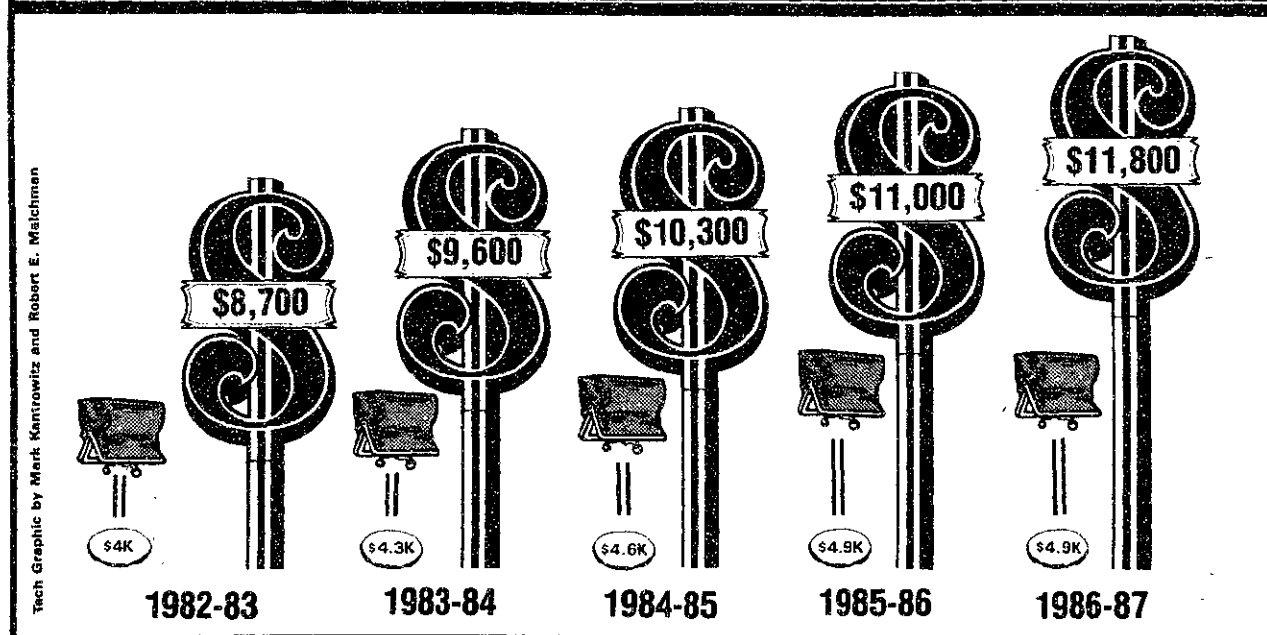


## Tuition for 1986-87 will rise to \$11,800

### Self Help vs. Tuition



### Self-help level will not increase

By Ben Z. Stanger  
President Paul E. Gray '54 announced yesterday that the total cost of MIT tuition, room and board will increase to \$16,150 for 1986-87, a \$920 or 6 percent increase over last year.

The bulk of the increase is contained in a 7.3 percent hike in tuition to \$11,800. The remaining portion of the cost increase comes from a \$120 rise in room and board fees.

The self-help level, the amount an MIT student is expected to earn or borrow in an academic year, will not rise above the current level of \$4900. The last time the self-help level did not change from one year to the next was in 1977-79, when students had to come up with \$2500 on their own.

Gray decided on the cost of attending MIT next year after meeting with the Academic Council last month. The Executive Committee yesterday approved the decision.

Students made it clear that it is important to stabilize the self-help level, according to Vice President Constantine B. Simon-

ides, secretary of the Corporation. The self-help level is still high by comparison with other schools, he explained.

Undergraduate Association (UA) President Bryan R. Moser '87 said he was surprised that the self-help level will remain the same. Maintaining the present self-help level "wasn't an option" at the Academic Council meeting, Moser said.

Moser told the Academic Council that the high cost of MIT is detrimental to student life and education. Following Moser's arguments, Provost John M. Deutch '61 and Dean for Student Affairs Shirley M. McBay told the Academic Council to consider the fiscal feasibility of keeping the self-help level constant, Moser said.

The self-help level is more important to students than the tuition level, he said. The high self-help level dissuades prospective students from applying to MIT, Moser explained. Gray has considered the "real effect" of self-help levels, he continued.

Moser said Gray has agreed that next year the UA president and vice president should meet with MIT's vice president for financial operations before the Academic Council meets to discuss tuition. This year, neither Moser nor Graduate Student Council President Janine M. Nell G were given proposed figures in advance of the meeting.

Nell said the tuition increase does not effect most graduate students, although certain departments — Architecture, Political Science and Urban Studies and Planning, in particular — are hit hard by tuition increases.

Keeping the self-help level constant has shown that "constructive, serious, critical student input can really have an effect," Moser said.

## Protest moves to Gray's home

By Andrew L. Fish

The MIT Coalition Against Apartheid left their encampment in a Kresge Oval shantytown to march on the President's House, as a mix of snow and rain fell last night.

Bearing a mock black coffin and a banner reading "All power to black workers and youth of South Africa," the group of demonstrators traveled down Amherst Alley, walked back up Memorial Drive, and passed through the Infinite Corridor to the house of MIT President Paul E. Gray '54.

The crowd grew to more than 100 by the time it reached the east side of campus.

"MIT has a lot to answer for," said Chris Npefa, chairman of the Association of South African Professors in the Americas, in an earlier rally at the New Athletic Center.

The MIT Advisory Committee on Shareholder Responsibility's recommendation to the Executive Committee of the Corporation to divest \$6.5 million of stock — MIT's holdings in corporations

that Arthur D. Little has given a rating Category III, the lowest level of compliance in the Sullivan Principles program — is a "Mickey Mouse little proposal," (Please turn to page 9)



Apartheid protestors march to the home of President Paul E. Gray '54 last night.

Tech photo by Sue Fatur

## Gallagher and King visit Alexandra Township shacks

By Julian West

Two leading Democratic candidates in the Eighth Congressional District race commended the students at MIT's shantytown for combining their divestment demands with concern for minorities and workers at the institute.

MIT Adjunct Professor of Urban Studies Melvin H. King and State Representative Thomas M. Gallagher, D-Arlington, spoke of the importance and frustration of peaceful protests before a crowd of about 100 gathered at "Alexandra Township" outside the Student Center.

"The administration should be worried about what's happening 10,000 miles away," but should also be concerned about the rights of black people and workers here in America, Gallagher said.

(Please turn to page 8)

## Institute Colloquium to feature four expert panelists on AIDS

By Amy S. Gorin

The Institute Colloquium Committee and the Technology and Culture Seminar and will jointly sponsor a colloquium on AIDS Monday March 13 from 4 to 6 pm in Huntington Hall (Room 10-250).

The colloquium, chaired by Special Assistant to the President Mary P. Rowe, will feature presentations by four speakers on different facets of the AIDS problem. Questions from the audience and a discussion featuring the four panelists and members of the MIT community will follow the presentation.

The discussion will continue informally at several living groups after a dinner break.

The four panelists will be Sandra Panhem of the Brookings Institution, author of "The Interferon Crusade," who will speak on the public policy issues surrounding AIDS; Dr. Alan Brandt, a historian currently teaching at Harvard Medical School and author of a book on the history of venereal disease, who will speak about the social and cultural effects of AIDS; Dr. George Brady of the Massachusetts State Biological Laboratory, who will speak about how the disease is spread; and Larry Kessler of the AIDS Action Committee, who will discuss AIDS and its interaction with homosexual/heterosexual relations from the viewpoint of a member of the gay community.

## Workers petition for security

By Thomas T. Huang

Food service employees and student activists are asking the MIT community to sign a petition supporting job security in the face of MIT's search for a new food management company.

Dining service workers started the petition, according to Alex B. Rosen '88 of the MIT Coalition Against Apartheid. Local 26 of the AFL-CIO, which represents these workers, had met last week-end to discuss the issue.

The coalition demanded that "food service workers be guaranteed job security and no pay reductions. In calling for the just treatment of people in South Africa we cannot ignore the injustice that exists in our own community."

Last Wednesday, Rosen, Shiva Ayyadurai '86 and Stephen P. Fernandez '86 met with officials from the Office of Housing and Food Services to discuss the petitions.

Director of Housing and Food Services Gene Brammer could not guarantee that current food service workers would keep their positions should an outside company supervise dining facilities, he said. But Brammer stressed that, "in all probability," they would.

Brammer said that he is "concerned about the people in the [current] system." Should MIT change its food service, he would

try to "make these people come out [of the transition] as whole as possible."

Earlier this week, a food service manager removed the petitions from Morss Hall in Walker Memorial, according to Rosen.

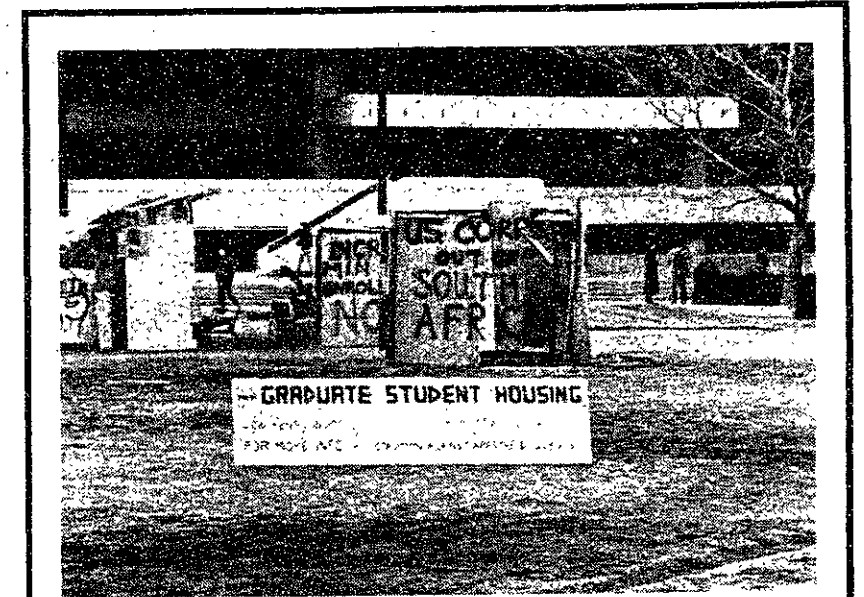
Ayyadurai said that a low-level manager told him the housing and food services office had ordered the petition removed.

Both Brammer and Lawrence E. Maguire, associate director of housing and food services, de-

nied that the order had come from their office.

Rosen asked, "Will you assure us that the petitions will stay in the dining halls?"

Brammer contended that his office had no problem with the petitions. He did not know where the order had come from, nor did he know "all the rules and regulations of the Institute," such as labor relations policies, that might affect employee petitions, Brammer said.



Tech photo by Stephen P. Berczuk

Hackers use the shanties on Kresge Oval yesterday to comment on the graduate housing situation. According to the Graduate Student Council, housing is available to only 26 percent of the graduate student body, approximately half of those who desire it.



Col. Simon Peter Worden at Monday's SDI forum. Tech photo by Terry Higgins

## SDI official defends program

By Cheri Kim  
Lt. Col. Simon P. Worden, general special assistant to the director of the Strategic Defense Initiative (SDI) program, told an MIT audience last Monday that the United States would need at least five years of research before going ahead with the SDI project.

Worden, also the technical advisor to space issues at the Geneva talks, said if President Ronald Reagan wanted the system now, the United States would have to first develop a ground-based system, then a space-based system with sensors, and by the mid-1990s, a space-based kinetic defense — destroying enemy missiles with lasers or other missiles.

As long as the United States bases the arms race on the mass production of weapons, Worden claimed, it is on the weaker side.

The United States and Soviet Union currently must spend trillions of dollars on 100,000 or more warheads. It would cost less to employ a strategic defense system, Worden said.

Ten years ago, the Soviets reportedly began working on a space defense system, Worden said. When asked about the testing of a certain laser beam director, the Soviets replied they were

conducting medical laser research, he noted.

### Philosophy of deterrence

There exist two types of deterrence to nuclear war, Worden said. One is an offensive deterrence based on the "sure destruction" philosophy. The other is a new defensive deterrence based on a new system of blocking missiles.

SDI would be better than mutually assured destruction (MAD), Worden said, because MAD relies on fear as deterrence, while SDI makes an attack infeasible.

Worden also detailed the two major arguments against SDI:

- A nuclear war would mean the end of the world. It follows that arms control can have no other purpose than the most immediate and direct elimination of nuclear weapons.

- The Soviets pursue military directions which are fundamentally responsive to US initiatives. The Soviets will employ a defensive system if the United States does, causing instability.

The goal of the military is to prevent a war, Worden said. But a listener objected that striving for a better defense and a better offense has always led to wars in the past. "SDI is revitalizing war, and it makes it all viable again. Is keeping the Soviets scared ensuring peace?" the audience member asked.

A member of the audience who used to live in the Soviet Union said, "When you have cancer, you use every form of treatment to get rid of it. . . . The totalitarianism of the Soviet Union is a social cancer. We should be ready to sacrifice in order to decrease the cancer."

