

MIT begins reappraisal of its education

By Katie Schwarz
First in a series.

MIT has embarked on a "major reassessment of undergraduate education," said Dean of Humanities and Social Science Ann F. Friedlaender in a summary of a May meeting of humanities and engineering faculty.

The reappraisal could become one of the most significant landmarks in the Institute's history, said Dean for Undergraduate Education Margaret L. A. MacVicar '65.

The reform movement began a year ago with faculty concern that the humanities and social sciences are not receiving enough emphasis at MIT. The movement

now encompasses consideration of the science requirements and balance in engineering education.

MacVicar will coordinate four faculty committees evaluating Institute requirements, engineering curricula and the possible establishment of an integrative program in liberal arts and technology.

The organization of the curriculum review began with a meeting May 9 and 10 at the Woodstock Inn in Woodstock, Vermont, among representatives of the School of Engineering, the School of Humanities and Social Science and the Provost's Office.

Four committees lead review

Two faculty committees were established immediately after the Woodstock meeting to examine the role of the humanities and social sciences in an MIT education. Two more committees will

soon form to study the Institute's science and engineering education.

• A committee chaired by Professor of History Pauline R. Maier will draft a proposal for a

new structure of the humanities, arts and social sciences (HASS) requirement by the end of January. The committee will soon hold its second meeting, according to MacVicar.

Maier's committee will address concern among humanities faculty that the present humanities distribution requirement is "too diffuse" and fails to provide enough breadth, according to Friedlaender's Woodstock summary.

Educational reform has been in the works for a year. For a history of the developments during that year, see Page 2.

The HASS Committee includes faculty from MIT's five Schools (Architecture and Planning, Engineering, Humanities and Social Science, Management and Science). The deans of the respective schools and the Dean for Undergraduate Education appointed its members.

• Leo Marx, professor of Science, Technology and Society,

Moser, SCEP ask MacVicar to ensure student voice in reform

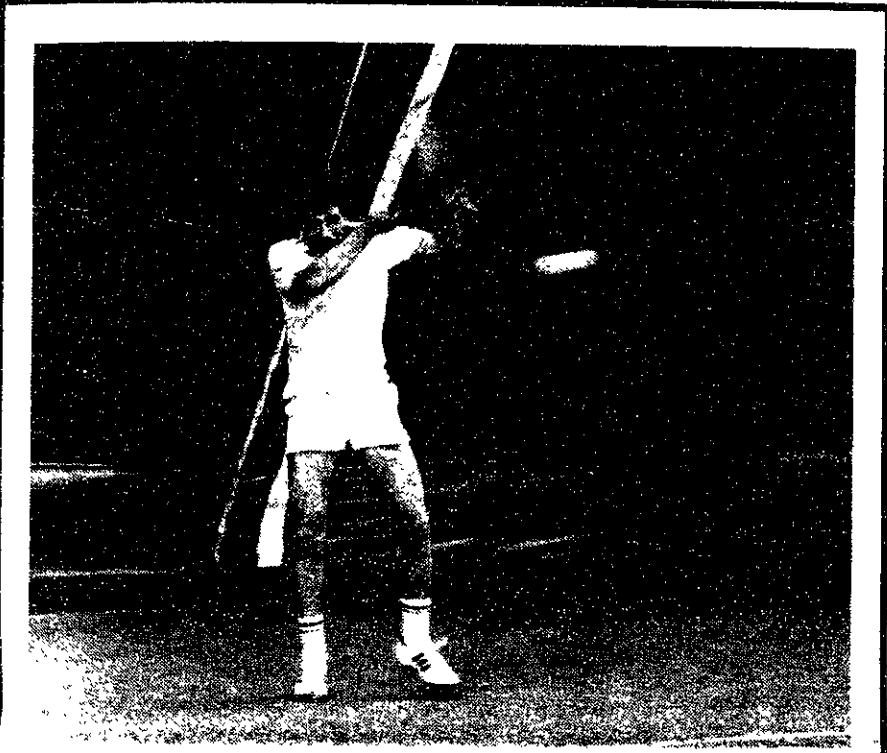
Student representatives have called for greater student involvement in curricular reforms. Both these representatives and Institute officials are trying to compile an accurate profile of the MIT undergraduate student.

Undergraduate Association (UA) President Bryan R. Moser '87, with Win Treese '86 and David P. Bruno '88 of the Student Committee on Educational Policy (SCEP), pressed for student input in the curriculum review in a meeting with Dean for Undergraduate Education Margaret L. A. MacVicar '65 in early August.

Moser said he had pushed for student involvement since June, when the committees on the HASS requirement and the integrative degree program were formed. He and UA Vice President Mary Tai '87 met with MacVicar in July and brought up the "need for serious involvement of students."

Moser also decided that SCEP should exist and recruited members for the previously inactive committee, according to Bruno. Moser, Treese and Bruno persuaded MacVicar to recommend that all three faculty committees now examining MIT education include undergraduates as special members. The UA Nominations Committee, which would nominate the students who would join the committees, is also working on this.

(Please turn to page 10)



Tech photo by Donald Chan

Ben Spehlmann '88 executes a forehand against a Clark University opponent Friday. MIT defeated Clark 8-1.

AIDS cases diagnosed at MIT

By Amy S. Gorin

Two members of the MIT community have been diagnosed as having Acquired Immune Deficiency Syndrome (AIDS), according to Medical Department Chief of Student Health Programs Dr. Mark A. Goldstein.

The diagnoses were made before the beginning of this term. According to Associate Dean for Student Affairs Robert M. Randolph, one victim is an Institute

employee, and the other is a graduate student who is no longer enrolled. Neither AIDS victim is living in the dormitory system.

The patients' right to confidentiality prevented Goldstein or Randolph from disclosing any more information about them.

If an enrolled student had AIDS, he or she would be al-

lowed to attend classes. "Institute policy is not to discriminate against anyone who is ill..." Randolph said. The Dean's Office is "not going to ask anybody to leave the system... [or] to not attend classes."

The MIT Medical Department uses a two step procedure to di-

(Please turn to page 11)

Committee to examine SDI

By Andy Fish

The Ad Hoc Committee on Military Involvement, studying the influences of military research on campus, "hopes to make a report by the end of the term," according to committee Chairman Carl Kaysen, director of the program in Science, Technology and Society.

The committee was formed in May, 1985, by Professor Arthur C. Smith, former chairman of the faculty, in response to a letter signed by 40 faculty members.

Kaysen said the letter questioned "the impact of a shift in government support for scientific research and education from the civilian to the military sector."

The committee is inspecting the influences of Draper and Lincoln Laboratories, ROTC and military research on the campus, Kaysen said.

"The first goal of the committee is information gathering," he stated. The committee is collecting data from the Office of Sponsored Research and the Com-

roller. A questionnaire has also been distributed to faculty members to measure their perceptions of current research conditions.

Kaysen acknowledged that the Strategic Defense Initiative (SDI) influenced the committee's formation. "SDI played a big role, but I wouldn't want to assign a weight to it."

"Quite a few people are very skeptical of SDI," Kaysen added. "This is reinforced by a negative reaction to hype. SDI is unusual by its degree of hype."

Committee member Vera Kistiakowsky, professor of physics, expressed concern about the "mission-oriented" nature of SDI research. She said SDI is "destroying the national research scene." Kistiakowsky termed SDI

(Please turn to page 13)

Student Center set to celebrate anniversary

By Betty McLaughlin

The MIT community marks the 20th anniversary of the Julius A. Stratton '23 Student Center this Wednesday. Stratton will be present, as performances by student music and drama groups highlight the celebration.

