fund raising lottery in which the first two winners will receive free vacations in either Spain or Tokyo in May. Lottery tickets are \$1 each or three for \$2. They will be sold on campus by students and trustees of the

Community Service Fund daily, 11:30 to 1:30pm in the lobbies of Building 7, 10, E19, Walker and outside Lobdell dining room beginning Wednesday, March 12 throughout Friday, March 21. The winning tickets will be drawn at 3:00pm Saturday, March 22 at the MIT Employees' Open House reception in the Sala de Puerto Rico. All proceeds from the ticket sales will go to the MIT Community Service Fund.

* In conjunction with its lottery for two free vacations, the MIT Community Service Fund (CSF) is seeking a catchy phrase that will make the purpose of the Fund more readily understandable by the Institute community and to generate interest. CSF is offering twenty five chances to the lottery to the person who composes the most suitable phrase as judged by the CSF Trustees. The winning phrase and composer will be announced at the drawing of winning tickets for the lottery. CSF slogan phrases may be submitted at the time of purchase of lottery chances or may be sent directly to the MIT Community Service Fund, room 5-208.

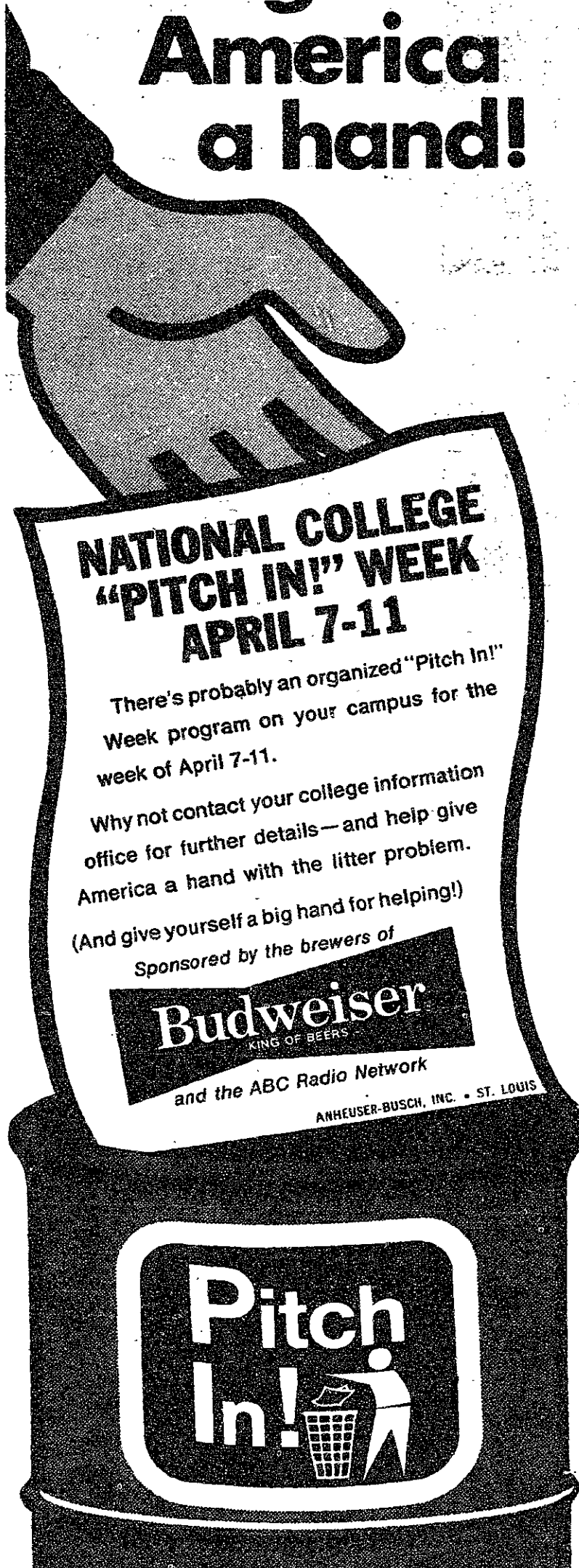
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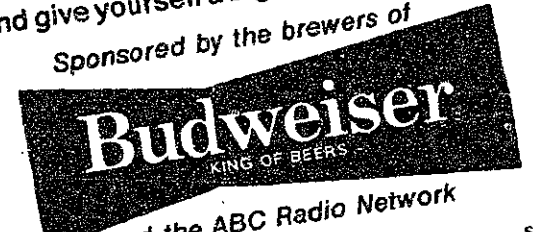


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Eugene Chamberlain, Advisor to Foreign Students

New house residents may stay in 'Y' in Sept.

(Continued from page 1)
 gether as much as possible." Ashdown House is housing students for the new dorm this year, and may have more undergraduates crowded into it next fall. "If we use Ashdown, it will be overcrowded," said Wheatley, because "if we take it away from grad students, we should use it as well as possible."

Members of the faculty and staff may also be making their homes available to several students. While a program has been underway this year to house individual students with volunteer faculty and staff families, Wheatley said that "we are looking for people who will take more than one person." She

noted that since this would be a short-term housing situation, "the amount of commitment to people is much less than for a term."

According to Wheatley, the Dean's Office is currently looking for people who would like to move into the new dorm. "Interested people should contact me," she said.

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Foreign students face many problems at MIT

First in a series
 By Gerald Radack

Of all the minority groups at MIT, foreign students probably face the most problems in their quests for MIT education. A student from another country who comes to the Institute often faces financial, language, legal, and other problems that might seem to make the task impossible.

Yet every year hundreds of students - 1458 this year, or 17 per cent of the MIT undergraduate student body - come from all over the world to study here.

They come for a variety of reasons, but the chief one is almost always the desire for a technical education at a school "which has made its reputation internationally in engineering," according to Advisor to Foreign Students Eugene Chamberlain.

The largest of their problems, Chamberlain told *The Tech*, is raising the money to attend the Institute. "Europeans find MIT tuition too expensive," he explained, "but the number of applicants from the Arab world and Africa is increasing, and I suspect there will be more (foreign students) whose parents can afford the tuition."

The MIT tuition represents a "lifetime savings" for an Indian family, according to K Sabramanian G, president of Sangam, the Indian Students' Club. Many students pay willingly, however, because of hopes for increased earning power. Many other Asian students are on government scholarships, he added.

MIT does give financial assistance to foreign students, but no more than eight percent of its

"gift money" can be given to foreign students, Chamberlain noted.

US government regulations make the financial situation even more difficult for the foreign student. Citizens of other countries are not eligible for such aid programs as Work-Study, National Defense Student Loans, and Basic Educational Opportunity Grants, which help many American families to finance college educations. In addition, work-permit regulations which govern foreign students working in this country have been made stricter in the past several years, making it more difficult for students to work their way through school.

"Some people get a job at MIT," according to Palachi Meesook '75, former president of the Thai Students Club. "Summer jobs are not allowed, although they used to be allowed," he said.

"Many students have come here with hope for getting some part time job, but getting a work

(Please turn to page 10)

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In order to better acquaint the MIT Community with the Institute's computerized information search service (NASIC), you are invited to a day of continuous free searching of the data bases listed above. If you can't make the time slot allocated to your particular interest, come anyway - the demonstrations and explanations in any field will be helpful introductions to machine retrieval of bibliographic citations.

Please bring sample questions to try out on the system - we will try to guarantee at least 5 minutes of Information Specialist-assisted searching, plus any on-line reference print-outs retrieved.

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Opinion

'Soak the Shah' and win a million

"Well, folks, it's time to play that new and exciting game, 'Soak the Shah.' Our first two contestants tonight are Jerome B. Wiesner and Paul E. Gray of the Massachusetts Institute of Technology. Won't you come in please, and meet Groucho Marx."

(APPLAUSE)

"Hello, folks, and welcome to 'Soak the Shah.' Say the secret word and win \$100. It's a common emotion, one you probably feel every day. Jerry Wiesner and Paul Gray. Let's see, Wiesner, you must be the one with the pipe. Why do you smoke that pipe all the time Jerry?"

"Well, it's easier to carry than a bong, and less obvious than cigarette papers, Groucho."

"Remind me to talk to you about that after the show Jerry. It says here you were presidential science advisor to President John Kennedy."

"That's right, Groucho. There was a time when I had daily access to the president."

"How about Mrs. Kennedy?"

"I don't know Groucho, you'd have to ask her."

"All right Jerry, I think that's enough of that. You just suck on that phallic symbol and we'll talk to your partner here, Paul Gray. What do you and Jerry do at MIT Paul."

"I don't think it's any of your business Groucho."

"No, I meant for a living. It says here that you're the chancellor and he's the president. What's that mean, really?"

"He gets the front office and I get the back."

"I'll bet that really keeps you in shape Chancellor Gray. Well, what are your hobbies?"

"Well, Groucho, I play squash."

"Do you squash big things or small ones?"

"It's a game, Groucho, you

play it in a small cubular room with a little black ball and..."

"Well, I'm sorry to hear that and I hope it gets better soon, but now it's time to play 'Soak the Shah.' George?"

"Right. Remember, get four in a row right and you win \$1 million. Get two in a row wrong and you're out of the game."

"Thanks, George. Why don't you hold Jerry's pipe. Remember folks, just one answer for both of you. Now, the category you have chosen is education. Is it possible to charge Iranian students twice the normal tuition?"

"Yes."

"That's right."

"You now have one right." Get three more right and you'll win the \$1 million.

(APPLAUSE)

"So far, so good. Is Iran an Arab nation?"

"Yes."

"Oh, I'm sorry, it's not."

"You have one wrong. Get the next one wrong and you're out of the game."

"Now listen carefully. Could you charge the Shah double tuition for political science majors?"

"Yes."

"Oh, I'm awfully sorry. You couldn't."

"That's two in a row wrong, and you're out of the game."

"You always put that so well George. Well, Jerry..."

"I guess greed just wasn't enough, eh, Groucho?"

(MUSIC)

"Congratulations, you have just said the secret word. You and Paul will split \$100. The word was greed."

