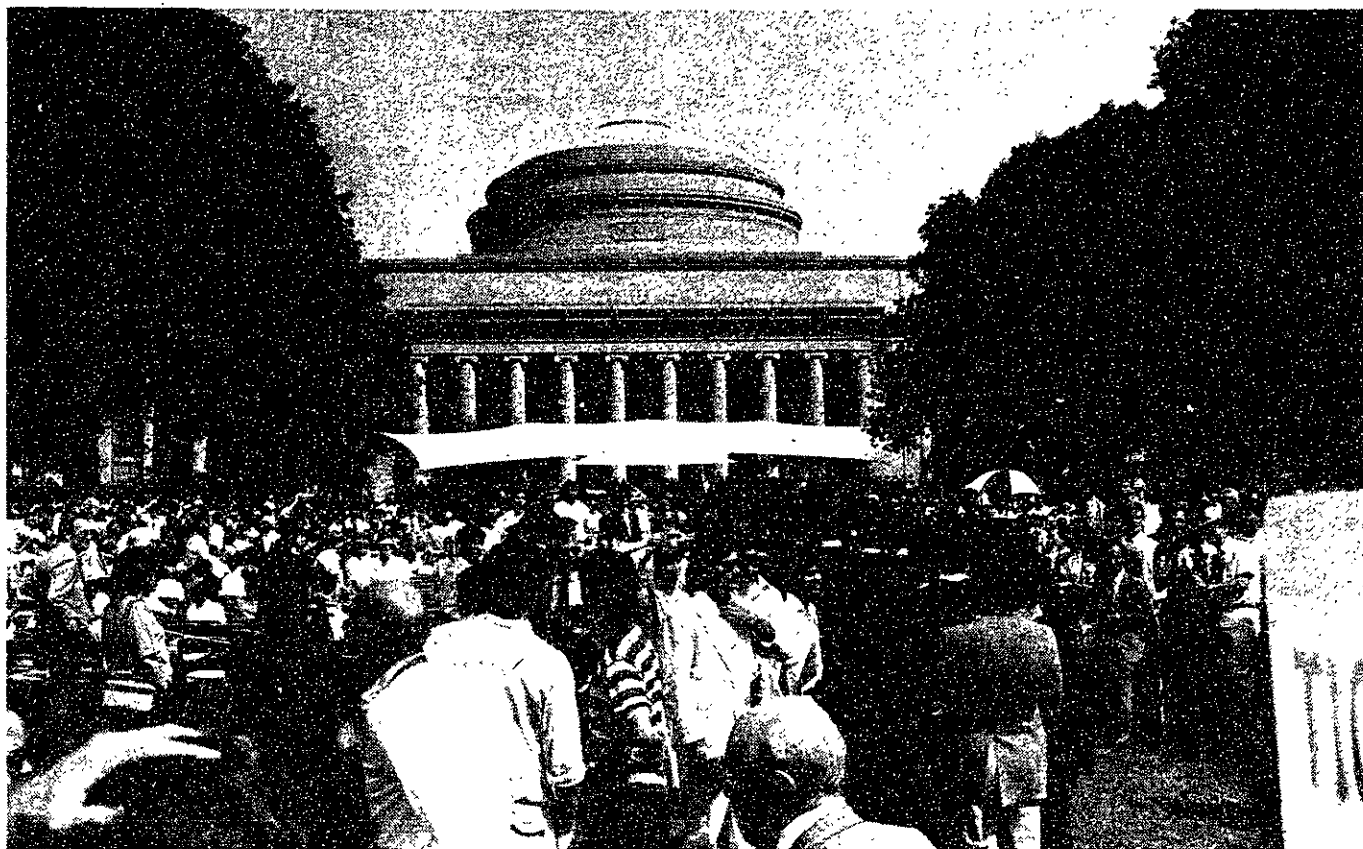




Michael Franklin/The Tech

Under warm sunny skies, Killian Court was packed as 1776 students received 1945 degrees. Former Sen. Paul Tsongas addressed the graduates and their families [see text on p. 12]. Photo essay page 5.

Fraud case raises deeper questions

Analysis

By David P. Hamilton

Some three years after a series of experiments in an MIT biomedical laboratory appeared as a relatively obscure scientific paper in the journal *Cell*, investigators are still sifting through masses of evidence to determine the truth about allegations of fraud and scientific misconduct.

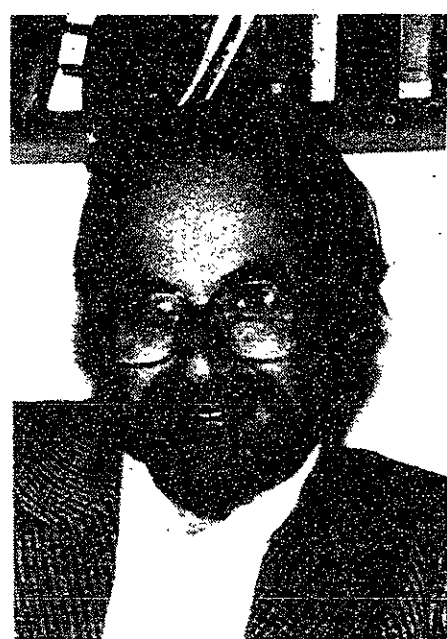
Despite the seriousness of these charges, however, the important issues raised by the investigation are not confined to the problem of scientific error, whether propagated accidentally or intentionally.

Instead, this incident raises questions about such disparate topics as the ability of institutions to objectively examine allegations of misconduct, the freedom junior researchers enjoy to question results achieved by their superiors, and the extent to which Congress should act to ensure that publicly-funded research is carried out free of misconduct.

The case has attracted national attention largely because of the

involvement of David Baltimore '61, a Nobel laureate and director of the Whitehead Institute for Biomedical Research. A prominent national spokesman for biomedical issues as well as a highly-honored researcher, Baltimore has emerged as the spokesman for the paper's authors, although he was only peripherally involved in the research under question.

The real controversy involves research performed by Thereza Imanishi-Kari, formerly of the



Professor David Baltimore

MIT Center for Cancer Research and now a professor at Tufts University. According to Margot O'Toole, a former post-doctoral student of Imanishi-Kari's, the experimental data supporting the paper's central thesis was misleading or false, rendering the paper's major contribution untenable.

After raising her concerns with faculty members at both MIT (Please turn to page 2)

City passes animal rights ordinance

By Prabhat Mehta

The Cambridge City Council yesterday approved an unprecedented measure to regulate animal research in the city's academic and private research institutions. The eight city councillors present unanimously approved an ordinance which would create a commissioner's post to oversee all research involving vertebrates at MIT and Harvard, as well as eleven other institutions. The ordinance may be the widest-reaching local restriction on animal research to date.

Under the new ordinance, research institutions which are not already compelled by federal or

state laws to have animal care committees will be required to do so, and each of these committees will be required to have one "public" member not affiliated with the institution. The committees will have approval power over all research involving animals at their institutions, but the appointed commissioner will have veto power over any final decisions.

The commissioner will also have the authority to enter laboratories to assure that scientists are following state and federal guidelines for humane treatment. Laboratories violating those guidelines will face fines of \$300 a day.

The ordinance was the result of recommendations made by the Mayoral Blue Ribbon Committee on Laboratory Animals in a hundred-page report submitted in February. The Blue Ribbon Committee consisted of three members, including John Moses, chairman of the Animal Care Committee at MIT. BRC recommendations were unanimously approved at a meeting of the Cambridge City Council on June 5, at which time the city solicitor was directed to draft a formal

ordinance.

Although efforts to amend the ordinance to allow an animal rights advocate to serve as the public member on the individual animal care committees were defeated at yesterday's meeting, those in attendance — many of whom wore patches identifying themselves as animal rights advocates — applauded the final approval.

Spearheading the animal rights cause has been the Cambridge Committee for Responsible Research, which sponsored an early animal rights ordinance in 1986. After a year of debate over the ordinance, the city council called for the formation of the BRC to study the condition of laboratory animals in the city and make proposals. The BRC concluded that conditions in Cambridge laboratories were generally clean and healthy, but that public regulation would limit the potential for abuse.

After approval of the ordinance, Gul Agha, a spokesman for CCRR, expressed hope that the new ordinance would avoid mismanagement of animals in the city's research institutions.

China news dominates graduation

By Irene C. Kuo

Remembrance of student demonstrators massacred in Beijing echoed through speeches at MIT's 123rd commencement on June 5 at which 1776 students received degrees and were exhorted by President Paul E. Gray '54 to "hold to the values of democracy."

Under clear skies in Killian Court, retiring MIT Corporation Chairman David S. Saxon '41 opened the commencement ceremony by noting the disparity between the culmination of the graduates' studies and the "tragic culmination" of the Chinese student protests. Saxon, Gray, Provost John M. Deutch '61, former President Howard W. Johnson, and commencement speaker Paul Tsongas, a former US senator from Massachusetts, wore black mourning bands.

Gray told the graduates that he had intended to speak on the cold fusion controversy, inquiries into allegations of academic fraud, and the need for them to increase public understanding and appreciation of science and technology, but that the events in

China had made him rewrite his speech.

"The massacre in Tiananmen Square . . . shows how easily and how dreadfully the spark of freedom can be crushed by those who hold power and are so afraid of losing it," he stated. He called those who were killed, "people who just wanted a voice . . . who wanted democracy."

"I ask of you . . . that you hold to the values of democracy: the freedom, indeed the obligation, to talk and to listen — to forge a future, based not on the power of one group of people over another, but a future based on a partnership among peoples, among nations, people who respect each other enough to trust each other."

Tsongas also condemned the Chinese government's actions and called for a moment of silence to remember the slain students.

While his references to the global village, the thawing of the Cold War, and the "tide of democracy" suggested blurring of national boundaries, the rest of his address, sprinkled with anec-

dotes and jokes, urged the graduates to deal with the "other war." He described this war as one with "our friends" — with Japan, Germany, Taiwan, Switzerland, Korea, and France — who "sell to us and then take away our patrimony in return."

He added that discipline, purpose, will, determination, hard work, sacrifice, attitude, and "above all, . . . education" would be necessary. Until the "weapons of the mind" were celebrated, he predicted the nation would endure a declining standard of living.

"Perhaps here, more than almost any other campus in America, the products of MIT will be called upon to restore that patrimony."

1945 degrees awarded

Gray and Deutch presented 1945 degrees — 1040 bachelor of science degrees and 905 advanced degrees. The degree recipients included 413 women. The advanced degrees consisted of 212 doctorates, 666 master's degrees, and 27 engineer degrees. A master of sci-

(Please turn to page 2)

Subcommittee targets ILP's foreign dealings

By Irene C. Kuo

A congressional subcommittee singled out MIT's Industrial Liaison Program as one technology transfer program that is selling the results of federally financed research to foreign firms.

At a hearing on June 13, Rep. Theodore S. Weiss (D-NY), chairman of the Human Resources and Intergovernmental Relations subcommittee, acknowledged that the program is open to both US and foreign companies, but said that foreign, particularly Japanese, firms are its biggest users.

MIT President Paul E. Gray '54 defended foreign participation in programs like the ILP, one of the first attempts by a university to link research and commercial applications, as crucial to education and research at American universities eager to learn about foreign research and corporate practices.

Both men's remarks arose amidst an ongoing investigation by the Weiss subcommittee of universities, the National Institutes of Health, and the National Science Foundation for possible improper integration between universities and industry and for encouragement of the sale of scientific research. Officials at MIT and other universities have argued that technology transfer programs like the ILP are needed to improve the productivity and

competitiveness of American industry.

ILP Associate Director Thomas R. Moebus '69 said the invitation Gray received from the subcommittee stated that only faculty equity holdings and potential financial conflict of interest in connection with technology transfer programs would be discussed at the hearing.

"Instead, they focused on the ILP and relations with foreign companies, and faculty equity holdings, both of which they did not indicate in their letter to Gray," Moebus declared.

Moebus added that before the hearing, an MIT faculty member had asked Weiss' staff whether foreign participation in the ILP would be discussed and had been assured that the topic would not be brought up.

Committee's interest "misplaced"

Gray said that Weiss' assessment of high foreign participation in the ILP, the largest of its kind in the nation, was flawed because American companies that do not belong to the program are free to contact MIT faculty members about their research.

"We feel that the congressman's interest was somewhat misplaced," Moebus concurred. "The questions [the committee] asked Gray betray a lack of un-

(Please turn to page 2)

Paul E. McKenzie

Paul E. McKenzie '90, a 20-year-old political science major from Flemington, NJ, died June 17 from injuries sustained in an automobile accident in Mexico. McKenzie was a midshipman in the Navy ROTC program on active duty at the time of the accident.

McKenzie was very active in extracurricular activities at MIT. In addition to his participation in Navy ROTC, he was a sports and news reporter for *The Tech* and had been named a co-captain of next year's track team. At last month's NCAA Division III track championships, McKenzie earned All-American honors for his performances in the 400 meter intermediate hurdles (eighth place) and as a member of MIT's 4x400 relay team. He set an MIT record for the intermediate hurdles at the meet.

He is survived by his parents and a brother, who is a student at the University of Virginia.

Committee focuses on Industrial Liason Program

(Continued from page 1)

Understanding of how relations [in technology transfer programs] work."

Gray argued that the results of all MIT research are in the public domain. "The ILP does not provide exclusive access, privileged access or private access to those results," he said. "It does provide facilitated access."

The 287 corporations participating in the program include 170 US and 57 Japanese firms. Each pays between \$10,000 and over \$100,000 a year for access to MIT research in their areas of interest. Company executives may visit MIT, and participating fac-

ulty members may visit company offices. Executives may also receive copies of research published by MIT faculty members and "preprints," copies of papers that have not yet been published.

Faculty participation is voluntary, but those who join receive points, worth \$35 each, for the work they do. A phone conversation with a company representative, for example, is worth 2 points. The points may be redeemed for office furniture, computer equipment, or professional travel. The average amount received by faculty members participating in the program last year was \$665; the average among the

100 faculty members with the highest point totals was \$3600.

Weiss said that ILP records show that of 25 MIT faculty members who received more than \$1 million in federal grants in recent years, 80 percent "had more contacts with foreign corporations than American ones." Weiss recalled that Gray had repeatedly called both for greater federal funding of research and for stronger business-university ties as ways to help US competitiveness, and he maintained that the establishment of an ILP office in Tokyo proved that the program was working against that goal.

"Are you at all concerned that

American taxpayers are paying for research whose results are being sold to (Japanese) industries that will not necessarily benefit the American public?" Weiss asked Gray.

Gray responded that he was not, and said the Tokyo office had been set up not to solicit Japanese firms, but for the convenience of MIT faculty members visiting Japanese members.

"If your concern is the extent to which federally funded research is exploited by other countries, you shouldn't focus on ILP or programs like it at other universities," Gray told the subcommittee. "You'd have to change the whole context in which university research and graduate education take place and put it under wraps."

Desirable lack of restrictions on technology transfer?

At the hearing, the director of the NSF said the exchange of information between Japan and the United States is "50 to 1 in favor of the Japanese," but did not criticize the ILP. He said universities have no choice but to put research results in the public domain.