Former MIT President Julius A. Stratton '23 proposed construction of the Student Center in his 1959 inaugural address. Walker Memorial, which served as MIT's student center at that time, was becoming overcrowded as a

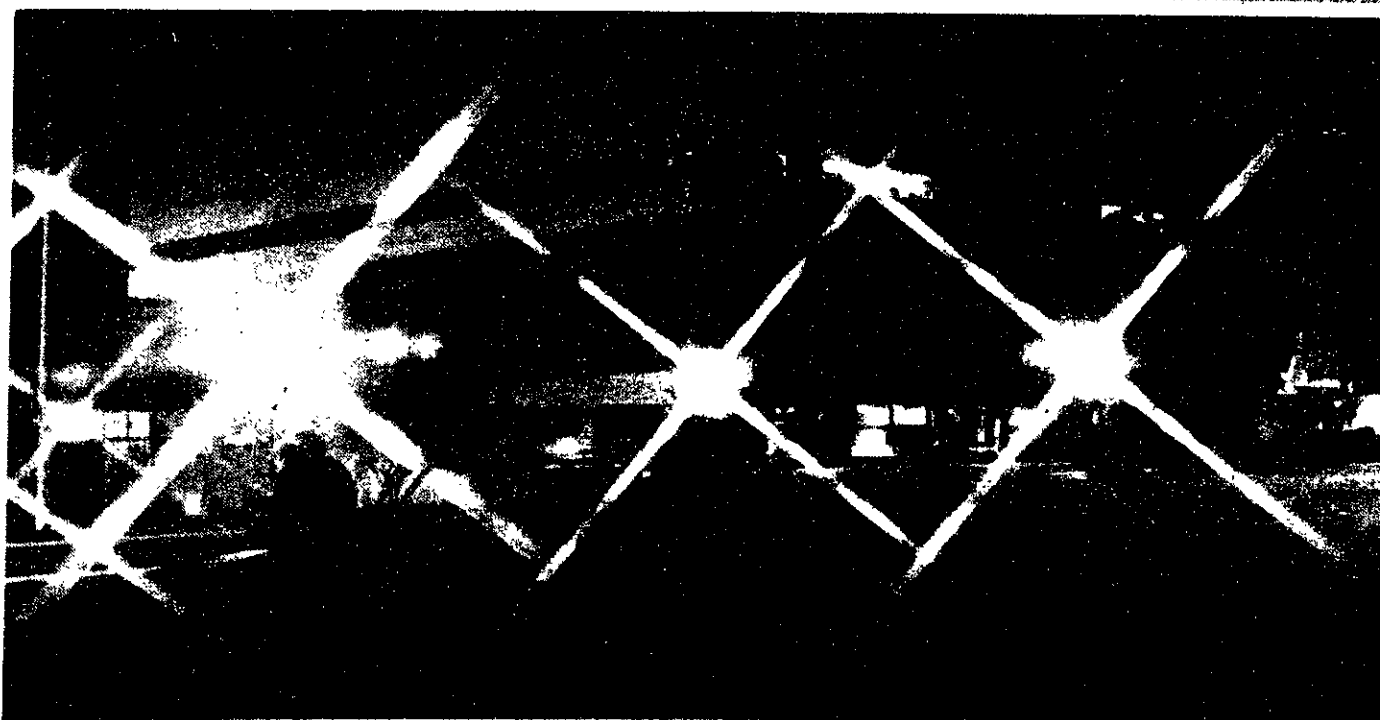
dining hall and student activities center, he said.

The Institute named the Student Center in honor of Stratton and opened it Oct. 9, 1965. The Second Century Fund, a \$66 million capital program, underwrote the construction costs. The fund was devoted to the provision of new facilities for both education and community, basic research, endowment and student aid funds.

Stratton will be present at an ice cream party sponsored by Food Services in the Sala de Puerto Rico. He will cut a cake in the shape of the Student Center donated by the Student Center Committee. Commemorative T-shirts will also be distributed.

The MIT Dramashop, the MIT Brass Ensemble, the Shakespeare Ensemble of MIT and the Musical Theatre Guild will each perform throughout the three and a half hour celebration.

(Please turn to page 13)



Tech photo by Moezaddin Karimediny

The Julius A. Stratton '23 Student Center celebrates its 20th anniversary tomorrow.

inside

Authentic instruments of the Baroque era. Page 8.

Royal schemes and deceitful plays. Page 9.

Committees review MIT requirements

(Continued from page 1)

chairs a committee to explore the goals and feasibility of a program integrating liberal arts, science, and technology. The committee will report to Friedlaender by the end of January.

The deans of the Schools of Humanities and Social Science, Engineering and Science appointed representatives of their schools to this committee.

• Professor of Chemistry Robert J. Silbey will head a School of Science committee evaluating the General Institute Requirements in mathematics and science. This committee has not yet met.

The committee will investigate whether the requirements provide the desired educational foundation and whether their rationale is clear, MacVicar said.

• Jack L. Kerrebrock, head of

the Department of Aeronautics and Astronautics, and Gerald L. Wilson '61, dean of Engineering, are organizing a review of engineering education. They will prepare a plan within the next few weeks. A School of Engineering committee will be established by the end of the fall term.

This committee will consider questions such as whether MIT should require five instead of four years for undergraduate degrees in engineering, MacVicar said. It will also evaluate the content and balance of engineering curricula.

Further problems to be examined

The Office of the Dean for Undergraduate Education will study further issues not covered by the four faculty committees, MacVicar said.

• Professor of Psychiatry Benson R. Snyder has just com-

pleted a study of the long-term effects of the education of MIT's Class of 1965. Snyder asserted in a 1971 book, *The Hidden Curriculum*, that a school's unstated values are more influential than its official curriculum. MacVicar will consider how Snyder's report bears on the curriculum review.

• Associate Provost for Educational Policy and Programs Samuel J. Keyser has expressed serious doubts about Residence/Orientation (R/O) Week. "It was unanimously agreed that the current method of welcoming students to the Institute . . . is highly dysfunctional," said Louis Menand III, special assistant to the provost, in a summary of a Woodstock session on student issues.

The faculty is worried that R/O gives "short shrift to the sense of a community of scho-

lars," MacVicar said. There should be more faculty/student contact during R/O, she continued. Keyser also objects to the current system of fraternity rush and residence selection, she said.

• The advising system for both freshmen and upperclassmen should be strengthened so that students can take fuller advantage of the Institute's resources, MacVicar said.

Many issues prompt reform

A combination of national and international concerns has focused attention on the role of science and technology in education, MacVicar said. "The timing is right" for MIT's self-examination.

"A mature appreciation of the interconnectedness of countries, peoples, cultures and economies" is the most important of these concerns, she emphasized. She also cited trade competition, a "fluid" political situation, the threat of nuclear war and health care. "Things are more complex than they ever used to be," she said.

Friedlaender remarked on the recent nationwide attention to the quality of higher education in a report she completed in June titled *An Integrative Education at MIT*. MIT has a responsibility to respond to a 1984 report by US Secretary of Education William Bennett accusing American education of general inadequacy, especially in the humanities, she said.

MacVicar stressed MIT's "public trust" as a reason for reviewing education. Students should be made conscious of "the responsibility to be thinking about the greater social impact and good" of their work, she explained. The faculty feels this "greater calling," she said, but

students are not aware of it.

MacVicar also emphasized the need for interdisciplinary study of problems related to both the technological and humanistic realms. She cited health and medicine as an example of such a problem. Medicine includes "the ethics of saving lives, of scarce resources and of access decisions," she explained.

Most professional scholars work at the boundaries of their disciplines, she continued. "A discipline is all boundaries and no center," but education focuses on the established center. She concluded that education needs to "catch up and show the inter-relatedness of things."

MIT takes "the next step"

The present curriculum review could be as important to MIT's future as the Institute's self-examination after World War II, MacVicar said.

The 1949 Report of the Committee on Educational Survey (The Lewis Report) shifted MIT from a "vocational" to a "professional" stance. The report also reaffirmed undergraduate engineering education, established the School of Humanities and Social Science, put in place the eight-term HASS requirement and provided the general foundation for MIT's development in the three decades that followed.