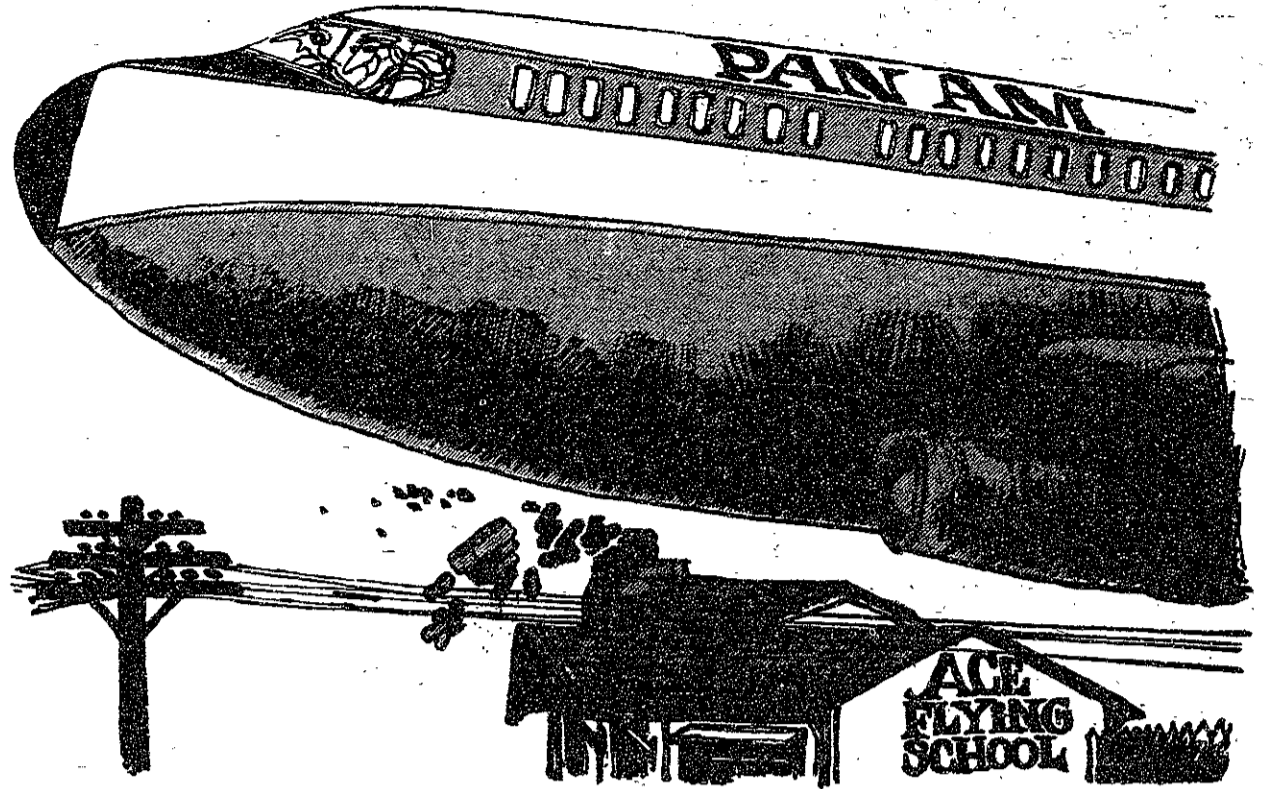
"And that's all for tonight folks. Tune in again tomorrow night when we play 'Soak the Shah' again."

(MUSIC)

('Soak the Shah' was written by The Tech staff.)

Mike Peters

PHOTO BY JAMES H. ...



"BRING IT UP, SHEIK..... BRING IT UP..... GOOD, GOOD..... WATCH THE WIRES....."

Budget: what's the crisis?

By Michael McNamee
"Is the MIT financial crisis that serious?"

If the events which have occurred so far this semester are indicative of what will be happening at MIT for the rest of the year, that question - asked with more or less incredulity, sarcasm, cynicism, skepticism, or pain, depending on the speaker - will be the Question of the Year. MIT's financial crisis is already starting to be used to justify decisions that are raising eyebrows - and criticism - on campus, and all signs point to continued changes in the way MIT works, all based on the financial crisis.

How bad is the financial crunch? To answer that, one first must ask, just what is the financial crunch?

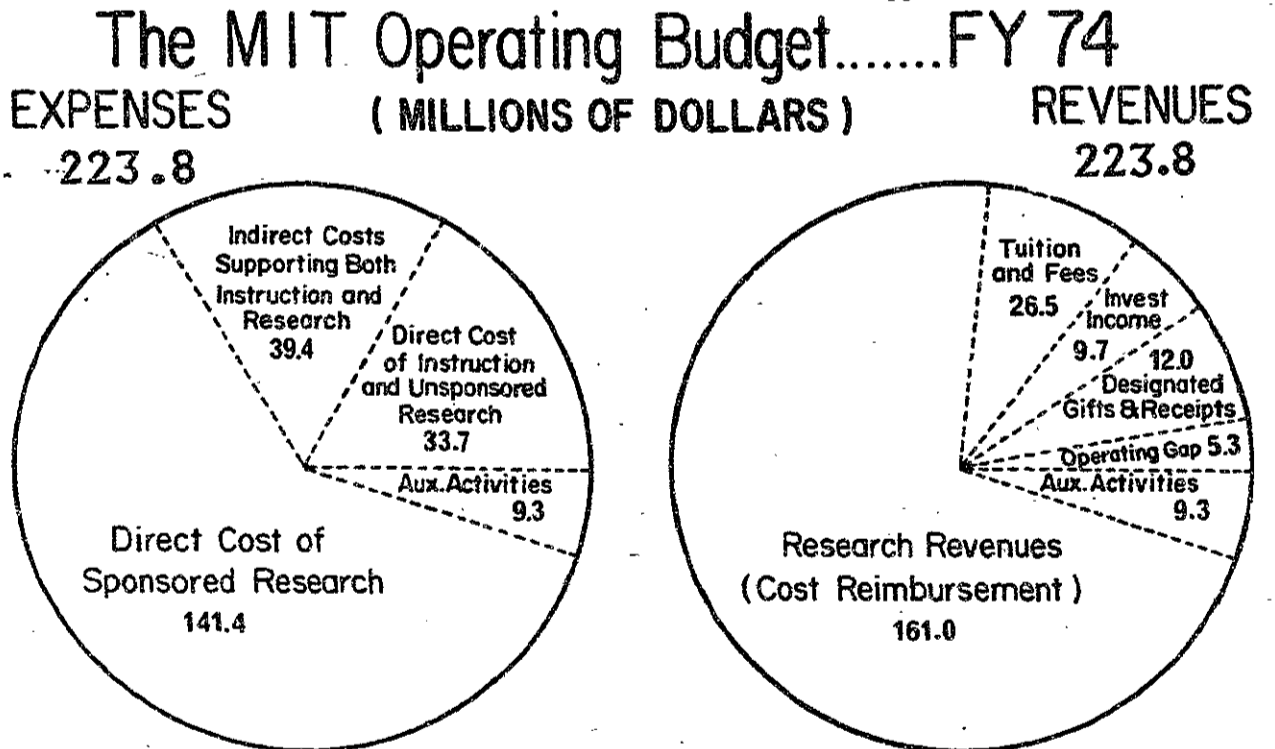
while at the same time cutting expenses as much as possible.

For last year's budget, the arithmetic looked something like this: Out of an operating budget of almost \$230 million, an "operating gap" of about \$4 million represents the amount of operating expenses that MIT cannot meet out of revenue. Added to that is \$4.3 million in non-operating costs which occurred - a \$750,000 deficit at the MIT Press, \$200,000 contribution to joint Harvard-MIT programs, funds for the Alumni Association, "under-recovery of overhead" from foundations, endowment adjustments for academic buildings, and the last part of cost for the Draper Lab divestment in 1972. The result is \$8.3 million in "total need for unrestricted

support costs associated with research - Division of Sponsored Research administration, overhead, and so forth. (Costs on the chart are allocated as completely as possible; faculty salaries, for example, are allocated as research and instructional costs, representing the division of labor (within the faculty).)

Academic expenses are not supported by the revenue they generate. Direct cost of instruction and indirect instruction support - about half the support costs - make up about \$53.7 million of the \$223.8 million budget.

Support is divided evenly between research and instruction; research pays for its support costs, while academic revenue does not cover academic support.



Budget basics: the little wedge labelled "Operating gap" is the problem.

According to the one man who probably knows best what MIT's budgetary problems are, Chancellor Paul Gray '54, the crunch is due to one basic factor - a "structural imbalance in our operating budget" - which moves each year's budget further and further out of balance. Even if MIT can cover any deficits that may occur this year, Gray says, next year's budget will be out of balance again, about \$1.5 to \$2.5 million out of balance. Revenues for the Institute are growing more slowly than expenses, leaving MIT with a continuing problem requiring budgetary wizardry to solve.

Since 1969-70, when the budgetary problem first became evident, MIT has been trying to make up its operating deficits from "unrestricted funds" - tuition income after financial aid is taken out, patent income, unrestricted gifts, and so forth -

of which \$4 million could be met. The rest of the need represented "call on capital," according to Gray; it was paid out of endowment income or other reserves.

This year, Gray predicts, the deficit will again be \$4.3 million, but the causes will be somewhat different. The Press deficit will be up, while the cost of the Draper divestment will be completely eliminated.

The Institute is using a three-pronged attack to try to eliminate the "structural imbalance" in the budget, Gray said. To understand how the attack works, one must see how the budget allocates funds in three basic areas: research, academic and instructional programs, and support.

Research pays for itself. Looking at the chart, the revenues from research pay for all direct research costs and for

Support costs are getting the most thorough review in attempts to cut MIT expenditures and restructure the budget. All departments involved in academic support - Admissions, Registrar, Dean for Student Affairs, secretarial support, and so forth - have "disaggregated" their functions into "definable and costable" basic tasks.

The list of functions performed by each office, Gray explained, was then rank-ordered by the priority which that function has within the office - how important the individual tasks are for the completion of the office's overall mission. All such lists are being merged "across the Institute" by the administrative staff, Gray said, to determine a priority listing for all such tasks. "After we've got the listing, with the associated costs of each task, we draw a

(Please turn to page 5)

The Tech

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The Op-Ed Page

Letters to The Tech

Ergo: controversy continues?

(This letter is excerpted from a letter sent to Dean Robert J. Holden.)

To the Editor:

The Ergo staff consists of MIT students and alumni, as well as people from outside MIT. Warren Ross, an MIT undergraduate, is Ergo's top officer. Apparently, the ASA Committee thinks that the staff is too small for Ergo to be a viable organization. It is true that Ergo has a small staff in comparison to most other newspapers, but so what? Suppose for a moment that there were an MIT student of superior ability who produced a quality newspaper single-handedly. Would his paper be worth any less than a similar one produced by 50 people? Of course not.

