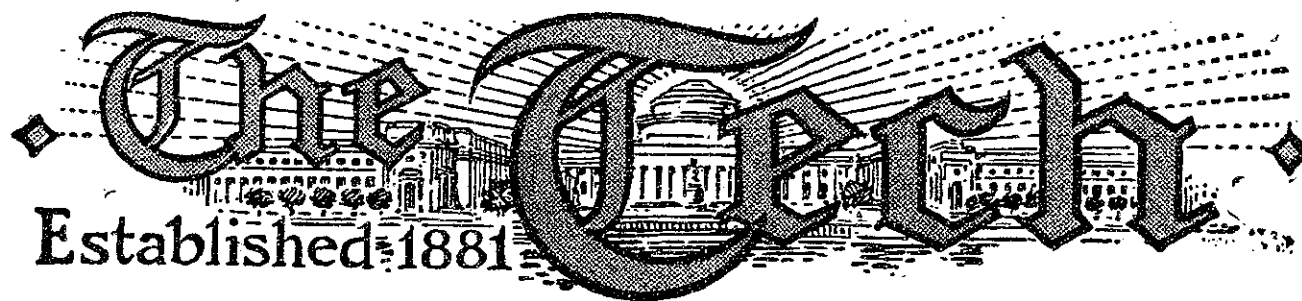


COMMENCEMENT TODAY

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CAMBRIDGE, MASS., FRIDAY, MAY 27, 1988

Free



Members of the Class of 1986 line up to march to commencement. (Tech file photo)

KRAMSCH LEAVES LANGUAGE POST

Expresses Discontent with Changes in Curriculum

SAYS LANGUAGE TEACHING WILL SUFFER

(By Michael Gojer)

Professor Claire Kramsch, head of the Foreign Languages and Literatures (FLL) section, will resign her post effective June 30. Kramsch said she perceived a "breakdown in communications" regarding the role of foreign languages at MIT and felt she "could not give any leadership to the section anymore."

Kramsch was concerned about recent changes in the FLL curriculum that have taken place as a result of the revisions to the Humanities, Arts, and Social Sciences requirement that were approved by the faculty last May. While acknowledging that the steps being taken were part of an effort to strengthen humanities overall at MIT, she felt some of the changes conflicted with the goals of language teaching.

For example, the new HASS-D requirement of 25 pages of writing in all distribution courses puts a strain on language instruction classes which try to maintain a balance between speaking and writing exercises, Kramsch said. Kramsch said some professors had suggested that a portion of the writing could be

done in English, but she said that was not at all what language teaching was about.

Dean of the School of Humanities and Social Science Ann Friedlaender PhD '64 de-

(Continued on page 8)

SENIORS ASKED TO SIGN PLEDGE

Coalition wants pledge to become a part of commencement ceremony

(By Seth Gordon)

"The Coalition to Humanize MIT" is asking graduating seniors to sign a "pledge of social and environmental responsibility," and proposing that MIT include taking this pledge as part of future commencement ceremonies.

Signing the pledge could be an alternative to the tradition of graduates turning around their class rings, said Richard A. Cowan '87, organizer of the campaign.

In a letter to President Paul E. Gray '54, the Coalition called the turning around of class rings an "initiation rite to legitimize technocratic insensitivity." A pledge of responsibility, they claimed,

(Continued on page 9)

ODSA REVOKES FALL RUSH RIGHTS OF PI LAMBDA PHI

Action Prompted by Allegations of Illegal Drug and Alcohol Use

FUTURE OF FRATERNITY IN DOUBT

(By Earl C. Yen)

Pi Lambda Phi fraternity will not be permitted to rush freshmen during Residence/Orientation Week this fall after some fraternity members admitted to a variety of alcohol and drug-related charges in late April, according to James R. Tewhey, associate dean for student affairs.

InterFraternity Conference Chairman Jeffrey M. Hornstein '89 called the ruling "unfair, harsh, and detrimental to the fraternity system in general."

Tewhey, in a letter to the fraternity, said he decided to suspend Pi Lambda Phi's rush privileges over the following violations:

- Illegal operation of a cash bar.

- Illegal use of nitrous oxide as part of a pledge party.

- Use of alcohol after the fraternity's initiation ceremony.

- On-going illegal use and availability of marijuana and cocaine by members of the house.

"Pi Lambda Phi has... certainly fallen short of the expectations MIT carries for one of its approved living groups," Tewhey stated in the letter.

Pi Lambda Phi maintained that it was unaware that the operation of the cash bar was illegal, according to Tewhey's letter. The fraternity further argued that the use of drugs

(Continued on page 8)

NOBLE REQUESTS PRIVACY WAIVER

Attorney Claims Process was "Rigged;" No Good Reason for Confidentiality

A "REAL SCANDAL"

(By Andrew L. Fish)

Former faculty member David Noble is filing a motion this week in Massachusetts Superior Court this week to lift confidentiality restrictions from documents pertaining to MIT's decision to deny the him tenure in 1984.

The documents reveal "a major scandal," according to David Kairys, Noble's attorney. "I have never seen a process rigged like this," he said.

Noble, now a professor at Drexel University, filed a \$1.5 million lawsuit in September 1986 charging the Institute

with breaching his First Amendment rights by denying him tenure on political, not academic, grounds.

Noble had been an assistant professor in the Program in Science, Technology, and Society. Kairys asserted that his work has "redefined the field" by arguing that society and culture affect technology as much as technology affects society and culture.

But "Noble's scholarly work [also] sharply criticized MIT as an institution, and [his] public speech criticized MIT's ties with industry and MIT's improper use of publicly-created university resources for private commercial benefit," according to the text of his lawsuit.

Noble won full access to the tenure documents, including the names of evaluation authors, last April, but he cannot reveal this information to others. The current motion would remove all restrictions from the documents. Kairys asserted that there was "no good

(Continued on page 27)

BALTIMORE LETTER REFUTES CHARGES

Scientist States His Case; Warns of Danger in Gov't Investigation

(By David P. Hamilton)

A controversy over alleged scientific fraud is "a harbinger of threats to scientific communication and scientific freedom," David Baltimore '61 charged in a letter widely distributed to scientific colleagues and the press. Baltimore is di-

(Continued on page 7)

FACULTY FAULTS ADMINISTRATION

"Shared Governance" Ignored In ABS Closing

(By Harold A. Stern)

The faculty approved the "sense" of a report which faulted the procedures followed in the closing of the Department of Applied Biological Sciences and recommended that the Institute formalize the process used to reorganize and terminate a department at their May 18 regular meeting.

The Committee on Reorgani-

(Continued on page 9)



Former STS Assistant Professor David F. Noble

INSIDE

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Paul Gray on scientific illiteracy. Page 5.

MIT scientists discover second genetic code. Page 7.

Student charged with 32 counts for computer thefts. Page 7.

EECS enrollment down among freshmen. Page 7.

Three students mugged at gunpoint. Page 11.

Environmental portraitist in MIT Museum. Page 16.

Killian Hall recitals show off student works. Page 17.

Examining John Deutch's Pentagon connections

Analysis

By Thomas T. Huang

Student activists on this campus call John M. Deutch '61 the "War Provost" because of his many associations with the Pentagon. But faculty members are more cautious when it comes to discussing a man who is both the chief academic officer of MIT and an advocate in setting the nation's military policy.

As provost, Deutch is in charge of overseeing faculty research, quality of faculty, and undergraduate curriculum. He is the second-in-command under President Paul E. Gray '54.

But a small group of the faculty has grown worried that Deutch's work for the Department of Defense might direct his role as overseer of faculty research at MIT, according to one source. And even though the group is small, the concern is intensely felt.

From the late 1970s to the present, Deutch has also been active on Defense Science Board panels that studied mobile intercontin-

ental ballistic missiles, chemical warfare and biological defense, and technology base management.

Vera Kistiakowsky, professor of physics, fears that Deutch's work on these Defense Science Board advisory committees could distort his vision on what kind of research should be conducted at MIT and what sources of research funding should be tapped.

From 1982 to 1983, Deutch was active on the Scowcroft Commission, a group that studied the MX missile and concluded that the development of a smaller mobile intercontinental ballistic missile was justified.

Beginning in 1980, Deutch took part in a classified Defense Science Board study on "chemical warfare and biological defense," and in 1984, Deutch chaired another DSB task force on the

same subject.

Deutch acknowledged that in that time period he had alerted the chairmen of the chemistry department and applied biological sciences department to available army contracts for mycotoxin research. He said he sees nothing inappropriate with that action.

"I find it questionable," Kistiakowsky said, "that the provost is chairing a [task force] that recommends that [chemical warfare and biological defense] work be resumed, and, at the same time, encourages people at MIT to apply for [related] funding."

"He has no business being in the education business," she said. "My guess is that [the Institute] moved him to provost as a good way to get MIT some of the gravy."

Deutch said that MIT has had a tradition of officials who have been active in national affairs. He maintained that there was nothing inappropriate with his participation in national policy discussions.

He said he knew he had to be careful "not to look for special favors for MIT" in his capacity

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Photo courtesy of MIT News office
Provost John M. Deutch

Study: strong DOD research needed

By Thomas T. Huang

The Department of Defense is failing to exploit research that could boost the nation's economic and military strength, according to a Pentagon-sponsored study group headed by Provost John M. Deutch '61.

The group's report — obtained recently by *The Tech* — concludes that DOD-sponsored research has lagged behind scientific opportunities and military-related needs. The report suggests that renewed vigor in military-sponsored research would reverse a trend in which the United States' technological advantage over other nations has been eroding in recent years.

That report does not address the university's role in such research, but it does recommend that "DOD-sponsored basic research should be carried out in a

manner that assures that colleges and universities continue to be a source of bright and motivated young people concerned with technical subjects of significance to national security."

The study was conducted for the Defense Science Board last summer, and a final report was issued to the secretary of defense late last December.

"The system is better at generating new technology than exploiting it," the report asserts. This is unfortunate, the report argues, because today's basic research is "essential to ensuring war-fighting superiority of future US military systems and operations."

The report states that the DOD's basic research program — dubbed "Technology Base" — lacks "top management attention." The leadership and budget-

ary authority of the Office of the Secretary of Defense for program have been "fragmented by too much delegation" to other agencies.

The report also blames weak management and short-sighted planning for creating an environment in government and military laboratories that keeps scientists and engineers from pursuing "high-risk, high-payoff" research.

The report finally charges that the DOD is too slow in transforming new technologies into working systems and products that can be used by the military.

This has, in part, resulted in a "growing crisis in military competition as Soviet weapons system performance approaches, and in some cases, exceeds that of US and Allied forces," the report states.

The report calls for:

- more unified leadership from the Office of the Secretary of Defense.
- wiser management in the DOD laboratories by changing certain personnel procedures to try to attract and retain the highest quality staff.
- faster technology development by revitalizing the budget for technology transition and building experimental systems in the field before committing to full development.

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US Government Spending at MIT

	FY87	FY86
Department of Defense	\$ 45,418,387	\$ 43,417,961
Dept. of Health and Human Sciences	\$ 47,309,486	\$ 45,734,733
Department of Energy	\$ 55,061,746	\$ 54,511,463
Office of Education	—	\$ 704
N.A.S.A.	\$ 12,705,854	\$ 12,863,462
National Science Foundation	\$ 38,091,285	\$ 36,771,821
Other Federal Government	\$ 8,238,416	\$ 7,822,630
Total - U.S. Government	\$206,825,174	\$201,122,774

Debate over biotechnology funding highlights defense research questions

By Thomas T. Huang

Two years ago, MIT's biology professors were beset by a debate over whether or not their department should seek military funding for a proposed biotechnology training program, according to Maurice S. Fox, professor and department head of biology.

That debate — revealed by memoranda and correspondences obtained recently by *The Tech* — sheds light on how science and politics often make a volatile mix.

Some professors spoke out on how military funds might steer research by mission directives and security requirements. But others warned that missing out on developing a biotechnology curriculum might jeopardize the department's future attempts to find funding for graduate training.

Discussion of how military funding influences university research promises to rage on — at least behind-the-scenes — as the nation's defense agencies grow ever more interested in applications of molecular and microbiology research.

The controversy unfolded when roughly 15 members of the biology faculty met on Feb. 26,

1986, to vote on the funding application. After lengthy debate, the faculty voted by a small majority not to apply for military funding. Some feared that the Department of Defense funds would come with too many "hidden strings" attached.

"I was concerned over the conflict between the basic research and training mission of the program, and the legislative requirement that DOD expenditures relate closely to their national defense mission, with its security requirements," wrote Jonathan King, professor of biology, in a March 6 letter to James R. Melcher PhD '62, professor of electrical engineering and member of an *ad hoc* Institute committee studying the military's impact on campus research.

Learning of the negative vote, professors who had not participated called for a re-vote. They told Fox that they thought the vote might not be representative of the biology faculty. The department has about 50 professors.

As a result, roughly 30 faculty members met on March 25, and extensive discussion took place again. This time, the faculty approved the application.

King suggested in his letter that the administration may have influenced Fox's decision to call a second meeting. But Fox denied this, as did MIT Provost John M. Deutch '61.

Dean of Science Gene M. Brown said that his only involvement in the affair was when he talked to Fox after the first vote. In that conversation, Brown told Fox that — from his experience — he believed that the Office of Naval Research did not fund basic research connected to warfare. He explained that he had witnessed the operation of ONR as a consultant reviewing applications for that agency.

Given the small turn-out of the first vote, "I said it sounds to me like [the first vote] shouldn't be a final decision," Brown said. "I asked [Fox] if anybody on the faculty was concerned about it." But he emphasized that he had not asked Fox to call a second vote.

In defense of the proposal, some professors said there had been a tradition dating back to the 1950s of molecular biologists receiving support from the DOD that had shown little adverse effect. But others warned that accepting DOD funding would

cleave the biology department into two factions.

It was later that the defense agencies rejected MIT's application, saying they were more interested in research than training programs, Fox said. In particular, the ONR and the Defense Advanced Research Projects Agency refrained from funding MIT's planned training program, which would have involved the Departments of Applied Biological Sciences, Biology, Chemistry, and Chemical Engineering, Fox said.



Photo courtesy of MIT News office
Professor Maurice S. Fox, head of the biology department.

part, motivated by the concern for intervention and treatment in case of chemical and biological weapons attack.

In interviews with *The Tech*, two scientists no longer at MIT stressed that the Army Medical Research Command had not directed their research and had not restricted publication of the research. They said that they were interested in mycotoxins as possible anti-cancer agents even before the army contract became available.

The scientists who conducted the research include: William F.

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Defense Department Spending

School of Engineering

Department	Amount
Aero & Astro General	\$1,433,592
Space Systems Lab	\$ 458,665
Tech Lab for Advanced Composites	\$ 487,005
Artificial Intelligence Lab	\$6,095,028
Center for Transportation Studies	\$ 59,597
Chemical Engineering	\$ 245,995
Civil Engineering	\$2,002,753
Total	\$10,782,635

School of Science

Department	Amount
Biology	\$ 206,328
Center for Space Research	\$ 787,821
Chemistry	\$1,477,515
Earth Atmospheric and Planetary Sciences	\$1,538,396
Mathematics	\$ 496,514
Applied Biological Sciences	\$ 435,110
Physics	\$ 158,876
Total	\$5,100,560

ABS, chemistry faculty did bio-warfare research

By Thomas T. Huang

From 1985 to 1987, scientists in chemistry and the applied biological sciences at MIT received \$1.6 million from the army to conduct basic research in toxins that could be used in biological warfare.

The department heads had been made aware of the availability of these contracts by Provost John M. Deutch '61, chairman of a Defense Science Board task force on chemical warfare and biological defense in 1984, according to Deutch.

The scientists wrote in their proposals that their work was, in

Administration unhappy?

In his letter to Melcher, King stated that the second "meeting was formally opened with a statement by the chairman [Fox] who made clear (at least to this listener) that the administration was very unhappy with the decision.

"He also made explicit reference," King continued, "to the administration's position that when the funding for graduate students in the department was next considered, our failure to apply for these funds would be taken into account prejudicially."

"I wondered if it was a violation of the standards of the faculty to have the administration attempt to influence such serious deliberations with a threat of reduced funding for graduate students. Junior faculty are put in a very difficult situation by such a presentation," King stated.

Fox acknowledged that administration members had been unhappy about the vote against the proposal. But he stressed that the administration had not influenced his decision to recall the vote. Rather, other faculty members had approached him regarding their concerns, he said.

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news roundup

from the associated press wire

World

One summit session canceled

White House spokesmen are telling conflicting stories about the sudden cancellation of one planned session at the Moscow summit. Chief spokesman Marlin Fitzwater says the Soviets called off the meeting because of a scheduling conflict with some internal Soviet function. But one of Fitzwater's deputies says the decision to scrub the session was mutual. Either way, one of the other Reagan-Gorbachev meetings will be expanded.

US diplomats consult with Latin American leaders

US diplomats are talking with Latin American leaders, trying to figure out what to do now that negotiations aimed at ousting Panamanian leader Manuel Noriega have collapsed. State Department official Elliott Abrams announced the round of consultations after telling the Senate foreign relations committee about the failure of the Reagan administration's attempt to get Noriega to resign in exchange for dismissal of drug charges against him. Many lawmakers didn't like that deal much anyway. Manuel Solis Palma, Noriega's hand-picked president, says that the talks failed in part because the US would not promise to keep him on as president.

Nicaragua and contras open talks

Negotiators for the Nicaraguan government and the contras have opened a new round of peace talks, with the rebels proposing a plan that focuses on democratic reforms. At the center of the proposal is the demand that the Sandinistas ease their control over the army and government and give the Nicaraguan people more freedom. A contra leader says his side isn't optimistic.

Two bombs explode in Pretoria

South Africa's law and order minister is blaming the outlawed African National Congress for two bombings in downtown Pretoria yesterday. Four women were injured in the blast. The anti-apartheid guerrilla group has not claimed responsibility for the bombing.

Local

Federal jury finds drug kingpin guilty

A federal jury has found a 40 year old man guilty of heading a multi-million dollar drug ring based in Leominster, Massachusetts. Paul Rouleau — also known as "The Emperor" — was found guilty Wednesday of supervising an on-going illegal operation.

US District Court judge Joseph Tauro has not set a date for sentencing. Rouleau faces a minimum of 10 years in prison and a maximum of life. Several convicted drug dealers and alleged ring members testified against Rouleau under grants of immunity. Assistant US attorney Deborah Ramirez said the operation extended from Florida and California to New England and Canada before it was broken in September 1984.

Rubes® By Leigh Rubin



Albert discovers a misnomer.

Nation

GNP grows faster than expected

The federal government's revised estimate of economic growth during the first quarter of the year shows the gross national product expanding at an annual rate of 3.9 percent, not the 2.3 percent rate initially reported. Private economists had predicted an upward revision, but yesterday's report shows even stronger growth than had been expected. The main factor in the GNP improvement was a drop in the US foreign trade deficit. And yesterday's GNP report shows not only economic growth, but low inflation as well. Analyst Hugh Johnson at First Albany Corporation says it looks like the economy will do well for the rest of the year.

Democrats blast Bush over Noriega

Democratic presidential rivals Jesse Jackson and Michael Dukakis met in debate Wednesday night in California — but they turned most of their fire on the Reagan administration over dealings with Panama's Manuel Noriega.

Dukakis attacked Bush's call for the death penalty for drug kingpins. He called it the height of hypocrisy to be talking about capital punishment when the administration is doing business with Noriega.

And Jackson said Bush should reveal how much he knows about Noriega and drugs and when he learned about it.

Republican George Bush, meanwhile, said that the breakdown of talks aimed at dislodging Noriega "doesn't depress me." He said he still wants Noriega out, and thinks he will go, but not at the cost of "a bad deal." That's as close as he's come yet to publicly criticizing the administration's apparent efforts to drop drug charges as part of a deal with Noriega.

Bush calls for drug crackdown

Vice President Bush is calling for an international strike force to destroy drug crops wherever they're grown. Bush also says he supports the controversial "Zero Tolerance" policy which has led to the seizure of some yachts found to have tiny quantities of drugs aboard.

"Bomb" found near Kennedy office

Boston Police have determined that the device removed from a coat rack in the 24th floor office of the department of health and human services was not a bomb. The police bomb squad took the suspicious-looking metal cannister in a paper bag out to Moon island in Boston harbor for possible detonation. FBI spokesman Jack Cloherty said the parcel contained inactive electronic parts but had no incendiary capability. The device was found 15 yards down a hall from Senator Kennedy's office. Kennedy was in Washington at the time of the incident.

McArthur testifies in Harvard tenure dispute

Harvard Business School Dean John McArthur says the college did not deny a female professor tenure because of her sex, but because she did not meet scholarly qualifications. McArthur testified today in the US district court sex discrimination case filed by former Harvard professor Barbara Bund Jackson. Jackson is asking federal judge Douglas Woodlock to reinstate her with tenure at Harvard and award her \$847,000 in lost income.

Sports

Edmonton wins Stanley Cup

The Edmonton Oilers topped the Boston Bruins 6-3 last night to win the Stanley Cup in a four-game sweep. Super-star Wayne Gretzky set the pace as the Oilers became NHL champions for the fourth time in five years. The Oilers scored five straight goals to win the title in the replay of the fourth game that has been cancelled because of a power outage in the Boston Garden Tuesday night. The teams were tied at 3-3 when the lights went out.

Celtics defeat Pistons

The Boston Celtics edged the Detroit Pistons 119-115 in double overtime last night to even the NBA playoff at a victory each. Dennis Johnson scored six straight points in the last 1:25 to clinch the win. Kevin McHale hit a three-pointer with five seconds left in the first overtime to tie the game. It was only the second three-pointer in McHale's eight year career. Robert Parrish had 26 points for the Celtics, McHale 24, Johnson 22, and Larry Bird had 18. Isiah Thomas had 24 to lead the Pistons and was followed by Vinnie Johnson with 21 and Adrian Dantley with 20.

Judge says contra trio may escape conspiracy charges

A federal judge in Washington says it may not be possible to try Oliver North, John Poindexter and Albert Hakim on conspiracy charges. Judge Gerhard Gesell says the problem stems from the limited immunity from prosecution they received in exchange for their testimony before the congressional committees investigating the scandal. Secord did not testify before Congress under an immunity grant. Gesell says he hopes to issue a ruling by the end of June. Although the conspiracy counts are the main charges, all three defendants face other charges as well.

Chicago bans public smoking

Chicago's city council has overwhelmingly approved an ordinance to restrict smoking in public places. The ordinance, which takes effect in 60 days, puts the windy city in line with about 150 other American cities, including the only two larger than Chicago — New York and Los Angeles.

Reagan seeks power to interpret treaty

Senators and White House officials have been meeting in private, rushing to get the intermediate-range missile treaty approved before the first Reagan-Gorbachev meeting on Sunday. They're trying to settle the question of how much power the president has to interpret the treaty. Yesterday the Senate voted to restrict a future president's power to change the US interpretation of the treaty.

Letterman may get new material

David Letterman's late night show may soon emerge from reruns, as Johnny Carson's "Tonight Show" did two weeks ago. Writers' Guild of America president George Kirgo says both those evening stars have agreed to independent three year contracts. Kirgo says he's confident the Guild rank-and-file will approve both agreements. Johnny Carson, who doesn't belong to the Guild, went back on the air without his writing staff. Letterman, who is a Guild member, remains in re-runs, but could be back in business as soon as June 8.

Vet counselor wins libel suit

USA Today says it is appealing a \$300,000 libel award to a New Hampshire psychologist.

The jury award came Wednesday in Federal court in Concord in the case of Jeffrey Kassel, who was misquoted in a brief article in 1985 as saying he found it amusing that Vietnam veterans feel they are victims.

The paper ran a correction a month and a half later saying that Kassel actually had been referring to another article in which someone said Vietnamese veterans of the war said they found it amusing that American vets thought they were victims.

Kassel, who counseled vets at the Veterans Administration hospital in Manchester, said this morning that he felt vindicated.

Kassel's suit said the article and delay in correcting it caused mental anguish, death threats, and permanent damage to his reputation and career.

Weather

Several degrees above normal

High pressure located over the southeastern US will slowly build eastward and northward over the next several days. As the high strengthens, winds at the surface will become southwesterly — ushering in much warmer weather. The warm weather, which should commence today, will be characterized by high temperatures up to 15 degrees above normal (normal high 70°F). "Relief," in the form of cooler and drier air, should arrive by Tuesday.

Today: Mostly sunny and warm. Winds southwest 5-15 mph. High 75-80°F (24-27°C).

Tonight: Partly cloudy and mild. Low 60°F (16°C).

Saturday: Partly to mostly sunny, with increasing humidity and the chance of an afternoon or early evening shower or thundershower. Winds west-southwest 10-15 mph. High near 80°F (27°C). Low around 55-60°F (13-16°C).

Sunday: Mostly sunny and very warm with the increased risk of afternoon and evening thundershowers. High 78-86°F (25-30°C). Low 60-65°F (16-18°C).

