

## Commission denies election protest

By Charles R. Jankowski

The Undergraduate Association (UA) Election Commission voted Friday to deny protests lodged by Robin L. Barker '85 and David M. Libby '85. The pair had protested a discrepancy in Wednesday's class elections.

Barker said Sunday she is considering an appeal to the UA Council.

Inge Gedo defeated Barker for the Class of '85 presidency by 16 votes. Libby failed in his bid to become senior class treasurer. He lost to Adrian C. Wang by 31 votes.

Barker and Libby contested the election on a question over the number of seniors who were eligible to vote. The Alumni Association listed 23 more seniors than did the Office of the Registrar. Barker and Libby contended that those students should be allowed to vote.

But Election Commissioner Dan O'Day '87 said only those students listed on the Registrar's official role were eligible to vote.

That discrepancy could change the outcome of the race for the Class of '85 presidency. It would not have any effect on the treasurer's contest.

The Registrar considers the 23 students in question to be graduate students, which disqualified them from voting in the elections Wednesday.

The UA constitution states: "An undergraduate is a person who is considered by the Registrar . . . to be making satisfac-

tory progress toward one or more undergraduate degrees at the Massachusetts Institute of Technology."

The students in question include students who received their degrees in January and students who required more than four years to receive a degree, such as co-op students. Libby said those students are allowed to vote in Graduate Student Council elections.

Barker and Libby presented their cases to the election commission at a hearing chaired by O'Day.

"The students whose votes are in question are members of the class of '85," Barker and Libby wrote in a statement to the commission. "The Alumni Association tends to view them in this way, and more importantly, they view themselves this way."

"The Registrar's list is useful as a guide, but nothing more," the statement continued. "If there is a reasonable explanation for student's status as a 'G,' then he should be allowed to vote as a member of his class. This is especially true for the permanent class officers, as they are basically alumni officers."

"Inge was concerned that all ballots for all offices should be recounted if the president's ballots are recounted," said Tamara L. Abell '87, Gedo's representative at the hearing. "It would be a poor precedent to just recount the one office," Abell continued.

(Please turn to page 13)



Photo courtesy MIT News Office/Calvin Campbell

President Paul E. Gray '54 accepts a grant to the Aga Khan Program for Islamic Architecture. The Aga Khan, Dean Jean de Monchaux of the School of Architecture and Planning and Harvard President Derek Bok were also present at the announcement.

## Islamic leader funds program

By Sam Osofsky

The Aga Khan, the leader of about 15 million Ismaili Muslims, has bestowed an approximate \$9 million grant to a joint Harvard University-MIT program for Islamic Architecture.

The grant will provide \$900,000 per year for the next ten years to continue and expand the program.

The Aga Khan established the program in 1979 with a gift of more than \$11.5 million.

Ata Safai, assistant director of the program, described the first phase of the program as "laying out the foundation for a very broad, comprehensive approach

to Islamic architecture."

The program is projected to "strengthen and expand the academic programs at Harvard and MIT [which would] result . . . in a [degree] program at Harvard, and, on the MIT side, an increase in the number of PhD students."

The program will use part of the new grant to continue these activities, but it will allocate the major share to support two new activities, according to program information.

● A new master's degree program in Design for Islamic Cultures at the MIT School of Architecture and Planning is planned, as well as new courses at Harvard's Graduate School of Design. The new master's degree program will admit its first students fall term, 1985.

● The program will also try to collaborate its efforts with those of some parallel institutions in the Muslim world.

The program will expand its efforts in historical studies, student financial support, seminars, publications, as well as documentation services and library collections.

The program will provide a center for study — "a nucleus for gathering . . . all those peo-

ple who are specialists in the field," Safai said.

The final objective is "to root the program in an exchange of ideas with programs and institutions all over the world in Muslim countries," he explained.

This will be accomplished "through exchange students and faculty, joint research, teaching, sabbaticals, projects of mutual interest and exchange of information . . . to try to see how we can pass on the experience we've gained," Safai said.

Until now the program has concentrated on the following areas: the introduction or expansion of related curricula, grants to doctoral students in the history of Islamic art and architecture, short term travel grants to students and research grants.

The program has also included a lecture series, conferences, a summer seminar series, publications, related grants and library and information resources.

Safai emphasized the program's successes in conferences and information resources. "Aside from the expansion of the program's archives, the program has achieved "the development of computerized storage and retrieval

(Please turn to page 12)

## NSF to provide funds for DEC supercomputer

By Lisa Doh

The National Science Foundation (NSF) has granted \$70 million to the Consortium for Scientific Computing. MIT is a member of that consortium.

The funds will enable the consortium to establish a supercomputer center in Princeton, NJ, according to Erich Bloch, director of NSF.

The group hopes to install a Class 6 Supercomputer by 1987. The supercomputer, powered by 8000 Digital Equipment Corporation VAX minicomputers, will be the fastest available computer when it is completed.

The supercomputer can execute a job which would require a regular computer one month to complete in less than 30 minutes, according to Professor James D. Bruce '60, director of MIT Information Systems.

Bloch said the computer's speed will give investigators the opportunity to investigate new areas of research and to do so at a pace never before thought possible.

Bruce and Robert A. Brown, professor of chemical engineering, are coordinating the project at MIT.

The funds will aid the development of modern computing, Bruce said. The supercomputer center will function as major contributor in advancing technology and research, he continued.

Each of the twelve members of the consortium will have access to the supercomputer.

The consortium includes MIT, the University of Colorado, New York University, the University of Rochester, Brown University, the Institute of Advanced Studies, Rutgers University, the University of Arizona, Harvard University, the University of Pennsylvania, Princeton University and Pennsylvania State University.

NSF has also awarded funds to three other university groups for establishing their own supercomputer centers. They have designated Urbana, IL, San Diego, CA and Ithaca, NY, to be the centers of their networks.

## State court upholds nerve gas ban

By Julio Friedmann

The Massachusetts State Superior Court upheld a Cambridge regulation Feb. 26 that prohibits nerve gas research in Cambridge by Arthur D. Little, Inc.

The intent of the order is similar to a 1983 Cambridge referendum which proposed a ban on nuclear materials research. Both orders were planned to prohibit research which the city council believed would be harmful to citizens, science and industry.

Cambridge voters rejected the nuclear materials proposal.

The present court order will stop the operation of Little's Levins Laboratory Complex for Safe Handling of Toxic Materials, a new multi-million dollar

chemical testing installation in Acorn Park.

John F. Magee, president and chief executive officer of Little, stated in a letter sent to the citizens of Cambridge Jan. 28 that the toxic chemicals being tested were "no more volatile than water" during transport and containment.

The letter also said that Levins Laboratory far exceeded safety standards established by the federal government. The letter stated that testing could not be done in isolation without moving most of the Little complex out of Cambridge, its international headquarters for 99 years.

The Cambridge City Council asked that Little move its nerve gas research from the city or end

it because of the hazard presented to Cambridge residents.

The council felt that risks of accident or contamination outweighed the possibility that Little's research might lead to improved methods of removing contaminants from the environment.

Superior Court Judge Robert J. Hallisey said there was no concrete evidence that the research activities at Levins Laboratory threatened Cambridge's population or that the facility was unsafe.

Hallisey nonetheless supported the city's mandate, claiming that there will certainly be an appeal. He said that his decision would not set a precedent for city legislation overruling government standards.



Tech photo by Steven Wheatman

Arthur D. Little Inc. Levin's Laboratory Complex located on Route 2 in East Cambridge. The recent ban on nerve gas production in Cambridge would force the operations of this plant to move elsewhere.

Reporter's Notebook

# Kendall: a metamorphosis underfoot

By Craig Jungwirth

*A lonely clock tower watches over the square. It looms over the passers-by who walk unheeding the changes around them. Pile drivers pound against the broken concrete. They hammer as the subway rumbles underneath. The people are going places.*

Thousands of people pass through it without a thought. They pass by it, under it. It is Kendall Square. But slowly, surely the 13 acre development is undergoing a metamorphosis from a primarily industrial area to a high-tech, mixed-use mecca.

Kendall Square "developed mostly as a center for industry" until the late 1950s to the early 1960s, said O. Robert Simha, director of planning for MIT. But as heavy industry in East Cambridge waned, Kendall Square became "kind of a run down area," he said.

The Cambridge Redevelopment Authority (CRA) has supervised the sometimes successful, oft-times agonizing, transformation of Kendall Square over the past 25 years.

As the country changed in those turbulent years, so did the square.

dall Square from among 160 areas as the site for the research center three months later.

In the summer of 1965, NASA became the messiah of Kendall Square with the blessings of federal, state and local governments. The Cambridge Redevelopment Authority (CRA) delivered 14 acres for NASA buildings within the 42 acre Kendall Square urban renewal area.

### NASA abandons Kendall Square

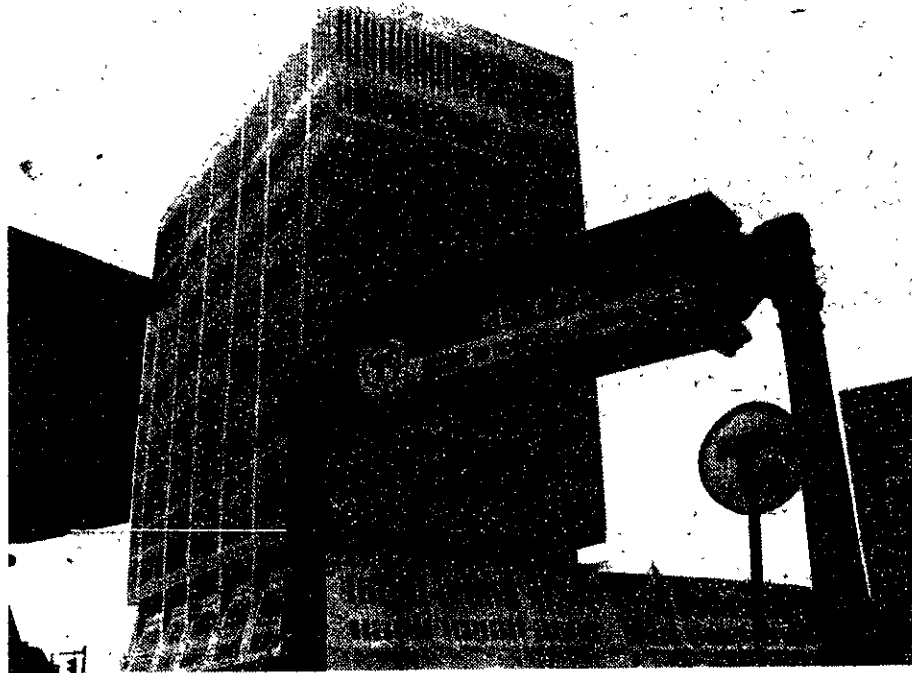
*Memories of the late '60s ebb. The redevelopment of the square was one small step away in those days. We went to the moon instead.*

Three American astronauts landed on the moon in July, 1969. The repercussions of the lunar landing were also felt on earth.

In December of the same year, NASA created shockwaves. It pulled out of the Kendall Square project without prior notification to Cambridge or the CRA.

Congressional funding in FY 1968-70 had dwindled. The optimism of the early '60s had faded.

"We were in a state of shock around here," said Robert S. Remer, CRA deputy executive di-



council adopted the plan by an 8-2 vote.

In 1974, a Congressional report cited the possible use of HUD discretionary funds for the completion of the redevelopment in Kendall Square. The report stated that the funds were to be used to aid communities faced with unusual local programs "such as Cambridge, where the situation is characterized by the failure of the Federal Government to complete its planned development."

It was 1975. Prospects for completing the project, started a decade earlier, finally looked good.

President Gerald R. Ford signed the legislation into law. The legislation limited Cambridge's project-related expenses to \$6 million, most of which were covered by Section 112 credits granted to the project by MIT.

Section 112 credits were granted to Cambridge "in the case where the [Kendall Square urban renewal] project was located within a certain distance of property of owned by," MIT, Simha said. The "value of land acquisitions within [a prescribed] distance" of the redevelopment area were used by Cambridge to finance the project "at [almost] no cost to the city," Simha explained.

### Alternatives

Three city groups developed alternative redevelopment plans:

#### ● Cambridge Civic Association Plan

The Cambridge Civic Association (CCA) issued a plan for redevelopment following the CTF recommendation. This plan contained 300,000 more square feet than the CTF plan did primarily for tax-generating uses.

#### ● Neighborhood Plan

MIT, the East Cambridge Planning Team and the Kendall Square Business Association formulated the Neighborhood Plan. Their plan would have increased tax returns and expanded the mix of land uses compared to the CTF and CCA plans. It included industrial uses, but also proposed residential and increased office, hotel and retail space.

#### ● Manager's Plan

Faced with conflicting views, the Cambridge City Council asked the City Manager to prepare a recommendation. He proposed a more intensive and varied land use plan than the CTF or CCA plans, but was less varied and slightly less developed than the Neighborhood Plan.

### Forging ahead

In the fall of 1974, the city council endorsed the Neighborhood Plan. The Urban Land Institute, a consulting firm, reviewed the plans for Kendall Square.

Their efforts culminated in unanimous approval of an amended Urban Renewal Plan and a special mixed-use zoning ordinance for Kendall Square in October, 1977, which included:

- expanded objectives to reflect those expressed in the early 1970s by the City Council with respect to jobs, the tax base, transportation and the environment;

- zoning controls were revised to reflect mixed-use needs rather than industrial interests;

- permitted uses were revised to reflect those primary marketable uses which would fulfill the city's objectives for job opportunities at a variety of skill levels and provide the flexibility urged

are finally turning around and going our way."

Remer, deputy executive director of the CRA, said construction in Kendall Square began in 1980. The project is scheduled to be completed by 1991, Remer said.

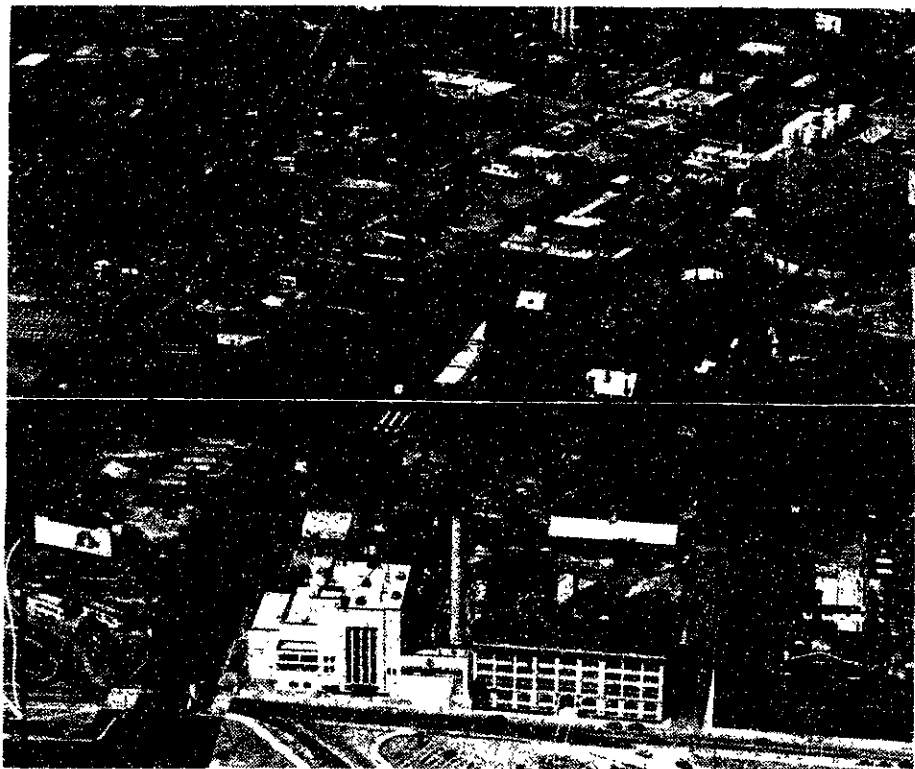
### Status quo

*The photographer captures the moment. It is lost in time. Pavement, its face, has been torn away to expose a new center. The tall structures rise from the foundations, building on the square's past.*

High-tech companies, eateries and retail stores now dot Cambridge Center — Kendall Square reincarnated.

In the five years since the beginning of construction, five buildings have been erected. Physical improvements have also been made to Kendall Square, including the elimination of the traffic circle.