The Committee also charges that there are several members

Ergo is an MIT activity. Half of Ergo's circulation is in the MIT community; the rest is divided among other universities nearby. This means that the articles (and the advertising!) are intended to be of interest primarily to MIT students, whether or not the content of each article explicitly concerns MIT.

But Ergo does cover MIT events. Of course, other MIT papers concentrate much more heavily in this area, but most of Ergo's MIT coverage is not duplicated. Does any other campus paper run articles on the MIT Philosophy Department, as Ergo has done many times? Does any other paper review philosophy lectures over IAP, or other campus lectures such as the ones by George Reisman and Robert Sade last spring?

In short, Ergo is produced by MIT students, for MIT students.

learned by considering his opinion.

I am an undergraduate at MIT. I worked for Ergo last spring, but I quit at the beginning of the past fall term. Although I agreed then, as I do now, with the philosophy held by the editors of Ergo, I severely criticized certain policies which I thought made Ergo less effective than it should be.

However, in view of the current threats to Ergo's existence — where my action or inaction could mean the difference between the paper's survival and death — I am most willing to act to support it. Therefore I am joining the Ergo staff, effective this week. I absolutely oppose the position of the ASA Executive Committee that it is solely the number of bodies on the Ergo staff that is of major significance in this case. But, for now, if that is the standard that the Executive Committee is using, then it can add one more "body" to its list.

Ronald Pisaturo '76

Irresponsible on Iran?

To the Editor:

The Editorial in the March 7 issue of *The Tech* regarding the proposed special graduate program in Nuclear Engineering for well-qualified Iranian students was in error in those few statements which it contained that were alleged to be based on fact and irresponsible with respect to its allegations that the broader issues involved in this proposed program have not been carefully considered by many people at MIT including the senior officers.

The Institute will neither gain nor lose financially from the proposed program.

There is nothing in the proposed nuclear engineering curriculum which relates to the design of plants for making nuclear weapons material or to the design of nuclear weapons.

Alfred H. Keil
Dean of Engineering
William F. Pounds
Dean, Sloan School

(The Tech will stand behind the statements of its Editorial — Editor.)

Inaccurate on Multics?

To the Editor:

I want to call your attention to an inaccuracy in Lucy Everett's article entitled "IPS to Terminate Multics?" that appears in your March 4, 1975 issue.

In the article, Ms. Everett states: "Most of the loss which has been generated, Scott said, can be attributed to higher salaries and to rising paper and telephone costs." This statement is inaccurate. Rising salaries, paper, and telecommunications costs are the major items that cause pressure to increase the total budget for the Multics service from year to year, but they are, in total, small relative to the current 2.5 million dollar total

expense budget.

The real problem which we face — and the reason for our current loss position on Multics — is a far more fundamental one: namely, that the total funds generated by the Multics user community are insufficient to meet its cost. Revenue will decline from \$1,900,000 in Fiscal 1974 to \$1,700,000 this year; the projection for Fiscal 1976 is \$1,500,000. Demand from small users for Multics service has grown over this three year period but, unfortunately, major reductions by two large users will more than offset the growth.

Robert H. Scott
Director, IPS

IMplied facts wrong?

To the Editor:

I would like to amplify slightly on the article in *The Tech* last Friday (March 7) dealing with the athletic card requirement for intramural sports. Although the facts and opinions stated in the article are substantially correct, a bit of perspective seems to be missing.

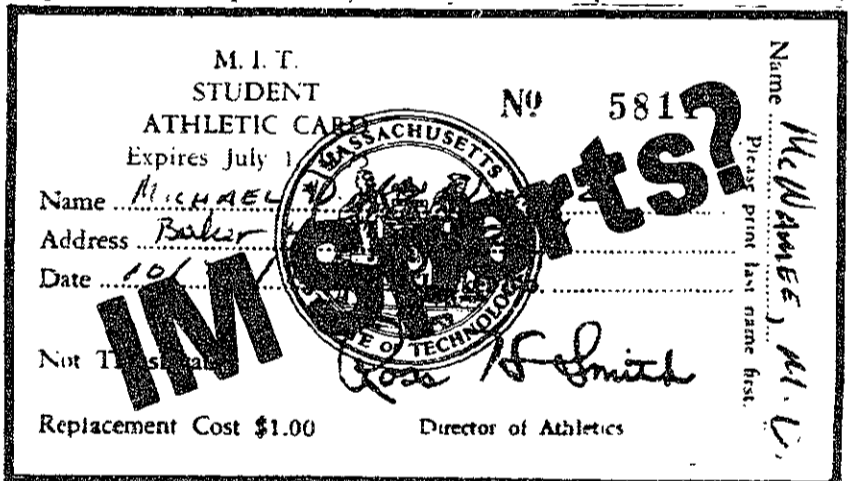
First of all, when we added the athletic card requirement to the general Intramural Rules last spring, we did so in the hope that this would be the first step in a long process which would include several changes in the athletic card itself. This was not based on any firm commitment from the Athletic Department, but rather on various expressions of interest in our ideas. It now seems apparent that no such changes are in the wind, and to this extent we are disappointed, but this does not constitute lack of Athletic Department response to "expected changes." The changes were simply hoped-for.

Secondly, it is a fact that most intramural sports use Athletic Department facilities. To this extent, we felt that requiring purchase of an athletic card was only just acknowledgement of the services being used. In

fact, many intramural sports (for example, ice hockey) have always required athletic cards, and many will continue to, no matter what happens in May. The general athletic card requirement was not part of any budget bargain struck with the Athletic Department, though. We did hope that the requirement, and

new intramural venture, is a prime example. Others are bowling, cycling, and cross country, none of which use any of the Athletic Department's facilities, other than secretarial services.

If the athletic card were more useful for some of the purposes we had hoped it would serve,



some of the information it would generate, might improve our bargaining position, or at least help the Department justify its expenditures for intramurals. The main reason to consider dropping the requirement, however, is that there are certain intramural sports for which it is clearly inappropriate. Chess, a

that would counter-balance this objection. Last year, we had a reasonable hope of such changes coming to pass. This year, we will have to review the situation and see whether last year's position is still warranted.

Robert H. Halstead, Jr.
Chairman
MIT Intramural Council

Image of Bldg 7 wrong?

To the Editor:

The appropriate response to Roger L. McCarthy's cries of "Rape!" on the fourth floor of buildings 5, 7, and 9 (*The Tech*, February 21), and a defense of the architecture profession, are in order.

But first look at the built-form environment around you, MIT and elsewhere. After you stop crying, consider that only 5 per cent of the built form in America is ever designed by architects. I strongly suspect a cause-and-effect relationship between the underuse of architects and the discord in the environment.

Architecture aspires toward built form which can interact with its users in such a manner that those users will feel a sense of place and belonging and oneness with the environment, and the enjoyment of whatever activities take place there will be enhanced. Most of today's archi-

fects and architecture students recognize this.

MIT was built with somewhat different aims in mind, namely to regiment, stratify, sterilize, and deprive the user of interaction between personality and environment. MIT's neoclassical shell and labyrinthine passageways of "flaking paint and plaster," as McCarthy sees it, constrains the creativity of its inhabitants.

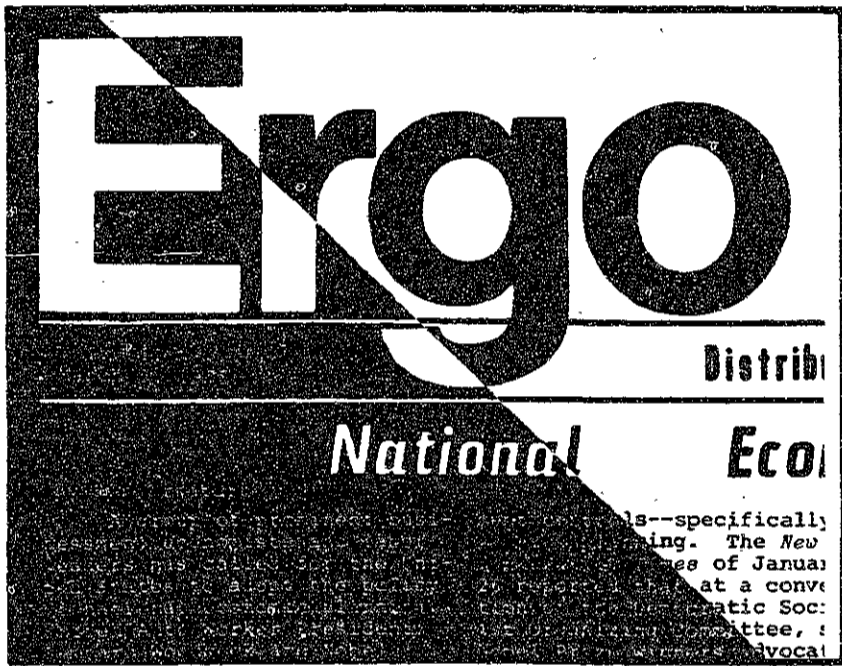
It is no small wonder that the architecture department was the last to move from Copley Square when the MacLaurin buildings were finished. Considering what the architects were given to inhibit, it is a wonder the rebellion didn't begin earlier. The student-originated reconstruction of the fourth floor began as a guerilla action in the fall of 1966 and continued the next fall in what chairman Donlyn Lyndon called a "Study/Use Workshop and Experimental

Area' in which students were allowed and encouraged to build for their own use." The point of all this was to humanize the environment and to get away from the cold rectilinear patterns that the technocrats and uninspired engineers seem to hold so dear.

As for room 7-402, I can say that while it is hardly the frozen music that architecture strives to be, it does have the colorful lure of pop art, and if any place needs a transfusion of contemporary popular culture, it is MIT.

The critics should quiet down and think of how much nicer it is to walk down the building 7 stairway than any other stairway in the Institute. This is not Calvin's Geneva. There should be more to education than four bare walls and a lecture. No one but the architects are working on this problem.

Steve Kopelson '78



of the Ergo staff who are not currently affiliated with MIT. That is true. But does one expect Ergo to refuse the assistance of non-MIT people when it is volunteered? Although there are non-MIT officers on the staff, MIT students still control Ergo.

Clearly, the publishing of Ergo is an MIT activity. In addition, however, the reading of

But I have saved Ergo's greatest value for last: the value of ideas.