Forecast by Michael C. Morgan

opinion

Column/Thomas T. Huang

Gray: educator to bureaucrat

Prediction: Sometime within the next two years, David S. Sax-on '41 will retire, and Paul Edward Gray '54 will leave the presidency to become the next chairman of the MIT Corporation.

As chairman in 1990, Gray will devote his energies as the pitchman for the current five-year \$550-million endowment drive. When this happens, Gray will have completed a tragic metamorphosis from educator to bureaucrat.

In the mid-1960s and early 1970s, Gray worked to smooth out a rough freshman year, to improve the quality of teaching, to broaden and make more flexible the undergraduate education and curriculum, and to establish support for minority and women students' affairs.

Back in 1966, Gray — an up-and-coming associate dean of student affairs with a crew-cut, expansive jaw, a set of piercing eyes — was concerned with the effectiveness of the freshmen year. He had served as chairman of the Freshman Advisory Committee, a limited version of today's Undergraduate Academic and Support Office.

He proved to be a spark-plug

in starting the pass/fail movement at MIT. In the fall of 1967, addressing a joint meeting of the Committee on Educational Policy and the corresponding student committee, he proposed informally that freshman grades be wiped off the record. His proposal ultimately led to MIT's freshman year pass/fail, which continues to exist today.

The philosophy of his work at that time was best summarized in March 1971, when he was elected chancellor under newly-elected MIT president Jerome B. Wiesner: He would focus on structure.

There should be two thrusts to revamping the MIT education: 1) to provide a greater number of alternatives in curriculum, and a greater degree of flexibility, recognizing enormous differences among incoming students; and 2) to try to bring students as early as possible to the point where they ask "significant questions." A variety of tough problems "can't be approached without concern for social considerations and social consequences," he proclaimed.

But seventeen years later, something has gone awry. The man who gives the charge to the

graduates today is changed.

Although MIT's current educational reform certainly reflects Gray's philosophy on increasing breadth and flexibility in the curriculum, faculty members say that he is not providing the educational leadership that he should be. Except for an occasional speech, he has not taken the point-man position in the reform.

Moreover, recent actions of his administration do not reflect well on him. Last January, Gray, Provost John M. Deutch '61, and Dean of Science Gene Brown eliminated the Department of

(Please turn to page 5)

Column/Ben Z. Stanger

Define your own measure of success

I am wiping my forehead today, and it's not because of the weather. It has been a rough four years. It will be good to get my diploma; right now I'm feeling a little nostalgic and feeling more than a little relieved.

Behind that relief come nagging questions: Have I achieved my goals? Have I succeeded at MIT? Will I succeed elsewhere?

* * * *

Editorials, marked as such and printed in a distinctive format, are the official opinion of *The Tech*. They are written by the editorial board, which consists of the chairman, editor in chief, managing editor, executive editor, news editors, and opinion editor.

Dissents, marked as such and printed in a distinctive format, are the opinions of the undersigned members of the editorial board choosing to publish their disagreement with the editorial.

Columns and editorial cartoons are written by individuals and represent the opinion of the author, not necessarily that of the newspaper.

Letters to the Editor are welcome. They must be typed double spaced and addressed to *The Tech*, PO Box 29, MIT Branch, Cambridge MA 02139, or by interdepartmental mail to Room W20-483.

Letters and cartoons must bear the authors' signatures, addresses, and phone numbers. Unsigned letters will not be accepted. No letter or cartoon will be printed anonymously without express prior approval of *The Tech*. *The Tech* reserves the right to edit or condense letters. Shorter letters will be given higher priority. We regret we cannot publish all of the letters we receive.

"THAT GUY'S GETTING THREE DEGREES TODAY. HE WAS MADE TO SUCCEED ..."

Some of us seem to be more successful than others. There are plenty of objective measures we can use to evaluate our success here — job offers, graduate school acceptances, multiple degrees and grade point averages — criteria which parents and mentors never get tired of exchanging.

Look to your left. Look to your right. Look at yourself.

* * * *

"THAT GIRL IN THE PINK DRESS, OVER THERE. SHE WAS CAPTAIN OF TWO TEAMS, AND SHE ALSO GOT AN NSF SCHOLARSHIP"

With so much of the future invested in MIT's graduates, it is not surprising that MIT places such a premium on excellence and success. For us to progress as a nation, we must have talented leaders.

Yet in pursuing such talent, we tend to lose our vision. We succumb to the urge to rush forward without looking ahead and weighing every step. By using pre-packaged definitions of excellence and success, we run the risk

of becoming inflexible and narrow-minded.

We were told as freshmen to always look both ways before crossing Massachusetts Avenue. I never did, but luckily I made it to the other side without getting hit. Others, I fear, haven't done so well.

Unfortunately, and contrary to what is often said, there is a strong desire here to follow others. I was talking to a former roommate a few nights ago, a brilliant friend who has never put much emphasis on other people's standards of success. He was confused by the way so many MIT freshmen manage to choose a major without much knowledge of the field they are entering and without much real desire to do work in that field.

Many students come here knowing what they want to do, but for those who do not, the only choice is to follow paths which have already been made. The result is that a high percentage of students pick a major which they subsequently find completely unrewarding.

This same desire to follow applies to the agenda we set for ourselves while in school. The initial response to this atmosphere

(Please turn to page 5)

Column/Julian West

Smoking ban must be enforced

On March 7, 1987, Cambridge set a law curtailing smoking in public buildings. Cambridge joined the vanguard of a national trend to fight tobacco addiction, eliminate toxic "second-hand" smoke from the environment, and clamp down on seductive tobacco ads aimed at minors. Similar laws in the United States and elsewhere are establishing new standards of public health, clean air, and decency.

One week after the ordinance took effect, response was favorable from smokers and non-smokers alike. At that time, an optimistic William R. Dickson '56, senior vice president, told *The Tech* that "most people are certainly trying to cooperate."

But since this has been a controversial law — and especially since it can be viewed as a test-case for wider legislation — we must take a longer-range view. What is the climate one year after the ordinance took effect?

In short, it is not nearly so favorable. Non-smokers may now have recourse to help in securing clean air in their offices, but few offices were unable to reach equitable arrangements before. In the hallways, staff members smoke freely during their shifts. After-hours, it is not uncommon to see

Campus Police officers smoking indoors.

In the months after the ordinance was established, the occasional smokers in the Student Center were usually unaware of the new rules, and apologetically extinguished their cigarettes on request. Today, scofflaws use public areas on the fourth and fifth floors for smoking at all hours. They are openly disdainful of the city's ordinance, MIT's rules, and the oppressed non-smokers who politely point them out.

It is time for MIT to make a decision. Either it should take steps to comply with the city's law, or it should make a public announcement that it is unable to do so. In case of the latter, MIT should inform the City of Cambridge that it regrets to stand in contravention of the city's ordinance.

Steps toward compliance need not be extreme. In most cases, more prominent no-smoking signs would be sufficient. Many of the signs which were originally posted have disappeared. Presumably, they were meant to be a temporary measure while individuals adjusted to the new consciousness about smoking. This is only a matter of time, but it may

be a decade rather than a year. Granted, the signs are ugly, but at least they are not a serious health hazard.

Signs would have a dual effect: they would inform smokers who were unaware of the regulations, and they would deter others who would be openly flouting the law. In addition, they would provide those bothered by environmental smoke with a first line of recourse. I have on more than one occasion been challenged by smokers to "prove" that they were breaking a city ordinance. On at least one occasion, I managed to find a sign posted nearby, but the smokers refused to accept

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feedback

Students should sign pledge of responsibility

(Editor's note: The Tech received a copy of the following letter addressed to President Paul E. Gray '54).

To the Editor:

MIT's commencement exercises will offer the graduating class an opportunity to celebrate their achievements and think constructively about the future contribution they can make to the world.

Through education reform, the Institute is beginning to devote more attention to the social impacts of technology in the curriculum. New context courses provide students with the background they need to consider questions of social responsibility. What better place is there to reinforce the message of responsibility than the graduation ceremony?

This year, several universities across the country will include as part of their ceremonies an optional graduation pledge of responsibility. Last year, as reported in the *Chronicle of Higher Education* and the *Wall Street Journal*, commencement ceremonies at Humboldt State University in Northern California included the first such "graduation pledge."

According to co-author Matt Nicodemus, the pledge could "help create an atmosphere

where social and environmental responsibility is openly discussed and plays a more central role in our life decisions." Such a change would be welcomed by many people at MIT. The statement, which students voluntarily sign after receiving their diplomas, reads "I pledge to investigate thoroughly and take into account the social and environmental consequences of any job opportunity I consider."

It might be argued that many students already perform a ritual at commencement to signify their entry into the job world. Many students follow the practice of turning their MIT class ring

Commencement pledge forces students to consider job choices

To the Editor:

I support the pledge proposed by "The Coalition to Blow the Whistle on MIT." All too often MIT graduates take a job for monetary gain without considering the effects of what they will be doing or the needs that will be left unfulfilled.

How many MIT graduates will end up working for law firms, doing their best to acquit clients, some of whom will definitely be guilty?

How many vital positions in

("Brass Rat") around during the ceremony so that the beaver on the ring faces the opposite direction. Yet the message conveyed unto students by this practice is hardly one of responsibility. According to the folklore, the beaver defecates on you while you attend MIT. But after you graduate, you turn it around so that it dumps on the rest of the world.

Of course, maybe this tradition was never intended as an initiation rite to legitimize technocratic insensitivity. But it cannot be denied that it has such an effect. Many managers in industry from MIT whom we and our

(Please turn to page 5)

the armed forces, our intelligence agencies, and the government in general will be filled by less qualified people?

Perhaps if MIT students consider the social consequences of the jobs they take — or refuse to take — they would refrain from taking some high-paying jobs and would instead spend a few years working at a low-paying one where there is a real need for their abilities.

Michael Friedman '89

The Tech

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opinion

Column/Paul E. Gray

Scientific illiteracy threatens democratic process

Scientific illiteracy is an increasingly serious problem, threatening the conduct of research in this country, our economic vitality, and the democratic process itself.

We live in a time when science and technology are growing in significance and influence. Physicists probe the extremes of cosmic creation. Biologists lay bare the fundamental processes of life. And engineers challenge previous limits in the design of everything from computer technology to hypersonic aircraft.

For good or ill, our society, our culture, and our lives are becoming more and more dependent on technical knowledge. At the same time, ignorance of science and technology is widespread in the general population, even among the supposedly educated.

The American public-school system may not be entirely responsible for the public's scientific illiteracy, but it will do for a start. On the average, high-school students take only one year of science. Fewer than half of them take three years of mathematics. In a recent survey by the International Association for the Evaluation of Educational Achievement, which compared students of various ages with their peers in 17 countries, American 14-year-olds ranked 14th in science and mathematics. Among 17-year-olds, the Americans placed in the bottom quartile in biology, chemistry, physics, behind students in such countries as Australia, England, Hungary, Japan, Norway, and Poland.

As for the colleges, a surprisingly large number of graduates of traditional liberal-arts programs receive their degrees without any significant study in science or mathematics. In blunt terms, our educational system has produced generation after generation of young people who are ignorant in science and incompetent in mathematics. Many American adults are unable to distinguish between astronomy and astrology, for example, and a distressing number believe that their well-being can be influenced

Success must be measured with more than simple benchmarks

(Continued from page 4)

sphere of excellence is to measure success in terms of grades and academic honors. It is a definition we do our best to deny, because we know it is too simplistic a way to measure success, and yet for pragmatic reasons we stick to it.

To be creative, however, means not to be a follower. To define success for ourselves, we need to experiment; to experiment, we need space. The researchers who make the Institute a mecca of excellence each found his or her own way here; each defined success in his or her own terms. We must do the same.

* * * *

"THAT FELLOW HAD A 5.0. TOO BAD HE WON'T BE AROUND NEXT YEAR."

For some of us, the allure of success has made us forget to look both ways. It is not our fault, and it is not MIT's fault. Pre-packaged definitions of success have always been held out for young people to view as the ultimate goal. An educational system which puts clear-cut indicators of success ahead of introspection, experimentation and creativity is bound to be successful within its own set of values.

But there is something wrong with placing such an emphasis on achievement. Rabbi Daniel She-

by crystals.

A study of scientific illiteracy conducted in 1986 by the Public Opinion Laboratory at Northern Illinois University found that two-thirds of the adults in a nationwide sample of 2,000 did not understand the terms "molecule," "radiation," or "scientific study," and that three-fourths did not understand the term DNA. Beyond that, more than half of the adults in the study said they believed that scientists had a power that made them dangerous, yet at the same time expressed the belief that leaders and experts should be trusted.

Scientific literacy does not mean expertise. It means the capacity to reason in quantitative terms. It means familiarity with a basic scientific vocabulary and with fundamental concepts about physical and biological processes. In short, it means a reasonable intuition informed by the principles of science.

There should be no need for me to elaborate on the consequences for this country of a general public unable to distinguish sense from nonsense in the domains of science and its application; of an electorate unable to comprehend the arguments arising at the intersection of science and technology and public policy; or of a work force that cannot meet, let alone understand, the technological standards of their competition abroad. We tolerate this situation at our national peril.

Without a basic understanding of science, how can we, as a people, make well-informed decisions in the technical issues that affect our society? How can we, for example, weigh the risks and benefits of future energy sources or of gene-splicing in animals and plants? I seriously doubt that a democratically-based society such as ours can prosper when a significant proportion of its citizens don't have even a vague understanding of the scientific and technological principles that have such influence in shaping and directing that society.

Such ignorance threatens the

vitz called it an "idolatry" of success. In a letter to the editor earlier this year, Shevitz wrote: "To be human one must experience failure, perhaps even savor it. . . . Without failure, we would not know humility or compassion, we would not learn how to hope."

* * * *

"ME? LET ME THINK ABOUT IT."

My greatest debt to MIT is the failures I have had here. Without them I would not have started to reevaluate my definitions of success. I'm glad that I'm graduating, because it gives me the freedom to look around without having to worry about my future. Perhaps I should have started sooner, but one must start sometime.

I hope many others here today take advantage of this freedom. It is hard to leave the comfort of a clear pathway and head into indefinite territory in search of unknown ends. But we must all define success in our own terms, because in the end our success only matters to us.

I wish every one of us the best of luck in finding happiness, joy, and success.

Ben Z. Stanger, a former managing editor of The Tech, is graduating with a bachelor of science in biology.

scientific enterprise, as can be seen in the popular and governmental sanctions against DNA research, against experiments using animals, and against the use of radioisotopes and radiation in medicine and medical research. At the same time, however, the popular expectation is that scientists can, if they would only try, overcome almost any problem literally on demand. For example, many Americans believe that the Strategic Defense Initiative or "Star Wars" could be put in place soon, despite widespread advice from scientists that SDI requirements are quite beyond the limits of both contemporary and foreseeable technology.

Another example is the public response to AIDS, perhaps the most baffling disease life scientists have ever encountered. There is a popular belief that if we throw enough money and manpower into the problem, a "magic bullet" will be found. Scientists should quit wasting time, critics say, on seemingly unrelated basic research on the immune system and its genetic precursors: Just find the AIDS agent and kill it. Easier said than done.

The MIT physicist Philip Mor-

Gray favors structure over flexibility

(Continued from page 4)

Applied Biological Sciences without consulting that department's faculty or chairman. Since then, Gray has acted contrite, but that has not warmed the chill that fell as a barrier between the faculty and the administration.

The Gray administration has, moreover, shown very little understanding of political protest. Smart administrators know that the best way to handle protest is to determine what is going to happen before it happens — and to let the protesters know clearly what the Institute's response is going to be.

But, in the last two years, from a March 1986 shantytown protest on Kresge Oval to a whistle-blowing incident during last commencement to a November 1987 encampment of homeless on the MIT-owned Simplex land, most political protests at MIT have involved little discourse and have ended in melees and over 25 arrests.

His administration has in recent years put more emphasis on efficacy and expedience than on communication and patience.

What might have happened is that Gray, encompassed by the power of the presidency in the last few years, fell in love with the rigidity of structure, and forgot about the beauty of flexibility.

What is more likely is that Gray, a man who many say has the strongest of personal convictions, got caught in a job that re-

quired more and more of his time on the money circuit — meaning less time on the MIT community circuit. Funding was needed to help MIT make progress in its education and research, and Gray became the Man.

By leaving the concerns of education and research to others in his administration, Gray allowed himself to be buried by a bureaucracy which some see as cold and distant.

Moral of the story: The next president of MIT (prediction:

and science are not esoteric

quests by an elite few, but are, instead, humanistic adventures inspired by native human curiosity about the world and desire to make it better. The nation must embrace this broadened concept of science if it is to maintain its vigor as a democracy and as an international leader. To achieve that understanding, schools and colleges need new programs and gifted teachers to provide students with a broad and comprehensive knowledge of both the liberal arts and science and technology.

The next century will make exceptional demands on educators and educational institutions, and we have a responsibility to meet those demands. To insure that we will be able to do so, we must begin now to make the case for a stronger and more sustained national commitment to achieving a level of popular scientific literacy in this country sufficient for the needs of a free and democratic society.

Paul E. Gray '54 is president of MIT. This piece appeared originally in the Chronicle of Higher Education, May 18, 1988.

Sheila E. Widnall '60, professor of aeronautical and astronautical engineering) should leave the necessary but time-consuming money-grubbing to a vice president or provost or chairman. That way, she can concentrate her efforts on what students and faculty care about most: education and research.

Thomas T. Huang, executive editor of The Tech, is graduating with a bachelor of science and master of science in electrical engineering and computer science.

Institute must actively enforce smoking law

(Continued from page 4)

knowledge that it pertained to them, being too far away. There has to be a limit somewhere. Campus Police officers sometimes, but not always, respond to calls complaining of scofflaws. In this case they did not. I draw the line at foul language and fisticuffs, so I shrugged and walked away.

A few signs in Kresge Auditorium would make it clear to outsiders visiting the campus that they are required to smoke outside, not in the lobby. Ushers at official events could be instructed to have a gentle word with those unwilling or unable to read.

Similarly, the Campus Police could be explicitly instructed to enforce the ban whenever they

pass people smoking in restricted areas. Most of us here are civilized, and one warning should go a long way. At present, it's clear that the Campus Police feel that the smoking regulations are outside their jurisdiction. The Campus Police should also start obeying the law themselves.

The alternative to these simple measures is unpalatable. Although MIT is not subject to any financial penalties if it admits its inability to measure up to public standards, it will require a certain amount of pride-swallowing.

Better far to post a few signs, and join the future.

Julian West, a graduate student in the Department of Mathematics, is a member of the Tech arts staff.

feedback

Commencement should include student pledge

(Continued from page 4)

friends have met feel that their four years at MIT were hell, but it was "worth it." Why? Like kids in a candy store, they feel they have license to do whatever they want after "escaping" from the Institute. And they feel no sense of responsibility to anyone they must step over along the way.

A pledge of responsibility could send a more positive message to graduates. But we do not wish to force the pledge on students if they don't want it. Therefore, we ask you, President Gray,

to permit an optional pledge to be included as a part of next year's commencement ceremony, provided that the idea is approved by a majority of undergraduates and graduates in a fall referendum. We also ask you to discuss the issue in this week's full Corporation meeting.

This year, students who wish to sign the pledge can pick up a copy as they enter the robing area. We are also circulating a petition to incorporate the pledge as part of the formal ceremony next year.

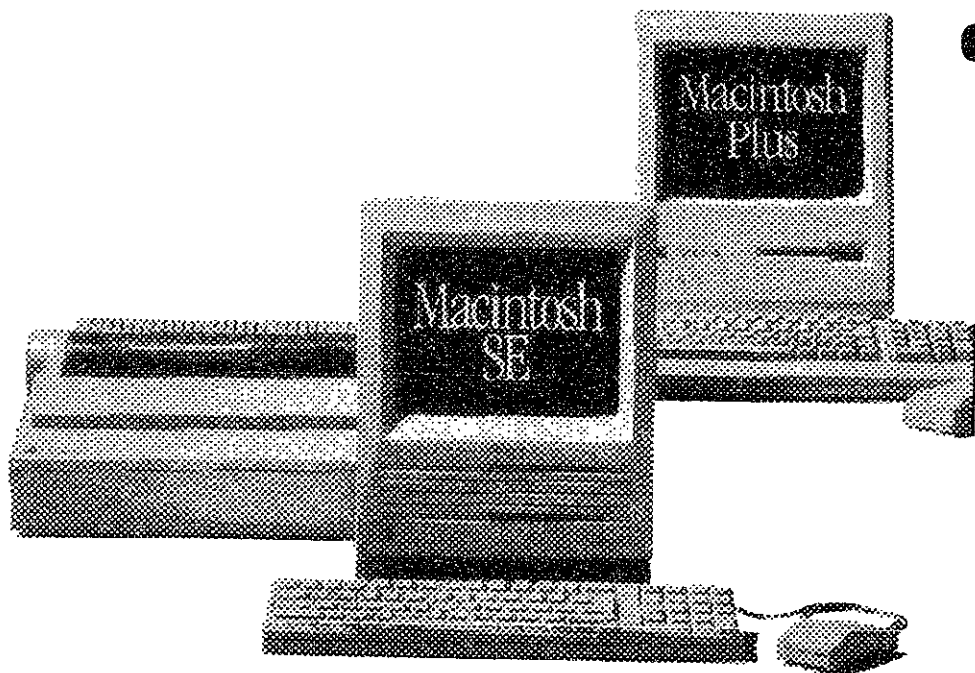
Our increasing dependence on technology demands that far

greater attention be paid to its consequences and our responsibility if we are to secure a peaceful and humane future. An MIT graduation pledge of responsibility would be a step in the right direction.

Steven Penn G
Daniel J. Glenn G
Richard A. Cowan '84
Stephen Fernandez '88
Philip Katz '82
Caroline B. Huang G
Ronald W. Francis G
Susan Glenn

for the
Coalition to Humanize MIT

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Freshman major stats indicate EECS decline

By Katie Schwarz

The number of freshmen enrolling in the Department of Electrical Engineering and Computer Science will drop again this year, according to the current Registrar's Office count.

Twenty-four percent of the freshman class have declared a major in EECS so far, compared to 30 percent at this time last year. This year's EECS enrollment is already the lowest in ten years.

Just two years ago, 33 percent of the Class of 1991 chose the then-overcrowded department, and EECS Department Head Joel Moses PhD '67 said he saw no alternative to restricting enrollment. At that time, the Committee on Undergraduate Admissions and Financial Aid voted against restricting students' majors.

More freshmen declared a major in EECS than in the second and third place departments, Mechanical Engineering and Aeronautics and Astronautics, combined. Total enrollment in the School of Engineering, 58 percent of the Class of 1991, is down slightly from last year.

The School of Science has 22 percent of the freshman class, about the same as last year. Chemistry showed a sharp drop with only 14 declared majors. Management (two percent) and Architecture (four percent) are about the same as last year.

Twenty-six freshmen have enrolled in Economics so far, an increase by one-third over that of last year. Economics accounts for two-thirds of the undergraduates in the School of Humanities and Social Science.

Seventy-six of the 934 freshmen have not yet chosen a major.

CPs, in office stakeout, nab MIT computer thief

By Earl C. Yen

An MIT student will be tried on 32 counts of larceny involving the theft of \$50,000 worth of Institute computer equipment found in his dormitory room at New House, according to the MIT News Office.

Uche O. Ola '89 was arraigned in the late afternoon of May 9 after a stakeout in Building 3 led to Ola's arrest, said Campus Police Chief Anne P. Glavin.

An Institute employee had noticed on May 9 that an office lock had been taped back so that someone could return to the room. The employee called the Campus Police, who employed a stakeout leading to the student's arrest later that day.

Ola — the first student to be

arrested for computer theft in recent years — pleaded not guilty at his arraignment in East Cambridge District Court and was released on his own recognizance for trial on June 7. The charges against him include 16 felony counts of larceny over \$250, and 16 misdemeanor counts of larceny under \$250.

He is an electrical engineering major from Bronx, NY; his case has also been referred to the Committee on Discipline.

The arrest comes in the midst of growing campus concern over equipment security. Computer theft rose from \$38,000 in 1986 to \$140,000 in 1987, Glavin said. Earlier this year, the Campus Police apprehended for computer theft two people not affiliated with MIT.

Scientists find second genetic code

Technology

By Ben Z. Stanger

Researchers in the Department of Biology have identified a feature of protein-synthesizing molecules that appears to represent a genetic code distinct from the standard code used to translate genes into proteins.

When an organism develops, its genetic material, deoxyribonucleic acid, is decoded through a complex set of reactions into amino acids. The DNA is arranged in triplets of bases, called codons, which determine the order of a particular string of amino acids.

The identity of a particular protein is based on the sequence of its amino acids, which is encrypted in the organism's genes. The genes can be translated through a code, broken by scientists over 20 years ago, whenever a given protein is needed.

But experiments performed by professor of biology Paul R. Schimmel PhD '67, and post-doctoral scientist Ya-Ming Hou showed that an intermediate step in the synthesis of proteins is governed by a separate, simpler code.

The MIT researchers reported their findings in the May 12 issue of the journal *Nature*. In an accompanying article, Nobel-prize winning biologist Christian de Duve described their findings as good evidence of a "second genetic code," and said it "could be older and more deterministic than the classical genetic code."