The Lewis Report was "part of our emergence" as a leading university, MacVicar said. The current reforms represent "the next step," she added.

Strengthening the role of the humanities in MIT's education will not necessarily result in a greater workload for students, MacVicar asserted. "We can accomplish better" education in the same amount of time.

Curricular reforms studied during last academic year

The movement toward educational reform began among the faculty a year ago and became serious last spring.

The Councils of the School of Engineering and the School of Humanities and Social Science held two meetings in the fall of 1984 to discuss "the Institute's curriculum, culture and student body," stated Dean of Humanities and Social Science Ann F. Friedlaender's summary of the Woodstock meeting.

Two concerns sparked the reform effort, according to the summary: a feeling on the part of the humanities faculty that the HASS requirement is unstructured and does not ensure enough breadth and a desire for better communication between the School of Engineering and the School of Humanities and Social Science.

MIT's engineering faculty had complained that its students were too narrowly educated, according to an article in the *New York Times*, Sept. 29.

Dean of Engineering Gerald L. Wilson '61 and Friedlaender appointed two committees in January, 1985 to produce a substantive agenda for discussion. John M. Deutch '61, appointed provost in February, accelerated the reform movement by creating the positions of Dean for Undergraduate Education and Associate Provost for Educational Policy and Programs.

He appointed Margaret L. A. MacVicar '65, professor of Physical Science, and Samuel J. Keyser, head of the Department of Linguistics and Philosophy, respectively, to the positions. Deutch also appointed additional members to the committees.

Both committees had finished their work by May. One of the two committees, chaired by Associate Professor of Literature Travis R. Merritt, reported on the history and current status of Institute humanities, arts and social sciences (HASS) programs

and requirements and compared them to corresponding programs at schools comparable to MIT.

The Merritt Committee found that the core of humanities subjects required at MIT until 1974 lost its coherence through increasing diversification and professional specialization of the humanities faculty. It also reported that most other institutions comparable to MIT have some kind of breadth or distribution requirement, but lack an integrated core of mandatory humanities subjects.

Kenneth Keniston, Professor of Science, Technology and Society, chaired the second committee. His group produced a report, titled *Visionary Studies*, which suggested possible future roles for the humanities in an MIT education.

The Keniston report urged MIT to work toward "dual literacy" in both the scientific and humanistic fields for all its students. The report also recommended overall expansion of the HASS requirement, greater structure and attention to breadth in the requirement and the establishment of more "interface" courses teaching both about technical issues and about their cultural contexts.

The Woodstock meeting in May was intended "to provide a forum in which a wide range of concerns . . . could be shared and to determine areas of agreement concerning the role of the liberal arts in a scientific and technical education," according to Friedlaender's summary.

Participants in the meeting included department and section heads within the Schools of Engineering and of Humanities and Social Science, the members of the Keniston and Merritt Committees, Deutch, MacVicar, Keyser and incoming Chairman of the Faculty Mary C. Potter.

The Woodstock meeting covered a range of topics, including much attention to the climate at

MIT, i.e., high pace and pressure and relatively low respect for the humanities. Participants at the meeting agreed that the Institute's main emphasis should continue to center on the education of scientists and engineers, and sought not to dilute that strength, but to broaden it.

Friedlaender wrote the final draft of a paper on *An Integrative Education at MIT* in June. She hopes to eventually attract 100 to 150 students per class to major in liberal arts while acquiring a strong scientific background. A new degree program should be established for these students which would concentrate on "the integration and synthesis of the many forms of knowledge," the paper states.

THE COUNTRY YOU PREFERRED NOT TO KNOW.

AMERICAN PICTURES

by Jacob Holdt

A DANE'S PERSONAL JOURNEY THROUGH AMERICA'S SOCIAL UNDERCLASS.

THURSDAY
OCTOBER 10
6:30 pm
ROOM 34-101

FRIDAY
OCTOBER 11
FORUM TO BE ARRANGED

FREE ADMISSION

A multi-media show sponsored by the Office of the President, the Office of the Dean of Student Affairs, the Office of the Dean, School of Humanities and Social Science, the Black Students Union, and the Hunger Action Group.



Manseur's
your image is our career

Hair & Skin Care Salon

"THE BEST CUTS IN BOSTON"

Appt. & Walk-in
231 Newbury Street

536-1605

Offers valid with all stylists
except owners & selected stylists

\$9.00 SPECIAL

with this ad or TV Disc

11am-12noon Mon-Thurs.

Thru 10/31/85

news roundup

World

Soviet plan would increase first strike capability — National Security Affairs Adviser Robert C. McFarlane said the Soviet plan for a 50 percent cut in nuclear warheads would increase Soviet first strike capability. He did say, however, that the plan is a constructive start for further arms talks.

US proposes "lending pool" at meeting of World Bank — The United States urged for the creation of an increased lending fund for the Third World countries at the meeting held Saturday in Seoul, South Korea. Secretary of Treasury James A. Baker III would do so using existing monetary resources. Baker confidently told the conference that the US-led recovery has helped improve the world economy. But the debtor nations disagreed, reporting stagnating economic growth, increasing trade restrictions and falling commodities trading that have cut off large markets. The US plans to introduce a new initiative on the world debt crisis when the meeting formally opens today.

Nation

Secret shuttle mission Atlantis lands in California — The Air Force and the National Aeronautics and Space Administration announced yesterday that the shuttle Atlantis had completed its mission and had landed in California. This was the only official announcement after a short news release four hours after launching on Thursday. Proponents of increased military uses for the shuttle argued that an expansion would help the US to counter the threat of Soviet space technology. Others believed that the US already has an enormous advantage in the militaristic use of space. Atlantis was carrying two Defense Satellite Communications Systems satellites known as DSCS-3.

US Catholic Bishops call for economic justice — American Catholic bishops, in the second draft of their proposed pastoral letter on the American economy, have again called on the US to make economic justice as great a priority as political liberty in this country and abroad. The bishops suggested, "...the sharing of economic power and to relate the economic system more accountably to the common good." The second draft was completely rewritten due to more than 10,000 pages of detailed criticism on the first draft. An intense debate on the proposed pastoral letter is expected when the National Conference of Catholic Bishops opens next month in Washington, DC.

Bloomington-Normal to receive Chrysler-Mitsubishi auto plant — Chrysler-Mitsubishi will site a \$500 million automobile plant in the Illinois twin cities. A congressional source told the Associated Press that the formal decision will be announced Monday. The new plant would pour an estimated \$100 million a year into the local economy in addition to creating about 8000 new jobs. Tennessee and Texas were among other sites considered.

Sports

Niekro wins 300th — Phil Niekro became the 18th pitcher in history to win 300 games, as the New York Yankees defeated the Toronto Blue Jays, 8-0. Tom Seaver of the Chicago White Sox also reached the 300 victory mark this season, early in August.

Ueberroth to combat drug use — Baseball Commissioner Peter Ueberroth said he will take action against baseball players in the near future who have admitted to taking drugs. He also said he would not be harsh in his judgments: first-time offenders will not be banned from playing.

West Germany sweeps Davis Cup semifinals — West Germany defeated Czechoslovakia, 5-0, in Davis Cup Semifinals play. West Germany will play Sweden Saturday for the title. Sweden, the defending champion, defeated Australia in its semifinals match.

Weather

Enjoy the sun, but wear a jacket — Brilliant sunshine will continue throughout the day, with highs in the high 60s. Clear and cold conditions will move in tonight. Tomorrow should be windy with highs near the 80s!

Inter - Religious Dating

A Three Session Discussion for Jews with Non-Jewish Partners

Wednesday, October 16, 23, 30
7:00 - 8:30 p.m.