The Urban Mass Transit Administration and the Massachusetts Bay Transit Authority are extending and modernizing the subway station on the Red Line, according to Remer. The renovations, being completed at a cost of over \$7 million, are well underway.



Kendall Square circa 1947.

### On the moon

*Secretaries in their running shoes leave the F&T diner. Young men hurry out of the flower shop by the T stop, roses under arm. Attentions turn elsewhere, to the sky.*

The decade was the 1960s. President John F. Kennedy dreamt of placing a man on the moon before 1970. The Soviet Union had already one-upped the United States when it launched tiny Sputnik into orbit. All of this prompted the National Aeronautics and Space Administration to seek a site for its proposed \$64 million electronics research center.

In May, 1964, MIT President James R. Killian '26, presented to the Cambridge City Council the prospect of attracting NASA to Kendall Square.

The council lobbied NASA successfully. NASA chose Ken-

rector, in *Mass High Tech*. "We felt the city had been seduced and then abandoned by the federal government."

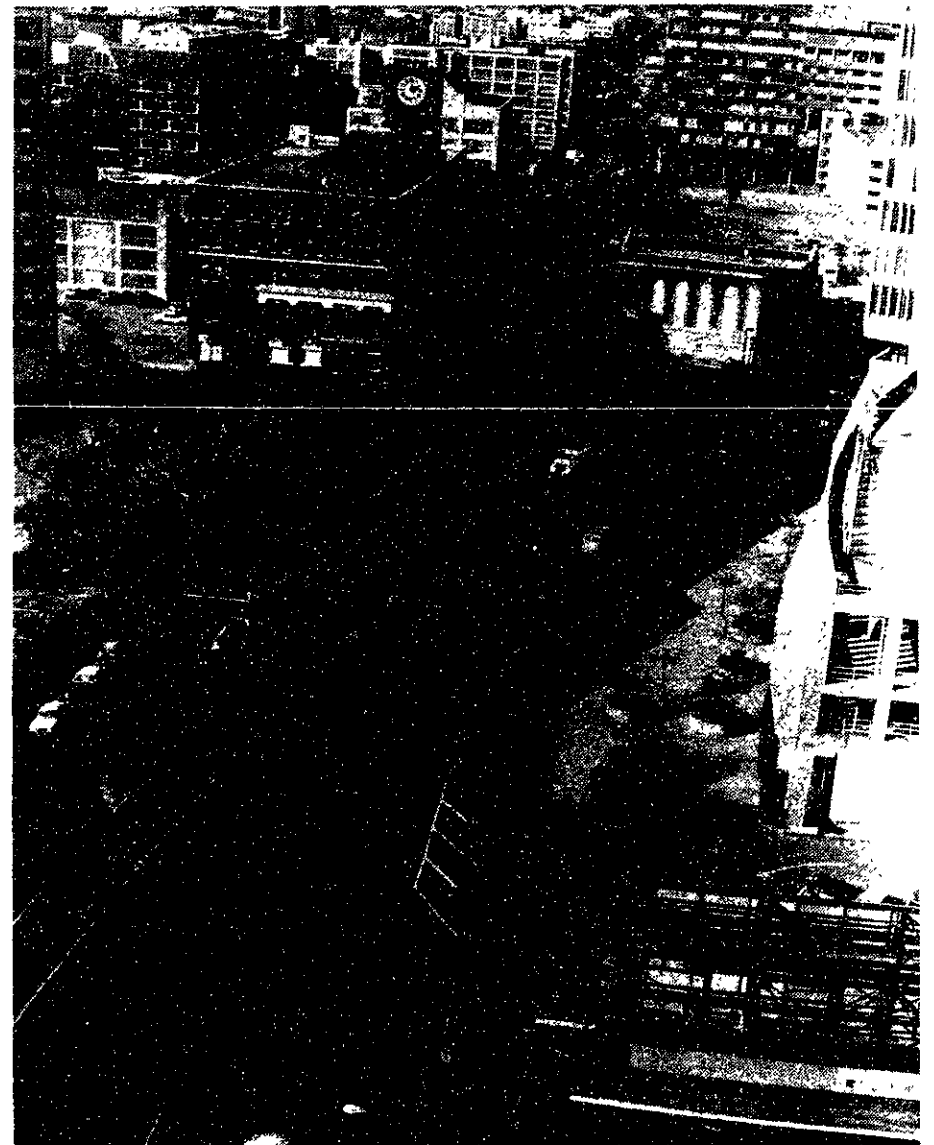
The US Department of Transportation (DOT) became the jilted Kendall Square's next suitor in early 1970. DOT announced a takeover of NASA's six abandoned buildings in the redevelopment project as of July 1, 1970.

### Replanning

The CRA set out to replan Kendall Square's development in 1972 to reflect the change in the square's benefactor.

But citizens' groups objected to the CRA's redevelopment plans. That is why the city council established a Citizens Task Force (CTF) in 1973 to recommend a plan for the redevelopment of Kendall Square.

After internal disagreements, this task force recommended a plan for industrial uses. The city



Kendall Square circa 1984.

by the panel.

The ULI panel did not expect housing to be a major component of the completed development. The panel did not expect housing to be built until the primary uses were developed due to the infeasible economics of housing developed in Kendall Square;

- dimensional requirements of the project were revised to coincide with zoning requirements. Existing buildings in the square would limit the height of new structures to those in Technology Square or at the DOT complex. Market conditions would also dictate against overcrowding of the new square.

MIT fully "supported the plan amendment and ... [urged] its unanimous adoption by the Council so that Cambridge [could] move ahead to realize all its many potential benefits," wrote Walter L. Milne, MIT's special assistant to the president and the chairman, in a letter to Cambridge Mayor Alfred E. Velucci in February, 1977.

The council approved the Urban Renewal Plan in early 1977. It was "a very big vote," said City Councilor Walter Sullivan, in the *Herald American*. "Now things

Legal Sea Foods, the Stride Rite Shoe Corporation's headquarters, Index Systems, Inc. and Computer Corporation of America are the primary tenants in the two building complex at 4 and 5 Cambridge Center. The Whitehead Institute for Biomedical Research is also located in Kendall Square.

US corporate headquarters for Biogen N.A., an international biotechnology company engaged in the commercial application of genetic engineering research, and an R&D facility for Symbolics, Inc., manufacturers of artificial intelligence devices for computers, are also located in the Kendall Square urban renewal area.

"Boston Properties [Cambridge Center's developer] is moving faster than their contract obliges them to move," Remer said. He also said that the completion of a 431 room hotel in Kendall Square "should stimulate further development in the [Kendall Square] area."

*"Like the old gray mare, Kendall Square at the easterly gateway to Cambridge ain't what it used to be. Not by a long shot."*

— Robert S. Remer.

Photos by H. Todd Fujinaka



# news roundup

## World

**Shultz accuses Soviets of violating SALT II** — Secretary of State George P. Shultz PhD '49 accused the Soviet Union of breaking the SALT II pact by developing two new intercontinental ballistic missiles. The agreement allows the United States and the Soviet Union to develop only one new ICBM each. Moscow said that one of the missiles is a "modernization" of an already existing missile, which is permitted by SALT II. Shultz, however, said that both Soviet missiles are clearly new.

**Iraq tells airlines to keep out of Iranian air space** — Iraq warned airlines to stay away from Iranian air space starting Tuesday night because Iraq would start bombing and would not be responsible for commercial airplanes. Iraq also claimed it killed over 15,000 Iranian troops over the weekend in what it calls the heaviest fighting of the war.

**Thousands protest US missiles in Belgium** — Tens of thousands of protestors marched in Brussels against the Belgian government's acceptance of 16 US nuclear cruise missiles. Organizers of the demonstration estimated the crowd at nearly 200,000. The 16 missiles were installed in southern Belgium, after the government announced that it would abide by a 1979 NATO plan calling for their installation this month. Three other NATO countries, Britain, Italy, and West Germany, have also deployed American nuclear arms.

**Thousands protest Portuguese leaders** — Tens of thousands of protestors marched in Portugal against Government economic policies this weekend. The protestors rallied against a proposed plan to restructure some public companies by opening them up to private capital. They also called for the resignation of the leaders of Portugal's Socialist-Social Democratic Government. The rallies were organized by Portugal's Communist-led labor federation.

**Greek Parliament fails to elect a president** — The Greek Parliament did not elect a president Sunday. Christos Sartzetakis, a Supreme Court judge and the only candidate for the position, received only 178 votes. Two hundred votes were needed for election. The ruling Panhellenic Socialist Movement rejected former president Constantine Caramanlis as candidate for re-election. Caramanlis had ruled over a coalition government.

## Nation

**Ohio banks remain closed** — Governor Richard Celeste ordered Ohio's 71 state-chartered savings and loan associations to remain closed until a plan is developed to stop the run on deposits. The order came shortly after the collapse of one of the state's largest savings and loan institutions, Home State Savings Bank, last week.

**Pentagon to study contractor profits** — This spring the Defense Department will conduct the first comprehensive review of profits and accounting procedures in a decade. It hopes to find whether its pricing rules encourage companies to cut costs or, as many critics claim, reward inefficiency. The General Accounting Office, the investigative branch of the Congress, will oversee the Pentagon study and will issue its own evaluation.

## Sports

**How sweet the sixteen are** — The tournament has reached the regional semifinal level in route to the NCAA basketball championship. In the Midwest division Oklahoma, Louisiana Tech, Boston College, and Memphis State have reached the top 16. In the Southeast division Villanova, Maryland, Auburn, and North Carolina have progressed. In the East, Georgetown, Loyola, Illinois, and Georgia Tech have advanced, and in the West St. John's, Kentucky, Alabama, and North Carolina State have reached the semis.

**Navratilova defeats Evert-Lloyd** — Martina Navratilova beat Chris Evert-Lloyd 6-3, 6-4 to win the \$28,000 first prize in the Virginia Slims of Dallas championship. The victory gives Navratilova a 33-31 lead in their lifetime series.

## Weather

**Fair weather ahead** — The skies should be fair through Friday, with highs in the low 50s and lows in the mid 20s.

Edward Whang  
Daniel Crean

The National Bureau of Standards, Department of Commerce has one of the world's largest laboratories for research in

## ROBOTICS

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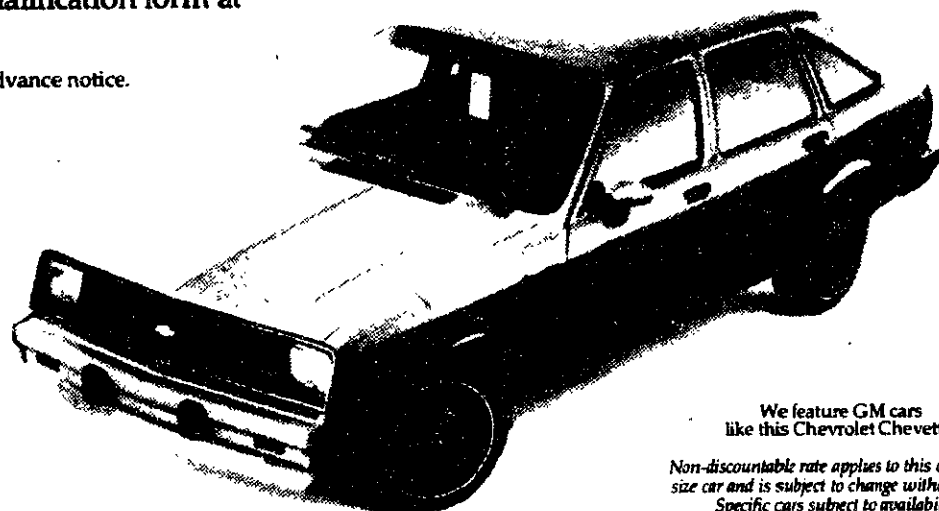
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## JUNIOR YEAR ABROAD PROGRAM: London School of Economics

*Mr. Jim Potter,  
Senior Tutor, General Course Students,  
will discuss with students the opportunity  
of spending their junior year abroad  
at the  
London School of Economics.*

Wednesday  
March 20

10:00 a.m.  
Room 10-280

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# opinion

## Editorial

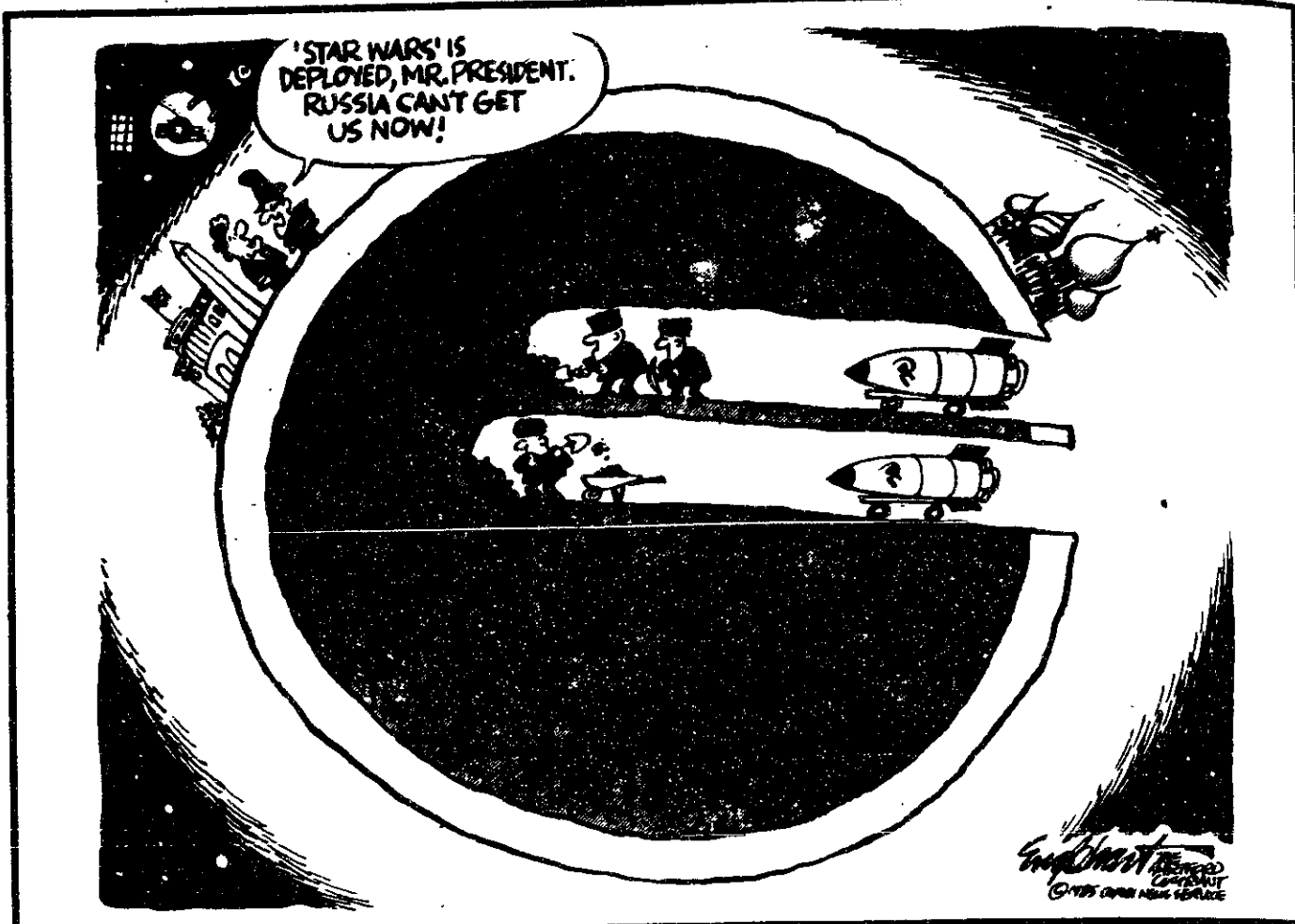
### Health services merit praise

We commend the MIT Medical Department for its swift and effective action amid the measles outbreak at Boston University. In March, BU reported more than 50 cases of the disease. Health officials feared the epidemic would spread to MIT because of the Institute's proximity.

The department immunized over 1200 MIT students within one week. Only a few cases of measles eventually appeared at MIT. Beginning next year, it will require entering classes to be immunized for measles and German measles before registration. Health Services' foresight is praiseworthy.

