



Sarath Krishnaswamy/The Tech
Will it open? Ann Wandtke '91 tries to unlock the treasure chest with her key at last night's Ring Premiere. Jeff Ludwig '91 had the right key and got the treasure inside; a Class of 1991 brass rat.

Group coordinates service activities

By Adnan H. Lawai

The Public Service Initiative will soon move into a permanently-staffed office which will be a center for coordinating local social service efforts involving members of the MIT community, according to Professor Robert W. Mann '50.

The public service group was formed last fall "to try to provide some support to student groups who were involved in public service and to give new students a chance to participate," Mann said. PSI is presently based in the TCA office and staffed by Steering Committee coordinator Virginia Sorenson.

Mann and Priscilla Gray co-chair the Public Service Steering Committee which directs the activities of PSI. The committee was formed last September on the initiative of Dean for Student Affairs Shirley M. McBay, and includes student representatives from campus activities already involved in service. Among these activities are the Undergraduate Association, Tau Beta Pi, Urban Action, Graduate Student Council, InterFraternity Council, Alpha Phi Omega, Technology Community Association and the Dormitory Council.

The PSI will be a place with "some dollars" and support for student service efforts, Mann said. In that way, the group will hopefully give "more structure and visibility" to service efforts on campus.

Mann noted that MIT students already provide volunteer service at various public service organizations such as United Way, Amnesty International, and Massachusetts General Hospital. The new group will be a "vehicle for making the whole process easy," he explained.

As its first campus activity, PSI organized a public service midway during Independent Activities Period. A number of local and on-campus groups such as APO, Upward Bound, local hospitals and community groups were invited to participate in the midway. The purpose was to inform the MIT community about local problems and the opportunities that exist in public service, Mann said.

According to Mann, the student response was "very good" and the midway was a "kaleidoscope of activity." Dozens of tables with representatives from service groups "informed students and gave them an interface."

Among the categories of activities that PSI will be engaged in are literacy and education, medical issues, underprivileged youth and hunger, Sorenson said.

The group intends holding a public service midway every term. In addition, luncheon seminars where service groups can describe their activities and goals are planned, Mann said. Booths featuring such groups may be set up in the Student Center soon.

The Steering Committee is also exploring possibilities of offering certain public service projects as Undergraduate Research Opportunities Program projects, according to Mann. A large number of volunteer agencies have problems with a technical content and such projects can be integrated with UROP. For example, a recent problem was to develop software that would enable computers to translate Braille.

"MIT students like to do good," Mann said. "They enjoy the idea of combining science and technology with projects with a humanitarian dimension." Elizabeth Williams '90, who is DormCon representative on the PSSC, said that "a lot of people at MIT want to take part in pub-

Nakasone pulls out of 1989 Compton Lecture

By John Hasemeyer

On Tuesday, former Japanese Prime Minister Yasuhiro Nakasone cancelled his appearance at the 1989 Compton Lecture. According to the Japanese Consulate in Boston, Nakasone chose to remain in Japan to participate in parliamentary deliberations. Nakasone remains a member of the Diet, Japan's parliament, which is battling a March 5 deadline to settle budget differences.

Nakasone may also have to testify before the Diet concerning a stock scandal involving three of his former aides, according to the *Boston Globe*.

Also planning to attend the lecture were Reverend Charles Stith and other members of a Boston-based watchdog group called the Organization for a New Equality. The group, based at the Union Methodist Church, monitors economic policy issues nationwide.

Stith said the group had planned to protest statements made by Nakasone a year and a half ago, that faulted blacks and

Student seeks grad tax repeal

By Linda D'Angelo

House Bill 4809 — written by MIT chemical engineering graduate student David L. Waggoner in an attempt to repeal the state tax on graduate stipends — will be heard on March 14 by the Massachusetts Legislature's Joint Committee on Taxation. Specifically, the bill would exempt research assistant and fellowship stipends from the state law enacted last July.

Before Jan. 1, 1987, graduate students had a tax loophole; any work that was part of a degree requirement, even if salaried, was not subject to tax, according to Dean of the Graduate School Frank E. Perkins '55. However with the enactment of the Federal Tax Reform Act of 1986, graduate stipends became taxable income at the federal level.

The state of Massachusetts followed this lead when, last July, state law was changed. Chapter 106 — a "widely unknown" piece of legislation according to Waggoner — updated state tax law to conform to the Reform Act of 1986, retroactive to Jan. 1, 1988. For the first time RA's and fellowships were subject to a five percent state tax.

The new law created problems, some immediate and others more long-term. Since the state was "in the black" financially, institutions had "no idea" that such a change was approaching and so did not take any economic precautions, according to Waggoner. Furthermore, the law was retroactive. Thus graduate students were responsible for taxes beginning in January even though the law was not passed, and the tax/money was not withheld by institutions, until July. For these reasons graduate students found themselves financially unprepared, but still responsible.

Chapter 106 "could also hurt research opportunities" for graduate students, according to Waggoner. He said the law is probably "more of a burden on other students, outside of MIT, who don't get the type of financial support we do." Twenty thousand of the state's 70,000 graduate students attend state universi-

ties which receive a "minimal fraction" of the state budget, he commented.

Perkins believed that the law will "have an effect on the quality of life of graduate students. To the extent that institutions cannot adjust, the students must struggle more." The new state law "adds another burden to an already burdensome load," he said.

Since graduate students bring "both research and talent to local industry," the state itself might suffer from the new tax law, according to Perkins. A state as high-tech oriented as Massachusetts should be encouraging graduate education not building "roadblocks," he commented. Waggoner also said that the law would hurt the state "in the long-run, as graduate students support the state's technological development."

Both Perkins and Waggoner also felt that the law represents an underlying change in the national environment. Any one event, such as this new tax law, can be adjusted for, Perkins said. But, he believed, real problems can result when several events combine to create a national climate.

In this way the Federal Tax Reform Act of 1986, the subsequent Massachusetts law, and the decline in "US interest in graduate education, especially in sciences and engineering," may represent a devaluing of graduate education, Perkins said. Negative effects may result as "the economic well-being of the US depends on having a solid graduate education system," Perkins noted.

Waggoner contended that the law is "neither cost effective nor cost

(Please turn to page 2)

EECS moves up closing time of computer labs

By Wasiq M. Bokhari

Laboratories used in Structure and Interpretation of Computer Programs (6.001) and Computation Structures (6.004) are being closed by midnight every night of the week under a new departmental policy. The labs had previously been open 24 hours.

According to Professor Charles D. Paton, the November 1987 vandalism of all of the computers in the 6.004 lab forced the department to install guards at the labs. Over the Thanksgiving holiday weekend the 22 computers — each valued at \$20,000 — were damaged when someone poured Coca-Cola or Pepsi into vents, Paton said.

At the request of several professors, the Department of Electrical Engineering and Computer Science then asked the Campus Police to protect the labs against further vandalism. But, "students and professors didn't like having the guards in the labs," Paton said.

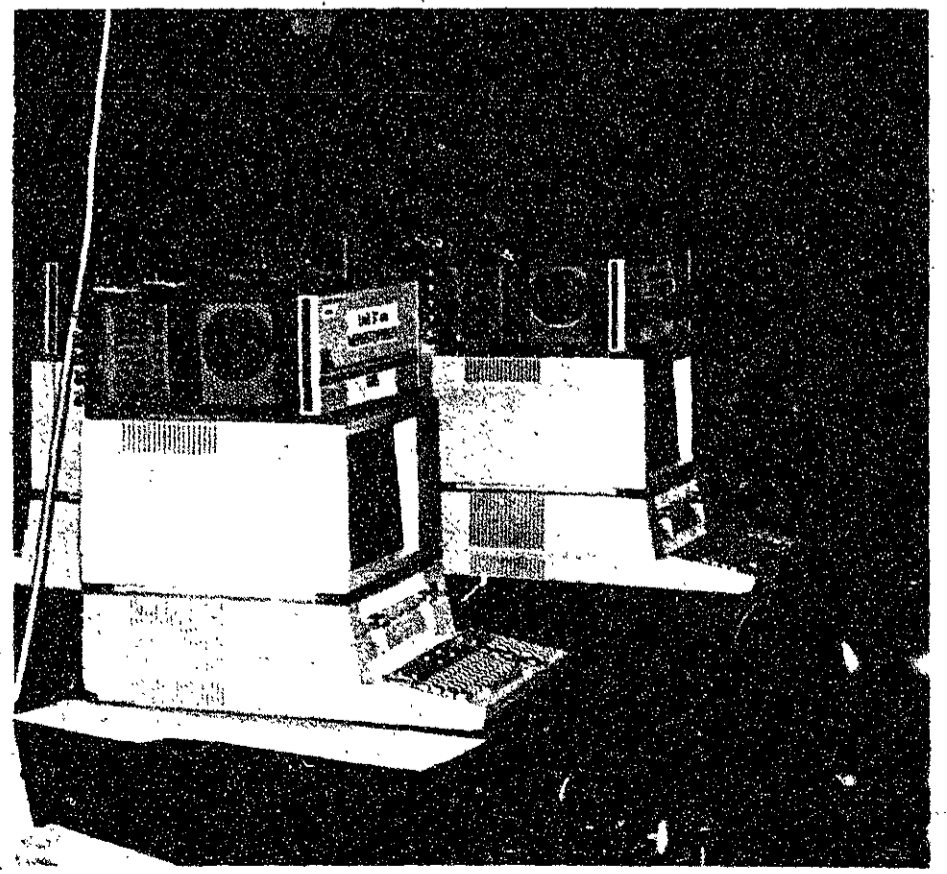
The complaints raised by the presence of the guards caused the department to re-think the structure for the hours of Course VI labs. Throughout last term, the department looked at read-outs which indicated that on many nights there were "only two or three" students in 6.001 and 6.004 labs. "We decided that the old set-up was not very efficient," Paton said.

The new system — with no late night hours — does not require guards to be in the lab, he said. In addition, a teaching assistant is scheduled to be at the lab for all the hours it is open, to better help students. While closing the labs overnight does cut some hours out of student lab time, the labs "are now open all day Sunday until midnight to compensate for the lost hours," Paton said.

With the decision to close the 6.001 and 6.004 labs by midnight, all of the labs of core curriculum courses of the EECS Department share the same hours: 8:45 am to 11:45 pm (Mondays through Fridays), 9 am to 4:45 pm (Saturdays) and 4 pm to 11:45 pm (Sundays). Cumulatively, close to one-third of the undergraduates at MIT are involved with the four Course VI core lab subjects.

Students traditionally have found that the core EECS classes require a lot of time. Last fall's *Course VI Evaluation Guide* gave as the average amount of time spent in lab for 6.001 and 6.004 as 10.5 and 6 hours respectively.

Louis B. Braida SM '69, lecturer of 6.001 this spring, said "We think that this amount of time should be enough to complete the assignments, however, if we find that our estimate is wrong, we will think it over again".



Wasiq M. Bokhari

The 6.001 lab will no longer be open 24 hours a day.

Grad student challenges tax

(Continued from page 1)

efficient." At most the tax will raise \$19 million in revenue for the state, a relatively small amount according to Wagger.

Furthermore there are "hidden costs" involved in administering the new tax law, such as paperwork and overhead, which lessen the financial gain, he said.

Thus, Wagger believed that "the benefit to the state is less

than the harm to graduate students." For this reason he wrote House Bill 4809 which would re-

quire the federal tax code, before the Reform Act of 1986, to be applied to state tax law regarding graduate students.

Submitted through Rep. John Flood (D-Canton), the bill will be heard by the legislature's Joint Committee on Taxation on

March 14. Wagger and Perkins will testify and, although "hopeful", both realize that certain issues must be addressed before the bill can pass.

"Given the state budget problems," and the difficulty in "making a change for what is

perceived to be a small, elitist group," it will be hard to convince the legislature of the commonwealth's benefit if the bill is passed, Perkins said. Thus he and Wagger are soberly optimistic. "Getting the bill this far is an accomplishment, but the prospects for passing are less than half due to the current fiscal climate," Wagger noted.

The deciding factor, according to both men, is support from graduate students; "it's up to graduate students to make this happen," Wagger said. Perkins, a

self-proclaimed "great believer in grass roots efforts," is encouraging graduate students to "write to the state legislature," and to attend the March 14 hearing if possible.

Public service group coordinates activities

(Continued from page 1)

lic service but don't know where to go." She thought PSI will contribute to general awareness of public service opportunities.

Student activities have already begun to work in conjunction with the new group. According to Jason Slibeck '91, the UA representative, the UA intends to send student representatives from MIT to an upcoming conference

in New York City that will bring together public service groups from a number of colleges. The conference will give students a chance to examine public service projects under way in New York City.

Tau Beta Pi representative Henry Houh '89 said that his organization intends to use the new group's resources to find volunteer tutors and workers for other community projects.

notices

Listings

Student activities, administrative offices, academic departments and other groups — both on and off the MIT campus — can list meetings, activities, and other announcements in *The Tech's* "Notes" section. Send items of interest (typed and double spaced) via Institute mail to "News Notes, *The Tech*, room W20-483," or via US mail to "News Notes, *The Tech*, PO Box 29, MIT Branch, Cambridge, MA 02139." Notes run on a space-available basis only; priority is given to official Institute announcements and MIT student activities. *The Tech* reserves the right to edit all listings, and makes no endorsement of groups or activities listed.

Friday, Mar. 3

There will be a reception for Salvadoran students' delegation, with members of AGEUS (Salvadoran Students Union) and FERS (Revolutionary Student Front). The reception will be held in the Washburn Lounge of the Episcopal Divinity School, 99 Brattle Street, Cambridge. Donation: \$5-\$15. For more information, call (617) 492-8699.

Sunday, Mar. 5

The Computer Museum will present a lecture "Computer Sound Illusions: A Musical Resource for Now and the Future" by French composer Jean-Claude Risset at 3 pm in the auditorium of The Computer Museum at 300 Congress Street. Lecture free with the price of admission. Call 426-2800 for more information.