Baker House, Master Suite Lounge
\$5.00 fee for three sessions

Led by Dr. Sally Bock, Ed.D.
Human Development Outreach Staff
Hillel Council of Greater Boston

Register at MIT Hillel by Oct. 11.
312 Memorial Drive 253-2982



**JOGGING
& BIKING
HEADQUARTERS**
WIDE SELECTION — FAMOUS LOW PRICES

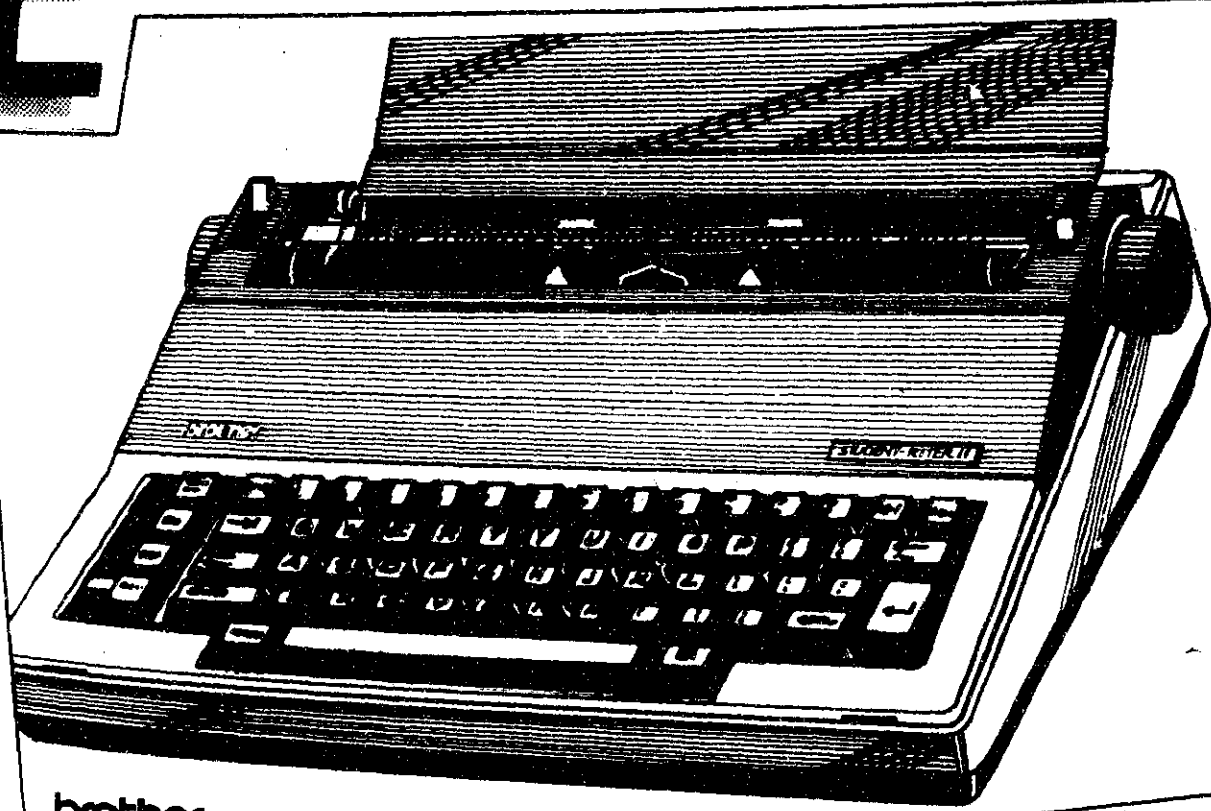
**SWEATPANTS
SWEATSHIRTS
JOGGING SUITS
ATHLETIC FOOTWEAR**

We feature JOG-A-LITE products for your safety when you jog or bike — for day and night use. We also carry lightweight nylon rain-coats and ponchos to keep you dry while you exercise.

**CENTRAL
WAR SURPLUS**
433 Mass. Ave.
Central Sq.
Cambridge

**MASS
ARMY NAVY**
895 Boylston St.
Boston
(across from Pru.)

Electronic learning aids



brother

- Brother Student-Riter II Electronic Daisy Wheel Typewriter offers big features in one small priced unit. Convenient one-step built-in correction and interchangeable daisy wheels. **NOW 189.95**
Reg. 219.95
- Brother CE-333 Electronic Daisy Wheel Typewriter (not shown) **NOW 249.95**
Reg. 299.95
- Brother EP-45 Personal Portable Printer (not shown) **NOW 149.95**
Reg. 189.95

HARVARD COOPERATIVE SOCIETY **the Coop**

Available at MIT, Student Center and Harvard Square stores. MIT Coop hours Mon-Fri 9:15-5:30. Harvard Square store Mon-Sat 9:20-5:45, Thurs till 8:30 pm. Coop Charge, MasterCard, Visa and American Express welcome.

IT STARTED IN MAY IN A SMALL TOWN
AND EVERY MONTH AFTER THAT
WHENEVER THE MOON WAS FULL...
IT CAME BACK.



STEPHEN KING'S
SILVER BULLET
HE MAKES EVIL AN EVENT.

DINO DE LAURENTIIS PRESENTS
STEPHEN KING'S SILVER BULLET GARY BUSEY EVERETT MCGILL
COREY HAIM MUSIC BY JAY CHATTAWAY BASED ON THE
NOVELETTE "CYCLE OF THE WEREWOLF" BY STEPHEN KING
SCREENPLAY BY STEPHEN KING PRODUCED BY MARTHA SCHUMACHER
DIRECTED BY DANIEL ATTIAS A PARAMOUNT PICTURE

Starts Friday, October 11 at a theater near you.

opinion

Editorials

Humanities, social sciences must play a greater role

MIT has begun a far-reaching review of its undergraduate education. The process is sure to be long and complex, but it is needed. *The Tech* applauds the initiative of the Provost's Office, the Office of the Dean for Undergraduate Education and the Schools of Engineering and Humanities and Social Science.

The Institute has evolved haphazardly over the past decade. The explosive growth of engineering knowledge has led departments to cram more and more into their requirements, and attention has centered on educational problems of the moment, without consideration of the longer term. It is high time to step back and think about the overall purpose of MIT undergraduate education.

A greater role for the humanities and social sciences in MIT education is critical. Students should take advantage of the already present excellence of the humanities department. Science and technology are large forces in society, and MIT graduates must be capable of making informed judgments of technical and social

issues. Dean for Undergraduate Education Margaret MacVicar has rightly emphasized the Institute's "public trust" and its obligation to consider the effects of technology on the world.

Students need to study the relationship of technology and culture. But at the same time, the humanities department should retain "pure" humanities at its heart, and should not be overrun by "crossbreeding" with engineering.

The faculty's concern with the lack of focus and breadth provided by the present humanities distribution requirement is valid. Three distribution subjects in fields of the student's choosing do not adequately represent the liberal arts.

The Institute has tremendous unfulfilled potential. The writers of the Keniston Report believe that MIT can achieve a goal of "dual literacy" in science and humanities for all its students. Students, faculty and administration should commit themselves to this goal.

Students must speak out on educational reform

Students must have a voice in the current educational reform. Faculty committees are now planning changes in the Institute's requirements and curricula based on their perceptions of the climate and student body. Students and faculty must work together to make sure their perceptions are accurate.

All four faculty committees must include official student members. Undergraduate Association President Bryan Moser and the Student Committee on Educational Policy have already made significant contributions by pressing for a student role.

But all students, not just committee members, must take part in MIT's self-examination. Committees should solicit student input through open forums and surveys.

Students can inform themselves about the progress of the reform movement so far by

reading last May's committee reports and Woodstock meeting notes, available from the Office of the Dean of Humanities and Social Science (E51-234).

MacVicar welcomes personal communication. Write to her at the Office of the Dean for Undergraduate Education (3-234) with your views on MIT's climate and curriculum. Students should also express their views to SCEP Chairman Carl LaCombe (W20-401) and to the faculty in charge of the four committees:

- Pauline Maier (14N-413), HASS Requirement;
- Leo Marx (E51-228A), Integrated Program;
- Robert Silbey (6-225), Institute Science Requirements;
- Jack Kerrebrock (33-207), Engineering Education.