Moreover, university researchers maintained that limiting the spread of information to Japan out of fear of economic competition from the Japanese would be impractical.

"When you start talking about 'techno-nationalism,' you can't talk only about limiting information flow to Japan," said James H. Raphael, director of research on Japan at Stanford University's Northeast Asia-US Forum on International Policy. "There's always third parties to pass it along. It's a pretty leaky membrane."

"The future is so intertwined we can't take a nationalistic perspective on these sorts of things," he added.

Echoing sentiments that American companies have been slow to fund research and send their best technical people to universities to study for an academic year, Ra-

phael said the question remains, "How can we do a better job of taking our basic research in this country and getting American companies to take advantage of it and commercialize it?"

MIT lawyers react to "ambush"

Gray said after the hearing that he had been "ambushed." The presence of former MIT faculty member David F. Noble, who is suing both the school and Gray because he was denied tenure in the Program in Science, Technology and Society, among the witnesses at the hearing particularly unnerved school officials.

After the hearing, MIT lawyers publicly objected to the subcommittee's reluctance to release the names of the people who were scheduled to testify.

In a letter to Weiss, attorney Robert E. Sullivan of the firm of Palmer & Dodge, which represents MIT in pending litigation initiated by Noble, wrote that Diana Zuckerman, the subcommittee staff person identified as having responsibility for the hearing, had repeatedly demurred from releasing such a list. As late as the day before the hearing, Zuckerman had promised to telecopy to MIT a witness list that was "in the typewriter."

Fraud case raises deeper questions

(Continued from page 1)

and Tufts, O'Toole complained that the resulting institutional reviews of the research were flawed by "false and damaging" statements, misrepresentations, and the investigators' failure to press for the correction of the paper's false claims, which she characterized at the time as error, not fraud.

At the same time, O'Toole claimed that her career began to unravel as the result of hostility on the part of unnamed MIT faculty members and Imanishi-Kari, who she said requested that O'Toole not be allowed to return to an appointment at Tufts.

The paper's authors have put forth a very different account. Baltimore, for instance, has acknowledged that the paper contained scientific errors, but argued that the MIT and Tufts reviews were fair and thorough and that they found the errors so minor as to warrant no correction.

Baltimore also denied that any fraudulent behavior ever took place. In a letter to MIT investigator Herman Eisen later that year, however, Baltimore complained that Imanishi-Kari had withheld information about a particular experiment, writing, "Why Thereza chose to use the data and to mislead both of us and those who read the paper is beyond me." Baltimore has since explained the letter as the result of a "misunderstanding" based on language difficulties.

Through the actions of two unofficial fraud investigators from the National Institutes of Health,

O'Toole's case came to the attention of the House Subcommittee on Oversight and Investigation. The subcommittee, chaired by Rep. John Dingell (D-MI), was pursuing an investigation into other incidents of scientific fraud with the intent of gauging institutional response to allegations of misconduct.

Between the actions of the subcommittee and a reopened NIH investigation, the paper's authors recently have been under significant pressure. The subcommittee has subpoenaed laboratory data and correspondence, scheduled interviews at short notice, and brought in the Secret Service to perform forensic analysis on laboratory notes and data.

In response, Baltimore has marshaled the prestige and resources of the Whitehead Institute in an impressive defense of the authors' research. Colleagues wrote Op-Ed pieces in newspapers such as *The New York Times* and *The Wall Street Journal* decrying the Dingell "witch-hunt" and painting Baltimore as a natural target for publicity-hungry congressional investigators, while the Whitehead public relations staff devoted itself to preparing a defense for Baltimore's appearance at subcommittee hearings last May.

The subcommittee has also caused a certain amount of trouble for itself, as its investigation has at times been sloppy. One subcommittee aide, Peter Stockton, carelessly told the *Boston Globe* last year that "at certain times, it appears to be fraud and other times, misrepresentation." The Secret Service spent hours

analyzing an autoradiograph that appeared in the paper, eventually concluding it was a composite of several pictures, only to learn that composite autoradiographs are common practice in presentations of immunological research.

These mistakes have provided ammunition for Baltimore's defenders, who write passionately about overzealous prosecutors and the spectre of a stultified research environment in which "all the fun" is taken out of science by too much federal regulation. Meanwhile, the investigators and their allies remain suspicious of untidy loose ends in the scientists' story, such as the postdating of Imanishi-Kari's lab notes.

Almost lost in the fray is any discussion about the environment that allowed a relatively minor scientific dispute to blossom into such a full-blown conflict. O'Toole has argued that it is nearly impossible for junior scientists to entertain serious disagreements with their seniors when these very scientists may one day be sitting on tenure committees or reviewing grants. Similarly, if institutional review procedures, and even NIH investigations, appear easily influenced by entrenched interests within the university, the foundations of academic freedom are a bit less steady.

Gray, Tsongas address MIT's commencement

(Continued from page 1)

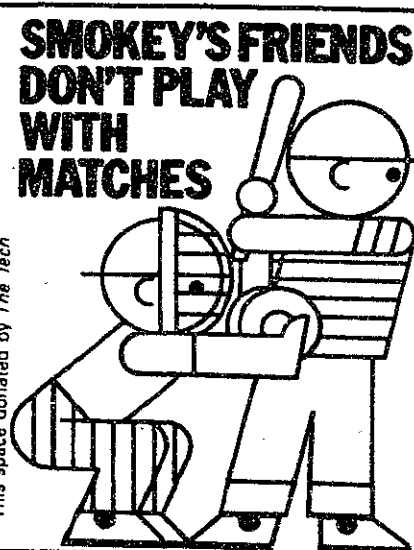
ence degree in engineering was awarded posthumously to William S. Tuleen, who was killed in an auto accident on March 28.

Three or four graduates bore body-length banners that proclaimed "MIT War Research Kills." Another graduate had a flier remembering the slain students in China taped to his back. On a lighter note, Corinne Wayshak '89 had a video camera attached to her mortarboard.

Senior Class President Carissa G. Climaco '89 presented Gray with \$5663.98, "seed money" for the Class of 1989 Scholarship Fund.

Cambridge resident Bob La-

Tremouille of the Simplex Steering Committee carried out a quiet, one-man demonstration just outside Killian Court. He called the Simplex site "MIT's little Tiananmen."



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MIT rugby club wins tournament in Queens

By Cliff Federspiel

Saturday, June 17 was a big day for MIT men's rugby, as the club won the collegiate division of the Rockaways Seven-A-Side Rugby Tournament in Queens, NY. The tournament is the largest seven-a-side rugby tournament in the United States, with 24 collegiate entries and 84 total entries spread between men's clubs, college clubs, women's clubs and a social division.

MIT began their winning streak of five games with a 10-0 victory over Drew. The Engineers then soundly defeated Manhattan 24-0, with three tries contributed by Jonathan How G, to progress to the quarterfinals. Unfortunately, Brett Masters '91 had to leave the Manhattan game with a knee injury, but was able to coach the team from the sidelines for the rest of the series.

In the quarter-finals, MIT came up against a fit team from Vassar College. However, MIT outsize and outran Vassar for another 18-0 shutout victory with several strong runs up the middle by Alec Jessiman and Elmo Pratt.

Progressing to the semi-finals, the Engineers faced the defend-

ing champions from Xavier. In a toughly fought match, the Engineers shut out Xavier 6-0 with a try from Dan McCarthy.

In the finals MIT faced Northeastern. Though the Engineers were weary after four games, they came on strong in this game with some great plays by Chevy Vithiananthan G, McCarthy, T. J. Cradick, and Ed Sweeney G, and beat Northeastern 20-3 to take the championship.

At the awards ceremony, MIT's captain, Tom McCallum G was named the most valuable player. Other players who contributed throughout the championship were Warren Brown '89, Cliff Federspiel G, and Steve Eikenberry '90.

MIT will compete next month in the Ten Good Men rugby tournament in Maynard, MA.

(Cliff Federspiel G is a member of the men's rugby club.)

The Tech will publish two additional summer issues before resuming regular Tuesday-Friday publication on Sept. 1. The publication dates are July 18 and Aug. 8. The July issue will be sent to incoming freshmen.

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news roundup

from the associated press wire

World

China denies massacre as party purge looms

Remember the pictures of the carnage when the Chinese army crushed the pro-democracy demonstrations in Beijing's Tiananmen Square earlier this month? A senior Chinese military official insists it never happened. He repeated government positions as he spoke with reporters touring the square, saying: "The whole process was non-violent. No one used guns." He added that some innocent people may have been wounded as troops tried to reach the square. Chinese witnesses and Western intelligence sources, however, say the death toll in the assault on the square may have been as high as 3,000.

The Chinese government media are continuing their propaganda offensive against the Communist Party officials who sympathized with the student-led democracy demonstrations. The media are encouraging support for the purging of Zhao Ziyang as party boss. He had called for moderation in dealing with the demonstrations. Chinese authorities are saying that all China backs the purging of top moderates in the party, and are suggesting that the ouster drive may expand.

China activists flee crackdown

Sources in Hong Kong say an "underground railroad" is helping get democracy activists out of China. Among those who have reportedly escaped the martial law crackdown are two leading intellectuals and a student leader who was on the government's most-wanted list.

Soviet sub catches fire

Norway is aiming pointed words at Moscow over a Soviet nuclear submarine that caught fire. Norwegian officials are complaining that they were not fully warned after yesterday's accident. Soviet officials said the fire was caused by a reactor malfunction. It is the third accident involving a Soviet ship near Norway in three months. The submarine, billowing smoke, limped into a Soviet port.

Local

Bank of Boston study credits MIT alums for entrepreneurship

MIT alumni have founded more than 600 companies which have directly and indirectly created 300,000 jobs in Massachusetts alone, according to a study by the Economics Department of the Bank of Boston. The 636 alumni firms, found in more than 20 industries located in 104 Massachusetts cities and towns, generate at least \$10 billion. The report "MIT: Growing businesses for the future" was released by MIT President Paul E. Gray '54 at a news conference yesterday at the President's House. (MIT News Office)

Nation

Death penalty okay for 16-year-olds, Court says

Amnesty International calls the latest Supreme Court decision on the death penalty another step backward into history. The justices yesterday ruled that states can impose the death penalty for murderers who committed their crimes when they were as young as 16. The decision comes in two cases where the defendants were 16 and 17.

There's nothing in the Constitution limiting the size of jury awards for punitive damages in personal-injury suits. That is the gist of another decision by the Supreme Court yesterday. The justices ruled that a constitutional ban on excessive fines is limited to criminal, not civil, cases. The decision comes amid growing concern over how unlimited awards may stifle American business.

A 5-4 Supreme Court ruling gives police new leeway on how they word the famous Miranda warnings to criminal suspects. The justices said an Indiana version of the warning that says a lawyer will be provided for suspects "if and when" they go to court is all right. A lower court said that wording could lead a suspect to think he could legally be interrogated by police before seeing a lawyer.

Three major oil spills hit nation over weekend

Of the three major US oil spills since Friday, the one that appears to be posing the biggest cleanup problem is in the Delaware River, dividing Delaware and New Jersey. A Coast Guard spokesman said the heavy-grade fuel oil sinks, which makes it difficult to remove from the river. An estimated 800,000 gallons of oil leaked from a Uruguayan tanker that ran aground Saturday.

A Coast Guard spokesman in Texas said of a crude oil spill near Galveston, "God smiled all over us this time." Most of the 250,000 gallon spill has been corralled in a ship channel, where it's being pumped into holding tanks. About one mile of beach was fouled in Galveston Bay, after Friday's collision between an oil barge and a ship.

Nature is dispersing most of the 400,000 gallons of heating oil that spilled Friday when a tanker hit a reef off Rhode Island. The light-weight oil, which evaporates easily, has been blowing out to sea.

GAO indicates federal AIDS estimate may be too low

The government may have been too optimistic when it guessed how many victims of AIDS there would be in the United States in the next couple of years. A new study by the General Accounting Office of Congress estimates that by the end of 1991 between 300,000 and 480,000 Americans will have been diagnosed with AIDS. The best guess of federal health officials had been 285,000.

Sports

Judge rules Giamatti is biased against Rose

A lawyer for Pete Rose called it "justice." A lawyer for major league baseball called it a "serious mistake." A Cincinnati judge on Sunday decided to keep baseball commissioner Bart Giamatti from holding a hearing yesterday on allegations that Rose gambled on baseball games. The judge said Giamatti is biased against Rose. In two weeks, the judge will decide whether he or the baseball commissioner should decide what happens to Rose.

Weather

Allison moves onshore; heat spreads into the Northeast

Tropical Storm Allison, the Atlantic hurricane season's first tropical storm, waded onshore Monday along the northeastern Texas Gulf Coast. The storm's most serious threat appeared to be not its winds but heavy rains — up to 15 inches anticipated in some parts of northeastern Texas and southeastern Louisiana.

In the local area, some of the warmest temperatures of the year are anticipated today and perhaps tomorrow as winds at the surface become southwesterly. All areas of southern New England excluding south facing coastal areas will have temperatures in the middle 80s to lower 90s. On Wednesday, as a cold front approaches, clouds will help keep temperatures a few degrees colder but relatively high dew points will likely make Wednesday feel much more uncomfortable. Cooler and drier weather is forecast for the latter half of the week.

Tuesday afternoon: Mostly sunny, very warm, and more humid. Winds become southwest 7-22°F (-14 to -6°C). High 86-91°F (30-33°C).

Tuesday night: Partly cloudy, warm and humid. Low around 70°F (21°C). Winds southwest 10-15 mph (16-24 kph).

Wednesday: Variably cloudy skies with rain showers and thundershowers. Some thundershowers may be heavy. Warm and humid. Winds south-southwest 10-15 mph (16-24 kph). High 83-88°F (28-31°C).

Thursday: Clearing, cooler, drier. High around 80°F (27°C).

Forecast by Michael C. Morgan

Compiled by Niraj S. Desai

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opinion

LETTERS TO THE EDITOR

Columnist confused Reaganism with American dream

This letter is in response to Manavendra K. Thakur's column "Film shares the fantasy view of world that Reagan sold to America" [June 5]. I am not going to dispute Thakur's opinion of film *Field of Dreams*, which is his own and is certainly valid. However, if Thakur had paid closer attention to the film (I say this because of factual errors in the film synopsis), and had not seen it through the filter of a pre-formed political agenda, the conclusions about the film may have been different.

Thakur missed the point in connecting the Reagan years to the Rockwell type of America — the "American dream." Reagan offered this dream to America, and an overwhelming majority of people responded, for the simple reason that they found this dream attractive. But Reagan seemed to have no intention of actually providing the dream to anyone. Rather, he used the promise of the dream to lure Americans into voting for him so that he could use his policies to line the pockets of his military-industrial cronies. This is where the deception took place — the end effect of the Reagan years was in fact to put the American dream out of the reach of most Americans.