Wednesday, Mar. 8

Marvin Miller will speak on the topic "Nuclear Proliferation: A Look Ahead" at the Cambridge Forum, 3 Church Street, Harvard Square on Wednesday, March 8 at 8 pm.

Sunday, Mar. 12

On Sunday, March 12, Boston Women's Community Radio celebrates eleven years of International Women's Day Radio on WMBR. There will be a be an extravaganza of music, poetry, news, documentaries and public affairs programming. The 16-hour broadcast begins at 8 am on Sunday, March 12.



One Joslin Place
Boston, MA
02215

An Affirmative Action/
Equal Opportunity Employer

Will be recruiting on Campus for:

Research Assistants

on March 28th in the Career Placement Center.

The Writing Prizes

Deadline:
April 13, 1989

The Writing Prizes

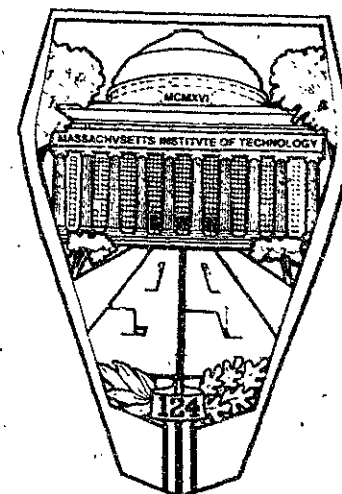
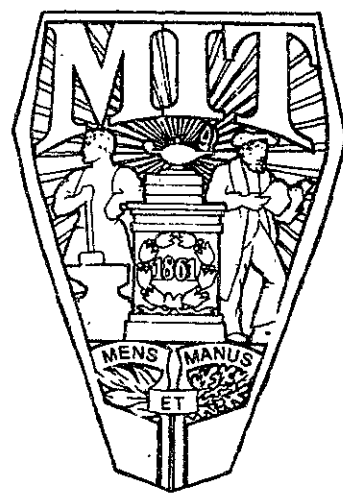
Fiction	Short Story	Poetry	Drama	Essay	Scientific and Engineering Writing	Science Writing for the Public
---------	-------------	--------	-------	-------	------------------------------------	--------------------------------

Cash prizes awarded in each category

For applications and guidelines contact The Writing Program Room 14E-303

Massachusetts Institute of Technology

CLASS OF 1991 RING ORDERING



Monday - Friday, March 6 - 10
10 am - 3 pm
Lobby 10

JOSTENS
AMERICA'S COLLEGE RING

Pi Lambda Phi Fraternity

The Mass. Theta Chapter



of the Massachusetts Institute of Technology

welcomes brothers from the following chapters to M.I.T. for the regional conclave

N.Y. Phi Lambda (Adelphi)
N.Y. Kappa Tau (R.P.I.)
N.Y. Beta Omicron (St. John's)
MA Kappa Theta (Boston U.)
CN Eta (McGill)
N.Y. Beta Lambda (Syracuse)

N.Y. Kappa Gamma (SUNY Cortland)
N.Y. Kappa Alpha (SUNY Albany)
N.Y. Omega Epsilon (SUNY Buffalo)
CN Kappa (Toronto)
CN Kappa Iota (Western Ontario)
N.J. Theta (Stevens Inst. of Tech.)

"Not four years, but a lifetime."

news roundup

from the associated press wire

Nation

Tower debate begins on floor of Senate

The Senate has begun debate on the nomination of John Tower as Secretary of Defense — and two more Democrats say they will vote no. Senators Alan Cranston of California and Terry Sanford of North Carolina declared their opposition yesterday afternoon. An Associated Press tally at mid-day shows 43 Democrats and one Republican solidly opposed to or leaning against the nomination. Forty Republicans have decided to or are leaning towards voting yes.

Tower is receiving strong support from a former colleague on the Senate Armed Services Committee. Former Republican Sen. Barry Goldwater is accusing Tower's Senate critics of hypocrisy, saying "people who live in glass houses should never throw rocks." And he claimed "there'd be no government" if everyone guilty of drinking or womanizing was run out of Washington.

Jury hears North associate

The jury in the Oliver North trial heard yesterday from a Miami man who helped coordinate the secret supply effort for the Nicaraguan contras. Raphael Quintero described a 1985 meeting where North suggested the contras open a southern front in their war against the Sandinista government. Quintero said he heard North say President Reagan knew of the secret supply network for the contras.

World

Britain rejects Iranian initiative

Britain says it has rejected an Iranian initiative — and will not talk to Iran about *The Satanic Verses* controversy until Iran renounces violence. News reports have said a British TV newsman is under guard because an anonymous caller threatened him with death, accusing him of insulting Iran's Ayatollah Khomeini. Previously, Khomeini had issued a death threat against British writer Salman Rushdie because of Rushdie's novel, which many fundamentalist Muslims consider blasphemous.

Boat refugees return to Vietnam

Seventy-five former Vietnamese boat refugees returned to their homeland yesterday by chartered jet. The Vietnamese are among 11,000 who sailed into Hong Kong after it adopted a tough policy that, for most, rules out resettlement. Hanoi has promised not to prosecute the returnees. And Hong Kong hopes the trip prompts others to leave its crowded refugee camps.

W. German computer spy ring broken

Authorities in West Germany said yesterday they have cracked a major spy ring in which computer hackers sold secret codes and passwords to the Soviets. A West German television network said the passwords would allow the Soviets to access key military and research computers in the United States and Japan. The network said US defense computers tied to nuclear weapons could be affected.

Baker seeks new contra aid

With the current package of aid to the contras about to expire, Secretary of States James A. Baker III met with congressional leaders yesterday to discuss options for the approval of new aid for the rebels. It was part of a discussion that included weighing trade and economic incentives to encourage democratic reforms in Nicaragua.

Bennett says he will protect rights as drug czar

William Bennett promises he will defend the civil rights of Americans — while launching offensives against casual users as well as drug dealers in the "War against Drugs." During his second and final day of confirmation hearings to become President Bush's drug czar, Bennett told senators yesterday he will enlist the help of television writers and sports officials to change national attitudes about drug use.

Committee confirms nominee for veterans' post

A Senate Committee has voted to confirm Edward Derwinski as the first secretary of veterans' affairs. But first, the former congressman and State Department official was reprimanded yesterday for tipping off South Koreans 12 years ago that one of their agents was about to defect. Derwinski maintains there was nothing malicious or intentional in the action.

No problems in "stealth" test

No problems were reported in the first test of a US cruise missile incorporating new "stealth" technology. A Canadian Forces spokeswoman says the B-52 carrying missile crossed its target in northwestern Canada, then headed home to California. Officials called it a "captive-carry" test, meaning the missile was not released from the plane.

Stewardess sues United Airlines

The first lawsuits have been filed in that tragedy aboard United Airlines Flight 811. The first two suits were filed by a flight attendant, who said she was nearly dragged through the hole in the plane, and a passenger who suffered ear injuries. The plane was forced to make an emergency landing in Honolulu last week after a huge hole ripped open in its side.

Shuttle launch date to be set

Space shuttle managers are conferring at Cape Canaveral to select a launch date for the space shuttle *Discovery*. A decision is expected today. The mission, in which five astronauts will deploy a large communications satellite and conduct scientific experiments, has already been delayed until at least March 11.

Busey continues to criticize helmet rules

Actor Gary Busey has come under sharp criticism for continuing to oppose the mandatory use of motorcycle helmets even after receiving a serious head injury in a recent crash. Jeffrey Sachs, an injury control expert at the Centers for Disease Control in Atlanta, says there is compelling evidence that helmets reduce head injuries in motorcycling and other sports. Sachs calls Busey lucky to be alive to make the statements he makes.

McDonnell Douglas remains largest defense contractor

The McDonnell Douglas Corporation remains America's largest defense contractor. The Pentagon's annual report on the top 100 military contractors says McDonnell Douglas received \$8 billion in contracts during fiscal 1988. The firm widened its lead over number two General Dynamics, and third-ranked General Electric.

Controversial art exhibit re-opens

In Chicago, an art exhibit that appears to invite people to step on the American flag has reopened. The School of Art Institute closed its gallery Friday after vocal protests from veterans groups. But yesterday the school reversed its decision, saying art students have the right of free speech.

Local

Harvard tuition rise announced

The cost of attending Harvard-Radcliffe College is going up next fall. Combined costs for the 1989-90 academic year will climb six and a half percent to \$19,395. It costs \$18,210 to attend this year. Tuition costs will rise from \$12,310 to \$13,085. Room, board and health fees will rise to a combined \$6,310.

Thieves ransack Salvation Army office

The Salvation Army's state headquarters in Boston was ransacked Wednesday night. A spokesman for the charity said the would-be thieves smashed glass windows to get into offices and dumped out drawers. Steve Capocchia said yesterday the break-in was ironic since the charity "would gladly help anybody who needed help."

Thieves apparently broke into the building located across from Boston Police headquarters on Berkley Street. The break-in caused several thousand dollars damage. But workers have not figured out exactly what was stolen.

Nixon eulogizes deceased senator

New Hampshire's statesman emeritus — former US Sen. Norris Cotton (R) — was laid to rest yesterday in Lebanon, NH. Among those eulogizing him at the 161-year-old First Congregational Church was former President Richard M. Nixon, who said Cotton had been his best friend in Washington. Former Gov. Meldrim Thomson also paid tribute to Cotton, who died of pneumonia on Friday at age 88. Nixon called Cotton a courageous statesman and a brilliant politician and storyteller. Cotton served 28 years in Congress.

Weather

Ed Nelson's March Almanac

Meteorologically, several things are happening during this transition month between winter and spring. A couple of the larger areas for storm development are now located over southern Texas and just east of the Appalachian Mountains. The East Coast storm development area, coupled with some rather persistent high pressure systems which form over eastern Canada, results in some long-lived storms along the East Coast. During March, the warm air of the Gulf of Mexico is fighting to gain the interior sections of the country from the cold arctic air. The battle ground happens to be the Gulf states in March, and the result is a drastic increase in the number and intensity of thunderstorms and tornadoes in the South.

The big event of the month will be the vernal equinox which marks the beginning of spring. It will occur on Sunday, March 20 at 4:39 am.

The average high temperature is 44.6°F (7°C) and the average low is 31.5°F (-3°C) giving a mean of 38.1°F (3.4°C). Normal precipitation for the month is 4.22 inches with an average of 12 days which have measurable precipitation.

Friday afternoon: Becoming mostly cloudy. Winds northeast 10-15 mph. High 30°F (-1°C).

Friday night: Cloudy with the chances of light snow and/or sleet especially in eastern sections after midnight. Winds northeast 10-15 mph. Low 27°F (-3°C).

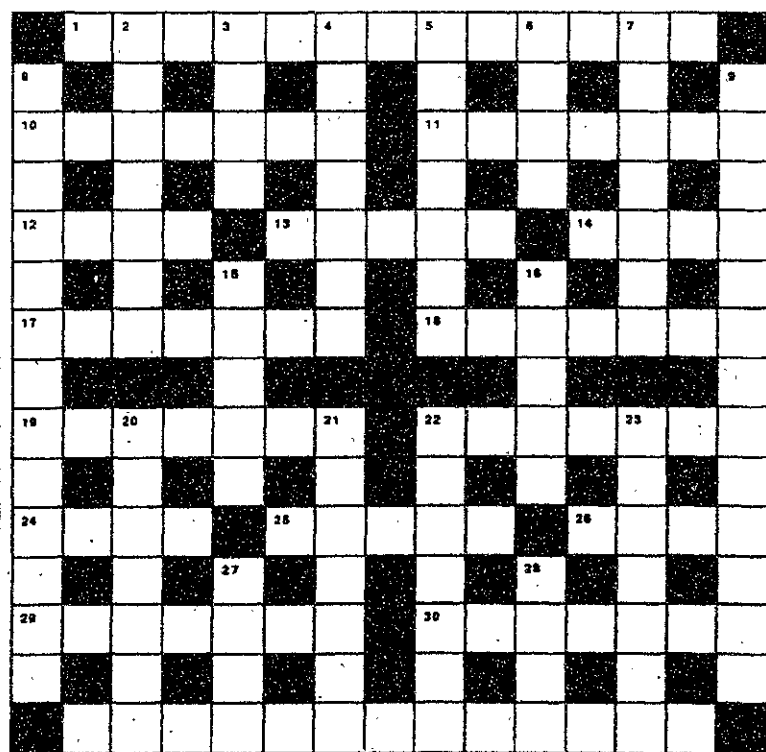
Saturday: Cloudy with any snow and sleet turning to rain. Freezing rain may occur inland for a while. Winds east-northeast becoming southeast 10-20 mph. High 35-40°F (2-4°C). Low 32°F (0°C).

Sunday: Cloudy, breezy, and milder. Showers likely. High 45-52°F (7-11°C). Low around 40°F (4°C).