Community must educate itself concerning AIDS

The Acquired Immune Deficiency Syndrome (AIDS) has reached the MIT community. The community should respond to this news with intelligent, informed decisions and actions, not with the kneejerk response seen in much of the outside world.

Many consider AIDS as "the gay disease." Although a majority of AIDS victims are homosexual males, the virus is spreading to the heterosexual community.

The HTLV-III retrovirus, which causes AIDS, has so far been viewed as spread primarily through sexual contact, contaminated drug needles and blood transfusions.

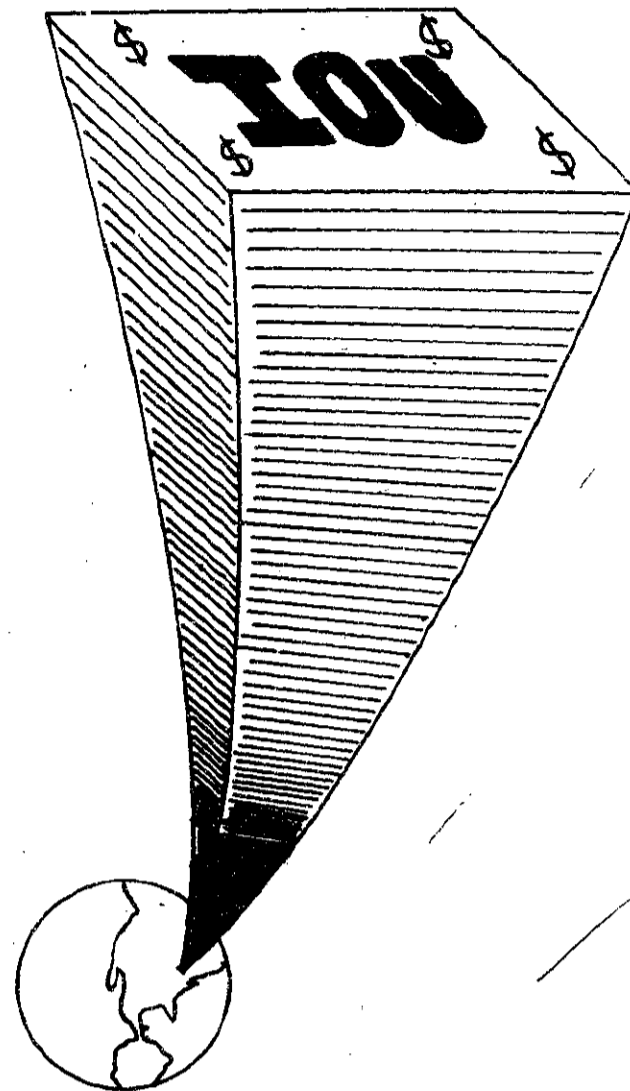
Some groups use AIDS as a reason to dis-

criminate against homosexuals. They utilize scare tactics to garner support. Some want to senselessly retaliate against people with AIDS and those who are at high risk for the disease.

AIDS is a serious problem. MIT faculty, students and staff should keep themselves well-informed and realize that it is a violation of a person's civil rights to harass him because of AIDS. Members of the community should educate themselves about the disease in order to dispel misconceptions, as well as to preserve their health.

MIT should take care to separate preventive health measures from those that are purely punitive.

JUST A LITTLE HIGHER.
A NEW \$2,000,000,000,000 DEBT CEILING



Column/Andrew Bein

Required policemen are a giant student hassle

When the telephone rang at 10:30 Saturday morning, Adam was fast asleep. A successful floor party had lasted well beyond 2 am the night before. Afterwards, some friends sat chatting until all hours of the night. Now it was time for that precious Saturday morning sleep, catching up on the hours lost during the week.

"Is Adam Gould there?" The voice on the telephone seemed to come from out of the haze of fatigue. It was Officer Cabral of the MIT Campus Police.

"Did you have a party September 21?" That would be The Fools concert. Two weeks ago, to the day, of this call. That's ancient history by now.

"Yeah, I was in charge of the party."

"Well, we're not trying to get on your back or anything, but you never paid the CP for working the night of the party." No bill had been sent. No previous mention of payment had been made. What was going on?

Then, from the fog of exhaustion: "Okay, how much do we owe you?" Adam asked.

"Fifty-six dollars. You can make the check out to the Campus Police."

Consciousness was slowly arriving here. And the obvious suddenly crystallized. "My understanding was that for MIT-wide, free parties the CP would not have to be paid by us."

A bit of confusion now. Cabral had thought the CP does get paid. "If you come in next week, I'll have a better answer for you." We all have time to drop by Campus Police headquarters during our plodding lives just for kicks, of course.

MIT requires a Campus Policeman at all large parties, an arbitrary and ridiculous obligation that serves more as a drawback to organizing events than any semi-productive purpose. Trying to make students use their own money to pay for this disservice is outrageous. It also is apparently not the policy.

Which brings us back to early last Saturday.

Ten minutes after the first jarring call, just as Adam had returned to sleep, the phone rang again.

"I checked on the policies, and if this was a free party, MIT-wide. You were right," said the officer. Thanks a lot pal, you've been a great help.

This is a common enough issue for the police to be clear on the policy. If admission is charged or if the party is open to the general public, the CP must be paid. Neither was the case here, as the officer on duty could clearly attest.

What makes this all the more annoying is that the same thing has happened several times before. Last spring, before a similar large party, the required CP

(Please turn to page 5)

TheTech

Volume 105, Number 40

Tuesday, October 8, 1985

Chairman Ellen L. Spero '86
 Editor in Chief Thomas T. Huang '86
 Managing Editor Ronald E. Becker '87
 Business Manager Robert W. O'Rourke '85

PRODUCTION STAFF FOR THIS ISSUE

Night Editor: Eric N. Starkman '87
 Associate Night Editors: Ronald E. Becker '87 and Mark Kantrowitz '89
 Staff: Amy Gorin '84, Carl A. LaCombe '86, Katie Schwarz '86, Sidhu Banerjee '87, Shari A. Berkenblit '88, David A. Waldes '89.

The Tech (ISSN 0148-9607) is published Tuesdays and Fridays during the academic year (except during MIT vacations), Wednesdays during January, and monthly during the summer for \$13.00 per year Third Class by The Tech, 84 Massachusetts Ave. Room W20-483, Cambridge, MA 02139. Third Class postage paid at Boston, MA. Non-Profit Org. Permit No. 59720. POSTMASTER: Please send all address changes to our mailing address: The Tech, PO Box 29, MIT Branch, Cambridge, MA 02139. Telephone: (617) 253-1541. Advertising, subscription, and typesetting rates available. Entire contents © 1985 The Tech. Printed by Charles River Publishing, Inc.



opinion

Column/Mark Kantrowitz

Our human rights have been created by society

Do human rights exist independent of human society?

David Honig's letter in Friday's *Tech* ["Your work is for your own benefit; decide your obligations for yourself," Oct. 4] assumed that "one's life and its rewards are one's own because of rights that exist without law and agreements in society. The motivation for one's work," he concluded, "should be one's own ultimate benefit."

It is conceivable that "one's own ultimate benefit" depends on the well-being of society since society provides many services to the individual. One could also argue that each individual has an obligation to contribute positively to the advancement of society since failing to do so ultimately violates the rights of other members of society. But wouldn't this show that human rights exist as a result of society?

Honig assumed, in essence, that such rights are a 'law of nature' and exist separate from society. Does man really have a physical trait called 'human rights'? Honig did not supply us with any reasons to believe his assumption, nor is there any evidence to support his claim.

Honig asked, "Does not a just government take protecting these rights as its sole function?" If such rights exist "without law and agreements in society," why is there any need for a government to enforce them?