A newspaper of ideas performs a function analogous to that of an advisor or a teacher. A man solicits the aid of an advisor, not necessarily because he fully agrees with him, but because he thinks that the advisor can present a viable alternative and that something can be

another. "We think the educational resources can be used more fully and effectively, and we're looking for ways to do that," Gray said.

Using this strategy will give MIT one more deficit year, according to Gray. Fiscal 1976 (beginning in June) will probably show a shortfall of about \$2.6 million, while MIT hopes to break-even in FY77. These expectations are based on many assumptions — "modest growth" in the student body, income from the fund-raising campaign, tuitions increases "paralleling expenses" and probably not equal to this year's record \$350 jump, and perhaps most important of all, a gradually improving economic situation.

The administration can only be wished well in getting MIT back on its feet financially. Quite a few people, however, are going to be asking, "Is MIT's financial crisis that serious?" in the months ahead. The administration should be careful to ask itself that question when it considers changes that will have impact far beyond the budget.

Beating the budget: the crisis continues

(Continued from page 4)

line \$3 million — about 7 per cent — up from the bottom," Gray said. "Things below that line go away."

The second part of the attack is in academic expenses. Each academic dean has been instructed to cut his School's expenditures by 1.7 per cent this year, Gray said. Most deans are using "nibbling" techniques to achieve this cut, looking at "paperclips and photocopying" expenditures in their Schools. The School of Engineering, however, is conducting a review of its operations in a number of areas, looking for long-term budgetary cuts that could be made, and Gray said he expected other Schools to make similar reviews this year or next.

The third prong of the budget strategy involves generating new revenue. The Institute is looking for programs "that will bring in more income than the amount of the marginal expense of running them," Gray said. Raising the size of the freshman class to 1130 next year is such a program; the Iranian program is

Miles Davis and Mahavishnu John Mc.

by Bob Reina

Miles Davis has long been recognized by musicians in all fields, as having had one of the most pronounced influences on jazz.

His music has been constantly changing over the past 25 years; each time his style takes a new turn, everyone listens. The sextet of Miles, John Coltrane, Cannonball Adderley, Bill Evans, Philly Joe Jones, and Paul Chambers was probably the most popular small jazz group of the fifties. The early sixties brought Miles to record some memorable works with the Gil Evans Orchestra. Although the bulk of his music was recorded before 1970 (he has released over 50 albums that are still being manufactured), it was in that particular year that he introduced electronics into his music, setting the trend for most of today's electric jazz.

Bitches Brew was basically the pace-setter for the new electric Miles. The band included such memorable names as John McLaughlin, Billy Cobham, Jack DeJohnette, Wayne Shorter, Joe Zawinul, Herbie Hancock, Chick Corea, Airtto Moreira, and Keith Jarrett, all relatively unknown at the time. Their heads were completely turned around by Miles' music. When Chick Corea and Herbie Hancock were told to play electric piano, Corea was insulted, and Hancock said he had never seen one before. The music was more improvisational than jazz had ever been. Miles seldom wrote down melodies or chord changes; he just created his musical "colors." No piece was performed the same twice in a row. I didn't realize until after listening to the entire *Live at the Fillmore* album (which includes 4 half-hour cuts of consecutive nights in concert) that each cut is actually the same piece!

As Miles has progressed to the present, his albums have become more and more spaced. *Big Fun* is basically a survey of the post-*Bitches Brew* period and consists of cuts which were rejected from previous albums. However his latest album, *Get Up With It*, is probably the best album Miles has recorded in years and is important for two reasons: it is his most versatile album (no two of the 8 cuts are similar), and it is Miles' first recorded exposition of a new musical effect, which can best be described as "tone clusters." Miles not only plays trumpet on the album but uses a Yamaha organ as a regular feature of the band. He hooks up a wah-wah-pedal and other distortion devices to the organ and plays clusters (6- or 7-note chords of consecutive notes which produce a harsh, dissonant sound). The effect is very tinny and piercing and at times sounds like someone is sitting on the keyboard. This type of effect has not been attempted before in jazz rock, and I'm sure the listening public will need some time to get used to it.

The personnel on *Get Up With It* (except on "Honky Tonk") consists of Miles Davis (trumpet, organ, piano); Reggie Lucas (guitar); Mtume (conga, African percussion); David Liebman (flute); Michael Henderson (Fender bass); Al Foster (drums); Pete Cosey (guitar); Dominique Gaumont (guitar); Sonny Fortune (sax, flute); Cedric Lawson (piano, organ); Khalil Balakrishna (sitar); Badal Roy (tabla); John Stubblefield (sax); Bernard Purdie (drums); Cornell Dupree (guitar); Wally Chambers (harmonica); and Charles Garnett (sax). The "Honky Tonk" personnel includes Miles Davis (trumpet); Keith Jarrett (keyboard); Airtto Moreira (percussion); Steven Grossman (soprano sax); William Cobham (drums); Michael Henderson (Fender bass); John McLaughlin (guitar); and Herbie Hancock (keyboards).

Get Up With It is dedicated to Duke Ellington, and the first cut, "He Loved Him Madly," was recorded a few days after his death. More than 30 minutes in length, the piece creates a tremendous funeral effect. The first half of the piece

is just organ (in chorale fashion, not clustered) with an occasional guitar riff or drum fill. The rhythm enters about twenty minutes into the piece and generates a quiet, but steady, motion.

"Red China Blues" is the album's tongue-in-cheek selection.

Less than four minutes in length, it could almost pass as a hit single. It's a traditional blues number and sounds more like Paul Butterfield or BB King than Miles. Cliched horn arrangements and harmonica riffs form the foundation of the piece, with Miles' unorthodox wah-trumpet placed on top. It sounds comical, but fits very well.

"Rated X" is the best representation of the current band's concert sound. The eerie organ opens the piece and a heavy, driving rhythm begins to churn. The rhythm and organ grow more and more frantic as the piece progresses and near the end an interesting trick is employed in the studio mix. Miles' organ is recorded on one track and the rest of the band on the other. At random intervals, the band track on the tape is erased entirely, allowing the organ to surface and submerge.

rhythmically complex piece is "Mtume," which features drums, percussion, organ, and guitar fighting each other. "Billy Preston" is laid-back funk, and rather boring.

Miles is presenting himself as a very black musician. His album covers since *Bitches Brew* have looked more like soul album covers than jazz, with cartoon figures of platform-clad blacks cavorting about. His music in live performance is getting increasingly funkier, and his dress fits the bill also. With his brightly color-clashing garb he makes the cast of *The Harder They Come* look sedate.

Miles Davis is playing the music of the future. I would not be surprised if Pete Cosey and Mtume become the John McLaughlin and Airtto of the 80's. Miles live is definitely not a show to miss. Take in a few sets the next time he comes to Paul's Mall and keep an open mind.

DISCOGRAPHY:

At Carnegie Hall (Columbia CS-8612)
At Fillmore (Columbia G-30038)
At Newport (w/Coltrane) (Columbia J-17)
Basic Miles (Columbia C-32025)



Miles Davis

Miles has included a conventional bossa-nova tune on the album. "Maiyisha" begins with mellow melodies and traditional chord changes. The only thing unconventional is the trumpet and organ. The piece changes direction near the middle and develops into a slow and easy funk with heavily-synthesized trumpet and guitar lines.

"Honky Tonk" is not a new piece; it is 3 or 4 years old as performed by the original electric band. I believe Columbia included it on the new album to flaunt the McLaughlin, Hancock, Jarrett, and Cobham names to boost sales. It is a very loose piece, and it alternates smoothly between a slow, funky rhythm and a plodding boogie, with Miles' trumpet in the foreground.

"Calypso Frelima" starts as a somewhat frantic, rambling rhythm with Miles' trumpet directing. The rhythm dies near the middle, but returns more frantic than before; Miles interplays his trumpet with the overdubbed organ. The most

Big Fun (Columbia PG-32866)
Bitches Brew (Columbia GP-26)
Blue Moods (Fantasy 86001)
Classics (Prestige S-7373)
Collector's Items (w/Parker, Mingus) (Prestige 24-22)
Conception (Prestige S-7744)
Early Miles (Prestige S-7674)
ESP (Columbia CS-9150)
Facets (Columbia J-1)
Filles de Kilimanjaro (Columbia CS-9750)
For Lovers (Prestige S-7352)
"Four" and More (Columbia CS-9253)
Get Up With It (Columbia KG-33236)
Greatest Hits (Columbia CS-9808)
Greatest Hits (Prestige S-7457)
In A Silent Way (Columbia CS-9875)
In Concert (Columbia G-30954)
In Europe (Columbia CS-8983)
In Person At The Blackhawk (Columbia C2S-820)
In The Sky (Columbia CS-9628)
Jazz At The Plaza-Vol. 1 (w/Coltrane) (Columbia C-32470)

Kind Of Blue (Columbia CS-8163)
Live Evil (Columbia G-30954)
Miles Ahead (w/Gil Evans Orchestra) (Columbia CS-8633)
Miles Ahead (Prestige 7822)
Miles Davis (Prestige 24001)
Miles Davis (United Artists 9952)
Miles Of Jazz (w/Parker) (Trip 5015)
Milestones (w/Coltrane, Adderley) (Columbia KCS-9428)
Modern Jazz Giants (w/Monk, Jackson) (Prestige S-7650)
My Funny Valentine (Columbia CS-9106)
Nefertiti (Columbia CS-9594)
Odyssey (w/Jackson) (Prestige S-7540)
Oleo (w/Rollins) (Prestige S-7847)
On The Corner (Columbia KC-31906)
Porgy & Bess (w/Gil Evans Orchestra) (Columbia CS-8085)
Quiet Nights (Columbia CS-8906)
Round About Midnight (Columbia CS-8649)
7 Steps to Heaven (Columbia CS-8851)
Sketches Of Spain (w/Gil Evans Orchestra) (Columbia CS-8271)
Smiles (Columbia CS-9401)
Someday My Prince Will Come (Columbia CS-8456)
Sorcerer (Columbia CS-9532)
Steamin' (Prestige S-7580)
Tallest Trees (Prestige 24012)
Tribute To Jack Johnson (Columbia KC-30455)
Walkin' (w/Johnson) (Prestige S-7608)
With J.J. Johnson (w/Blakey) (Blue Note 81501)
With J.J. Johnson (w/Silver) (Blue Note 81502)
Workin' & Steamin' (Prestige 24034)

Mahavishnu

John McLaughlin

When the original Mahavishnu Orchestra broke up, John McLaughlin set out to form a band that would play a slightly different type of music than that to which the old band was accustomed. The result was a group that had the identical instrumentation as the old orchestra but with the addition of a few horns, a string quartet, and vocals. They immediately recorded an album, *Apocalypse*, and included the London Symphony Orchestra in their recordings. The album was a pompous, disjointed mess and the orchestrations seemed very awkward - most of the time the orchestra sounded like they were playing guitar chords. Apparently, McLaughlin thought he was the equivalent of a classical composer at the time, and so the music seemed very esoteric; however, performed live without the London Symphony, the same music seemed to hang together. Naturally, the first time I played their new album, *Visions of the Emerald Beyond*, I was apprehensive. The album has the same personnel as the first (minus the Symphony), but the music represents the most drastic change in McLaughlin's style in quite some time.