This second code, the details of which have yet to be elucidated, would determine the amino acid specificity of certain molecules called transfer ribonucleic

acids, or tRNAs. These RNA molecules act as translators between the codons of a gene and the amino acids of its protein product by carrying amino acids and adding them sequentially to a growing protein chain.

Hou and Schimmel showed that while one region of the tRNA allows translation of the message according to the classical code, another region determines the amino acid specificity of the tRNA through a different code.

The researchers found that changing a single pair of bases in a tRNA can change the identity of the amino acid that will be carried.

When they took the tRNA for one amino acid, alanine, and removed a particular pair of bases, the tRNA no longer carried alanine. When the tRNAs for two other amino acids, cysteine and phenylalanine, had the alanine-specific base pair introduced, the tRNAs only carried alanine.

Because only a single base pair

change is needed to change the specificity of a tRNA, the code used to determine tRNA identity is very simple. It is still not clear if the specificity is determined through general rules, or whether each tRNA is charged with its specific amino acid by independent mechanisms.

Professor of Biology Alexander Rich, commenting on the findings, said other scientific groups are now likely to join the effort to decipher the second code. There are currently a half-dozen groups working on the problem of tRNA amino acid specificity, he said.

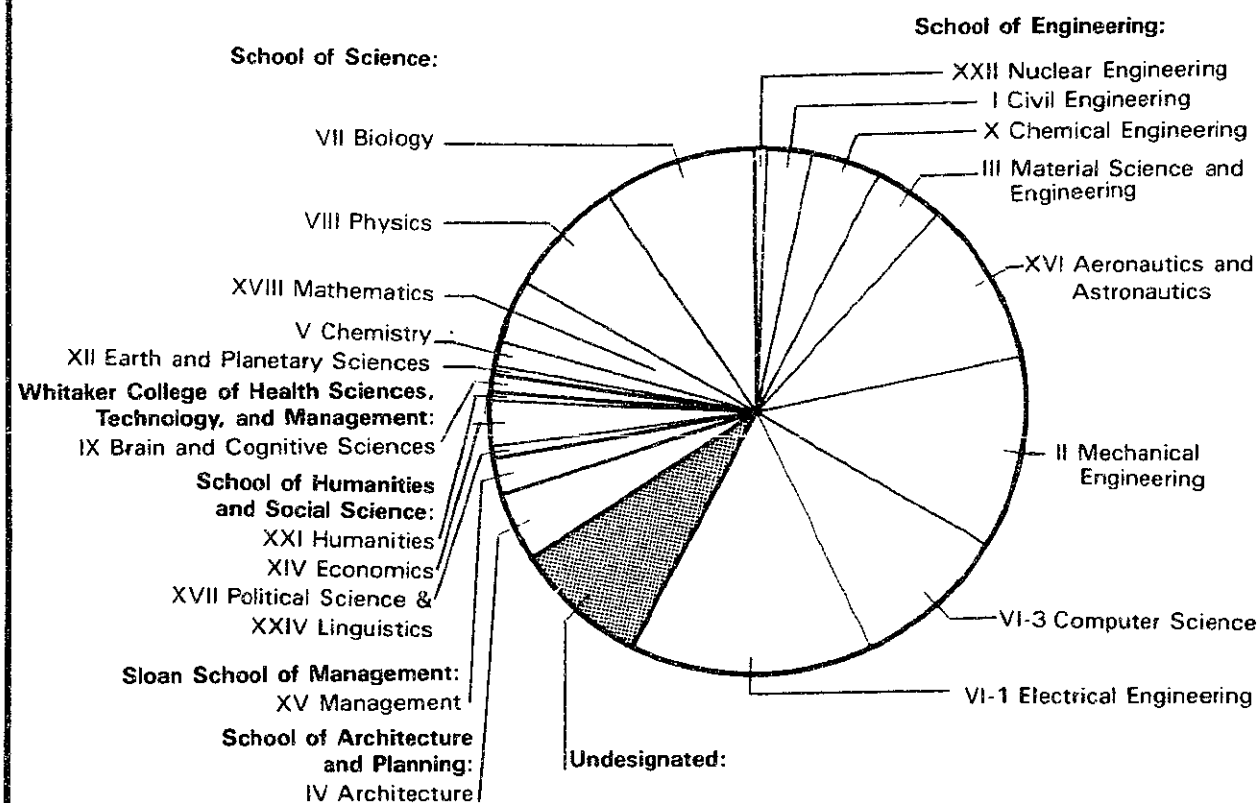
Rich predicted that with the additional groups, the entire code could be revealed within a couple of years.

Hou and Schimmel's research on the tRNA coding mechanism has received widespread media attention. By contrast, the classical genetic code, which was completely deciphered in 1967, received almost no media attention, according to Rich.



Photo courtesy of MIT News office
Dr. Ya-Ming Hou and Professor Paul Schimmel during their news conference at MIT on May 13.

Class of 1991 majors



Tech Graphic by Ezra Peisach

Nobel laureate blasts investigation

(Continued from page 1)

rector of the Whitehead Institute for Biomedical Research.

The controversy concerns a paper written by Baltimore; Theresza Imanishi-Kari, formerly of the Center for Cancer Research at MIT and now at Tufts University; David Weaver of the Department of Biology at MIT; and three other researchers which was published in the April 25, 1986, issue of the journal *Cell*.

Questions about the article's accuracy and authenticity raised by two junior scientists with connections to the Whitehead Institute, Margot O'Toole and Charles Maplethorpe, have attracted the attention of the House subcommittee on Energy and Commerce, chaired by Rep. John Dingell (D-MI). The subcommittee, currently probing

claims of scientific error and fraud, held a day-long hearing on the incident on April 12. None of the paper's authors were called to testify.

The subcommittee holds jurisdiction over the National Institutes of Health, a major source of funding for biological and medical research.

Baltimore described his letter as an attempt to counter the press coverage of the investigation, which he considers "inadequate" and sometimes "downright wrong." The incident in question is best left out of the Congress, whose investigation is "unnecessary," according to the letter, and should be dealt with via peer review within the scientific community.

Background of the dispute

While a post-doctoral student working for Imanishi-Kari, O'Toole questioned the interpretation of some of the data used to support the article's conclusions after she was unable to duplicate the results reported in the *Cell* article. O'Toole raised her objections shortly after the article was published.

As O'Toole related the incident in testimony before the subcommittee, Imanishi-Kari became impatient with O'Toole's failure to duplicate her results and eventually requested her to cease her experimentation and to attend the breeding of laboratory mice. Imanishi-Kari later told O'Toole that some of her data matched O'Toole's efforts and that some of her experimental methods were not carried out as described in the article, O'Toole claimed.

O'Toole's complaint led to two academic investigations of the research. The MIT investigation was led by Herman N. Eisen, Whitehead Institute Professor of Immunology, who agreed with one of O'Toole's claims concerning a minor error, but concluded that the remainder of her arguments were "largely matters of interpretation and judgment" best examined through the scientific process.

The other investigation was carried out by Henry Wortis, a Tufts professor of pathology, who also found no evidence of fraud, according to the *Boston Globe*.

Baltimore emphasized in the letter that the procedure for examining O'Toole's charges was informal, as she had not made a formal charge of fraud, and that the procedures accorded with MIT guidelines for examining charges of improper laboratory procedures.

The matter first became public



Tech file photo

Professor David Baltimore

when two independent NIH scientists, Ned Feder and Walter Stewart, were called by a recent MIT doctoral graduate, Charles Maplethorpe. A year before the paper appeared in *Cell*, Maplethorpe told the subcommittee in subpoenaed testimony, he had overheard a discussion between Imanishi-Kari and Weaver in which the two discussed Imanishi-Kari's results. Maplethorpe claimed that Imanishi-Kari said her data matched that which O'Toole was obtaining. Maplethorpe added that when he attempted to examine Imanishi-Kari's data, he learned that she had forbidden her technician to show anyone the data.

Having read in the *New York Times* about Feder and Stewart, who have personally investigated several cases of scientific fraud, Maplethorpe called them and explained the case to them. The two were successful in getting O'Toole to reconsider pressing her case and to provide them with seventeen pages of laboratory data they later used to critique the *Cell* article.

After discovering discrepancies between the seventeen notebook pages and the published article, Stewart and Feder asked to see the remainder of the laboratory data. The authors of the *Cell* paper refused. In his letter, Baltimore expressed great concern over the activities of Stewart and Feder.

The authors felt Feder and Stewart lacked an "understanding of the complex serology involved" in the study. Providing the data to "random people, scientists or not," would "severely disrupt ongoing scientific activities," Baltimore's letter stated. The data would be provided to duly constituted investigative bodies or colleagues in the same field "without question," the letter stated.

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Pi Lam's rush revoked, Kramtsch quits over changes as ODSA cites drug use

(Continued from page 1)

and alcohol was voluntary and was done by individuals in the fraternity, not by the house as a whole.

Hornstein noted that far worse offenses by houses have occurred in the past, none of which brought about a suspension of rush privileges.

The suspension of rush privileges is the most severe disciplinary action taken against any MIT fraternity in over 15 years, according to several sources. The IFC is "wary of the decision" because it may now be used a precedent for future Dean's Office action, Hornstein said.

Hornstein said the decision to suspend the house's rush privileges aggravates relations between the ODSA and the fraternities, who are already "suspicious about how the Dean's Office feels about the future of fraternities." In particular, Hornstein criticized the ODSA for making its decision without seriously consulting the IFC.

Tewhey said he considered the fraternity's past record of infractions and the "increasingly severe sanctions that we have had to take in order to address them." In the 1980s, the house has on four occasions either received letters of warning or been put on probation for disciplinary reasons, he added.

Three complaints about the fraternity earlier this year, at least one from a former house member, prompted the Office of the Dean for Student Affairs to investigate.

Pi Lambda Phi President Paul Davis '89 declined to comment on the ruling. Representatives from the house's Alumni Corporation as well as the national fraternity also refused to discuss the action.

Future of house

The decision to suspend Pi Lambda Phi's rush privileges places the fraternity in the financially difficult position of coping with no freshmen residents next year, Hornstein said.

The house can still rush upperclassmen after R/O in the fall, but "It's almost impossible to rush enough sophomores and juniors to compensate for the lack of freshmen," Hornstein said.

In addition, the fraternity — whose house is owned by the house's Alumni Corporation — could rent out its rooms to non-member boarders, Tewhey said.

Professor Robert Jones, Pi Lambda Phi's faculty advisor, said the fact that Pi Lambda Phi currently has a disproportionately large freshman class will help ameliorate the situation next year. Nevertheless, the house "may still have to struggle through next year." Many fraternities are currently facing financial difficulties because of the reduced number of men at MIT.

The house can petition for a reinstatement of rush privileges no earlier than March 1989.

Group accountability?

The fraternity's officers said they felt the use of nitrous oxide was inappropriate and let other members how they felt, but Tewhey did not feel that the officers made an effort to tell freshmen that they should "never provide



James Chiang/The Tech
Dean James R. Tewhey or use nitrous oxide again," according to the letter.

Tewhey said he considered taking action only against the individuals who engaged in illegal alcohol and drug use, rather than penalizing the entire fraternity. But the fact that the violations occurred unchallenged at official fraternity functions called for some kind of action against Pi Lambda Phi as a whole. "A fraternity has some responsibility for what happens at its own events," Tewhey maintained.

"Members have acknowledged the on-going illegal use and availability of marijuana and cocaine by members of the house," Tewhey wrote. "We are very concerned that a culture has developed wherein these types of activities occur unchallenged."

(Continued from page 1)

fended the writing requirement in distribution courses, noting that the requirement is "supposed to give students proficiency in English. [It] seems to me that having some of those 25 pages in English would be a sensible solution."

Also, Kramtsch said, fourth-level language subjects were only grudgingly approved for distribution status — and they must be reviewed again in a year because the courses are former HUM-Ds. Both third- and fourth-level subjects had distribution status under the old HUM-D system. Kramtsch said she felt there was not enough appreciation of the humanistic context of language and that language learning was viewed as merely the acquisition of a skill.

In fact, Friedlaender commented that part of the issue is "whether basic language teaching should be in the whole HASS structure."

Kramtsch was also concerned about the structure of the new humanities minor program as it was implemented for languages. Because the entry level to the minor track was set at the fourth-level language class, Kramtsch said it would be difficult for students to complete a six subject minor in a language in eight terms unless they began with advance credit. The difficulty would be especially great for languages like Russian and German, she said, because few students can study those languages in high school.

Friedlaender supported the minor requirement, saying that a

minor should imply some sort of clear competence. It is not obvious that a student can have clear competence in a language after only three years, she said.

Friedlaender noted that similar institutions do not start their minor programs until after the fourth level. She viewed the current language minor requirement as a compromise for the School. "If you wanted to make a minor accessible to everyone, you would start it at the first level, but that's clearly not acceptable," Friedlaender argued.

Kramtsch said her main desire was to make it as easy as possible for as many students as possible to take language classes at MIT. Students will always be able to take language classes, she explained, but with the changes taking place the incentives are not there.

Faculty's research interests

Kramtsch also voiced concerns with "matching the School's expectations in terms of scholarship for junior faculty with what the field produces." She noted that the sections has lost a sizable number of "excellent teachers" because the type of scholarship they did did not match the school's expectations.

"The School obviously wants top-notch scholars," and they are right in trying to achieve that, she said. But FLL faculty have often been involved in interdisciplinary research areas, Kramtsch said. Such scholarship is more difficult to appreciate than narrow disciplinary work, she explained.

Friedlaender said the research question raises a host of issues that have to do with the character of FLL and its mission. A committee formed in February is considering the structure of the language section, Kramtsch said. The issues being considered include:

- Making new appointments which match the expectations of the School;

- Deciding what is most the appropriate balance of faculty/non-faculty taught portions of the curriculum;

- Deciding what kind of appointments could be made for lecturers (temporary, permanent, and part time) to insure quality and continuity of the programs;

- Rethinking the balance of resources put into upper level and basic I-IV courses.

"I don't think anything I'm saying is new to FLL at MIT" but it's "coming to a head right now because MIT is taking a hard look at its humanities and is trying to strengthen them," Kramtsch said. But, she added, the direction the Institute is taking is not one into which FLL easily fits.

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Faculty looks at ABS, tenure

(Continued from page 1)

zation and Closing of Academic Units, chaired by Professor of Aeronautics and Astronautics Sheila Widnall '60, found that the procedures followed in the closing of ABS called into question the principle of "shared governance" which the Institute is based upon. "The reaction is universal," the report stated. "Everyone to whom we spoke deplored the process; no one came forward to defend it."

The committee was appointed by President Paul E. Gray '54 and Chairman of the Faculty Bernard J. Frieden following the March faculty meeting to "propose guidelines for future departmental reorganizations or closings." They analyzed the process leading to the decision to close ABS, as well as the major departmental reorganizations since 1976, and found the following faults in the ABS case:

- The failure of Dean of Science Gene M. Brown to communicate with Department Head Gerald N. Wogan.

- The failure of Brown, Gray, and Provost John M. Deutch '61 to consult with other members of the administration, faculty, or the Corporation Visiting Committee.

- The failure of the administration to adequately plan the future of faculty and students affected by the elimination.

To prevent this from happening in the future, the committee recommended the following changes:

- Before the decision to reorganize a department is finalized, the President appoints a committee to advise him on whether the procedures followed were adequate. This advisory committee is not envisioned as judging the correctness of the decision; rather, it is intended to review issues of policy and process, Widnall said.

- The Institute should formalize the principle that tenure is held by the faculty in MIT rather than in an academic unit. "This issue, more than any other, caused a lot of unnecessary turmoil in the lives of the faculty involved," Widnall said.

- The Faculty Policy Committee shall review the recommendations of the Widnall Committee, and is charged with implementing changes to the *Policies and Procedures* and the *Rules of the Faculty*.

Robert W. Mann '50, professor of biomedical engineering, questioned the presidential appointment of the advisory committee. "Linkage with the faculty would be enhanced," he said, "if the

faculty felt the appointment of the committee was done jointly with the chairman of the faculty."

Jack L. Kerrebrock, associate dean of the School of Engineering, expressed concern that the change in tenure policy could alter the decentralized nature of MIT and decrease the power of department heads. For example, he questioned whether this policy implied that tenured faculty could leave a department and expect MIT to guarantee tenure. "These actions may represent a larger than imagined step towards greater centralization," he warned.

Pauline R. Maier, head of the history faculty, agreed with Kerrebrock, calling the recommendation "a significant enhancement of what tenure means." She worried that the policy might have "ripple effects throughout the Institute that we are not comfortable with."

Widnall replied that the intention was that these policies only take effect when the Institute is considering the termination of a department. Marcus Karel, professor of applied biological sciences, noted that in the ABS case, "clearly the administration acted in a manner which said that tenure is with the Institute."

Gray added that a distinction should be made between where the ultimate responsibility lies and "all the aspects of constructive oversight and support," which are the obligation of the departments. This policy would not affect the "fundamental relationship" between a department and its faculty, he explained. Gray said he supported the recommendations of the committee, calling them "constructive, appropriate, and workable."

The other committee members were: Glenn A. Berchtold, professor of chemistry; John M. Essigmann '76, associate professor of applied biological sciences; Morris Halle, Institute professor of linguistics and philosophy; Henry D. Jacoby, professor of management; Phillip A. Sharp, professor of biology; and Arthur C. Smith, professor of electrical engineering.

Harleman opposes disruption

In other business, Professor Donald Harleman '50, Chairman of the Commencement Committee, said that "disruptive demonstrations" would not be permissible within Killian Court at today's commencement.

In the past "commencement has usually had some sort of non-disruptive demonstrations," Harleman said. Non-disruptive

demonstrations would still be permitted in "public spaces," he explained. The Campus Police will do what is necessary to prevent disturbances, Harleman said, but he did not outline what measures would be taken.

The faculty also approved a motion to allow the Harvard-MIT Health Sciences and Technology program to award a master's degree.

The proposal is primarily aimed at students in the biomedical sciences program of HST who are working towards an MD degree, said Dean of the Graduate School Frank E. Perkins '57. Students in HST's medical engineering and medical physics program, which usually leads to a combined MD/PhD degree, frequently receive a master's degree along the way from a traditional engineering department, Perkins said.

Robert W. Mann '50, Whitaker professor of biomedical engineering, expressed concern that a master's degree from HST could be confused with one from formal engineering programs, such as mechanical or biomedical engineering. The HST degree has no formal course requirements associated with it, he noted. Mann also doubted that the HST curriculum committee, which he was once a member of, is competent to judge engineering work.

Also, the faculty elected Professor of Management Henry D. Jacoby chairman of the faculty for a two-year term beginning in the fall of 1989. Jacoby has been a professor at the Sloan School of Management since 1973, and has served as the director of the Center for Energy Policy Research and the Management School's Program for Senior Executives.

Excerpts from Widnall report

Findings

After hearing descriptions of the procedures that were followed in previous reorganizations, this committee believes that the crucial defects in the ABS case were:

1. There was inadequate communication between the dean and the department head during the period when the decision to close the department was being considered. The decision was arrived at without consultation with the faculty and was announced to the faculty as an accomplished, non-negotiable fact.
2. There was virtually no consultation by the dean, president, and provost with other members of the administration, the faculty of the Institute, and the Corporation Visiting Committee prior to the decision to close the department.
3. The decision to close the department was announced before any detailed planning for assuring the continuity of the careers of faculty and students had been formulated.
4. The administration did not make a strong and informed statement about the meaning of tenure when the decision was announced to the department faculty.
5. The implications of the departmental closing on the undergraduate program, VII-B, was not considered by the administration nor by the relevant departments or faculty committees prior to the decision.
6. A clear message was not immediately communicated to the various constituencies of the department (eg. granting agencies) as to the status and future of the faculty, the research, and the educational programs of the department.

Recommendations

Since the Institute has functioned well up to the recent period with shared responsibility and consultation between administration and faculty, the question arises whether any change is needed in *Policies and Procedures*. We believe that our report can serve as a background document and legislative history for necessary changes in *Policies and Procedures* and in the *Rules of the Faculty*.

1. We recommend that the process used to implement decisions to reorganize or terminate an academic unit should be formalized as follows. A proposal and plan for such reorganization of an academic unit should be submitted to the provost by the relevant academic officer, in most cases the dean of a school. Before a final decision is made, we recommend that the president appoint a committee to provide advice on the planned reorganization. The committee should review the procedures that have been followed in bringing the case to the president, including the level and seriousness of information gathering, consultation, and thought given to the associated personnel issues.
2. We recommend that the Institute formalize the principle that tenure is held by the faculty in the institution rather than in a department or other academic unit. Likewise, it should be clearly stated that contracts with junior faculty, and senior and principal research scientists or equivalent are guaranteed by the Institute standing behind their academic unit.
3. We recommend that the Faculty Policy Committee review the existing rules and policy documents with respect to both the initiation and termination of degree programs.

Giamatti speaks to graduates

(Continued from page 1)

This year 981 bachelor's degrees, 665 master's degrees, 228 doctorates and 25 engineer's degrees will be awarded. MIT will confer dual degrees to 162 students with one student receiving three degrees. In addition to the degrees awarded today, 363 students received degrees in September 1987 and 509 graduated in February 1988.

The commencement ceremony will begin at 9:45 am with the academic procession from 77 Massachusetts Avenue to Killian Court. Chief Marshal Raymond S. Stata '57, president of the MIT Alumni Association, will lead, followed by Giamatti, Corporation Chairman David S. Sax-

on '41, President Paul E. Gray '54, Honorary Corporation Chairman Howard W. Johnson, Faculty Chairman Bernard J. Frieden, Cambridge Mayor Alfred E. Vellucci, and Rev. Susan Thomas.

Provost John M. Deutch '61 will be marshal of the Academic Principals, comprised of the deans of MIT's five schools as well as Dean for Undergraduate Education Margaret L. A. MacVicar '65, Dean of the Graduate School Frank E. Perkins '55, Dean Charles D. Hollister of the Woods Hole Oceanographic Institution, and Associate Provost and Vice President for Research Kenneth A. Smith '58, representing the Whitaker College of Health Sciences, Technology and Management.

The Faculty Division will be led by its marshal, Professor Richard de Neufville '60. Denman K. McNear '48, chairman and chief executive officer of Southern Pacific Transportation Company, will lead the Corporate Division, and Dean for Student Affairs Shirley M. McBay will lead the Graduate Division. The student marshals will be officers of the Class of 1988 — President Lisa A. Martin, Secretary Grace Y. Ma, and Executive Committee member Kevin T. Oliveira — along with Graduate Student Council President Jeffrey A. Meredith.

Thomas will deliver the invocation at the beginning of the ceremony. Martin will present Gray with the Class of 1988 gift — a scholarship fund — after Giamatti's address.

Protests unlikely

Campus activists are remaining quiet about plans to protest at this year's graduation ceremonies. The "Coalition to Humanize MIT" will distribute copies of their "pledge of social and environmental responsibility" at com-



Photo courtesy of MIT News office
A. Bartlett Giamatti

mencement for students and graduates to sign, but Daniel J. Glenn G, a campus activist, did not expect a disruptive protest.

Richard A. Cowan '87, organizer of the pledge, would "neither confirm nor deny" any protest plans. "However, people are taking steps to insure that whatever action takes place this year will be more popular than the action that took place last year."

Last year a number of student and community members of the "Coalition to Blow the Whistle on President Gray and MIT," blew whistles during Gray's commencement address. Stephen P. Fernandez '87 and Steven D. Penn G were both charged with disturbing a school assembly, a state crime.

Walter L. Milne, assistant to the chairman of the MIT Corporation as well as a member of the Commencement Committee, did not object to protests as long as "they don't interfere with the flow of the guests, the flow of the commencement."

Milne thought last year's whistle blowing was inappropriate because it annoyed parents and guests, who were not responsible for MIT policy, more than it annoyed the MIT administration.

"We really want to cause some positive change," Fernandez explained. "[We] don't want to antagonize the student body or the parents."

Activists to present graduate pledge

(Continued from page 1)

could send a more positive message to graduates.

The Coalition asked that the pledge be part of next year's commencement ceremonies if students approve it in a referendum. Even then, graduating students would not be required to sign the pledge to participate in the ceremonies.

An almost identical pledge was instituted at Humboldt State University in Northern California last year, and will be taken at six additional campuses this year, according to the Coalition's press release. Pledge co-author Matt Nicodemus is quoted there as saying that the pledge helps "create an atmosphere where social and environmental responsibility is openly discussed and plays a more central role in our life decisions."

The Commencement Committee would "certainly be willing to put it on [their] agenda," said committee chairman Donald Harleman. He refused to comment further, explaining that "I

don't think it's appropriate for me to give a personal opinion" before the Committee discussed it.

Walter L. Milne, assistant to the Chairman of the MIT Corporation, had no objections to students taking the pledge "as an individual act of conscience," calling it something that "we hope everyone would do."

He found the text of the pledge too vague to object to. "What is environmental pollution in one person's assessment is an acceptable trade-off in another person's assessment," he commented.