The answer is that human rights exist only because society grants them to its members. Government must enforce these rights because society creates them.

Society is a collection of relatively powerless individuals. Yet collectively they wield considerable power. Thus society can choose to establish rights (and responsibilities) for its members, and to enforce them through government.

American society, in particular, grants its members many rights, but does not ask for much in return. An American citizen may take advantage of these rights without any obligation to repay society. As Mr. Honig states, an individual may, if he so chooses, base his career choice on solely personal interests.

I would argue, however, that each individual should feel grateful to society for granting him or her these rights, and that the individual should attempt to repay society for them. The only obligations are those that society imposes on its members (such as respecting the rights of others) and those that the individual imposes on himself or herself.

If the individual feels that he doesn't owe society anything for granting him his rights, that is his prerogative because American society allows him to make his own decisions.

No one is *obligated* to do anything.

No one is a "slave" to the advancement of society.

Nevertheless, before you decide who you want to work for and what you want to do with your life, consider that because you and your children benefit from society, you have a stake in society's future. If society deteriorates, you and your children will bear the consequences in the form of reduced and inferior rights.

Society needs good teachers in its schools to ensure the continuation of benefits to its current and future members. Society needs help in taking care of its less fortunate members. If you care at all about people besides yourself, teaching and helping others are some of the best ways to contribute to the advancement of human society.

David Honig asks, "Why should altruism be one's motivation?"

Why not?

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 editors.

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 should be addressed to *The Tech*, PO Box 29, MIT Branch, Cambridge MA 02139, or by interdepartmental mail to Room W20-483. Letters should be typed and bear the authors' signatures, addresses, and phone numbers. Unsigned letters will not be accepted. *The Tech* reserves the right to edit or condense letters. We regret we cannot publish all of the letters we receive.

Campus Police party policy needs rethinking

(Continued from page 4)

came with a note saying that he was to be paid \$40. The man proclaimed, "I'm not going to leave until I get the money." He eventually extorted the inappropriate check, which could only be retrieved via Dean Brown the next Monday.

The role for the required CP during the parties is small, which suits everyone. It does bring up why he has to be there in the first place.

Enforcing an unpopular Cambridge law, such as 1 am party closings, does not have to be the role of the Campus Police. They are dedicated to the enforcement of all laws. Yet they do, and should, choose to stress some rules and not others. There is no reason why we should be like

guarded children, not free to decide our bedtimes.

When Lieutenant Chevrie of the Campus Police signed the alcohol permit for the Sept. 21 party for Adam, the CP for the party was also arranged. Chevrie "didn't really want to deal with it. There was a look of disdain on his face when I told him what I was there for. He was not too friendly when I brought the thing to him to sign."

The Campus Police should be working with students. MIT should not have to provide any more hassles to a social chairman's already pressured responsibilities.

Hey, let's see a little more consideration in the future, guys. We'll all be a lot better off.



feedback

Pledge against SDI has arrived at MIT

To the Editor:

We would like to announce that the national pledge drive against the Strategic Defense Initiative, or "Star Wars" program ["Scientists mount campaign against Star Wars," Sept. 17], has arrived at MIT in Lobby 10. The text of the pledge is attached to this letter.

Seventy-four pledges were collected last Friday alone toward our goal of 1000 science and engineering students. Congressional aides have told us that opposition to SDI by MIT students, staff and faculty could be especially damaging to the credibility of the Star Wars plan.

We don't know the full extent of SDI research funding at MIT, but three professors to our knowledge are already accepting Star Wars funding and many more may have the opportunity. Professors have told us that the SDI office may distribute grants in research areas not directly related to enlarge the SDI constituency. We must express our objections to the SDI plan now, before MIT becomes too financially dependent on SDI to act on the sentiments of many MIT officials, who privately oppose Star Wars.

We would also like to reiterate our request, in a petition co-organized last spring by MIT Student Pugwash and signed by 791 students, that MIT publish a complete list of projects shifted to SDI and new SDI research grants, both on campus and at Lincoln Laboratory.

For students who wish to more actively oppose Star Wars, a new group called "MIT Students Against the Strategic Defense Initiative" will hold its first meeting today, Tuesday, Oct. 8, in MIT Room 7-335 at 7 pm. SDI opponents from other schools such as Harvard will also be attending.

Only the influence of the military industry could keep such an idea as dangerous as Star Wars afloat, bearing out the threat President Dwight Eisenhower predicted in his famous "military-industrial complex" speech. Eisenhower's answer to the threat: "Only an alert and knowledgeable citizenry can compel the proper meshing of the huge in-

dustrial and military machinery of defense without peaceful methods and goals, so that security and liberty may prosper together."

Accordingly, Students Against SDI will educate the MIT community, organize informed resistance to Star Wars at local campuses, and promote national awareness of the profound effect SDI funding will have on our government through the influence of defense contractors and on our nation's educational institutions through "mission-oriented" government research grants.

Chris Linn '87

Chairman

Disarmament Study Group

Rich Cowan '86

Scott Saleska '86

Sarah Tasker '87

(Editor's note: This pledge came attached to the preceding letter.)

We, the undersigned students and research staff of Massachusetts Institute of Technology's science and engineering departments, believe that the Strategic Defense Initiative (SDI) program (commonly known as Star Wars) is ill-conceived and dangerous. Antiballistic missile defense which is sufficiently effective and reliable to defend the population of the United States against a Soviet attack is not technically feasible. Efforts to develop a system of more limited capability will only induce a build-up of offensive missiles by the Soviet Union, jeopardize existing arms control agreements, stalemate current strategic negotiations and, consequently, accelerate the nuclear arms race and undermine international security.

Participation in SDI by individual MIT researchers would lend the University's name to a program of dubious scientific validity, and give legitimacy to this program at a time when the involvement of prestigious research institutions is being sought to increase Congressional support. Researchers who oppose the SDI program yet choose to participate should therefore recognize that this would contribute to the political acceptance of SDI.

The likelihood that SDI funding at MIT would restrict academic freedom and blur the distinction between classified and unclassified research is greater than for other sources of funding. SDI officials openly concede that any successful unclassified project may become classified. The structure of SDI research programs also makes it likely that MIT will be part of a Research Consortium with other universities and industries who will be doing classified research. Moreover, the potentially sensitive nature of the research may invoke legal restrictions required by the Export Administration Act.

The SDI program and its political acceptance depend crucially on the participation of individual scientists and engineers at all levels of research. As one step towards halting this program, we pledge neither to accept SDI support nor work on projects funded by SDI, and encourage others to join us in this refusal. We hope together to persuade Congress and the public not to support this deeply misguided and dangerous program.

Erratum

In David Honig's letter ["Your work is for your own benefit; decide your obligations for yourself," Oct. 4] the following was published: "The motivation for one's work should be one's own ultimate benefit because one's life is one's own. Thus, the reason for turning down 'a 33k job teaching high school physics' should be because one wants to be a teacher..." The letter should have read: "Thus, the reason for turning down 'a \$33k job building missile guidance systems for a \$16k job teaching high school physics' should be because one wants to be a teacher..."

opinion

Guest Column/Eric Saund

Paul Tsongas makes politics an art and a science

Is politics Art or Science? Former US Senator from Massachusetts Paul Tsongas displayed qualities of an accomplished artist and scientist in speaking to an LSC lecture Wednesday evening. For two hours an intelligent and knowledgeable individual reasoned about difficult issues. And it was charming. The charm came in witnessing a confident and good-natured personality grappling with tough problems. It was a performance any professor would envy.

Senator Tsongas began by setting a comfortable tone in well-crafted political style, acknowledging MIT's reputation as he joked about the microphone and the chalkboard. The audience became giddy in anticipation and in delight of the senator's detached humor.

With little fanfare the senator proceeded to outline his "keel" theory of the political spectrum. This theory, somewhat resembling the pendulum theory of political sentiment, says that the vast American middle class is fairly comfortable and therefore gravitates away from political extremes toward a (fairly sizable) middle ground.