Worden said the trend is moving away from stability, and the deterrence is no longer based on mutual destruction. "What we are doing is extending that deterrence to bring about stability."

### Technical issues

SDI consists of a defense of two-to-three layers that would detect the missile from the ground, the atmosphere and space, Worden said. One possible system consists of sensors on airplane mirrors, x-ray lasers, and airborne optical surveillance.

The United States has experimented with "kinetic kill" vehicles, which would destroy an enemy missile much like a bullet hitting another bullet. This technology includes anti-satellite miniature vehicles and space-based chemical rockets.

Some critics of SDI claim the defense would require too great a number of lasers. Worden responded, "Some distinguished professors on this campus can't accept simple arithmetic" concerning the number of lasers necessary for defense.

The directed energy weapons might include space-based and ground-based lasers, neutral particle beams, and x-ray lasers, Worden said.

The National Aeronautics and Space Administration and the Department of Energy are working on applying a magnetic field around a stationary rocket exhaust to generate electricity and power the lasers, Worden said.

The United States has tested the effect of hitting booster rockets with lasers. The tests were successful against liquid-fueled boosters, he continued.

The defensive system would be non-nuclear and incapable of harming people, Worden said. The lasers would not be able to burn cities, he said.

As far as the present technology, the hardware limit of capacity is not the problem, but the software is. Studies from the Fletcher School of Law and Diplomacy at Tufts University indicate that the program will need 10 million lines of programming code, Worden said. Comparable systems exist: The AT&T Bell Telephone Company has used several thousand programmers to develop a 50 million line program to run the telephone network, he continued.

The United States would share the general capabilities of SDI with the Soviets once developed, but not the design details, Worden said. The Soviets are better with hardware than with software, while the Americans are better with software, he said.

The arms race is not caused by arms, but by fundamental differences of opinion, Worden said. "I don't want to be good friends with Soviets, but [I want] a stable relationship with the Soviets."

## Engineering teaching faulted

By Salman Akhtar

Students sharply criticized MIT's engineering education before members of a faculty commission reviewing that education at a forum Monday.

Four professors from the Commission on Engineering Undergraduate Education met with five student representatives of the Undergraduate Association and Tau Beta Pi, which co-sponsored the forum. The students voiced complaints about inflexible curricula and poor teaching quality.

The faculty acknowledged that the many negative comments from students indicated serious problems in MIT's engineering curriculum. Both professors and students were disturbed that no students attended the evening forum except representatives of the sponsors.

### Not enough room for choice

The high number of requirements throughout the engineering school does not give students enough opportunity to explore interests outside their major, students agreed.

David B. Brundin '88 said a shortage of free electives prevented him from receiving the balanced education he wanted. He would like to take electives in mechanical engineering and electrical engineering, but the requirements for his computer science degree will not allow him to take subjects in all his areas of interest, he explained.

An open-ended degree program not limited to a particular department could provide an alternative to rigid curricula, suggested Edward F. Crawley '76, associate professor of Aeronautics and Astronautics and a member

of the commission's subgroup on Institute core requirements. The students reacted favorably to the idea of a major allowing undergraduates greater freedom to pick their own courses in consultation with faculty.

Sohail Qadir '86 asked about a General Engineering degree offered at MIT 25 years ago. Lack of student interest caused this program — the former Course IX — to die out, replied Hermann A. Haus ScD '54, professor of Electrical Engineering and chair of the Institute core subgroup. The general major had been intended to bridge the gap between science and engineering, Haus continued, but lost its purpose in the 1960s as engineering became more theoretical and scientific.

Existing options which lead to  
(Please turn to page 12)

The **BIG SCREW** contest is now occurring in Lobby 10. Come vote for that person or class that has scrod you the most. Sponsored by APO.

### A Year of Comparative Study and World Travel

**Film, Television and Social Change:**  
Cambridge, London, Rome, New Delhi, Poona, Bombay, Chiangmai, Tokyo, Beijing, Shanghai, Hongkong, Los Angeles

**Film and Politics:**  
London, Berlin, Paris, Rome, Rio, Buenos Aires, Lima, Mexico City.

September 1986 — May 1987

Faculty from Harvard, Columbia, New York University, University of California and Indiana University

Stanley Cavell, Robert Gardner, Wm. Rothman, Charles Warren, Cristina Szanton, Katherine Morgan, Victor Wallis, Robert Stamm, Eric Rentschler

Two academic programs limited to thirty students each

For further information  
call Joan Tiffany collect: 617-267-8612  
The International Honors Program  
19 Braddock Park  
Boston, MA 02116

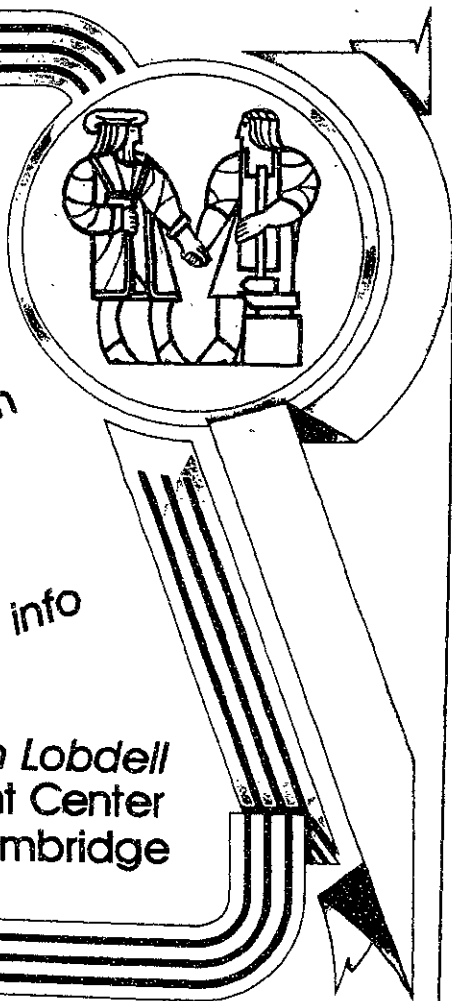
## A Gay and Lesbian DANCE

Sponsored by **Gays at MIT**  
College Students and Guests Welcome  
Friday March 7, 1986 9pm - 1am  
\$3 Admission \$2 with Student ID

Call 253-5440 for more info

Beer and Wine

in Lobdell  
MIT Student Center  
84 Mass Ave, Cambridge



# news roundup

from the associated press wire

## World

### Botha to lift martial law

South African President P. W. Botha announced to a specially-convened session of the white, Indian and colored chambers of parliament on Tuesday that the state of emergency in effect throughout large areas of his country would be lifted soon.

The measure was imposed over seven months ago in an effort to curb the mounting civil strife in South Africa, and remains in effect in the Johannesburg and Cape Town districts, among others. Although Botha said that the situation had improved enough to lift the state of emergency, there has been little slackening in violence, with an estimated 200 people killed so far this year, including 23 in a few days of rioting in Alexandra township alone. Botha expected the end of emergency law would help pull the nation out of crisis and lead to negotiations about the future.

Botha also set a date for acceptance of a UN Security Council resolution calling for elections in Namibia, leading to independence within seven months. He said he would implement the resolution on Aug. 1 if Cuban troops withdrew from Angola by that date. (*The Times of London*)

### Japan may join in SDI effort

A leading Japanese newspaper says that Prime Minister Yasuhiro Nakasone has decided that Japan will take part in the Strategic Defense Initiative. The *Nihon Keizai Shimbun*, quoting a government source, reported Tuesday that Nakasone had made up his mind despite opposition from within his government. Participation would probably be by the private sector, as has been the case in Western Europe. (*The Times of London*)

### Soviet leadership rearranged

Soviet leader Mikhail Gorbachev closed the Communist Party Congress yesterday, making some big changes in the country's ruling apparatus. They included the naming of a woman to the Central Committee Secretariat — the first to rise to the top levels of the Soviet leadership in 25 years. Gorbachev also spoke out against the arms race, saying the Soviets would not bend to those who would "make humanity accept the nuclear menace." (AP)

### Spacecraft fly by Comet Halley

The Soviet spacecraft Vega I returned close-up pictures of Comet Halley this week, passing within 10,000 km of the cometary nucleus yesterday morning. Enhanced photos showed the comet glowing with hues of red-brown, yellow and blue. Over 100 foreign scientists gathered in Moscow to watch the data arrive at the Soviet Institute for Space Research. A second craft, Vega II, will encounter Halley on Sunday, providing final course information for the European probe, Giotto. Giotto is expected to pass within 500 km of the 10-km in diameter iceball next Thursday. (AP)

### Canada proposes rights reforms

Women may be allowed in combat roles in the Canadian armed forces, as the result of an ERA-type clause in effect as of Apr. 17, 1985. The Canadian government has issued a policy report proposing changes to laws and federal regulations to bring them into line with the requirements of the new Charter of Rights and Freedoms.

Some of the more controversial proposals included the abolition of mandatory retirement in the public service; opening all roles in the armed forces to women; and eliminating discrimination based on sexual preference in the public sector, effectively opening the Royal Canadian Mounted Police and the armed forces to homosexuals. (*The Toronto Star*)

## Nation

### Contra aid debated

President Reagan's plan to send \$100 million in aid to the Nicaraguan contras ran into stiff opposition in Congress. Sen. Nancy Kassebaum (R-KA) and Rep. Dave McCurdy (D-OK) spoke out on the issue yesterday. The House armed services committee approved the aid request yesterday, but the appropriations committee rejected it. Two other committees voted against the package. (AP)

### Drug fears aired

A presidential commission called drug abuse a threat to national security, describing the United States as a country slowly being destroyed by drugs, in a report estimating the annual illicit drug trade at \$110 billion. Narcotics account for 40 percent of organized crime, according to the 455-page document. (*The Times of London*)

## Weather

### Storms threaten

A late winter storm moving in from the Gulf of Maine is set to strike northern New England. Backlash effects may give the Hub some snow Friday, before a sunny weekend. A ripple in the westerly air flow may bring clouds, cooler weather next week.

**Friday:** Cloudy, chance of snow showers. High near freezing, winds northwest, over 20 mph (30 km/h).  
**Friday night:** Clearing, breezy, and brutally cold. Low 10° (-12°C). Forecast by Michael C. Morgan

Compiled by Julian West

NEW 星星  
**HSING HSING**  
RESTAURANT  
Mandarin & Szechuan Taste  
COCKTAILS

TAKE OUT SERVICE

20% off DINNERS  
except Friday and Saturday  
Served from 5 pm to 10pm  
Luncheon Special starting at \$2.25  
served from 11:30 am to 5 pm

\$5.00 or more

546 Mass. Ave. Cambridge, Mass. (617) 547-2299

Put your degree  
to work  
where it can do  
a world of good



Your first job after graduation should offer more than just a paycheck.

If you're graduating this year, look into a unique opportunity to put your degree to work where it can do a world of good. Look into the Peace Corps.

MARCH 10 - Film/Info Session, Room 4 - 159, 7:00 p.m.  
MARCH 11 - Interviews, Office of Career Services, Room 12-170, 9:00 - 5:00.

The toughest job you'll ever love

# PEACE CORPS

He fought his first battle in 1536.  
He will fight his greatest battle in 1986.  
He is immortal.



# HIGHLANDER

THORN EMI SCREEN ENTERTAINMENT presents A DAVIS/PANZER Production A RUSSELL MULCAHY film HIGHLANDER Starring CHRISTOPHER LAMBERT, ROXANNE HART, CLANCY BROWN and SEAN CONNERY Story and Screenplay by GREGORY WIDEN Music Score by MICHAEL KAMEN Executive Producer E.C. MONNELL Story by GREGORY WIDEN Screenplay by GREGORY WIDEN Produced by PETER S. DAVIS and WILLIAM N. PANZER Directed by RUSSELL MULCAHY

RESTRICTED UNDER 17 REQUIRES ACCOMPANYING PARENT OR ADULT GUARDIAN

Featuring Original Songs by QUEEN

SOUNDTRACK ALBUM AVAILABLE ON CAPITOL RECORDS & CASSETTES

## STARTS TODAY

USA Cinemas  
**CINEMA 57**  
STUART ST. NEAR PARK SQ.  
482-1222

SHOWCASE CINEMAS  
**CIRCLE**  
CLEVELAND CIRCLE  
566-4040

USA Cinemas  
**SOMERVILLE**  
at ASSEMBLY SQ. RTE 93  
628-7000

USA Cinemas  
**NATICK**  
RTE 9 OFF. SHOPPERS WORLD  
653-5005/237-5840

SHOWCASE CINEMAS  
**REVERE**  
RTE. C1 & SQUIRE RD.  
286-1660

SHOWCASE CINEMAS  
**WOBURN**  
RTE. 128 EXIT 39 & RTE. 38  
933-5330

General Cinema  
**PEABODY**  
NORTSHORE SHOPPING CENTER  
599-1310

General Cinema  
**BRAINTREE**  
SOUTH SHORE PLAZA  
848-1070

# opinion

Column/Robert E. Malchman

## All MIT units are not created equal

If you look hard enough and long enough at any bureaucratic system, you will eventually find the idiocy that underlies, motivates and defines that system.