Members of the MIT community who have not had the ten-day measles or have not been immunized against them should receive the Medical Department's vaccination. It is free of charge and can be administered in 15 minutes.

College age students are the high risk group — most do not have natural immunity. As spring vacation approaches and MIT students travel across the country, they would do well to ensure their immunity.



## The Tech

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Column/Joseph L. Shipman

## Star Wars will protect ICBMs

Do they think we're stupid, or what?

The Reagan administration is presenting its Strategic Defense Initiative, Star Wars to the public, as a population defense. It is supposed to protect us from Soviet ICBMs and render us invulnerable.

I have nothing against the idea of shooting down nukes aimed at me, my friends and relations. Defensive weapons are *prima facie* good things. If I could snap my fingers and have a bunch of them up there, I would.

Of course, it is crucially important that the weapons work. If that were the only problem, I would gladly let the government go ahead, and I would give the researchers my blessing. Unfortunately, there is a very simple reason why Star Wars can't defend our population.

Cruise missiles.

You can't stop cruise missiles from space. They fly too close to the ground for radar to detect them.

Because cruise missiles fly much more slowly and have a shorter range, they do not threaten our ICBMs, which are based well inland. So cruise missiles could not be used in a first strike

against our missile bases.

Soviet cruise missiles, therefore, will be targeted at our cities. And while we may have more warning of a cruise missile attack against our cities than of an ICBM attack against our bases, it is more difficult to evacuate half a million people from a city than to launch a missile from a silo, even with an hour or two of extra time.

For coastal cities only a few minutes away from Soviet subs, there isn't even time to get people to fallout shelters.

The Soviet Union is able to destroy our cities. We cannot prevent it from doing so. The best we can do is make sure that the consequences for the Soviets will be so bad that they will decide they had better not.

So what can Star Wars do? Defend missiles. If we could knock down Soviet ICBMs, we would have plenty of time to decide whether to launch ours. No wonder the Soviets are worried.

The government has argued that SDI will protect us from terrorist attacks and from accidents.

Any terrorist group that can buy or steal a nuclear bomb is going to try and smuggle it into the United States. They would not build a silo and a rocket and

launch it. Even if they steal a missile, it'll be a cruise missile and not an ICBM.

As for the "accident" argument: if, through some crazy mishap, a missile is launched at us unintentionally, we will certainly be able to tell that it is a lone missile and not a full-scale attack. While an anti-missile system would save lives in that case, its real value still lies in being a deterrent to a potential first-strike against our missiles.

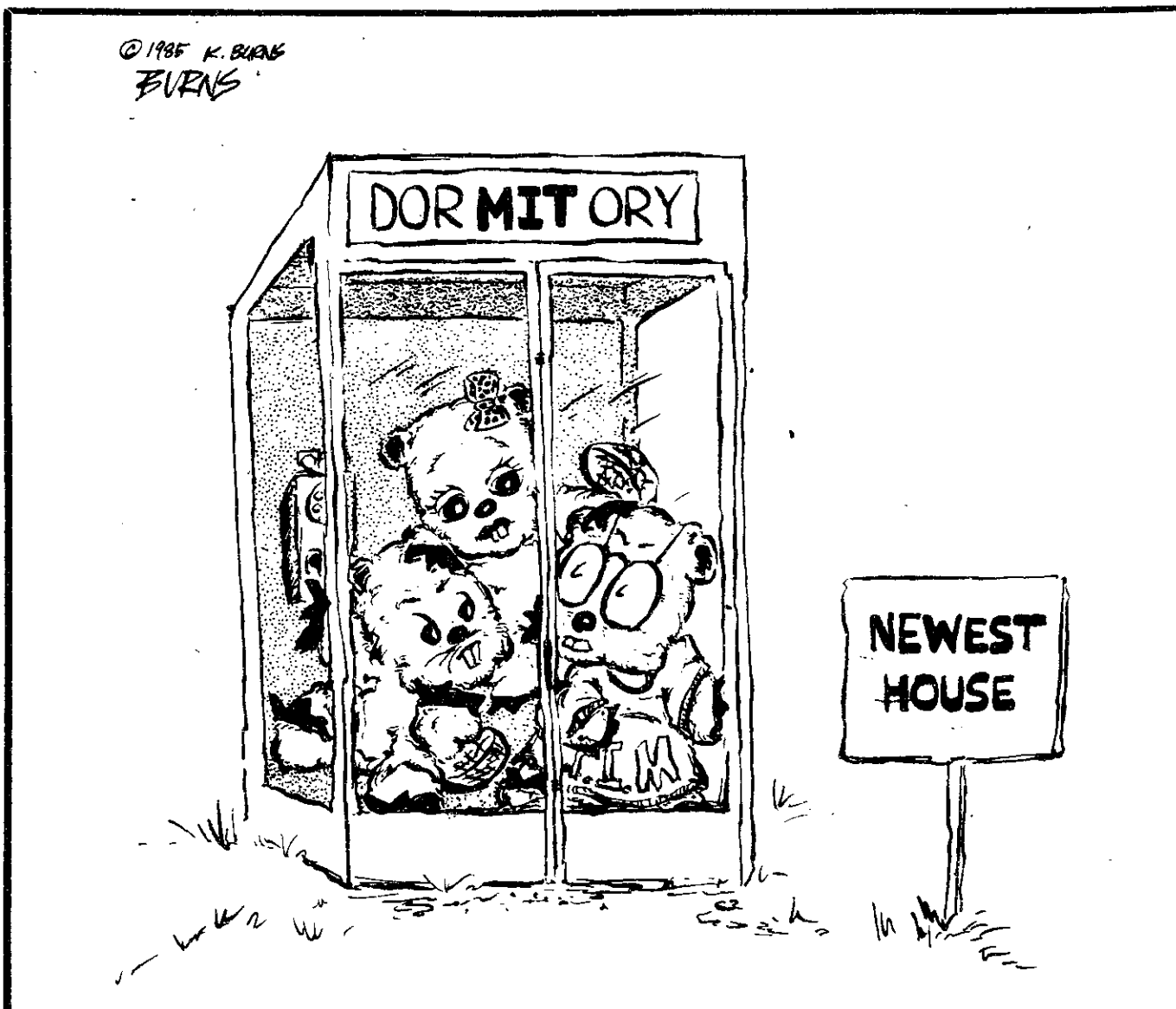
In any case, the Reagan administration wants a system that can shoot down thousands of missiles, not a single errant one. My initial reaction to his "Star Wars" speech, therefore, was:

"Who do they think they're kidding?"

I'm still baffled. Do they expect us to believe that the reason for Star Wars is to protect our population? The Soviets don't, and neither do I.

I am not arguing against SDI. I'm just pointing out the Emperor's indecent exposure. The government should admit that what it is trying to do is protect our own striking capability from a preemptive Soviet first strike.

Whether this goal is laudable or practical will be the subject of another column.



# opinion

## feedback

### Students should look into funding

To the Editor:

Many students and faculty are concerned about the increase in defense sponsorship of research at MIT, and its potential effect on their education. In this regard, the following is a letter sent to the Chairman of the Faculty, Professor Arthur Smith, by Professor Vera Kistiakowsky and 39 other faculty members. The letter requests that a Commission be established to acquaint itself with the facts of military funding at MIT, and to consider the impact of this funding on education.

As students we share the concerns expressed in the letter. We endorse the suggestions in the letter and encourage other students to do so as well. Furthermore, if a Commission is established to study the matter, we request that it include undergraduate and graduate student members.

This letter and the question of establishing such a committee will be discussed at an upcoming faculty meeting on March 20, at 3:15 in room 10-250. We encourage interested students to attend. In addition, we encourage students who endorse the creation of a Commission to sign a petition to this effect. The petition will be available in a Lobby 10 booth today and tomorrow between 10 am and 2 pm. We hope that this faculty letter and student support will initiate a discussion of the magnitude and effect of military funding at MIT. (Editor's note: This letter was signed by 6 MIT students and 11 student representatives from MIT Student Pugwash, the Science, Technology, and Society Student Committee, the Undergraduate Association, the Disarmament Study Group, the Graduate Student Council, the Faculty Committee on Educational Policy, the Student Committee on Education Policy, the Ad Hoc Committee on Curriculum, and the Hunger Action Group.)

Kathy Harrison '85  
Robin Wagner '85  
Erik A. Devereux '85  
David Libby '85  
Stephanie Scheidler '85

(Editor's note: This letter to the faculty was attached to the preceding letter.)

Dear Professor Smith:

In the last few years there has been a national shift of the support for both education and research from the civilian to the military sector. This has naturally had its impact on MIT, which raises the question of exactly what that impact has been, and how it has affected the education of our students.

For example, MIT receives a very large amount of research support from military sources. According to "The Defense Monitor," XIII, 4 (1984), MIT received the largest amount of military research funding of any university in FY83, \$248 million out of a total of \$942 million for

all universities. Johns Hopkins was second with \$227 million, and the Illinois Institute of Technology was third with \$42 million.

"MIT Reports on Sponsored Research 1983" gives the figures \$31.9 million for DOD funding of oncampus research and \$193.7 million for DOD funding of Lincoln Laboratory, but DOD is not the only source of military research funding. The DOD funding increased from 12.5 percent of the total oncampus research funding in 1981 to 16.0 percent in 1983. If this represents a change in the type of projects available for UROP, senior theses, and graduate research, then it clearly has an impact on education at MIT.

Another example is the much more active role that ROTC now plays on campus, in terms of visible activities, letters from commanding officers to the MIT faculty, recruiting trucks on campus, etc. As the civilian sources of financial support for students are further cut, more and more will have to avail themselves of the increasing number of scholarships offered by ROTC. Again, this is a change in the educational environment.

A third example stems from the national shift of R&D towards the military sector, which

has the consequence that new jobs open to MIT graduates increasingly fall into this category. In FY80 military R&D took 47 percent of the total Federal R&D budget.

In FY84 this became 70 percent, a 48 percent increase. Military R&D now accounts for one third of all research, public and private, in the USA according to "The Defense Monitor," XIII, 4 (1984). Since our responsibility does not stop with the classroom, but includes making it possible for our students to enter productive and appropriate careers, this is also a matter with which the faculty should concern itself.

These three examples do not constitute a complete list of the concerns that prompted us to write this letter. There are further questions; that should be addressed, and these might in turn suggest others.

Therefore, the following faculty members propose that a faculty committee be established to acquaint itself with the facts regarding such changes, to consider their impact on education at MIT, and to report back to the faculty. We request that this proposal be considered at the March faculty meeting.

Vera Kistiakowsky  
Professor of Physics  
and 39 other faculty members

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We want programmers who will create Microsoft High Performance Software. You will have top skills, top grades and achievements and have demonstrated talent in software development and systems programming through relevant experience such as summer employment; work at a campus computer center, graduate research and/or other professional work experience. You will possess a sound base of technical knowledge and show an eagerness to learn and grow. If you meet these qualifications, you deserve to work with the best! Microsoft offers an excellent compensation and benefits package. Jo Ann Rahal, Technical Recruiter, Dept. WZ, MICROSOFT CORPORATION, 10700 Northup Way, Box 97200, Bellevue, Washington 98009. We are an equal opportunity employer.

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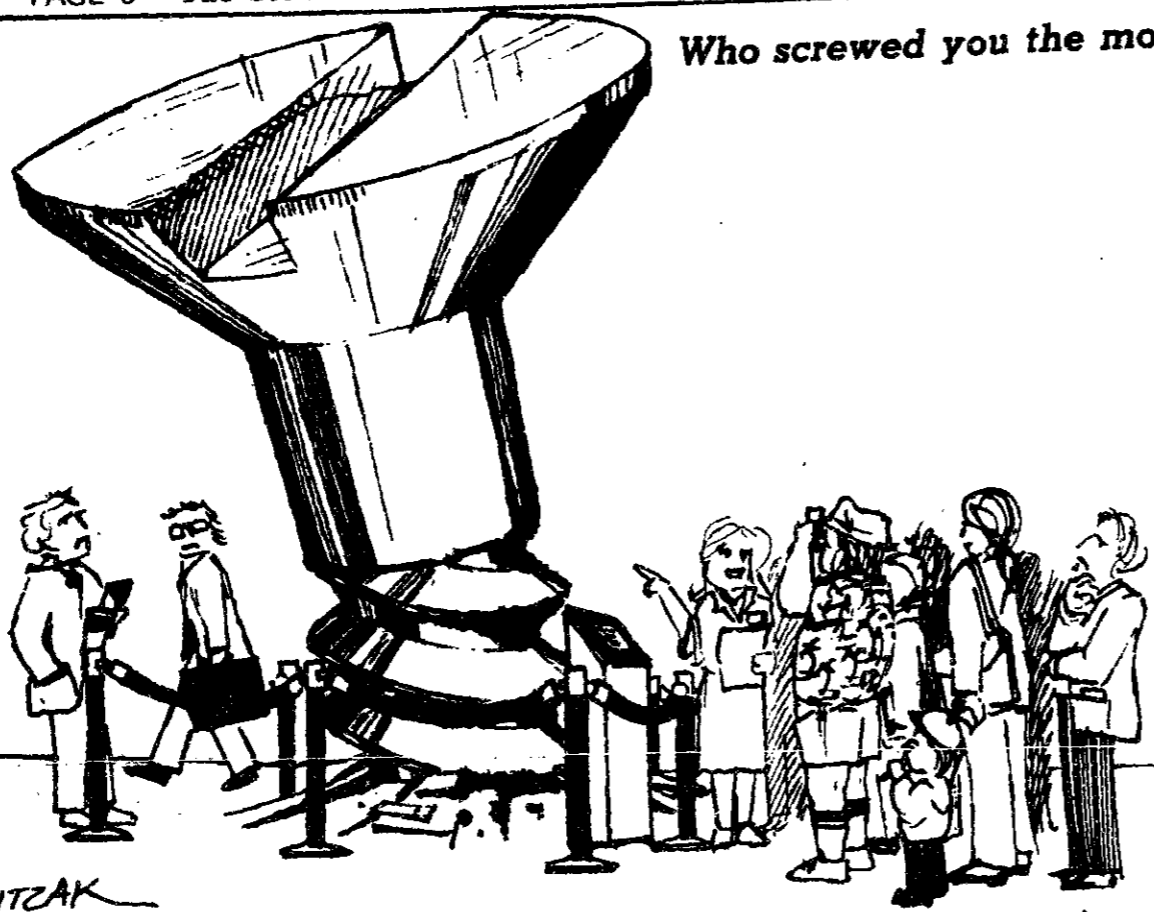


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# opinion

## feedback

### ASA is a representative body

To the Editor:  
I would like to comment on an opinion article by Robert E. Malchman ["UA must change structure," March 12]:

In his article, Malchman contends that "The only power that student government can wield is the allocation of resources: money and space. That power is now diffused among *non-representative* student groups and the Office of the Dean of Student Affairs" (my italics).

As former President of the Association of Student Activities (ASA) and of its Executive Committee (my term just expired on March 15), I have taken the time to comment on the characterization of the ASA and its Executive Committee as "non-representative."

My deduction is that the ASA and its Executive Committee are part of the student groups that Malchman characterizes as "non-representative" since they are, according to the ASA constitution, responsible for promoting student activities at MIT. Specifically, the Executive Committee which consists of six ASA officers and a member of the Dean's Office, is the administrative and judicial body of the ASA.

According to the ASA constitution it is among other things responsible for "assigning space allocation to activities" recognized by the ASA. Hence it falls under Malchman's characterization.

Having established this connection, I would like to explain why I do not agree with Malchman's characterization as far as its application to the ASA and its Executive Committee. The ASA consists of all undergraduate student activities and the body of the ASA is made up of representative of all these activities.

The officers of the ASA are elected by the ASA body and they have to be members of an ASA activity. They also have to be registered undergraduate students at MIT. Hence the Executive Committee is representative of the ASA since it is elected by

its body and its members are students involved in the activities.

As to whether the Executive Committee is representative of the MIT undergraduate students, I believe it is, because any MIT student who is a member of an activity is eligible for office and can participate in the vote by representing his (or her) activity at the ASA body meeting.

I believe that I have, to the extent allowed by this letter, explained why I think that Malchman's characterization of student groups that have power in the allocation of money or space as "non-representative" does not apply to the ASA Executive Committee, a committee within whose powers it is to allocate space to student activities (fourth

floor of the Student Center and certain rooms at Walker).