Milne was inclined against making the pledge a part of the ceremony, however. "What has it got to do with commencement? I'm not quite sure I see it fit." Such a pledge was not relevant to the academic achievements students were celebrating in the commencement ceremonies, he argued.

"The commencement ceremony is kind of a set piece," Milne said, "and this is kind of a per-

turbation of that," since not all participants in the ceremony would have to take the pledge.

Milne also called the pledge a "loyalty oath," in the sense that alumni might pressure each other to follow it.

Associate Provost S. Jay Keyser thought the pledge was "a good sentiment, whether it's part of the ceremony or not." He saw the pledge as having "particular importance to an institution like MIT," because MIT graduates will have such influence.

Like Milne, Keyser also was uncertain as to whether including it in the ceremony was a good idea. "That is a decision that should be made by the community. . . . The right place to start is the Commencement Committee."

Keyser linked the pledge campaign with efforts to put social and political consequences into MIT's engineering curriculum, since, in his opinion, students need "education that goes beyond what happens at commencement."



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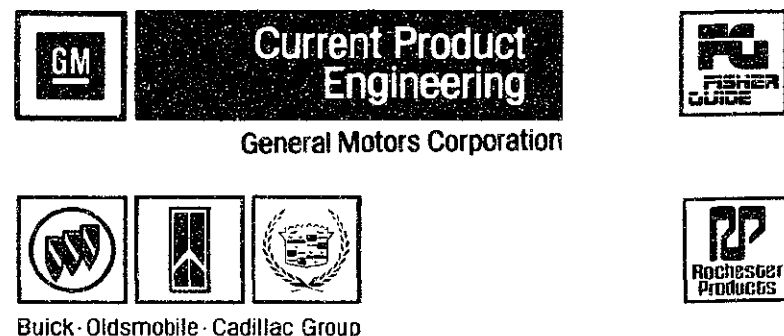
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AN EQUAL OPPORTUNITY EMPLOYER

Examining Provost Deutch's connections to the Pentagon

(Continued from page 2)

as military policy advocate. "It worries me very much," he said, "to be viewed as a mouthpiece rather than a person of independent judgement."

The source concurred: Deutch is not barred from pursuing his own interests, but a problem would arise if Deutch were ever to allow his external role in Washington, DC, to directly influence his internal role at MIT. He must work to see that research at MIT remains balanced, the source said.

Nicholas A. Ashford, professor in MIT's Technology and Policy Program, declined to comment on Deutch's activities in particular, but he raised a deeper question: How is a university affected if research funding were to become skewed?

In a paper titled "A Framework

Deutch study finds need for stronger DOD-sponsored work

(Continued from page 2)

There are "pockets of technical excellence" in DOD laboratories, the report says, and these laboratories have in some cases solved technical problems with working systems.

Nevertheless, DOD laboratories are failing to attract top technical people and are losing good people quickly, according to the report.

"A central problem with the current Technology Base is the quality of technical and management people at all levels. . . ." the report states. "In general . . . for a variety of reasons — salary levels, freedom to carry out significant technical work and conflict of interest provisions — the general level of technical competence throughout the DOD Technology Base has been declining."

This decline is marked in par-

for Examining the Effects of Industrial Funding on Academic Freedom and the Integrity of the University," published in *Science, Technology, & Human Values*, Ashford wrote: "The choice of research is influenced by a variety of factors including intellectual curiosity, personal values, financial reward, academic peer-group pressure, and political preferences."

"The preservation of the university as a place dedicated to 'free inquiry,' " he continued, "must entail not only the safeguarding of individual academic freedom wherever possible, but also the encouragement of variety in research directed toward a diversity of goals. . . . Vigilance in examining whether the profile of university research retains a diversity of interests and views is essential."

ticular by a lack of aggressive, long-range planning in the government laboratories.

Research, the report states, can lead to "large improvement in warfighting systems. To reveal and assay such opportunities, Technology Base research must pursue high-risk, high-payoff options. An atmosphere which inhibits risk-taking will result in a research program which has a short-term focus. This compromises the ability of the program, over time, to identify and pursue major new technological opportunities."

"There is a growing concern," the report continues, "that weak R&D leadership and bureaucratic forces are creating an environment which progressively discourages appropriate technical risk-taking within the DOD."

Faculty conduct bio-warfare work

(Continued from page 2)

Busby, research scientist in ABS; Michael A. Marletta, now professor in the college of pharmacy at the University of Michigan; Paul Newberne, now at Boston University; Adrienne Rogers, now a professor at the Boston University Medical School; William R. Roush, now professor of chemistry at Indiana University; and Gerald N. Wogan, professor and department head of ABS.

Data obtained from the Report of Sponsored Research Fiscal Year 1987 indicate that the mycotoxin research made up 21 percent of Marletta's contracted research money (\$121,693/\$578,700), 84 percent of Newberne's (\$1,146,407/\$1,372,471), 23 percent of Roush's (\$128,008/\$546,120), and 7 percent of Wogan's (\$359,905/\$5,421,087).

In their research proposals, the scientists suggested that the government's long-term interest in toxin studies was to "identify populations which have been exposed to mycotoxins [and to develop] means for intervention to protect or moderate toxicity in civilian or military personnel. . . ."

But for MIT biology professor Jonathan King, this past work could be an ominous sign of things to come. In a 1985 *GeneWATCH* article on the threat of a biological arms race, he warned that the Department of Defense was embarking on a major program of research and development in the area of biological warfare.

He warned that such research would increase the possibility of generating "new kinds of harmful organisms."

Moreover, he argued that the basic research, currently labeled "defensive" work, could swiftly turn to offensive work — the steps in defensive R&D are indistinguishable from the steps in offensive.

In fact, he said that defenses against biological warfare are in all likelihood not feasible. One reason is that it would be impossible to vaccinate against all possible strains that might be used as weapons, he claimed.

"Two features undermine the use of organisms as effective agents of military policy," he wrote. "It is impossible to control the spread of organisms in the ecosystem, or to predict their effects on species or individuals in varying natural environments. [Secondly,] given the range of variation of biological agents, there is little possibility of defending human, animal, and plant populations against their intentional military use."

But Roush felt that the basic research he had conducted had contributed to fundamental science and had given insight into why these compounds were toxic in the first place.

He said the experimental results indicated that the tricothecenes mycotoxin is a "serious" toxin, but that there were many others which are more toxic.

Marletta said that the study

was intended in part to investigate whether or not the toxicity in the compound could be increased or decreased. He added that the National Institute of Health could just as well have funded the research.

Marletta and Roush said that they had studied how mycotoxins interacted with animal enzymes — in other words, the metabolism of the toxins. Specifically, they synthesized metabolites and compared these to natural metabolites produced in reactions between enzymes and mycotoxins. Roush said that Wogan and Newberne's research involved studying the toxicity of mycotoxins in animals after inhalation or skin contact.

The scientists in their research proposals wrote that there was evidence that mycotoxins had been used in Afghanistan and in Southeast Asia on humans and animals — the so-called "yellow rain." But both Marletta and Roush today acknowledge that other scientists have shown the DOD's allegations of biological warfare in those countries to be unfounded.

Three students robbed at gunpoint on Simplex

By Earl C. Yen

Three students were robbed at gunpoint Monday night on the corner of Landsdowne and Franklin in MIT's University Park.

Two Senior House residents and one former MIT student were walking along Landsdowne near the New England Candy Company when a car pulled up and three men, one carrying a small pistol, got out and demanded the students' wallets.

The students complied and the robbers drove away. No injuries were reported.

Although University Park is owned by MIT, the Campus Police patrol the area with less frequency than areas on the MIT campus, Lt. Edward McNulty said. The area is still within the jurisdiction of the Cambridge Police, he added.

The students lost a total of \$50, according to one of the victims.

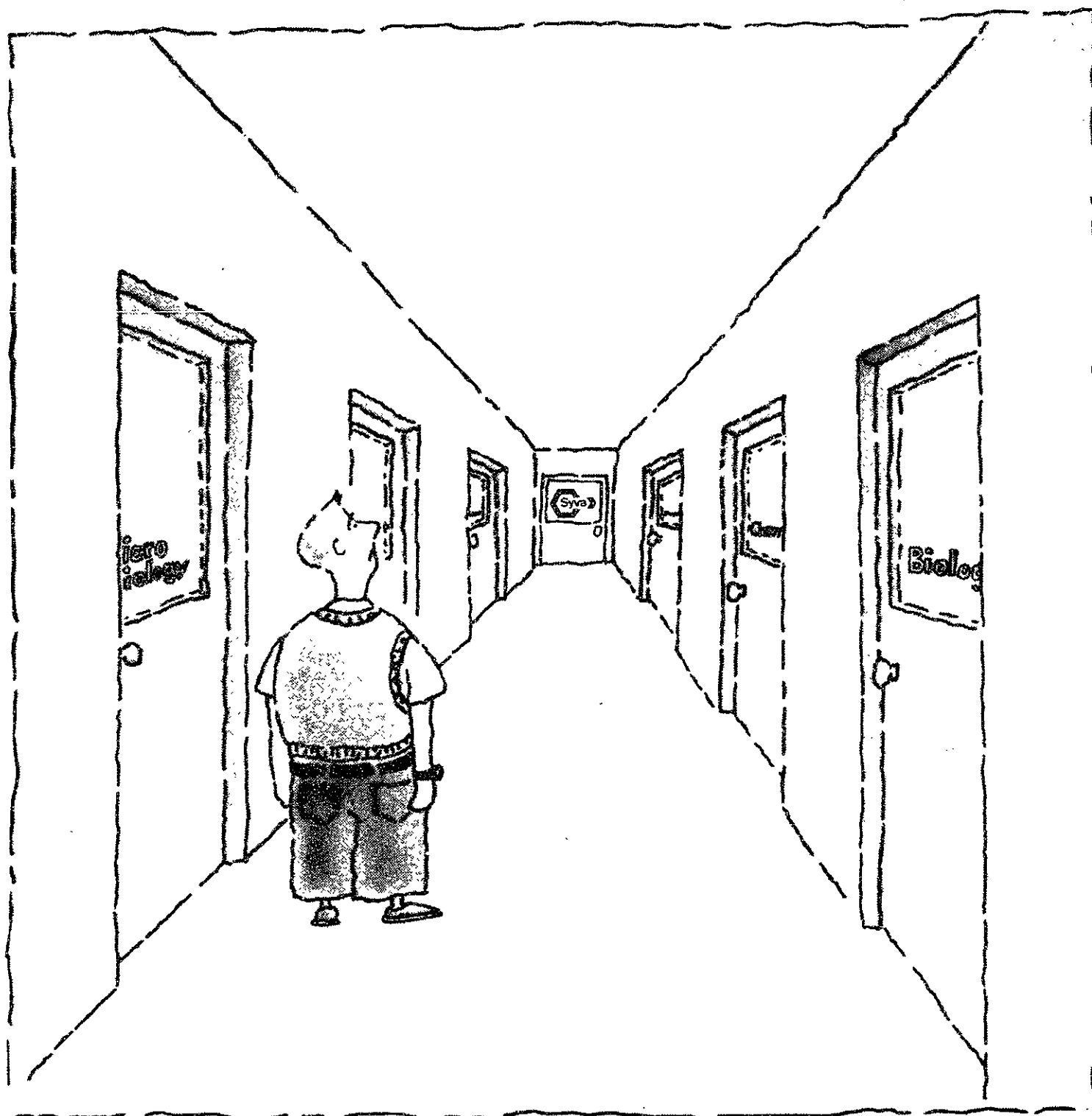
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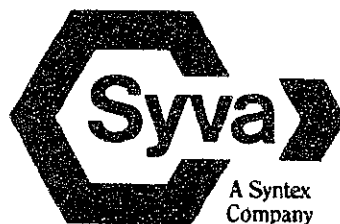
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Baltimore fires back at Congress

(Continued from page 7)
ter continued.

After refusing to grant the request for laboratory data, Baltimore suggested the impaneling of a group of immunologists to study the propriety of the paper. In his letter, he asked only that Feder and Stewart "agree to accept the decision of the panel." Baltimore claims that the two refused, "instead asking that they be part of the panel."

"We never asked to be a part of the panel," Walter Stewart said in an interview with *The Tech*. Instead, Feder and Stewart wanted an open hearing where "all parties would retain the right to freely discuss the issues," Stewart said in his congressional testimony.

Furthermore, Baltimore wanted Feder and Stewart to promise not to discuss the incident publicly or privately if the panel determined that no norms of science had been violated in the publication of the article, Stewart said. "We felt that such a promise itself would violate the norms of science," he continued.

Baltimore was out of town and unavailable for further comment.

Feder and Stewart next compiled a manuscript critiquing the *Cell* paper and attempted to publish it in *Cell* and *Nature*, where it was rejected "without standard review," according to Stewart's testimony. Baltimore was "unsurprised" at this result, since "a critique of a paper based on a selected, random set of data is extremely unlikely to be accurate," he said in his letter.

Eisen agreed that about the difficulty of judging the paper on the evidence of seventeen pages of notebook data. Eisen estimated that the original data might have amounted to five hundred pages or more.

Furthermore, due the complexity of the experimental procedure, much inaccurate data is often recorded in laboratory notebooks, Eisen continued. "You're lucky if one experiment in ten works right," he said.

Maplethorpe had just finished his doctorate at MIT when O'Toole expressed her disagreement with the *Cell* article. He told the committee he had remained silent about the allegations of fraud until he had completed his work at MIT. O'Toole, on the other hand, had delayed an appointment at Tufts to perform post-doctoral research at MIT for Imanishi-Kari. She told the subcommittee that the "dispute has halted my career . . . and had a devastating effect on my life."

Baltimore said in his letter that he had never attempted to dis-

courage O'Toole's questions nor had he done "anything to affect her career."

Difficulties in investigation

Baltimore fears that the congressional subcommittee will "judge the science through the hearing process, a totally inappropriate forum for deciding scientific questions," according to the letter.

An aide to the House subcommittee reported that the committee is simply looking into how institutions handle allegations of error, fraud, and misconduct. Rep. Dingell decided to look into the Baltimore case because the institutional review had been completed and the NIH had just begun its investigation, the aide said.

The *Boston Globe* reported that four investigators from NIH were recently conducting interviews in the Boston area. The subcommittee aide identified this investigation as an interim team, whose membership includes the NIH institutional liaison officer, convened to make preliminary interviews while a formal panel is assembled. A previous NIH investigatory panel was dismissed when two of its three members revealed conflicts of interest arising from publications they had co-authored with Baltimore.

The Dingell committee's work has been hampered by legal impediments placed by the authors' lawyers, the aide said. Despite several requests for the original laboratory data, several "key people" in the investigation have refused to deliver the data to NIH, the aide continued. Dingell is reportedly considering subpoenas to compel the release of the data, the aide said. MIT Provost John M. Deutch '61 stressed that MIT has delivered "all of the information in our possession" upon the committee's request.

One of the primary concerns of the Dingell committee is the difficulty faced by junior scientists who find evidence of error or fraud in the work of senior researchers. Pressing allegations of fraud or error can destroy the careers of younger scientists, who can later find it difficult to survive in their institution or even in the grant system, where senior scientists might sit on grant review committees, the aide said. As a result, much fraud remains unreported, he concluded.

MIT researcher Eisen said that reluctance to charge error or fraud could be largely explained by younger scientists' insecurity about their own competence and their unwillingness to challenge accepted authority. The difficulty

of confronting a senior scientist is a real problem, he continued, but not an enormous one.

The controversy is "very serious for MIT," Deutch said. He also expressed concern over the possibility of inappropriate congressional action, saying that Congress is "very confused about the difference between scientific interpretation and error or fraud."

The subcommittee aide said the committee is trying to be "enormously fair" in pursuing the investigation. The aide pointed out that the authors were not called to testify because the investigation is focussed on the institutional review process, not the scientific truth of the paper.

Deutch said that while he believed MIT would be able to satisfy the Dingell committee, he thought the investigation would probably not address the larger questions of striking a reasonable balance between governmental regulation and unimpeded scientific research.

He added that he felt current MIT mechanisms for handling reports of fraud or error were adequate, although some change might be required. Suggestions from NIH or the Congress would be appropriate, he said, although he worried that congressional recommendations might be "uninformed."

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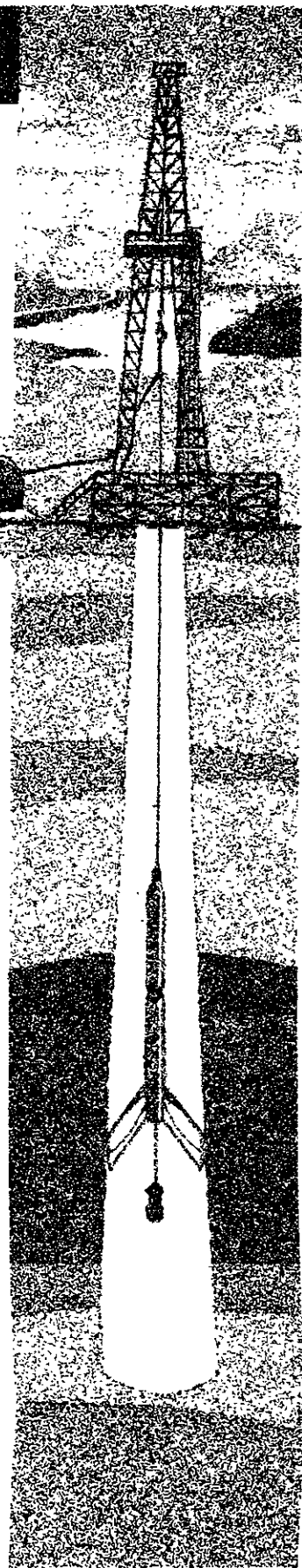
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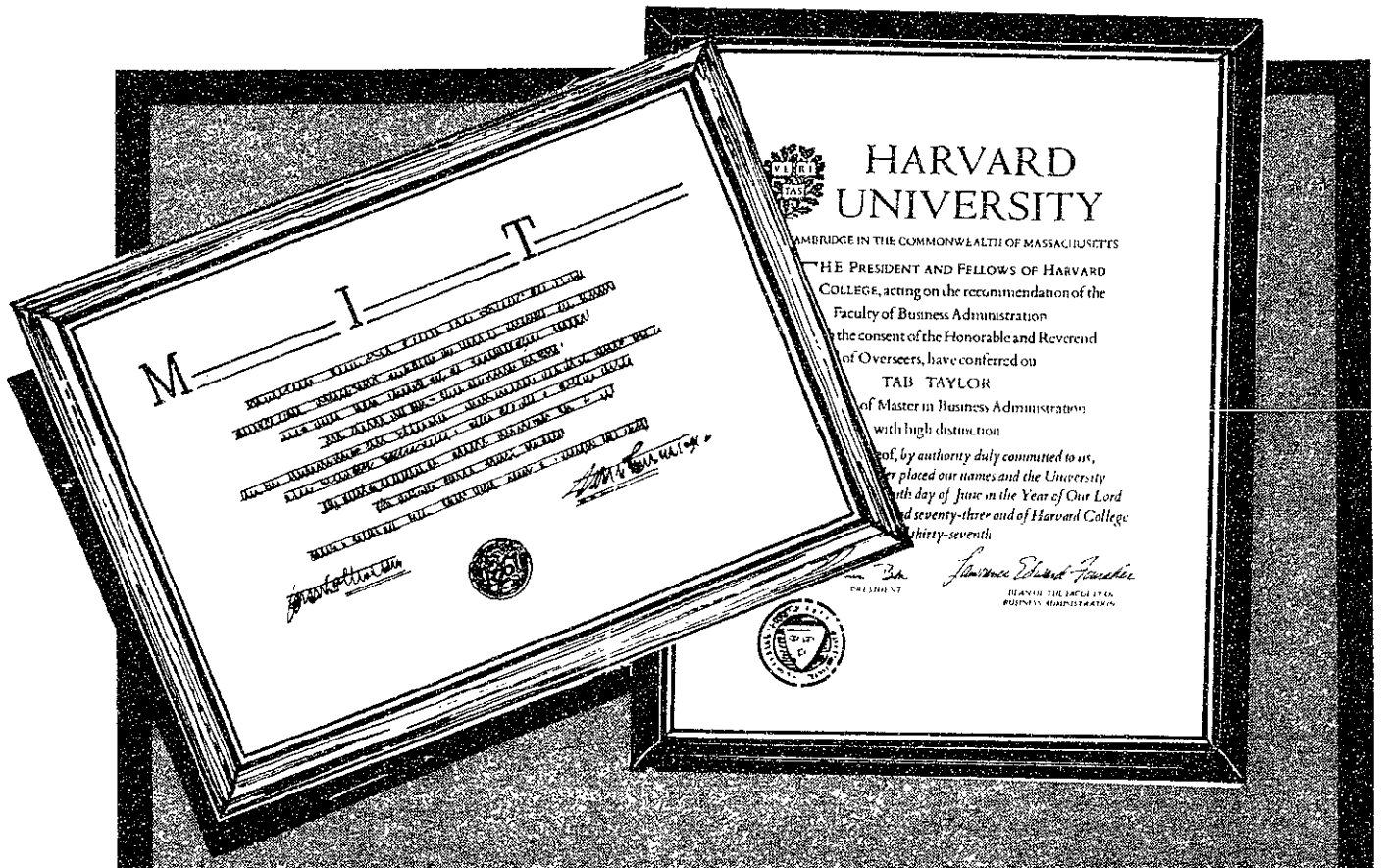
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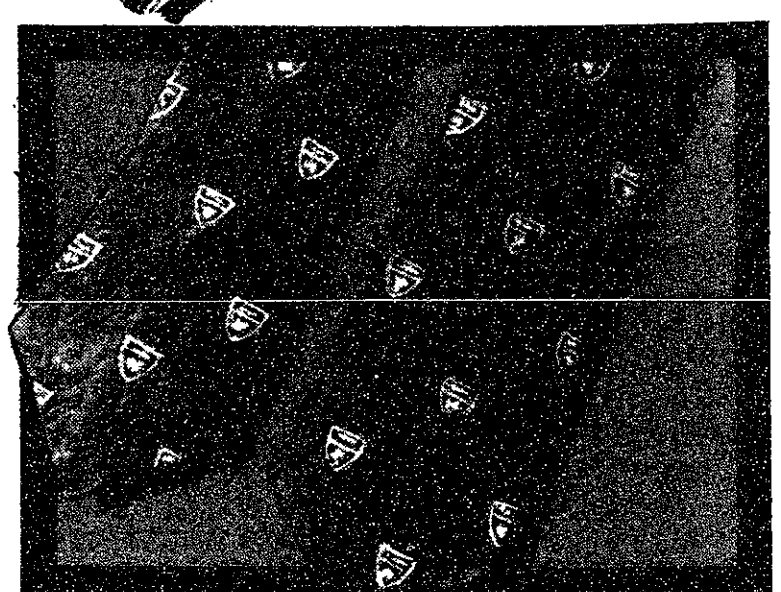
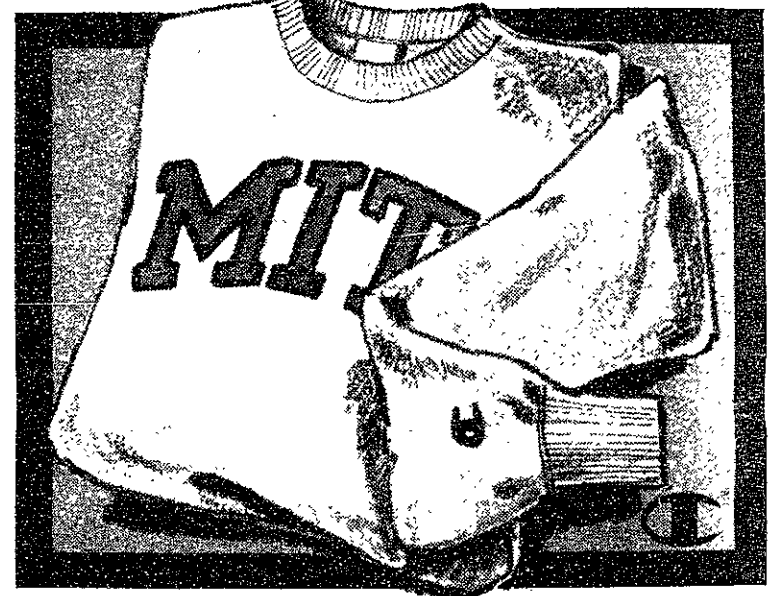
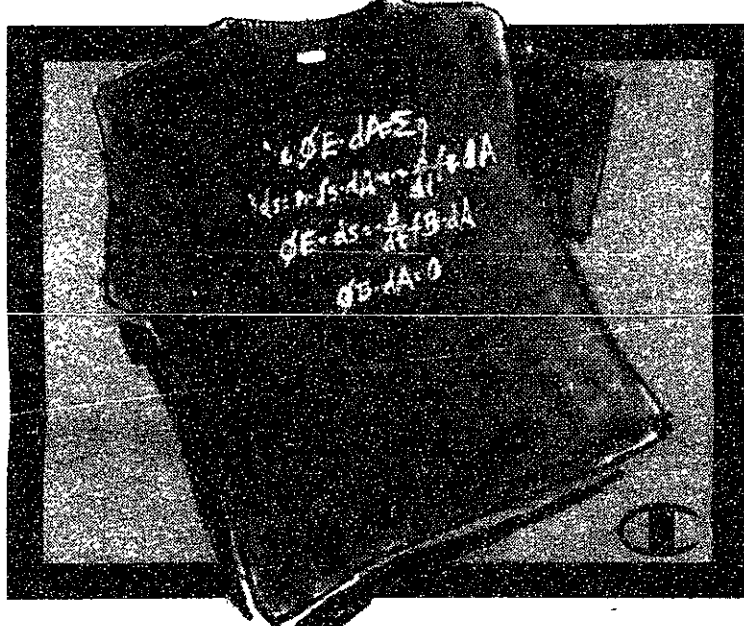
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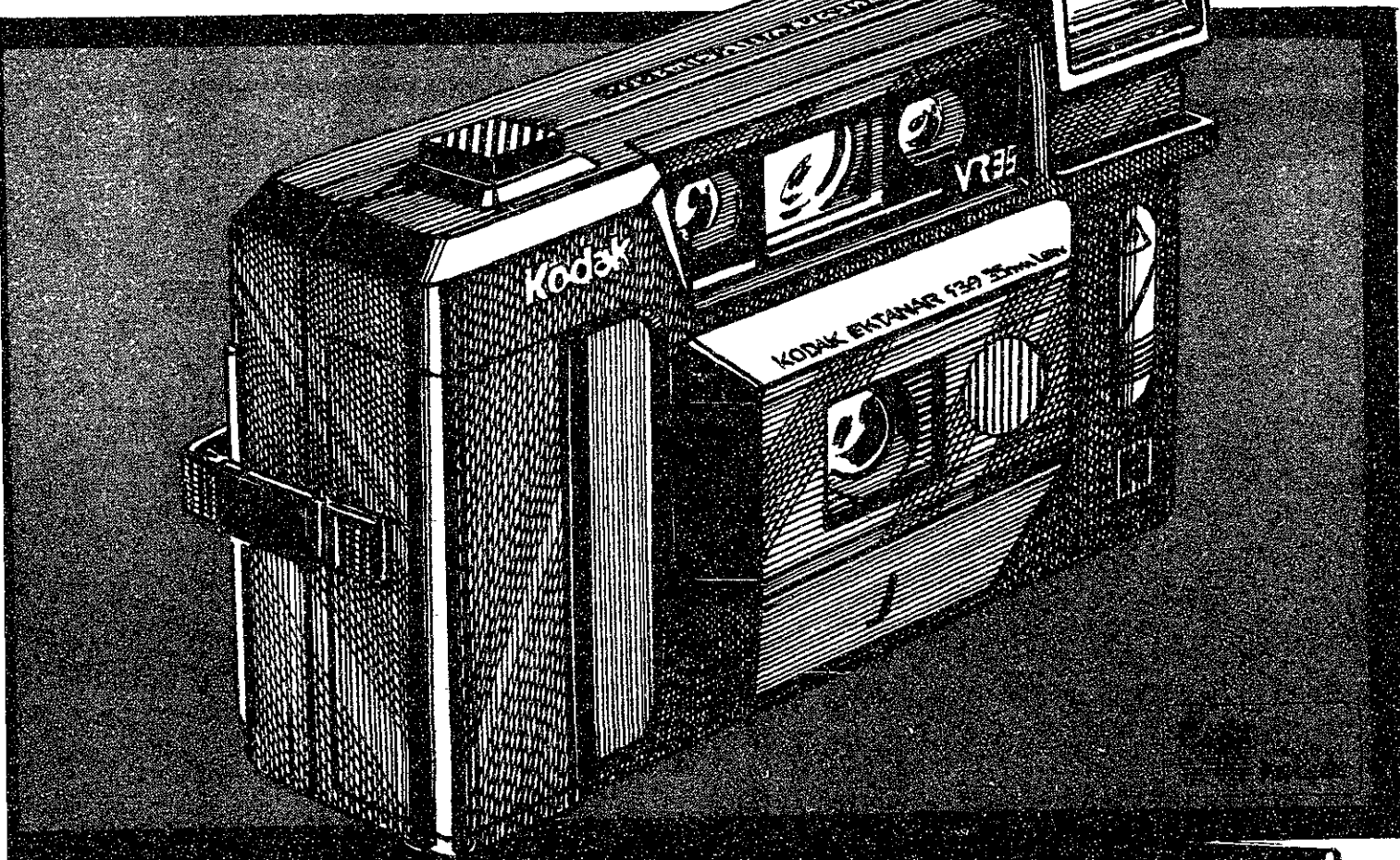
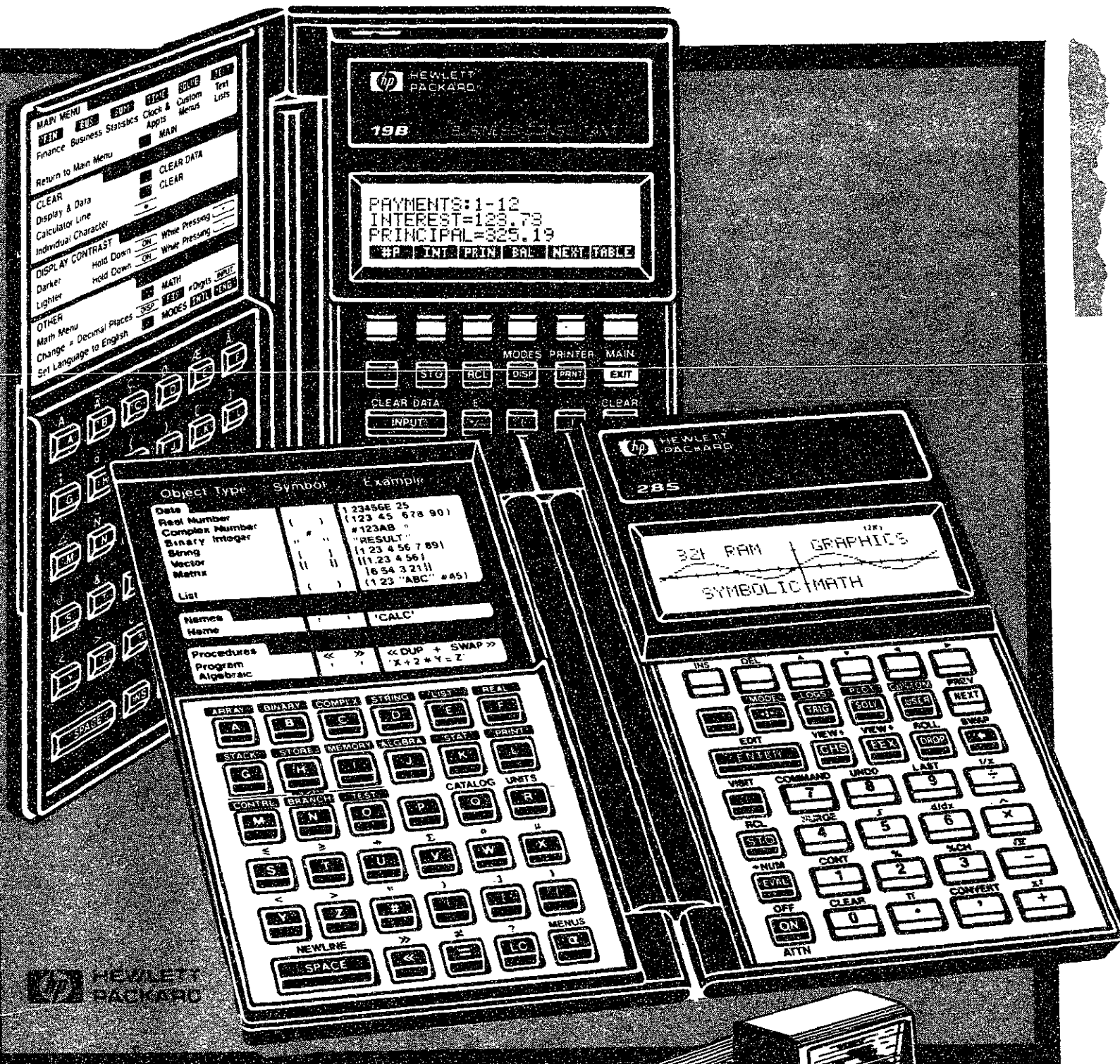
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Master of environmental portraiture is at MIT Museum