Wednesday I looked at the Registrar's Office.

If you are considering applying to law or medical school, you may or may not know that you do not send your transcripts to the schools; you send them to a data assembly service which purports to standardize the various undergraduate grading systems.

My experience has been with the Law School Data Assembly Service. It converts MIT units into LSDAS semester hours. The MIT Registrar's Office provides instructions on how to perform this conversion.

Institute units come in three flavors: lecture/recitation, laboratory, and preparation. MIT says all units are equal; the Registrar's Office, though, says some units are more equal than others. It instructs the services to ignore preparation units, divide laboratory units by two, and add them to lecture/recitation units.

In other words, if you take a 4-0-8 unit class and a 3-0-9 unit class, and get an A in one and a B in the other, you will have a better GPA — for law and medical schools — if you get the A in the 4-0-8 class instead of the 3-0-9 class.

It also means that while 3-0-9 classes are different from 4-0-8

classes, they are the same as 3-0-6 classes. A 0-12-0 laboratory counts as much as two 3-0-9 subjects.

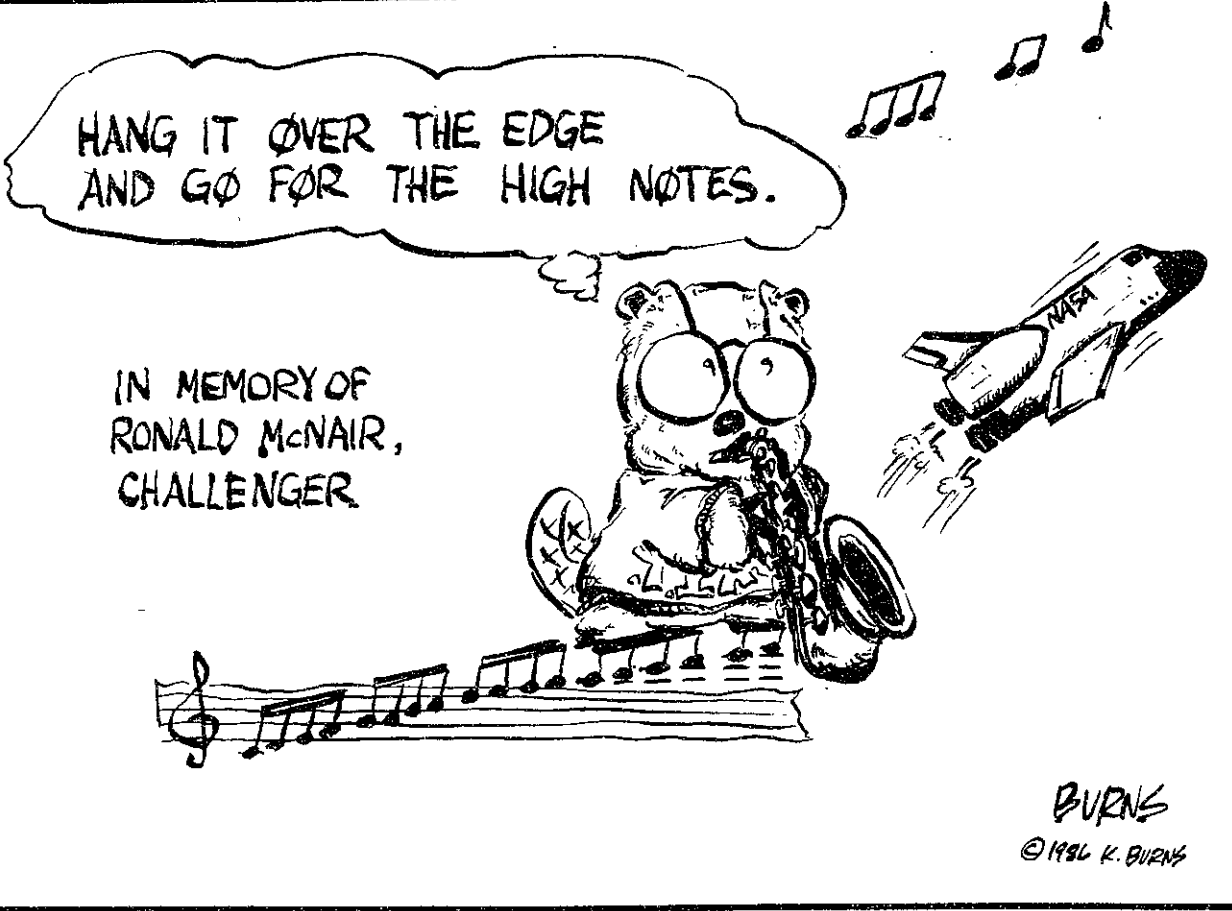
The Registrar's Office naturally makes no effort to promulgate this bizarre information, which can have a major impact on your GPA. Try recomputing your GPA on a 4.0 scale this way and compare it to your MIT GPA.

It is not enough, however, for the Registrar's Office to enact such a system; they must also conceal its existence from the students.

An informal poll of five potential prelaw and premedical students revealed that not one was aware of this system. A faculty member of the MIT Prelaw Advisory Council said he first learned of the system two weeks ago when another MIT law school applicant apprised him of it.

A *Premedical Handbook for MIT Students*, published by the Office of Career Services and Pre-professional Advising, does mention this formula, but *A Prelaw Handbook for MIT Students* does not.

The Registrar's Office and the prelaw and premedical councils have an obligation to inform students of this formula. Further, the Registrar's Office should change their instructions to the data assembly services to more accurately reflect the work students do at MIT.



Guest Column/Holly Sweet

## AIDS awareness is needed

I was reading *The Tech* the other day when the following news item caught my eye: "Parents in Kokomo, Indiana, who don't want teenager AIDS victim Ryan White to return to school, have posted a \$12,000 bond required by a judge to put up their money if they wanted to continue their battle to keep Ryan out of school."

What, I wondered, would drive parents to go to such lengths to prevent one teenager from attending school with their children? How many of them really know what AIDS is and how it is transmitted? I'm no expert on AIDS, but I do know one relevant fact: that AIDS is not transmitted through the kind of contact teenagers are likely to have in their high school environment. You can't get AIDS from using the same drinking glass or sitting next to a classmate and breathing the same air.

But I understand their fear. AIDS is (at this point) a fatal and incurable disease. It has also been quickly transmitted

throughout American society primarily (but not exclusively) through intimate sexual contact. For me there is something profoundly alarming and depressing about these facts — the seriousness of the disease, its rapid growth and the linking of sexuality with death. To tell the truth, I would prefer to avoid all contact with a stranger with AIDS, just to be on the safe side.

But how far can I really go with this attitude? Am I acting like those who once shunned lepers or cast lepers out into the countryside away from their community? Are my vague and unsubstantiated fears about getting AIDS through casual contact grounds for denying AIDS victims a place in my community? What if one of my students got AIDS? Would I shut my door to him or her because of it?

Kokomo may seem far away today, but it could be next door tomorrow. Have you ever asked yourself how you would deal with a roommate or fellow worker who got AIDS? What if one of

your good friends got AIDS? What if you contracted the disease yourself? It might be easy to say what you think you'd do, but my guess is that acting morally when it actually happens will be a lot harder and more painful than you expect. None of us can ever be sure that we won't be one of the shunners.

However, there is one thing of which I am sure. I know that ignorance is not bliss and that having more information about AIDS and more discussion about dilemmas surrounding the disease will help us to make our personal and professional decisions about AIDS more responsibly. It may also reduce our fear at the thought of getting AIDS through casual contact, a fear which is clearly behind the actions of the Kokomo parents.

The MIT Colloquium on AIDS will be held in two parts on Monday, March 10: a presentation by a panel of experts from 4-6 pm in Room 10-250, and a variety of discussions (starting at 7 pm) led by MIT faculty and invited guests in Senior House, East Campus, McCormick, MacGregor, Next House, New House, and Number Six Club.

We owe it to ourselves, to our dorms and to our workplaces to find out more about this insidious disease and its implications for our communities so that if we ever have to deal directly with AIDS victims, we can do so with knowledge and compassion. I pray that "it will never happen here" but I'm preparing myself just in case. I hope you do the same.

(Editor's note: Sweet is associate director of the Experimental Study Group.)

Column/Edward E. Whang

## Recurrence of flu season offers peaceful misery

Last week I read in *The Boston Globe* that flu season had finally reached Massachusetts. Maybe this year would be different; maybe I could sneak by the winter without the congestion, fever, or scratchy throat.

Of course, fate is never that kind to me. I had had the flu once every winter of my life, and I would get it again this February. It has become an event with which I mark the passing of time — another flu I survive is another year gone by.

As I sit typing, the characters blur and dance on the VDT screen. I feel as though I am experiencing some new herbal derivative. My head is a clouded mess. I just want to sink into my bed again.

Having the flu does offer its benefits, though. It's an opportunity to get away from classes, other people, the whole world. It gives time to think and reflect. It's just you — and your runny nose, which seems to have a will of its own.

For the past two days, I've slept until 2 pm. (How often do you get to do that at MIT?)

Armed with antihistamines, Tylenol (in tablets) and plenty of vitamin C, I set out to do battle with my viral foe. Unfortunately my tactics backfired. My fever rose, and I nearly choked on my over-sized vitamin pills. Worst of all, the antihistamines' effects were evident not in the form of clear sinuses but as bodily paralysis.

I try to remind myself to avoid medication, but I know when my next flu comes around, the newest cold remedy will be too attractive to resist.

Now my brief interlude of illness is nearly over. I've already missed two days of classes. I've already had my two days' escape from life. I'm still feeling misery, but no matter. I must return to reality. Thank God I have no problem sets due tomorrow! I do have a test next week . . .

Meanwhile, I can bitch about which jerk in my fraternity infected me. I have a good idea who it was. But I bear no grudges. I, too, have done my part in spreading the flu as a token of my brotherly love.

# The Tech

Volume 106, Number 9

Friday, March 7, 1986

**Chairman** ..... Ronald E. Becker '87  
**Editor in Chief** ..... Harold A. Stern '87  
**Managing Editor** ..... Eric N. Starkman '87  
**Business Manager** ..... Michael J. Kardos '86  
**Executive Editor** ..... Thomas T. Huang '86

**News Editors** ..... Katie Schwarz '86  
 David P. Hamilton '88  
 Ben Z. Stanger '88  
 Earl C. Yen '88

**Opinion Editors** ..... Edward E. Whang '87  
 Mathews M. Cherian '88

**Night Editors** ..... Robert E. Malchman '85  
 Mark Kantrowitz '88

**Arts Editor** ..... Jonathan Richmond '88  
**Photography Editor** ..... Stephen P. Berczuk '87  
**Advertising Manager** ..... Craig Jungwirth '88  
**Contributing Editors** ..... V. Michael Bove G  
 Bill Coderre '85  
 Simson L. Garfinkel '86  
 Carl A. LaCombe '86  
 Sidhu Banerjee '87  
 Andrew S. Gerber '87  
 Michael J. Garrison '88

**Senior Editors** ..... Ellen L. Spero '86  
 Steven Wheatman '86

**Production Manager** ..... Robert E. Malchman '85  
**Indexing Project Representative** ..... Carl A. LaCombe '86

### NEWS STAFF

**Associate News Editor:** Andrew L. Fish '89; **Staff:** Joseph J. Kilian G, Donald Yee '87, Charles R. Jankowski '88, Robie Silbergleit '88, Dorit S. Brenner '89, Derek T. Chiou '89, Mary Condello '89, Jeffrey C. Gealow '89, David C. Jedlinsky '89, Stephen S. Pao '89, Irene E. Skricki '89, Sally Vanerian '89, Donald Varona '89, Anuradha Vedantham '89, Anh Thu Vo '89, Suzanne J. Sandor W '88. **Meteorologists:** Robert X. Black G, Michael C. Morgan '88.

### SPORTS STAFF

**Staff:** Paul Paternoster '88, Jerome G. Braunstein '89, Alison C. Morgan '89.

### PRODUCTION STAFF FOR THIS ISSUE

**Night Editor:** ..... Robert E. Malchman '85  
**Associate Night Editor:** ..... Ezra Peisach '89  
**Staff:** Julian West G, Katie Schwarz '86, Ronald E. Becker '87, Harold A. Stern '87, Mark Kantrowitz '88.

The Tech (ISSN 0148-9607) is published Tuesdays and Fridays during the academic year (except during MIT vacations), Wednesdays during January, and monthly during the summer for \$13.00 per year. Third Class by The Tech, 84 Massachusetts Ave. Room W20-483, Cambridge, MA 02139. Third Class postage paid at Boston, MA. Non-Profit Org. Permit No. 59720. POSTMASTER: Please send all address changes to our mailing address: The Tech, PO Box 29, MIT Branch, Cambridge, MA 02139. Telephone: (617) 253-1541. Advertising, subscription, and typesetting rates available. Entire contents © 1986 The Tech. The Tech is a member of the Associated Press. Printed by Charles River Publishing, Inc.

## Erratum

The letter titled "Students for Individual Freedom disturbed by close-mindedness" [*The Tech*, March 4] contained a typographical error. The sentence, "Indeed, the talk by Major Worden is only the most recent instance of this exhibition of hatred and intolerance." should have read, "Indeed, the response to the talk by Major Worden is only the most recent instance of this exhibition of hatred and intolerance."