There is nothing wrong or deceptive about the American

MIT clothing drive received strong support last month

The MIT Center for Public Service would like to thank the MIT community for its overwhelming response to our clothing drive of May 22-26. We gathered around eight vanloads of clothes from the seven collection points: Lobby 7, Building E18, Senior House, Eastgate, Baker House, 500 Memorial Drive, and Westgate. The clothing was donated to CASPAR, Pine Street Inn, and St. Francis House, which are homeless shelters in Boston and Cambridge; the Salvation Army; and the Margaret Fuller House, a community center in Cambridge. We appreciate the generosity of the MIT community and hope that students, faculty, and staff will maintain and increase their commitment to helping those less fortunate than themselves.

Virginia Sorenson
Matt Turner '89
Irene Stricki '89
MIT Center for
Public Service

dream itself. Furthermore, a film that favorably portrays this type of life is not "peddling" anything any more than a film which favorably portrays a different type of life is "peddling" anything.

Personally, I hope to have a house in the suburbs, with a

picket fence, 1.8 children, etc., and there is absolutely nothing simplistic about it. Indeed, in these days — and because of the Reagan years — the tranquility of a stable family life is more unattainable than ever.

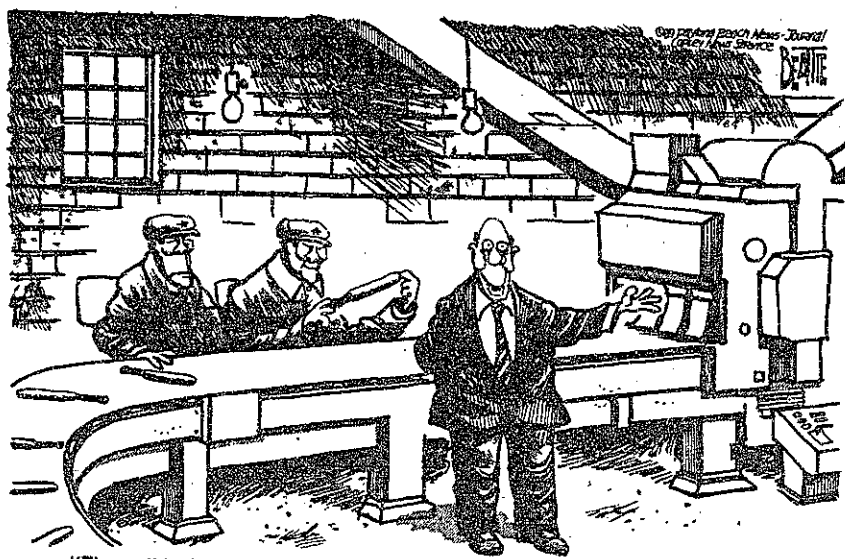
Andrew Lumsdaine G

Military impact committee will finish its report in 1988-89 academic year

The students quoted in the article entitled "Students Release Report on MICAR" [June 5] justly complain of the delay in the completion of the Military Impact on Campus Research report. The cause was a series of accidents none of which are germane to the issues of interest to

MICAR. I have been recently appointed chairman and have recruited additional committee members. The report of MICAR will become available during the coming academic year 1989-90.

Herman Feshbach
Institute Professor Emeritus



"The political climate in China isn't unfavorable for all foreign investors. We make interrogation equipment."

TheTech

Volume 109, Number 28

Tuesday, June 27, 1989

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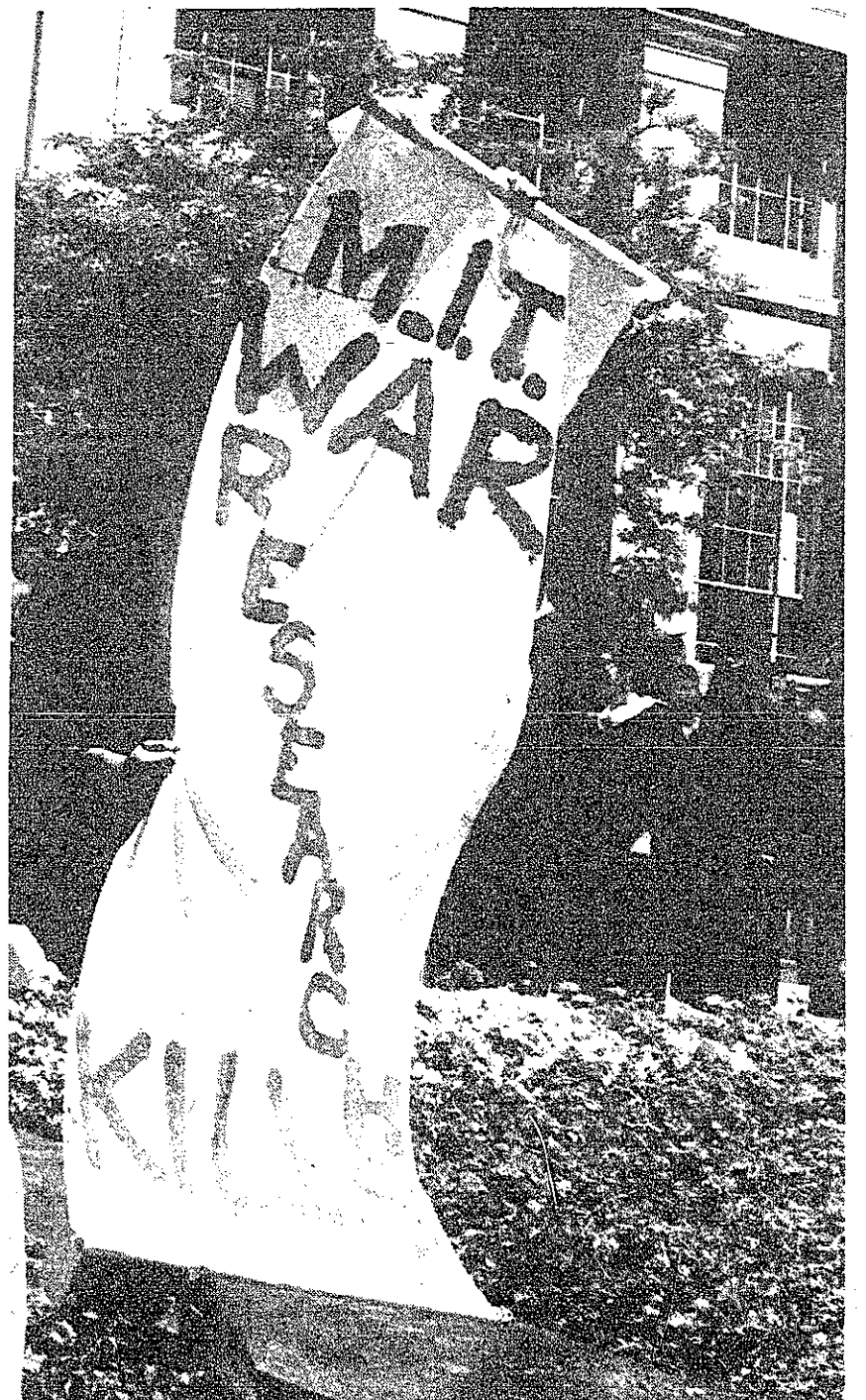
A Supreme Court Justice attends a football game