Forecast by Michael C. Morgan

Cryptic Crossword #1

David M. J. Saslav



(Solutions, page 9)

Across

- Unwinding the coil folder begins the turn. (4,2,3,4)
- On either side of a step? (7)
- Affliction causing bad Italian song? (7)
- Sounds like rabbit fur. (4)
- Task found in anchor, evidently. (5)
- Excavate a dullard? (4)
- Candy bar of famous pundit? (2,5)
- No wise epigrams contain expression of sudden enlightenment. (3,1,3)
- Early American girl I forsook in the afternoon. (7)
- Meat, sir, shattered a goddess! (7)
- Without a leader, total confusion for the singer! (4)
- Clambake without Mac produces author. (5)
- Is a container open? (4)
- And the Frenchmen somehow arranged for periodic entry. (7)
- Confused poem precedes air return to pleasure palaces. (7)
- Command to commuter, or the class troublemaker? (4,2,3,4)

Down

- Lost, Richard has buried his head in the sand. (7)
- Home of the pathological liar. (4)
- Recently she confused fifty in cooking direction. (7)
- Bard, before United Nations, makes a big hit! (4,3)
- Spoon out a brand of pineapple? (4)
- Rabbit dinner decays under vehicle. (7)
- What the well-dressed counterfeiter is wearing? (7,6)
- Fear anonymous direction in dead? (8,5)
- Headless guard makes a notation. (5)
- Sounds like a chemical compound with an obligation! (3,2)
- Either release me or give me permission to attend! (3,2,2)
- Formula T totally surrounds hybrid. (7)
- "Carelessly bask," — the advice column. (3,4)
- Spanish city-state, named after an officer. (7)
- It's only a noise of hesitation in me. (4)
- Duel carried out in thrusts, parries. (4)

opinion

LETTERS TO THE EDITOR

National security requires military research

The last two issues of *The Tech* have carried columns by Daniel J. Glenn G under the title, "A Crack in the Dome." Although I have seen many articles in the past expressing Glenn's position on military research at MIT, it disturbs me greatly every time I see or hear such dangerous views because our very survival could be at stake.

Unfortunately, there are those who hold forth a pacifist do-nothing view, thinking that they are upholding the concept of peace. In reality they are saying, *de facto*, that bowing to oppression or other evil is better than

resisting it. "We're unarmed, so there is no need of you to fight us," is a most pathetic statement to an enemy. Can Glenn really be so naive as to think that we have no real enemies or that they would not take advantage of an unarmed state?

Yes, we should invest much of our effort in projects to improve the condition of mankind (even though we have been counterproductive at times by stumbling into traps on the road to "progress," such as the depleting the ozone layer). We have the responsibility to be judicious in every endeavor, and each of us has a different calling in our society.

Some of us must answer the call to protect our society, and this call can have varied forms including military service and military research and development.

Our economic structure is such that it would be absurd to divorce military and "civilian" R&D. Not only would it be prohibitively expensive (yes, military R&D is expensive), but the military would be denied the technical input from the civilian sector. In reality, institutions such as MIT are in a unique position to provide much of this sorely-needed R&D.

Although our history is not without blemishes, we are basically neither aggressive nor colonial. Teddy Roosevelt was very wise when he said, "Speak softly, but carry a big stick." But some would abandon such an admonition and seek to prevent us from developing "sticks" that our enemies can see and respect.

A logical extension of these arguments is to parallel the cause of the military vs. foreign threats with that of the police vs. illegal drugs. In both cases, the enemies are real, and the countering agencies must develop many resources to minimize the threats. Sometimes the "defense" tactics are not "nice," but very necessary.

Glenn refers to "the concerned majority," but he has put the label on the wrong people!

Ralph Burgess
Research Engineer
Mechanical Engineering
Department

Recruiter based conclusions on MIT MBAs from too few students

A quote in your article "Sloan graduates ranked second among MBA students in earnings" [Feb. 28], deserves some comment. John R. Talbott, vice president of Goldman, Sachs & Company, is quoted as saying, "The other day I had to interview two Harvard MBA's and one MIT MBA in the same afternoon. I'm supposed to rate those I interview on a scale of 1 to 10. I gave each of the Harvard grads a 7, and the MIT grad a 10. . . . I guess that says it all."

Obviously, Talbott attended neither of these fine institutions, if his logic is any indication.

Harvard's business school has 790 MBA candidates per class; MIT's Sloan School of Management has roughly 200. In light of these numbers, Talbott's sample size appears to be on the low side. MIT "MBA's" with their higher starting salaries may be "gaining more prestige." With this in mind, perhaps they would be wise to turn their talents to a company other than Goldman *et al.*, where such statements as "I guess that says it all" can rise to the level of vice president. I'm curious, though; why didn't Talbott hire the two Harvard grads, for a total of 14?

Jeff Dieffenbach G



The Tech

Volume 109, Number 8 Tuesday, March 3, 1989

Chairman Marie E. V. Coppola '90
Editor in Chief Niraj S. Desai '90
Business Manager Genevieve C. Sparagna '90
Managing Editor Peter E. Dunn G
Executive Editor Andrew L. Fish '89

News Editors Annabelle Boyd '90
Irene C. Kuo '90
Prabhat Mehta '91
Opinion Editor Michael Gojer '90
Sports Editors Michael J. Garrison G
Harold A. Stern G
Arts Editor Christopher J. Andrews '88
Photography Editors Lisette W. M. Lambregts '90
Kristine AuYeung '91
Contributing Editors V. Michael Bove G
Mark Kantrowitz '89
Ezra Peisach '89
Kyle G. Peltonen '89
Mark D. Virtue '90
Senior Editor Jonathan Richmond G

NEWS STAFF

Associate News Editors: Linda D'Angelo '90, Seth Gordon '91, Gaurav Rewari '91, David Rothstein '91; **Senior Writers:** Mathews M. Cherian G, David P. Hamilton G; **Staff:** Salman Akhtar '89, Mary Condello '89, Sanjay Manandhar '89, Sally Vanerian '89, Anuradha Vedantham '89, Anita Hsiung '90, Miguel Cantillo '91, Adnan Lawai '91, Tzielan Lee '92, Amy J. Ravin '92, Joanna Stone '92, Casimir Wierzynski '92, Paula Maute; **Meteorologists:** Robert X. Black G, Robert J. Conzemius G, Michael C. Morgan G.

SPORTS STAFF

Marcia Smith '89, Anh Thu Vo '89, Paul McKenzie '90, Manish Bapna '91, Adam Braff '91, Emil Dabora '91, Kevin T. Hwang '91, Shawn Mastrian '91.

OPINION STAFF

Daniel J. Glenn G, David Gold G, Kevin J. Saeger G.

FEATURES STAFF

Christopher R. Doerr '89, Allan T. Duffin '91.

ARTS STAFF

Associate Arts Editor: Debby Levinson '91; **Staff:** Mark Roberts G, Julian West G, Bill Coderre '86, Mark Roman '87, David M. J. Saslav '87, Manavendra K. Thakur '87, Aaron McPherson '89, Michelle P. Perry '89, Corinne Wayshak '89, Peter Parnassa '90, Paige Parsons '90, Alfred Armendariz '92.

PHOTOGRAPHY STAFF

Associate Photography Editor: Michael Franklin '88; **Staff:** Michael D. Grossberg G, Rich R. Fletcher '88, Joyce Y. Wong '88, Victor Liao '89, Joyce Ma '89, Ken Church '90, Mike Niles '90, Wes Huang '91, Sarath Krishnaswamy '91, Georgina A. Maldonado '91, Ognen J. Nastov '91, Ray Powell '91, Mauricio Roman '91, Jacqueline D. Glener, Alice P. Lei; **Darkroom Manager:** Kyle G. Peltonen '89.

BUSINESS STAFF

Associate Advertising Manager: Lois Eaton '92; **Advertising Accounts Manager:** Catherine Lukancic '92; **Delinquent Accounts Manager:** Shenwei Chen '92; **Staff:** Shari Jackson G, Heidi Goo '92, Ellen Hornbeck '92.

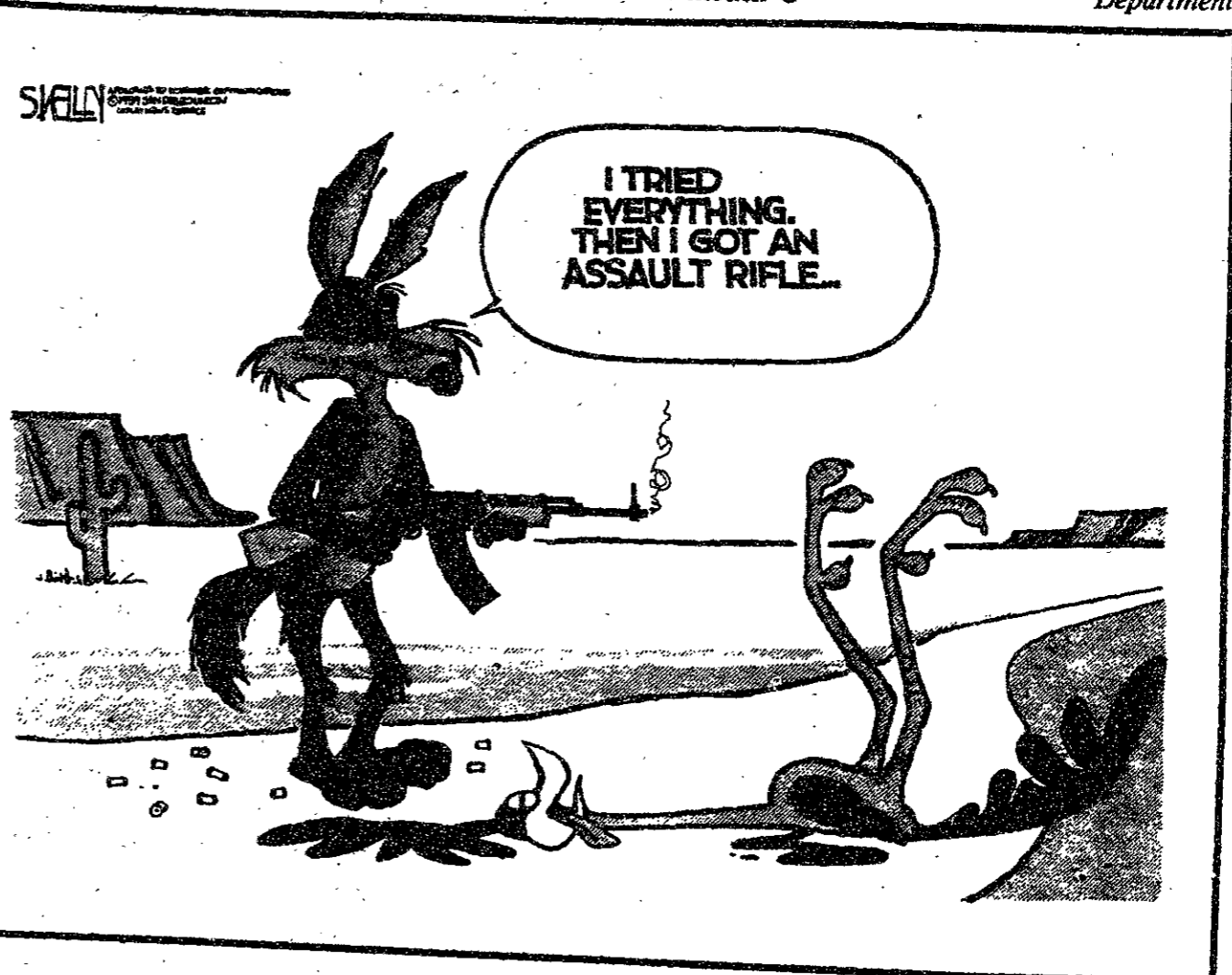
PRODUCTION STAFF

Associate Night Editors: Bhavik R. Bakshi G, Daniel A. Sidney G, Josh Hartmann '92; **Staff:** Stephen P. Berczuk '87, Carmen-Anita C. Signes '90, Blanca D. Hernandez '91, David J. Chen '92, Peggy C. Hsieh '92, Lesley C. Johnson '92, Elyta H. Koh '92, Sheeyun Park '92, Linda M. Sauter '92, Mariam Tariq '92, M. L. B. Thompson '92.

PRODUCTION STAFF FOR THIS ISSUE

Night Editor: Kyle G. Peltonen '89
Associate Night Editor: Josh Hartmann '92
Staff: Daniel A. Sidney G, Harold A. Stern G, Marie E. V. Coppola '90, Kristine AuYeung '91.

The Tech (ISSN 0148-9607) is published Tuesdays and Fridays during the academic year (except during MIT vacations), Wednesdays during January, and monthly during the summer for \$17.00 per year. Third Class by *The Tech*, 84 Massachusetts Ave. Room W20-483, Cambridge, MA 02139-0901. Third Class postage paid at Boston, MA. Non-Profit Org. Permit No. 59720. **POSTMASTER:** Please send all address changes to our mailing address: *The Tech*, PO Box 29, MIT Branch, Cambridge, MA 02139-0901. Telephone: (617) 253-1541. FAX: (617) 253-1541. Advertising, subscription, and typesetting rates available. Entire contents © 1989 The Tech. *The Tech* is a member of the Associated Press. Printed by Charles River Publishing, Inc.



Pledge creates atmosphere for social responsibility

In the spring of 1987, students at Humboldt State University in California, backed by the unanimous endorsement of the HSU Faculty Senate, introduced the distribution of an optional pledge at their commencement ceremony. The pledge, though innovative in appearance, embodied age-old ideals — that one must

maintain a sense of commitment to the world in which he lives, that one must think and act responsibly. The idea of the pledge spread quickly. Students around the country worked to have the

pledge distributed at their graduations. A referendum at Stanford University won the support of almost 2 out of every 3 students, and Stanford President Donald Kennedy, in his commencement

address, encouraged graduates to sign the pledge.

This March 15 a referendum on the pledge will appear on our undergraduate student ballot. The question asks for student support of the distribution at Commencement of the pledge, which would read, "I pledge to investigate thoroughly and weigh the social and environmental consequences of any professional activity that I may undertake." The wording of the pledge allows each person signing it to make his own decisions, requiring only that one contemplate the outcome of his actions. Moreover, taking the pledge is fully optional. Nobody will monitor who has signed and who has not signed the pledge. And the pledge is personal. In signing, one makes a

pledge not to his school, his profession, or his country, but to himself.

The distribution of the pledge is more than just a hollow gesture. With every person who signs the pledge rests the potential to improve the world in which we live. In addition, simply having the pledge helps to foster an atmosphere in which individuals consider and discuss social and environmental issues, whether or not all choose to sign it.