Georgia O'Keefe, *Ghost Ranch, New Mexico*, 1968 by Arnold Newman.

ARNOLD NEWMAN
Photography exhibit at the MIT Museum.
Continues through June 27.

By CHRISTOPHER J. ANDREWS

BORING PHOTOGRAPHS of smiling heads and shoulders posed artlessly against dreamy stippled backgrounds are the scourge of photo-portraiture, and Arnold Newman is a savior. The acknowledged master of the environmental portrait, Newman makes informative pictures about his subjects in a voice elegant and clear.

Newman's carefully-composed photographs are a study in their subjects. His camera almost always includes telling details about the sitter's profession, oftentimes with a surprising elegance and economy of means. In one celebrated portrait, composer and pianist Igor Stravinsky's head appears below the flowing curve of a grand piano lid; Stravinsky-as-pianist is depicted in a work of great formal beauty.

Currently on exhibit at the MIT Museum, the collection of 165 immaculately printed black-and-white and color prints, reads like a *Who's Who* of the 20th century. Photography greets Berenice Abbot, Man Ray, Bill Brandt, Paul Strand, and Ansel Adams all trusted Newman to make their portraits, as did artists Marcel Duchamp, Pablo Picasso, Georgia O'Keefe, Marc Chagall, Louise Nevelson, Edward Hopper, and Andrew Wyeth.

While colleague Philippe Halsman's masterful psychological portraits rely upon subtleties of pose and expression to convey the sitter's personality, and sometimes dwell upon peculiar aspects of physiognomy (Halsman once published an entire book devoted to Salvador Dali's comical *mustachio*), Newman's photographs generally tell us what the sitter *does*, in a clear and much-imitated style. Piet Mondrian is casually framed by his painter's easel; German industrialist Alfred Krupp sits prominently with enormous assembly lines receding in the background.

Newman's portraits are valuable as records of great persons, and are enormously interesting as photographs and art as well. His own aesthetic relies heavily upon form and design rather than the moody

lighting of portraitist Yousef Karsh; abstract painter Adolph Gottlieb's black turtleneck disappears against the huge black-on-white oval on his canvas, and Stravinsky sits poring over his scores in a room whose flooring resembles a giant chessboard.

Nor does Newman go to pains to capture his subjects in a moment of relaxation in their living-rooms, as does the renowned street-photographer Henri Cartier-Bresson. (It is in no way pejorative to call Newman's portraits *posed*.) Newman's clear style, which often borrows elements from the sitters, is really none but his own.

Sitters are often made into art: Georgia O'Keefe's aging visage is framed in front of a white easel; directly above is her figurehead of sorts, a sun-drenched skull with giant horns; in the background are cliffs from her beloved New Mexico. Renaissance man Geoffrey Holder swims in a suit of oversized tweed, joined by a primitive friend. Alexander Calder's head seems one of the many hanging objects in a mobile.

Portraits of David Ben-Gurion, Elie Wiesel, Sirs Cecil Beaton and John Gielgud, Martha Graham, J. Robert Oppenheimer, I. M. Pei, Allen Ginsberg, Theodor ("Dr. Seuss") Geisel, Jean Cocteau, Frank Lloyd Wright, and many other distinguished personalities hang in Newman's substantial exhibition. Photographs of rural poor in the South, several architectural studies, and a few landscapes and still-lives round out the exhibit.

For the celebrated figures, for the brilliant photography, the Arnold Newman exhibit is a must-see.

* * * *

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ARTS

Student composers show talent in Killian Hall recital

STUDENT COMPOSITIONS

Works by Eric Ostling '88 and Julio Friedmann '88.
Killian Hall, May 13.

By JONATHAN RICHMOND

AS JOHN HARBISON SAID in introducing the May 13 Killian Hall concert, it was indeed "a very remarkable year for undergraduate composers at MIT." Four composers had been active at the Institute, and a seminar had been established for them to compare notes and problems associated with their "more advanced" work on a "more speculative level."

Two composers, Eric Ostling '88 and Julio Friedmann '88, had works performed at the Killian Hall concert. Ostling was also presented with the first Edgerton Award for Musical Achievement by Pro-



Donna Coveney/MIT News Office

Composer Eric Ostling

fessor Harold Edgerton. Friedmann had previously received the Laya and Jerome B. Wiesner prize for Artistic Achievement.

Ostling, who worked in aeronautics and astronautics concurrent with his studies in music, said that both fields served his interests in design. "I can feel a lot of connections," he said. His interests in music are eclectic — he is a member of the rock group Vital Science and is also drawn by the spontaneity and potential for improvisation of jazz.

The variety of sources influencing Ostling's composition was quite apparent in three movements from his *String Quartet*, given a reading by members of the Muir Quartet and guest artist Sharan Leventhal. The piece had certain elements which showed real talent; and others which indicated a need for further development.

The first movement had much of interest, and the balance and relationship between instruments was well-studied. The songlike sound of the cello opening was attractive on a deep level, and many of the textural combinations developed were contemplative and meaningful.

The second movement's haunting glassy sounds and pungent escalation of tensions had its moments, too. It lacked balance in its development, though, and experimented with too many styles. At one moment the music sounded like Paganini; at others there was a very 20th century dissonance, at still others there were some piquant strains of jazz, and it didn't quite all come together.

The *Scherzo*, (inspired by Beethoven, Ostling said, and not yet complete), was omitted. The fourth movement contained some quite serious music, and its themes grew compellingly. The viola and cello had some interesting — and sometimes mystic — effects, and related well to the violins. The performance itself was strongly delivered, indicating a high degree of commitment by the musicians to promoting the work of an emerging and clearly-talented composer.

Julio Friedmann's music is quite another

story. Friedmann is a comic, but also a dreamer; he likes to reflect as he laughs. He finds light in the deepest of pathos. His *Four Dream Songs* are witty, touching and rich from both a dramatic and a musical viewpoint.

Friedmann got the idea for the piece in his sophomore year. He encountered John Berryman's songs while taking a poetry class with Fanny Howe and was "stricken by them, by their humor, by the potency of their ideas." He also noted that Berryman had written them "in the *de capo* form, and they cried out for [musical] settings."

An especially strong characteristic of Friedmann's work is his ability to form a

vibrant, harmonious set of relationships between the texts and the music, each of which seems to organically grow out of the other. "All of the music is genetically linked to the text. They have the same genesis," he said.

The violin and piano which accompany the baritone voice are highly anthropomorphic actors in the drama. As Friedmann commented, "The piano line was set as a counterpoint, counter-idea to the voice, [the violin was set] to be an adjacent voice. . . . The violin was a real character. All of them were jokers."

Friedmann's settings showed a fresh originality; but although his composition

(Please turn to page 22)

Versatile composer Julio Friedmann performs recital of student works

JULIO FRIEDMANN IN RECITAL

A concert of works composed by graduating senior S. Julio Friedmann.
Killian Hall, May 11.

By CHRISTOPHER J. ANDREWS

AN ENTHUSIASTIC AUDIENCE welcomed student composer Julio Friedmann in the first senior composition recital in living memory. The theatrical Friedmann's enormously varied program of works displayed a real talent, and was often extremely enjoyable as well.

Probably the best part of the concert was when pianist Jee-Lian Yap found that a page was missing from her music stand, in mid-piece. Thanks to this lucky accident, we heard the final song from Friedmann's thesis *Four Dream Songs* twice.

Arranging the Brubeck classic *Take Five* is the right-of-initiation faced by any would-be jazz artist. Friedmann approached the challenge by dissecting the well-known melody line into several shorter sub-phrases and tossing them around at will. Horn-players rarely get to finish a single theme before it is snatched

from beneath them by another part, to start again at the beginning.

Everything happens suddenly during this piece: in the course of two beats the horns die out, leaving a sparse percussion passage behind. For a moment, each horn player picks up a key of his own during a terrifying modulation. The result is an upbeat and showy piece that always keeps the audience guessing. I wouldn't recommend it as a lullaby.

Two Hebrew Hymns were of mixed success; the Hebrew language, which is unfortunately little-heard in the western musical tradition, added an exotic touch to the choral works, a refreshing change from the thousands of der-Gotts and Jesu-meine-freudes scattered throughout the vocal repertoire.

In the first hymn, the singers were often divided into two choruses: the sopranos and tenors sang lovely descant lines in elaborate counterpart, while altos and basses sustained a slower *cantus firmus*, which worked well. The second hymn lacked structure by comparison; too often

(Please turn to page 22)

Yearbook displays continuity of theme, maintains excellence of style

TECHNIQUE 1988

Robert D. Newman, Editor-in-chief.

By SARATH KRISHNASWAMY

THE STAFF of the MIT yearbook, known for good photography, has turned out another great piece of work in *Technique '88*. From section to section, the yearbook displays continuity of theme and maintains excellence of style and quality.

The introductory photos do a good job of summarizing the issues that affected the community over the past year — feelings of protest, artistic expression, and technological advancement. The sentiments and reflections of the graduating class are also depicted both literally and symbolically, in pictures of a revolving door or in the face of a past graduate.

The next section, "Journal," gives a chronological essay on campus life over the past year. Both text and pictures provide a good summary of important issues over the year; but the pictures themselves rarely refer to specific journal entries. Rather, while the prose describes news happenings in general, the pictures provide a chronological description of activities on campus throughout the year.

Representation of these activities is general and diverse enough to reflect the community as a whole, yet still maintains a semblance of coherence, especially in the photo essays on last year's graduation and this year's 2.70 contest.

Pictures of Tent City and other subjects reflect the issues brought up in the introduction and provide continuity through this section.

The "Sports and Activities" section of the yearbook also seeks to represent the myriad interests on campus. Yet while there are excellent pictures of men's track and football, shots of women competing are rare: *Technique* should make sure they improve on what might be construed as inequitable sports coverage in editions to come.

The Activities portion of this section does include more women and focuses on the artistic and creative side of MIT, as well as depicting students at play.

To spice up the sometimes repetitive views of the living groups on campus, the *Technique* staff has used a variety of photographic ideas. The photos are taken in intriguing locations — the picture of McCormick Fourth East in a kite-like formation on the roof of Kresge — is incredible. There is also use made of clever photographic effects, as in a fisheye picture of French House.

There are even a few hacks in the section: Tau Epsilon Phi's picture doesn't include a single brother. The pictures do project the feeling of the various living groups well. But the picture of Kappa Sigma which includes a brother mooning the camera is not really in the overall style of the yearbook, and is in unnecessarily bad taste.

Some of the best candids in the yearbook can be found in the "Rooms" section. The photographs here are amazingly good, and reflect the diverse environments and personalities of the students. The pictures are framed and exposed well, and include a creatively put-together collage. Of the two essays in this section, the second, by Professor John Hildebidle, is on the whole more concrete and in greater depth, with photographs that reflect the mood of the essay effectively without being overly repetitive.

The "Seniors" section of the yearbook also contains some fabulous pictures, hidden in-between the portraits of the graduating class. Again, the focus is on diversity, and reflects the broad range of personalities of the graduating class.

The last section contains both black and white and color photos. The first black and white pictures are artistically stunning, displaying excellent form and making good use of contrast and repetition. Of the color pictures, most are of high caliber — especially those by Alan Devoe and Bob Sugiura. These ending photographs carry with them a sense of completion and fulfillment, and very adequately round out the rest of the yearbook. The mood reflected in the last black and white pictures is of independence and accomplishment, thereby presenting the shift in mood for the class as it leaves MIT.

(Please turn to page 22)



Robert D. Newman/Technique

Kendall Station musical sculptures sound harmonies of the spheres

THE KENDALL BAND

Installation by sculptor Paul Matisse.
Kendall/MIT MBTA Station.
Permanent exhibit.

By CHRISTOPHER J. ANDREWS

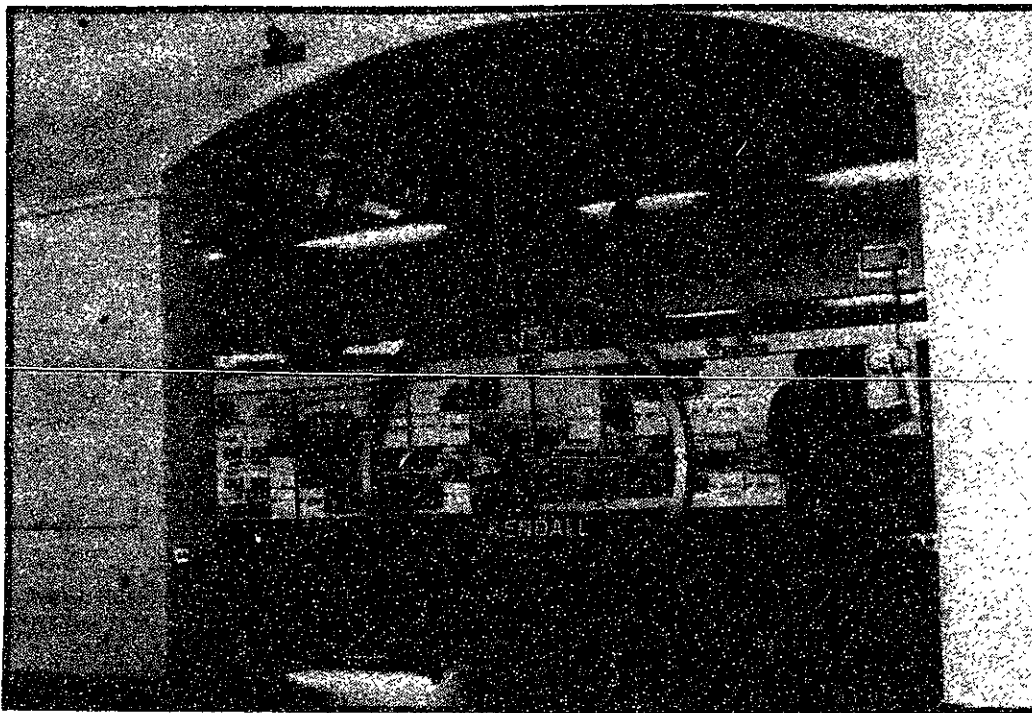
WAITING FOR THE SUBWAY at Kendall Station need not be long and lonely. The MBTA's ongoing renovation of the Red Line has transformed MIT's subway station, once a dark and dank mudpit suitable for raising medium-sized rodents, into a cleaner, brighter waiting area that echoes with music of the spheres. Massachusetts sculptor Paul Matisse's installation of musical sculpture *The Kendall Band* has made the impersonal loading platforms a far more human environment.

Without the participation of T riders, Matisse's creations are little more than smoothly machined pieces of metal, (although their austere mechanical simplicity has an appeal of its own.) *The Kendall Band* come to life when passers-by push and pull the handles, setting the sculptures into musical motion.

The first of the three Matisse sculptures in the station, *Pythagoras*, is probably familiar to most MIT students. Twin sets of eight giant tubular chimes squeeze into the narrow space between inbound and outbound tracks. Long hammers swing to and fro, striking the chimes to produce rich, beautiful tones. As each hammer is attached to a pendulum of a different length, (and therefore each swings at a different resonant frequency,) the chimes sound in an ever-changing rhythm, much like a Steve Reich percussion piece.

The thundering sound of an approaching subway car might not be: the newest sculpture, *Galileo* makes a tinny roar that provides an excellent example of art imitating life, although with less volume. (The work gives good tribute to the life of Galileo, whose scholarship literally shook the world in "an ever-growing storm.")

A low and powerful ringing tone is produced by *Kepler*, a large aluminum ring that resonates for several minutes after it



Paul Matisse's *Kepler*, at the Kendall T-stop on the Red Line.

is struck by a crank-lifted hammer. (Kepler's neo-Platonist worldview had a universe of perfect geometrical figures floating about a system of nested spheres, each singing a distinctive, pure tone in perfect harmony. Fittingly, *Kepler* sounds the dominant of one of the two chords used in *Pythagoras*.)

Building the sculptures proved to be far more difficult than Matisse had imagined. Besides the technical challenge of producing a beautiful sound, there was the problem of making the machinery strong enough. Subway riders seem a boisterous bunch; *Pythagoras* broke several times when overzealous musicians pulled the handles too hard, forcing Matisse to re-engineer more sturdy solutions. (It was his apologies to riders while the sculpture was in disrepair that began the long series of artist/community dialogues that were most rewarding to Matisse.)

Hand-lettered signs advising people to gently push and pull the levers were quickly covered with graffiti. However, the sub-

ject of the graffiti was neither human anatomy nor the latest round of sweethearts: to Matisse's delight, he found his signs covered with constructive criticism and encouragement. Most of the postings are now in his scrapbook; the feedback gave him the supreme pleasure that few artists enjoy — the knowledge that his art is affecting the lives of others.