# opinion

## feedback

### Anti-Apartheid activists should stick to one issue

To the Editor:

This past Sunday, I joined a group of students in constructing Shantytown on the Kresge Oval to symbolize our support for the minorities in South Africa in their struggle against apartheid. The event received considerable media publicity, as well as recognition throughout the MIT community.

Being careful not to put words in other people's mouths, the event seemed to be viewed as a success both by those who organized it and others. I think that we all feel positive and influential about being involved in spreading awareness and concern through MIT on the issues of racism and global responsibility.

Unfortunately, as we met to discuss our demands of the MIT Corporation, it became obvious that this was not the key concern of the organizers, many of whom were activists with *The Student*, an "underground" Marxist-Leninist newsletter distributed across MIT.

Only the first of the three major demands discussed (and ratified) directly concerned the issues of South Africa and divestment. The others involved racism at MIT, specifically demanding representative enrollment of minorities and more reasonable self-help limits for poorer students' financial aid; and MIT's exploitation of its workers, specifically job and pay security for food service workers through the change to a new privately-run food service company.

Among what seemed to be the stereotypical socialist battle cries for reform and worker's concerns, the meeting turned into a debate on inequity for the lower classes, struggles against the capitalist establishment in general and the capabilities of workers

and students to unite for socialist reform.

I don't want to be mistaken. I personally believe that racism in America, especially in education, along with exploitation and profit-motivated concerns of universities, are very important social concerns. However, *The Student* seems to imply that the socialists have a monopoly on intellectual politics and that one can't be concerned for an issue such as apartheid without believing in revolutionary mass struggle against our (admittedly imperfect) system.

I believe in democracy and capitalism as well as racial and social equality, and, while the socialists would disagree, I strongly believe that the two are compatible. Whether anyone else agrees with that or not is irrelevant in that this is clearly NOT the divestment/apartheid debate.

Noble causes as the others are, they clearly detract the MIT Coalition Against Apartheid from what would be assumed as its focus: divestment of MIT's holdings in companies involved in South Africa. The organizers' most persuasive argument against

(Please turn to page 6)

### Shanties spark discussions

To the Editor:

A group of students has erected a mock South African shantytown on the Kresge Oval to dramatize their case for divestment of Institute funds from companies doing business in South Africa. Depending on your opinions on this matter, this presents a wonderful opportunity for entertaining and enlightening discussion or argument on your way to the Coop or between classes.

One of the goals of the shanty-

town students is to provoke active discussion; the rest of us are offered a bounty of transaction in the marketplace of ideas. This is intended as a short guide to getting the most out of your discussion.

Point 1: Find the right partner. Profitable discussion arises when the parties disagree enough to raise issues of contention but not so much that they lack common ground from which to state a case. Unless you are actually in

South Africa and some portfolios had no stocks of those companies.

Strehle's intention in presenting this data was to compare the income that would have been earned by MIT from its traditional investment in a portfolio containing corporations operating in South Africa against the income that would have been earned by MIT had it invested in the South Africa free portfolio. The difference between the two was, according to Strehle, what MIT would have lost had it divested, for example, in 1980: The

figure according to Strehle is \$10 million.

This figure has now been twice quoted in *The Tech* as the cost of divestment, and Strehle has reportedly quoted the same figure to the Committee on Shareholder Responsibility. I suspect that he will present it as well to the upcoming meeting of the Corporation.

I would like to take this opportunity to set the record straight regarding the potential financial costs from divestment. Strehle's figure is a completely unwarranted and deceptive representation of the appropriate cost. They represent one more in a long line of disingenuous "facts" regarding the costs of divestment presented by opponents of divestment.

Students in the Sloan School basic finance courses are taught the simple principles which indict the basis of Strehle's calculations. An attentive and financially trained listener could hear in Strehle's presentation that he was aware of the correct interpretation of the data which he was presenting, and of the various ways in which one could read the data.

But Strehle was not speaking for the attentive and trained listener. Instead, he was presenting a dazzling series of numbers, quickly and without much explanation, and then he clearly presents the possible conclusion that MIT would have lost \$10 million. And sure enough, many persons hear the conclusion and imagine that all the previous display of numbers imply that the conclusion has been thoroughly deduced and justified.

*The Tech*, for example, fell prey to Strehle's strategy and printed his bald conclusion, completely unaware that they were being manipulated to print a completely unfounded number. It shows a great deal of disrespect for the university community for the Treasurer's Office to continue to present irrelevant facts in an attempt to give non-specialists in business an impression of enormous costs to the University from divestment.

Why are the statistics on rates of returns quoted by Mr. Strehle irrelevant? There are two reasons. First, stocks are inherently risky investments, and some stocks are riskier than others. Riskier stocks typically would pay higher rates of return. Viewed from the investor's perspective, one would only purchase a very risky stock if one anticipated receiving high rates of return which would compensate on average for the risk and the variability in returns. So a portfolio of stocks which on average earns higher rates of returns is

(Please turn to page 6)



"We're putting miners down the mine shaft to make sure it's safe for canaries..."

## feedback

### Divestment won't hurt MIT

To the Editor:

On Dec. 18, the MIT faculty voted to support divestment by the Corporation of its holdings of stocks of companies doing business in South Africa. At that meeting MIT's Treasurer, Glenn P. Strehle '58, made a presentation regarding the reduction in MIT's investment income which might result from divestment. In his presentation Strehle mentioned the rates of return that different portfolios of stocks had earned over the last five and ten years. Some portfolios contained stocks of companies operating in

favor of apartheid, you are probably in luck. The shantytown is occupied 24 hours by at least one participant, frequently more, and their positions range widely.

At one extreme are the moderates who are simply deeply concerned about apartheid and wish to do something (anything) about it. If you are unsure about whether MIT should divest, seek out one of these people and discuss the relative merits of attempting to change someone else's behavior by making a strongest possible but final statement versus gentle persuasion. Or discuss the moral ramifications of dealing with someone whose business practices you dislike.

At the other extreme are the Marxists who view corporations as the root of all evil. Even if you are committed to divestment you can still argue with these people about the relationships between oppression, exploitation, the free enterprise system, luck, free will, desire and work.

Point 2: Don't be offended. The people who built the shantytown obviously hold opinions strongly, and they are easily agitated. Any reasonably heated discussion is not unlikely to result in your being called "racist." Do not view this as a setback, but as an opportunity. A thoughtful defense of this charge will help your counterpart to acquire a more sophisticated view of people who share the abhorrence of racism but not their views on how best to end it, and it will help you to clarify your own beliefs about race and the ways in which you come to acquire attitudes about others.

Point 3: There has to be a bad guy. It is well known that a mutual enemy is a powerful psychological force for bridging difference and building common ground. For many, the MIT administration fulfills this role admirably. They are mysterious and removed from our everyday lives, and they hold power over us.

Even if you believe that these people must after all be rational,

(Please turn to page 7)

### Food service is incompetent

To the Editor:

This seems to be protest week here at MIT. All the various causes that have been espoused in dribs and drabs throughout the year have been combined into one multi-purpose protest on Kresge Oval. From an engineer's standpoint, I guess this was to be expected; after all, it is more efficient and time-saving to do all your protesting at once, in one centralized location.

The one "cause" of the current protest that I must take issue with is the call to "Support MIT food workers." Presumably, they are the victims of exploitation too. Actually, it is the MIT student community that is being exploited by having to pay ridicu-

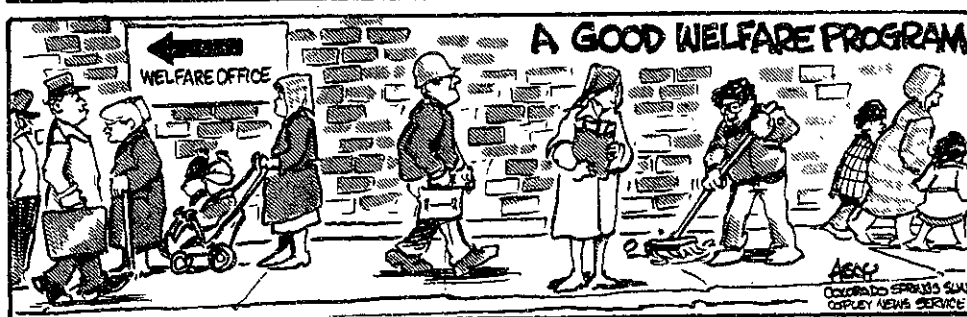
lous prices for bad food and terrible service.

How can one believe that the MIT food service is being well run when an employee in Twenty Chimneys, after being asked for a roast beef sandwich, responds, "Which one is the roast beef?" or else when one of the "student" employees at Lobdell was asked for a BLT, she responded, "What goes into that?" Boy, the food service must really grill these people before giving them jobs.

I can only hope that when MIT selects a food service company to replace the current service, they do not make the same mistake of installing a monopoly. Without competition, a food service has no incentive to offer a quality

product. My suggestion is that MIT either put Validine machines in several nearby Cambridge restaurants or else invite said restaurants to set up facilities on campus, perhaps in the space to be vacated by the Coop. This idea has several advantages. It would provide some free market competition for whatever food service MIT picks to run the living group dining halls, it would give MIT students a greater diversity of cuisine to choose from (Chinese, Indian, Italian, Greek, etc.), reflecting a similar diversity in the MIT student body, and it would stimulate the Cambridge economy.

Josef Shaoul '87



## feedback

### MIT Corporation isn't evil

To the Editor:

In response to the letter by Shiva Ayyadurai '86 of March 4 ["A call to rally against racism in South Africa"], I would like to express my anger about his self-appointed position of head-basher and the arrogance that he displays in all his public performances. I am not surprised that the MIT Corporation has so far disregarded him. I wonder what he expects to obtain by using fanatic attitudes, by treating every unproven statement that he makes as a sacred truth and by demanding (sic) all sorts of actions. Who does he think he is?

He should start realizing that

endowment is necessary in order to prevent tuition from going even higher. Where else is the extra revenue going to come from? I would like to see him offer a workable plan in which tuition could be sensibly reduced without any further increase in MIT endowment, instead of just flaming about it. I am sure that the MIT Corporation would like to know about it also.

It's a shame that he takes on worthwhile causes and makes them sound terrible. The effort to terminate apartheid in South Africa is a just cause and so are the efforts to increase minority enrollment and to keep secure jobs

for the food service employees at MIT. But the way he puts it, one would imagine Paul Gray and the rest of the MIT Corporation meeting in a dungeon under the President's house trying to figure out a way to repeal the 13th Amendment (you know? the one about slavery . . .). Shiva, for the benefit of everyone here, do grow up. Most of us have better things to do than listening to your hypocritical flaming about how awful rich people are. You should have to work 10-15 hours a week just to make it through MIT. Maybe then you wouldn't annoy people so much.

Carlos E. Montero-Luque '87

### MIT can divest without losses

(Continued from page 5)

more likely than a riskier portfolio. So when Strehle quotes rates of returns earned on different portfolios and does not also tell his audience how risky is that portfolio, then he is comparing apples and oranges. It would be a trivial matter to construct a portfolio of stocks of free companies doing business in South Africa which earned much higher rates of return than the University's current portfolio. However, it would not therefore be a better portfolio for the University. Similarly one cannot assert that a South Africa-free portfolio which earns less than the University's current portfolio would "cost" the University \$10 million.

Second, Mr. Strehle made his calculations on the basis of historical returns of particular portfolios and over particular years, carefully chosen in the light of hindsight. It is a simple matter to

look over the historical record and find South Africa-free portfolios which have earned greater income than the University's own portfolio. Moreover, given any single portfolio, it is often possible to choose the years for the comparison so as to make either portfolio preferred to the other. Due to the very high variance in stock returns, data on historical returns over five years are not a very precise estimator of the return that one might expect in the coming five years. It is very possible that a South Africa-free portfolio which earned less than the University's portfolio between 1980 and 1985 would earn much more than the University's portfolio between 1985 and 1990. This sort of see-saw in comparative returns of portfolios with and without South Africa-related stocks has been typical over the last two decades. In 1969 opponents of divestment quoted the

poor performance during the 1960's of stocks and companies not in South Africa. The same comparison made in 1979 was unfavorable, but then the opponents of divestment chose a new portfolio with which to make the comparison.

I'm afraid we are likely to continue to hear the Treasurer's \$10 million figure thrown out a few more times as if it represents a well-thought-out and investigated calculation. I hope that some persons will ask a few more questions about its basis the next time they hear it quoted. It is about time to see the various objections to divestment from corporations operating in South Africa for what they are: weak excuses for MIT's continued cooperation with racism and fascism. It is time for MIT to divest.

John E. Parsons  
Assistant Professor of Finance  
Sloan School of Management

### Apartheid objectors may have accessory interests

(Continued from page 5)

this was that we cannot be hypocritical by addressing racism abroad without attacking inequity at MIT.

In an abstract political sense, if we the students were the policy makers (as *The Student* falsely thinks we have the power to be now) this would be more appropriate. However, divestment itself is a complex issue, and there is a very strong resistance among those in the decision-making positions to progressive ideas concerning the morality of MIT's investments and the role of students in addressing that concern.