Distributing the pledge at Commencement is an important, though small, step towards addressing the problems we face as humanists and as scientists, as engineers and as leaders.

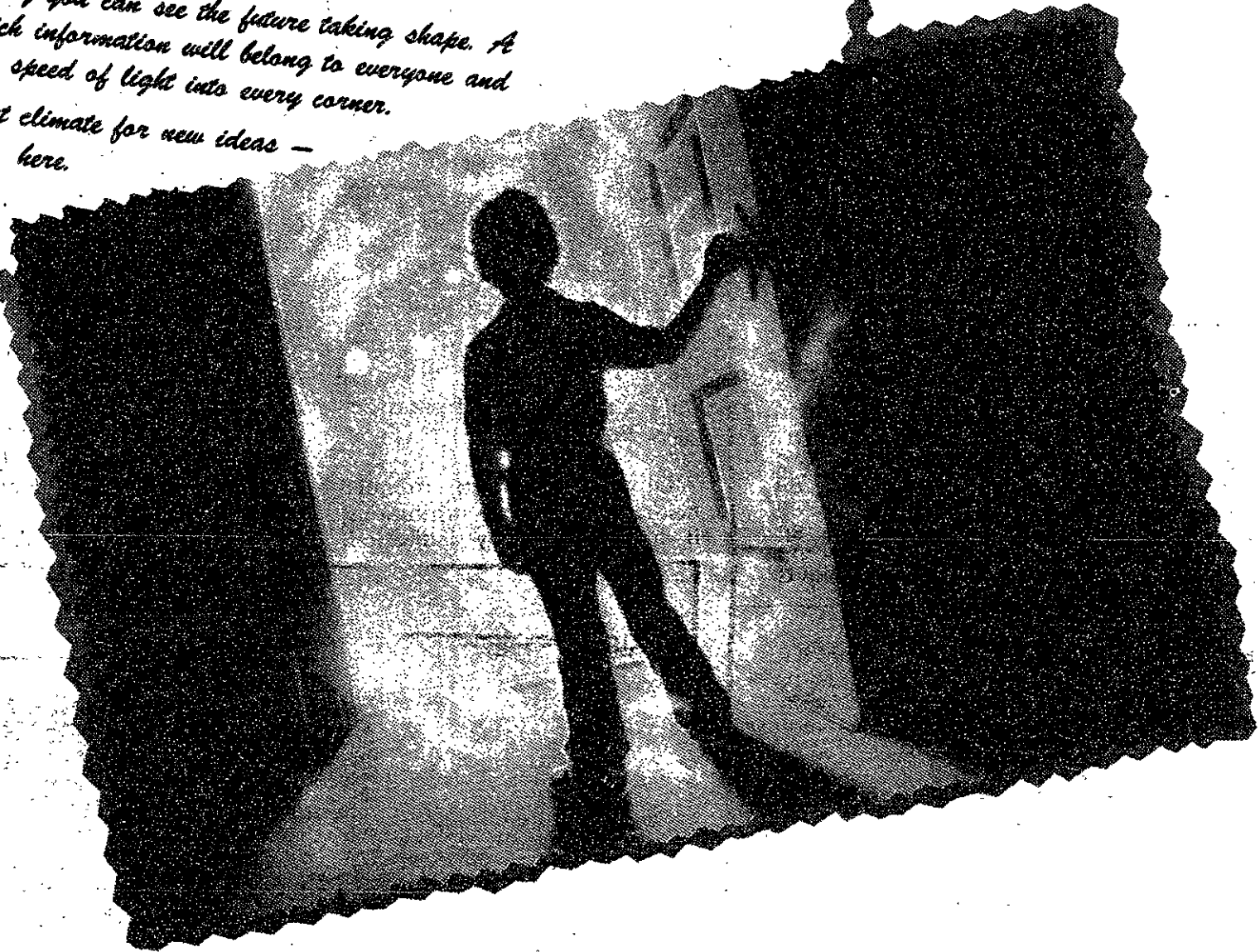
Ajay Advani '91

The Tech

Join the tradition

Living in the future —
wish you were here

Bellcore — it's a place with a perfect view of the next century. The surf breaks on the leading edge. On a clear day you can see the future taking shape. A future in which information will belong to everyone and move with the speed of light into every corner. It's the perfect climate for new ideas — wish you were here.



We're the central research and technology source for the Bell operating companies. Our areas of inspired research cover software development, applied research, network information systems, systems engineering, network planning services and equipment assessment.

We have opportunities in our northern and central New Jersey facilities for individuals with BS, MS and PhD degrees in Computer or Electrical Engineering or Computer Science who can help us provide superior technology and implement strategies that will allow the Bell operating companies to deliver advanced systems to their customers. We're also looking for creative talent with PhD degrees in Mathematics,

Statistics, Operations Research, Physics or Human Factors Engineering.

Working in the future is the place to be—if you would like to join us.

**Sign up at the
Career Planning &
Placement Office to
meet our recruiters
on campus
March 10**

Alternatively, send your resume detailing your education and experience to: Manager, Technical Employment, Bellcore, Department 127/5438/89, 4B-130, CN 1300, Piscataway, NJ 08854. An equal opportunity employer.

Bellcore

ⓐ Bell Communications Research

MIT faculty's music makes for an engaging evening

MIT FACULTY COMPOSERS CONCERT

Works by MIT Professors Peter Child, David Epstein and John Harbison, and Lecturers Richard Cornell and Thomas Oboe Lee. Performed by Sheila Waxman, piano, Karen Kaderavek, cello, and soprano Susan Larson. Killian Hall, March 1.

By JONATHAN RICHMOND

LAST WEDNESDAY NIGHT five MIT composers had their wares on show, and an engaging as well as invigorating evening it was too. The pieces were quite different, but each one showed imagination and soul. Sheila Waxman launched the proceedings by playing Head of Music and Theater Arts David Epstein's *Piano Variations*, written in 1969-70 and which, the composer says in a program note, were influenced by a "love of American jazz," a "personal relationship with the piano as an instrument," and a "fascination with variation as the basic element of musical development."

Broken elements of jazz come to light throughout the piece, which manages rhythms in a dynamic way and keeps tensions flowing to maintain interest. This gripping composition was given a bold performance by Waxman, her attack — precise and clean — designed to ensure full exploration of all the work's complexities.

Peter Child's *Sonata*, dating from 1977, is an experiment, Child says, "in recasting classical sonata form using a contemporary non-tonal pitch language." The music seesaws between "waves of tension and relaxation," and it is this aspect, combined with a general sense of unfolding, which makes the work engrossing. Waxman once more put in a powerful performance, but her tendency to a violent percussiveness, not inappropriate to music with jazz in its veins, and adding brilliance to Child's cli-

maxes, did not seem at home during his more introspective passages.

This problem continued with the performance of Richard Cornell's *Sonata for Cello and Piano*, a deeply lyrical work to which Waxman contributed vitality but not beauty. Cellist Karen Kaderavek (to whom the work, composed in 1985, was dedicated), on the other hand, produced a rich tone and a highly personal, involved response to Cornell's invitation to recall in the cello's sound "the best singing both by its tone colors and by its eloquence."

Kaderavek's sound was deeply penetrating, and its piquancy was richly, but also sensitively colored. The final movement, *Song: Tides with Ceaseless Swell*, presented thick and powerful textures, born aloft by wave-like surges from the piano. Here Waxman was able to enter into the spirit of the work, even if earlier on there had seemed little rapport between the two performers and an inability, on Waxman's part, to enter into Cornell's special world.

Thomas Oboe Lee's *29 Fireflies, Book II*, v-xi, dating from 1982-86 is part of a

series of five books for solo piano in which, Lee says, he uses Chopin as his starting point, "just as Chopin was inspired to write his *Preludes* after Bach's *Well-Tempered Clavier*." The music displays a bright and driving character, but also a softer side, and was effectively played by Waxman.

The concert ended with the largest-scale work on offer, John Harbison's *Mirabai Songs* (1982), sung by Susan Larson. The songs are based upon the ecstatic religious poetry of Mirabai, who put aside the customs of sixteenth-century India and left home to write poetry, rather than join the body of her deceased husband on his funeral pyre.

Harbison's music is imbued with a mystic power, yet is also draped heavily with the human sensuality, which was articulated profoundly by Larson's voice, and underlined by Waxman's piano. Harbison's music fits the words glove-like, and Larson's felicitous ability to grasp just the right nuance, while maintaining a projection of absolute clarity, made the piece sing on both human and spiritual levels.

The pace changes in the first song, "It's True I Went to the Market," slowing down to send a shiver down the spine at the invocation of "The Dark One" (Krishna.) "All I was Doing Was Breathing" is the most deeply erotic of the songs, and Larson's deep involvement and mounting intensity took the imagination by force here.

"The Clouds," has some wonderful vocal coloration, and passages which are as passionate as they are slow and serious. But Larson was at her most potent in her singing of the concluding "Don't Go, Don't Go." Larson brought across the song's painful, desolate nature, but with lyricism brought out the balm that would soothe the soul of Mirabai when, finally "fallen down to grey ashes," she responds to Mira, who says: "You who lift the mountains, I have some light, I want to mingle it with yours."



Cellist Karen Kaderavek (left) and pianist Sheila Waxman

Andy Silber/The Tech

WANTED: EXPERIENCED/WOULD-BE TREEHOUSE BUILDERS FOR INVOLVEMENT IN MULTI-MILLION DOLLAR PROJECTS.

The Winter Construction Company is one of the most progressive and aggressive general construction firms in the nation. Headquartered in Atlanta, Georgia this ten year old growth oriented firm is rapidly establishing a major position in the Southeast. Challenge, growth, responsibility, recognition and rewards are all awaiting the exceptional engineering graduates who join the new generation of dynamic management in the nation's largest industry.

Robert L. Silverman, Chairman and Chief Executive Officer, and Sean Beausoleil, Project Engineer and a 1988 Civil Engineering graduate from MIT, both of The Winter Construction Company, would like to invite you to a reception on Sunday, March 5, 1989 from 8:00 p.m. to 10:00 p.m. at the Hyatt Regency Cambridge to discuss career opportunities.

In addition to the reception, interviews are now being scheduled through the Office of Career Services for March 6 to discuss your qualifications and interest in joining The Winter Construction Company's team.

Try not to miss this terrific career opportunity.



1969

MARCH

1989

4

SCIENTISTS, STUDENTS AND SOCIETY

Teach — In

Friday, March 3rd

George Wald, Nobel Laureate, Harvard Professor of Biology

MIT Speakers Include:

Michael Albert, UAPres '69

Tom Hsu, G

Lisa Greber, '87

Dirk Karis, '90

Prof. James Melcher

Prof. Jay Fay

10-250

3:00 pm

Co-sponsored by The Technology Culture Seminar at MIT, MIT Student Pugwash and Science Action Coordinating Committee

Organic growth supplies the patterns in student art exhibit

REGINA VALLUZZI
GERALD McCARTY

Paintings and drawings.
Wiesner Student Art Gallery.
Closing party today.

By MARK ROBERTS

THE TWO ARTISTS WHOSE WORK is on display in the Student Center share an interest in organic growth as a source of patterns. In the paintings and drawings of Gerald McCarty '89, which are built around crystalline constructions, this interest is made explicit; in the statement that accompanies the exhibition he states that the "organic impulse for growth" lies at the source of his inspiration.

The intention of the abstraction Regina Valluzzi '89 practices is to focus attention on the work itself, allowing "the work of art to become its own subject" and "function as a door into itself." Familiar objects are glimpsed, but the process of creation is clearly paramount, building the pictures in a series of steps that are as relentless as the growth of a crystal or micro-organism, yet capable of producing vital and original designs.

Valluzzi works in a variety of drawing media. Three dark medium-sized works in charcoal, *Labyrinth* and two untitled works, immediately catch the eye. There are gentle areas of color, but shades of grey are predominant. The overlapping areas are built up like scales; the charcoal is used to effectively sculpt the forms. What gives life are the flecks of detail — pebbles on a beach one seems to see, or a glittering eye peering through a chink in this organic dream wall. The pictures suggest the brooding thoughts that billow around the subconscious. The emotional content of Valluzzi's work is suggested in her statement that they are largely based upon, and intended to convey, mood.

The same meticulous accumulation of

abstract detail is seen in the series of miniature pen and ink drawings on paper that accompany the larger works. These are most successful when most abstract; those that incorporate complete objects appear rather hackneyed, a little too like the doodles one does in the margin of a school book to stand individual scrutiny. Eyes, faces and hands have not been closely observed enough to work as representation, but their presence constrains the spectator's response.

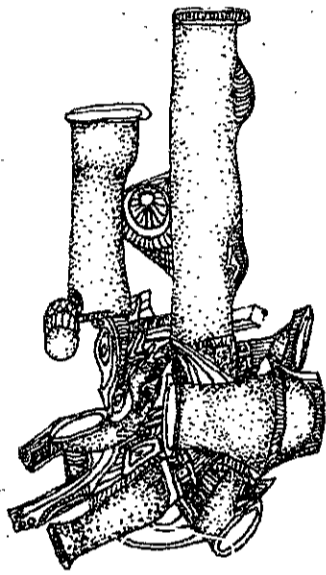
Although a tracery of fine lines holds together many of her pictures, Valluzzi is adept at the discreet use of color in several more charcoal drawings, including a tactile, rich still life. There are also two essays in oil, which appear rather different from most of the drawings. *Our Town* is again dreamy, but ethereally rather than broodingly so. Delicate, teetering houses, painted almost childishly, are reflected in the whirling central pool, vigorously sculpted in paint. *Our Town* is a suggestive, intriguing picture, superior to the disjointed *Sailing* that hangs beside it.

McCarty's work is at its best when abstract, as well. Two charcoal drawings of

houses that accompany his grand sketch for an installation on the Anchorage coastal trail are uninspired, but some of his experiments with the theme of crystals are exciting.