One comment, signed by five passing T riders, stood out above all the rest: "You'll never know what an impact this has made on us." While "successful" artists might earn a favorable review from critics or perhaps economic rewards, Matisse is most satisfied by a simple "thanks" from someone who enjoys his work. "I loved seeing how much sensitivity there was behind all those faces" that he passes every day, says Matisse.

Producing the rich, pleasant sound from *Pythagoras'* chimes called for clever engineering from Matisse, who has spent several years working as tinkerer for Arthur D. Little. The chimes do not make a single

tone; rather, each chime resonates at two closely-spaced frequencies differing by a few herz. These two tones beat against each other (because the sinusoidal waveforms sometimes overlap, sometimes don't,) producing a far more rich and satisfying sound.

A similar beating principle is employed in the *Kepler* ring; the design was further complicated when high-speed photography revealed that Matisse's original hammer actually damped the ring's vibrations soon after it struck. Matisse countered with a complicated system of three hammers that are synchronized to the vibration in the ring.

In the early 1980's, the MBTA grudgingly set aside a fraction of the Red Line renovation budget to install art at the several stations. Matisse (grandson of the impressionist painter Henri) submitted his proposal for a set of sculptures that subway riders could use to make music. Musical installations had been long on his mind, and still are: Matisse hopes to build yet more singing, ringing, and pinging machines in the future. (An earlier work, a musical fence in front of the Cambridge City Hall, was removed because urchins abused the sculpture to create unpleasant sounds late at night.)

Matisse took a few risks with *The Kendall Band*. While he was never sure that he would surmount the technical problems in building the musical sculptures, a greater concern was whether the sculptures would be playable. Not everyone can make *Pythagoras* work at first try — moving the handle too quickly doesn't produce any sound at all. (This "failure" is tied intimately to the success of the work: the chimes will never ring the same way for two different people. T riders are literally making their own music, as personal as a fingerprint.)

Maybe it does take a little practice to run *Pythagoras*; the simple truth is that lots of people have figured it out, and play it every day. The beautiful chimes really do make the subway station far more liveable; closing my eyes, I can envision myself in a Greek garden, on my way to Plato's Academy . . .

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Steven Raichlen,
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ARTS

Beneath the surface of Making Music Together**Critic's Notebook**

By Jonathan Richmond

Cultural festivals do more than just expose the music and other arts of foreign countries. They are an instrument of international diplomacy. If they bring peoples together, they serve a valuable purpose. But if they are viewed uncritically, they may mask realities the visiting regime wishes to hide and give a false impression of life back home.

The impression given during many public discussions with Soviet composers during Boston's recently-concluded "Making Music Together" Soviet-American cultural exchange festival was that *glasnost* had brought freedom of expression for the Soviet musical community as well as for society as a whole. The Boston press generally relayed this message, rather than critically attempting to look at what lay behind it. A little probing below the surface, however, reveals a very different picture.

Almost all of the composers stressed the positives of modern life in the Soviet Union, and they were unwilling to dwell on the problems that remain. Andrei Petrov, for example, could now freely compose an oratorio on Stalinist oppression, it was said. But Petrov, asked in private whether he could directly address the tensions of contemporary life, replied that "It's not very customary in the Soviet Union, talking about today's problems."

A number of the Russian students from Moscow Conservatory visiting New England Conservatory as part of the exchange were even less forthcoming about discussing the constraints of their lives, refusing to discuss political issues. *The Boston Globe* ran an extensive story on the visit by the Soviet students, giving a very positive impression of their life in Moscow and mentioning, for example, how the students were missing fine Georgian wines.

According to an American source, who had observed interviews conducted by *The Globe*, and who also claimed to have gained the confidence of certain of the Soviet students during private discussions, the reporter had not been told of the extreme difficulty of getting good instruments, or even violin strings, which generally have to be bought on the black market in the Soviet Union, and that luxury goods — such as fine Georgian wines — could only be bought by the privileged few who had passes to special stores for the Soviet elite.

The pressures and constraints of the education system, problems of getting apartments, and limited choices in securing (the albeit guaranteed) jobs upon graduation were also not mentioned. The Soviets had been briefed on how to deal with the press before leaving home, the source said, and as a result the *Globe* had been given, and had printed, only the official position, and not the full, and often unpalatable truth about conditions in the Soviet Union.

The Boston press also failed to report on the sinister individual called "The Manager," who lived with the Soviet students in the New England Conservatory dormitory. According to the American source, the Soviet students had been scared of

him, and his presence had curtailed free interaction between the students. One Soviet student had gone into a bathroom, turned on the faucets full blast, and announced that "The Manager" was a member of the KGB, it was claimed.

One radio show host had invited the Soviets to send a number of English-speaking students to go on air, but only students who spoke no English were sent, and the official Soviet interpreter accompanying them would not directly translate what they were saying, but only convey general concepts, he said.

There was evidence, also, that interpreters served more than just the function of translating: they seemed to know a lot about the interviewer's activities. On one day spirituality had been discussed with one Soviet. At a later meeting, assisted by an interpreter who had not been present earlier, the interpreter used the word *Dukhovninye*, (which means "spirituality") in addressing the interviewee before the word had been mentioned in the question. "How did you know I was doing an article on *Dukhovninye*," the interpreter was asked. "I read your mind; I'm a witch," she replied.

More seriously contradicting claims to the new openness, Tikhon Khrennikov, described in the autobiography of singer Galina Vishnevskaya as a "clever, scheming courtier," who in Stalinist times persecuted Shostakovich and Prokofiev, is still first secretary of the Composers Union of the USSR, and "he rules with an iron fist" according to Tony Rothman, a consultant to Schirmer music publisher with experience in the Soviet Union.

Substantiating the charges against Khrennikov from his long friendship with the Shostakovich family, emigré pianist Vladimir Feltsman said that it was "deeply wrong... that such human beings as he be in power in a new era." Khrennikov had previously also stood in the way of the two critically-acclaimed composers at the Boston festival, Alfred Schnittke and Sophia Gubaidulina, Feltsman alleged.

Most disturbingly, Khrennikov had been personally involved in arrangements for the Boston festival. He had been very helpful, Festival Artistic Director Sarah Caldwell said, cautioning that statements of emigrés such as Feltsman were likely to be biased. "There's a strong school of thought that [while]... he was politically astute enough to keep his job [during the Stalinist era]... he was able to keep the composers eating."

Not so, says Rice University Professor of History Francis Lowenheim, who has researched the subject and tracks Soviet cultural affairs. "There happens to be a public record of a meeting of the composers union at the end of the war with Shostakovich and Prokofiev when he dismissed their work as worthless." But, despite "overwhelming evidence" against Khrennikov, "what we've seen in the Soviet Union is people making excuses and generalizations."

A visiting Soviet composer, speaking at a private function in Boston under condition of non-attribution, confirmed Khrennikov's negative reputation. "Everybody's tired with him," he said.

Khrennikov's scheduled appearance at a 1986 cultural exchange program in Houston had been cancelled when his past came to light, but Caldwell says the reason for his late withdrawal from the Boston program (so late that the opening night press release still announced that he was coming) was that he had an opera "whose premiere came in the middle." But politics were clearly at play when planned performances of two Khrennikov concertos had been shelved as well. "Don't feel you must play my music. I could probably be of better help in promoting you if you don't," he had told Caldwell.

Thus, a source of major potential embarrassment to both Sarah Caldwell and the Soviets was kept out of Boston's limelight, making it easier to promote an artificially positive image of freedom in the Soviet Union.

There are questions about programming too. Many reviewers harshly criticized the music of Rodion Shchedrin, first secretary of the composers' union of the Russian Federal Republic — who did come to Boston — as empty or pretentious. Why, then, did Shchedrin, who composed the only opera performed, most of the ballets (danced by Shchedrin's wife Maya Plisetskaya) and many of the orchestral works, dominate the Boston program? And why was so much of the other music low caliber, too?

Caldwell said "You're right, he [Shchedrin] had somewhat more music performed than others. I was aware that this wasn't based on a democratic system."

When Caldwell had been to Moscow to attend concerts and meet with Shchedrin to jointly decide who was to come to Boston, Caldwell said she had been "dependent on [Soviet] people's advice, but never under any pressure to do anything" and subject to "no prohibitions." Nonetheless, some of the other composers who had come "were his [Shchedrin's] good friends," although Shchedrin had been "continually urging" the performance of works by "bright young composers."

The visiting Soviet composer cited above said, however, that many talented younger composers had been overlooked in favor of Shchedrin's close associates, and also that almost all those who had come to Boston had been members of Shchedrin's Moscow-based union, rather than from other Soviet republics. While there had been composers of non-Russian ethnicity, they were almost entirely living in Moscow, he said.

The Boston Symphony Orchestra, which remained independent from the festival, performed works by Schnittke and Gubaidulina during the festival, but programmed nothing by Shchedrin. It seems that the reason for the poverty of so much of the other music in Boston was that Shchedrin, himself talentless, but politically powerful, had not chosen who to bring on the basis of merit, but had given the favor of foreign exposure to his own trusted personal inner-circle.

Festival program notes came almost exclusively from the official Soviet music critic Lev Ginsburg. The longest biography he supplied was of Shchedrin.

There was no discussion on the central role of religion in the work of Schnittke



Tikhon Khrennikov, appointed by Stalin to administer Soviet music, attacks Shostakovich at the first Composers' Congress.

and Gubaidulina, and no program note at all on the two most overtly-religious works performed during the festival. Caldwell said the gaps were "purely coincidental," but Rothman says he has Soviet-produced recordings whose program notes contain similar omissions. "It's important to notice what they don't say," he added.

A number of American groups held protests outside theaters. Judith Patkin, executive director of Action for Soviet Jewry, said her organization felt "Americans are being duped. There's cultural repression in the Soviet Union... With *glasnost*, there's been a tremendous increase in antisemitism." Despite the claim of Russian Minister of Culture Yuri Melentev and other Soviets that there were no restrictions on the composition and performance of religious works, Action cited the example of guitarist Grigory Nirenstein and singer Vera Elbert of Leningrad, who had their application to perform Yiddish and Hebrew songs performed on a public stage turned down by the City of Leningrad earlier this year because "your repertoire is unsuitable."

American folk singers, who had performed in Lithuania, demonstrated too, because Lithuanian singers they had met there couldn't come to perform in Boston.

Ukrainian-American Catholics were unhappy that Schnittke's *Requiem Mass* was being given in the Catholic Cathedral of the Holy Cross. Father Alexander Kenez, of Christ the King Ukrainian Catholic Church, compared the cultural richness of the Soviet presence in Boston to "the early 30s [when] there were forced famines and the Soviets were exporting wheat." The cultural exchange was "a marvellous propaganda tool that things are great, it's presenting the human face of Communism," but "unfortunately this great liberalization isn't happening." Father Peter Conley of the Holy Cross acknowledged the "irony that we offer our cathedral setting to a people who do not permit religious freedom in their own country."

All these accounts serve to warn that superficial but evocative first impressions may not tell the whole story. The bright imagery of glamorous events needs to be filled in with subtler hues than may be supplied on the official palette. Only if memories of the most inspiring elements of the festival can be combined with alertness to the need to look beneath the surface of what are inevitably political tools, are the legitimate purposes of cultural exchange well served.

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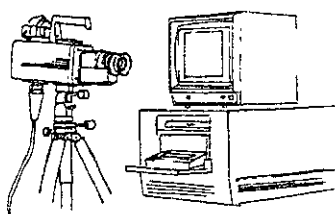
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Dundee sequel replaces good characters with cartoon-like caricatures

CROCODILE DUNDEE II

Directed by John Cornell.
Written by Paul Hogan and Brett Hogan.
Starring Paul Hogan and Linda Kozlowski.
At the Cheri, Chestnut Hill, and Somerville cinemas.

By PETER E. DJINN

YOU WOULD EXPECT that a sequel to *Crocodile Dundee* would fare well as a light, amusing film. The formula is not difficult: place Aussie star Paul Hogan on the set and just let the cameras roll — Hogan's charm and charisma will do the rest. Of course you can't expect the freshness and newness of the original, but that should not preclude the success of a followup — there are enough loose ends from the first film to generate plenty of motivation for a second. Yet *Crocodile Dundee II*, like almost every Hollywood-generated sequel, manages to fall short of even this lowered standard of success.

If you've seen the trailer for *Dundee II* then you're already aware of every nuance and subtlety of the rather simplistic plot: Mick Dundee (Paul Hogan) and Sue Charlton (Linda Kozlowski) have to flee New York City when some drug-dealers take a dislike to them; naturally, they retreat to the Australian bush. Unfortunately, if you've seen the trailer then you've also seen all the good jokes in the film (which isn't unusual for a trailer), and *Dundee II* falls short of filling its quota in this respect as well.

Where the film is most lacking is in the believability of its characters. In the original film, Dundee seemed a cartoon character in the more than real worlds of 'gator hunting in the Australian outback and back-stabbing social politics in New York City. But despite outward appearances, Hogan always projected a sense of puckish deviltry, as if he knew Dundee was only playing at being a cartoon character and there was more substance beneath the shallow façade.



Mick Dundee visits a punk bar in *Crocodile Dundee II*.

Dundee's roguishness remains in the sequel but the rest of the universe has been reduced to the same level of cartoon, without any underlying sense of reality: the supposed "gangs" that Dundee recruits to help rescue Sue from the drug dealers look like clean-cut yuppies with leather jackets and a mohawk scattered here and there; the Aussie bounty hunters hired to track down Dundee at first seem cruel enough to match Dundee's wits but quickly slide into

cowardly oafishness.

This use of cartoon-like characters lends an unconvincing air to the film. The unforgettable "That's not a knife... that's a knife" scene came off so well in the original because there was a sense of reality to the mugging: the thugs looked real, the switchblade looked real, the situation felt real. The humor worked because it pulled the rug from under the audience's feet when they thought they were on solid, real

ground. *Dundee II* settles for cartoonishness at all levels, lending an unsatisfying, childish, Saturday morning humor to the film.

This failure in the scripting and plotting is not helped by John Cornell's directing. Cornell tends to stay on scenes after they have already been played out. The early sequences in New York find the camera lingering overly long after the punchline, diffusing the humor instead of building on it.

Still, if Cornell lacks adeptness in handling humor, he shows some promise with drama and tension. The introduction of the drug dealers, and later the bounty hunters, shows an ability to quickly establish villainous character traits by using low and high camera angles and intelligently chosen closeups. The failure of the film lies more in the poor script than in Cornell's attempts to make something substantial of it: he begins with a strong buildup of dramatic tension but this later falls flat as the villains act out of character.

The script, despite being written by Hogan himself, lays aside Dundee to bring the drug smugglers more to the foreground. Undecided whether to focus on Dundee's humor or the comic-book foxes-and-hounds plot, the film never finds a focus. Hogan might have done better to keep himself the center of attention.

The script does an even greater disservice to Linda Kozlowski, whose acting in the original won her a Golden Globe nomination. In the sequel, the successful journalist character turns into just another damsel in distress.

The original *Crocodile Dundee* had its flaws — most notably a wavering second-half plot, straightforward, uninspired direction, and an overly gushy romance — but made up for these mostly with Paul Hogan's charisma and the stunning location shots of Australia's Northern Territories. *Crocodile Dundee II* corrects none of these imperfections while the poor script fails to make the most of the positive qualities found in the original.

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ARTS

Caldwell's Traviata took time to get going, had unbalanced cast

LA TRAVIATA
 Starring Catherine Lamy, Noel Velasco and John Brandstetter.
 Opera Company of Boston,
 Conducted by Sarah Caldwell.
 Opera House, May 15, 18, 20 & 22.

By JONATHAN RICHMOND

THIS WAS A TRAVIATA that took time to get going, and had an unbalanced cast. The only consistently high-caliber performance came from John Brandstetter as Giorgio Germont, the father who pries his son Alfredo apart from his loved Violetta for the sake of the Germont family reputation.

Brandstetter's voice was powerful; commanding, imploring, and convincing Violetta to do as he bids. Brandstetter went beyond the traditional interpretation of the elder Germont as some unfeeling, calculating monster. *Pura siccome un angelo* was sung with a heartfelt lyricism, conveying a sense of conviction, rather than cunning, and making it seem natural for Violetta to subsequently agree to part from Alfredo. As we see by Act III, when the father too late relents his behavior, we have a case here of stupidity, not evil.

Alfredo, sung by Noel Velasco, came

across less convincingly. Despite some moments of expressiveness — he sang the dreamy Act II *De' miei bollenti spiriti* particularly beautifully — his voice was overall weak and uncommunicative, and his acting uninvolved and old-fashioned. He entered into his relationship with Violetta without any real meaning.

Violetta was sung by Catherine Lamy, standing in for an indisposed Sarah Reese, and she seemed uncomfortable during the first act. The psychology between the elder Germont and her was particularly well studied, however. Lamy only really came into her own, though, during the final act where her hauntingly sad singing was compelling indeed. Her reading of the letter from Giorgio Germont — in which the father says that the son will return to her — was very moving, her personality increasingly magnetic as the opera moved towards the inevitable denouement of Violetta's death.

Sarah Caldwell's tempi were not brisk enough to get the opera really moving from its start, but her orchestra provided a sensitive accompaniment to the drama of the finale, heightening the sense of tragic beauty, and taking the opera to a memorable conclusion.



Violetta (Catherine Lamy) and Alfredo (Noel Velasco) in *La Traviata*. Photo courtesy Monroe Warshaw

Ron Howard's fantasy Willow is unoriginal but has good special effects



Warwick Davis and Billy Barty in Ron Howard's *Willow*.

WILLOW

Story by George Lucas.
 Directed by Ron Howard.
 Starring Val Kilmer, Joanne Whalley, Warwick Davis, and Jean Marsh.
 At the Charles Cinema.

By MANAVENDRA K. THAKUR

WILLOW IS A FAIRLY presumptuous heir to *The Wizard of Oz*, *Snow White*, *Peter Pan*, *Gulliver's Travels*, and other fantasy works. *Willow*'s plot is just as one-dimensional and simplistic as *Star Wars*, and little more than a sword-and-sorcery fairy tale. While most viewers in 1977 had little memory of fantasy swashbucklers from the 1930s and 1940s, today's audiences have grown up with a glut of fantasy films and television shows. *Willow*'s own versions of C3PO, R2D2, Vader, Solo, Skywalker, and Kenobi just aren't original enough.

The film does have enough technical proficiency to be worth seeing in 70mm now — if it's to be seen at all — rather than waiting for cable or video release. The special effects by Lucasfilm's Industrial Light and Magic are convincing, especially the trolls who crawl nimbly below bridges and up and down walls during the climactic battle scene. Adrian Biddle's widescreen photography will occasionally confound the pan-and-scan video transfer technicians, as it should. And the six-track magnetic stereo sound is a joy to hear, as always.

More than thirty years ago, Akira Kurosawa managed to stage a far more interesting battle-in-the-rain sequence in *The Seven Samurai* with little more than a rain-maker and a telephoto lens. All the technology in the world can't make *Willow* the narrative or even cinematic equal of films like *Excalibur*, *Raiders of the Lost Ark*, *The Dark Crystal*, and, ultimately, *Star Wars*.

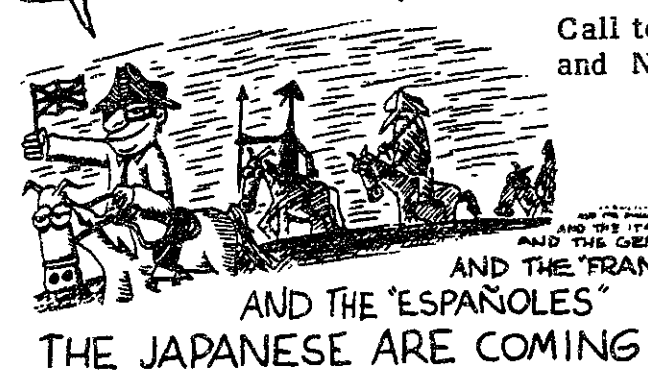
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Friedmann's music is full of joy

(Continued from page 17)

the four voices were singing independently, resulting in a piece that lacked cohesion.

The MIT Logarithms presented a crowd-pleasing rendition of the Talking Heads single *Animals*, as arranged for unaccompanied voices by the versatile Friedmann. Every instrumental nuance of the original recording was painstakingly transcribed for the human voice; while the group might have been just as successful with the vocal percussion without the help of composer Friedmann, the complicated harmonies displayed considerably more work. (At first, members of the Logarithms had trouble understanding the difficult score.) It is a shame that the audience was too busy laughing at vocal lead Mike Lake's hilarious strutting performance on stage to notice the well-prepared backgrounds so carefully presented by the Logs.

Friedmann's skillful piano writing is frequently sharp and aggressive, but perhaps too frequently. His *March for Flute and Piano* had a lively beat and spirited melodies but generally left the flute out of the fun; more often than not the flute seemed to be accompanying the piano, a fairly ludicrous combination. While one cadenza for flute in the *Sonatina for Flute and Piano* worked well, the flute parts were not as effective, on the whole, as the piano. (The work was written before Friedmann immersed himself in choral music, which strengthens the ability to write for non-keyboard instruments.)

The *Prelude* for piano was a sensuously impressionistic work reminiscent of Mendelssohn's and Debussy's haunting tone poems that evoke images of the sea. A lyrical rising-and-falling motif connected the several flowing passages into a unified whole that was immensely pleasurable to hear.

While the shorter works of the program demonstrated that Friedmann can write effective pieces in a number of compositional styles (and it would be unwise industry to labor over too many long pieces), the one long work was undoubtedly worth the effort, and probably was

Friedmann's best work to boot.

The emotional *Four Dream Songs*, written to satisfy MIT's thesis requirement, is a setting of poems by the late John Berryman, describing the life of an alcoholic womanizer.

Baritone John Holyoke's precisely-sung atonal lines demanded the audience's attention, which was given without a second thought. Friedmann approached the words patiently, a few at a time, drawing the most out of Berryman's text. According to the text, the music was comic, serious, villainous, and despairing, and at all the right times. (We can appreciate Friedmann's effort all the more in light of the earlier works heard on the program: without direction to the contrary, his music tends towards the showy. Subtlety doesn't come easily, as Friedmann freely admits.)

Singer and pianist danced back and forth in this colorful setting; little musical puns (the only agreeable kind!) rewarded the careful listener. Incorporation of a violin in the score was an unusual but very good move: the violin occasionally enters the musical fray, frequently adding the harsh feelings of anger and anguish that Friedmann seemed incapable of funneling elsewhere. We can imagine the violin to be an omniscient narrator in the story, subtly censuring the gluttonous, womanizing alcoholic whose misdeeds are so vividly portrayed.

The final song in the sequence showed Friedmann at his very best. Although the darker moods were noticeably absent during most of the concert, the final *Dream Song* cast a melancholy air with its chromatic-blues idiom, reinforcing the text's description of the hero's underlying self-doubt. Friedmann's incisive score ultimately helps us to pity the poem's degenerate protagonist.

It is clear that Friedmann's bag of compositional idioms is growing fatter and fatter. While we can subconsciously hope that some undeserved calamity befalls Friedmann, as feelings of sorrow and despair are as yet almost absent from his music, he is doing well with the joy he's already got.

Four Dream Songs are witty, touching, and rich from both dramatically and musically

(Continued from page 17)

was not tied to the texts in obvious ways, the voice seemed to rise naturally from the music. His understanding of both the content and rhythm of words shone through throughout, and baritone John Holyoke's crisp singing with its excellent diction and attention to dramatic detail ensured those words-as-song meant more than ever they could as prose.

Each song is well-crafted, each with many moments to savor. Pizzicato adds spice to the the departure announced in the second verse of the first song, for example; and there is a moving microsecond for afterthought following the word "survived."

The play of rhythms in the second song does much to build up waves of tensions. A fast urgency underlines Henry's hopeless lust, while Friedmann's delicious treatments of Berryman's food metaphors — used to depict Henry's sexual appetite — were hilarious.

The third song opens with a dance-like lyricism; it ends with a *coup de grace*, a G flat on the piano, a horribly funny plonking sound that follows Henry's declaration that he's "had a most marvelous piece of luck. I died."

The fourth and final song is also the most successful; it is the most painful,

profound, and yet still witty. As Friedmann said, he started the violin on B flat "to give that sense of weight, sense of somberness and despair," yet the "texture for 4th song is very airy in general." The voice is very dramatic here, yet in a subtle way that looks in on itself, that reflects anguish, but also a sense of timelessness.

The violin part is intense, with an expressive melodic line; it was grippingly played by Phillip Hsu, who demonstrated throughout his performance a flair for entering and becoming a part of Friedmann's special dramatic world. The soft darkness of the piano, played by Jee-Lian Yap, who also put in a most sensitive performance, brings tears to mark the words "This is not for tears;" very movingly composed and conveyed.

The final lines are the most complex musically and full of psychological insight. "Nobody is ever missing," come the last words and notes. The listener is left locked in the aftermath of the song's tragedy.

Peter Child, who served as mentor during the work's composition, feels Julio Friedmann has the ability to be a professional composer. Friedmann does have great potential, and we can expect him to be a valuable contributor of profound musical accounts of the human experience in the years to come.