Moreover, the moral issue of apartheid, while linked to racism locally, is of such importance on its own (and yet so difficult to get through to organizations such as the MIT Corporation) that we must focus efforts there if we are to have any hope of effecting reform on such a crucial cause.

The MIT Coalition Against Apartheid, if there is such a thing, to be effective, must make a statement on the issue(s) to be attacked and generate support from across the MIT community in unity with nationwide anti-apartheid work.

It seems obvious that the support for divestment and for socialist political issues is quite distinct, and deservedly so. There are certainly a large number of grounds on which to support divestment: theoretical political, humanistic, theological, pragmatic political or simply moral. As organizations nationwide have been effective in uniting those with these various beliefs, so must we. If *The Student* cannot accept this on a theoretical level, at least they could see on a pragmatic level that without specific

targeting, support for the cause will be less strong, and the MIT Corporation will continue to put off the issue as they have done without widespread reaction.

While uniting with workers' causes may bring more support in terms of numbers, many of those involved in workers' causes would support divestment anyway, while the Coalition would have a much better chance of success with the strictly capitalist and perhaps autocratic organizations they must be able to pressure and appeal to.

I personally believe that divestment, while in itself not necessarily capable of influencing the fate of minorities in South Africa directly, does make a strong statement and is a worthwhile step in the struggle to abolish racism world-wide. I also believe that there are racist, sexist and otherwise unfair practices at MIT, and I feel that the MIT establishment is not always receptive to these issues and the community's feelings on them.

I thus support many of the organizations which exist for this reason. *The Student* itself exists to support an end to exploitation via Marxist-Leninist revolution, which I personally do not support. Am I therefore incapable of supporting a cause such as divestment through the MIT Coalition Against Apartheid? Given their demands as written, I personally will not sign the Coalition's petition, and thus feel at a loss.

If *The Student* feels that they need to use a popular cause such as divestment as a rallying point for their other political concerns, then they are jeopardizing an important struggle and possibly compromising the beliefs of many of those who support it.

Steve Lincoln '86

### AMITA

invites nominations for its annual award to the Outstanding Senior Woman Student at MIT. A cash prize is made in recognition of professional and academic excellence. Direct your nominations/questions to Pnina Levermore:

Room 10-110

x3-8200

DEADLINE: MARCH 15, 1986

### PASSPORT PHOTOS SPECIAL!

**\$1.00 OFF**  
with this coupon  
**OFFICIAL PASSPORT PHOTOS**  
2 color photos/3 minute service.

### kinko's copies

907 Main St. 497-4111  
13 Dunster St. 497-0125  
111 Western Ave. 491-2859

### THE HARVARD MANAGEMENT COMPANY

[the investment firm which manages Harvard University's endowment]

is seeking qualified seniors

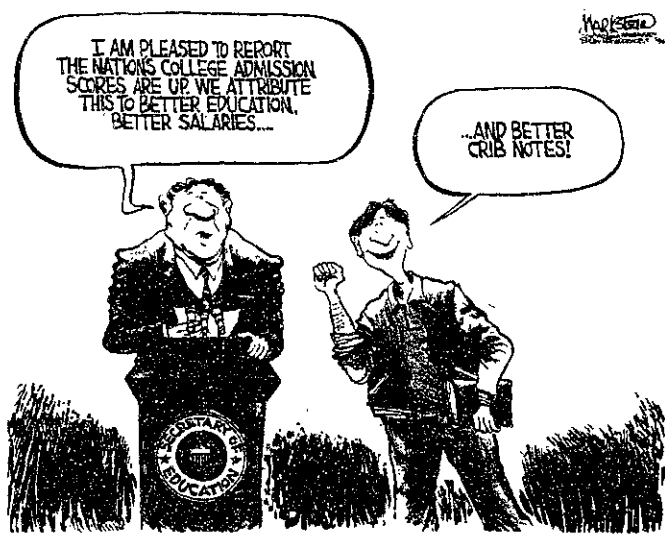
for the position of

### Research Analyst

for their Venture Capital/Direct Placement Area

A full job description is available at the Career Service Office (in the job posting book). If interested, send a cover letter and a resume to Tony Downer, The Harvard Management Company, 70 Federal Street, Boston, MA 02110.

# opinion



## feedback

### MIT is short on black faculty

To the Editor:

The article "Lack of applicants blamed for scarcity of black faculty" [March 4] is laden with quotations by the provost, dean of Science and assistant equal opportunities officer suggesting, among other numerous nonsense, that (1) the scarcity of black faculty at MIT is a black people's problem and (2) having identified

the degree of difficulty of the problem (and its source), the MIT administration is exonerated.

Like slavery or segregation or . . . the scarcity of black faculty is not a black problem and never was. It is, and always has been, a white problem, a problem created by whites and a problem which must be solved, if ever,

substantially by whites.

Further, to identify the degree of difficulty of a problem is simply to confirm its existence; it is one step of the solution, not absolution.

James H. Williams Jr. '67  
Professor of  
Mechanical Engineering

### Shanties symbolize strife

(Continued from page 5)

informed, and responsible individuals who nurture the exchange of ideas in this university environment, and even if you do not believe that the administration actively schemes to suppress minority enrollment, don't tell this to the shantytown students. Rather, in the spirit of IHTFP, tuition riots and boycotts of forced commons, it is convenient to consider the MIT establishment your common oppressor.

Point 4: Do not underestimate your partner, nor let him or her underestimate you. People strive for simple explanations in order to make sense of a complex world, and when we grasp a story

that seems to work it is all too easy to ignore contradictory facts. Before you find fulfilling discussion at the shantytown you are liable to encounter a lot of dogma. Cut through it. You will almost certainly be able to cut through the dogma because the shantytown MIT students are intelligent people who are by and large honest enough to evaluate evidence as it is presented to them.

And they will find holes in your dogma. The South Africa issue is complex enough that sooner or later you will each be able to find contradictions or untenable implications in each other's reasoning. The joy and

challenge of such an achievement is worth the effort.

Point 5: Temper your expectations. The immediate value in your discussion is in the process, not in the result. You will probably not witness a perceptible change in your partner's stand on an issue, and you may very well walk away believing yourself unchanged. This is normal, and probably illusory. As long as you exercise and demand respect in your discussion with the shantytown students, you can have hours of thought-provoking, sometimes exhilarating, sometimes frustrating, but never boring discussion.

Eric Saund G

Looking for the perfect job?  
You can send 1,000 resumes,  
or make one phone call.

## DunSearch

One call to DunSearch will get you a list of companies that are right for you... from the same information source used by major corporations.

- Put your career into focus.

What type of company would you like to work for? In which part of the country? How large or small would you like it to be? Just tell Dun & Bradstreet what you're looking for, and we'll send you a list of companies that match your needs.

- Be better prepared on interviews.

DunSearch will give you the most up-to-date information available on any of seven million U.S. companies—information which is often not published anywhere else. You can walk into interviews with an immediate head start on your competition.

- Save yourself time.

DunSearch is the quickest, most efficient way to conduct a job search. It narrows your choice of companies, so you won't have to spend hours of your own time searching for the same information in the library.

- In every student's price range.

You can get your individualized DunSearch list for just a few dollars.

Call the **DunSearch** toll-free number today:

**1-800-362-2255**

Dun & Bradstreet  
Credit Services

**DB** a company of  
The Dun & Bradstreet Corporation

## Quality Car Rentals at Affordable Rates

• Daily - Weekly - Monthly • Weekend Specials



Logan Airport 125 Bremen St. 569-6500	Harvard Square 1201 Mass Ave. 876-8900	Brookline 143 Harvard St. 739-2244
Downtown Boston Mid-Town Hotel 220 Huntington Ave. 267-6633	Lewis Wharf 28 Atlantic Ave. 367-6777	Arlington Mirak Chevrolet Service Center 1125 Rear Mass. Ave. 646-8600

Plus 2 other locations See Yellow Pages.



# You didn't want to be pregnant.

# But you are.

So many emotions and questions are involved in deciding what to do. Talking with a Preterm counselor who understands can help you work through this difficult decision. And, Preterm's experienced medical staff will provide the high-quality, sensitive care you deserve.

Call 738-6210. We answer to a broad range of health concerns affecting women.

**Preterm Health Services**

1842 Beacon Street, Brookline, MA 02146

The Shakespeare Ensemble at M.I.T.

presents

## CIVIL WARS

(Division and Upheaval in Passion and Politics)

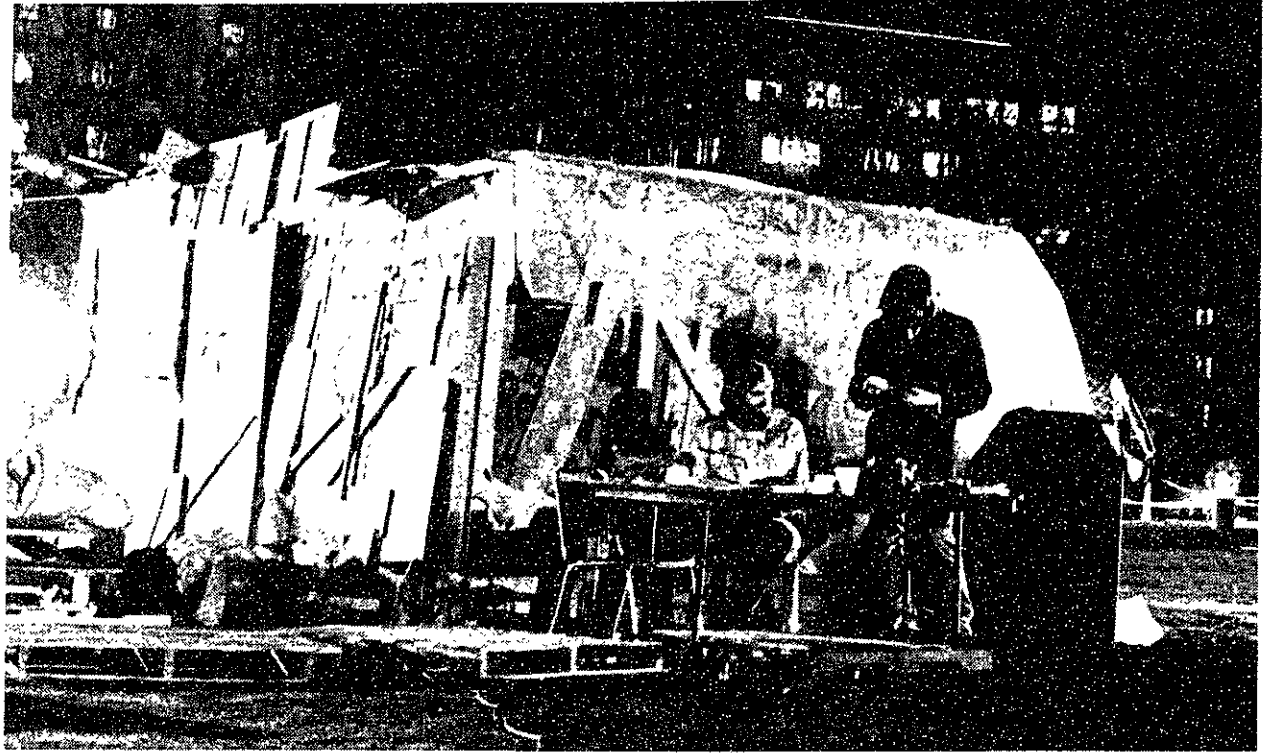
An evening of scenes on the theme of unrest  
Drawn from Shakespeare and Contemporary Authors

Thursday, March 6  
Friday, March 7

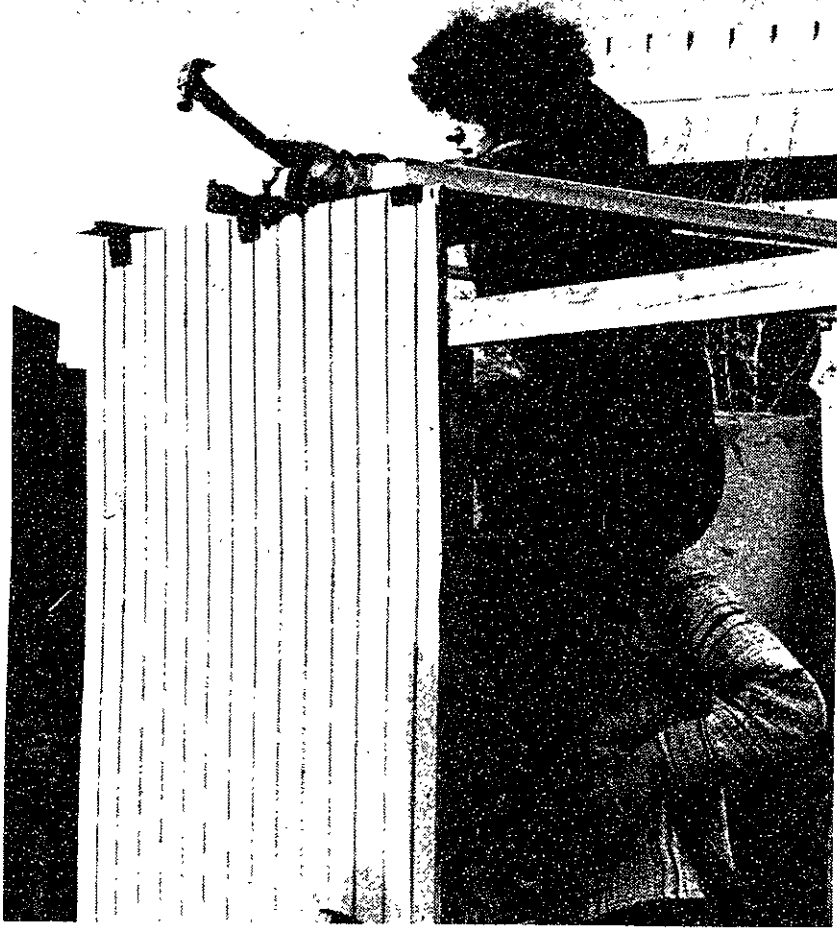
10—250  
8:00 pm

Admission Free — Join Us.