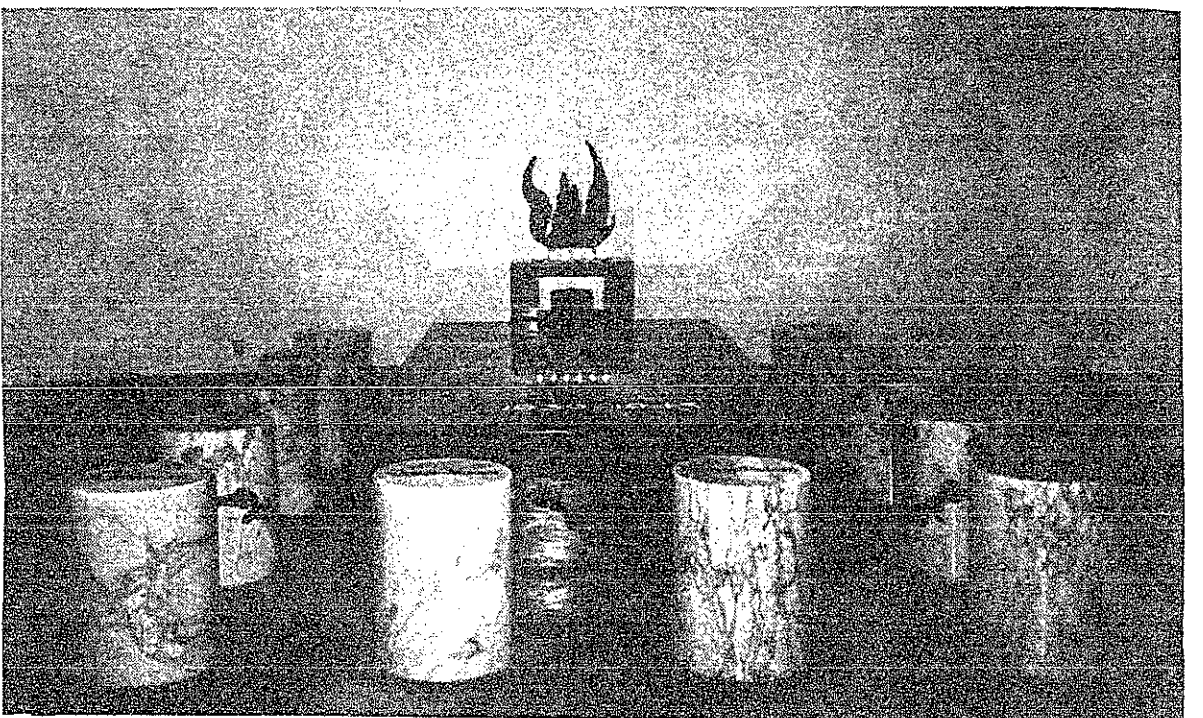
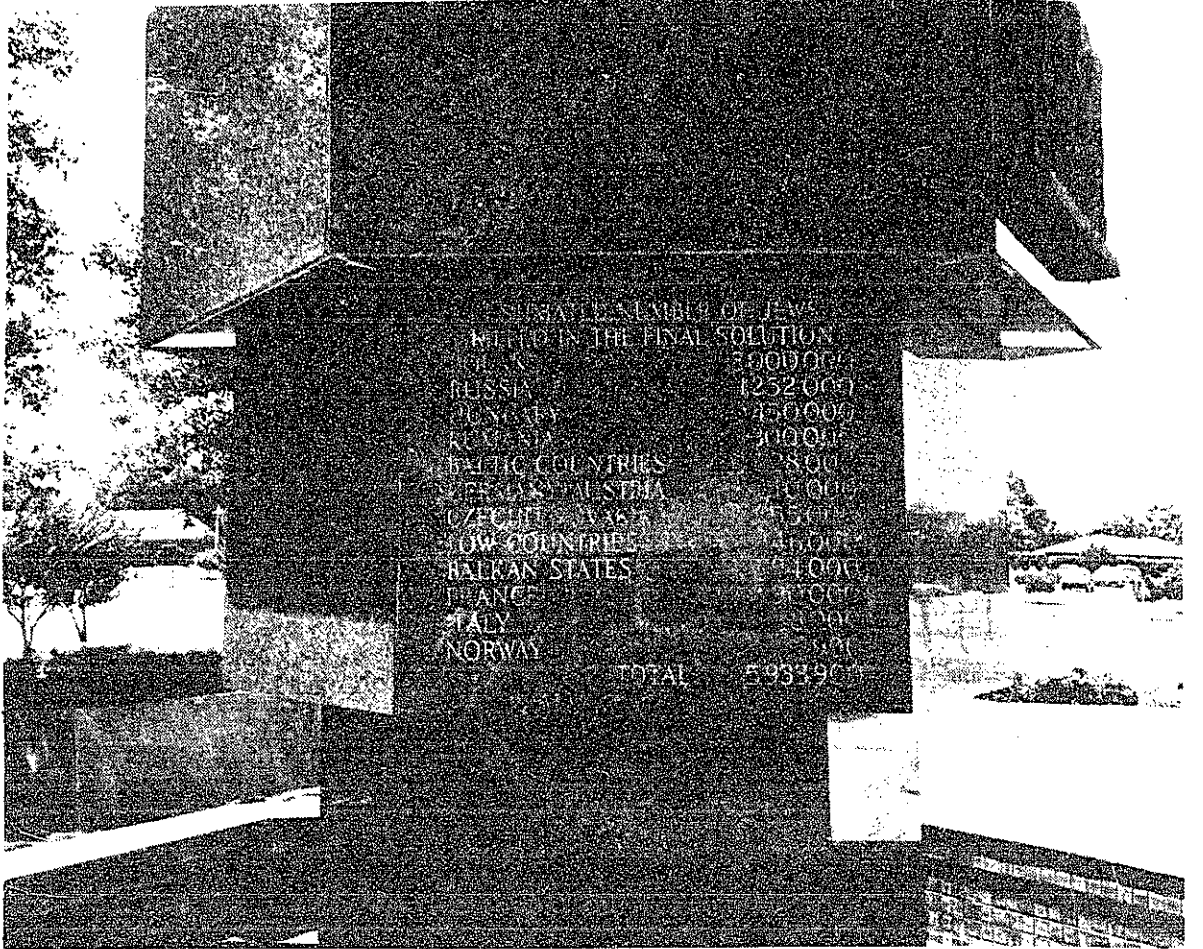
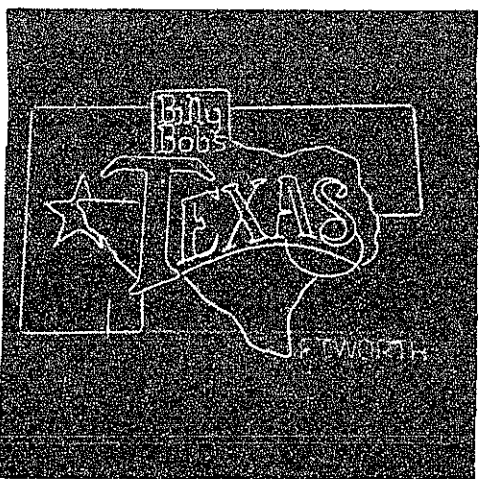
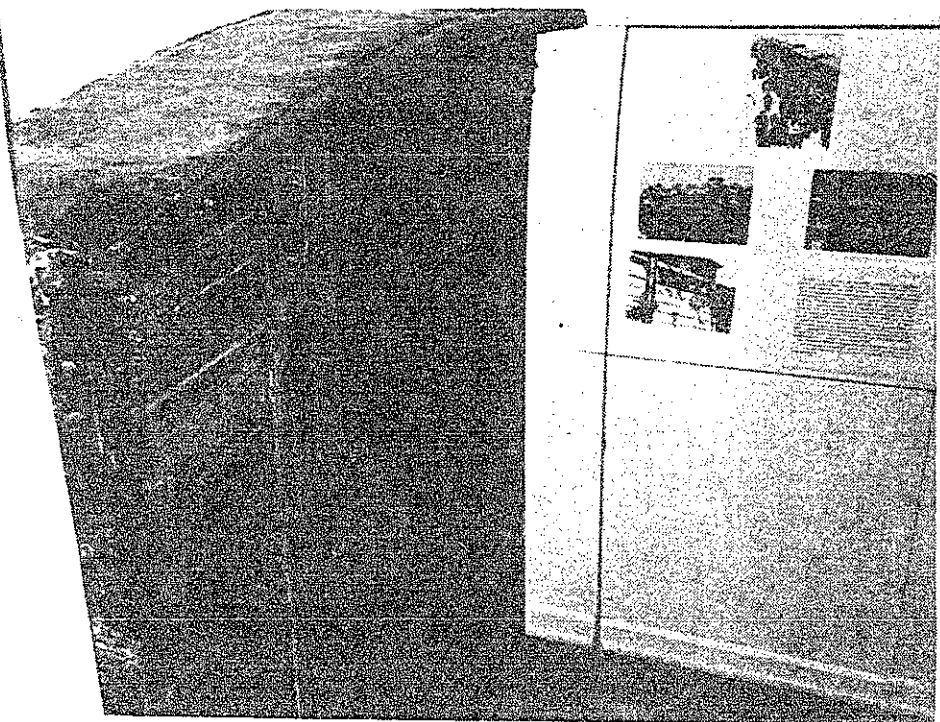
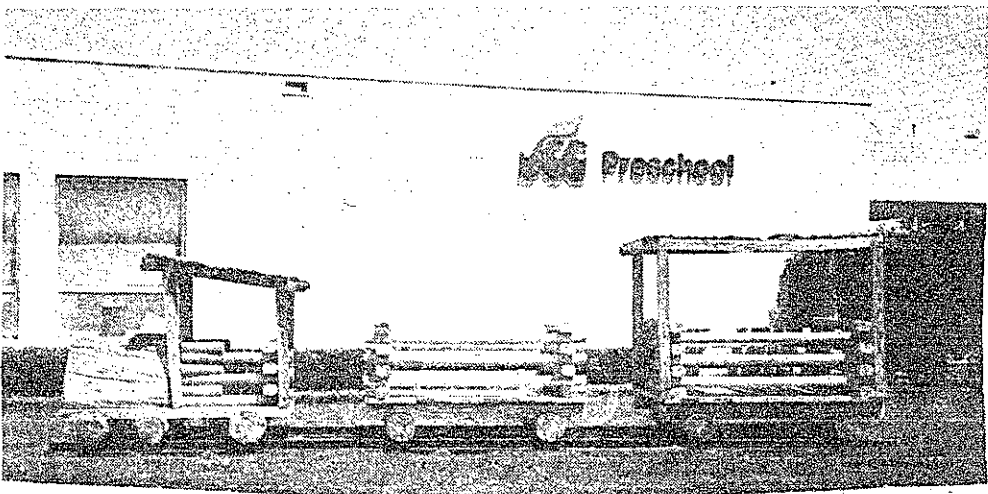
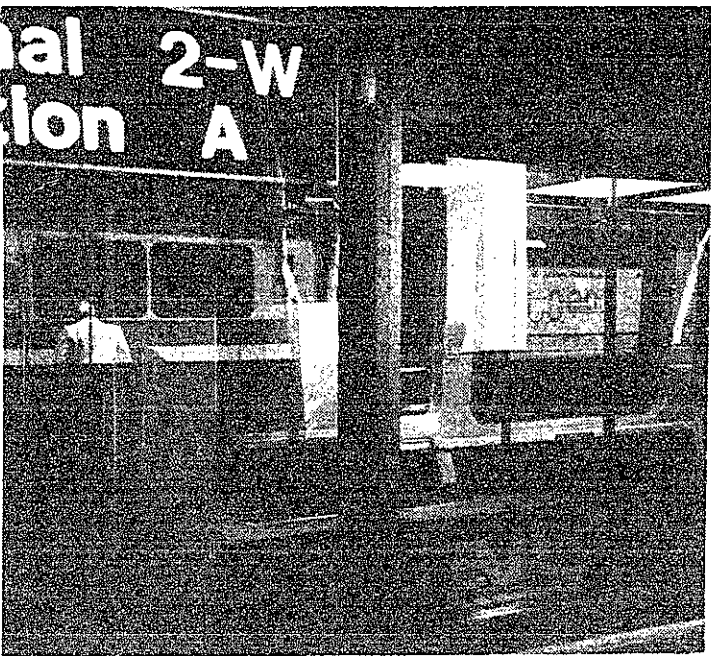
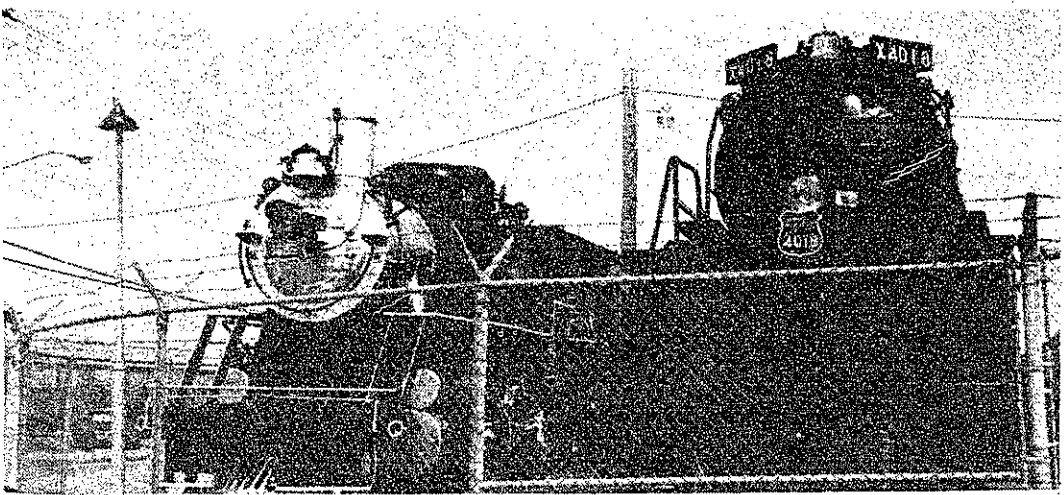
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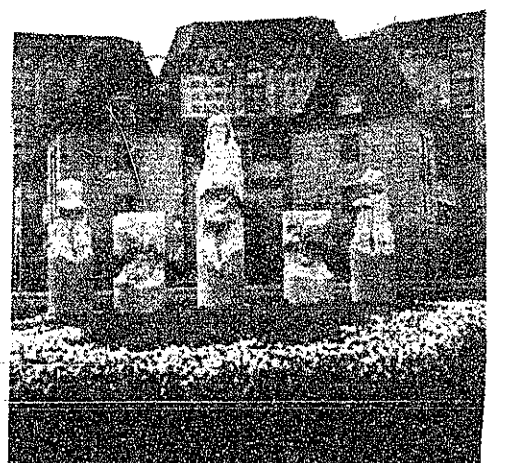
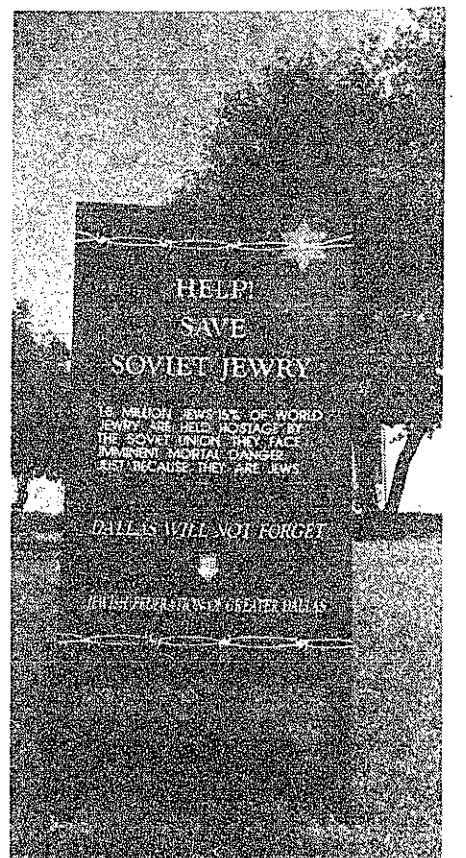
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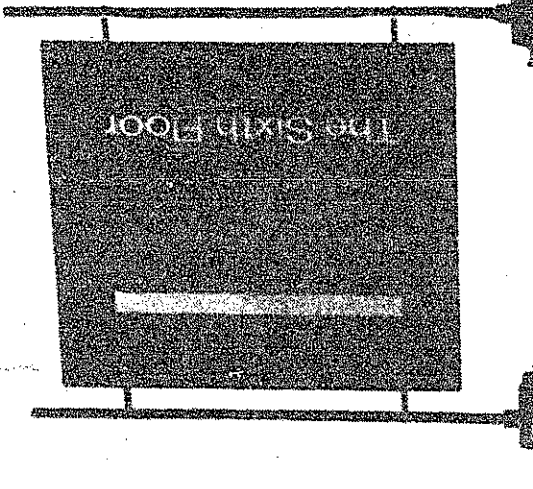
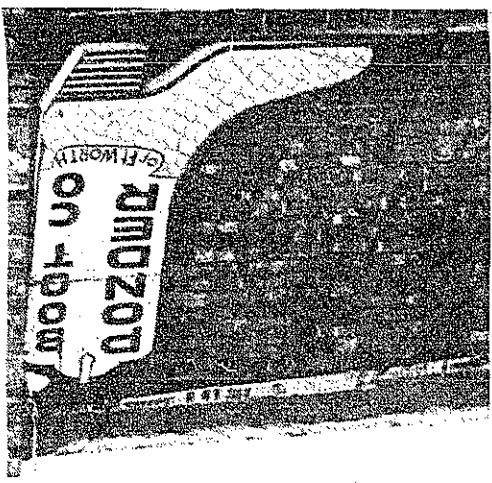
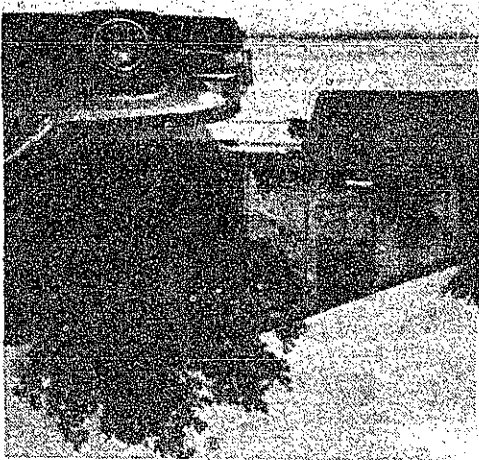
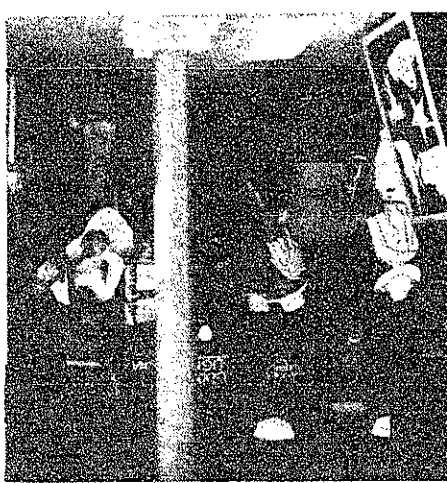
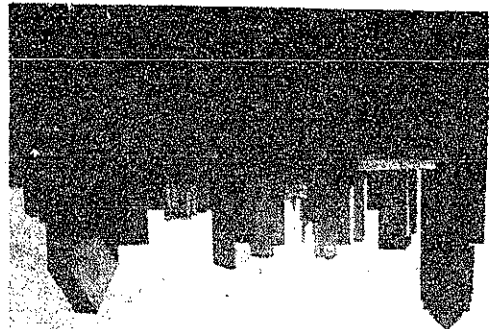
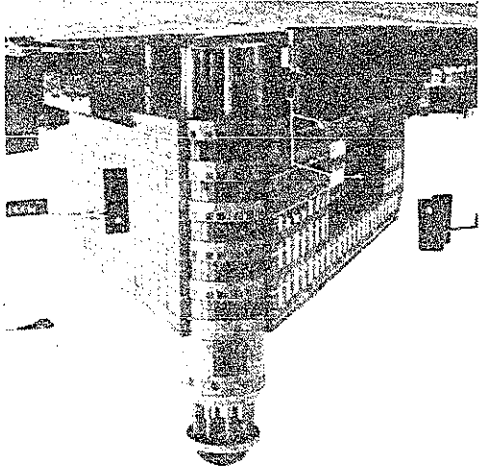
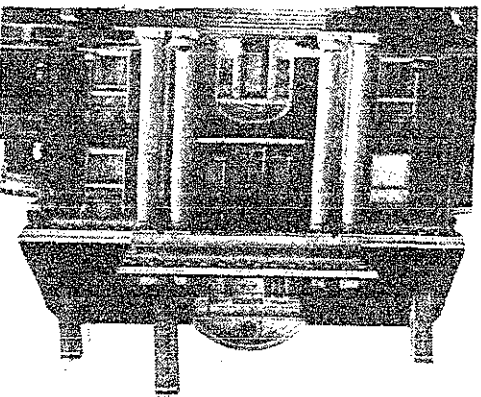
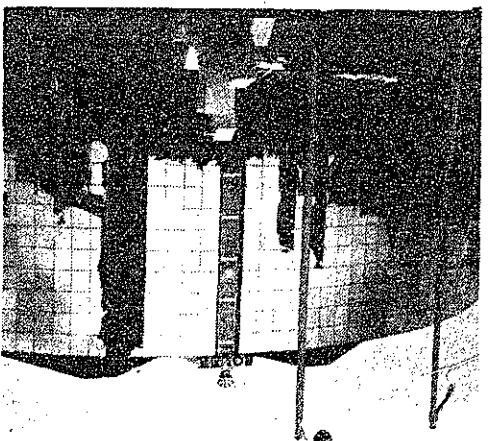
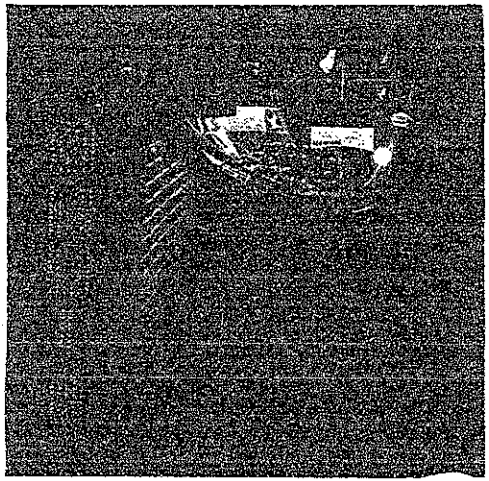
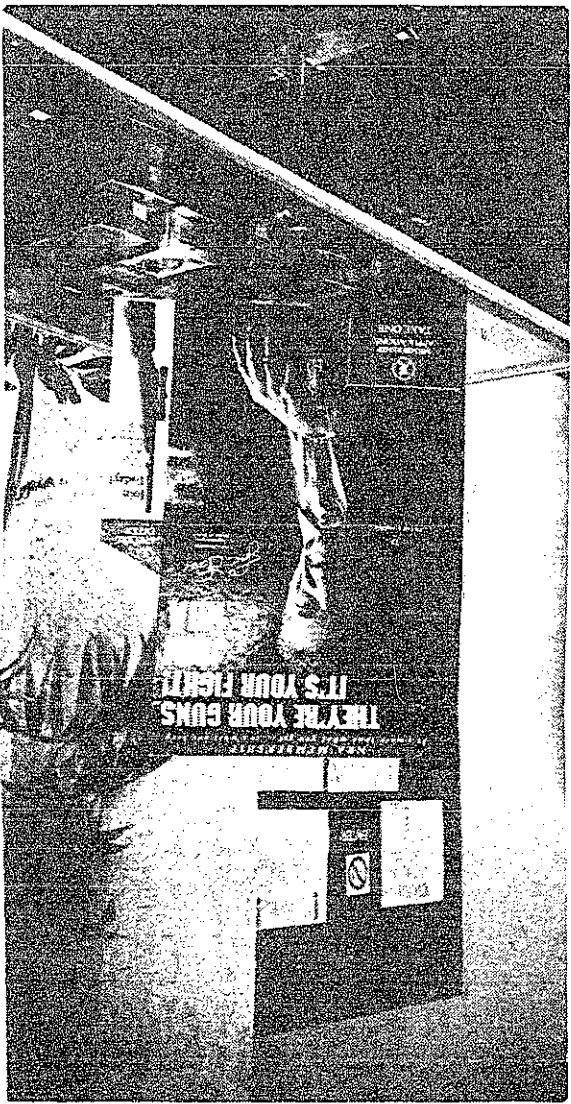
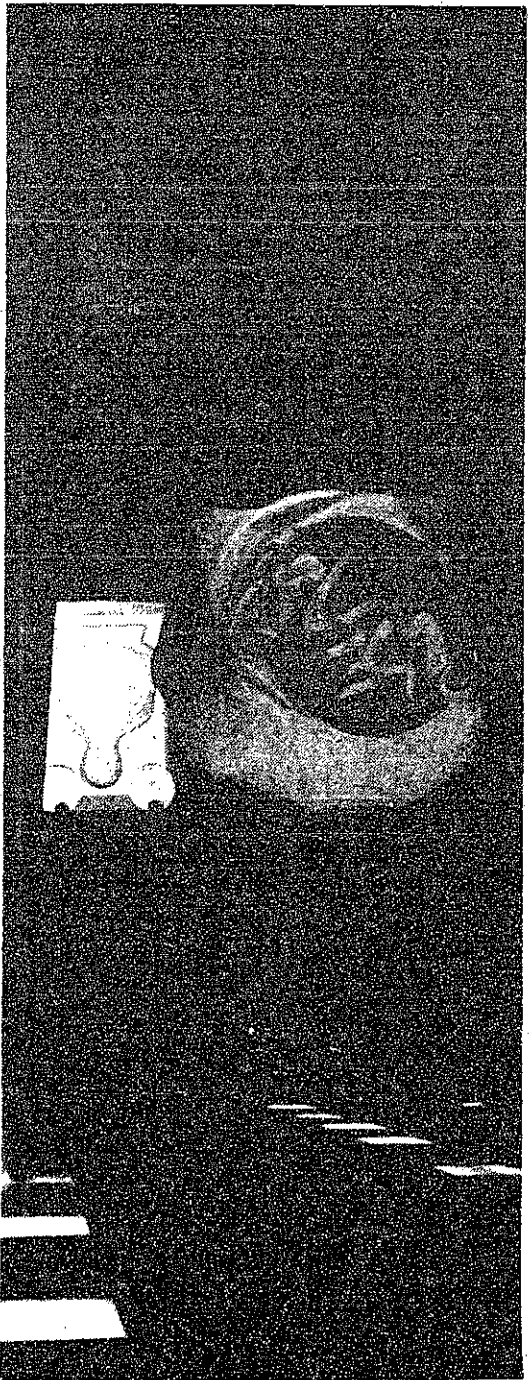
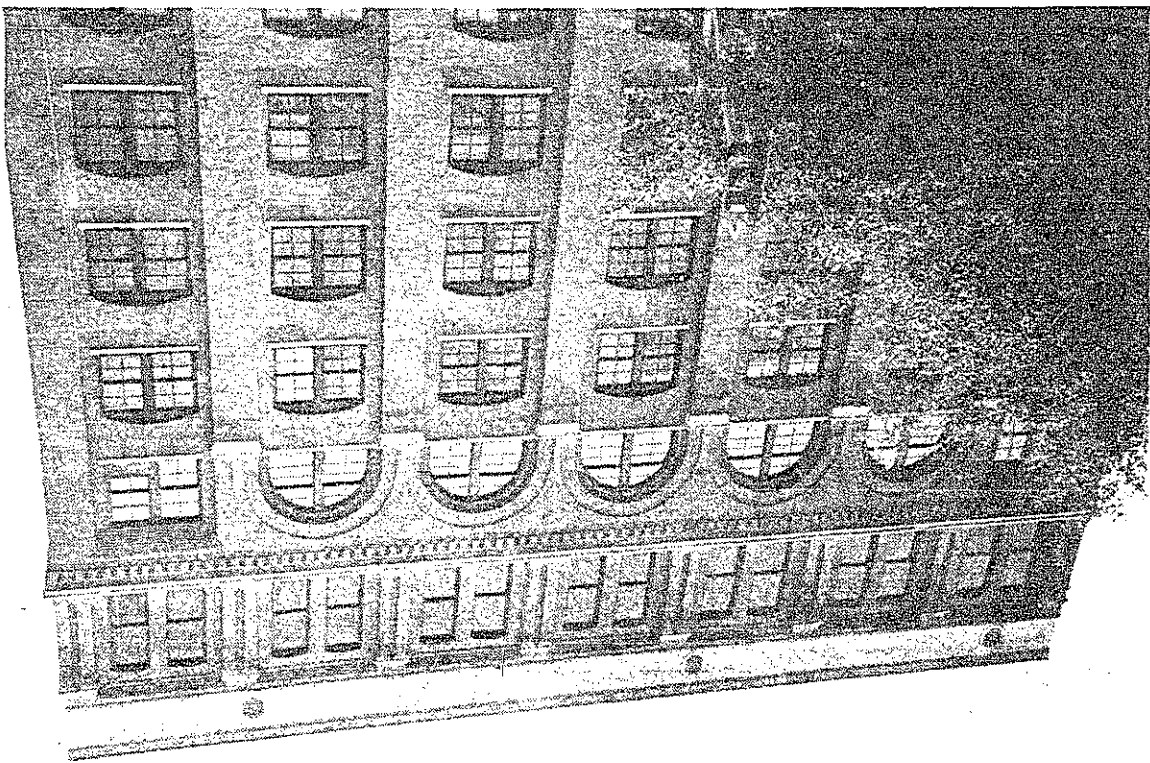
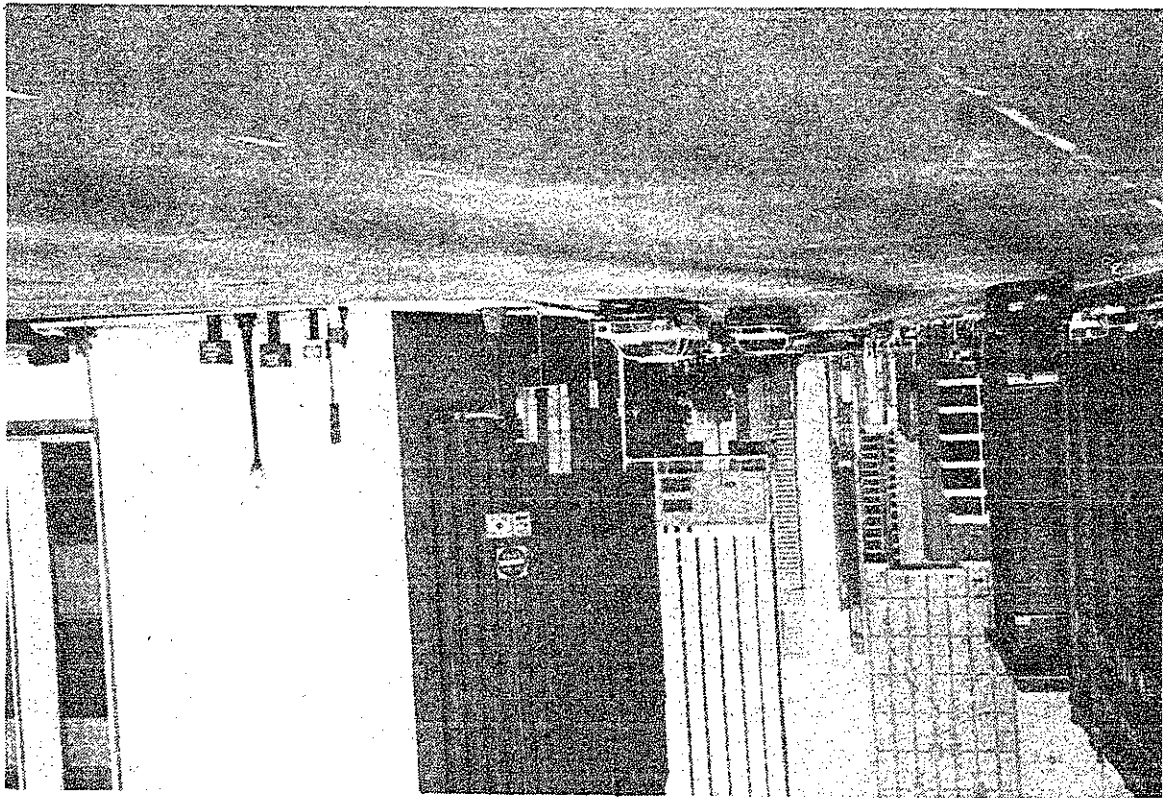
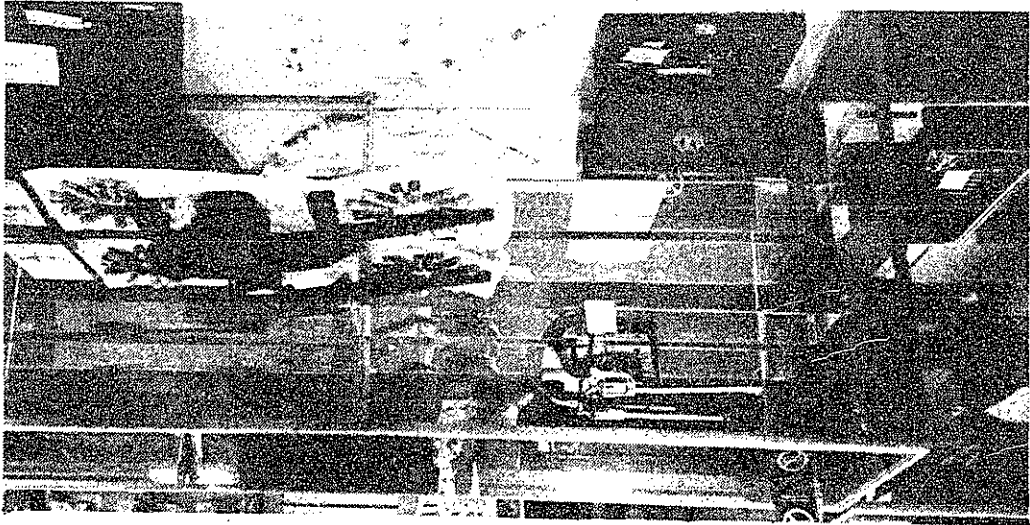