The culmination of the McCarty's crystal interest is represented by three large drawings in ink and charcoal dating from 1988, in which a hexagonal crystal motif is featured in diminishing magnification. All three are composed around a strong line, running lengthwise on a slight diagonal. The largest scale is seen in *Crystal Print*, which is the least satisfying of the three because it involves large areas of open

color, with which McCarty is less at ease than the tiling effects of a finer detail. *Crystal Submerged* shows a richer image, and vividly suggests the primeval surges of fire and chemistry that presage life. The last and best of these drawings, *Crystal Resin*, seems to take this idea further. The line dividing the picture is hard, and has become horizontal, suggesting a geological crust through which a spawning breed of hexagonal crystals has burst out into a world of looming mountains and elemental forces. Growth is seen as both a physical process and a mystery, an idea which the work of both these artists confirms.



Untitled work by Regina Valluzzi

The Tech Performing Arts Series presents...

ORPHEUS CHAMBER ORCHESTRA

New York's Orpheus make their Boston debut with Alfred Brendel performing Mozart's *Piano Concerto No. 12*. The orchestra will also play Wagner's *Siegfried Idyll*, Haydn's *Symphony No. 83* and Schoenberg's *Chamber Symphony No. 2*.
Symphony Hall, March 5 at 8 pm. MIT price: \$5.

ANDREW RANGELL

Andrew Rangell continues his Beethoven Sonata Cycle with performances of the *Hammerklavier Sonata*, as well as Op. 2, No. 2, Op. 10, No. 3, and Op. 79.
Jordan Hall at New England Conservatory, March 5 at 8 pm. MIT price: \$4

AMSTERDAM LOEKI STARDUST QUARTET

If it sounds unlikely that a group of four from Holland can put together an orchestral-sized sound from a quartet of recorders, you need to see the amazing Amsterdam Loeki Stardust Quartet this Sunday. The variety of sounds they produce is extraordinary — and some of the recorders in use — which range from the tiny to the massive — are almost as big as their players.

First Baptist Church, 110 Commonwealth Avenue, Boston, March 5 at 8 pm. MIT price: \$5.

MURRAY PERAHIA

Murray Perahia will perform Beethoven's *32 Variations in C minor* and *Sonata No. 26 in E-flat* and works by Rachmaninoff, Schumann and Liszt.
Symphony Hall, March 12 at 3 pm. MIT price: \$5.

Tickets are on sale at the Technology Community Association, W20-450 in the Student Center. TCA offices are open only limited hours.

Office hours are posted on the door; alternatively, you can call x3-4885 before walking over.

The MIT Community Players Present

The Imaginary Invalid

By Molière

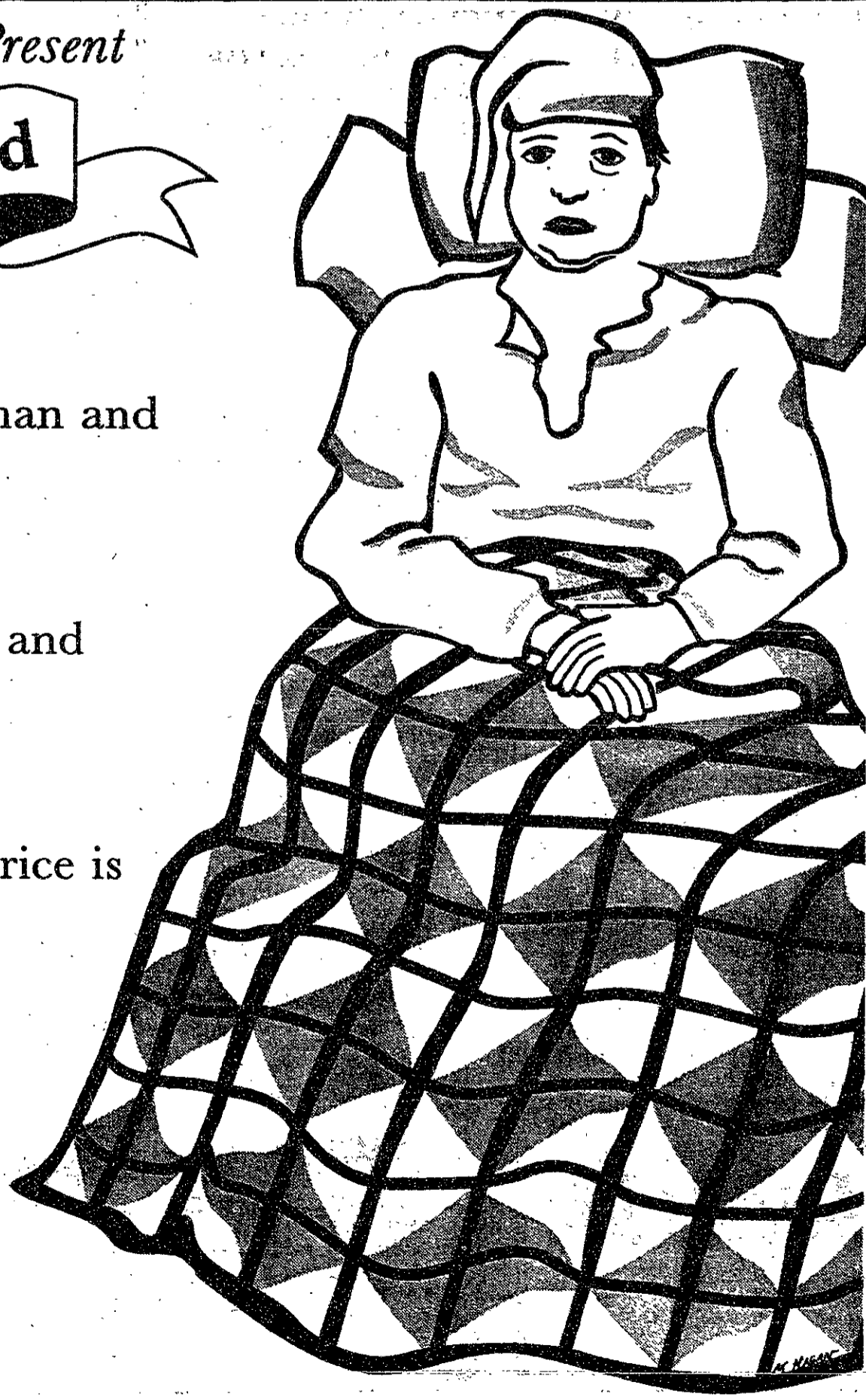
A classic comedy, satirizing the follies of man and medicine.

Final two performances - Friday, March 3 and Saturday, March 4 at 8 pm.

Special Student discount - regular ticket price is \$8, now only \$5 with this ad and an MIT student ID.

Call 253-2530 for information and reservations.

This production funded in part by a grant from The Council For The Arts At MIT.



classified advertising

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

Stay Well, but if you develop symptoms of a urinary infection, enter a Medical Department study. Evaluation, treatment, free medication, and for the trouble of your participation, \$40. For questions contact x3-4481.

Run Your Own Summer Business. Gain valuable experience while making good money. Average earnings: \$8000.00. Positions filling fast. Call Robert Martwick at 1-800-922-5579.

Sexually Transmitted Disease Confidential testing and treatment of STD's and AIDS. Also general medical care, sports medicine, birth control, etc. Private office. Robert Taylor, M.D., 1755 Beacon Street, Brookline, 232-1459.

WAKE 'N BAKE - in beautiful Negril, Jamaica. Unbelievable Spring Break packages starting at \$439. Call Sun Splash Tours at 1-800-426-7710.

Seeking individuals with chronically ill sibling for Master's research. Focus on your experiences through interview. 1 hour interview at your convenience. Susan Resek 569-3189 daytime telephone.

CAREER OPPORTUNITY

Graduating Engineers: Learn about Fire Protection Engineering, a high paying field with more jobs than applicants. Starting salaries range from \$35,000 to \$45,000. Worcester Polytechnic Institute will be recruiting for graduate students with presentations on March 1, 1989 at 10:00 AM and 2:00 PM in the Office of Career Services, Room 12-170. Fellowships and internships available.

Summer Jobs to Save Environment Earn \$2500-\$3500. National campaign to pass clean air act, stop toxic pollution, tighten pesticide controls, and promote recycling, in 18 states and D.C. Interviews on campus 3/8. Call Joe at 617-292-4810.

The Alternative Beat, DJs available for upbeat college dances and parties with modern attitude. Progressive, New Wave, Industrial, Acid House and more 80's dance music. Call 629-9491 or 262-6377.

Student volunteers needed to participate in exciting summer service project in Guatemala July 1-31. Need \$1,500 plus air fare. Sponsored by World Student Service Corps. Call Rita or Herbert at 266-3630.

Beginning Course in Practical Meditation using breath, sound, and energy to give participants a variety of skills they can use in their work, relationships, and self-development. Eight sessions: \$40, \$25/students. Karla Lehtonen, instructor, 277-9359. First meeting Thurs, March 9, 12-1 pm, RM 1-114.

Need help moving? Students and others - Have truck will travel - will move anything - small or large jobs - reasonable rates. Call Frank anytime 284-5401.

Boston Institute for Psychotherapy (Kenmore Square) needs participants for research on small work groups. Time: 1 1/2 hours. Pay: \$12.50 + chance of bonus; public transportation reimbursed. To schedule appointment, leave message: 269-8720.

MCAT

INTENSIVE CARE FOR TEST-TAKERS.

Get a healthy MCAT score by taking a test prep course with Stanley H. Kaplan. Our educational review and test-taking techniques are the best in the field. Call!

KAPLAN
STANLEY H. KAPLAN EDUCATIONAL CENTER LTD.

The Tech News Hotline: 253-1541

ONE STOP FULL SERVICE COMPUTER STORE



AUTHORIZED SALES and SERVICE
HEADSTART int'l Panasonic EVEREX
We also feature ΔHYUNDAI SUPER 286C
MON-FRI 9: AM-6: PM
(Near Inman Square) SAT. 9: AM-3: PM **492-2345**



E.L.I. COMPUTERS inc.
YOUR HOME AND OFFICE COMPUTER STORE
139 HAMPSHIRE ST. CAMBRIDGE, MA. 02139

Opera House BOSTON

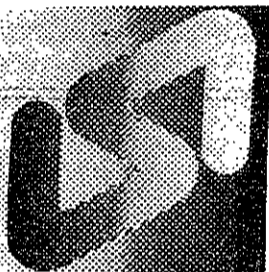
"An Outspoken Evening with **MORTON DOWNEY, JR.!**"

Saturday, March 18



Tickets available at: Opera House Box Office, All Ticketron Outlets, Out of Town Tickets, Strawberries Records and Tapes and Teletron (800) 382-8080 or (617) 720-3434.

Your foreign language ability is valuable!



Translations into your native language are needed for industrial literature. You will be well paid to prepare these translations on an occasional basis. Assignments are made according to your area of technical knowledge.

We are currently seeking translators for:
• Arabic • Chinese • Danish • Dutch
• Farsi • French • German • Greek
• Italian • Japanese • Korean
• Norwegian • Polish • Portuguese
• Romanian • Spanish • Swedish and others.

Into-English translations from German and French. Many other languages also available.

Foreign language typists also needed. All this work can be done in your home!

Linguistic Systems, Inc. is New England's largest translation agency, located a block north of the Central Sq. subway station.

For application and test translation call Ms. DePhillips 864-3900

Linguistic Systems, Inc.
116 Bishop Allen Drive
Cambridge, MA 02139

UNITECH Thinkmate® Computers

COMPUTER DISCOUNT CENTERS



- Guaranteed 100% IBM compatible
- One year warranty
- Money-back satisfaction guarantee

PC/XT 10 MHz Starter System! \$599

Complete system with: Monochrome monitor and monitor card - Printer port - 256K of ram, expandable to 640K on the motherboard - 360K floppy disk drive - 84-key keyboard.

286/AT Monochrome System! \$1099

A ready-to-run full system for home or business use. Includes monochrome monitor and card - Printer port - 512K ram, expandable to 1Mb on the motherboard - 84-key keyboard - High density 1.2Mb floppy drive.

386 Multi-user Business System! \$2600

1.2Mb 5 1/4" floppy drive - High resolution monochrome monitor - Parallel, serial, and game ports - 1Mb high speed RAM expandable to 4Mb on the motherboard - 101-key deluxe keyboard.

VALUABLE COUPON

MOUSE \$29

- Connects directly to the serial port
- Compatible with all mouse driven software
- For Ventura, PageMaker, Windows
- Compare to \$119

Limit 4 per customer per day. This offer does not apply to #MSS, #MSS2 and #MSS4. May not be combined with any other offers. Void where prohibited. Expires on March 9, 1989.

UNITECH COMPUTER DISCOUNT CENTERS

- CAMBRIDGE: 24 Thorndike Street (617) "UNITECH"
- NATICK: Rt. 9, Sherwood Plaza (508) 651-2725
- DANVERS: Liberty Tree Mall (508) 750-3600
- DEDHAM/WESTWOOD: Rt. 1, Rainbow Sq. (617) 320-3600

SCIENTIFIC AMERICANS

A PLAY BY JOHN MIGHTON

A READING/ OPEN REHEARSAL/DISCUSSION

FRIDAY, MARCH 3
8 PM
BARTOS THEATER
BASEMENT, MEDIA LAB

THIS PLAY ADDRESSES ASPECTS OF THE MARCH 4TH TEACH-IN AND WE HOPE TO USE THE EVENT TO LAUNCH A FULL PRODUCTION. WE NEED INPUT, SUPPORT AND PRODUCTION HELP FROM MEMBERS OF THE COMMUNITY INTERESTED IN FOSTERING TEACHING THROUGH THEATER. AT THE READING AUDIENCE MEMBERS CAN PARTICIPATE AS ACTORS, DIRECTORS OR PIECES OF FURNITURE.