Class of '88 reflects on confusion and accomplishment; morality and mortality

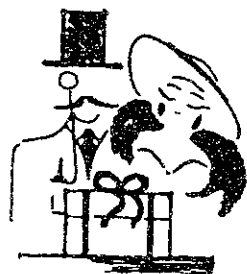
(Continued from page 17)

Overall, the technical quality of *Technique '88* is superb. The photographs are set up nicely, and printed well. Some of the pictures could have been cropped differently, to present a better view of the subject or convey more feeling. They are generally framed imaginatively, making use of direction and contrast to emphasize mood.

The Class of 1988 reflects upon many is-

sues in the Senior section — feelings of confusion and accomplishment, reflections upon morality and mortality, insights into religion and social justice. The photographs in *Technique '88* reflect these issues on film, and capture the feelings and concerns of the Class on paper. Once again, *Technique* has managed to effectively portray and remember the graduating class.

Technique 1988 will be on sale on Kresge Oval Friday morning for \$28.



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Dad,
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Mark,
Cindy, and
WAAF

for keeping me happily alive.

Joe Alfano '88

ARTS

Aggressive heroine chases tax cheats in this interesting Japanese film**A TAXING WOMAN**

Written and directed by Juzo Itami.
Starring Nobuko Miyamoto and Tsutomu Yamazaki.
At the Coolidge Corner Cinema.

By MANAVENDRA K. THAKUR

THE METEORIC RISE OF JUZO Itami has made him perhaps the best known Japanese film director since Akira Kurosawa. Itami has already covered three issues universal to humankind: death in *The Funeral* (1984), and sex and food in *Tampopo* (1986). He strikes again with *A Taxing Woman*, a film that mirrors and satirizes another universal theme: taxes.

In Japan, as an opening title points out, tax rates can go as high as 80 percent, and, consequently, people of all economic backgrounds cheat on their taxes as a matter of routine. The lengths to which the national tax police, Marusa, goes to enforce the tax laws make IRS auditors seem like tame beasts in comparison.

Itami says he "became interested in taxes after almost all the earnings from *The Funeral* had been snatched away as income tax." Accordingly, he researched how Marusa operates and decided to use the stars of his first two films in *A Taxing Woman* (*Marusa No Onna*). Nobuko Miyamoto plays the lead role of Ryoko Itakura, a freckled and ambitious tax inspector who singlemindedly works her way up from auditing mom and pop grocers to the big time real estate tycoons and owners of "love hotels" (reputable hotels where lovers rendezvous discreetly).

Early on she tries to audit one such big fish, Hideki Gondo (Tsutomu Yamazaki), whose skill at hiding income is more than a match for her limited authority as an auditor. Six months later, she is promoted to a full-fledged tax inspector, and that's when for her the real fun begins.

The comedic moments stem mostly from the extraordinary measures that citizens use to cheat the taxman. Nothing is sacred to the Japanese in the film as they try to save every yen. They make false

loans to friends, bribe politicians, and even bury cash in jars containing ashes of the dead. One woman tries to swallow an incriminating document as the tax collectors close in. (They have to hold her nose shut in order to force her mouth open.) It's all a huge game, and everyone takes part, from servants to wives and mistresses. As one video arcade owner comments after his tears win a slight reprieve from Ryoko, "I'd cry all day to save a million."

What's also remarkable is the equally relentless drive of the tax agents to ferret out the hidden incomes and exaggerated expenses. The tax inspectors are legally sanctioned "Mission Impossible" types who employ extensive command centers to coordinate raids, stay on duty for three or four days at a stretch, and use all sorts of high-tech surveillance techniques to glean their targets' real income. Their thoroughness is shown in a scene where an agent sticks his foot in the doorway to keep Gondo's mistress from slamming shut the door. After she starts beating on his shoe with a heavy object, he casually says, "Ma'am, they're safety shoes, used in a factory. Even a truck couldn't crush them!"

Nothing is sacred to tax inspectors, either. On one of Ryoko's first assignments as inspector, the agents strongly suspect a



Tsutomu Yamazaki



Nobuko Miyamoto in Juzo Itami's *A Taxing Woman*.

woman of having hidden a safe-deposit box key within her bra. Ryoko's male colleagues ask Ryoko to search the woman, but the suspect takes off her clothes first. In a melodramatic fit of anguish, she cries "Women have another hiding place. Do you want to search it too?" Of course, the woman is overacting to play on the agents' sympathies, but the point is that if Ryoko hadn't just then found the key under the kitchen sink, the agents probably would indeed have searched her body thoroughly. Itami's satire in this scene is rooted in how easily both officials and citizens agree to transgress social and privacy limits for the sake of money.

Because everyone is probably guilty, most investigations in the film turn out similarly. It's not until the very last scene — filmed at the top of an empty stadium overlooking the city — that Ryoko and Gondo step back to take the longer view of the tax rat-race. Itami ends the scene and the film with an updated variant of the classic tradition of *hara-kiri*, making it especially poignant and appropriate to modern day Japan.

Itami's cinematic realization of his script is most noteworthy for the excellent acting by both Miyamoto and Yamazaki. Their performances in this film are much more

Western than in either of Itami's previous films. In fact, Miyamoto told *The New York Times* that, because "The few women inspectors in Japan do not behave like [Ryoko] . . . I had to look to Americans" to find strong female characters. The stars' acting makes up for the inconsistent shot composition by Itami and cinematographer Yonezo Maeda, who can't seem to make up their minds whether to shoot in 1.33 or 1.66 aspect ratio. Other technical production values are good, but none particularly stand out, even upon a second viewing.

Itami's film precedes the American film *Broadcast News*. Both are roughly equal in entertainment value, both explore themes that resonate deeply with their respective societies, and both are more full of wit than belly-laughs. (Unlike *Broadcast News*, *A Taxing Woman* swept the Japanese Academy Awards and became the fourth highest grossing film in Japan in 1987.) *A Taxing Woman* isn't a great film, from either the standpoint of comedy or cinematic accomplishment, but it is a good one. And it certainly confirms Itami's reign as the Japanese filmmaker most in tune with contemporary social realities. His greatest gift is his tenacious willingness to explore and capture those realities.

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A R T S

On The Town

Compiled by Peter Dunn

Ongoing Theater

Accidental Death of an Anarchist, the Boston premiere of Dario Fo's hilarious look at lunatic officialdom, continues through May 28 as a presentation of the Underground Railway Theater and TheaterWorks at the C. Walsh Theatre, Suffolk University, 55 Temple Street, Boston. Performances are Thur-Sat at 8 pm. Tickets: \$10 to \$12. Tel: 497-6136.

Animal Crackers, the hilarious 1920s Broadway musical comedy originally featuring the Marx Brothers, continues through June 25 as a presentation of the Huntington Theatre Company at 264 Huntington Avenue, Boston. Performances are Tues-Sat at 8 pm, matinees Wed, Sat, & Sun at 2 pm. Tickets: \$12 to \$27. Telephone: 266-3913.

The Bakkhai, by Euripides, continues through June 5 as a presentation of the Counterpoint Theater Company at the Immaculate Conception Church, 761 Harrison Avenue, Boston. Performances are Thur-Sat at 8 pm, and Sun at 2 pm. Tickets: \$6. Telephone: 267-9815.

Contemporary Insanity, a collection of satirical songs and sketches portraying a sophisticated and offbeat look at modern life, continues indefinitely at the Boston Baked Theatre, 255 Elm Street, Davis Square in Somerville. Performances are Thur-Fri at 8:15, and Sat at 7:30 & 9:45. Tickets: \$8 to \$11 (\$1.50 discount to seniors and students). Telephone: 628-9575.

Disappearing Act, Michael Oster's musical revue describing what it's like to be gay in an era of AIDS, Rambo, and the Moral Majority, continues through May 29 as a presentation of Club Cabaret at the Club Café, 209 Columbus Avenue, Boston. Performances are Fri-Sun at 7:30, with a brunch matinee at 1:00 on Sun. Tickets: \$14 to \$16. Telephone: 536-0966.

Doppelganger, a multimedia live animation based on Edgar Allan Poe's story of horror, mystery, and unthinkable evil, continues through June 18 as a presentation of Theatre S at the Performance Place, 277 Broadway, Somerville. Performances are Thur-Sat at 8 pm. Tickets: \$10 general, \$6.50 students. Telephone: 623-5510.

Forbidden Broadway 1988, the latest updated version of Gerard Alessandrini's musical comedy revue, continues indefinitely at the Terrace Room, Boston Park Plaza Hotel. Performances are Tues-Fri at 8 pm, Sat at 7 pm & 10 pm, and Sun at 3 pm & 6 pm. Tickets: \$16 to \$22.50. Telephone: 357-8384.

CRITIC'S CHOICE
How the Other Half Lives, Alan Ayckbourn's devastatingly funny look at marital infidelity, continues through May 29 at the Lyric Stage Theatre, 54 Charles Street, Boston, near the Charles T-stop on the red line. Performances are Wed-Fri at 8:00, Sat at 5:00 & 8:30, and Sun at 3:00. Tickets: \$10 to \$13. Telephone: 742-8703.

CRITIC'S CHOICE
Les Misérables, the Tony-award winning musical adaptation of Victor Hugo's classic, continues through June 25 at the Shubert Theatre, 265 Tremont Street, Boston. Performances are Mon-Sat at 8 pm, Wed & Sat matinees at 2 pm. Tickets: \$27.50 to \$45, \$16 special student tickets for some performances. Tel: 426-4520.

Move Over Mrs. Markham, the 1971 West End comedy about infidelity, lust, and missed opportunities, continues indefinitely at the Wilbur Theatre, 246 Tremont Street, Boston. Performances are Tues-Fri at 8:00, Sat at 6:00 & 9:30, and Sun at 3:00. Tickets: \$19.50 to \$27.50, \$33.50 to \$42.50 with dinner. Telephone: 423-0088.

Nonsense, depicting the talent show staged by the Little Sisters of Hoboken in order to raise money to bury four of their number currently in the convent freezer, continues indefinitely at the Charles Playhouse, 74 Warrenton Street, Boston. Performances are Tues-Fri at 8 pm, Sat at 6 pm & 9 pm, matinees Thurs at 2 pm and Sun at 3 pm. Tickets: \$15.50 to \$26.50. Telephone: 426-6912.

Shear Madness, the long-running comic murder mystery, continues indefinitely at the Charles Playhouse, 74 Warrenton Street, Boston. Performances are Tues-Fri at 8 pm, Sat at 6:30 and 9:30 pm, Sun at 3 and 7:30 pm. Tickets: \$16 and \$19. Telephone: 426-6912.

Sold Out!, the new political farce following the story of a theater troupe recruited by the CIA while trying to obtain US visas, continues through May 29 as a presentation of TheaterWorks at the Suffolk University Theater, Temple Street, Beacon Hill, Boston. Telephone: 923-2251.

Split Second, Dennis McIntyre's play pitting a black New York policeman against a petty criminal who turns viciously racist, continues through June 4 at the Alley Theatre, 1253 Cambridge Street, Cambridge. Performances are Thur-Sun at 8 pm. Tickets: \$12 general, \$10 seniors and students. Telephone: 491-8166.

Torch Song Trilogy, Harvey Fierstein's Tony award-winning play about the life and loves of a drag queen, continues through June 4 as a presentation of the Triangle Theater Company at the Paramount Penthouse Theater, 58 Berkeley Street, Boston. Performances are Thur-Sat at 7:30. Tickets: \$15. Telephone: 426-3550.

Ongoing Exhibits

ON CAMPUS

CRITIC'S CHOICE
Arnold Newman: Five Decades, photography by the renowned American portraitist, continues through May 31 at the MIT Museum, N52-2nd floor, 265 Massachusetts Avenue, Cambridge [see review this issue]. Gallery hours are Tues-Fri 9-5 and Sat-Sun 12-4. Admission: \$2 donation requested. Telephone: 253-4444.

Three on Technology, new photography by noted American photographers Robert Cumming, Lee Friedlander, and Jan Groover, Kristin Jones and Andrew Ginzler: **In Residence**, development of a diorama which diagrams the interaction of major weather systems, and **Tishan Hsu**, large colorful paintings by the Boston-born New York artist, all continue through June 26 at the MIT List Visual Arts Center, Wiesner Building E15, 20 Ames Street. Gallery hours are Mon-Fri 12-6, Sat-Sun 1-5. No admission charge. Telephone: 253-4400 or 253-4680.

Earth, Sea and Sky, etchings and drawings of Charles H. Woodbury, MIT Class of 1886, continues through October 2 at the MIT Museum, N52-2nd floor, 265 Massachusetts Avenue, Cambridge. Gallery hours are Tues-Fri 9-5 and Sat-Sun 12-4. Telephone: 253-4444.

Microscopes, 50 color photographs made with macro and micro lenses through electronic microscopes, continues through September at the Compton Gallery, between lobbies 10 and 13, just off the infinite corridor. Gallery hours are weekdays 9-5. Telephone: 253-4444.

OFF CAMPUS

That Was Split — January 25, 1980 to July 5, 1987, photographs by Steve Stone of the innovative dance-club in Kenmore Square, continues through May 27 at the Skylight Gallery, 43 Charles Street, Boston. Gallery hours are Mon-Fri 9-6. Telephone: 720-2855.

CRITIC'S CHOICE
Je suis le cahier: The Sketchbooks of Picasso, 40 sketchbooks created between 1900 and 1965, continues through June 12 at the Institute of Contemporary Art, 955 Boylston Street, Boston. Gallery hours are Wed-Sun 11-5, Thur-Fri 11-8. Admission: \$4 general, \$2.50 students, \$1.50 seniors and children, free to ICA members and MIT students with ID. Telephone: 266-5151.

CRITIC'S CHOICE
Ramesses the Great continues through August 30 at the Boston Museum of Science, Science Park, near the Museum T-stop on the green line. Tickets: \$8 general, \$6 seniors, \$5 children. Telephone: 723-2500.

Ongoing Music

The **Boston Pops** continue performing through the end of June in Symphony Hall, corner of Huntington and Massachusetts Avenues, Boston. Thursday, June 2 is **Tech Night at the Pops**, John Williams conducting. Other highlights include "Old Timers Night" on May 28, "An Evening of New Orleans Jazz" for the Presidents at Pops concert on Wednesday, June 8, and conducting appearances by Erich Kunzel on May 31, John Williams on June 1, 4, 7, and 8, and John Maureci on June 9, 10, and 11. Performances are Tues-Sat at 8:00, Sun at 7:30. Tickets: \$9 to \$26. Telephone: 266-1492.

Friday, May 27

JAZZ MUSIC

Monty Alexander, Herb Ellis, and Ray Brown perform at 9 pm and 11 pm at the Regattabar, Charles Hotel, Harvard Square, Cambridge. Also presented Saturday, May 28. Tickets: \$9.75 and \$10.75. Telephone: 864-1200.

The **Rob Seheps Quintet** performs at 9:30 at the 1369 Club, 1369 Cambridge Street, Inman Square, Cambridge. Also presented Saturday, May 28. Telephone: 354-8030.

CRITIC'S CHOICE
The **Donald Brown Quintet** performs at the Willow Jazz Club, 699 Broadway, Somerville, near the Porter Square T-stop on the red line. Also presented Saturday, May 28. Telephone: 623-9874.

THEATER

'Tis Pity She's a Whore, John Ford's exquisitely grisly, depraved version of *Romeo and Juliet* where the two lovers are brother and sister, opens today at the American Repertory Theatre, Loeb Drama Center, 64 Brattle Street, Cambridge. Continues through July 17 with performances Tues-Sat at 8 pm, Sun at 7 pm, and matinees Sat-Sun at 2 pm. Tickets: \$13 to \$26. Telephone: 547-8300.

FILM & VIDEO

CRITIC'S CHOICE
The Coolidge Corner Theater presents **The Profound Desire of the Gods** (Shohei Imamura, 1968) at 5:00 & 8:05 [see review this issue]. Continues through June 3. Located at 290 Harvard Street, near the Coolidge Corner T-stop on the Cleveland Circle green line. Telephone: 734-2500.

CRITIC'S CHOICE
The Somerville Theatre presents a Bill Forsyth double bill with **Housekeeping** at 3:45 & 7:45 and **Local Hero** at 5:45 & 10:00. Located at 55 Davis Square, Somerville, just by the Davis Square T-stop on the red line. Tickets: \$4.50 (good for the double bill). Telephone: 625-1081.

COMEDY

CRITIC'S CHOICE
Whoopi Goldberg performs at 8 pm at the Orpheum Theater, Hamilton Place, Boston. Telephone: 720-3434.

Saturday, May 28

CLASSICAL MUSIC

Pro Arte Chamber Orchestra performs in *An Evening at the Opera* at 8 pm in Sanders Theater, Quincy and Kirkland Streets, Harvard Square, Cambridge. Tickets: \$6 to \$15. Telephone: 661-7067.

FILM & VIDEO

The Somerville Theatre presents **Tampopo** at 3:30 & 7:45 and **Something Wild** (Jonathan Demme) at 1:30, 5:40, & 10:00. Located at 55 Davis Square, Somerville, just by the Davis Square T-stop on the red line. Tickets: \$4.50 (good for the double bill). Telephone: 625-1081.

The Brattle Theatre continues its Friday/Saturday film series *Hollywood BC* (*before the Code*) with **Night Nurse** (William Wellman, 1931), starring Barbara Stanwyck and Clark Gable, at 1:45, 5:00 & 8:10 and **Call Her Savage** (John Francis, 1932), starring Clara Bow, at 3:15, 6:25, & 9:45. Located at 40 Brattle Street in Harvard Square. Tickets: \$4.75 general, \$3 seniors and children (good for the double bill). Telephone: 876-6837.

notices

Announcements

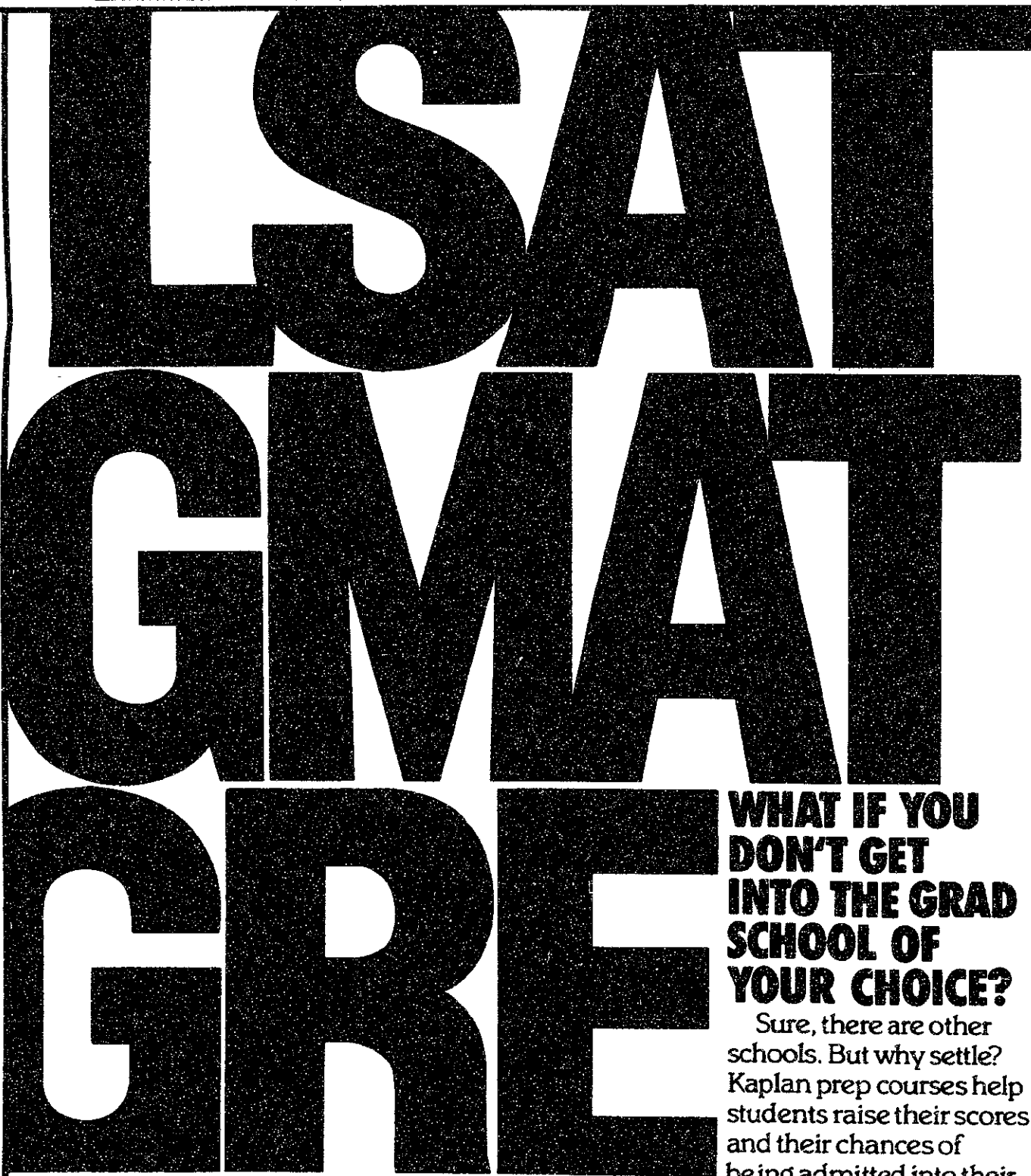
Looking for a summer job? The Energy and Environmental Policy Center based at the Kennedy School at Harvard University has a number of paid internships available. A background in energy or the environment is not necessary. If interested, please contact Christina Doyle at 495-3551 or come to Belfer 309 at the Kennedy School of Government.

The **I. Austin Kelly III Prize Competition** for 1987-88 is now open. The competition carries two prizes for the best scholarly or critical papers in literary studies, history, musicology, anthropology, and archaeology. Rules and guidelines are available in Room 14N-409 (x3-4446).

The **Student Conservation Association** is continuing to accept applications from persons interested in 12 week, expense paid internships in national parks, forests, wildlife refuges, and other conservation areas across the US. For an application and a list of positions open, contact the Student Conservation Association, PO Box 550C, Charlestown, NH 03603, (603) 826-5741/5206.

Summer Volunteer Opportunity with the Samaritans. You can become a Samaritan for the summer. There will be a weekend training session on June 4 and June 5. Class size is limited, so call soon. For more information, call 247-0220 or 536-2460.

For students searching for ways to stretch the shrinking dollar abroad, the Council on International Educational Exchange announces the 1988 Student Travel Catalog. The Catalog is one of the most comprehensive, FREE budget travel guides available. It may be obtained from CIEE, Dept. STC '88, 205 East 42nd Street, New York, NY 10017, (212) 661-1414 or 312 Sutter Street, San Francisco, CA 94108, (415) 421-3473. Enclose \$1 for postage and handling.



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A R T S

Sunday, May 29

JAZZ MUSIC

Pianist Liz Story performs at 7:30 & 10:00 at Nightstage, 823 Main Street, Cambridge. Tickets: \$11. Telephone: 497-8200.

FILM & VIDEO

***** CRITIC'S CHOICE *****
The Somerville Theatre presents a Katherine Hepburn/Cary Grant double bill with Howard Hawks' *Bringing Up Baby* at 2 pm, 6 pm, & 10 pm and Philadelphia Story at 4 pm & 8 pm. Also presented Monday, May 30. Located at 55 Davis Square, Somerville, just by the Davis Square T-stop on the red line. Tickets: \$4.50 (good for the double bill). Telephone: 625-1081.

The Brattle Theatre continues its Sunday film series *Hollywood Through the 60's* with a Natalie Wood double bill, Elia Kazan's *Splendor in the Grass* (1961) at 2:15 & 7:30 and *Gypsy* (Mervyn LeRoy, 1962) at 4:40 & 9:45. Located at 40 Brattle Street in Harvard Square. Tickets: \$4.75 general, \$3 seniors and children (good for the double bill). Telephone: 876-6837.

EXHIBITS

Hollywood and History: Costume Design in Film, original garments, fashion plates, and paintings juxtaposed with movie stills, designer sketches, and costumes created for the screen, opens today at the Museum of Fine Arts, 465 Huntington Avenue, Boston. Continues through August 14 with Museum hours Tues-Sun 10-5 and Wed 10-10. Admission: \$5 general, \$4 seniors, free to MIT students with ID. Telephone: 267-9300.

Monday, May 30

FILM & VIDEO

The Brattle Theatre continues its Monday series of *Film Noir* with Stanley Kubrick's *The Killing* (1956) at 4:05 & 8:00 and John Huston's *The Asphalt Jungle* (1950) starring Humphrey Bogart and Marilyn Monroe, at 2:00, 5:45, & 9:40. Located at 40 Brattle Street in Harvard Square. Tickets: \$4.75 general, \$3 seniors and children (good for the double bill). Telephone: 876-6837.

Tuesday, May 31

POPULAR MUSIC, ETC.