In judging a political position in any given political era to be left wing, liberal, moderate, conservative or right wing, it is to be viewed with respect to the mainstream of sentiment. The mainstream of opinion shifts around in response to events; thus, for example, an opinion that the defense budget should not be increased was considered moderate at the close of the Vietnam war, liberal during the Iranian hostage crisis, and moderate or even conservative today after several years of the Reagan defense buildup.

Tsongas illustrated his points economically, writing merely the words, "Bella" (Abzug) and "Jesse" (Helms) to denote the left wing and right wing. MIT students appreciate "in" jokes that flatter their intelligence. Through some combination of innate personal style and political instinct developed through years of having to appeal to crowds, the senator latched onto this key. Throughout the evening he left obvious points unstated, or stated the obvious in a pointed way.

When asked whether he thought that an arms agreement would arise from the November summit meeting, he said (quoted roughly), "There are two ways that a major agreement can come out of a summit meeting. First, it can be all planned out in advance by the negotiators and all the leaders have to do is toast for a few days and then sign the document. The second way is for two extremely intelligent and knowledgeable statesmen to retreat into the woods and hammer it out, *mano a mano*, and come up with

an agreement that their underlings were unable to [pause]. No arms agreement is being set up for the November meeting." The audience ate it up.

But the senator did not pander. On the contrary, he often ended up at odds with popular liberal thought as he gave honest and reasoned appraisals of a wide variety of issues. While Tsongas is far from a Ruskie-baiter, he emphasized the merits of our open and pluralistic society in contrast to that of the Soviet Union, and he views the Soviet actions in Afghanistan as far more deplorable than recent US misadventures such as Vietnam.

He espoused the virtues of capitalism, and judged that the Democratic party has erred greatly in becoming associated with the view that it is evil to make money.

Tsongas believes that the United States has no business in trying to overthrow the popularly-supported government in Nicaragua. However, he is greatly disappointed in the Sandinista re-

gime. He feels that they squandered an important opportunity to create an example, for other third world nations to follow, of a small country setting a moderate course after a revolution, declining entanglements with either superpower.

The only time Tsongas swallowed before coming straight out with an opinion was when he praised former President Nixon's wisdom in listening to foreign policy advisors who enjoyed a historical intellectual perspective, which resulted in, among other things, the establishment of ties with the People's Republic of China.

In the end, the senator's thorough familiarity with world affairs and the absence of dogma in his assessments appeared to win the audience's respect and admiration. Most of the questions were serious and well-considered, and surprisingly few revealed axes to grind.

Not until the program was over did anyone lose control and yell out their opinion on some issue

that the senator had addressed. In the presence of the authority carried by Tsongas' calm, informed reasoning coupled with his sufficient honesty and humility to admit when he just did not know, impassioned outbursts would have had no place.

Notably, the one article of faith to which Senator Tsongas repeatedly appealed was a fundamental belief in the American democratic tradition. He cited a number of instances in which the body of mainstream political sentiment has acted as a boat keel and tempered the government's unwise actions or brought leaders back in line with American values.

For example, American popular opinion today just will not support US advocacy of a white minority government in South Africa, now that the issue has reached the forefront of American collective consciousness.

But Tsongas, the experienced political participant/observer, appreciates the complexity and subtlety behind seemingly capricious American popular opinion. The

situation in the Middle East is bewildering to the average American. Unable to tell the good guys from the bad guys amidst all the violence, he says, Americans adopted an isolationist attitude during the war in Lebanon.

Tsongas' faith in American political democracy fits coherently with his rational beliefs in the openness of American society and in our competitive economic system. And with it all goes an attitude of dispassioned amusement just to make sure that he doesn't take it all too seriously.

There is a certain beauty in watching an artist or scientist at work. They are craftsmen of ideas. They become familiar with a domain of knowledge encompassing facts, skills, beliefs, and faiths, and they work with it, they play with it. They can address problems in their domain. Paul Tsongas showed himself to be such a craftsman of world affairs Wednesday evening. It is heartening to know that such people as him are elected to the United States Senate.

E-Systems continues the tradition of the world's great problem solvers.

Steinmetz was one of the few geniuses concerned with the practical aspects of electrical engineering. His pragmatic analytical approach led to the development of efficient electrical power grids as we know them today.

Scientists and engineers at E-Systems are carrying on in his tradition. Through the combination of sophisticated analytical and simulation techniques, they are evolving optimal system

solutions to some of the world's toughest problems in electronics.

E-Systems is recognized as one of the world's leading problem-solving companies in the design and production of communications, data, antenna, intelligence and reconnaissance systems that are often the first-of-a-kind in the world.

For information on career opportunities with

E-Systems in Florida, Indiana, Texas, Utah or Virginia contact your Placement Director or write: E-Systems, Inc., College Relations, Post Office Box 660248, Dallas, Texas 75266-0248.

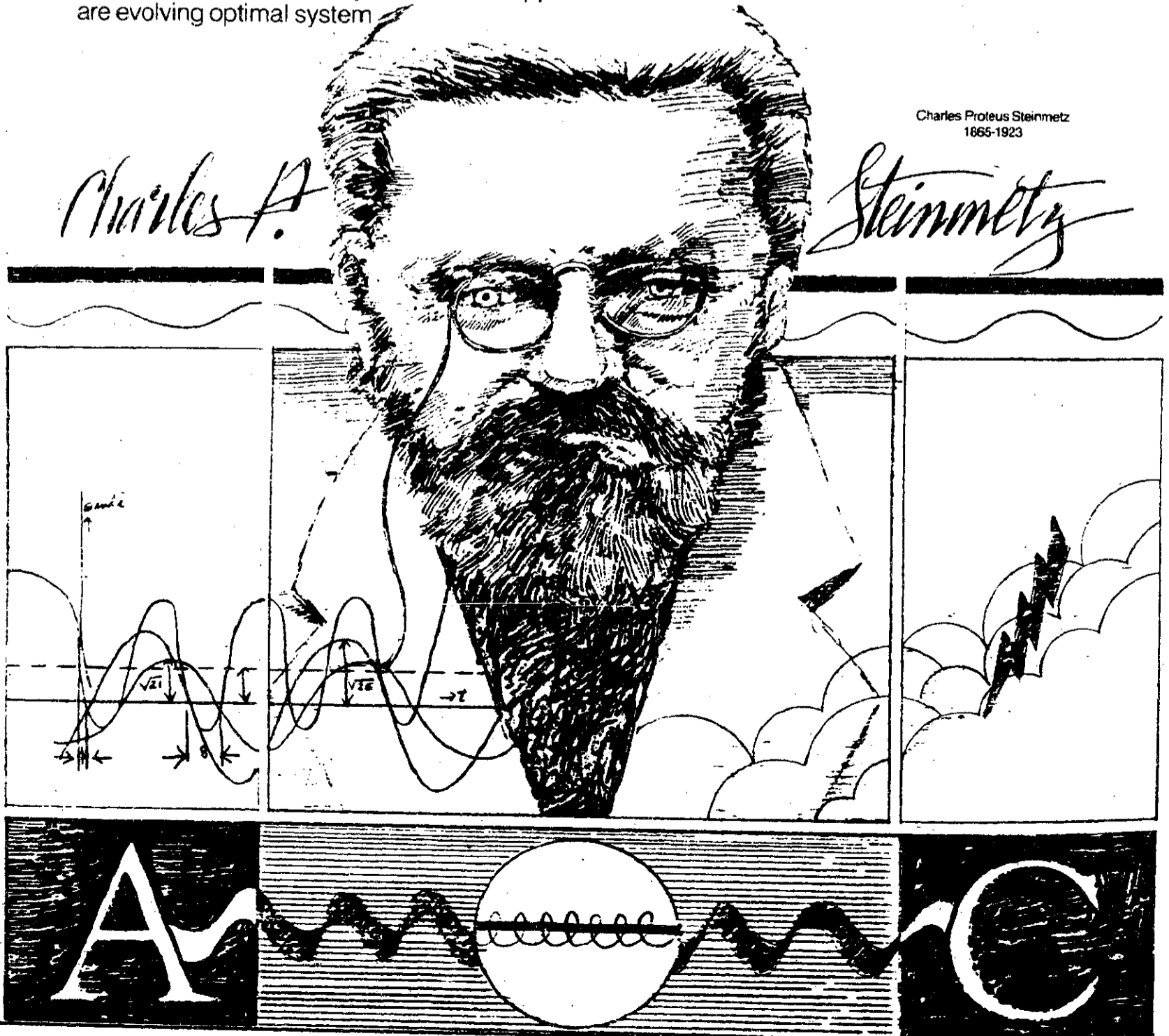


E-SYSTEMS

The problem solvers.