# Alexandria Township, the protest on the Oval: a photo essay



Tech photo by Terry Higgins



Tech photo by David M. Watson

## Candidates back protestors

(Continued from page 1)

Students are not only "raising consciousness on this campus . . . about the significance of the struggle in South Africa, but [just] as important, the struggle right here in the United States to get . . . equality for people of color, for women, for the disabled, [people discriminated against] because of their sexual preference," King said.

Yet "it is frustrating to take on the administration of a university as rich and powerful as MIT," Gallagher said. He experienced this same frustration when he participated in MIT's "November Actions" in 1969 while a student at Boston College. This anti-Vietnam war protest focused on the MIT Instrumentation Labs (since divested and renamed Draper Laboratory) as a major center of advanced military research.

Gallagher said it seemed he had come full circle since he had camped out in the Student Center as a part of that protest, which attracted over 800 people.

"There is no overestimating the importance of being a thorn in the side of those in power," Gallagher continued. As a result of protests in the 1960s, he said, the United States withdrew more quickly from Vietnam. It is protest at home that keeps US troops out of Central America, he added.

King agreed that student protests can make a difference. The MIT shantytown has become national news, and part of a national struggle: "Dartmouth, Brandeis, Brown . . . at all of these places the movement is taking hold and you know that we are winning."

Stressing the importance of peaceful protests, King reiterated that "We can help, we are helping, we can make a difference."

"They want you on the streets," King said, but "the place for you to be, where you can make a difference, is in the suites. You won't make that difference until you afflict those folks that are comfortable."

Divestiture had a real impact in South Africa, King believed. Businessmen there felt its effects, he explained; they were willing to hold discussions with the African National Congress.

Corporations that invest in South Africa are supporters of P. W. Botha's government, and "the blood is on their hands," he added.

Gallagher predicted that South Africa will be free "sooner rather than later," without a bloody civil war. Although the protestors are making demands of MIT, he said that "you are all really after the American government," which wields great power to influence peaceful reform in South Africa.

He responded to "our conservative friends or our conservative adversaries, who say they are worried about keeping America strong." It is not in the interests of national security to make friends of a few rulers while alienating the masses, he said.

This alone was enough reason for opposing the South African government, he said, even while declaring that that government "is without moral legitimacy."

"This all does matter," Gallagher concluded. "One day we will be successful. Good luck."

### JAPANESE LUNCH TABLE ALL WELCOME!

Every Tuesday:  
(starts March 11)

TIME: 1-2pm  
PLACE: Center Lounge, MIT Student Center

Bring Bag Lunch  
All levels of Japanese  
Welcome!

### London Theatre Tour

Enjoy 12 Days of the Best Classical and Contemporary Theatre in the World  
Including visits to:

- Britain's National Theatre
- The Royal Shakespeare Company
- London's West End and Fringe Theatres

August 7 to August 19

Leader: Derek Campbell

Director MIT Shakespeare Ensemble

Further Information: x2903  
or 628-0232

### THE EIGHTH ANNUAL CHAIM WEIZMANN CONFERENCE ON

## ISRAELI SCIENCE, TECHNOLOGY AND MEDICINE

SUNDAY, MARCH 9, 1986

MIT Student Center,  
Mezzanine Lounge  
84 Mass. Ave.,  
Cambridge

A symposium on current research and development in Israel including opportunities for work, study, and travel.

Sponsored by M.I.T. Hillel with support from Jewish Student Projects. For information call 253-2982.

SCHEDULE: 11:30 am BRUNCH, \$2.00 12:00 pm WELCOME, Consul Arthur Avnon, Consulate of Israel KEYNOTE "Industrial Research and Development in Israel, Dr. Sami S. Ofri, Israeli Ministry of Industry and Commerce 1:30 pm Space Research in Israel," Dr. Dror Sadeh, Tel Aviv University and Israeli Space Agency, 2:00 pm "Biotechnology in Israel," Dr. Shmuel Enav, Tel Aviv University, 2:30 pm COFFEE BREAK, 2:45 pm INFORMATION FAIR & FILMS, 3:45 pm "Studies in Cancer and AIDS in Israel," Dr. Zvi Bentwich, Hadassah-Hebrew University Medical Center and Weizmann Institute, 4:15 pm "Performance of Distributed Systems," Dr. Myron Melman, Weizmann Institute, 4:45 pm "Science Related Careers in Israel: A Personal Perspective," Dr. Zeva Reuveni, formerly Hebrew University Medical School.

# Protesters march on President's House

(Continued from page 1)

he said. 110 Memorial Drive was barely lit when the protesters arrived. "Paul Gray, you can't hide. We know you're on apartheid's side," they chanted.

Two Campus Police officers accompanied the protestors, while another pair met the crowd at the Senior House entrance. Five more stood in the driveway of the President's House, backed by several Metropolitan District Commission (MDC) police.

A Tufts student urged the demonstrators to boycott corporations doing business in South Africa. Students should not buy International Business Machines (IBM) computers, Coca-Cola products or Pepsi Cola beverages, he said.

Behind the crowd, one of the MDC officers spoke into his walkie-talkie: "Cancel the SWAT

boat."

"The issue has been studied to death," Npefa said. "There has to be a point when you say, 'Hell — stop! Let's act.'"

Npefa commended the broad spectrum of support for divestment at MIT. The MIT Coalition Against Apartheid consisted of students with "diverse political views," but who all agreed about divestment, he said.

A similar situation exists in South Africa: the African National Congress, the Pan-African Congress, the Black Consciousness Movement of the late 1960s and early 1970s and the Black Independent Trade Unions have all endorsed divestment, Npefa said. "If on nothing else there is consensus on divestment."

Alex B. Rosen '88, a member of the coalition steering committee, read from a letter in which the Undergraduate Association

Rosen said, "These are individual students exercising their freedom of speech."

Campus Police had restrained Fernandez when he tried to lay the trail down the day before. At noon, almost 15 students tried to extend the tape to the second floor of Buildings 3 and 7.

Students placed a line of tape up the stairs and made "pools of blood" outside the offices of Gray, Vice President Constantine B. Simonides, and the vacated office of Gene Brammer, director of housing and food services.

The tape outside Brammer's office "represents the blood and tears of the food service workers," said Shiva Ayyadurai '86.

Senior Vice President William R. Dickson '56 informed Ayyadurai that MIT would permit the tape on the first floor, but not on the second floor, according to Ayyadurai.

"Dickson said, 'You've got to give a little to take a little,'" Ayyadurai said. "I told him that the South African people have given enough."

An unidentified man started to remove the tape from the floor, as two officers positioned themselves outside Gray's office. One of the officers said, "We didn't know what their [the coalition members] plans were."

Ayyadurai said, "I want to make it clear that all the people on this floor are pawns of the MIT Corporation."

When Gray left his office at 12:30 pm, the students began to chant "divest now." Several physical plant workers arrived and began removing the tape from



Tech photo by Stephen P. Berczuk  
Chris Npefa, chairman of the Association of South African University Professors in the Americas.

son said.

The tape was removed very early Sunday morning, Dickson explained, because the workers "wanted to adhere to the policy [of leafleting]" and were "vigorous."

MIT only permits leafleting on the first floor because "that is

the tape was for the divestment struggle. Several felt it was a promotion for the Technology Community Association blood drive.

#### Rallies against apartheid

Professors Gretchen Kalonji '80 and Willard R. Johnson, two fervent proponents of the faculty



Tech photo by David M. Watson

team and K-9 unit."

Arnold Contreras '86 said he had met with Gray on Feb. 13 to discuss demands for divestment and an increase in minority enrollment. Gray responded by letter, but nothing fruitful came of it, Contreras said.

A Harvard student spoke of the frustrations of protestors at that university. She spoke of poor leadership at MIT and Harvard. "True leadership is seeing where you can help," she said.

MIT "fiddles while South Africa bangs," Npefa said. "When you talk about equal opportunity, when you talk about scholarships, I think you are missing the

Council criticized the members of the Executive Committee for failing to divest.

The letter stated, "We . . . are very distressed at the administration's extreme insensitivity to the sentiment of the MIT community."

The students plan to rally at the Student Center today at 11:00 am and hold a second march on Gray's house at 11:30 am.

#### "Trail of blood"

Shortly after sunrise last Tuesday, two coalition members, Stephen Fernandez '86 and Lawrence K. Kolodney G, taped a "trail of blood" down the expanse of the Infinite Corridor.

the floor. Students then began interfering with the employees.

One of the workers said, "If I don't do this I'll lose my job."

In an interview after the incident, Dickson said that MIT policy permitted leafleting on bulletin boards only. All other material is removed, he said. The tape and posters would be removed "as soon as [physical plant] gets around to it," Dick-

son said. He ordered the tape removed from the second floor for this reason, he said.

Rosen claimed partial victory. Dickson had informed him that all tape would be removed if any was placed on the second floor, according to Rosen. "The tape's still there," he said Tuesday evening.

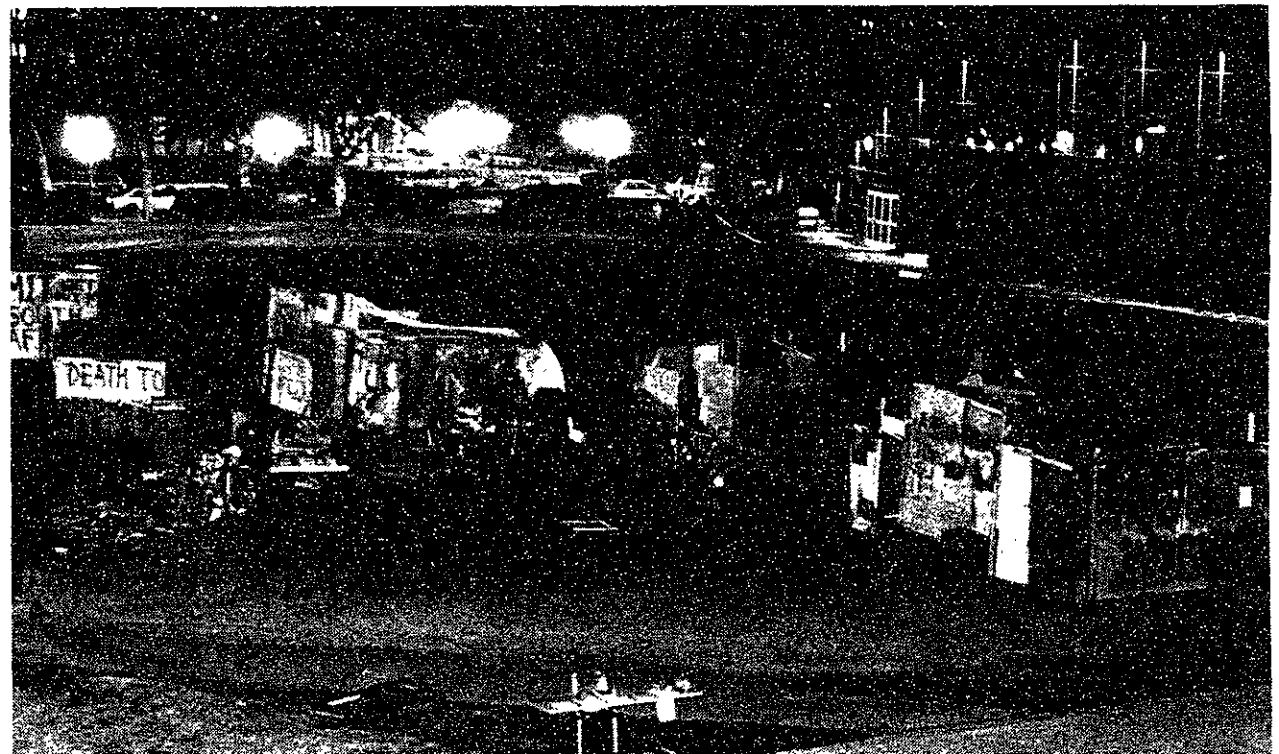
Some students did not realize

resolution to divest, spoke at coalition rallies during the week, as did State Representative Thomas M. Gallagher, D-Allston, and Adjunct Professor Melvin H. King, both candidates for the Massachusetts 8th Congressional District seat this fall.