The music is much more down to earth than the previous disc (I'm hesitant to use the word "commercial," for the connotations don't apply.) While *Apocalypse* seemed very preoccupied, *Visions* is sparkling and cheerful (which is strange for McLaughlin). The personnel consists of McLaughlin (6 and 12 string guitars, vocals); Jean-Luc Ponty (electric violin, electric baritone violin); Michael Walden (drums, percussion, vocals, clavinet); Ralph Armstrong (bass guitar, contrabass, vocals); Gayle Moran (keyboards, vocals); a string trio consisting of Steven Kindler (1st violin), Carol Shive (2nd violin), and Philip Hirschi (cello); Bob Knapp (trumpet, flugelhorn, flute, vocals); and Russell Tubbs (alto and soprano sax).

Laughlin

Ponty's ethereal violin opens "Cosmic Breath" (Pts. 1 and 2). A very simple piece, it has fine backup vocals and is extremely improvisational in nature. It's also the closest McLaughlin has come to straightforward rock music. In every album he's released, McLaughlin always plagiarizes some of his earlier works on one cut or two. On *Visions*, "Lila's Dance" fits the bill. Although it begins with a sweet piano introduction by Moran, one soon recognizes quotes from *Between Nothingness and Eternity* — which develop into the guitar solo from "Vision Is A Naked Sword," superimposed over the rhythm of "Dance of Maya." "Can't Stand Your Funk" is self-explanatory and reminds you of Herbie Hancock's "Chameleon" in 10/8. "Pastoral" brings back memories from the *Apocalypse* album, with weaving string lines forming a beautiful piece of music.

On "Faith," I don't think McLaughlin is taking himself seriously. In less than two minutes he strings together disjoint pieces consisting of progressions reminiscent of "Resolution," an electric guitar solo, ridiculously fast melody lines, and a chuckle from Ms. Moran.

It was surprising to see McLaughlin allow one of drummer Michael Walden's compositions to appear on this album. "Cosmic Strut" sounds exactly like the things Billy Coghlan is now writing; the rhythms and the awkward horn voicings are all there. Needless to say, Walden's drumming is a carbon copy of Coghlan's, which gives him an A+ in technique and a D- in originality. "If I Could See" and "EarthShip" are short pieces which spotlight Gayle Moran's celestial vocalizing.

McLaughlin does not play guitar that extensively until "Be Happy" — included as nothing more than an aimless guitar jam. It works nonetheless.

The remaining three cuts are unlike anything McLaughlin has recorded before. "Pegasus" is a strictly electronic work (with altered string instruments) and brings to mind Ligeti's "Atmospheres." "Opus 1" is a brilliant piece written in the style of a Bartok string quartet. Unfortunately, it is only 21 seconds in length and is lost among the longer cuts. McLaughlin plays his guitar through a frequency shifter or ring modulator device in "On The Way Home To Earth," and it sounds more like a Jan Hammer synthesizer solo than anything else.

With *Visions* McLaughlin has taken a refreshingly different outlook on his music. While I personally like the music of the original Orchestra the best, this new band has much more to offer. When they improvise in a live setting, they extend the capabilities of the old orchestra. Jean-Luc Ponty is a much better musician than Jerry Goodman and the other musicians are not far behind. What is most surprising is the change in McLaughlin's guitar style — he is not in the spotlight as much as he was in the old band, and his playing is more melodic and emotional than frantic and fleeting. The music of *Visions of The Emerald Beyond* lacks the impact of some of the work of the original Mahavishnu Orchestra; yet it is a welcome change of pace.

Discography: John McLaughlin — *Devotion* (Douglas KZ 31568)
My Goal's Beyond (Douglas Z 30766)
Extrapolation (Polydor PD 5510)
Mahavishnu Orchestra — *Birds of Fire* (Columbia KC 31996)
Between Nothingness and Eternity (Columbia KC 32766)
Apocalypse (Columbia KC 32957)

Bach's Brandenburg Concertos

by Stephen Owades

I can think of no finer compliment to the *Brandenburg Concertos* than the fact that I have become more fond of them than ever over the course of preparing this comparative review, which involved rehearsing substantial portions of twelve recordings. Indeed, familiar as these pieces are, it would not be an overstatement to say that I discovered new and fascinating aspects on each hearing. The *Brandenburgs* are enjoyable on any level from uncritical background listening to detailed analysis, and they repay any amount of attention and study many fold. (Lea Pocket Scores publishes a reprint of the classic Bach-Gesellschaft edition of the *Brandenburgs* in two volumes, L.P.S. No. 27 and 28, available at Briggs & Briggs in Harvard Square for \$1.30 each—a very worthwhile investment.)

The *Brandenburg Concertos* are six *concerti grossi* assembled from amongst the several hundred that Bach composed for the use of the court ensemble which he directed at Anhalt-Cöthen. The Margrave Christian Louis of Brandenburg, who requested them of Bach, apparently never even had them performed at his own court, and probably did not recognize the incomparable treasure that he had been sent. Rather than the exhaustive exploration of a single theme or a single concept which characterizes most of Bach's "sets" (for example, the *Art of Fugue*, *Musical Offering*, and *Well-Tempered Clavier*), the *Brandenburgs* contain, in Hubert Parry's words, a "feast of variety," and were assembled to demonstrate Bach's mastery of all of the aspects of the Baroque concerto style.

All six of the concertos are intended for performance by a small group of instrumentalists, generally one player to a part; the *First Brandenburg* is probably an exception, and should have the upper string parts doubled. Evidence for the small forces can be found in the *Fifth Brandenburg*, where Bach would have given up his customary viola to play the virtuosic harpsichord part—the second violin part is absent because its lone player had to replace the composer at the viola. Performances with full orchestra are not uncommon, but recordings of this type (Munch, Klemperer, Boult, et al.) may be dismissed out of hand as serious distortions of scale and style.

It has recently become fashionable to resurrect or reconstruct the instruments of Bach's time for performances and recordings of his music. These instruments have, in general, a more transparent and colorful palette of sounds than their modern counterparts. Two recordings of the *Brandenburgs* are played entirely on original instruments or reconstructions: those by the Concentus Musicus of Vienna under Nikolaus Harnoncourt (Telefunken SAWT 9459/60-A) and the Collegium Aureum (RCA Victrola VICS-6023). Anthony Newman and Friends (Columbia M2 and M2Q 31398) use a mixture of old instruments and modern ones. While the use of original instruments does not by any means guarantee a successful recording, it is definitely an asset. Balances which are difficult or impossible to achieve on modern instruments, such as the musically co-equal but sonically unmatched trumpet and recorder in the *Second Brandenburg*, work with no trouble when the instruments for which these parts were intended are used.

Of these three recordings, the Collegium Aureum's is the most successful overall. Tempi are brisk, but not rushed, and the dance-like character of the music is conveyed admirably. The solo instrumental playing is exemplary: Gustav Leonhardt's playing, it need hardly be said, sets the standard for other harpsichordists; Edward Tarr's traversal of the high-wire clarino trumpet part (perfectly balanced with the recorder!) is nothing short of phenomenal; and such eminent players as Erich Penzel on horn and Hans-Martin Linde on flute and recorder keep the entire recording on a very high plane.

The Harnoncourt recording is one of his group's earliest, and the easy technical mastery of the instruments that has become the norm for the Concentus Musicus is not always in evidence. This is particularly apparent, and disturbing, in the *Second Brandenburg*, whose labored pace does not succeed in disguising the difficult time that Walter Holy appears to be having with the clarino trumpet part. On the other hand, the string playing particularly is quite spirited, and the all-string concerti, the *Third* and *Sixth*, are excellent. Georg Fischer's harpsichord playing is quite good, if not quite on Leonhardt's level, and the instrument is always clearly audible.

Anthony Newman can always be relied upon for an unusual and thought-provoking experience, and his recording of the *Brandenburgs* has less of the accompanying perversity than some of his solo ventures. The unique Newman touch in matters of phrasing and accent is very much in evidence, as are his characteristically rapid tempi, but the "hiccups" with which he often disrupts the rhythmic flow are blessedly rare. The continuo realization is a bit florid for my taste much of the time, but the solo harpsichord playing in the *Fifth Brandenburg* cadenza has the improvisatory quality that Bach surely must have intended. The "friends" involved in this disc are mostly New York free-lancers, with some ex-New York Pro Musica players included (this is late rather than early music for them!). Columbia's recording, in contrast to the warm concert-hall ambience of the Victrola and Telefunken versions above, features extreme separation among the instruments, and the quadraphonic version is the most successful "surround sound" record that I've yet encountered. The feeling of intimate involvement with the performance is aided by this close-miked recording approach.

Among the modern-instrument versions of the *Brandenburg Concertos* are several standouts. The recording by the Italian group *I Musici* is released on French Philips "Tresors Classiques" 6700013, which is occasionally available in the import sections of record stores in town. Well worth seeking out and paying the premium price which it commands, this version features an all-star cast of soloists, including Maurice Andre on trumpet, Erich Penzel on horn, Heinz Holliger on oboe, Frans Bruggen on recorder, and Felix Ayo on violin. Andre's trumpet playing (on a valved instrument) is particularly notable for the restraint that he employs, especially when contrasted with the pinched and raucous sounds of some of his competitors. There are no clinkers here—all the players are good, they play with a fine sense of style, and the recording is clear.