With respect to Malchman's suggestions for structural changes within the UA and other student committees (ASA, Financial Board, etc.), I would like to commend him on his initiative to propose a specific plan. Whereas I think that his plan is not specific enough and despite the fact that I disagree on some of his suggestions, I feel that it provides a constructive stimulus for further discussion on the UA.

I would like to think that such discussions on this issue will not fade once the elections have taken place, but will continue, maybe in the form of a public forum.

Nick Panayotopoulos '85  
Former ASA President

### Ebony Affair picture's caption was incorrect

To the Editor:

The caption for the picture of the Ebony Affair on p. 10 of *The Tech* Friday, March 8, 1985 demonstrates *The Tech's* ignorance of MIT minority affairs. The caption reads, "The BSU celebrates its 10th anniversary Saturday night at the Ebony Affair."

The Ebony Affair is sponsored by the Black Graduate Students'

Association (BGSA) not the Black Students' Union (BSU) (they are not the same). We were celebrating the 10th anniversary of the Ebony Affair not of the BSU. Finally, the BSU was founded in 1968: 1985-1968=17 not 10 — count it.

Bernard Loyd G  
Member, BSU & BGSA

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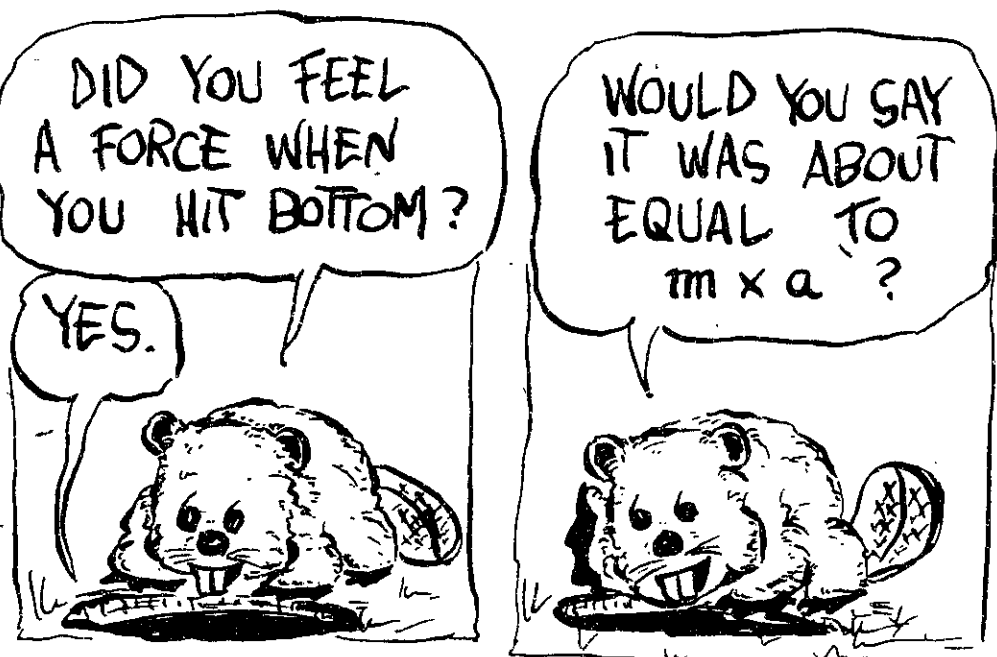
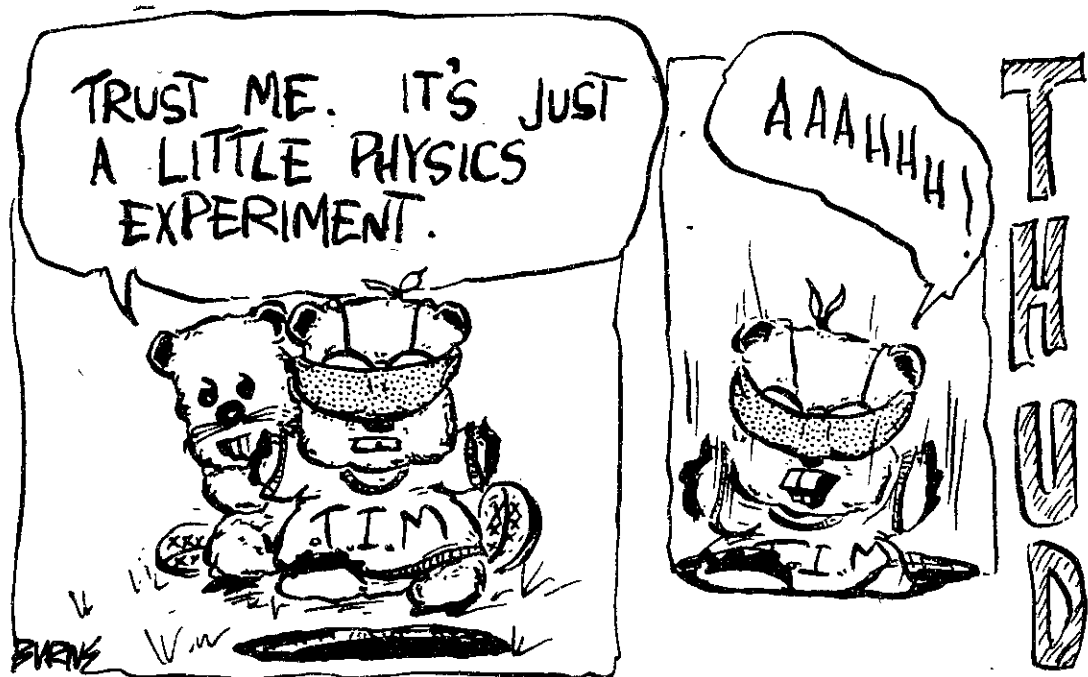
Knowing about cancer is a first step in curing it.

- Have a history of polyps.
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American Cancer Society

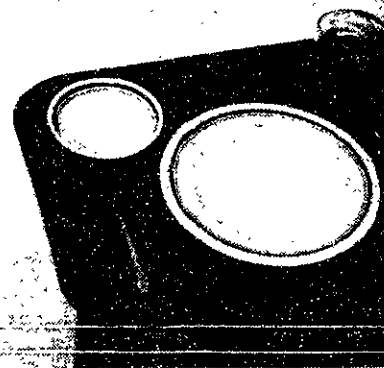
# comics

.T.I.M Beaver  
By Kevin Burns



## "NO KNIFE"

Jacques Lipchitz  
Sculptor and Collector



Tech photo by Simson L. Garfinkel

Protesting recent trends in art, hackers sneaked into the Arts and Media Technology building Monday night and set up this exhibit with the following placard:

### "NO KNIFE"

"A study in mixed media earth tones, number three.  
"Realized by James Tetazoo. December 1984.  
"The artist's *mode d'emploi* relies upon minimalist kinematic methods; space and time are frozen in a staid reality of restrained sexuality. Temporary occasionalism, soon overcome throughout by symbolic nihilism, pervades our earliest perception of the work. An overturned throwaway obelisk functions as symbolic pedestal; the work rests upon a manifestation of grey toned absence. Epicurean imagery is employed most effectively by Tetazoo; the glass, the porcelain, the plastic move in conflicting directions and yet are joined in a mood of stark pacifism. The sterile lateralism of the grouped utensils (*sans* knife), conveys a sense of eternal ennui, framed within the subtle ambience of discrete putrefaction. The casual formalism of the place setting draws upon our common internal instinct of existential persistence to unify us with the greater consciousness of human bondage."

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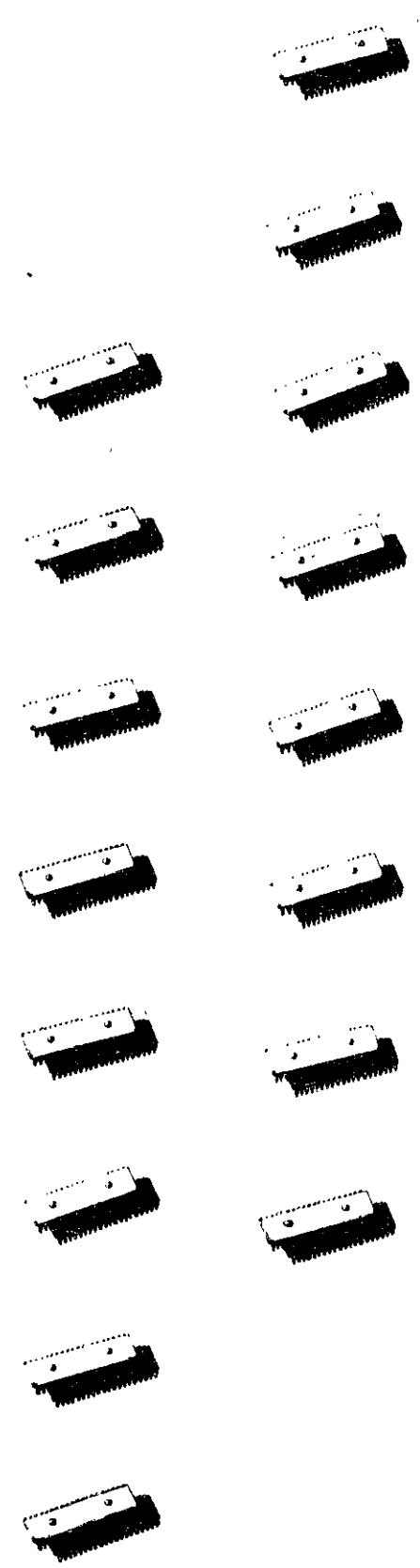
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\*UNIX is a trademark of AT&T Bell Laboratories.



# MIT's Project Athena announces The Grand Opening on March 19, 1985 of the Student Center Cluster

Starting March 19, 1985, all MIT undergraduates may obtain Project Athena computer accounts at the Julius Stratton Library on the fifth floor of the Student Center (Building W20).

The Student Center facility has six Digital VAX/11-750 computers with 37 IBM and Digital terminals, and personal computers acting as terminals, attached to them. This facility is the largest Athena facility, with 5000 square feet of space. The Student Center Committee and the MIT Libraries agreed to donate the space for the cluster to Athena.

If you want to get an Athena account at the Student Center facility, you will need to register with Project Athena. Students who have taken courses supported by Project Athena need not register again; we have already created accounts for them on one of the Student Center machines.

If you don't have an account already from previous enrollment in a course supported by Project Athena, you should register by using the Project Athena Registration Program.

Articles on the next page explain why you should want to get your Athena account and how you can activate it easily.



## The Student Center Is For You!

Take advantage of the opportunity you have, as an MIT undergraduate, to obtain computer resources free of charge. Even if you have no experience with computers, you should consider this chance to learn about them. For more information on what you can do with an account, how to learn more about Athena software and hardware, and the other services Project Athena offers to you, read the rest of this special 4-page insert to the *The Tech*.

It contains schedules for Survival courses and Consultant Minicourses that can help you learn how Athena can best meet your needs. A schedule of consultants' hours for the Student Center facility will help you to get assistance. Some articles describe how Athena names its machines and rules about use of the machines. A special episode of *The Legend of Fred* brings some comic relief.

The director of Project Athena, Steve Lerman, adds a few paragraphs about the future of the project. Another article describes the Athena Network.

Finally, we present a welcome from the student members of the Athena staff. Indeed, all of us at Project Athena want to make the Project as accessible to you as we can. That's why we, along with members of the MIT faculty and staff and corporate donors to Project Athena, have made it possible for all undergraduates to obtain Athena accounts at the Student Center.

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Project Athena dedicates this insert to

**Karl Naoki Horita**

an Athena Student Consultant.

March 3, 1983 - January 5, 1985

# Accounts for all undergraduate students!!!

## HOW TO REGISTER FOR AN ACCOUNT

1. Students who do not already have an Athena username MUST first reserve an Athena username by visiting a special Athena Registration Terminal located in the Student Center facility (fifth floor of Building W20). Students who have at one time enrolled in an Athena-supported course already have an Athena username and need not worry about this step in the registration process.

If you cannot run the Registration program and a consultant can't help you with the problem, visit Athena account administration staff in the carrel across from E40-442C (1-5pm) with proof that you are an enrolled MIT student.

2. Once a student has reserved an Athena username, Athena creates an account automatically (within 1-2 days) on one of five user machines in the Student Center facility.

Accounts at the W20 facility will appear on one of five user machines, based on the first letter of your last name:

A to C — louiswu      D to H — nessus      I to L — prill  
M to R — speaker      S to Z — teela

3. Either before or after you register for an Athena account, you should pick up our free introductory documentation (the Essential series— available in terminal rooms or at the IS Publications Office in 11-209), and attend an Athena Survival course (see article on Survival courses below), to learn how to use your account.

## Why should you get an Athena account?

by Win Treese

Student Consultant Staff

Why would I want an Athena account? Because Project Athena has something for everybody.

Project Athena was founded as an experiment in the use of computers for education. But your Athena account won't restrict you to educational software. Athena offers many other tools that help you do your course work.

### Writing Papers and Reports

Athena has several programs that make typing, proofreading, and re-typing less frustrating and time consuming. Using Athena's *emacs* text editor, you can compose, rewrite, and edit your work without creating multiple drafts.

You can run your papers through the *spell* program to correct errors with ease.

Check your diction and writing style with the *diction*, *explain*, and *style* programs.

If you want your work to look professional, run it through the *Scribe* formatting program. *Scribe* can justify margins of text, create indexes and tables of contents, and insert footnotes at the bottom of the page.

### Help With Lab Reports

Those of you who are taking lab courses try *RS/1*, an "automated laboratory notebook" program created by Bolt, Beranek, and Newman, Inc. *RS/1* makes it easier to write lab reports and generate graphs. It can help you analyze statistical data.

There are many "fun" programs too. The mail system lets you send messages to your friends on campus: those with Athena accounts, and those with accounts on Chaosnet, MIT's other computer network.

Athena now supports four popular languages: C, *Fortran*, *Pascal*, and *Lisp*. If you want to learn a language, you can take an MIT computer

course. To learn *Fortran*, take 2.10; for *Pascal* take 1.00; take 6.001 to learn *Lisp*.

## What's in a Name?

by Dave Grubbs

Software Release Engineer

When Project Athena first installed clusters of computers around the campus, the Athena staff decided to extend the Greek mythology motif begun with Athena, goddess of wisdom, by naming individual machines after the gods and goddesses, heroes and heroines, and other notable personalities of the mythological world. So the Building One machine names are zeus, hera, poseidon; the Building Eleven names are atlas, apollo, charon; and so on.

The problem is, we ran out of suitable names. New machines names now come from characters in the Twentieth Century mythology - Science Fiction. That is why you won't recognize the Student Center Cluster names unless you have read

Larry Niven's *Ringworld*.

For those of you who haven't had this pleasure, a brief introduction is in order.

*louis wu*

Louis Wu has just celebrated his 200th birthday. Wu leads a very cyclic life; every twenty years he becomes dissatisfied with human companionship and seeks relief by exploring the reaches of known space. On these excursions, he usually travels alone. As Wu begins his third century of life, he is itching for another trip.

*nessus*

Nessus is a creature known as a "Pierson's Puppeteer." Puppeteers are very intelligent beings that walk about on three legs. Each puppeteer carries two heads, flat in shape, which are "mounted on flexible, slender necks."

Nessus' people discovered the Ringworld, an artificial ring the size of the Earth's orbit which circles a sun far beyond the reaches of known space.

*speaker*

Speaker-to-animals is a member of the *kzin* race. The *kzin* are one of the most savage life-forms in known space. Your average *kzin* walks upright and looks like an eight-foot tall orange tabby cat. They like to eat meat that has been warmed to body temperature.

*teela*

Teela Brown is a twenty year old human who becomes Nessus' final recruit. Nessus, the puppeteer, believes Teela is Earth's luckiest human being because Teela is the sixth generation of her family to be born by reason of winning birth lottery tickets.

*prill*

Prill is the last of the Ringworld engineers. That is, she thinks she is. If you want to find out what happens when she meets up with Nessus' crew, you'll have to read the book.

## Athena Minicourse Series

by Greg Greeley

Student Consultant

This term Project Athena will present a series of one-hour minicourses that will explain various components of the Athena system.

If you wish to learn more about the system, these courses are highly recommended.

Each course will be short, and will include a "hands on" session directly following each class.