Julio Iglesias performs at Great Woods, Route 140, Mansfield. Tickets: \$16, \$23.50, and \$26. Telephone: 339-2333.

THEATER

Steaming, Nell Dunn's witty and revealing story of a fight to save an old bathhouse from demolition, opens today at the New Ehrlich Theatre, 539 Tremont Street, Boston. Continues through June 26 with performances Thur-Fri at 8:00, Sat at 5:00 & 8:30, and Sun at 2:00. Tickets: \$10 to \$15. Telephone: 482-6316.

FILM & VIDEO

The Somerville Theatre presents *Harold and Maude* at 4:15 & 8:00 and *King of Hearts* at 6:00 & 9:45. Also presented Wednesday, June 1. Located at 55 Davis Square, Somerville, just by the Davis Square T-stop on the red line. Tickets: \$4.50 (good for the double bill). Telephone: 625-1081.

***** CRITIC'S CHOICE *****

The Brattle Theatre continues its Tuesday series of *The Films of Ingmar Bergman* with *The Seventh Seal* (1956) at 4:00 & 7:45 and *The Virgin Spring* (1959) at 5:55 & 9:40. Located at 40 Brattle Street in Harvard Square. Tickets: \$4.75 general, \$3 seniors and children (good for the double bill). Telephone: 876-6837.

June 1 to June 7

DANCE

***** CRITIC'S CHOICE *****
On Friday, June 3 and Saturday, June 4 *The Mark Morris Dance Company* performs as a presentation of *Dance Umbrella* at 8 pm at the Opera House, 539 Washington Street, Boston. Tickets: \$14.50 to \$18.50 general, \$12 to \$16 Dance Umbrella members. Telephone: 492-7578.

COMEDY

On Thursday, June 2 Rodney Dangerfield performs at the Worcester Centrum. Tickets: \$18.50. Telephone: 492-1900 or 787-8000.

FILM & VIDEO

From the MIT Lecture Series Committee: *Back to School* on Friday, June 3 at 8 pm in 10-250; *Space Camp* on Saturday, June 4 at 8 pm in 10-250. Admission: \$1.50. Telephone: 225-9179.

At the Somerville Theatre: *Down By Law* on Thursday, June 2 at 4:15 & 8:00; *Stranger Than Paradise* on Thursday, June 2 at 6:15 & 10:00; *Hope and Glory* on Friday, June 3 at 3:45 & 8:00; *I Heard the Mermaids Singing* on Friday, June 3 at 5:45 & 10:00; *Divna* on Saturday, June 4 at 3:30 & 7:45; *Betty Blue* on Saturday, June 4 at 1:15, 5:40, & 10:00; *From Here To Eternity* on Sunday, June 5 and Monday, June 6 at 5:30 & 10:15. Located at 55 Davis Square, Somerville, just by the Davis Square T-stop on the red line. Tickets: \$4.50 (good for double bills). Tel: 625-1081.

At the Brattle Theatre: *Howard Hawks' Scarface* (1932) on Friday, June 3 at 4:15 & 7:50 and Saturday, June 4 at 1:45, 4:50, & 8:00; *The Graduate* (Mike Nichols, 1967) on Sunday, June 5 at 4:00 & 7:55; *Carnal Knowledge* (Mike Nichols, 1971) on Sunday, June 5 at 2:15, 6:00, & 9:55. Located at 40 Brattle Street in Harvard Square. Tickets: \$4.75 general, \$3 seniors and children (good for double bills). Telephone: 876-6837.

On Friday, June 3 the French Library in Boston begins its weekly film series *Jean Renoir in the Thirties* with *Boudu sauvé des eaux* (*Boudu Saved from Drowning*, France, 1932), remade in Hollywood as *Down and Out in Beverly Hills*, at 8 pm. Also presented Saturday, June 4 and Sunday, June 5. Located at 53 Marlborough Street, near the Arlington T-stop on the green line. Tickets: \$3.50 general, \$2.50 Library members. Tel: 266-4351.

JAZZ MUSIC

***** CRITIC'S CHOICE *****
On Friday, June 3 and Saturday, June 4 Stan Getz performs at 8 pm & 11 pm at Nightstage, 823 Main Street, Cambridge. Tickets: \$16. Telephone: 497-8200.

On Thursday, June 2 artist Ellis O'Donnell and her quartet perform at 8 pm at the Cambridge Center for Adult Education, 56 Brattle Street in Harvard Square. Tickets: \$3.50. Tel: 547-6789.

POPULAR MUSIC, ETC.

On Wednesday, June 1 Gladys Knight and the Pips perform at the Opera House, 539 Washington Street, Boston. Telephone: 426-2786.

At the Worcester Centrum: *Debbie Gibson* on Wednesday, June 1; *Dirty Dancing Show* on Sunday, June 5. Tickets: \$17.50. Telephone: 787-8888.

June 8 to June 14

THEATER

On Wednesday, June 8 *The Fall of the House of Usher*, the world premiere of the Philip Glass/Arthur Yorinks opera based on Edgar Allan Poe's classic American Gothic tale, returns to the American Repertory Theatre, Loeb Drama Center, 64 Brattle Street, Cambridge. Continues through July 10 with performances Tues-Sat at 8 pm, Sun at 7 pm, and matinees Sat-Sun at 2 pm. Tickets: \$13 to \$26. Telephone: 547-8300.

FILM & VIDEO

***** CRITIC'S CHOICE *****
From the MIT Lecture Series Committee: *Roman Holiday*, starring Audrey Hepburn, on Friday, June 10 at 7:00 in 10-250; *Without Love*, starring Katherine Hepburn, on Friday, June 10 at 9:15 in 10-250; *The Good, the Bad, and the Ugly* on Saturday, June 11 at 8:00 in 10-250. Admission: \$1.50. Telephone: 225-9179.

At the Somerville Theatre: *Stop Making Sense* on Thursday, June 9 at 4:15 & 7:45; *Swimming to Cambodia* on Thursday, June 9 at 6:00 & 9:30; *The Unbearable Lightness of Being* on Friday, June 10 and Saturday, June 11 at 2:45 & 7:30; *The Dead* on Friday, June 10 and Saturday, June 11 at 5:45 & 10:00; *North by Northwest* on Sunday, June 12 and Monday, June 13 at 3:30 & 7:50; *To Catch a Thief* on Sunday, June 12 and Monday, June 13 at 6:00 & 10:15; *Sid and Nancy* on Tuesday, June 14 and Wednesday, June 15 at 4:15 & 8:00. Located at 55 Davis Square, Somerville, just by the Davis Square T-stop on the red line. Tickets: \$4.50 (good for double bills). Telephone: 625-1081.

At the Brattle Theatre: Francois Truffaut's *Les 400 Coups* (*The 400 Blows*, France, 1959) on Thursday, June 9 at 6:00 & 10:00; Francois Truffaut's *Jules et Jim* (France, 1962) on Thursday, June 9 at 4:00 & 8:00; Sergio Leone's *The Good, the Bad, and the Ugly* (1966) on Sunday, June 12 at 3:15 & 8:45; Robert Altman's *McCabe and Mrs. Miller* (1971) on Sunday, June 12 at 1:00 & 6:30; Ingmar Bergman's *Persona* (1966) on Tuesday, June 14 at 4:15 & 8:00. Located at 40 Brattle Street in Harvard Square. Tickets: \$4.75 general, \$3 seniors and children (good for double bills). Telephone: 876-6837.

On Friday, June 10 the French Library in Boston continues its weekly film series *Jean Renoir in the Thirties* with Toni (France, 1934) at 8 pm. Also presented Saturday, June 11 and Sunday, June 12. Located at 53 Marlborough Street, near the Arlington T-stop on the green line. Tickets: \$5.50 general, \$2.50 Library members. Telephone: 266-4351.

COMEDY

***** CRITIC'S CHOICE *****
On Friday, June 10 and Saturday, June 11 Bill Cosby performs at Great Woods, Route 140, Mansfield. Tickets: \$16 to \$26. Telephone: 339-2333.

June 15 to June 21

POPULAR MUSIC, ETC.

At Great Woods: *Reggae Sausplash 88* on Wednesday, June 15; *The Beach Boys and Roy Orbison* on Friday, June 17 and Saturday, June 18; *John Cougar Mellencamp* on Sunday, June 19. *Heart* and *Michael Bolton* on Tuesday, June 21. Located on Route 140, Mansfield. Tickets: \$14.50 to \$19.50. Telephone: 339-2333.

***** CRITIC'S CHOICE *****

At the Paradise: *WBCN Rock 'n' Roll Rumble* from Wednesday, June 15 to Saturday, June 18; *Lena Lovich* on Monday, June 20. Located at 967 Commonwealth Avenue, Boston. Telephone: 254-2052.

JAZZ MUSIC

On Friday, June 17 and Saturday, June 18 Etta James performs at 8 pm & 11 pm at Nightstage, 823 Main Street, Cambridge. Tickets: \$15. Telephone: 497-8200.

DANCE

***** CRITIC'S CHOICE *****
On Friday, June 17 and Saturday, June 18 Dance Umbrella presents "Fascinating Rhythms" - *The Great Tap Dance Reunion* at 8 pm in the Boston Opera House, 539 Washington Street, Boston. Tickets: \$15.50 to \$22.50 general, \$13 to \$19 Dance Umbrella members. Telephone: 492-7578.

FILM & VIDEO

From the MIT Lecture Series Committee: *Hello Again* on Friday, June 17 at 8 pm in 26-100; *Time Bandits* on Saturday, June 18 at 8 pm in 10-250. Admission: \$1.50. Telephone: 225-9179.

At the Brattle Theatre: Martin Scorsese's *New York, New York* (1977) on Wednesday, June 15 at 4:15 & 7:00; Akira Kurosawa's *Rashomon* (Japan, 1951) on Thursday, June 16 at 4:15 & 8:00; Akira Kurosawa's *Yojimbo* (Japan, 1961) on Thursday, June 16 at 5:50 & 9:40; Billy Wilder's *Some Like It Hot* (1959) on Sunday, June 19 at 3:45 & 7:50. Located at 40 Brattle Street in Harvard Square. Tickets: \$4.75 general, \$3 seniors and children (good for double bills). Telephone: 876-6837.

***** CRITIC'S CHOICE *****

On Friday, June 17 the French Library in Boston continues its weekly film series *Jean Renoir in the Thirties* with *Les bas-fonds* (*The Lower Depths*, France, 1936) at 8 pm. Also presented Saturday, June 18 and Sunday, June 19. Located at 53 Marlborough Street, near the Arlington T-stop on the green line. Tickets: \$3.50 general, \$2.50 Library members. Telephone: 266-4351.

Upcoming Events

The Pogues at the Orpheum Theatre on June 22. *Jethro Tull* at Great Woods on June 23. *The Mighty Lemon Drops* at the Paradise on June 23. *Jazz and Blues Festival* at Great Woods, June 24 to 26. *The Herb Pomeroy Big Band* at the Museum of Fine Arts on June 30. *Bob Dylan and The Alarm* at Great Woods on July 2. *Ornette Coleman and Prime Time* at the Berklee Performance Center on July 8.

notices

The MIT Medical Department Pharmacy announces a new service. Beginning May 15, refills can be ordered 24 hours a day using the new refill line, 253-0202. The refills can then be picked up any time after 11:30 am the following day. The orders will be filled by an evening pharmacist, which will help reduce waiting time for new prescriptions during the day.

Applications are now being accepted for the **PVA/Youth for Vietnam Veterans Scholarship Fund**. Each scholarship will be \$1,500 and applicants must be enrolled in, or accepted by, an accredited four-year institution of higher learning. For more information, contact Scholarship Committee; c/o Paralyzed Veterans of America, 801 18th Street NW, Washington D.C. 20006. Completed applications must be postmarked no later than May 31, 1988.

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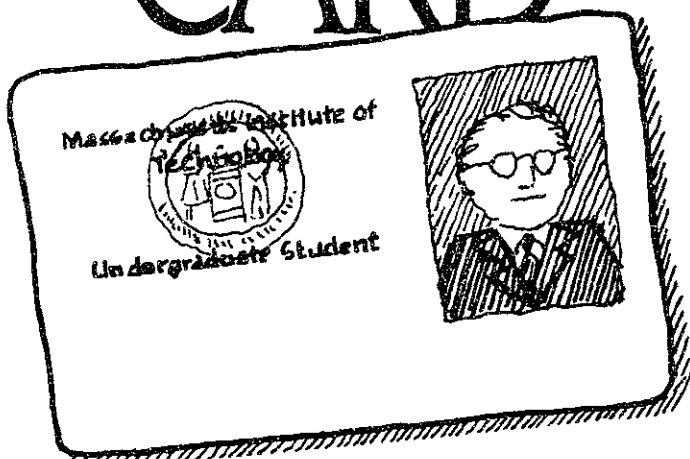
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| Bonnie Huang | Harvard Undergraduate |
| Julie Ang Mi Kim | M.I.T. Undergraduate |
| Kevin P. Mohan | Harvard Law/Business School |
| Pawan Ganapati Patil | Harvard Undergraduate |
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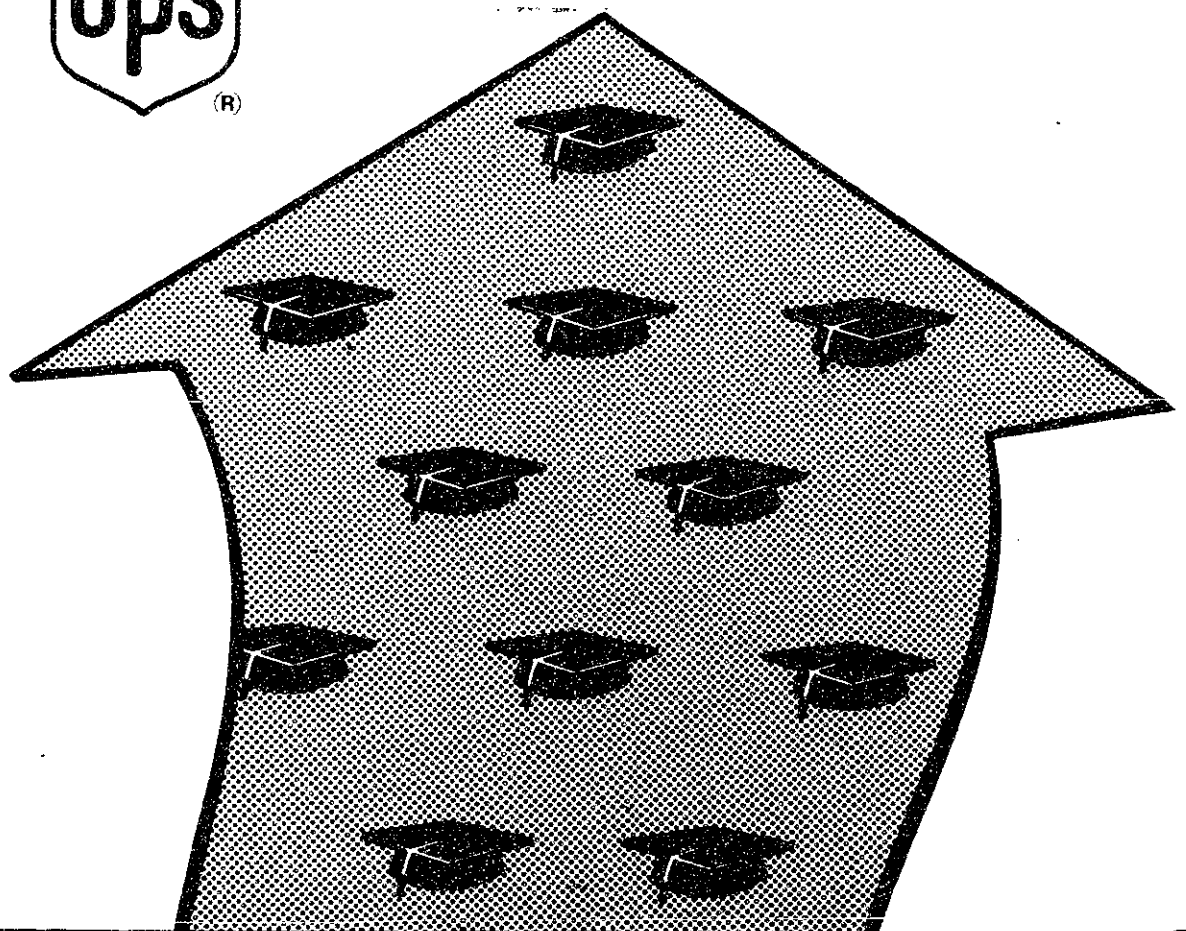
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Noble claims tenure process was "rigged" against him

(Continued from page 1)
reason to cover up" the information.

But Robert Sullivan, MIT's attorney in the case, said an agreement had been worked out with Noble's previous attorney in which the confidentiality of outside reviewers would be protected. Kairys is simply trying to renege on the deal, Sullivan asserted. Kairys countered that the confidentiality was agreed upon as a temporary measure.

"Irregularities" found

The tenure documents reveal several irregularities in the process of evaluation and obtaining references, Kairys said. First, a four member interdepartmental review committee (composed of Lester C. Thurow, now Dean of the Sloan School of Management; Professor of Political Science Walter Dean Burnham; Professor of Science, Technology, and Society Merritt R. Smith; and Professor of Aeronautics and Astronautics Leon Trilling) prepared a list of nine people in various disciplines whose evaluations would be sought. All of these evaluations were positive, Kairys said.

But the Program in Science, Technology, and Society added two evaluators to the list. While this was not in itself improper, these two evaluations were the

only negative ones received, Kairys said.

One of the evaluators added by the department had a clear conflict of interest, Kairys asserted, as he was a part of an organization which Noble had criticized in the past.

The other evaluator was allegedly added because the department wanted a representative from a discipline related to Noble's field of study, Kairys said. But Kairys was skeptical of this claim, as Noble had already been evaluated by an individual from that field outside of MIT, and one member of the interdepartmental review committee came from the discipline. The suggested evaluator had already written a strongly negative evaluation of Noble while under consideration for promotion, and he initially declined to evaluate Noble's performance again, Kairys said.

As a result, the department sought another external evaluation from the field, which was received half a year after the other evaluations. Kairys asserted that the department expected a negative evaluation, but the reply was just the opposite. The evaluator, an expected opponent, said "David's book led him to change his views" and called Noble "a leading scholar in his field," Kairys said.

Twelve days after this positive

review was received the department convinced the reluctant evaluator to submit a statement, which was "predictably negative," Kairys claimed. Thus at that time, Noble had received ten positive evaluations and two negative ones, both of which were requested by the department. The department had to "stretch and maneuver to find someone who would be solidly negative," Kairys asserted.

Sullivan was unfamiliar with these charges and would not comment on them.

The interdepartmental review committee saw the two negative evaluations but still unanimously recommended Noble for tenure, noting the conflict of interest in one of the negative reviews, Kairys said. Kairys did not believe the committee knew about the "rigging" of the negative evaluations.

But Sullivan said that while the review committee did reach a unanimous conclusion, it was not exactly an approval. He declined to specify his statement, citing grounds of confidentiality.

Nevertheless, the department then voted 5-4 with two abstentions to deny tenure, Kairys said. They based their decision on the two negative evaluations which they solicited, and they also considered Noble's non-scholarly writings as part of his scholar-

ship, Kairys claimed. He called the process a "major scandal" and a violation of Noble's academic freedom.

"It was Professor Noble's own colleagues who voted not to recommend him for tenure," Sullivan noted. Noble has "not been able to accept their own independent judgement," he said.

Sullivan said that courts do not generally substitute their judgement for that of the tenure com-

mittee "except in cases of extreme discrimination."

Kairys also complained that MIT's tenure procedure does not allow faculty members to receive an explanation of the decision or an appeal where substance is considered. Such procedures are minimal standards recommended by the American Association of University Professors.

Depositions will be taken this summer and the case may come to trial this fall, Kairys said.

Biology faculty debate defense biotech funding

(Continued from page 2)

Such sentiment could be emblemized by a March 11 letter sent to Fox by biology professors Boris Magasanik and David Botstein. They wrote that the initial vote had "potentially alarming consequences for the future of the department and its graduate program. . ."

Many faculty members were unable to attend the meeting, and Botstein and Magasanik felt "uncomfortable" that less than one-third of the faculty had participated in the vote. The "large number of abstentions recorded suggests considerable uncertainty and confusion, even among those present," they wrote.

Moreover, the "existence at

MIT of a biotechnology graduate program entirely outside the orbit of our department [involving only the other three departments], cannot be seen as a simply neutral development in terms of future attempts to find funding for graduate training (especially from private sources), or even in terms of attracting government funding that looks forward to an increasingly important biotechnology industry."

Botstein and Magasanik, too, made references to the administration's reaction: the initial discussions had failed to "accurately predict the reaction of some [members of the biology department] or the MIT administration. . ."

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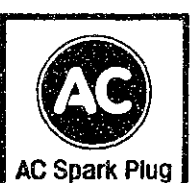
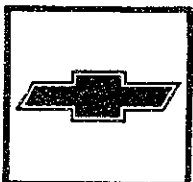
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sports

1987-88 MIT athletic highlights

Compiled by MIT Sports Information Office

Men's Cross Country

Ranked 14th nationally, Rod Hinman '88 placed 34th in the national Division III championship.

Women's Cross Country
Won the MAIAW Class B-C State Title.

Football

Two football players took MIT laurels. Hugh Ekberg '88 became the leading ground-gainer (2078 yards) and point-scorer (126). Peter Gasparini '88 became record-holder for total yards passing (1398) and touchdown passes (11) in a career.

Men's Soccer

Lost to Harvard 1-0. Harvard later finished second in the nation in Division I.

Women's Tennis

Dheera Ananthakrishnan '90 was named a New England Women's Eight All-Star. Team was 11-7 overall.

Women's Volleyball

Won New England Women's Eight Tournament. Julie Brown '88 named to the NEW 8 All-Star team. Athena Cozacos '89 named NEW 8 Tournament MVP.

Men's Basketball

Had 11 wins for most since 1980.

Women's Basketball

Darlene Dewilde '88 was in top ten in three different categories in NEW 8 (scoring — second, rebounding — seventh, blocked shots — first).

Men's Fencing

Second in New England Championships.

Women's Fencing

Linda Ystuenta '88 named New England Women's Fencer of the year for fourth consecutive time.

Ystuenta also finished 17th at NCAA Championships.

Golf

15th consecutive over .500 season.

Men's Gymnastics

Qualified for United States Gymnastic Federation Division II-III National Championships for first time.

Women's Gymnastics

Allison Arnold '90 won ECAC Championship on uneven bars with a score of 8.8 of a possible 10.

Men's Ice Hockey

Destroyed Caltech in the second Beaver Cup, 13-0.

Pistol

Free pistol team won NRA National Championship. Vicki Rowley G placed fourth in standard pistol at nationals.

Rifle

Eugene Opsasnick '88 qualified for NCAA Championships.

Squash

Had second winning season in history of the sport. More wins (12) than ever before.

Women's Swimming

Yvonne Grierson '90 won NCAA Division III Championship and set national record in 100 yard butterfly (56.18).

Indoor Track

Undefeated (9-0). New England Champions for fourth consecutive year. Bill Singhose '90 set school records for points in a season (112½), points in a meet (21), and pole vault (15' 5¼"). Singhose placed third in Division II National Championship in pole vault.

Baseball

Mike Griffin '89 made Greater Boston League All-Star Team.

Heavyweight Crew

Swept races with Dartmouth and Coast Guard for the first time ever.

Lacrosse

Won initial Pilgrim League Championship. Had most wins since 1969 (9). Had five Pilgrim League All-Stars (Tom Dorf '88, Tim Mattox '88, Pat Nee '89, Rich Rice '88, Mike Gaidis '88).

Men's Tennis

Ben Spehlman '88 qualified for NCAA Division III Championships.

Outdoor Track

Undefeated (5-0). Won New England Division III Outdoor Championship for first time since 1983. Scored most points in history of the championship (123½), won by greatest margin in history of the championship (61½ points). The combined indoor and outdoor track records over the last 50 opponents in dual or triangular meets is 50-0. MIT has not lost a track meet to a Division III team in over eight years.

Women's Softball

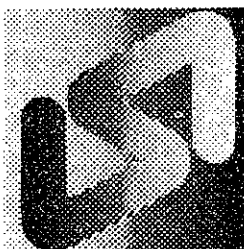
Julie Brown '88 made NEW 8 All-Star team.

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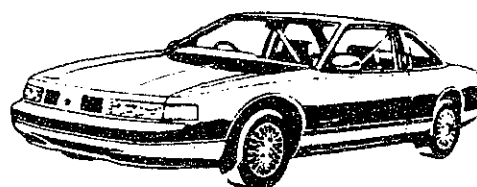
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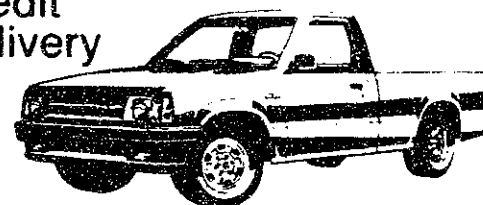
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