The French Erato recording (issued here on RCA CRL2-5801) with the Jean-Francois Paillard Chamber Orchestra also has star players; in fact, Maurice Andre and Jean-Pierre Rampal are featured in larger type than the composer or the title of the music on the front cover of the album. Andre's playing is again good, though not as consistently well balanced with the rest of the ensemble as it was on the Philips disc. Rampal is, as expected, very good, though using flutes in the *Second* and *Fourth* concertos is inappropriate. Another bad choice of instruments is the replacement of the two viole da gamba with cellos in the *Sixth Brandenburg*—the delicate transparency of this piece is upset by the thicker sonority of the cellos. The most distressing aspect of this recording, however, is the decidedly inferior harpsichord playing. In the big cadenza in the *Fifth Brandenburg*, the harpsichordist sounds like her fingers are sticking to the keys. Compared to the likes of Leonhardt and Newman, this is just not in the same league.

The harpsichord playing in the Yehudi Menuhin/Bath Festival Orchestra recording on Angel (S-3787) is technically okay but horrendously tasteless. George Mal-

colm, who should know better and probably does, uses some sort of crescendo-diminuendo device (shutters, perhaps?) to produce a distinct feeling of seasickness in the *Fifth Brandenburg* cadenza. The rest of the playing is also acceptable on a technical basis but devoid of any conception of Baroque phrasing—the notes are picked and jabbed at.

Benjamin Britten's recording with the English Chamber Orchestra (London CSA 2225) shows the influence of a strong-minded and creative hand at the helm. Though it is not "authentic" in the sense of some of the other recordings, Britten's careful attention to phrasing and dynamics illuminates some aspects of the music that otherwise tend to remain hidden. The cadenzas and ornaments, which Britten has allowed his players to improvise (as indeed they would have in Bach's day) come out in a polyglot of styles, however. This is not a good first choice, but it may well be of interest to those who are looking for a different view of the music.

An excellent second recording of this music is Neville Marriner's with his Academy of St. Martin-in-the-Fields (Philips 6700045). The music played here is indeed somewhat different: Thurston Dart, the eminent musicologist, located the versions of these concerti that Bach had written for his own use at Cöthen, which are the predecessors of those in the *Brandenburg* presentation score. Changes like the substitution of a horn for the clarino trumpet in the *Second Brandenburg* (playing an octave lower than the stratospheric trumpet part, and superbly executed by Barry Tuckwell), the change of soprano recorders into soprano recorders (an octave higher) in the *Fourth Brandenburg*, and the substitution of a much shorter and less flashy cadenza in the *Fifth Brandenburg* will be immediately obvious to anyone who has a minimal acquaintance with these pieces in their more common form, but this "original version" is in no sense more authoritative or correct than the score that Bach sent to Brandenburg. It is for this reason that I would recommend this recording only to those who already have a recording of the later version. Thurston Dart, who was to play the harpsichord throughout, died in the midst of the sessions, and his place was taken by a distinguished group of British harpsichordists: George Malcolm, who plays the *Fifth Brandenburg*, is far more tasteful in choice of instrument and registration than he had been for Menuhin.

Karl Richter's Archiv box with the Munich Bach Orchestra (DG ARC-2708013) was the first recording that I owned of this music. The driven, even martial style of phrasing and accentuation makes this set tiring to listen to and unrepresentative of the graceful character of the *Brandenburgs*. Pierre Thibaud on trumpet is the worst offender—the stridency of his playing is physically painful. The tempi are very fast, and though the players are good enough to get through the notes one can't help but miss the subtlety that was sacrificed to speed.

Karl Ristenpart's set on Nonesuch (73006) with the Chamber Orchestra of the Saar is well played in all departments and well recorded (with the minor caveat of some high-frequency harshness). For some hard-to-define reason, I find it unmemorable, though it deserves consideration on the basis of its budget price.

It is always difficult to choose a single "best" version of a masterpiece, but I would strongly recommend the Collegium Aureum's recording on Victrola as the best overall. This recommendation is made without regard to price, but the fact that this set is the least expensive of all provides a further incentive. To supplement the Victrola recording, I would pick the Marriner on Philips, the Newman on Columbia, the *I Musici* on French Philips, the Harnoncourt on Telefunken, and the Britten on London, in more or less that order. Whichever one(s) you get, enjoy, enjoy!

The Tech regrets to announce the resignation of Stephen Owades as Arts Editor.



Mike Albert.

Albert: New Left needs goals

By Gerald Radack

"The Left has not expressed in a clear way what it is talking about," a former campus radical told an audience at MIT last Friday.

Mike Albert, who was Undergraduate Association President until he was expelled from MIT for "disrespect to the discipline committee" in December, 1970, said that "a New Left movement of the seventies will have to describe and explain the way an alternative society is structured" before it attempts to tear down the present society.

Albert's talk was sponsored by the Social Action Coordinating Committee (SACC), as part of its "Studies on the Left Series."

Society exerts a "totality of oppression," Albert said, which consists of racism, sexism, authoritarianism, and profit. The New Left believes that everything in society now is geared toward the propagation of those four characteristics, Albert added.

The schools, rather than imparting knowledge to pupils, actually mold the minds of students so that their expectations and desires are geared towards reproducing society's characteristics, Albert stated.

One thing the New Left movement must do, according to Albert, is to "explain how people who are socialized to fit into this system are going to have a revolution to form the alterna-

tive society."

The "alternative society" that the New Left should work for, Albert declared, is one in which the criteria for decisions "rather than being profit or power, will be happiness and extending human well being."

Such a society will have "a form of social organization where there is self-management," said Albert. Decisions would be made by councils, which would determine what to produce and how to distribute it.

In such a society there would be little crime, Albert stated, because "the bulk of crime is not criminal; it is people responding to totally debilitating surroundings."

Albert emphasized his view that "people are good." Believing that people are essentially bad is "a good rationalization for not doing anything," he added.

Society should be restructured by a "movement of autonomous movements," Albert believes, including "a black movement, a women's movement, an on-campus movement, and a worker's movement." These movements would be bonded together since they would "recognize they are doing the same thing, have the same methodology," and out of respect for one another.

The leftist movement of the sixties disintegrated because of internal friction, according to Albert. "People had a good critique (of society's ills), but they never found a good way of functioning together."

WTBS pays off debts; seeks additional funds

WTBS still has financial problems, as reported in the February 11 issue of *The Tech*. An official of MIT's student run radio station emphasized however, that this does not mean the

sources of funds, but will rely on Finboard as its primary source of funds next year.

The station has also progressed in its effort to obtain tax exempt status. "Our books are halfway in order," General Manager Dave Gifford '76 said, explaining that the books must be in order for the previous year before the organization can apply to the Internal Revenue Service for tax exempt status.

Gifford stressed that "we would like to see more people get involved." Currently there are 100 WTBS staffers. Gifford said that despite the recently publicized financial problems, "we are a healthy organization."

Update on the news

station's demise is imminent. "WTBS has always had financial problems," he said, adding that it is no longer in debt as it once was.

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Mazlish discusses Course 21

(Continued from page 2)
happening with humanities,
that's a great deal.

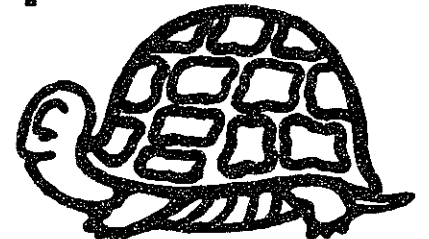
I think we need to find out
what the impact of the changing
Institute rules will be. I think we
need to offer the opportunities
in music and writing to more
people. We have to get as much
clarity about what we're doing

in literature or history, as we
possibly can, and make it clear
to the students the different
ways in which they are con-
ceived. I'm trying to stimulate a
certain amount of thought about
this among my colleagues. I've
asked one of my colleagues,
Prof. Kibel if he would set up
some colloquia on the subject of

"What is History?" "What is
literature?" "What are the
humanities?" and their role at
MIT. The first one of these was
at the end of February. I would
like to see a great deal more
intellectual vigor and excitement
demonstrated in the Department
and communicated to the
students.



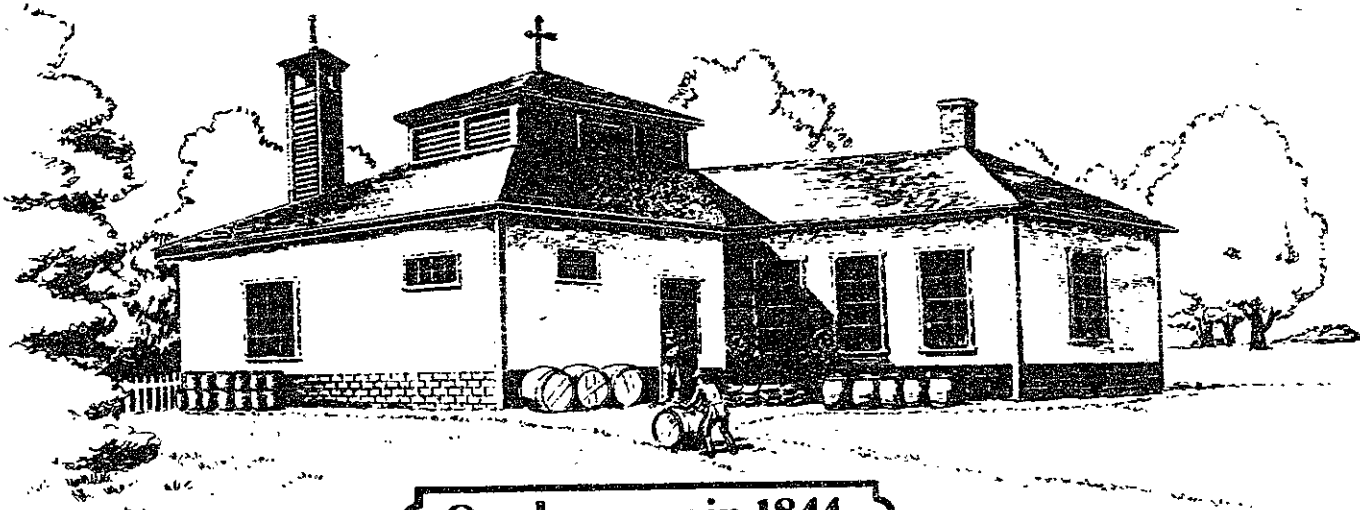
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Foreigners face unique problems

(Continued from page 3) permit has become more difficult," Sabramanian said, "even with a work permit, the availability of temporary jobs has come down, especially for foreign students."

Language barriers constitute another problem for the foreign student, Chamberlain said. Although many foreign students can speak English fluently when they arrive in the US, others have problems. "If you never took a lecture in English before, it's very hard to come to MIT and sit through an 8.01 lecture

and take notes on everything," Meesook said.