The first three courses in the series are:

### A Blackboard Tour of Athena

If you have never used the Athena computer system before, this is the course you should start with.

### Editing on Athena

"Editing on Athena" introduces you to the *Emacs* text editor and describes how to use *Emacs* to create and edit files.

### Using Scribe on Athena

"Using *Scribe*" shows you what Athena's text formatter, *Scribe*, can do. The formatter automatically adds margins and page numbers, and can create tables of contents, indexes - *Scribe* can even add footnotes to the bottom of a page.

The minicourses will be held on Mondays and Wednesdays at noon, and in the evening at 7:00. Except for the first Blackboard Tour in the Student Center's West Lounge, all minicourses will be held in the Student Center's Room 407.

### USER MINICOURSE SCHEDULE

NAME	TIME	DATE	LOCATION
Blackboard Tour	7:00	March 18	West Lounge
Blackboard Tour	12:00	March 20	Room 407
Emacs	7:00	March 20	Room 407
Emacs	7:00	April 1	Room 407
Blackboard Tour	12:00	April 3	Room 407
Emacs	7:00	April 3	Room 407
Emacs	12:00	April 8	Room 407
Scribe	7:00	April 8	Room 407
Scribe	12:00	April 10	Room 407
Blackboard Tour	7:00	April 10	Room 407

(all classes will be held in the Student Center)

## Athena Survival Courses

by Cecilia d'Oliveira

User Services Manager

If you are a first-time Athena user, consider attending a two-hour introduction to Athena entitled "Athena Survival." This Survival course will teach you the basics of the Athena system, such as how to log in to the computer, use the text editor for word processing of documents, send mail messages to other users, and run some of the other programs available to Athena users.

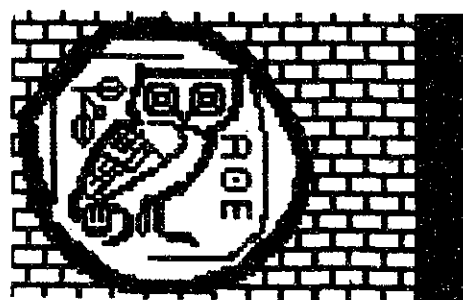
If you plan to attend a Survival course, obtain a free "Starter Set" of the Athena Essential series of documentation from the IS Publications Office in 11-209, weekdays from 11am to 3pm, or in any Athena cluster terminal room. Athena has scheduled the following Survivals for March and April:

Date	Time	Location
Thurs, 3/21	4-6PM	35-225
Thurs, 4/4	6-8PM	34-101
Thurs, 4/11	2-4PM	35-225

course. To learn *Fortran*, take 2.10; for *Pascal* take 1.00; take 6.001 to learn *Lisp*.

If you aren't sure where to start once you have an account, consider attending Athena's minicourse series (see the Minicourse article below).

If you have any questions or problems, look for a student consultant, wearing a Project Athena visor, who can give you help. Read more about our system in the Project Athena terminal room manuals. Once again, welcome to Project Athena!



## Spring 1985 Consulting Hours in W20

Monday	3-5PM	7-11PM
Tuesday	3-5PM	7-11PM
Wednesday	3-5PM	7-11PM
Thursday	3-5PM	7-11PM
Friday		3-5PM
Saturday	No Coverage	
Sunday		5-9PM

## Caveat Emptor (May the User Beware)

by Cecilia d'Oliveira — User Services Manager

We expect that students will use the Athena Student Center facility heavily for course work, text processing, programming, electronic mail, etc. This means that printers will break down and run out of paper frequently, the facility will have a tendency to look used (messy), terminals will be a scarce resource, and the consultants will always seem to be occupied with someone else. The resources will be stretched to their limits. We will do what we can to keep things from getting out of hand, but we will need your help.

With this in mind, we set forth the following rules for the Student Center facility. These rules are not meant to be comprehensive, but to highlight areas that will undoubtedly be the source of the most problems. We will develop and modify this list will over time.

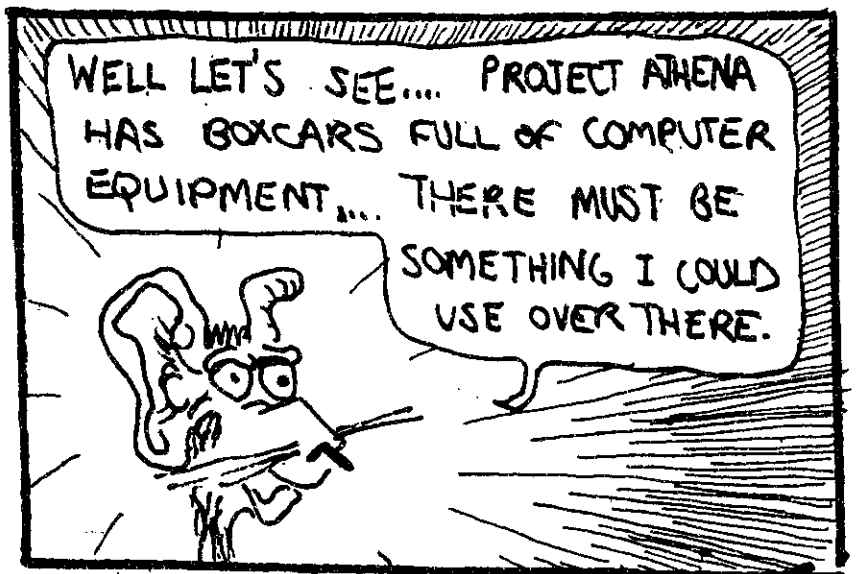
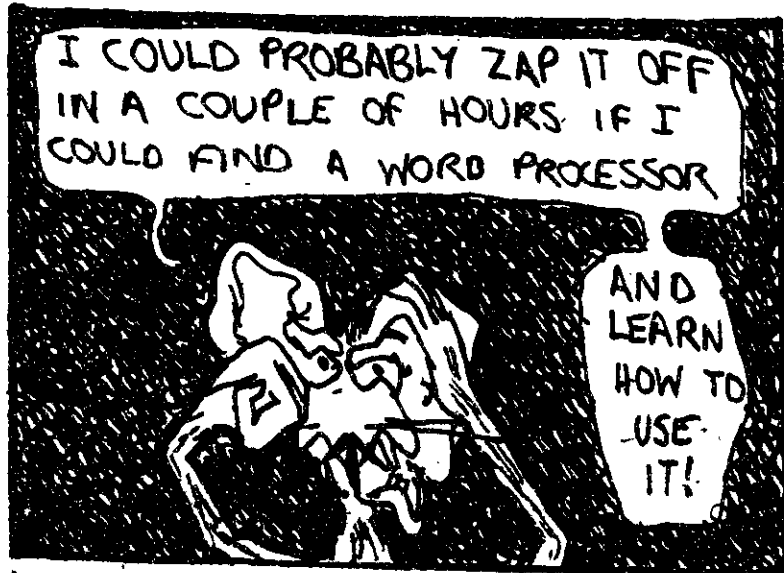
We do not intend to police Athena facilities to enforce these rules. We expect voluntary compliance and we believe that group pressure will be the most effective enforcement mechanism. However, your Student Center account is a privilege. If you abuse it, you may lose it, either temporarily or permanently, depending on the seriousness of the situation.

1. Obey all Student Center library rules—show your id.
2. No smoking, eating or drinking in Athena terminal rooms.
3. Do not move terminal room equipment: call Athena
4. Do not lend your Athena account to a friend.
5. If there is terminal contention, or if the system load is high, do not play games on Athena machines.
6. Don't be a "computer hog." Run "selfish" jobs during off-hours.
7. Do not use Athena printers as copy machines.
8. If there is terminal contention, do not use rlogin, telnet, or the login server to log in to machines outside the Student Center facility.
9. Priorities in the use of the facility: course work, text processing, mail, hacking, then game-playing.

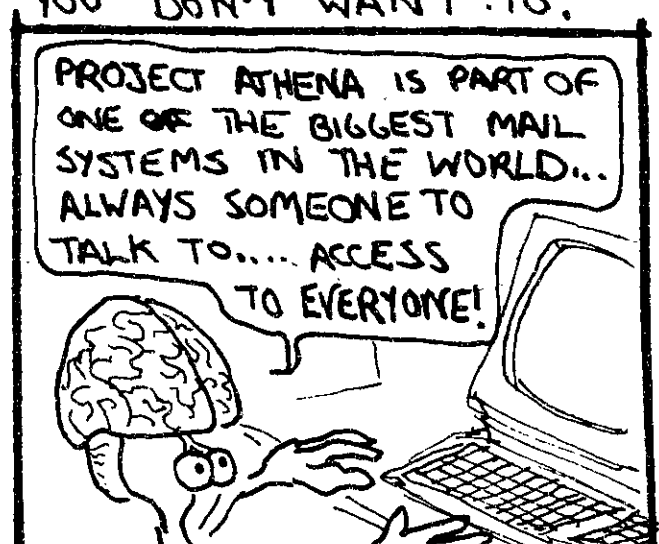
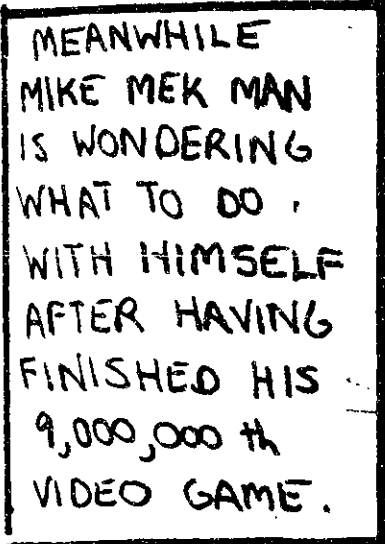
If you have any questions about these rules, please ask a consultant. Thank you for your cooperation.

# The Legend of Fred

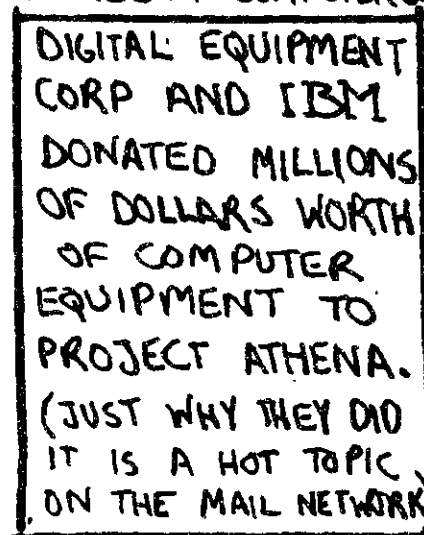
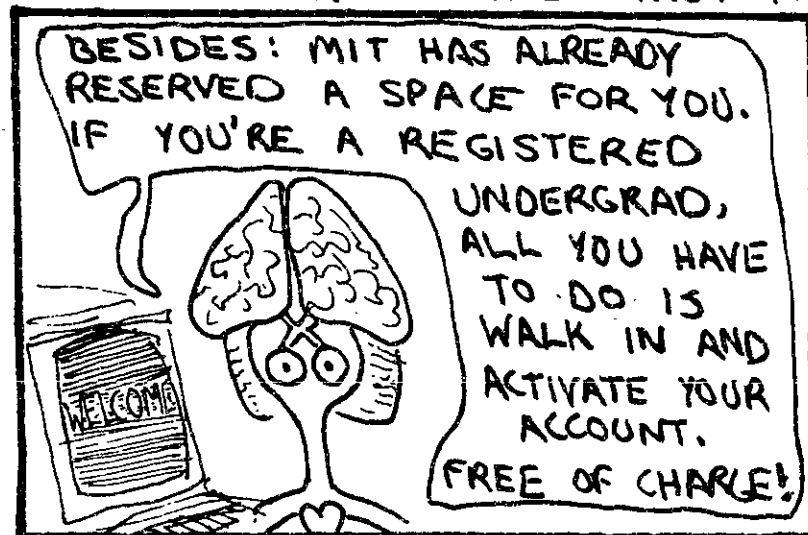
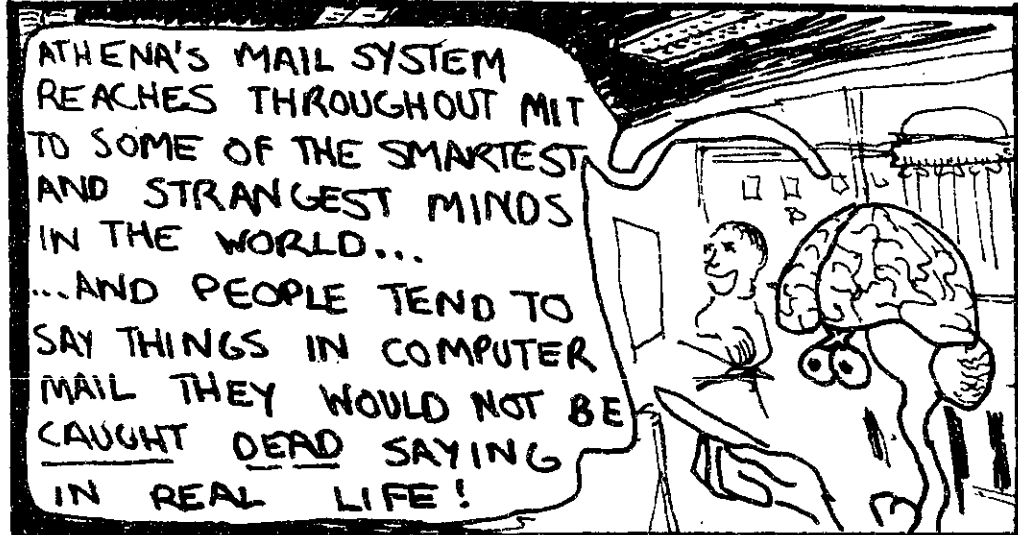
by Jim Bredt



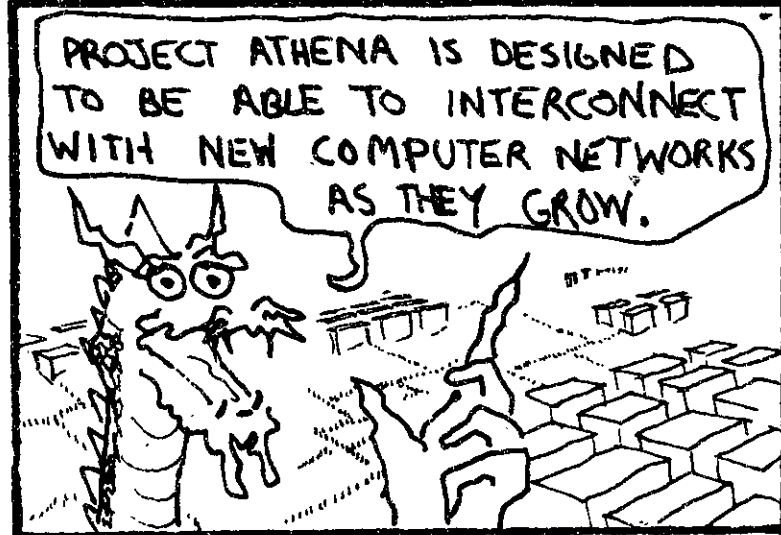
DEAR FRIENDS: YOU ARE NOT OBLIGED TO JOIN PROJECT ATHENA IF YOU DON'T WANT TO.