By
Jonathan
Richmond



Thought

Images of Dallas/Fort Worth, Texas



The train is a transport of life and death. The railroad ignited the development of Fair Park symbolize power and connectedness - to the outside world. The driverless people mover at Dallas/Fort Worth Airport is a symbol of modernity. Outside the preschool of the Jewish Community Center, the train stands for friendliness; it is a playful thing. A few feet away, a boxcar from the Belgian Railways - actually used to transport Jews and others to Nazi concentration camps - is a harbinger of death. You must walk through it to reach the exhibit at the Dallas Memorial Center for Holocaust Studies. Inside, visitors are brought to the end of the line. To the right is the scene in Dallas as on November 22, 1963. After viewing the sixth floor window from which the fatal shots were fired, tourists can have fun honing their firing skills on human-shaped targets at the indoor shooting ranges of Shooters Palace. At Fort Worth's temple of killing, you can find every shape and size of firearm, "all competitively priced and beautifully displayed," as the advertisement says. "Bring the whole family along to Shooters Palace. We've got something for everyone."

Long, dull military history's thesis is only window dressing

A COUNTRY MADE BY WAR

By Geoffrey Perret.
Random House, 629 pp., \$22.50

By DAVID P. HAMILTON

THE TRUISM THAT A NATION is a product of its history has exercised a peculiar fascination over Geoffrey Perret, whose latest book on the subject is long, dull, and not even terribly relevant. Nine major wars in 200 years, he writes, have been "like the rungs on a ladder by which [the United States] rose to greatness. No other nation has triumphed so long, so consistently, or on such a vast scale, through force of arms."

In more than 600 pages of *A Country Made By War*, however, Perret succeeds only in providing a strangely disjointed American military history replete with tactical descriptions of major battles and assessments of relative technological and strategic advantage, but lacking an overall framework within which to make a historical analysis.

The very simplicity of Perret's thesis leaves him open to ridicule, a possibility that only strikes the author near the end of his work. "To describe any great power as being in some way 'made' by war risks being dismissed as offering no more than a glimpse of the obvious," he writes.

Too true. Perret's justification of his theme consists of listing the great powers that have been *unmade* by war and pointing out that the United States has avoided their fate. This facile explanation not only completely overlooks economic factors,

but in crediting American global pre-eminence almost wholly to force of arms it inflates the importance of the armed forces beyond all reasonable limits. A quick dose of Paul Kennedy might be in order.

A telling instance is Perret's treatment of Dwight D. Eisenhower's farewell address, the famous warning about the "military-industrial complex." In a work devoted to placing the armed forces in the context of American history, it would hardly be improper to question the growing dominance of defense-related research and its consequences for the civilian economy and the health of the nation as a whole. Eisenhower's speech gets all of one paragraph in the book, however, and Perret sweeps modern criticism of the MIC under the rug in extolling the virtues of "dual use" technologies.

The brief introduction to the work reinforces the suggestion that Perret's true interests lie with the fire and smoke of the battlefield, and not with rarefied historical study. Describing an infantryman immortalized in a Belleau Wood war memorial, he lingers over the figure's grim determination in the theater of war: "He is stripped to the waist, his naked flesh exposed to maiming and violent death, a raw expression of the savagery of hand-to-hand fighting. He is ready to kill or be killed."

Unfortunately, Perret lacks the narrative skill to really make his battlefield scenes interesting. Short, choppy sentences and inappropriate generalization ("What saved Savannah was treachery. The plan of attack was betrayed. The British prepared a huge killing ground.") obscure more than

they reveal. Furthermore, Perret's writing often falls into cliché and chatty colloquialisms that only draw attention away from the subject matter.