For this reason, Meesook stated, many Thai students at MIT have studied "postgrad" at a high school in this country for a year to "learn the language and the American system," rather than coming directly to MIT after being accepted. "They don't lose very much," he noted, "because they take advanced placements and don't have to take 8.02 and other courses."

To help those students having trouble with the language, MIT conducts an English language

program in the Department of Foreign Languages and Linguistics.

"I think it is essential that English language programs continue," Chamberlain told *The Tech*, "because we will be getting more foreign students, and because the quality of English language instruction (in other countries) is decreasing."

Chinese speaking students do not have trouble with English, according to Paul Chen, president-elect of the Chinese Students Club, because "they are

always together with friends, still speaking Chinese." Some Chinese speaking students never learn to speak English fluently, he says, because they are seldom in a situation that requires speaking English.

(Next issue: Why do so many foreign students come to MIT?)

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Faculty reacts to Iran deal

(Continued from page 1) list" of countries expected by arms-control experts to develop nuclear weaponry for some time, according to Professor of Electrical Engineering J.P. Ruina. "Ever since India exploded her device [a bomb developed from reactor products produced in Canadian reactors sold to India] people have thought Iran would get nuclear technology soon," Ruina said. Ruina added, however, that he did not think fears about Iranian nuclear power were "entirely justified." "I'd like to know more about the restrictions that are going to be placed on the reactors before I'd sit in judgement on those ques-

tions," he said.

An Institute-wide seminar to discuss nuclear proliferation, Ruina said, would be "an excellent forum" to discuss the issues involved in the proposed program.

Student disagrees

The Nuclear Engineering Department already has foreign students - including Iranians - in its graduate programs. Ali Salehi G, an Iranian doctoral student in the department, told *The Tech* that he "disagreed" with the proposed program to train nuclear engineers at MIT.

"It's not efficient to send 30 Iranians to MIT to learn nuclear engineering," Salehi said. "The money they are paying in the

MIT contract could be used to send many more students somewhere else."

Salehi said that he would prefer to see Iranian schools improved, rather than have money spent on foreign training of Iranians. "I think Iran should bring up a generation of people who have studied in Iran," he said.

Salehi added that he expected to return to his country after receiving his degree from MIT. "If all the people from the third world stay here, they're not fulfilling their obligations to help their people," he explained.

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Sports

Gymnastics fifth in NEs

By Paul J. Bayer

The MIT men's gymnastics team finished its season last Sunday with a fifth place finish at the New England Championships. The score of 142.55 was one of its best this season and avenged an earlier dual meet loss to Boston State which finished behind the Engineers in this meet.

Andy Rubel '74 captured fourth on the parallel bars as teammate, Jon Johnson '76 placed eighth in the same event. In the all-around competition, David Lu '77 took ninth. MIT gymnasts would have earned better results were it not for the surprise presence of Springfield College, which dominated the meet, taking first by twenty points.

Rubel's fourth on parallel bars was clearly the outstanding performance of the day for the Engineers. His 8.2 score in the preliminaries placed him fifth. In the finals, he scored 8.45, his highest score of the season, and the second highest score of any athlete in the finals of that event. For the most part, Rubel's routine was shorter and slightly less difficult than his opposition, but his distinctively strong, light style gave him an edge over the heavier, more plodding style of the others. Particularly notable was his straight body back flip dismount with perfect form. It should also be noted that all three people who beat him were from Springfield.

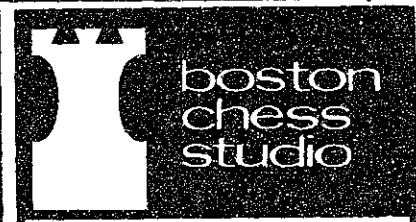
Johnson on rings suffered even more from Springfield's presence. All five Indian ring competitors made the finals and

beat him. Johnson's prelim routine showed a few rough spots including weak handstands. However, he was able to correct most of his problems in the finals and achieved his best set of the season. Unfortunately, he was not able to hit his double back dismount and did not improve his standing in the finals.

As a team, MIT put together a score just about average for the season, in what is always the most difficult meet in which to perform well. Every event was within 0.3 of average except the parallel bar team which hit 3.1 above. Behind Rubel there were Curt Thiem '75 with 7.35, David Lu with 6.65, and Alan Razak '75 with 6.6. The other top scorers were Lu on floor exercise and vaulting, Wes Taylor '76 on

pommel horse, and Scott Foster '75 on high bar.

The fifth place finish was a strong showing as the MIT gymnasts were only six points behind fourth place Dartmouth. However, losing five of this year's top seven scorers to graduation means that next year will once again be a rebuilding year.



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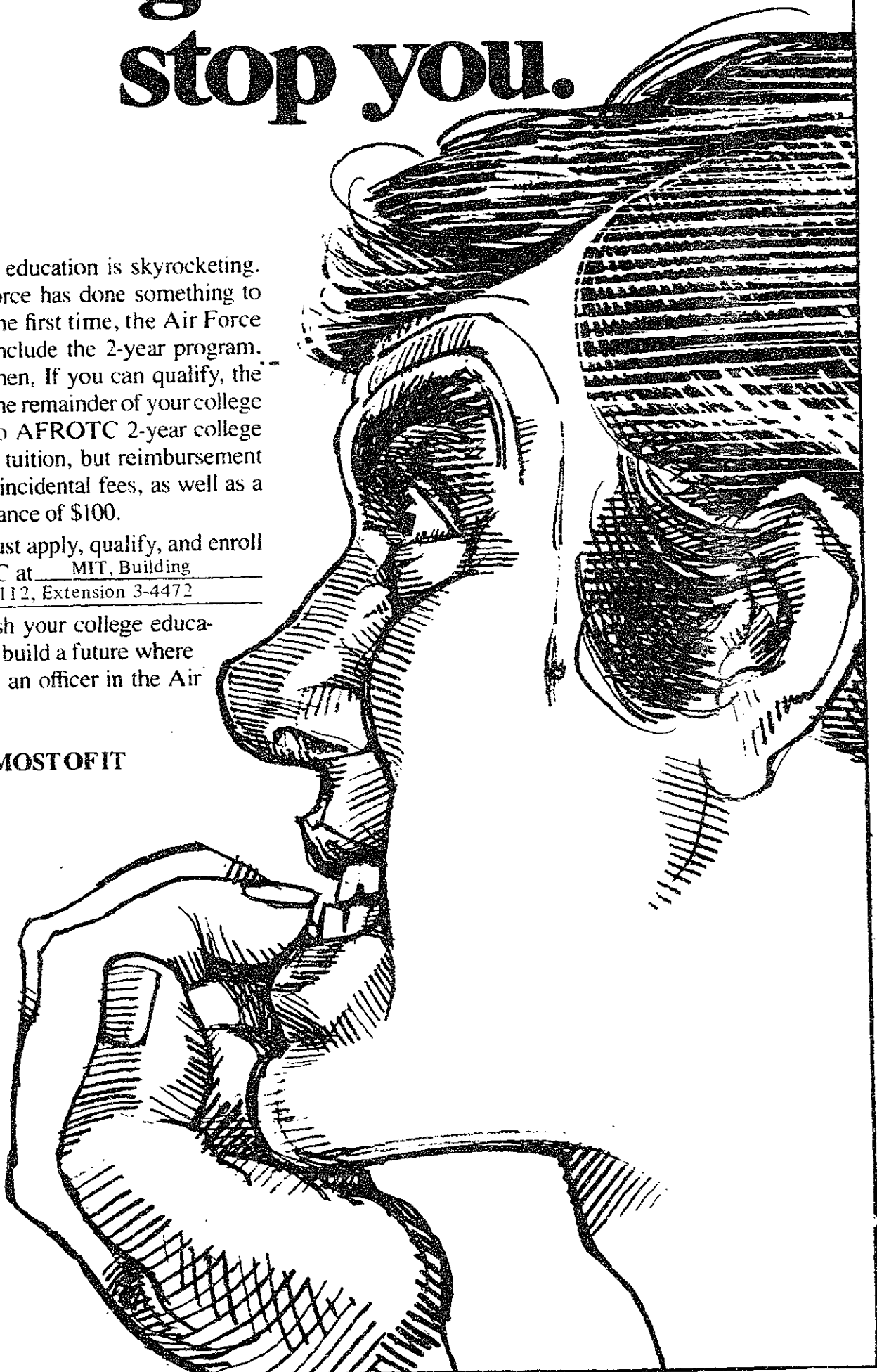
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Sports

Foil retains 'Little Iron Man'; Fencers sixth in IFA 3-weapon

By Dan Gantt

Superb performances by freshman Mark Smith and sophomore Arlie Sterling enabled the MIT foil team to retain its title at this year's Intercollegiate Fencing Association Championships, held last Friday and Saturday here at MIT.

In piling up 24 wins out of a possible 33, the foilers edged runner-up Columbia by two bouts and placed MIT sixth overall in the twelve-school field. Columbia, however, did capture the team sabre championship behind the flashy fencing of its individual champion, Tom Losonczy, but could not come close to taking the three-weapon title from New York University, which amassed an amazing total

of 29 wins in epee while collecting its third consecutive IFA championship.



Engineer foilsmen Mark Smith '78 (right) was the surprise of the tournament, sweeping eleven bouts in the team competition and placing third in individual foil.

of 29 wins in epee while collecting its third consecutive IFA championship.

Still, the outstanding efforts of MIT's foilers cannot be overlooked. After losing their top fencer in foil, last year's IFA individual champion, the Engineers' chances for a repeat of their 1974 team title did not seem solid. The addition of Smith, though, fencing in the third spot on the three-man squad, made the difference.

Displaying an amazing quickness and fine style, Smith defeated each opponent he faced with seemingly little difficulty.

His 11-0 record in the team competition earned him one of the six spots in Saturday's individual finals in which he also excelled, earning a third place finish.

Sterling, fencing in the number two position for MIT, was certainly more than equal to the task. Performing with great consistency throughout the tournament, Sterling downed nine of his eleven opponents. He also earned a spot in the finals, defeating Deniflee of Columbia, 5-3, in a fence-off.

MIT's top foiler, Rich Reimer '77, appeared to be somewhat overmatched in his pool and never seemed to quite get untracked. He nonetheless contributed four decisive wins to

the cause. The foilers never trailed in the quest for the title after the first round (three bouts) of competition. Still, they were never quite able to pull away commandingly from the field and, heading into the final round of fencing, had not clinched the championship. Not until Sterling defeated Cornell's Sanders in the next-to-last bout of the day, could the Engineers relax.