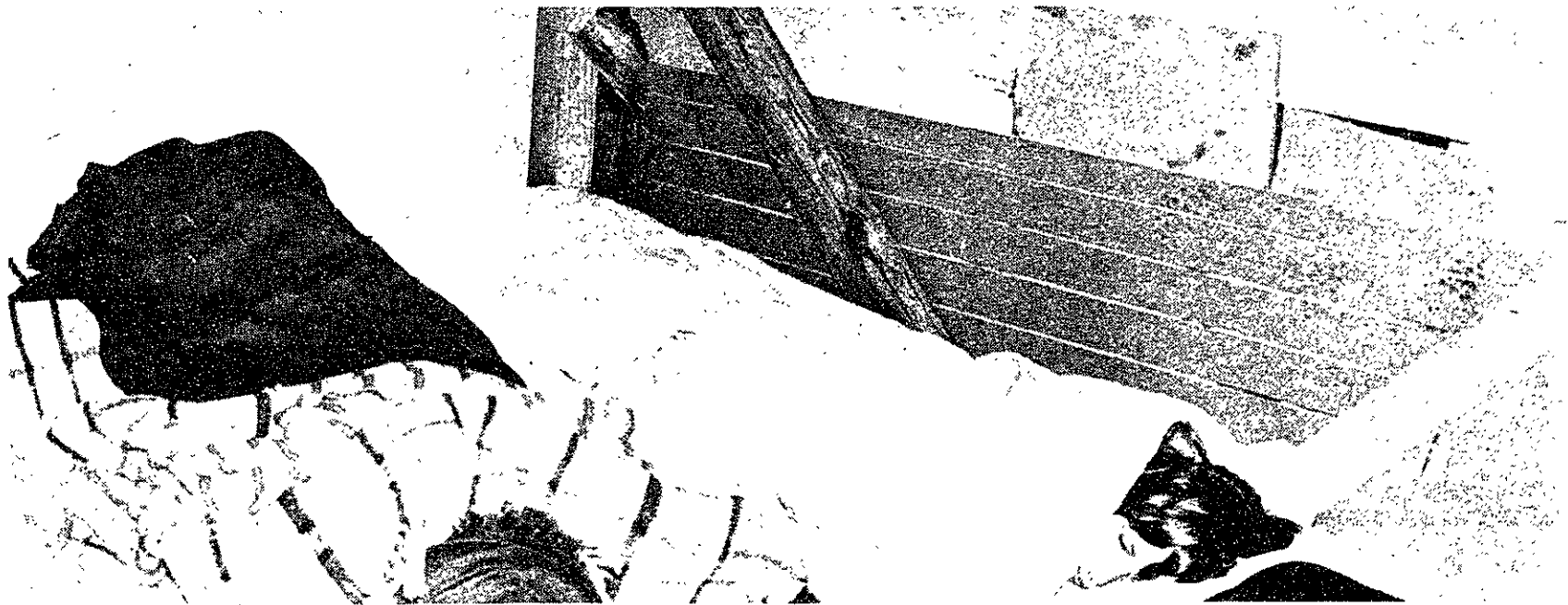
Johnson said on March 4, "This is the most honored platform I've been on in a long time." The most important thing students could do is "keep the pressure on."

King told the students they should not allow the administration to say divestment will not make a difference. Failure to divest places MIT on the side of apartheid, he said. The students should take their protest from "the streets to the suites," King said.

Gallagher attacked the US policy which makes "friends of thousands and enemies of millions." Gallagher praised the protestors on including the MIT issues in their demands. The students made the right decision in linking the issues together, he said.



Tech photo by Terry Higgins



Tech photo by Terry Higgins

# Masur brings Gewandhaus Brahms to Boston Arts

## GEWANDHAUS ORCHESTRA OF LEIPZIG

Conducted by Kurt Masur.  
Brahms' 1st and 2nd Symphonies.  
Symphony Hall, Mar. 2.

By BARBARA A. MASI

**K**URT MASUR is no stranger to Brahms. His vibrant recordings of the Hungarian Dances with the Gewandhaus are lovely. But I had my questions about his performances of Brahms in Symphony Hall last Sunday night.

Consider Brahms' First Symphony: a gloomy, emotionally charged orchestral work. There could be no questioning Masur's authority over the orchestra, his intelligent pointing of detail, and the clarity of texture produced for which the Gewandhaus is renowned. What is more, Masur imbued the work with an expansive grandeur that complements its spirit.

Yet the performance lacked the dramatic tension and thrust that also remain essential to clarifying the score's character. In the symphony's first movement, everything was just a bit too weighty, too wanting in urgency, and too expansive. In contrast to the first movement's lack of life, the second movement's sentimental treatment came close to being wayward, though there can be no faulting the playing of the solo instrument sections.

After the blandness of the previous movements, Masur overpowered the finale with theatrical effects. This is a familiar complaint against the composition — not merely the performance — of the last movement of Brahms' First Symphony. Familiar motifs from Beethoven's *Ninth Symphony* also make one view this movement with some skepticism.

Masur began the movement with an unrestrained explosion of timpani, as the *adagio* introduction was presented. The *adagio* gave place to a thrilling, resonant

melody on horn accompanied by trombones introducing a mood of hopefulness. Still under the surface, the rumble of bass continued to recall the sombre first movement themes. For the first time in the score, Masur chanced the extremes of rhythm and augmentation that enliven the First Symphony.

The *Second Symphony* is the longest symphony Brahms wrote. Yet he completed it in the shortest time of any symphony — just over two months. I do not think these two facts are unrelated; of all Brahms' symphonies this one seems to have been conceived whole.

The *Second Symphony* begins: a step curve, a falling fourth, a rising third; from these Brahms builds the entire work. Time and again, they turn up as part of the content of each movement. They express the background drive against which all the work's themes are developed. It has been called a "pastoral" symphony and is generally conceded to be the most approachable of Brahms' major works. Masur's inter-

pretation of the *Second* was superbly rendered if, as with the First, lacking in extremes of mood. His approach, one of rhythmic freedom, animated the pulse of the work without violating the structure. Noteworthy of Masur's fine direction of this symphony is the clarification of the often concealed counter melodies.

Masur's treatment of the fourth movement produced the concentration and brilliance which the symphony had lacked up to this point. Though possibly not justified, Masur tremendously accelerated the fourth far beyond any previous section, especially in the coda of the finale, thus drawing all attention towards the movement. This theatrical choice has wondrous effect. The lyric, serene moods of the earlier movements are here transformed. Previous themes, considered again, are impatiently discarded. The final movement's initial subjects rise again to the surface and race on to a triumphant conclusion of the work.

## notices

### Friday, March 7

The Julliard String Quartet will perform three of Beethoven's String Quartets at 8 pm at Jordan Hall. Tickets are \$16.50 and \$14.50, available at the Jordan Hall box office or by calling ConcertCharge at 497-1118. For more information call 536-2412.

The Vienna Chamber Orchestra will perform at 8 pm at Symphony Hall with conductor/pianist Philippe Entremont. Their program includes pieces by Helmut Eder, Mozart, and Tchaikovsky. Tickets are \$18.50, \$16.50, and \$14.50, available at the Symphony Hall box office or by calling ConcertCharge at 497-1118. For further information call 266-1492.

The Harvard-Radcliffe Orchestra, conducted by James Yannatos, will present a concert at 8 pm at the Sanders Theater,

Harvard University. Their program includes pieces by Brahms, Beethoven, and Bartok. Tickets are \$7 reserved seating, \$5 general admission, and \$3 for students and senior citizens, available at the Holyoke Center Ticket Office. For more information, call 864-0500.

### Saturday, March 8

The MIT Symphony Orchestra, with guest conductor Alan Yamamoto, will perform Brahms' *Symphony No. 3 in F, Op. 90* at 8:30 pm in Kresge Auditorium. The program will include Chopin's *Piano Concerto No. 1*, with guest pianist Charles Fuery performing, and a piece by Beethoven. Admission is \$1, a free to MIT/Wellesley community. Tickets can be reserved by calling 253-2826 between 1 and 5 pm.

By Betty J. McLaughlin



Kurt Masur directs the Gewandhaus Orchestra of Leipzig.

## UA NEWS AND WORLD REPORT

### NOMCOMM HEARINGS FOR INSTITUTE COMMITTEES

The UA Nominations Committee will be hearing for the following committees:

#### Sat., March 8, 1-6pm

- Committee on Academic Performance
- Committee on International Institutional Commitments
- Committee on Library Systems
- Committee on Privacy
- Committee on the Use of Humans as Experimental Subjects
- Committee on Student Affairs
- Committee on Writing Requirement

#### Sun., March 9, 1-6pm

- Committee on Discipline
- Committee on Undergraduate Admissions and Financial Aid
- Committee on Visual Arts
- Community Service Fund Board
- IAP Policy Committee
- Student Activities Development Board

Questions? Please contact Lulu at 494-1567 or x3-2696.

### ASA & GSC RECOGNIZED ACTIVITIES

All organizations that are interested in being included in next year's Freshman Handbook should revise or resubmit the text describing their group from last year. Check your activity's mailbox for more information.

Reply due by March 27, 1986.

### CLASS OF 1986

The Class of 1986, Miller Beer, and UA Finboard invite the entire MIT community to an "86 Days to Graduation" Party on Saturday, March 8th. Appearing that night will be Jem/PVC recording artists, THE FOOLS (performers of "Life Sucks, Then You Die," "She Makes Me Feel Big," "Psycho Chicken," "World Dance Party," and "Doo Wah Diddy"). Also performing will be local cover artists, The Whitewalls. This major event will be held in Walker Memorial from 9 p.m. to 1 a.m. Beer and wine (with proper i.d.), pop and munchies will be available. Tickets are on sale in Lobby 10 (\$2.00 for seniors with valid i.d. and \$2.50 for the rest of the MIT community). Tickets will also be sold at the door on the 8th for \$3.00. This is one party you do not want to miss, so get your tickets today.

If you are interested in being a student representative on any of the committees listed to the left, you must sign up for a 15 minute interview with NomComm. Just stop by the UA Office, fill out an application form, sign up for an interview time slot, and pick up a description of the committee that you are interested in.

There will be a luncheon held at noon on March 8, in Room 491, next to the UA Office in the Student Center, for Committee Chairmen, current student representatives and interested students. This will provide a good opportunity for you to get acquainted with and ask questions about the committee(s) that you are interested in.

Drop by the UA office and let us know how we're doing. Student Center, room 401 x3-2696

# Lowell Magic Flute passionate, funny

Arts

## THE MAGIC FLUTE

By Wolfgang Amadeus Mozart.  
Lowell House Music Society.  
Conducted by Derek Katz.  
Directed by Dennis Crowley.  
Lowell House, Harvard.  
Mar. 6, 8, 13, 14 & 15 at 8:30.  
Tickets are available for \$5  
from Holyoke Center or at the door.

## ACADEMY OF ANCIENT MUSIC

Conducted by Christopher Hogwood.  
Sanders Theatre, Mar. 4.  
Event in The Tech Performing Arts Series.

By JONATHAN RICHMOND

It is well worth the trip to Harvard to see Lowell House's new production of *The Magic Flute*. In many ways it is an evening of unbalanced quality, there is much that is deeply satisfying on entertainment, musical and spiritual levels.

Jane Peterson — singing the Queen's part — was clearly the star of the evening, for with a flexible and sensitive voice she drew out the contrasting facets of this complex role. The Queen of the Night is the most interesting character in the opera because although the role symbolizes evil, it sends out other signals too. We see the Queen first in G minor, a mother who has had her daughter stolen away, a picture of tragedy. But in the same aria — *Zum Leiden bin ich auserkoren* — moved to B flat, she becomes a fanatic, regal, sinister and powerful.

Cormier made us feel genuinely sorry for the Queen as the aria opened, doleful inward-looking singing speaking of grief, but quickly led us to other — rather less savoury — aspects of the Queen's psyche. Her Act II aria, *Der Hölle Reiche*, was remarkably done too, her breathtaking coloratura sparkling like diamonds. "Hellish rage is boiling in my heart," the Queen sings, and with Peterson in the role she meant it.

Jennifer Post sang Pamina movingly with a voice of sincerity and sweetness.

Her rendition of the chromatic harmonies of *Ach ich fühl's*, thoughtful and reflective as well as emotional, was heart-rending.

Her duet with Papageno, *Bei Männern welche Liebe fühlen*, was warmly optimistic. This is an intimate number, but rises above the love of just one couple — Pamina and Papageno are certainly not in love — to deal with human love on a universal level. The close, idyllic singing of Post and George Shepherd — the Papageno — was highly symbolic and uplifting.

Shepherd was a splendid Papageno the evening through, performing with great wit and poise. Despite some brief lapses in quality of singing, he never seemed to lose energy in his depiction of Mozart's sunny, innocent character. It was a performance of compassion as well as humor, its power highlighted in the scene where Papageno — unable to find Papagena — contemplates hanging himself. On the surface, Shepherd played the scene as farce. But in a time-stopping G minor *andante*, he painted the deeper, human aspects of the role.