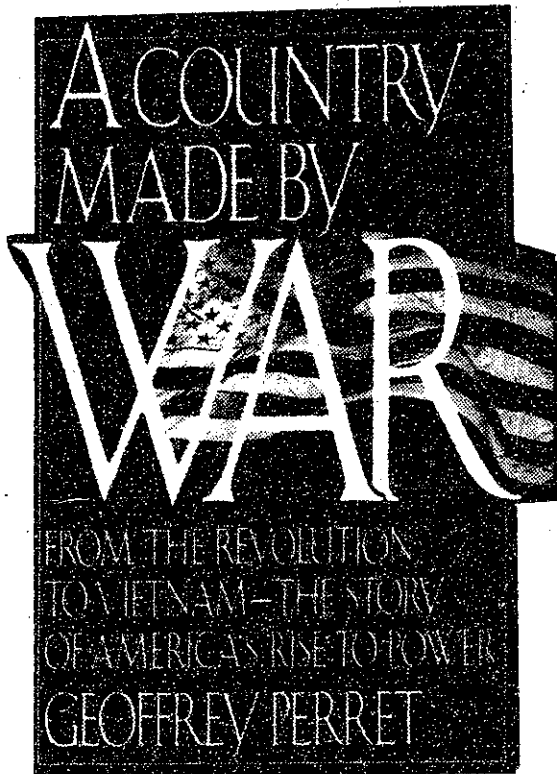
Even worse, the book is home to at least one factual error and many more questionable assertions. Describing the battle of Midway in World War II, Perret tells how an American submarine torpedoed the "unsalvageable" carrier *Yorktown* after the Japanese withdrawal. Unfortunately, Perret isn't even really close. The *Yorktown* was sunk by the Japanese submarine *I-168* even as a salvage crew was attempting repairs.

In a similar fashion, odd statements of "fact" arise *en masse* when Perret turns his attention to nuclear strategy. Confidently brushing aside the public pronouncements handed down by a generation of nuclear analysts, Perret writes that a pre-emptive first-strike strategy has dominated US war planning for decades. Electronic intelligence can provide American leaders with enough advance warning of an intended Soviet launch to prepare an American first strike, Perret suggests.

If it actually existed, such a policy would explain a great deal about the rationale behind highly accurate, silo-busting weapons such as the MX and Trident D-5 missiles. But American doctrine has long been predicated on the ability of strategic forces to "ride out" a Soviet first strike — thus the development first of hardened silos and later of submarine-launched weapons. Such a posture not only reduces the threat of accidental war due to misinter-

pretation of intelligence, but it's less threatening to the Soviets and helps keep itchy fingers off the nuclear trigger.

Taken together, Perret's inattention to detail, his clumsy prose, and the utterly inadequate treatment of his "theme" (which warrants all of eight pages, or just over one percent of his book) easily lead one to believe that *A Country Made By War* is just another glorified military history with enough window dressing masquerading as "serious analysis" to lend the book a veneer of respectability. There's no doubt that Perret cares deeply about his subject, but his sloppy and heavy-handed approach makes this a book to avoid.



Mark Morris gives witty, sensual dance interpretation of Purcell opera

DIDO AND AENEAS

Opera by Henry Purcell.
Directed by Mark Morris.
The Monnaie Dance Group.
Music by Emmanuel Music Group.
Music directed by Craig Smith.
At The Majestic Theatre, June 6-10.
Presented by Dance Umbrella.

By MARK ROBERTS

TWO WEEKS AGO, MARK MORRIS and his troupe of dancers, now based at the Monnaie Theatre in Brussels, gave their only scheduled American performances of *Dido and Aeneas*. Poor America — and lucky Boston — for this was a superb artistic event. Mark Morris, as choreographer and star, dancing the roles of both Dido and her evil counterpart, the sorceress, led his dancers through a sensual, witty performance of great beauty.

The action was wonderfully married to the music, deeply expressive of the emotional content of the story without being too literally representational. Baroque music, with its symmetries and order regulating the invention, provides an inspiration to the liberating vigor of modern dance, and can often supply a particularly striking accompaniment to it. Morris' choreography acknowledged not only the beauty and vitality of Purcell's music, but also that slight sense of silliness that lingers in the background of the baroque. The long, skipping runs with which the singers ended some of their arias were accompanied by some equally delicate, inventive movement, an act both of divine insanity and a little ridiculous, subverting the operatic grandeur of the emotions.

Except for the principals, the dancers were dressed alike, clad in black T-shirts

and long black sarongs; hair, lipstick, and earrings were colored to match. Although the androgynous dancers usually worked together, each moved independently giving the choral dancing a textured feel. One's eye absorbed the action across the whole stage, as if appreciating the beauty of a field of wheat rippling in the wind, but was continually drawn this way and that to the beauty of the individual movements comprising this pattern. Every gesture, down to the crooking of a finger joint, was part of the pattern. The hands, as sweeping fans of fingers or the jut of a fist, are important elements in Morris' symbolic repertoire, and sometimes they even formed the sign language of the deaf.

Morris himself is a virtuoso performer, both in his technical mastery and also in his gorgeous presence on stage. His Dido was no crude drag queen, but a grand

diva, awash in her own tragedy, her sexuality all the more compelling for its ambiguity. Here too Morris' wit surfaced; we noticed the theatricality of Dido's grief when she was alone with her serving women, encouraging them to excesses of woe.

Aeneas, played by Guillermo Resto, was a paragon of classical male beauty, stripped to the waist to display his sculptured back and fearsome Mediterranean profile. His dancing was tight and formal, built around a range of stock arm gestures that bespoke the facade Aeneas must construct to justify his departure to Dido. Only at the moment of their brief coupling did his angularity yield, in a scene that with a few rolling movements and the gentlest of brushings by a trailing arm conveyed a wealth of sensuality. The two lovers had one quick exchange of glances that typified the playfulness that Morris would sometimes mingle with the tragedy.

Standing like a warrior, with his back to the audience, Aeneas sings "Behold upon my bending spear, A monster's head stands bleeding," raising his sarong as he does so. The rest of the cast are turned away, but Dido, sitting beside him, glances quickly down at his crotch. The movement passes almost immediately, one cheeky twist amid a tapestry of detail.

Musically, the performance was tight and exciting. The need to keep a more regular rhythm for the benefit of the dancers did not unduly compromise Craig Smith's creativity, and only at one point in Dido's "Your counsel all is urged in vain" did the singing lapse a little.

Although only a little more than an hour long, this performance packed more creativity and vitality than I've seen on stage for some time. We can only hope that Morris can be lured from his Belgian home to perform for us again.

An excellent Mass opens Boston Early Music Festival

FEAST OF S. MARIA DELLA SAULTE

Mass by Claudio Monteverdi.
Directed by Andrew Parrott.
Part of the Boston Early Music Festival.
Sunday, May 28.

By DAVID STERN

THE FIFTH BOSTON EARLY MUSIC festival began this year with a performance of a reconstructed mass by Monteverdi, *Solemn High Mass for the Feast of S. Maria della Saulte*. Andrew Parrott conducted the choir and instrumentalists, some of whom played period instruments.

The performers were uniformly excel-

lent, as were the instrumentalists — a pickup ensemble, constructed for the Festival. Standout performers included bass soloist Jan Opalach, tenor Martin Kelley, and Paula Chaeaneuf on lute.

The mass was reconstructed by Parrott and Hugh Keyte from music of Monteverdi and various contemporaries. The music was beautiful, presenting several joyous and even ecstatic moments, including a sudden chromatically ascending melody half-way through the mass, and a complementary ascending chromatic melody at the end. Variety was also present throughout the music, which ranged from light-hearted, energetic fanfares to highly dramatic declarations to soft, sweet melodies.

The performance was serene — perhaps too serene. At a length of over ninety minutes (with no intermission), many moments seemed to drag.

St. Paul's Church, located in Harvard Square, was a fine choice of location for the concert. Grandiose, large, and beautiful, with acoustics to match, the cathedral was an appropriate setting for the mass.

The Boston Early Music Festival occurs in Boston every two years; it draws early music specialists from all over the world. The Festival featured performance of early music works (including an opera of Mozart, considered "early" music this year), lectures, demonstrations, and master classes.

Enchanting Hillerman detective stories set in richly detailed Navajo milieu

TALKING GOD

By Tony Hillerman
Harper & Row, 239 pp. \$17.95

By KATIE SCHWARZ

CAN'T DECIDE WHERE TO GO for summer vacation? Reading anything by Tony Hillerman will lure you to the Southwest, in particular the Navajo reservation that stretches — bigger than New England — over New Mexico and Arizona. Hillerman's novels are shelved with the mysteries in bookstores, but they might well go under Native American studies. His detectives are members of the Navajo Tribal Police, and their stories are spun against

the backdrop of the desert country from the perspective of the Dineh (Navajo). No matter how foreign the Dineh may seem to the first-time reader, Hillerman's perspective becomes richly detailed and human by the time the crime is solved.

This is Hillerman's eighth book involving Lt. Joe Leaphorn, agnostic about the Navajo religion, and Officer Jim Chee, a shaman who memorizes the story-songs chanted at Navajo ceremonies and dribbles colored sand on the ground to make the sand paintings that illustrate them. If you're already a Hillerman fan, you can celebrate that he has produced another good story so soon after last fall's exquisite *A Thief of Time*, which is a better starting point for the first-time reader. As

is usual with Hillerman, the mystery puzzle is complex, with several interlocking pieces that don't seem to fit together until the climax. But with Hillerman, what sticks with the reader isn't the solution to the puzzle but the moods and the details — the pain of Jim Chee in *The Ghostway*, trying to decide whether to leave his life as a Navajo to marry his white girlfriend, or the despair of Joe Leaphorn after the death of his wife in *A Thief of Time*.

Talking God leaves a particularly deep impression because it has a single connecting thread: the Yeibichai ritual, in which masked dancers represent the Holy People — including the Talking God — who the Navajo believe are alien and remote, indifferent to human affairs, and unknowable

by human intelligence. The image that lingers with me is Jim Chee surreptitiously exchanging a real Talking God mask in the Smithsonian for a replica because he can't bear the thought of the real one in the hands of unbelievers.

I've found the weak point in several of Hillerman's mysteries to be the caricatured kooky bad guys, complete with complexes about one parent or another. Unfortunately there is another such cardboard creep in *Talking God*, but he is more than balanced by the strange and delicately drawn character of Henry Highhawk, the blond one-quarter Indian activist who tries to believe in the Navajo spiritual traditions but remains a *belagana* (outsider) in Jim Chee's eyes.

ARTS

Valis points to exciting possibilities for growth of opera

VALIS

An opera by Tod Machover.
Based on the novel by Philip K. Dick.
Starring Patrick Mason, Janice Felty,
Terry Edwards, Mary King,
Daryl Runswick and Anne Azéma.
Conducted by Tod Machover.
The Cube, June 16 & 17.

By JONATHAN RICHMOND

TOD MACHOVER'S *Valis* is simply terrific. It's a great deal of fun; it's full of imagination; and, in human terms, it has substance too. Perhaps most importantly, *Valis* represents a turning from the self-indulgent tendencies seen in some computer music circles recently to create music of real merit and to employ it to dramatic effect.

Valis stems from the science fiction book of that name by Philip K. Dick. In a program note Machover says he was attracted to the work "since it seemed to uncannily address so many of my own concerns, from the obsessive search for unifying principles of human experience, to the complex interrelationship between individual mental imagination and external objective truth."

Valis takes us on an odyssey through the mind of Horselover Fat and his alter ego, Phil. It begins with a naked Fat (played by Patrick Mason) pierced by a strange pink light, which becomes an obsession of his. So, too, does a dream of an idyllic spot in Northern California, complete with a lovely and tender wife he has never seen.

Part I of the opera is dominated by themes of mental disorder, fragmentation and human pain, and these were powerfully conveyed.

"What he didn't know," says the narrator of Fat with a nice touch of the macabre, "was that it's sometimes an appropri-



Jonathan Richmond/The Tech
Patrick Mason as Fat/Phil, Daryl Runswick as Eric Lampton, and Anne Azéma as Sophia in Tod Machover's *Valis* at The Cube.

ate response to reality to go insane." Mason was absolutely convincing in his portrayal of madness; his singing was solid, too. His words were phrased compellingly to bring out their meaning; the ever psychological music consummated their drama, it's percussive nature driving through the irony.

Reflections on loneliness were poignant: the psyche-within was laid bare and terror

perhaps most effectively consummated during the moments of greatest stillness.

Janice Felty's suicidal Gloria came across well too. The deadpan scene between Fat and Gloria — as Gloria hunts down pills with which to finish herself off — was really rather a blast. As we hear, Phil asks Gloria not to kill herself as a favor to him, "a lousy idea" which only makes her feel guilty.

Terry Edwards' dark voice, deliberate movements and a larger-than-life stage presence made him thoroughly sinister as Dr. Stone, the psychiatrist.

Valis uses space effectively — vertically as well as horizontally — with characters appearing at different levels. A space opens up on the ground floor level to reveal a mental hospital wing; a story up the Lamptons — a rock group come to proclaim the message of *Valis* ("Vast Active Living Intelligent System") — launch Part II of the opera with their show (accompanied by a video which wasn't quite good enough; one of the production's few disappointments.) Mary King and Daryl Runswick as the Lamptons put on a good act, their brand of rock fitting naturally into the score as a whole.

Anne Azéma has an angelic voice, so it was quite appropriate that she be chosen to portray the (initially-at-any-rate) soothing Sophia, sent to reassure Phil. She did the job nicely.

The closing passages of Part II contain some of the opera's strongest music (there's a passacaglia of monumental proportions), and also some of the most psychologically revealing moments. Phil walks into the pool chanting "I'm not afraid." The suffocatingly climactic music and staging quickly lead us to believe otherwise.

Although the audience adored *Valis*, one critic complained that the opera was cliché-ridden. But new ways are used to cast fresh light on ancient human themes, and a deliciously black humor adds substance and entertainment to what might otherwise be statements of the obvious.

I liked *Valis* for its vitality, its originality, its humor and its humanity. It points to exciting new possibilities for the growth of opera into the 21st century.

Ulysses Productions excels in interpretation of enigmatic works

THEATRE II

Written by Samuel Beckett.
Directed by Kevin Cunningham '84.
Starring Wendy Leigh '90,
Joel Gluck '86, and Paul Cox.

SUICIDE IN B FLAT

Written by Sam Shepard.
Directed by Kevin Cunningham '84.
Starring Nikos Katis, Andrew Hernon, Jeff Robinson, Susan Veronica Trachta, Seth Kanor, and Shae D'lyn Wood.
At the Lyric Stage, 54 Charles Street, Boston, through July 15.
Produced by Ulysses Productions Ltd.

By SETH GORDON

ULYSSES PRODUCTIONS IS A YOUNG theater company with deep MIT roots; many of its members are alumni of Drama-

shop or the Shakespeare Ensemble. Perhaps this is why Ulysses has kicked off its summer season with two plays about suicide. In Samuel Beckett's *Theatre II*, a lonely barge-worker (Paul Cox) is contemplating suicide, and two mysterious guests (Joel Gluck '86 and Wendy Leigh '90) search for a reason why he shouldn't. In Sam Shepard's *Suicide in B Flat*, a legendary jazz player (Seth Kanor) is found dead, and the detectives investigating the case (Nikos Katis, Andrew Hernon) are drawn into the aura of the occult which surrounds his disappearance.