COME AND JOIN US!

ENGINEERS OVERSEAS

DON'T:

- wear a suit and tie
- shuffle papers and answer phones
- sit at a desk all day

DO:

- live in foreign countries
- work outdoors
- take charge
- make decisions
- face many challenges
- bear heavy responsibility
- work long hours
- operate sophisticated electronic equipment
- record information on oil and gas wells
- interpret that information

ENJOY:

- being their own boss

THIS JOB IS NOT FOR EVERYONE - BUT IT COULD BE FOR YOU!

Schlumberger, the world leader in Wireline Well Logging has immediate career opportunities **Overseas** for individuals with an **M.S. or B.S. degree in E.E., M.E., Physics or the Geo-Sciences**, excellent scholastic record, hands-on aptitude and 0-3 years work experience.

OPENINGS FOR PERMANENT AND SUMMER POSITIONS

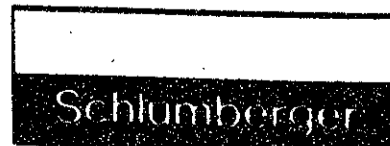
U.S. or Canadian Citizenship preferred

INFORMATION MEETING*

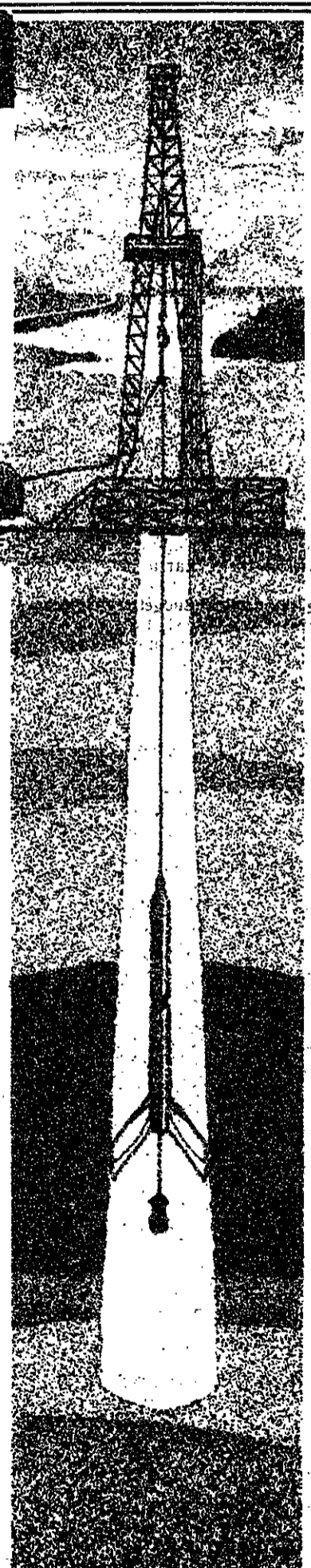
Date: March 7, 1989
Time: 7:00PM - 9:00PM
Place: Room 4-149

INTERVIEWING
March 8 & 9, 1989

*All candidates must attend Information Meeting



Exceptional people. Exceptional technology. Worldwide.



Cryptic Crossword #1 Solutions

Across

1. ROLL OF THE DICE
10. ASTRIDE
11. MALARIA
12. HAIR
13. CHORE
14. BORE
17. OH HENRY
18. NOW I SEE
19. PILGRIM
22. ARTEMIS
24. ALTO
25. BLAKE
26. AJAR
29. ELEMENT
30. EMPORIA
31. MOVE TO THE REAR

Anagram using "The coil folder"
 Rebus: A + STRIDE
 Italian: bad = MAL, song = ARIA
 Pun on "hare"
 Containment: "... anchor evidently."
 Double meaning
 Pun on "O. Henry"
 Containment: "No wise epigrams..."
 Anagram/Word-division: P(GIRL + I)M
 Anagram of "Meat sir"
 Beheadment/Anagram: TOTAL - T
 Subtraction/Anagram: CLAMBAKE - MAC
 Rebus: A + JAR
 French: the = LE, + MEN, all within ET
 POEM = EMPO; AIR backwards is RIA
 Double definition

Down

2. OSTRICH
3. LAIR
4. FRESHLY
5. HOME RUN
6. DOLE
7. CARROTS
8. FASHION PLATES
9. NAMELESS DREAD
15. ENTRY
16. OWE TO
20. LET ME GO
21. MULATTO
22. ASK BETH
23. MAJORCA
27. MERE
28. SPAR

Containment: "Lost Richard..."
 Anagram for "liar"
 FRY contains anagram for SHE + L (Roman 50)
 Rebus: HOMER + UN
 Double meaning
 Rebus: CAR + ROTS
 Pun on "plates"
 Anonymous = NAMELESS, + D(READ)
 Beheadment of "sentry"
 Pun on "OF"
 Double definition
 Containment: "Formula T Totally..."
 Anagram for "bask the"
 Rebus: MAJOR (officer) + CA (state)
 Word-division: M(ERE)
 Containment: "... thrusts, carries."

notices

Wednesday, Mar. 15

Ellen Langer, Professor of Psychology, Harvard will speak on "Great Vocations: The Psychologist" at the Cambridge Forum on Wednesday, March 15 at 8 pm.

Sunday, Mar. 19

Sissela Bok, philosopher, will discuss her new book *A Strategy For Peace* on Sunday, March 19 at 3 pm at the Cambridge Forum, 3 Church Street, Harvard Square.

Carolyn Toll Oppenheim will speak on "Free Speech in the Jewish Community" at 7:30 pm at Boston University Hillel, 233 Bay State Road, Boston. For more information, call (617) 353-3633.

Tuesday, Mar. 21

The Distinguished Women in Operations Research and Engineering Lecture Series at MIT will present Karla Hoffman of George Mason University talking on "Optimizing the Capital Budget for Telecommunications Companies" from 4:00 to 5 pm in E40-298. Refreshments will be served.

Thursday, Mar. 23

A seminar entitled "Software Patents: A Horrible Mistake?" will be held from 2-6 pm in Room E15-070 on Thursday, March 23.

Fellowships, Scholarships, Grants and Awards

The MIT-Japan Science and Technology Program is pleased to host the third "MIT Japan Science and Technology Prize." The application deadline is May 15, 1989. Applications and further information may be obtained from Kathy Schaefer in Room E38-754, 253-2839.

The Aga Khan Program for Islamic Architecture 1989 Summer Travel Grant for the Study of Islamic Architecture are open for graduate students at MIT for research and field work. Projects must show clear potential for making a contribution to the Aga Khan program. Applications are due March 10. For complete details, please contact The Director, Aga Khan Program, Building 10-390, MIT, Cambridge, MA, 02139 or call (617) 253-1400.

The Massachusetts Construction Advancement Program (MCAP) is offering a \$16,000 scholarship aid to full-time sophomores and juniors in civil engineering, construction, or construction management. Applications should be available in the Civil Engineering department or are available from the MCAP office, 888 Worcester Street, Wellesley, MA 02181. Applications are due by April 1, 1989.

The Department of Biology is now accepting nominations for the John Asinari Award for Undergraduate Research in the Life Sciences. Undergraduates in Course VII, VII-A and VII-B are eligible for the award. The deadline for submissions is April 21, 1989. See Pat Turner in 56-511 (x3-4729) for more information.

CONTEXT WORKSHOP

(An experiment in problem-solving for students and faculty)

Q: What should MIT be doing about the "GREENHOUSE EFFECT?"

There may be a global catastrophe upon us. What should faculty and students at MIT do about it? What is our responsibility? What are some of the technical, social, economic and political issues that need to be addressed? A workshop on **March 8** is planned to bring students and faculty together, moderated by Professor Larry Lidsky:

Wednesday, March 8

at 5pm

in Room 10-280

(Rood/Refreshments Available)

Object: To brainstorm, debate, and come up with ideas. A workshop "white paper" might be produced to present to appropriate officials at MIT and elsewhere.

Before the Workshop: We would like you to watch the NOVA videotape, "Hot Enough for You?" to give you an idea of the scope of the problems and issues. The tape is available at both the Barker and Music Libraries or call the Undergraduate Education Office, x3-7909.

Interested? Find out details by coming by or calling the UEO, Room 20B-141, x3-7909.

Baring Brothers, the London-based merchant bank,
is now accepting applications for its

Financial Analyst Program

in the New York Mergers and Acquisitions Group. Applicants for this position should possess outstanding academic credentials, excellent quantitative and communications skills, coursework in accounting and finance and an aptitude for challenging work. Interested students should forward resumes and appropriate cover letters before March 17, 1989 to:

Nicos K. Anastasopoulos '86
Associate



Baring Brothers & Co., Inc.

667 Madison Avenue, New York, N.Y. 10021

We're the Minnesota Supercomputer Center, Inc., the provider of advanced, large-scale computational services to major corporations, government and university researchers nationwide. We will be welcoming experienced computer professionals at our booth at the BPI TECH FAIR located at BOSTON (3-6 & 3-7-89) AND CAMBRIDGE (3-8-89). Stop by and let us tell you about our state-of-the-art environment. Its emphasis is on power and diversity, and includes the most advanced models from Cray Research and ETA Systems with UNIX, TCP/IP and X Windows as the software foundation. Ask us about openings available in:

**CLIENT TECHNICAL SUPPORT
 MARKETING TECHNICAL SUPPORT
 GRAPHICS/VISUALIZATION
 OPERATING SYSTEMS
 DATA COMMUNICATIONS**

Consider your potential with the Minnesota Supercomputer Center, a showcase for the supercomputer industry. We're committed to maintaining the most advanced computational hardware and software facilities possible and to attracting the most talented professionals in the field. Current openings include positions in Minnesota and in various other areas of the country.

Meet us at the fair. If you are unable to attend, call us collect at (612) 626-1888, or send your resume to:

Director of Administration
**Minnesota
 Supercomputer
 Center, Inc.**

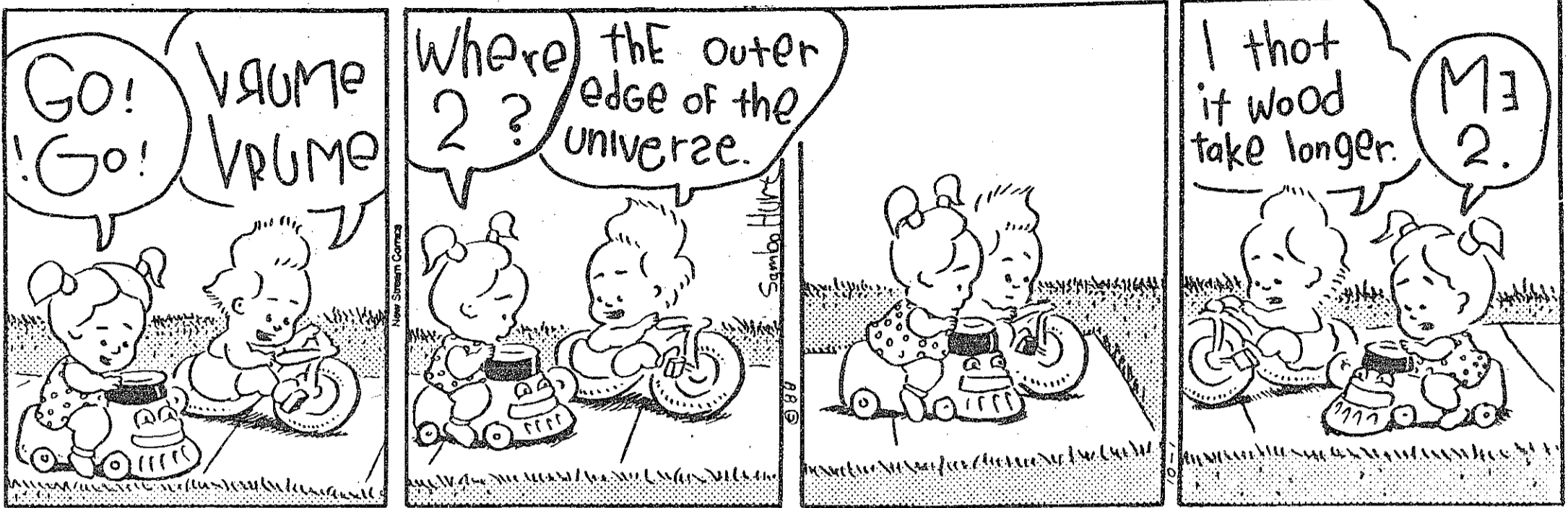
1200 Washington Ave. So.
 Minneapolis, MN 55415

MSC is an equal opportunity employer.
 *UNIX is a trademark of AT&T Bell Laboratories
 X Windows is a trademark of the
 Massachusetts Institute of Technology

comics

EVOCAM

by SamHurt



AMERICAN CANCER SOCIETY
Adopt a Smoker
 Help a friend not

This space donated by The Tech

STUDENT CRUISES!

- Cabin Sharing
- Student Rates
- Inclusive Packages
- Caribbean/Mexico/Bermuda

We deal only in cruises. No one beats our prices.

Call Siri Riis toll-free 800/825-0826

CRUISE COMPANY
 33 Lewis Street
 Greenwich, CT 06830

You say you're tired of loose brakes, squeaky chains & those loose rattles that make you hate your bike? Well...

GET IN TUNE THIS SPRING WITH OUR SPRING TUNE-UP SPECIAL

Reg. \$24.95 Now \$19.95

your alternative to high prices
the bicycle workshop
 259 Mass Ave
 Cambridge (near MIT)
 876-6555

JUNIORS EXPLORE TEACHING

May 23 - June 30, 1989

Study of Educational Psychology coupled with half-day school-based exploration of teaching. This summer experience is the first part of the integrated BA-MAT (or BS-MAT) program that leads to certification for middle or secondary school teaching. For further information:

Prof. Dorice J. G. Wright
 Department of Education
 Tufts University
 Medford, MA 02155
 (617) 381-3244

Council Travel

from Boston Round Trips starting at

LONDON	318	CARACAS	370
CHICAGO	138	TOKYO	679
Boston-FLORIDA	149	SYDNEY	1128

Amtrak
 Restrictions apply, taxes not included.
 Check our low teacher fares.
EURAIL PASSES ISSUED ON THE SPOT!
 Call for FREE Student Travel Catalog!
617-225-2555
 MIT Student Center

R & D People Needed!!