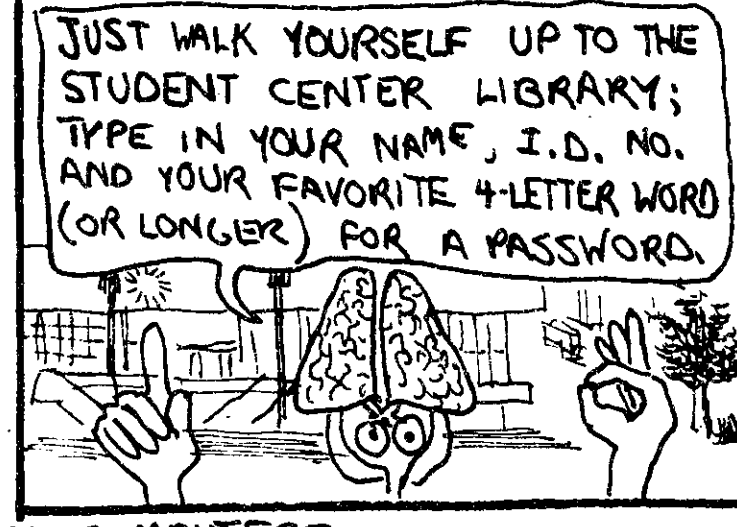
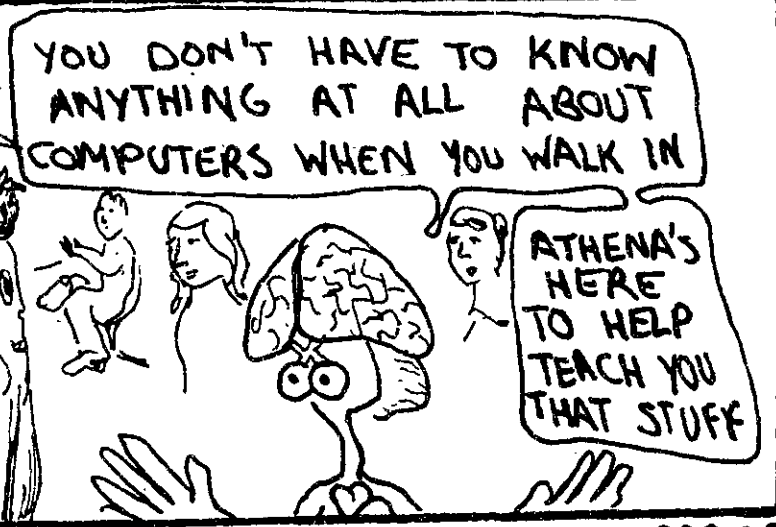
IT IS POSSIBLE TO SURVIVE AT MIT WITHOUT EVER LEARNING THE FIRST THING ABOUT COMPUTERS



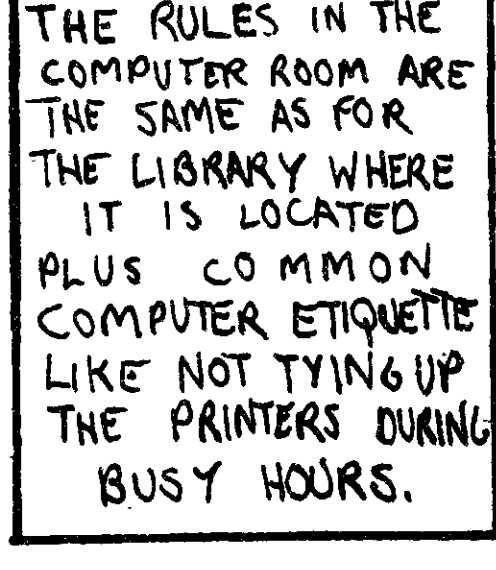
TAKE ME FOR EXAMPLE; JIM B. I DONATED MY 6-FUNCTION BOWMAR BRAIN TO THE



MIT HISTORICAL COLLECTIONS THREE YEARS AGO AND I HAVE NOT EVEN NEEDED TO GET A NEW



CALCULATOR IN ALL THIS TIME; LET ALONE LEARN TO PROGRAM COMPUTERS.



## Page 4 Principles Of Responsible Use Of Project Athena

Steve Lerman, Director of Project Athena, wrote these general guidelines for users of Athena facilities.

Project Athena is a five-year experiment in the use of a large, networked computer system as part of the educational process at MIT. Athena's distributed computer system will open up entirely new ways for members of the MIT community to share information. One consequence of linking the entire community together, however, is the potential for improper use of the system, a violation of MIT's high standards of honesty and personal conduct.

### Intended Use

The hardware granted to Project Athena, and the software licensed for that hardware, are intended only for educational use by MIT community members. Use of Athena resources by anyone outside MIT requires approval of the Provost, and the sale of such use is prohibited. The use of Athena resources for financial gain is similarly prohibited. Use of Project Athena's facilities for sponsored research activities that normally would make use of other MIT facilities is not permitted, except by permission of the Director.

### Privacy and Security

The UNIX (tm) operating system used by Project Athena facilitates sharing of information and software among its users. Security mechanisms for protecting information from unintended access, from within the system or from the outside, are minimal. These mechanisms, by themselves, are inadequate for a community the size of MIT's, for whom protection of individual privacy is as important as sharing. Users must supplement the system's security mechanisms by using the system in a manner that preserves the privacy of others.

For example, users should not attempt to gain access to the files or directories of another user without explicit authorization from that user (unless that user has intentionally made them available for public access). Nor should users attempt to intercept any systems communications, such as electronic mail or terminal dialog. Programs should not store information about other users without the users' prior knowledge. Personal information about another individual, which a user would not otherwise disseminate to the MIT community, should not be stored or communicated on the system without the other individual's permission. Such information includes grades, evaluation of students, and their work.

### System Integrity

Actions taken by users intentionally to interfere with or to alter the integrity of the system cannot be permitted. These include unauthorized use of accounts, impersonation of other individuals in systems communications, attempts to crack passwords or encryption, and destruction or alteration of data or programs belonging to other users. Equally unacceptable are intentional efforts to restrict or deny access by others to any of the resources of the system.

### Intellectual Property Rights

Some software and databases that reside on the system are owned by users or third parties, and are protected by copyright and other laws, together with licenses and other contractual agreements. Users must abide by these restrictions. Such restrictions may include prohibitions against copying programs or data for use on non-Athena systems or for distribution outside MIT, against the resale of data or programs or the use of them for noneducational purposes or for financial gain, and against public disclosure of information about programs (e.g., source code) without the owner's authorization. It is the responsibility of the owner of protected software or data to make any such restrictions known to the user.



Project Athena Staff

## Project Athena's Future Directions

by Steven R. Lerman, Director

Despite its apparent large scale at the current time, Athena is just completing the first of its two, distinct phases. The current phase relies intensively on time sharing systems (the Digital VAXs), IBM PC/XTs, and the recently arrived IBM PC/ATs. This installed base of equipment was granted to Athena to begin the educational experiment without waiting for the next generation of computer hardware. However, the long term future of Athena lies in the hardware and software systems which are part of Phase 2.

The key elements of this second phase will be:

1. A greater degree of coherence between the systems provided by the two manufacturers. Both IBM and Digital intend to develop advanced workstations which run the Berkeley 4.2 version of UNIX.

2. A switch toward single user systems. This will mean a decommissioning of the VAXs from time sharing machines to some form of file service accessed over the network. Single user systems will be advanced, graphics workstations, each with computational capabilities that will give Athena users far better response than our current hardware provides.

3. Extension of Athena's facilities beyond the current public work areas. In the second phase, Athena will extend into dormitories, fraternities, laboratories, libraries, and various departmental areas. This extension will occur over the next three years.

4. Improvements to the software

environment. Work is now underway to prototype software that will give students better interfaces to Athena software and will provide significantly improved graphics, networking facilities, hard copy output, database access and other services. The results of this work will gradually emerge from testing into widespread use on the Athena system as the second phase moves forward.

By the time Athena is over in about four years, I expect that we will have on the order of 2000 ad-

vanced workstations, all networked together to provide computational support to the students and faculty for educational purposes. An entire new generation of innovative, educational software will be created by the students, faculty, and staff of the Institute. The potential of this new set of educational ideas motivated MIT to undertake a project of the scale and difficulty of Athena. The process of realizing this potential will undoubtedly be a difficult one, requiring the help of almost all of the MIT community.

## The Athena Network

by Ted Leung  
Student Consultant

Project Athena links many computers into one campus-wide system with the Athena Network. This network makes it possible to send data between any two computers, similar to the way that AT&T's network allows any two telephones in the country to talk to each other.

Each Athena machine is a building block of a cluster of machines, housed within a room here at MIT. In turn, each cluster is a building block of the Athena Network.

The most visible of the Athena terminal rooms, commonly known as the "fish-bowl," is in Building 11. The newest cluster is in the Student Center. Each cluster houses about six Athena machines. Buildings 1, 4, 11, 38, 66, E40, and W20 contain Athena clusters, and terminal rooms in Buildings 2 and 6 connect to machines housed in Building E40.

Athena named many of the computers after Greek goddesses and gods, so we have names like *mit-athena* and *mit-apollo*.

Because Athena's computers connect to each other through the network, users who have accounts on different machines can exchange files, send mail, or even "talk" to each other if logged in, using the computers at the same time! When one printer breaks down, you can simply send your file to a printer in another cluster.

The network at Athena is like the phone

company's network. You can think of a specific cluster as a local telephone company network. In fact, one computer in each cluster, called the *file server*, routes all communications between computers within that cluster and "long distance" calls to computers in other clusters. The file server also controls the printers in the cluster. To reduce load, file servers have no user accounts. The file server machines for the various clusters are:

Building 1:	mit-zeus
Building 2:	mit-achilles
Building 4:	mit-zeus
Building 6:	mit-achilles
Building 11:	mit-apollo
Building 38:	mit-trillian
Building 66:	mit-dio
Building W20:	mit-ringworld

Network connections to the "outside world" allow users to send mail or talk to users at places other than MIT. *mit-athena* and *mit-charon* connect Athena machines to the Arpanet and the Usenet. All the machines in building 38 connect to MIT's Chaosnet. The network also permits you to dial-up to Athena from a terminal, or a personal computer, with a modem, and log in into any machine on the system, except for the computers in the Student Center.

This brief overview described the capabilities of the Athena network. Athena consultants will be glad to help you use the network in the ways described here.

## Welcome from the Student Staff

by Mike Candan  
Student Consultant

Project Athena currently employs 67 undergraduates. We are involved in just about every phase of the project, including building and maintenance of new clusters, providing personal help with the system, helping to maintain and improve system software, producing the Athena newsletter, and even doing most of the work on this *Tech* insert!!

Student consultants work in the walk-in centers (the major clusters) to provide help with the system software. The student operators see that the hardware is up and running. About half a dozen students work directly with the software developers, and we have another half dozen sprinkled in with the administrative personnel and assisting various staff members.

This cluster is for you! We're here to help, so please don't hesitate to ask.

### Student Consulting

Christopher Andrews	Vince Light
Jon Athow	Ling Yi Liu
Gregory Belaus	David Lyon
Stephanie Brown	Sofia Merida
Marc Campos	Craig Michelson
Mike Candan	Daniel Morgan
Charles P. Coleman	Mason Nakamura
Tom Crowley	Ernest Prabhakar
Micah Doyle	Annette Rahm
Andrew S. Gerber	Sonya Sakai
Susan Gertzis	Dexter Sealy
Greg Greeley	Kenneth Szajda
Aya Konishi	Greer Tan
Vikram Kuriyan	Yang Meng Tan
Amy Lee	Andrew Thurling
Rod Lehman	Win Treese
Ted Leung	Carl Waldspurger
Leon Liem	Roger Zec

### The Student Operators

Achal Aggarwal	Dave Miner
Jay Adams	Carlos Montero-Luque
Syed Ali	Shujaat Nadeem
Michael Bernard	Sohail Qadir
David Carter	Mark Roman
John Gray	Edward Sieh
Paul Howard	Michael Siemers
Robert Johnson	Gary Webster
Sherman Luk	

### Operations Staff

Paul Boutin	Jack Raush
-------------	------------

### Watchmakers (Operations Software)

John Barrus	Paul Viola
Chris Kaplan	Nate Whitman
Warren J. Madden	Jonathan Wolf

### Administrative Support

Keith Law	Tina Vargas
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### Documentation

Will Doherty	Boris Goldowsky
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### System Development

Jim Fulton	Mark Vandevoorde
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This insert is a paid advertisement, funded by Project Athena at the Massachusetts Institute of Technology. Views expressed in this insert are not necessarily those of the *The Tech*. Offices of Project Athena are in Building E40, Room 443 on the MIT campus; telephone (617) 253-1300. Insert staff: **Editor:** Will Doherty; **Photography:** Shari L. Jackson. This insert was produced at the offices of the MIT *Tech*, by Andrew S. Gerber.

# opinion

## feedback

### Social Darwinism revisited

To the Editor:

I would like to reply to a letter by Paul Lindahl ["Ideas: Social Darwinism and Capitalism are not the same," March 12]. Many people have commented on the length of my previous letter, so I will try to keep this one short.

First, I'd like to set the record straight. I was not quoting Lindahl when I noted that someone had said to me, "I don't have to live life; I can read it." It is strange that Lindahl attributed the quote to himself. I am sorry if Lindahl took it personally. But obviously, it inspired him to write his letter.

Yes, it is unfortunate that I had mentioned Social Darwinism and Capitalism in the same breath without taking pains to make the distinction between the two. I do not doubt Lindahl's motives. I believe that he is a man of idealism. However, all too often have I heard from the mouths of neo-conservatives, "Let them figure it out for themselves."

Whichever way you look at it, leaving the weaker members of society to fend for themselves stinks of Social Darwinism.

What is a laid-off, 40-year-old, blue-collar worker going to do to feed his family? Go to computer programming school? Where is the food going to come from if he does?

Ideally, our government and society should be worrying about long-range problems. But, in the immediate situations, weaker members of society need help.

I believe that, if one expects something from society, society should expect something in return. Life's a big two-way street. I don't understand why the concept of "giving to society" conjures up horrible visions of emptying one's pockets to Uncle Sam. Certainly, you know that one's time and effort is much harder to give.

This is why we are in the predicament we are in today. It is so much easier to give money that people have been hoping that the money would make the problems go away. I am certainly not in favor of free handouts. It is just a crying shame that so many people are unemployed when we know that there are so many things that need to be done. I

### US Post Office recognizes "Next House"

To the Editor:

Evidently the name "Next House" is finally official, according to the US Postal Service. Within one of the USPS's latest publications, the ZIP + 4 guide for 1985, MIT has been broken down into nearly 100 sections, each with its own nine-digit ZIP code.

For the most part, these sections are listed by their addresses; in some cases, in addition to the address, the name of the building or company is also given. For 500 Memorial Drive, "Next House" is prominently listed. For that matter, "New House" is listed as being next door.

Those interested in the actual codes may call 800-228-8777.

For the three years that I lived in Next House, I always hoped that MIT would officially refer to the dormitory by the name used by its residents. Perhaps now that the USPS has picked it up, MIT will follow.

Stuart Gitlow '84

imagine that the profit margin on paying people to do some of these things is too low. Maybe there isn't one.

It is a disgrace for the selfish to pass off Social Darwinism in the guise of "free society." I believe that most of these "freedom-fighters" are selfish, and yet, I have not denied them their right to be selfish. I merely point out what, I believe, are the consequences of their actions.

### Questions for German House

To the Editor:

About the origin of harassment.

I would like to take the opportunity and raise a few questions to members of the German House which are the undersigned of a Feedback letter ["German students harassed by films," March 5].

1) Do you agree that millions of people were gassed, experimented on, and denied their basic human rights by Germans during the Second World War?

You don't have to give your money. Your time and effort are much better. But the "capitalists" don't give. (cf. Industrial Revolution). They have never given a damn.

I hope that I don't have to write again. I running out of metaphors like "Life's a big two-way street." Besides, as Lindahl duly pointed out in his letter, I'm probably stretching my literacy.

Thomas Foo '85

Did your letter try in any way to deal with the German responsibility for the above?

2) Do you advocate that we stop showing any movie that blames any people or country for war crimes?

3) Do you think that people should not be reminded of war crimes because some people or nations responsible for the crimes had enough of remembering and would like to forget?

4) Do you think that the rest of us can forget?

David Israel-Rosen G



don't do it!

RELAX

This space donated by The Tech

## COMPUTERS AND EDUCATION

Third Meeting in a Series on

COMPUTERS AND SOCIETY

TUESDAY, March 19

4:30 P.M.