In winning the title, the foilers also retained for MIT the prestigious "Little Iron Man" trophy. Best guesses are that the

trophy should remain here for quite a while, at least until the present foil team graduates. This belief prompted MIT's fencing coach, Maestro Silvio Vitale, to suggest that perhaps a permanent case should be constructed to house the "Iron Man," not at all an unreasonable proposition.

Although neither managed to win the individual championship, the performances of Smith and Sterling in the foil finale were quite admirable. Both forced the eventual winner, Jack Tihacek of the University of Pennsylvania, to the brink, losing only 5-4. Smith, however, was particularly strong.

Although a little unsure of himself at the start, losing to Sterling and Bennett of Harvard, (the eventual runner-up), Smith came back to fence a beautiful bout, downing Treitz of Navy, 5-1. Then, after barely losing out to Tihacek, he blew Mathis of Rutgers off the strip, 5-2, to clinch a third-place finish.

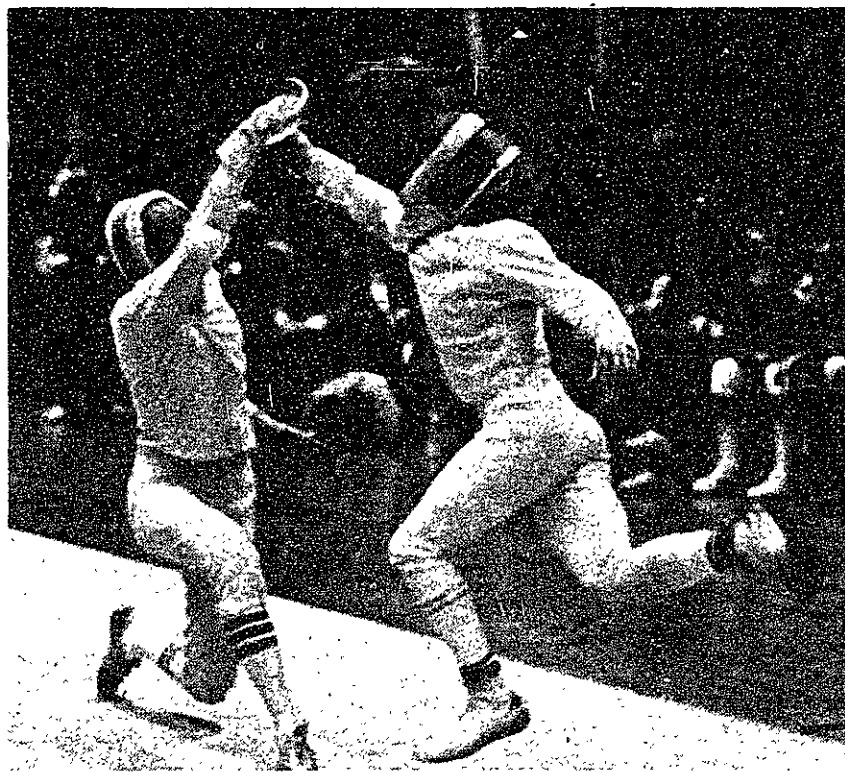
Certainly, though, the climax of the two days of fencing occurred in the very last bout, a fence-off for the individual championship in epee between Risto Hurme of NYU and Daryl Taylor of Penn. With less than ten seconds remaining in the tension-filled bout and Taylor leading, 2-1, Hurme made a beautiful move to tie the score and cause a sudden-death situation. The two then fenced with great caution, building enormous suspense for what seemed an interminable length of time before Hurme caught Taylor slightly off-balance with a quick lunge to take the championship.

The previous day, MIT had failed to place a fencer in the epee finals, although Chip Farley '75 fell just short with a 7-4 record. Farley, in fact, defeated Hurme in the team competition and could even have ousted Taylor from the finals had he defeated him in both fencers' final preliminary bout.

Jim Cook '75 and Dave Dreyfuss '76 also competed for MIT in epee, winning five and four bouts, respectively.

In the sabre competition, MIT was not quite up to par, winning only a third of its bouts. Dong Park '75, the Engineers' top sabreman, did win five, but was quite disappointed with his showing. Robert Shin '77 fenced in the number two spot, and Jim Callmeren '75 fenced in the third pool for MIT.

Columbia's Losonczy, though, was by far the class of the sabre competition. Defeating the top fencer from every school in Saturday morning's team fencing, he came back that afternoon to easily defeat each of his five opponents in the finals, win-



Columbia's Tom Losonczy (left) led the Lions to the team sabre championship by winning all 16 of his bouts and capturing the individual crown.

ning a total of 16 consecutive bouts. Losonczy's fencing was topped only by his theatrics, making his bouts doubly interesting for the spectators.

At the awards presentation immediately following the completion of the fencing, numerous trophies and medals were given out to the top competitors. Recipients of the coveted Georges L. Cointe Award, given annually to the fencer demonstrating high qualities of sportsmanship, were named, this year for the first time including one fencer in each weapon. Penn's Taylor was given the award in epee, Rich Petretti of Princeton in foil, and Dave Uffelmann also of Princeton in sabre.

All-in-all, the tournament was a resounding success for MIT, both for its fine handling of the affair and for its success in the competition. It can only be hoped that such excellent sporting competition can find its way to the MIT campus more often.

Individual Results:

Sabre Tom Losonczy, Columbia, 5-0; Ed Devivo, NYU, 3-2;

Edgar House, Yale, 3-2; Randell Johnson, Princeton, 2-3; Miklos Benedek, NYU, 1-4; John Espinal, CCNY, 1-4
Foil: Jack Tihacek, Penn, 5-0; Phillippe Bennet, Harvard, 3-2; Mark Smith, MIT, 2-3; Robert Treitz, Navy, 2-3; Phil Mathis, Rutgers, 2-3; Arlie Sterling, MIT, 1-4
Epee: Risto Hurme, NYU, 4-1*; Daryl Taylor, Penn, 4-1*; Lee Shelley, Princeton, 3-2; Hans Wieselgren, NYU, 3-2; James Neale, Princeton, 1-4; Lars Wieselgren, NYU, 0-5
*Fenceoff: Hurme defeated Taylor, 5-4.

IFA Three Weapon Results

| | Epee | Foil | Sabre | Total |
|-----------|------|------|-------|-------|
| NYU | 29 | 17 | 23 | 69 |
| Princeton | 25 | 18 | 23 | 66 |
| Penn | 24 | 19 | 18 | 61 |
| Cornell | 17 | 16 | 22 | 55 |
| Columbia | 7 | 22 | 24 | 53 |
| MIT | 16 | 24 | 11 | 51 |
| Rutgers | 20 | 16 | 11 | 47 |
| Navy | 17 | 20 | 10 | 47 |
| Harvard | 18 | 15 | 8 | 41 |
| Army | 11 | 17 | 12 | 40 |
| Yale | 9 | 4 | 22 | 35 |
| CCNY | 5 | 10 | 14 | 29 |

Sporting Notices

On Wednesday, March 12, in the Varsity Club Lounge, there will be an open meeting of the MIT Athletic Association. The purpose of the meeting is to elect a new MITAA President, Secretary, and two Members-at-Large, each of whom will serve until this time next year. Any concerned individual wishing to run for any of these positions should attend this meeting.

IM Softball rosters and entry cards are due Friday in W32-123 by 5:00pm. NO LATE ENTRIES WILL BE ACCEPTED. Include all athletic card numbers on rosters.

There will be an IM Council meeting tonight at 7:00pm in the Varsity Club Lounge. Elections will be held for three Executive Committee members, and the responsibilities of athletic chairman will be discussed. All living group athletic chairmen should make a special effort to attend.

A new addition to MIT's intramural program, Community Baseball, will begin this spring. Teams will not be determined on a living group or club basis, but instead players will be split up among the teams to balance the league.

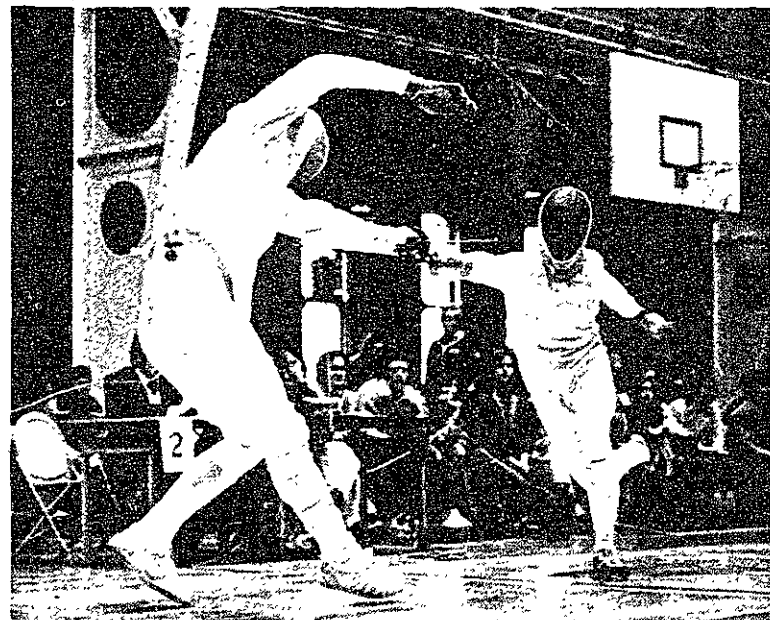
Individual entries for Community Baseball must be submitted by 4:00pm, Thursday, March 13, to the IM secretary (W32-123). There will be an entry fee of \$5.00 per person, used to help defray equipment costs and umpire's pay.

All MIT students with the exception of present varsity or JV baseball and women's softball players are eligible.

A minimum of 60 players are required for this sport to operate, and a maximum of 90 will be allowed to play.

For further information, contact Tom Stagliano (661-1926 or x3-2435).

Team entries for IM Badminton are due in the IM Managers' Office, W32-121, by 5:00pm tomorrow. No late entries will be accepted.



Above: Individual epee champion Risto Hurme of NYU (right) and Penn's Daryl Taylor score a simultaneous touch in Saturday's IFA epee fenceoff, which Hurme won in extra time, 5-4. Below: Smith (center) joins the rest of his weapon team and coaches (from left, Rich Reimer '77, Maestro Silvio Vitale, Arlie Sterling '77, Coach Eric Sollee) in accepting the "Little Iron Man," symbol of the IFA team foil championship which MIT won for the second year in a row.