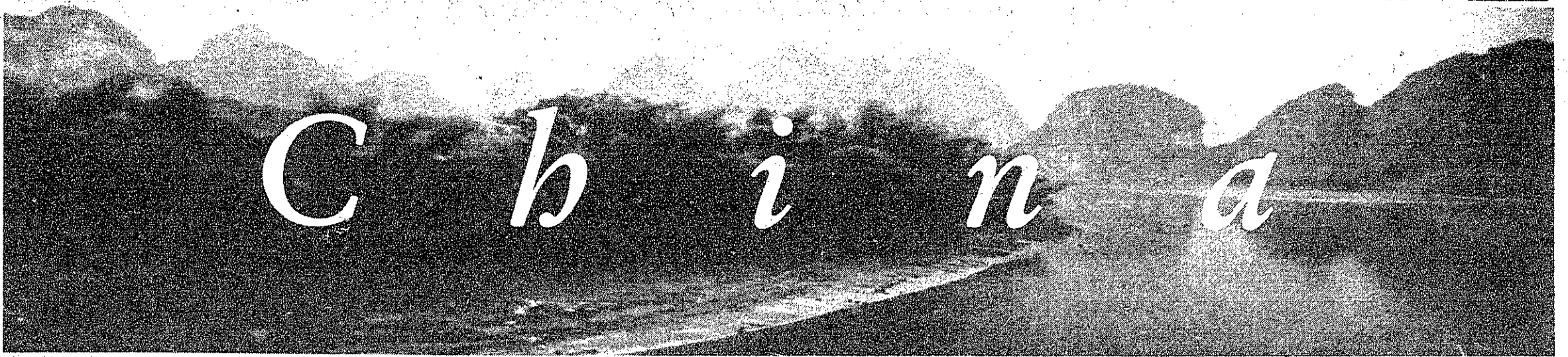
Boston Technology is a growing Cambridge company and a leader in the voice processing industry. We're looking for talented, enthusiastic C/UNIX Engineers who like being part of a fun, hard working team. Call our Job Line and find out more about all the exciting opportunities at Boston Technology.

Call (617) 225-0500 and press 6 from a touch tone phone, or call the Human Resources Department at (617) 225-0500 Ext. 492.

YOU'D HAVE TO GO A LONG WAY TO FIND A BETTER VALUE THAN THE S&S.

It's true. A deli in LA did get a teeny bit higher rating than us in a recent national survey. Still, the S&S being named one of the nation's 100 Top Value Restaurants by the renowned Zagat Restaurant Survey is quite an honor. Besides, the S&S isn't just a great deli. We have meal-sized appetizers like spicy Buffalo Wings. Unforgettable entrees including sauteed swordfish with sun-dried tomatoes and Chicken Monterey. Generous drinks. And no tofu or waiters calling you dude. So why not fly over to the S&S and enjoy one of the country's best restaurant values. You'll save hundreds on airfare alone.

S&S Restaurant
 A Great Find Since 1919.
 Breakfast, Lunch, Dinner. Mon.-Sat. 7:00am-12:00am. Sun. 8:00am-12:00am. Inman Square, 1334 Cambridge St., Cambridge, 354-0777.



China

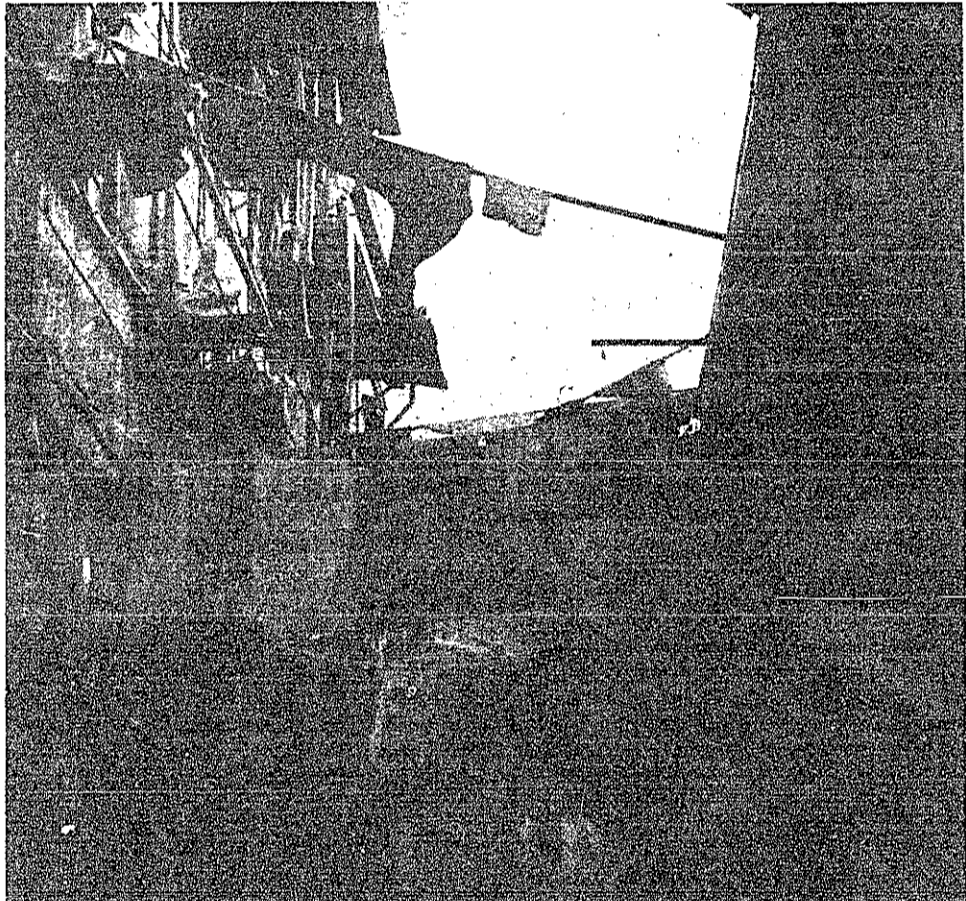


A funeral procession in southern China, near Yangzhou



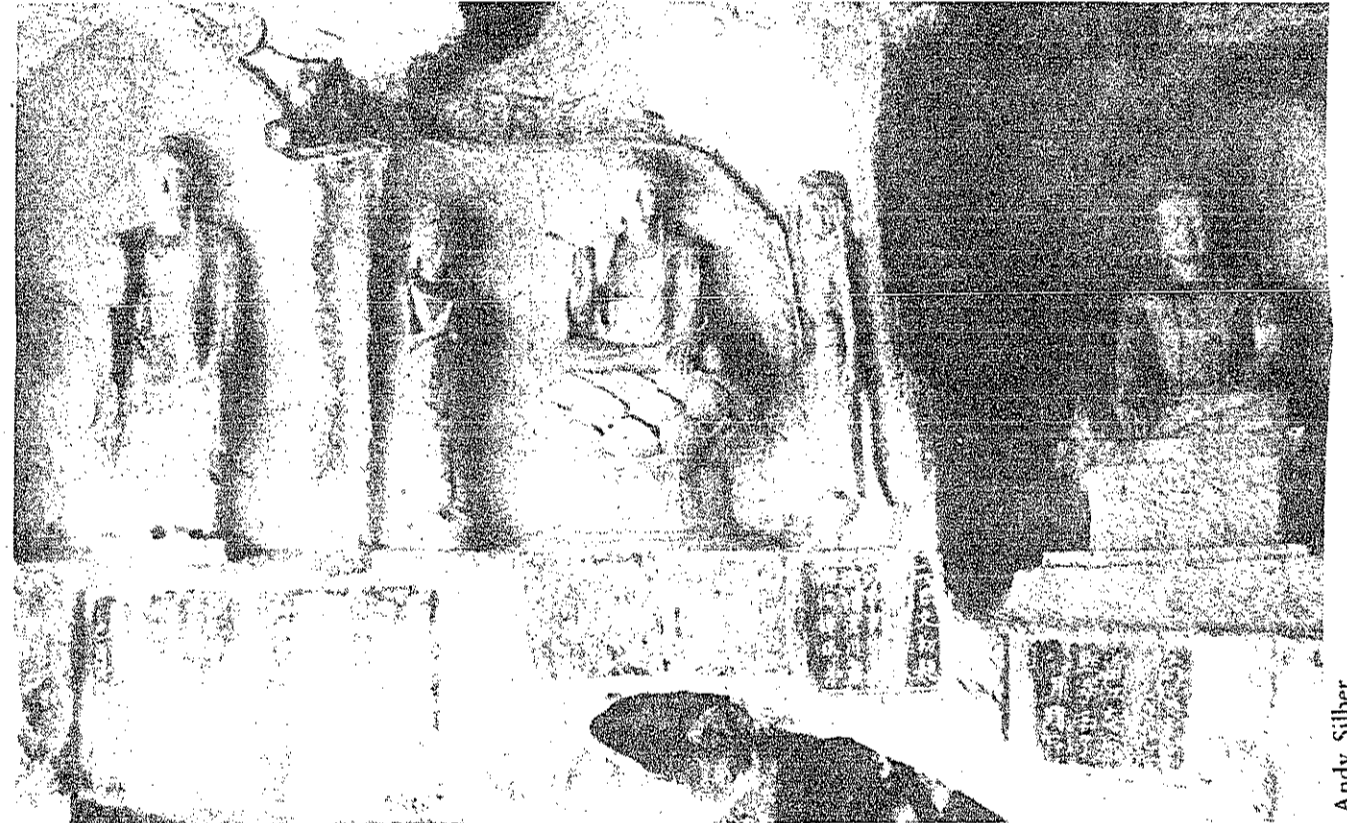
Friendly young faces of China

Julian Iragorri



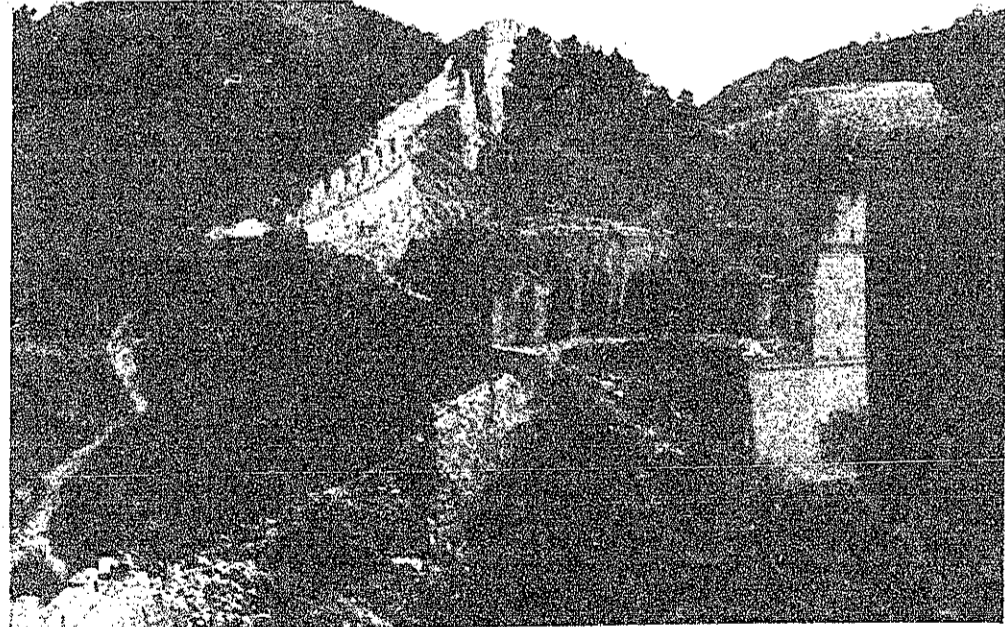
Typical alley in China

Julian Iragorri



A peaceful cave in Guilin

Andy Silber



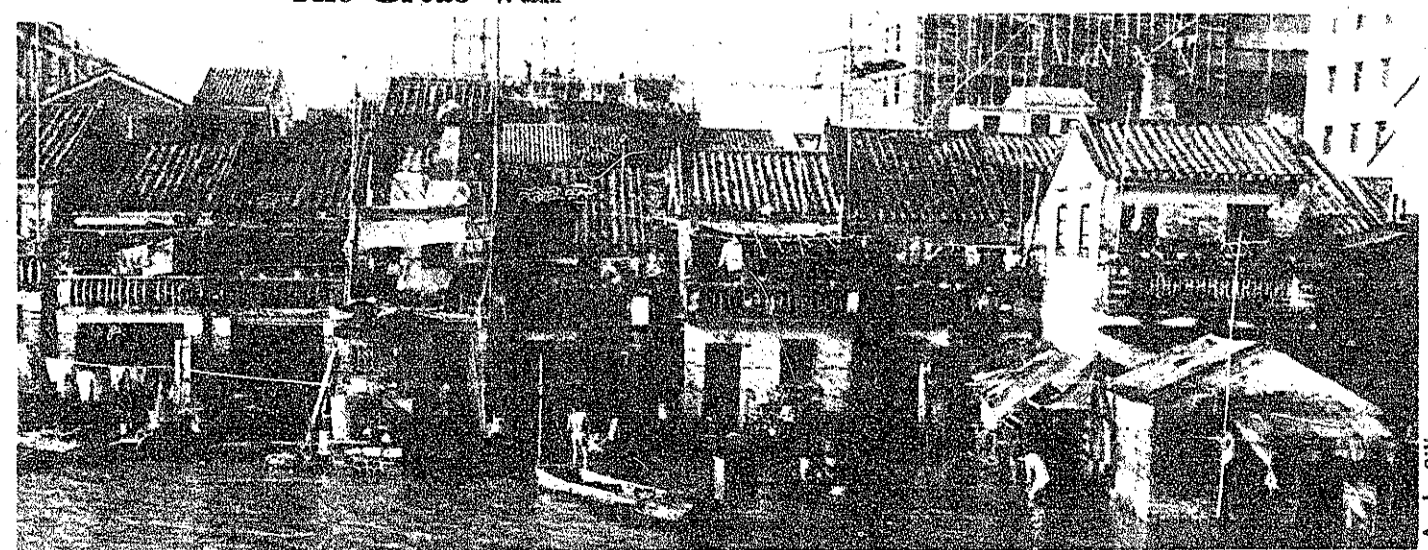
The Great Wall

Andy Silber



The hustle and bustle on the street

Julian Iragorri



After a flood of the Pearl River

Andy Silber

sports

Basketball caps season with 51-point laughter

By Harold A. Stern

The crowd tensed as the clock ticked off the final minute of play. A Stan Wojnowski '91 jump-shot appeared to end it, but Emerson College came right back with a basket. With just a few seconds left, Emerson added another score to apparently put it out of reach. But Brian Lawrence '91 pulled up and nailed a three-pointer at the buzzer to seal the 50-point margin of victory for MIT, as they annihilated the Lions, 112-61.