Theatre II opens with Cox's character, the potential suicide, poised and rigid before a 25th-story window. While he stands, two business-suited visitors, Bertrand (Leigh) and Morvan (Gluck), discuss his life. Morvan has a briefcase full of testimony about the other man's life and per-



Detectives Pablo (Nikos Katis) and Louis (Andrew Hernon) discuss their murder case in *Suicide in B Flat*.

Watered-down Russell film doesn't shock enough

THE RAINBOW

Produced and directed by Ken Russell.
Screenplay by Ken and Vivian Russell.
Adapted from the novel
by D. H. Lawrence.
Starring Sammi Davis, Paul McGann, and
Amanda Donohoe.
Now playing at the Nickelodeon Theater.

By MANAVENDRA K. THAKUR

AFTER MORE THAN two decades of overblown, outrageous, twisted filmmaking, one might expect that Russell would be ready to settle down a little. Or at least in his latest film, *The Rainbow*, he seems to be going for something that might vaguely pass for subtlety. Unfortunately, the diabolical Russell of old still pokes his head through in unpredictable ways. As a result, the film is not wild enough to match the playful excess of Russell's more typical fare, and the film is not subtle enough to succeed as a nuanced work of art. The film is a bastardized muddle instead, with an impact comparable to that of a wet mop.

Russell bases his film on the D. H. Lawrence novel, which tells the story of a Midlands England farming family at the turn of the century. The novel follows four generations of the family as they till the land,

eke out a living, and sacrifice personal freedom for the common good. Like other Lawrence heroines, Ursula — who rejects the family values in the last third of the novel — is ambitious and sexually precocious, questions everything, and yearns to be different. As might be expected, Russell's film version eschews the dull peasant lives of the earlier generations to tell the story of Ursula, played by Sammi Davis.

(Russell echoes Lawrence's own emphasis upon the youngest generation. Ursula and her sister Gudrun appear in another book — and the 1969 Russell film — *Women in Love*.)



Sammi Davis in D. H. Lawrence's *The Rainbow*.

The problem with the film is that it shortchanges the qualities that gave Lawrence's novel its notoriety. Ursula was dubbed the "first modern woman in literature" and "the first 20th century free spirit." True, Russell's version of Ursula is portrayed as a free spirit, even before the opening credits. But in this day and age, her attitudes simply don't evoke the kinds of reactions that they once did. Consequently, the story loses a great deal of its potential impact.

It is true that some viewers will undoubtedly identify with Ursula, and others may be truly shocked by her open sexuality. (She first has an affair with her female athletics teacher, and then she falls for a handsome young soldier fighting in the Boer War.) However, one can't help but be cynical, because Russell is still up to his usual tricks. In one scene, Ursula walks through a beautiful, green meadow as dreamy wisps of mist float all around. Suddenly, the scene turns into a nightmare as a bunch of horses come out of nowhere and chase a thoroughly frightened Ursula to the outlying fence. It's all nonsense, but whereas *Tommy* (1975) and *Lair of the White Worm* (1988) were good, fun nonsense, *The Rainbow* is not all that much fun to watch, and it doesn't ignite nearly as many sparks as his other films.

sonality, neatly filed by subject. Prodded by Bertrand, he reads from these dossiers, seeking a reason for the man to live.

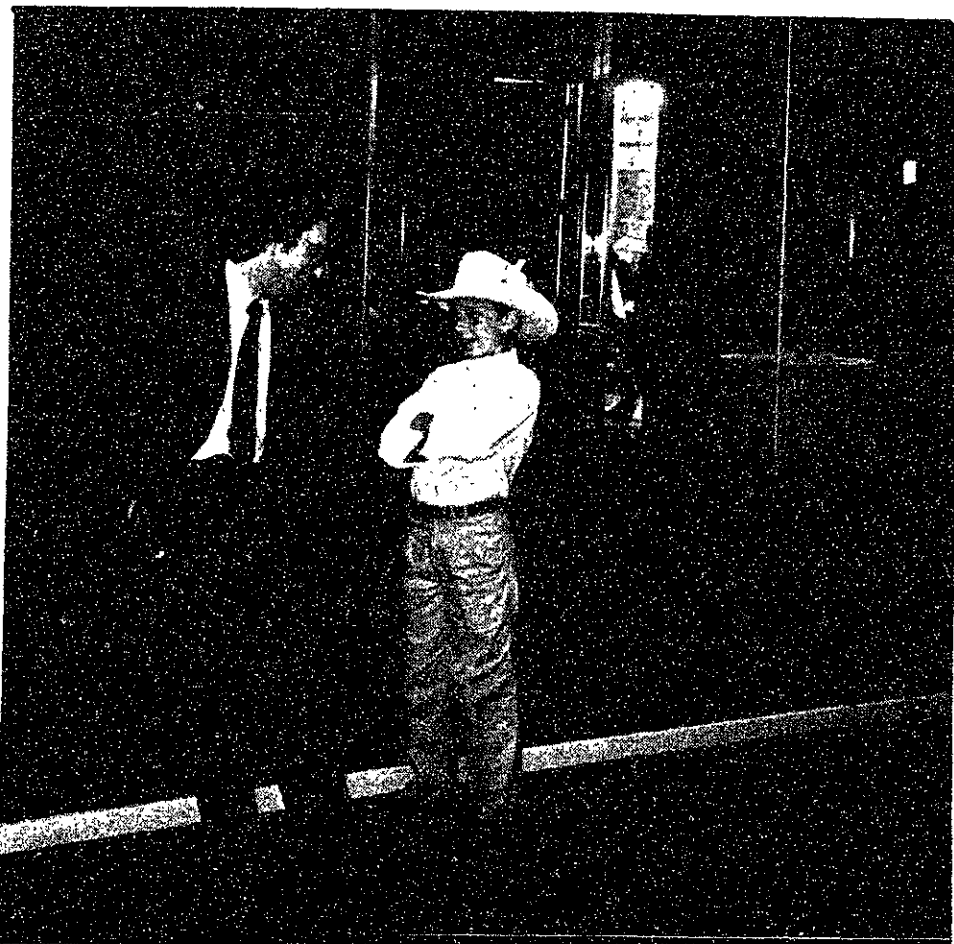
Theatre II's cast excels in its interpretation of Beckett's enigmatic work, which scarcely gives any clue why two business-suited visitors discuss whether one lonely man has a reason to live. Lesser actors might have copped out by portraying them as social workers, police officers, or disinterested philosophers, but Leigh and Gluck make their characters vivid while keeping their role mysterious. The events in the play seem real, but fit neither an obvious plot nor a realist's "slice of life."

Beckett's introverted brooding is followed by Sam Shepard's extroverted raving. Pablo (Katis) and Louis (Hernon) seek clues about Niles Morris, an apparently dead jazz musician (Kanor). As *Suicide in B Flat* opens, though, the detectives are clueless. Louis feels compelled to cut his throat with a butcher knife. Niles appears on the scene, unnoticed by all, followed by a young companion, Paullette (Shae D'lyn Wood). Niles dresses up as Pecos Bill and Paullette shoots him with an arrow. From there, the story gets weird.

At a few points, the players lose momentum, and their speeches degenerate into mere bombast. At its best moments, though, watching *Suicide in B Flat* is like reading *Zippy the Pinhead* while on LSD. I didn't understand it, but I enjoyed it.

The marriage of David Kazdan '81 and Laura Gooch '82

An MIT affair



It was a big MIT affair for the marriage of David Kazdan and Laura Gooch at Thistle Hill, Fort Worth, Texas, on Sunday May 28, 1989.

Pictured above is the MIT contingent. Back row: Suk Lee '82 and Emi Lee '84 (married 1987) and Ken Segel '83. Middle row: Robert S. Gooch '51, Bill Gooch '78, Tom Gooch '77, Jonathan Richmond 'G and Matthew Stern '82. Front row: Professor Karen Gleason '82, Karen Fortal '82, David Kazdan '81 and Laura Gooch '82.

Standing in front of Robert Gooch is David's nephew Brent Lazar '00, who made an unauthorized appearance: he's clearly at the start of a promising career in hacking. This photo by Philip Kazdan. Other photos by Jonathan Richmond.

Above right is the string quartet, which played "Arise All Ye of MIT" after the ceremony.

By
Jonathan
Richmond

ARTS

Kenneth Loach's Looks and Smiles movingly informs British working class

LOOKS AND SMILES

Directed by Kenneth Loach.
B/W cinematography by Chris Menges.
Starring Graham Green, Carolyn
Nicholson, and Tony Pitts.
Plays tomorrow at 8:10 pm
at the Museum of Fine Arts.

By MANAVENDRA K. THAKUR

PERHAPS THE MOST DUBIOUS legacy of Margaret Thatcher's 10-year rule has been the extreme polarization that has marked almost every level of British society and politics. Thatcher's heavy-handed attitude towards organized labor has stirred considerable resentment, and her attempts to privatize government services and roll back the British welfare state have been bitterly opposed. But the arts world has not ignored the issue: British cinema in particular has witnessed the rise of a whole new wave of filmmaking. As might be expected, many of their films have responded to Thatcherism with angry criticism and savage satire.

Looks and Smiles, however, is one film that takes the opposite track. It is a 1981 film by Kenneth Loach, a director with impeccable leftist credentials, and it presents a straightforward, linear story about the lives of three white working class youths in the industrial city of Sheffield, England. Loach and screenwriter Barry Hines eschew invective or polemics and refuse to engage in any introspection or social commentary. Indeed, except for one character's brief outburst against the

army's role in Ireland, the film does not mention politics at all.

Instead, Loach and Hines draw on the power of direct observation and simple narrative to tap into the "collective unconscious" of the British working class (to borrow a phrase from Vincent Canby). The film tells its story without looking forward or backwards, and Chris Menges' black and white cinematography captures the quiet desperation of modern British working class life in crisp detail without engaging in any overt manipulation. These qualities impart the film's images and characters with an unmistakable sense of authenticity, and that authenticity is brought home and crystallized by the extraordinarily honest performances from the three lead actors.

The film that emerges is a moving, unsentimental portrait of white working class youths as they live with and deal with the grim realities facing them. Loach's and Hines' refusal to point an accusing finger at any one government or person enables them to concentrate entirely on the characters and their lives. That strong focus is why the film can humanize its characters so effectively.

By the time that *Looks and Smiles* ends on a pregnant freeze frame, one can't help but reflect on how the film's title — initially so bright and attractive — now seems bittersweet and ironic. In truth, that transformation of perspective is a muted metaphor for the severe disillusionment facing British leftists and idealists in the

face of Thatcher's resounding popularity. By enabling viewers to experience for themselves a piece of that disillusionment and by giving potent expression to contemporary social realities, the film transcends its limitations and redeems both itself and those it so unflinchingly observes.

BINGO, BRIDESMAIDS & BRACES

Co-produced and directed by
Gillian Armstrong.

With Diana, Josie, and Kerry.

Plays Thursday and Friday at 6:30 pm
at the Museum of Fine Arts.

THE BASIC IDEA IS SO SIMPLE that one can't help but wonder why documentary filmmakers don't pursue it more often: make a film that interviews interesting people at a young age and then follow along at regular intervals as the kids grow up and become adults. The contradictions, affirmations, and vicissitudes of life are just sitting there, waiting for someone to capture them in all their complexity. That's what Gillian Armstrong has tried to do in *Bingo, Bridesmaids & Braces*, a film that traces the lives of three young working class Australian women. Unfortunately, the film's editing is too scattershot to reveal any universal value in the changes and growth of these three women.

In 1976, Armstrong made her directorial debut with a 25-minute short film called *Smokes and Lollies*. In it, the three women, who were all 14 years old at the time, revealed their romantic dreams about hus-

bands, weddings, and motherhood to Armstrong's camera. All three said they wanted to wait until age 18 to get married.

Four years later, in the 47-minute-long *14's Good, 18's Better*, Armstrong interviewed the same three girls again. Armstrong found that Diana was both married and pregnant and her husband was being convicted of an assault charge. Kerry had broken off an engagement at age 17 and firmly believed in the importance of a career. Josie had become pregnant at age 15.

In 1988, Armstrong once again decided to interview the three women, who were then 26 years old. *Bingo, Bridesmaids & Braces* includes footage filmed for the previous two films as well as new footage, so Armstrong's latest film is a full-length feature documentary. The unfortunate reality is, however, that the film is muddled.

For example, the film often jumps repeatedly and rapidly from one time frame to another without warning. At other times, the women offer articulate and fascinating insights into their lives, but they do so in voice-overs while the images on the screen typically show them washing dishes or sending the kids off to school. The exceedingly uninformative images often have little or nothing to do with the

Nevertheless, the conclusion about *Bingo, Bridesmaids & Braces* is inescapable: the finished product has a certain intrinsic value, but that value is unnecessarily diminished and undermined by the film's haphazard construction.

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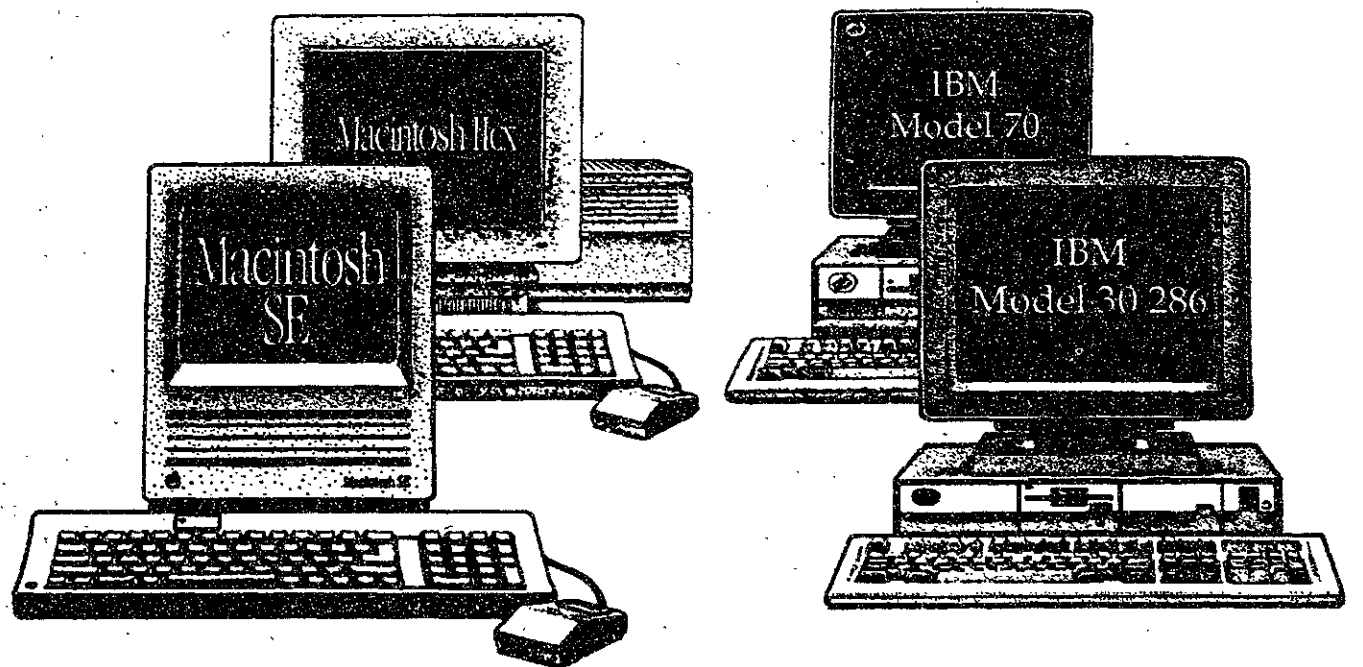
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Commencement address of Paul Tsongas

(The following is a transcript of the speech by Paul Tsongas, chairman of the state Board of Higher Education and a former Democratic senator from Massachusetts, to the graduates and guests at Commencement on Monday, June 5.)