Katherine Fox was funny as Papagena, David Schiffman evocative as Monastatos. But the performances of Michael McNulty as Tamino and Joseph Manley as Sarastro were deeply flawed. McNulty's voice was consistently harsh, his inelegant tone at odds with the virtue and passion characteristic of his part. He lacked the insight to portray Tamino in anything other than the most simplistic, uninteresting terms. Manley's Sarastro was almost as awkward and ill-developed.

Derek Katz demonstrated that there is more to Mozart than technique. His orchestra was far from technically perfect, but the deep understanding of the score which Katz clearly possesses made it into a powerful psychological tool, underlining and developing every thought and emotion in the piece. Woodwinds were used to especial effect, illuminating coloration expressing both bubbling joy and forlorn grief. Katz' sensitive and revealing interpretation gave unity to the evening, and made the Lowell House production profoundly worthwhile.

THE ACADEMY OF ANCIENT MUSIC began their Sanders Theatre concert with Mozart's *Symphony in G*, K. 129: it was antiseptic and lacking in warmth. They next moved to their original instruments version of Mozart's *Clarinet Concerto*. Antony Pay played an instrument constructed on the model of the basset clarinet on which Anton Stadler (for whom the piece was written) played in mind. The extra keys make available notes in the lower register which are unattainable on a modern clarinet.

Pay's playing on this difficult instrument was of virtuoso quality, and the cool, low notes he produced certainly added color. But it was hard to avoid the impression — from the performance of both soloist and orchestra — that this was a "laboratory performance," an exercise in getting as close as possible to the original, rather than in being original. Pay seemed to have a closer relationship with the notes he was playing than with the music he was re-creating. Anyone who has been touched by the poignancy of Richard Stoltzman's rendition of this work — on a modern instrument — could not doubt that while the search for authenticity can be rewarding, it is inadequate if lacking in insight, too. The emotionally bland approach of the Academy did little to rescue the ambience. Things looked up dramatically after the

intermission. Lisa Beznosiuk was colorful and charming in her playing of Mozart's *Andante in C for Flute and Orchestra*, the strings providing a delicious light balancing force. And The Academy gave a bright performance of Haydn's *Symphony No. 45*, the "Farewell." Hogwood developed tensions to create an atmosphere of great excitement in the opening *Allegro assai*; and suspense was maintained into the *Adagio*, which was highlighted with phenomenal woodwind textures. Sharpness, humor and beauty were maintained until the end of the work.

The evening ended with an unconventional encore: the Academy's own Amadeus-inspired Music Hall variations of a theme from Mozart's *The Marriage of Figaro*. It deservedly drew many laughs.

## Erratum

The first line of the sixth paragraph of Jonathan Richmond's review of Sinfonova on March 4 ["Papazian premieres intriguing Delalain concerto"] should have read "The rest of the concert was more conventional and well done, too," indicating that the two halves of the concert were of equal high quality.

The Tech Performing Arts Series presents...

## VIENNA CHAMBER ORCHESTRA

Entremont plays Mozart

Philippe Entremont will be simultaneously soloist and conductor in Mozart's *Piano Concerto No. 14* in a program which also includes Tchaikovsky's *Serenade for Strings* and Eder's *Piece de Concert*.

Symphony Hall, March 7, 8pm. MIT price: \$6.

## ANNIE FISCHER

Piano recital

Annie Fischer will play Beethoven's *Sonata in E flat*, Liszt's *Sonata in B minor* and Schumann's *Kreisleriana*.

Symphony Hall, March 9, 3 pm. MIT price: \$6.

## HUNTINGTON THEATRE

Saint Joan

The Huntington Theatre Company will perform Bernard Shaw's touching and comic telling of the Saint Joan story.

Huntington Theatre, 264 Huntington Avenue, Boston,  
Mar. 11 and 18 at 8 pm. MIT price: \$6.

## SINFONOVA

Vivaldi's Four Seasons

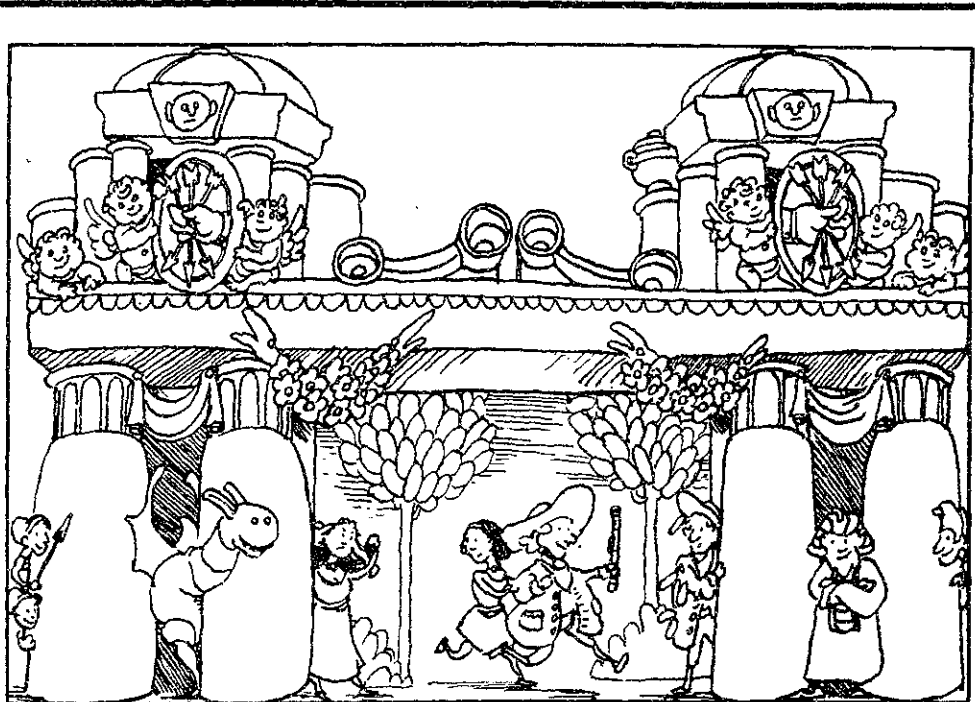
In our recent "The Year in Review," *The Tech* named Sinfonova's Oct. 16 all-Mozart concert "Chamber Concert of the Year." Conductor Aram Gharabekian is one of the region's most sensitive interpreters of music, and has proved he has something fresh to say about even the most familiar of works. Sinfonova's performance of Vivaldi's *Four Seasons* with Stephanie Chase, solo violin, is therefore likely to be a very exciting event. Also on offer in this Gala Concert will be the World Premiere of McKinley's *Sinfonova* and Tippett's *Fantasia Concertante on a theme of Corelli*.

Jordan Hall, March 14 at 8 pm. MIT price: \$7.

Tickets will be sold by the Technology Community Association W20-450 in the Student Center. As opening hours are currently a bit sporadic, please call before you come. If nobody is in, please leave your order and your phone number on the TCA answering machine at 253-4885. You will be called back as soon as possible.

The Tech Performing Arts Series, a service for the entire MIT community from *The Tech*, MIT's student newspaper in conjunction with the Technology Community Association, MIT's student community service organization.

Get Out on the Town with  
The Tech Performing Arts Series. . .!



A sketch of the set for Mozart's *The Magic Flute*, the 48th annual production of the Lowell House Opera Society.

## classified advertising

Classified Advertising in *The Tech*: \$5.00 per insertion for each 35 words or less. Must be prepaid, with complete name, address, and phone number. *The Tech*, W20-483; or PO Box 29, MIT Branch, Cambridge, MA 02139.

Meet someone special from another school. Provide: Name, address, phone, school, major, details, \$16.50. College Romance, P.O. Box 662, Brookline, MA 02146.

### SCHOLARSHIPS AVAILABLE

\$135 MILLION + in financial aid went unused last year. Freshmen, Soph., on-going graduate students; for help cashing in on those funds, call Academic Data Services toll free 1-800-544-1574, ext. 639, or write P.O. Box 16483, Chattanooga, TN 37416.

Electronics Engineer/Scientist wanted by small basic research company working in atmospheric and meteorology including development of optical and interferometric lightning detection

systems (RF/analog background desirable). Work includes instrumentation, programming, data analysis and report preparation. Applicant must be experienced, self-directed and enjoy aircraft field work including flying. Send resume, salary req and personal background to Airborne Research Associates, 46 Kendall Common Rd, Weston, MA 02139.

"As you set sail on the great vacation of life, think of Harvard as your travel agent" - Kermit the Frog. Let's Go Travel Services. Harvard Student Agencies. Thayer B Harvard Univ. M-F 1-4:45 495-9649.

Need Credit Cards? New Credit? Receive Visa and Mastercard with no credit check. For details call 602-947-3561 Ext. #302

The MIT Equipment Exchange offers surplus equipment and used typewriters to students and staff at reasonable prices. Located in Building NW30, 224 Albany Street. Open Tues., Thurs. 11 am - 3 pm.

## Students discuss engineering goals

(Continued from page 2)

unaccredited degrees, such as Course II-A, could fill the needs of students like Blundin whose interests are too broad for a fully specified major program, Haus said. But even the unaccredited II-A option is too focused in one area — mechanical engineering — countered Fran O'Neill '82. This option also requires too much motivation from the ordinary student because it is self-paced, he added.

The many requirements in all engineering departments limit students' ability to take electives in areas they are curious about, O'Neill said. Haus warned that degree programs could lose their accreditation if requirements were arbitrarily reduced. But accreditation guidelines would still allow MIT's programs to be less restrictive than they are now, said Rafael L. Bras '72, professor of Civil Engineering and a member of the commission's subgroup on engineering curricula.

### A harmful education?

MIT makes engineers by "bleeding" them, charged Michael J. Saylor '87. The unnecessarily heavy load of requirements prevents graduates from thinking of anything beyond their immediate technological concerns, he said, so that MIT turns incoming students with a wide range of interests into "one-track automatons."

Saylor also felt the current system devalued the humanities, the area where he had found the most capable, helpful and receptive teachers. "It is sickening that most MIT undergraduates spend their time looking for easy humanities," he said.

MIT's workload could be reduced by a factor of ten while maintaining educational quality if work concentrated on fundamentals, Saylor said. Haus replied that the workload is necessary to develop students' problem-solving ability.

### System ignores teaching ability; poor teaching widespread

O'Neill said he had expected to get the best possible education simply by doing assigned work, but found he had to "fight to be taught." Many professors are poor teachers and most give teaching a low priority, he explained, so that he needed to "hunt" professors' offices to be able to learn as much as possible.

There was a lot of truth to some aspects of O'Neill's accusations, Bras acknowledged, but he felt professors did work hard at teaching. MIT considers undergraduate teaching to be very important in choosing the "best and the brightest" for its faculty, said Jack L. Kerrebrock, associate dean of engineering and head of the commission.

Teaching ability has an impact on a professor's chances of promotion, the professors claimed, but the students felt there were no safeguards against poor teachers. Teaching is periodically reviewed, and very unfavorable opinions can jeopardize a professor's career at MIT, Kerrebrock said. Students asked whether bad reviews had any effect on tenured faculty; Bras answered that they were not immune to adverse opinions of their teaching at the time of salary reviews.

O'Neill then addressed the Institute's tenure criteria, saying that an overemphasis on research allowed poor teachers to get tenure. But "natural" teachers are rare, Bras countered, so professors must be given time to learn to teach, rather than being punished for inexperience. Wendy M. Power '87 doubted that teaching necessarily improves with time, citing a professor who taught a

subject for several years and grew worse each year.

Perhaps, then, professors should be systematically taught how to teach, suggested Kerrebrock, meeting with enthusiastic agreement by both students and faculty. It might be difficult to identify which professors needed to improve their teaching, and which ones should train their colleagues, Kerrebrock cautioned.

Kerrebrock and Saylor disagreed over whether research should be a priority at all in tending the teachers of undergraduates. Saylor felt teachers should not even be involved in research, but Kerrebrock insisted that research is an integral part of excellence in science and technology, and that the Institute must have good researchers.

### Lack of contact with professors

The students felt they did not have as much contact with faculty as they wanted, seeing them as inaccessible. Freshmen and sophomores said they knew hardly any professors personally; upperclassmen said they knew a few professors well, but they had had to "hunt them down" to get to know them.

# DON'T WAIT!

today is the last day to reserve your 86 *technique* for \$20, because after add date, we add \$5 to the price.

Bring \$20 check or cash to the lobby 10 booth or the *technique* office (W20-451) before 5 pm.

the yearbook — it's not just for seniors anymore

technique

## How to buy a performance.



You can use the American Express® Card to buy concert tickets for your favorite groups or airplane tickets for your vacations. It's the perfect way to pay for all the little things, and the big-ticket items, that you'll want during college.

### How to get the Card before you graduate.

Because we believe college is the first sign of success, we've made it easier for you to get the American Express Card. Graduating students can get the Card as soon as they accept a \$10,000 career-oriented job. If you're not graduating yet, you can apply for a special sponsored Card. Look for student applications on campus. Or call 1-800-THE-CARD, and tell them you want a student application.

The American Express® Card. Don't leave school without it.™