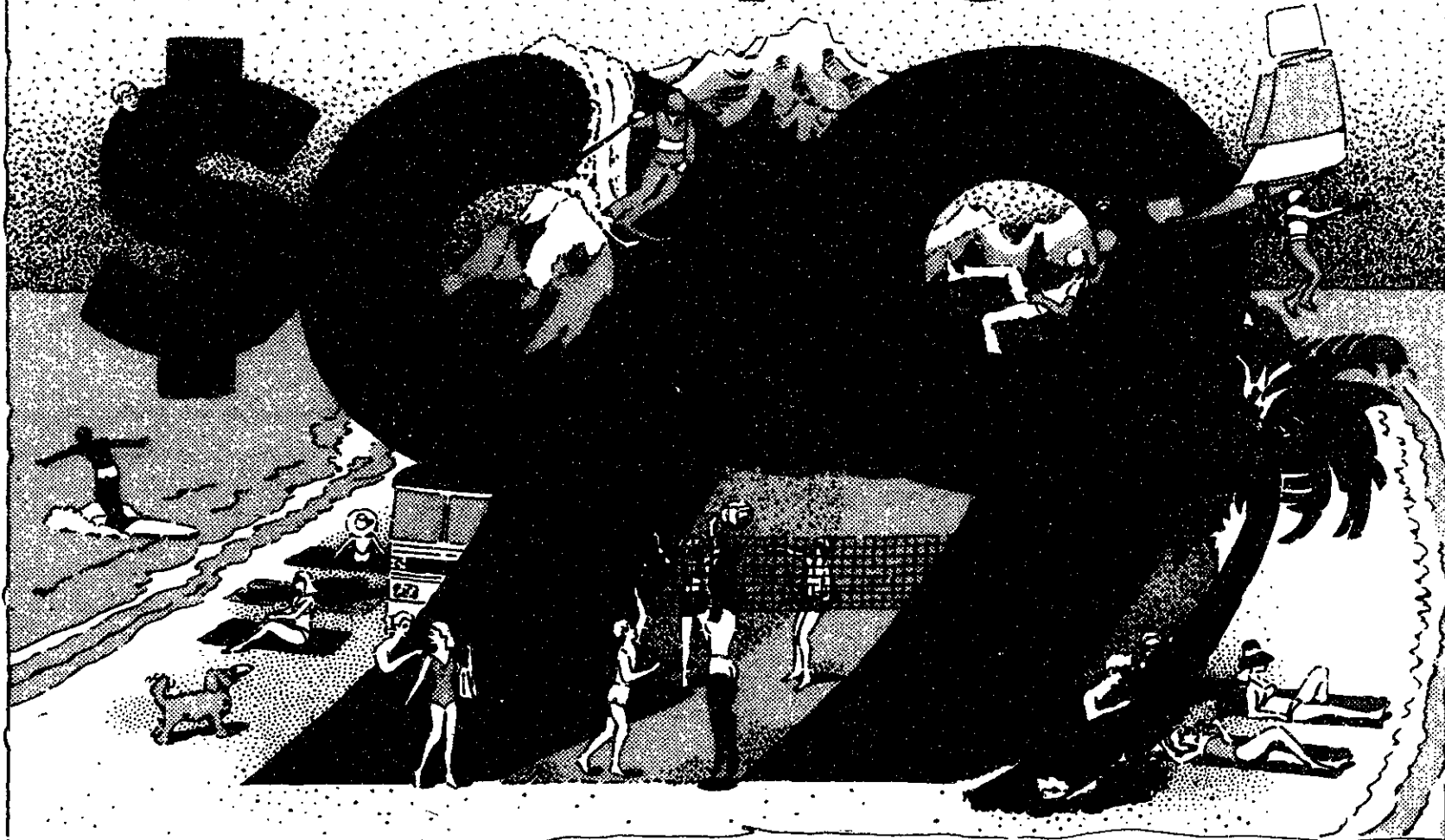
RM. 9-150

Informal Supper and Discussion to Follow

Cosponsored by

The Technology and Culture Seminar and  
The Women's Studies Program at MIT, and  
Computer Professionals for Social Responsibility

# Greyhound gives the Beavers a break on Spring Break.



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So this spring break, get a real break. Go anywhere Greyhound goes for \$99 or less.

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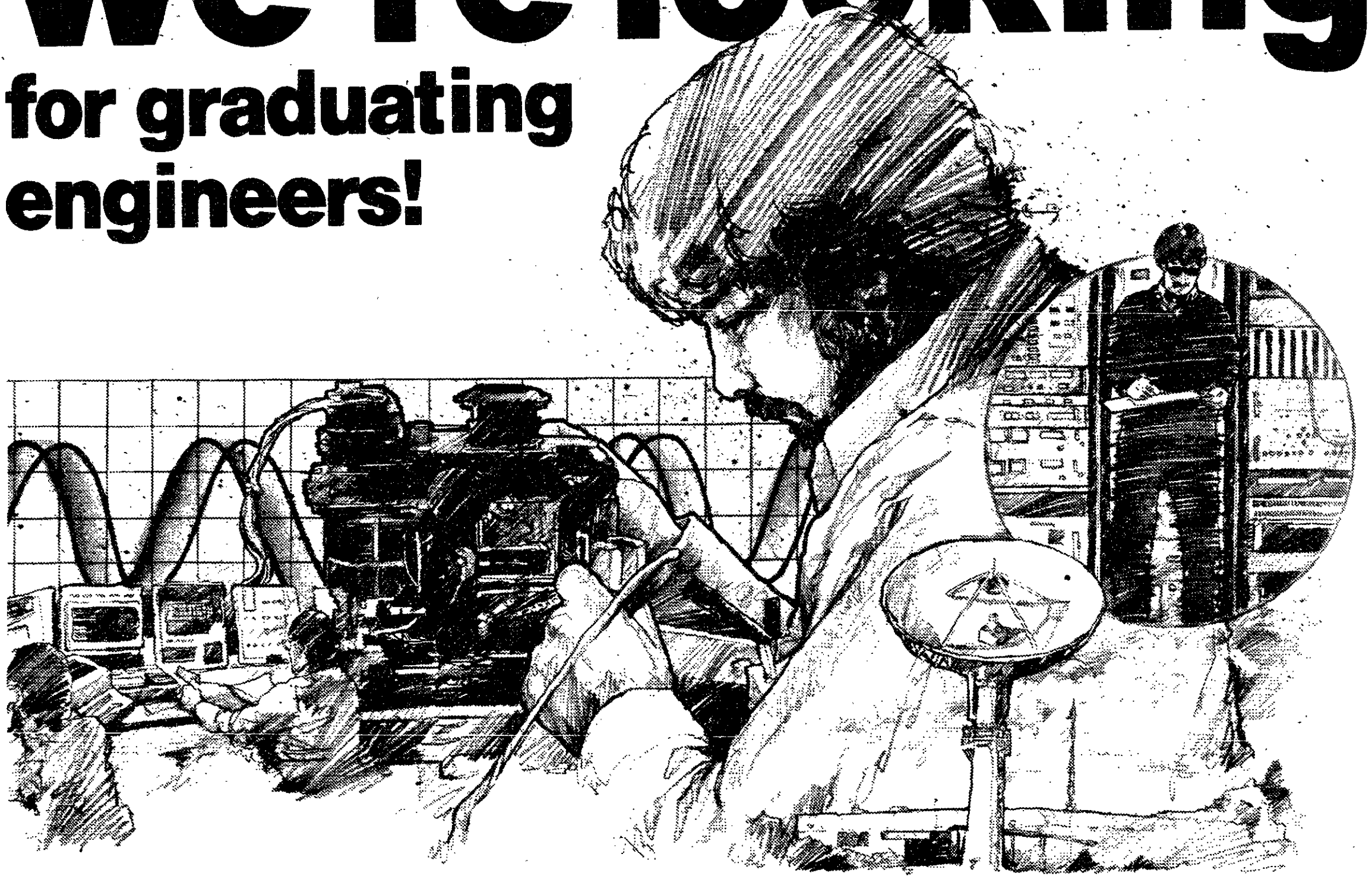
Must present a valid college student I.D. card upon purchase. No other discounts apply. Tickets are non-transferable and good for travel on Greyhound Lines, Inc., and other participating carriers. Certain restrictions apply. Offer effective 2-15-85. Offer limited. Not valid in Canada.

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# we're looking for graduating engineers!



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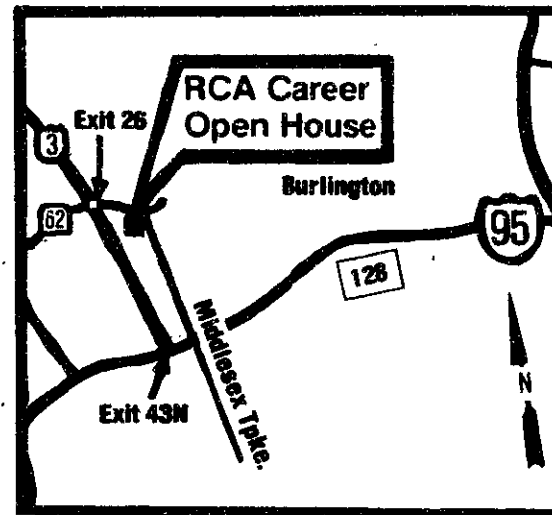
You are invited to tour the engineering laboratories and office areas. Candidates who bring their academic transcripts may get an offer right on the spot!

Here at RCA Automated Systems' Open House and Buffet, you can explore opportunities in:

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## A gloomy picture for democracy

**How Democracies Perish** by Jean-Francois Revel, Doubleday & Co., \$17.95 in hardcover.

Revel takes up the scalpel of a forensic pathologist as he carefully examines the corpses of past democracies. His observations are incisive; his logic is faultless. However, his pessimism about the future of modern democracy is a little overbearing.

Indeed, if anything bad is to be said about this book, it is that Revel is excessive in stating his point of view — no great sin considering the vast amount of claptrap published which denigrates western democracies.

Revel has extensive experience in the field of journalism. It is from this exposure that he draws his basic thesis: a democracy will most certainly fail if its citizens can be convinced that another form of government is superior. To this end, the propaganda struggle between democratic and non-democratic states is as important if not more important than the martial struggles between such states.

In this propaganda struggle, a non-democratic state has a clear advantage: Not only can it determine what its citizens know about the outside world; it can also shape external perceptions of the state in question.

As Revel points out, most journalists in western democracies are concerned with presenting the truth on any given situa-

tion. Their inability to obtain reliable information across controlled borders makes it impossible for the western press to write as extensively about the failings of non-democratic states as they do about democracies.

This not only creates a distinct bias against the democratic states. It also serves to create divisions in western societies. Journalists whose stories concentrate solely on verifiable facts can be unjustly characterized as dupes of the non-democratic states.

This implicit control of information disseminated within democracies in itself works against the proper functioning of democratic states.

Revel has touched on the fate of democracies in previous books. It is hard to agree with his rather dismal predictions in *How Democracies Perish*, however. If the entire human race were as gullible as he fears, the world would never have advanced to the point of its first democracy, much less to where we are today. Also, while the situation is far from perfect, history has made people less sanguine today about making the change to a dictatorship of the proletariat than in times past.

*How Democracies Perish* is quite enjoyable reading. It presents a clear picture of the interactions of democratic and non-democratic states. It is a must for any budding young pols in our midst.

James F. Kirk

## Happy return to youth

**Do Black Patent Leather Shoes Really Reflect Up?**; Wilbur Theatre until April 21. (617)423-4008 or Ticketron. Reviewed March 14th.

"Do Black Patent Leather Shoes Really Reflect Up?" is not another "Sister Mary Ignatius" anti-Catholic tirade. The setting of Catholic elementary and secondary school merely adds to the charm and wit of the performance.

For some, the show might be too simplistic. With all its cuteness and reference to religion's value, "Do Black Patent Leather Shoes Really Reflect Up?" lacks much of a plot. But the humor and charm stem from the empathy developed between a set of characters cast in their raw fragility, and an audience involved in their lives.

"Do Black Patent Leather Shoes? is at heart a vehicle for the celebration of innocence; for revelling in the bewilderment of youth, first love and growing up. It is alive with cheery, vivid images of childhood. We identify with the teenage boys who declare their baser desires in a pop/rock tune "Mad Bomber," and with the girls exhorted to "Never wear black patent leather shoes, as they reflect up," "Never wear pearls," and "Never eat dinner with a boy over white linen."

As the first act opens, a buoyant, grown-up Eddie Ryan returns to the school of his childhood to speak to the head Sister. While waiting for her appearance, Eddie takes us back into his past and introduces the intimate playmates of his childhood.

Each one of these adults-in-children's-clothing is an individual gem of a character. The obese, hand-waving Louie Schlang, sex-starved (even in 5th grade) Felix Lindor and pudgy Becky Bakowski could all be common sights even in a public school. In Catholic school, however, catcalls of "k-i-s-s-i-n-g" and yo-yo throwing are mixed with references to "St. Joseph", the patron saint of aspirin and comical rote replies as to why "God made you."

The majority of the first act rides on the humor of forgetting to mention sins in confession, and the wrath of the nuns (a sort of semi-deistic authority/teacher

group for those who went to public school).

With all that humor at the expense of Catholic education and Church, one wonders how much offense is actually taken. Before the opening, a passerby yelled out that "If this show was based on [another particular religion], it would have been picketed and denounced right out of Boston, but we Catholics always take [this criticism]."

Any intentional criticism of the religion is very subtle. Only with careful observation is it apparent that the nuns and all authority are usually presented under striking, sacrosanct white light. Playwright John Powers at one point concedes to the unquestionable nature of religion. "Faith is like love," Becky Bakowski exclaims to Eddie as she heads off to a life in the convent, "Do you [really know] why you love me?" In the end though, Becky finds convent life inadequate and returns to the real world.

Profound questions of truth and faith were not to perturb the audience's enchantment, however. Many of the lines were particularly appreciated, even mimicked, by Catholic members of the audience. Nuns clicking rosary beads to maintain order; "just one-mortal-sin and you will go to hell;" and the idea that sisters possess wheels instead of feet; were extremely well received.

The show displayed the song-writers' James Quinn and Alaric Jans knack for creating simple, gay show tunes. The duet "(Does God Love) Little Fat Girls", and nuns intoning "doo-wa doo-wee" on the 50's rocker of the same name were perfectly suited to the small cast. Even the lighting and set were exceptional, producing schools from boxes, and cathedrals from a plain stage.

"Black Patent Leather Shoes" was successful in every city except for New York, whose sophisticated audience may have spurned this essay in simplicity. But the directness of approach makes the play compelling, an enjoyable experience and recommended respite.

Scott Lichtman

## Berlin orchestra brilliant

**Berlin Radio Symphony Orchestra, Riccardo Chailly, conductor, Shlomo Mintz, soloist; Symphony Hall March 15.**

Last Friday Shlomo Mintz and the Berlin Radio Symphony Orchestra took the town by storm.

The orchestra launched into Beethoven's *Violin Concerto* with a precision rarely heard in Boston. Moments of power were effortlessly reached; strings were super-smooth, while tingling with excitement. And when Mintz played, the accompaniment was subtle and supportive.

Mintz was utterly caught in the music, his tone sweet and shining, technique impeccable, feeling profound. The cadenza to the *Allegro ma non troppo* was stunning; Mintz, with supreme versatility, cast the themes of the movement into every conceivable light.

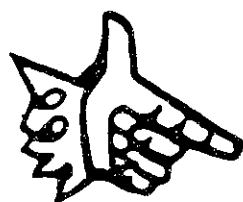
The Berlin Orchestra develops textures of great richness, a characteristic of many famous German orchestras. Perhaps this explains its ability to bring out the brute sensuousness of Strauss and Wagner in a way others find hard to emulate. If it is done messily, it can make the performance heavy-handed.

The Berliners showed such discipline, though, that the *Larghetto* to the Beethoven concerto had both a richness of substance and clarity of form. Mintz' very personal approach to the movement added a sense of deep personal involvement, both with orchestra and audience.

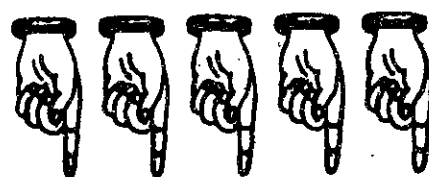
The concluding *Rondo (allegro)* had both a playful quality — Mintz' violin dancing delightfully — and an intensity that left the listener in a state of reflection as well as joyful elation.

Brahms' *Symphony No. 1 in C minor*, op. 68, was done with like style: One was struck with the seemingly endless reserves of string power; and by the sensitivity of solo wind playing, virtuosic of itself, but firmly bound in with the orchestral whole. One could only admire the graceful sheen on the strings in the *Andante sostenuto*. Despite some slightly fast passages towards the beginning of the fourth movement, the warmth of sentiment coupled with completeness of control, gave the finale a grandeur to be remembered for many a concert season.

Jonathan Richmond



## History at your fingertips



**The Spoils of Time**, C. V. Wedgwood, Doubleday & Company, 384 pp., \$19.95.

Most of us who learned world history in American public high schools received a simplified overview of early civilization punctuated by catch phrases like "Tigris and Euphrates," without any real notion of forward progress or the interrelated nature of contemporaneous events in different regions.