The game, obviously, wasn't much of a competition, and when it became apparent by half-time that MIT would pass the

MIT 112, Emerson 61 at Rockwell Cage

Emerson Lions (3-19)

Richard Cresta 5-3-13, John Vincenzo 3-3-10, Gerald Parisella 0-2-2, Robert Morris 1-0-2, Larry Potash 5-2-12, Andy Needel 0-0-0, Mike Isenberg 3-0-9, Joe Stephens 1-0-2, Paul Delaney 0-2-2, Todd Shapiro 0-1-1, T. J. Maher 3-0-8. Totals: 21-13-61.

MIT Engineers (14-8)

Mike Casagrande 3-2-8, Doug Cornwall 5-0-10, Trae Shattuck 7-3-17, Dave DellaGrotte 3-0-6, Jay Fraser 13-2-29, Mike Duffy 2-0-4, Dave Tomlinson 4-0-8, Chris Sonne 2-0-4, Brian Lawrence 1-1-4, Geoff Mobisson 0-1-1, Doug Jeffrey 2-1-5, Stan Wojnowski 3-0-6, Sean Casey 5-0-10. Totals: 50-10-112.

Halftime: MIT, 69-26.

Three-point goals: Emerson, Isenberg 3, Maher 2, Vincenzo, MIT, Fraser, Lawrence.

more on both sides of the court. If the Lions were able to get through the press, they'd get stuffed inside by the taller Engineer frontcourt. MIT's starting front court — the three seniors, center Sean Casey and forwards Mike Casagrande and Doug Cornwall — plugged up the middle, rejecting the 5'-8" Richard Cresta every time he made the mistake of trying to penetrate. While Emerson could only get one shot at the hoop, MIT grabbed as many as four or five offensive rebounds on a single drive before eventually finding the hole.

And the Engineers didn't rely solely upon their obvious physical advantages. Offensively, they never got cocky, passing the ball around patiently until it found an open man. Down in Emerson's end, the Engineers' hustle led to numerous fast break opportunities.

During one brief stretch late in the half following a DellaGrotte basket, guard Chris Sonne '91 stole the ball back and fed DellaGrotte for a layup. Then DellaGrotte stole it again, missed a layup, got his own rebound and scored. Finally, Sonne took it back from Emerson, missed a three-point attempt, and forward Mike Casagrande '89 grabbed the rebound and sank both free throws after getting fouled.

When Fraser hit a 15-foot jumper with 2:54 remaining, Coach Leo Osgood sat him down to a standing ovation from the crowd; Fraser had become only the 12th Engineer to score over 1000 points in his career. For the 17 minutes he was in the game, Fraser — who had scored exactly half of his team's 54 points — outscored the entire Emerson team, which had only 24.

He only made a very brief appearance in the second half, opening up the scoring in the period — fittingly, on a layup off of a Casagrande steal — before sitting down for the rest of the game with 29 points.

Osgood put the team's second squad into the game early in the period, giving the reserves a chance to play in the team's final game of the season. Facing the Lions' first unit, they held their own, and in the end managed to extend the Engineer margin.

The play on both sides of the court grew sloppy, as the Emerson frustration manifested itself in fouls and turnovers. No one — not the Engineers, not the Lions, and certainly not the crowd — seemed to care very much about the last 20 minutes. There was, however, one brief five-minute stretch when — if you could ignore the 75-26 score on the board — the Lions actually appeared to take control of the game. Emerson hit four three-pointers in a row to go on a 12-0 run, led by Mike Isenberg — their center, who connected on three long jumpers — to cut the lead to 37.

A Wojnowski jumper with 3:25 remaining pushed MIT over the 100-point mark, while Emerson had 56. Wojnowski tried to oblige the remaining fans who clamored for a 50-point win, hitting two more baskets to make the score 106-56 with under two minutes remaining. But the Lions

clawed desperately, coming back with a basket. Doug Jeffrey '92 countered, making it 108-58. Free throws were exchanged, as both teams sank one of two to get to 109-59. When Emerson sank a basket with only a few seconds remaining, it looked bleak for MIT, until Lawrence's three just beat the buzzer.

The Engineers set a number of milestones in the game, a fitting finale to their best season in over 20 years. The 112 points was the most points ever for the Engineers in the team's 82-year history. Fraser's performance pushed him over the 1000-point mark for his career, as he ended up 11th on MIT's all-time scoring list with 1005. He was named to the Eastern College Athletic Conference weekly honor roll for his effort.

The team's 14-8 record was last bettered during the 1967-68 season, when the Engineers were 16-9. The most victories ever in a

season for the team is 17, set in the 1961-62 season. That team finished the season with the best winning percentage in the history of the program (17-4, .810). The team is nationally ranked in several categories including rebound margin (fifth) and scoring defense (13th) among NCAA Division III schools.

* * * * *

In women's basketball action at the New England Women's Eight Conference Tournament, coach Corinne Gulas was named conference coach of the year. Center Maureen Fahey '90, who finished the season as the NEW 8's leading scorer (averaging 22.1 points per game) and the second-leading rebounder (13.4 per game), received a spot on the conference all-star team. She was named to the Eastern College Athletic Conference weekly honor roll three times, most recently for the week of Feb. 18.

New England Women's Eight Conference Basketball Tournament

at Smith College, February 24-26

Wheaton	Wheaton	Smith	Brandeis
MIT	63-51	Smith	36-34
WPI	51-43	WPI	52-48 (ot)
Wellesley	52-48 (ot)	Wellesley	78-56
Babson	65-60	Brandeis	78-56
Brandeis	65-60	Brandeis	78-56

Gymnasts in their first Regionals

By Catherine Rocchio

The women's gymnastic team wrapped up their finest season ever last weekend at the Eastern College Athletic Conference Championships in Trenton, NJ. The top five teams of the ECAC were invited to the meet and MIT, making their first team appearance ever, once again set a new school record, scoring 160.6 overall.

The four other teams at the meet (Trenton State, Cortland College, Ithaca College, and Salem State College) had all competed at Division III Nationals the previous year. MIT scored well against this level of competition. Trenton State College won the meet with an overall score of 178, while MIT remained in fifth place.

MIT's first rotation began on the uneven bars where all competitors performed consistently. Allison Arnold '90 had the highest score of the MIT squad, 8.65 — her highest score for the season. She earned it with two beautiful free hip to handstands on the high bar and a solidly stuck hecht dismount.

Lisa Arel '92 had her usual strong performance on this event and scored an 8.55 for her routine that finished with a full-twisting back somersault dismount. Kortney Leabourne '92 had her best routine of the season and scored an 8.15 while Catherine Rocchio '89 had a clean set and scored a 7.4.

The next event was the balance beam. Here the team performed better than it had all season.

The two beam stars of the afternoon were Rose Rocchio '90 and Arnold. Arnold, even after losing one half of a point on a fall at the beginning of her routine (on her backwalkover to immediate backhandspring combination), got back onto the beam with determination and proceeded to do the best routine of her three years at MIT. She worked aggressively and gracefully and her final trick — a solidly stuck aerial front somersault — assured her of both the crowd's appreciation and her score of 8.75.

Rose Rocchio hit her best routine of the season and her balance was so unwavering that her score of 8.5 was no surprise. Arel managed to pull off a stunning recovery as she too had slipped — she stayed on the beam and scored an 8.2. Paula Aqui '89 had her best routine of the season and scored a 7.2 for strong and solid dance and tricks. Leabourne did an original tuck jump to backhandspring combination for a score of 7.3.

The consistent performance of all the gymnasts continued in the floor exercise. Arel and Rose Rocchio wrapped up the event with scores of 8.75 and 8.2, respectively, for their advanced tumbling routines. Arnold and Catherine Rocchio showed grace and style by scoring 7.6 and 7.2,

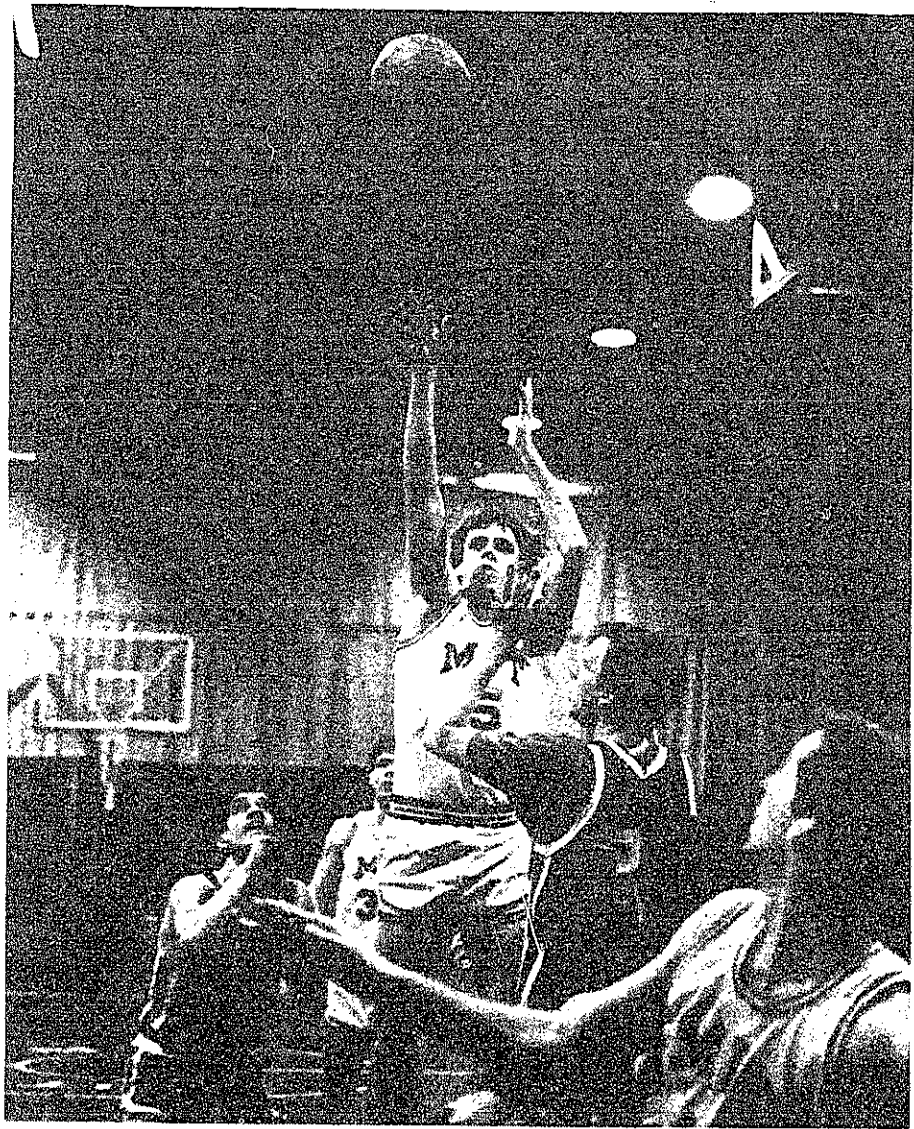
while Leabourne's energy carried her through powerful tumbling for a score of 8.0.

MIT ended the event on the vault where they finally vindicated themselves against rival Salem State College by beating them on the event by 0.2. Arel's hand-spring full-twisting vault earned a score of 8.75 and fourth place in the event. Arnold and Leabourne both earned 8.45s for their full-twisting vaults. Aqui and Charlene Grant '90 had clean vaults for scores of 7.05 and 7.75, while Rose Rocchio did a half on half off vault for a 7.95.

Arel's score of 34.25 was a good performance, although not her best, but it was enough to earn her a place in the top ten finishers. She is resting up for the NCAA championship being held this weekend in Lacrosse, WI. Arel is currently ranked third in the nation in the NCAA Division III and has a good shot at winning the national title. She is the first MIT woman gymnast to ever qualify for this meet.

Arnold had a fantastic day and bettered her highest season score by almost a point. Her total of 33.40 was good enough to place her 11th overall. Aqui, Leabourne, and Rose Rocchio had their highest all-around scores of the season scoring 27.00, 31.90, and 31.55 respectively.

(Editor's note: Catherine Rocchio '89 is a co-captain of the women's gymnastics team.)



Michael Franklin/The Tech
Sean Casey '89 scored 10 points in his final game as an Engineer. MIT demolished Emerson College, 112-61.