Before I begin, I think we should pause to remember the slain students in China. The authorities in China know full well that history will record their brutality. They have prepared for that legacy. What they are not prepared for is that history will also record their futility.

thought in this country.

At this point I would like to give you a moment to applaud your families who have supported you all these years. They are here at your commencement to share this moment. Your years at MIT have gladdened their hearts, deepened their pride and destroyed their pocketbooks.

I have two thoughts that I would like to leave with you today, and perhaps I could illustrate each with a story. It was a myth that's often perpetuated at commencement that holds that only hope and promise lie beyond

merely part of our earthly voyage. What is intriguing is that looking at you, no one can say who will do what or who will be what. When I graduated from college, if the speaker had announced that one of us sitting there would be elected to the United States Senate at the age of 37, and come down with cancer at the age of 42, I would have been absolutely and totally certain that neither event would happen to me. And yet, both did.

And at your reunions, similar tales of unlikelyhood will be told. Yet is the very unlikelyhood that cries out for stabilizing forces. For handles to grab on to. Well, they exist as well. The same old dull bromides you've heard about forever. Hard work. Family. Community. Love of others. Love of God's earth. Love of moments that are rare and wonderful. I will not preach these values to you, but they are there. Just don't be surprised when eventually you feel the same way. Some day your life will end. Don't fear your mortality, because it is this very mortality that gives meaning and depth and poignancy to all the days that will be granted to you.

My second message is less personal and more collective. No one is immune from the larger events of his or her time — the Depression, World War II, civil rights, Vietnam, the spring of 1989 in China. These events intrude upon our lives and radically affect our directions.

In my time it was the Kennedy call to public service in the Third World. Had there been no Peace Corps, my life would have been radically different. Recent times suggest the onslaught of AIDS. The ignoble effects of the Islamic Revolution. And the financial risk of mega-banks and debtor nations locked into a true fatal attraction. But I believe the dominant factor in your lives on a collective scale will be economic.

My father's generation gave to my generation a land of wealth and purpose and world economic dominance. My generation has enjoyed this wonderful power: influence abroad, comfort at home. Ah, the sweet pursuit of pleasure. A BMW in every garage, a weekend snort of cocaine by the pool. America's best and brightest flocking to Wall Street to follow the gods of Ivan Boesky and Michael Milken. Money. Untold wealth. Staggering wealth. Five hundred million dollars in one year. And best of all there is none of the grubbiness

felt and unrecognized battle for our future standard of living.

Are we fighting? Yes, we are. That's the good news. The bad news is that we are fighting the wrong war. We still pour our resources into the Cold War. The enemy is still the Russian bear. Ladies and gentlemen, the Cold

sachusetts and Utah tells you how far we have come. I think we're ready for that change, but the harder part is taking on our friends, taking on our trading competitors.

We in America have lost our edge. We are zigging when we should be zagging. When we

Don't fear your mortality, because it is this very mortality that gives meaning and depth and poignancy to all the days that will be granted to you.

War between the United States and the Soviet Union is over. Not because of anyone there or here being kinder or gentler, because of economic reality. These two aging boxers, with flabby mid-ribs, are losing their economic muscle.

Quite simply, they can't afford the Cold War. Harsh economic reality created Mikhail Gorbachev. Not an accident of history. I'm not calling for an abdication of our defense responsibilities. They remain. I am calling for recognition of the brave new world that exists. It is time to deal with the other war. The war with our friends. The war with Japan and Germany and Taiwan and Switzerland and Korea and France [who] sell to us and then take away our patrimony in return.

Can we turn our attention away from the Kremlin and face our new adversaries? I think so. I want to believe that America is ready for it. Let me illustrate. This story that I'm going to tell you is a true story.

When Mikhail Gorbachev and Ronald Reagan were negotiating the IMF treaty, they came to a point of deadlock. And the President got up and turned to Mr. Gorbachev with all the others there and he said, "I'm going to tell a story about Chairman Gorbachev." He said, "As part of *perestroika* [Mr. Gorbachev] called in the state police and said, 'we lose too many people in highway fatalities in this country. I tell you there should be no more speeding. If anyone speeds from here on in this country, they should be arrested. Do you understand?' They said, 'yes, we do.' He said, 'if you don't arrest them, it's your career.' So the edict went forth.

"Couple of weeks later he was at his retreat and overslept on a Monday morning. He remembered he had to be at the Kremlin

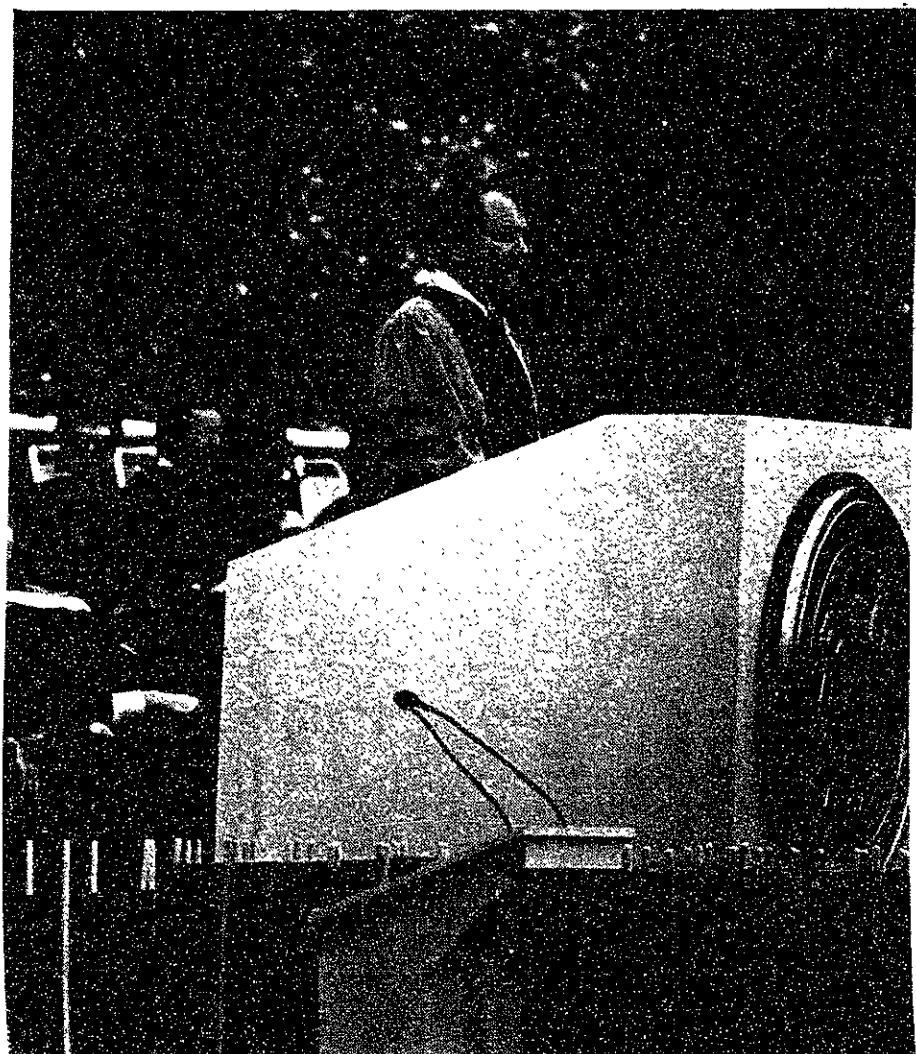
should be producing, we are consuming. We are borrowing, not saving. We have horizons measured in quarterly reports, not ten year plans. We produce with a casualness when the market demands precision. "Whistle while you work" has given way to "take this job and shove it."

The war that we talk about is not one of tanks or planes. It is a war of discipline, of purpose, of will, of determination, of hard work, of sacrifice, of attitude, and above all, of education. At the core it is essentially a war of culture. We have endured our tradition of anti-intellectualism long enough. Let us be done with it. Let us celebrate in intellect. Let us honor learning. Let us pay homage to the keen mind. Let us value those who think. We need to see, and to see clearly, what our nation's worries are in the 1990s and beyond. There is no need for Rambo or Conan the Barbarian or Dirty Harry. They are useless in this war. They are useless.

Our only weapons in this war of your lifetime are the weapons of the mind. In this country we consider those weapons to be curious at best. Unless we change this part of our culture, we will endure a steady decline in the American standard of living in a nation more and more owned by foreign interests. You deserve better. We have not served you well. We have squandered a good part of our collective patrimony. Perhaps here, more than almost any campus in America, the products of MIT will be called upon to restore that patrimony. You must become leaders in this cultural realignment.

Let me close with a story. There was a fellow from Massachusetts who went to the Grand Canyon. We don't have anything like that in Massachusetts except during the pothole season. And he was looking out at the abyss and 5,000 feet straight down, and was so awed by it that he tripped. And over he went. Fortunately there was a tree growing about 30 feet below the rim, and he grabbed it and he was hanging there and hanging there. And finally, in desperation, cried out, "is there anybody up there?" Finally, after much silence, a voice said, "I am here, I am the Lord." The man said, "Well, thank God you're there, God could you help me?" The Lord said, "well, I would be inclined to help you if you have faith in me. Do you have faith in me?" The fellow said, "well, of course I have faith in you, but can you hurry up, God, my fingers are slipping." God said, "all right. I will help you. To demonstrate your faith, let go." The man thought for a moment and cried out, "is there anybody else up there?"

In this new war, in a very real sense, you are what's up there. You are part of that horrid expression, the best and the brightest. It can be a terrible burden if you let it be, but it is the great challenge of your time. And being a warrior in that challenge should be wondrous. I wish you Godspeed for your sake, for my sake, and for my children's sake. Thank you.



Michael Franklin/The Tech

Paul Tsongas addresses the graduating Class of 1989.

In this era of the global village, the tide of democracy is running. And it will not cease, not in China, not in South Africa, not in any corner of this earth, where the simple idea of democracy and freedom has taken root. To the students in China, our counterparts, our brothers, our sisters, I say that we are with you, and we pray for your deliverance.

I would like to express my appreciation for your kind invitations to speak to you today. But I must say I accepted it with some hesitation. Thirty-one years ago I graduated from high school. I don't remember who spoke to me exactly then. Twenty-seven years ago I graduated from college. I don't remember who spoke to me then either. And twenty-two years ago I graduated from law school. Since that was the sixties, I didn't go to my graduation, so by definition I have no idea who spoke to me there either. I fear that I'm going to be the great trivia question at your reunion.

Before I begin, I would ask you to indulge me in three acknowledgments. First, I'd like to acknowledge my uncle, Alex Tsongas, and my Aunt Bertha. Alex is a graduate of the Class of 1928. My family is the classic American story of the role of education. My grandfather came over here in 1910. The good news is that he took his six children. He sent my father to Harvard, my two uncles to MIT, and my three aunts to Simmons. That's the good news. The bad news is that most of them became Republicans. But not Alex. I'd also like to acknowledge the fine work done by Dr. David Saxon in raising for the first time the standard of excellence in public higher education in Massachusetts. And finally I'd like to acknowledge the work of Dr. Paul Gray and the fact that MIT completed a recent study on competitiveness, which is just the latest example of MIT's contribution to vital

the halls of academe. Don't worry, be happy. Everything is fine.

That advice reminds me of the story of a farmer. He's in an automobile accident and he sues the other side for damages. When he came to trial, the attorney for the other side put the farmer on the stand and said, "At the time of the accident you said to the state trooper 'I feel fine'. Did you say that?" The farmer said, "Yes, I did." "Well," the attorney said, "then how can you possibly sue for damages?" "Well," the farmer said, "look, I was driving down the road in my pickup. I had the cow in the back of my truck. Your client came across the center span, hit me broadside, and both I and my cow went flying to the side of the road, very badly hurt. The state trooper arrived on the scene, went up to my cow, and said this cow's in terrible shape. Took out the revolver, bang! Right between the eyes. He said to me, How do you feel?"

Everything out there is not fine. A commencement is a time of joy. It is also a time of melancholy. But then again, so is life. When I look back at my graduating class, I remember co-equal faces, with co-equal hopes. And co-equal futures. The co-equality soon ended. And life took over. Life with its oddities, its surprises, its uneven effect, its — dare I say it — its law of averages.

The fact is that your class, as mine, will experience the same vagaries. Some of you will live long lives, some of you, sadly, will die young. Some of you will achieve great personal success. Some of you will never live up to your promise. Some of you will know inner peace. Some of you will be plagued by inner turmoil. Some of you will truly give of yourselves to those around you, and some of you will be consumed with self.

The fact of this unevenness is

Ladies and gentlemen, the Cold War between the United States and the Soviet Union is over.

of having to manufacture things, or to drill wells, or to lay down pipes, or to install train tracks.

This new wealth comes from sitting in an office. A wonderfully nice office. And playing with numbers. The magic words are arbitrage, hostile takeover, leveraged buyout, sale of assets. You would have to be truly stupid to think of inventing something or designing something or creating something. It's all in the numbers, man. It's all in the numbers. Forty years of increased consumption. Falling savings rate. Lagging productivity statistics. High cost of capital.

But most of all, numbers — numbers written in red. Debt. Real debt. Crushing debt. In the 1980s we have gone from being the world's largest creditor nation to the worst debtor nation the world has ever known. And all of this debt we give to you, our beloved children. America is on the verge of economic decline. We are now in an undeclared and un-

early. So he and his chauffeur ran out of the house, and as they were about to get into the huge limousine, he remembered his edict. He said, 'move over, I'll drive.' So, out they went out the driveway, down the highway, 95 miles an hour. And, sure enough, got pulled over by the police. In the police car there was a veteran cop and a rookie cop. The veteran cop looked to the side of the limousine and said to the rookie, 'you go arrest whoever's in that car.' The rookie went over, had a long conversation, finally came back. The veteran said, 'did you arrest him?' The rookie said, 'no, I did not.' The veteran said, 'well, who was he?' The rookie said, 'I don't know, but Gorbachev was his driver.'

The relevance of that story, if there is any, is that the story is the most-told piece of political humor by United States senators in America today. And that a story, that is essentially pro-Gorbachev, could be told in Mas-