College history subjects (which all too often tend to be art history, comparative religion, or history-of-technology courses) can increase the fragmentedness of one's view of the past.

Dame Veronica Wedgwood, in *The Spoils of Time*, seeks to create "essentially a narrative . . . about people, ordinary and extraordinary, of many different races, cultures, and creeds, and the world in which they lived and died."

Spanning the period from the beginning of civilization to the Renaissance, this is no run-of-the-mill history textbook; it is a story meant to be read cover-to-cover in a few sittings, and when viewed in that fashion, the past takes on a captivating immediacy. Along the way, one finds out about the Roman Empire's balance-of-trade problems with India, and meets (or rediscovered) a fascinating cast of characters both good and evil but all refreshingly human.

The developments of literature, law, religion, technology, and the arts are all handled equally, with an emphasis on the way

in which the individual was affected. Wedgwood chronicles Asian, African, European, and American civilizations in a fashion which emphasizes their contacts and interrelations, rather than preserves their chronological order; this manner of organization may give the reader his or her first chance to compare and relate facts learned in different contexts.

This also renders this book less-than-ideal as a reference work, as people, places, and ideas reappear throughout the book wherever they are of importance (Buddhism, looked up in the index, shows

up some two dozen times; practically from the beginning to the end of the book).

But *The Spoils of Time* is not meant as a reference. The footnotes are slim and the treatment of many subjects necessarily not as deep as a specialist might like. I hope this fact will prevent this excellent book from scaring away many for whom the word "history" leaves a bad taste. Find a big, soft chair and spend a few hours enriching your knowledge and admiration of the universal story of humanity. I cannot recommend this book enough.

V. Michael Bove

## The Tech Performing Arts Series

announces

### SEGOVIA

The Tech is pleased to announce the opening event in its new Performing Arts Series. Tickets normally priced at \$17.50 and \$15.50 for the March 24 concert in Symphony Hall will be available to all members of the MIT Community for \$6.

Tickets are on sale by courtesy of the Technology Community Association. Drop by Room W20-450 in the Student Center, or call 253-4885.

The Tech Arts department. Reporting on all the Arts in Boston. And now providing for discounted admission too.

Feature

# Debate team is successful

By Robert Silbergleit

Competitive debate has returned to MIT after lying dormant for over a year.

This year's debate team is the largest the MIT Speech and Debate Society has fielded since interest in intercollegiate debate at MIT began to decline in the middle to late 1970s, said Coach Mike Korcock '84.

Ten members of the Society,

## Aga Khan grants money

(Continued from page 1)

al of the visual collection, using a disk with some 30,000 images," he said.

"Any student could interact with this system. He could call [for information] by region, for example Libya, or specify religious information, or courtyard, and get detailed characteristics," Safai said.

The conferences last almost a week and cover a variety of topics such as Muslim Architecture, resource management and

two juniors and eight freshman, have participated in debate this year. Debate team captain Darrell Mavis '88 and members Brian Baker '86, Tim Kalvaitis '88 and Tony Pak '88 form the team's nationally competitive core, Korcock explained.

The team has competed in thirteen tournaments and is ranked second in the Northeast and 32nd in the country, according to Ma-

housing projects. They attract nearly 700 participants from all over the world.

Safai explained that the Aga Khan's primary reason for choosing Harvard and MIT is probably because "these are the first two institutions of this quality next to each other."

"They have a strength and scholarship in this area," he said, "a willingness to look outwards internationally."

The Aga Khan is a graduate of Harvard with an honors degree in Islamic history.

vis. Korcock described the team's success as "outrageous" compared to his expectations for a first year debate program consisting primarily of freshman competing on a varsity level.

The team is currently competing at a level comparable to that of schools which emphasize speech and communications studies, Mavis said. These schools demonstrate their support of speech and debate programs with budgets several times larger than the MIT debate team's budget, he continued.

The University of Towson's debate team, currently ranked first in the Northeast, has a budget of \$15,000 per term compared to the \$3000 per term budget of MIT's team, Mavis said. The University of California at Los Angeles's debate program recently received a \$1 million grant, Mavis continued.

Big budgets are important to competitive debate programs because they allow teams to go to more tournaments, Mavis said.

(Please turn to page 13)

### classified advertising

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# Barker and Libby to protest class president, treasurer election results

(Continued from page 1)

Both Barker and Libby agreed that all races should be recounted if Barker's and Gedo's ballots were reconsidered.

Barker said she "had assumed that [the ballots in question] had been counted. I was given every indication that they would be counted." Barker said she "talked to several of the students in question, and they were not told that their ballots were in question."

"I had great concern," she added, "that students were not given the opportunity to affiliate with their class." Barker claimed she would have protested the results even if she had won by one vote.

Libby said he also would have protested, even if he was victorious: "I can't say for one hundred percent sure, but I would like to say 'yes.'"

"I announced the rule [concerning the students in question] to the election commission," O'Day said. When O'Day was asked whether he had informed the candidates of the rule, he replied, "not explicitly."

### Election commission decision

The commission voted to classify co-op students in their entering class, O'Day said. Freshmen who become co-op students will still be considered members of the Class of 1988 in five years. They will be eligible to vote in

UA and the Class of 1988 elections.

January graduates will be allowed to vote in class elections, but not for the UA presidency and vice presidency, according to O'Day. Next year, co-op students will be eligible to vote in class elections only, he said.

The election commission will not consider any recount this year, he said: "This is a final decision. The election commission made the rules in good faith."

"What I heard was that the election commissioner acted in good faith, but the people who voted also acted in good faith," Libby said. "The election commissioner is here to serve the fairness of the election. The good faith of those who voted should take precedence over that of the election commissioner," he concluded.

"The commission basically told me that 'Yes, the students would be granted the right to vote,'" Barker said, "but that they were going to start considering it next year. For the past three years, these students have had the right to vote. Why should my class have to suffer?"

Barker and Libby have the right to appeal the commission's decision to the Undergraduate

Association Council. They would need the support of three fourths of all representatives present at the UA Council meeting to override the commission. Libby said that the UA Council "doesn't overrule [the election commission] very often."

Barker said Sunday that she was "still considering" appealing the election commission's decision to the UA Council. "I'm trying to decide what's best for all, including the other candidates," she said.

O'Day said, however, that "the decision to appeal has already been made. Robin left me a note telling me not to destroy the ballots, so my impression is that it will be brought up before the next council meeting."

O'Day believes Barker and Libby will raise a motion which would dismiss him from his position and call for the election of a new commissioner. O'Day would then hand all ballots over to the new commissioner, and "presumably" a recount would follow, he said.

The full UA election commission consisted of Commissioner O'Day, Carl A. LaCombe '86, Mark A. Foringer '87, Kathleen M. O'Connell '87 and Jeffrey J. Trester '88.

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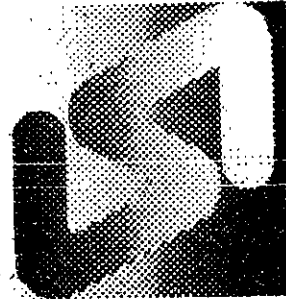
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# Debate team is revived

(Continued from page 12)

Attending tournaments provides valuable experience and more national ranking points, which are based on the total number of rounds won during a term, Mavis explained.

The MIT team is funded by both the Undergraduate Association's Finance Board and by grants from MIT's Department of Humanities, Mavis said.

Mavis characterized the team's members as generally more interested in social sciences and politics than many MIT students. But he added that their wide range of prospective majors are representative of the student body.

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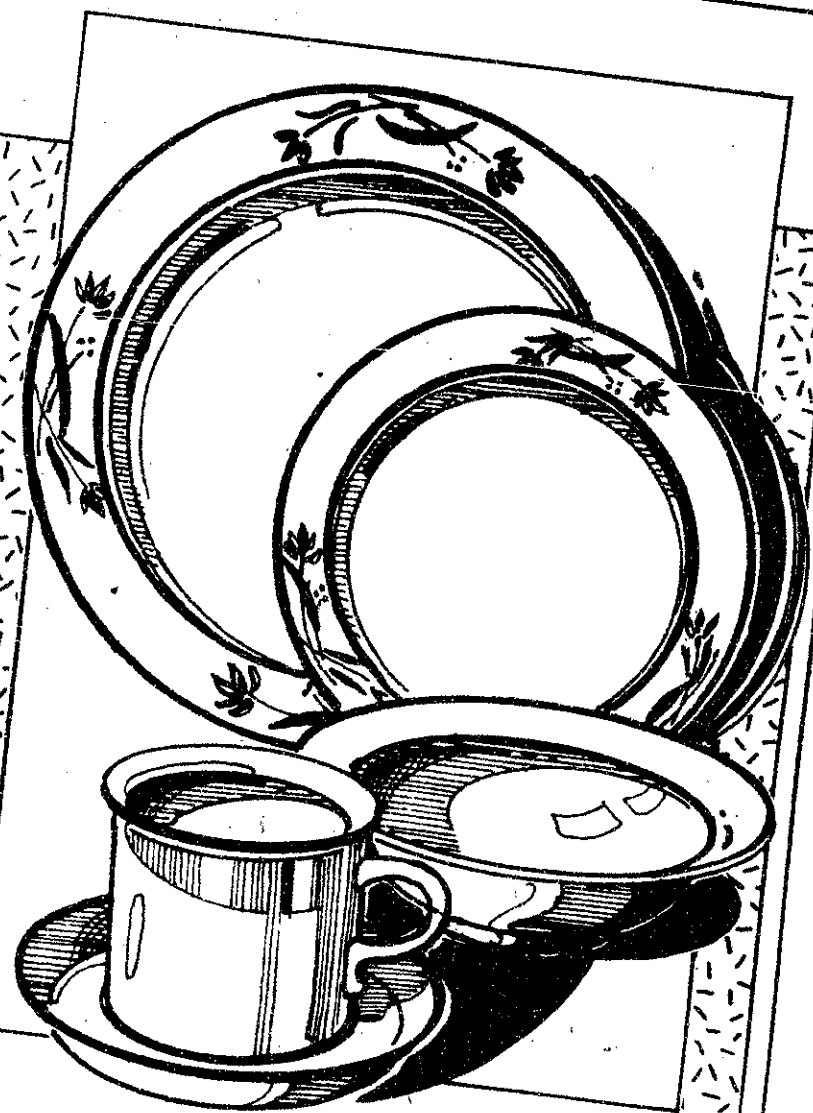
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# sports

## Sports Update

### Women swimmers compete in NCAA Division III finals

Lori Peterson '86 finished 6th in the 3-meter diving competition and 11th in the 1-meter competition at the National Collegiate Athletic Association Division III Women's Swimming Championships held at Emory University in Atlanta, GA, last weekend.

Peterson's performances earned her all-American honors for the third straight year.

Linda Sprys '88 finished 16th in both the 200-yard butterfly and the 400-yard individual medley. For her performances in the two events, Sprys was also named all-American.

Sprys also competed in the 200-yard individual medley, where she placed 17th, and in the 100-yard butterfly, where she placed 20th.

Rebecca Perry '86 was the third MIT swimmer at the championships. The team co-captain finished 19th in the 200-yard butterfly.

#### Baseball first team to visit CalTech

The baseball squad will travel westward this weekend to the Golden State, where the Engineers will play seven games against six California teams.

Saturday the Engineers from the East will challenge the Engineers from the West, as MIT visits CalTech. This will be only the

third time the two schools have met in any athletic competition, and will be the first time ever that an MIT athletic team has visited CalTech in California.

The game will also mark the first time the two schools have met on a baseball diamond.

Last November, the men's basketball team clobbered CalTech in a tournament held at Washington University in St. Louis, MO. The CalTech Water polo team defeated MIT, 15-9, in September, 1981, in a tournament held at Washington and Lee University in Lexington, VA.



#### Skiing, squash, bball name MVP's

Four winter sports teams have announced their most valuable players for the 1984-85 season.

Scott McFarland of East Quogue, NY, was named the skiing team's MVP. Joining McFarland in the MVP ranks are squash player Dave Douglas '85 of Jamesville, WI; men's basketball player Randy Nelson '86 of Buffalo, NY; and women's basketball player Grace Saccardo '86 of Wrentham, MA.

Ellen L. Spero

Tech photo by Steven Wheatman

Take me out to the ball game. . . . The MIT baseball team started practice for the upcoming spring '85 season. They start their season March 23 against CalTech in Pasadena. The home team will have a smog advantage.

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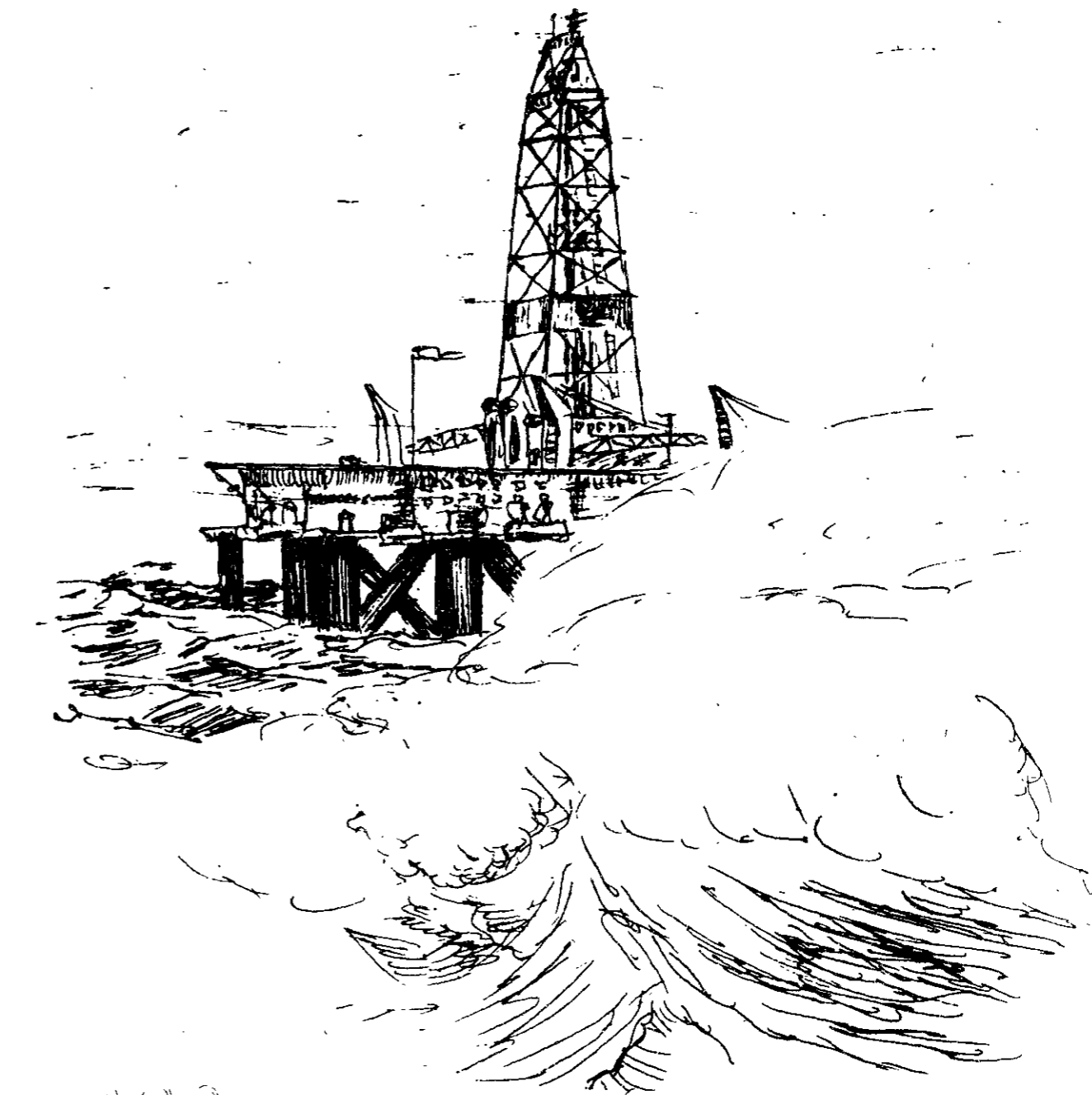
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