An equal opportunity employer M/F, H, V

Charles Proteus Steinmetz
1865-1923



notices

Because the add date is Friday, October 11, the Registrar's Office would like to remind students that correction cards will not be accepted without all the necessary signatures. You are urged to obtain all signatures well before deadlines to avoid having to petition the CAP for approval to make a late change. If your advisor is unavailable, contact your undergraduate office or department headquarters. Freshmen should go to the Undergraduate Academic Support Office, Room 104.

opinion

feedback

Deny CIA recruiters access to MIT

(Editor's note: The Tech received this letter addressed to President Paul E. Gray '54 and the MIT community.)
To President Gray and the entire MIT community:

This week recruiters for the CIA will screen applicants at the Institute. The event serves to remind us of the persistent presence of the agency on campus and in society at large.

The CIA does not represent the ideals we wish MIT to foster, such as respect for international law, democracy and universal human rights.

Other odious organizations come to campus. Why do we not protest their appearance? The CIA purports to act on our behalf. For this reason we have an extra responsibility to demonstrate our opposition and actively resist the recruiting effort.

The CIA is an anti-democratic force abroad and at home.

Overseas it was instrumental in the overthrow of democratically-elected governments; Arbenz of Guatemala in 1954 and Allende of Chile in 1973 are two examples. Its legacy in those countries is military dictatorship. Beyond this the CIA has routinely intervened in the domestic politics of countries as diverse as the Congo, Italy, Greece and Iran. The war against Nicaragua is only the latest episode in the agency's sordid history of reaction against indigenous progressive movements worldwide.

The agency subverts our domestic democratic institutions as

well. With its budget, plans, and goals enveloped in secrecy, fundamental issues of war and foreign policy are inherently set beyond the pale of public discussion and popular control.

CIA activities violate the very character that established the agency. The CIA was established by the National Security Act of 1947 which authorized the agency only to synthesize and evaluate otherwise gathered intelligence. A 1976 Senate committee report stated categorically, "Authority for covert action cannot be found in the National Security Act." The law notwithstanding, the president has directed the CIA to "covertly" wage war against the government and people of Nicaragua. This simultaneously violates the CIA charter and international law respecting national sovereignty. The recruiting session is a conspiracy to violate federal and international law.

Some argue that, while covert operations are undesirable, we should maintain an intelligence gathering capability. Unfortunately, foreign espionage inevitably leads to domestic surveillance, which is incompatible with the idea of a free society. If the intelligence organization isn't to be worse than useless, it must be free from infiltration. Such assurance requires routine scrutiny of the organization's employees and of their political and social acquaintances, which is domestic spying.

We recognize that the job applicants are seeking employment

voluntarily. We ask that those contemplating working for the CIA consider what it is they may be asked to do. Engineers and researchers who function within the bureaucracy bear responsibility for their personal actions and for the actions of the bureaucracy as a whole.

The Institute by-laws prohibit discrimination in the distribution of Institute resources, including career placement services, on the basis of sexual orientation. When the career office allowed the CIA recruiters on campus, the Institute did not live up to its recognized obligations. The CIA discriminates against homosexuals. Why has the Institute administration renounced its duty?

The CIA has a right to free speech on campus. Indeed, we invited the CIA representatives to participate in public forum in which they could make a presentation and the audience could ask questions. They refused.

We request that the Institute reverse its decision and deny the CIA recruiters access to campus.

Katherine Magraw G
Robert Vitalis G
Caren Addis G
Adam Grossman '87
Nancy Otis G
Andrew Tauber G
Laura A. Hastings G
Jonathon Feldman G
Charles Welch
Brian R. Corbis G
Omar S. Valerio '85
Anthony Levitas G
Nancy Kanwisher G
Gretchen Ritter G

THE SHELF SHACK

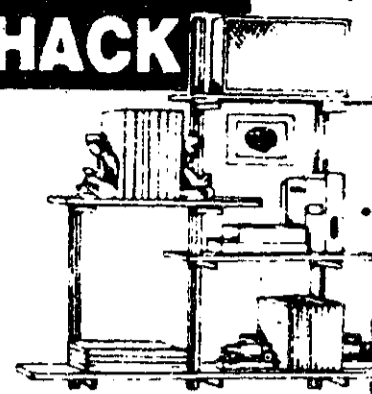
Boston's Lowest Priced Shelving Store
The place for all your shelving needs.

EVERYTHING AT LEAST 50% OFF LIST PRICE

• Save Space • Eliminate Clutter
Special 20% off your first order with this coupon!

valid until 11-15-85

177 Brighton Ave., Allston
(in the Osco Plaza)
Tel — 787-9020



THE UNIVERSITY OF CHICAGO GRADUATE SCHOOL OF BUSINESS

invites students of all majors and fields to talk with GSB representatives about our M.B.A., Ph.D., and combined-degree programs. Since we cannot visit your campus this year, please come and see us at the

BOSTON GMAC M.B.A. FORUM

Friday, Oct. 11, 1985 12 Noon-7 PM

Saturday, Oct. 12, 1985 9 AM-3 PM

Boston Park Plaza

Arlington Street at Park Plaza, Boston, MA

Admissions materials are available at your Career Services and Professional Advising Office

UA NEWS AND WORLD REPORT

WHAT'S WHAT

The UA Nominations Committee is accepting nominations for *Who's Who in American Colleges*. If you know someone who is outstanding in sports, music, activities, lip syncing, mud-wrestling, academics, or other areas, please submit his/her name with the reason you think this person should be on this list for MIT. Nominations may be sent to NomCom, W20-401. We realize that everyone here is outstanding in his/her own way. However, it is impossible to put everyone in *Who's Who*. Please submit your nominations by the first of November.



ALL COOPED UP???

The UA Council has to investigate what will be done with the Student Center after *The Coop* leaves. Possibilities are: a supermarket, a mall-like restaurant court, convenience stores, perhaps a combination miniature golf/sushi bar-type sanitarium and manufacturing plant. Do YOU have an idea?... Any students interested in deciding the fate of the Student Center should contact Bryan Moser in the UA Office at x3-2696.

SCEP INVESTIGATES CHANGING HUMANITIES PROGRAM

SCEP has indeed been resurrected from the dead. But we are a slightly different animal. The Student Committee on Educational Policy will be holding an open meeting at 7:30 pm on Wednesday, October 9, in the UA Office, fourth floor of the Student Center.

We will also be formulating ideas to present to the ad-hoc faculty committee that is evaluating the humanities curriculum. The institute is currently reevaluating the HASS requirement and SCEP welcomes all interested students to attend this open meeting. We will also discuss the status of student representation on faculty committees which deal with educational issues and how student representation can be more effective. There will be a report on the October 7 meeting of The Committee on Undergraduate Programs (CUP).



PREVIEW EDITORS WANTED

Preview is the name of a new weekly social calendar published and sponsored by the Undergraduate Association Social Council. It will be distributed campus-wide and contain information about parties, performances, cinema listings, and sports games at MIT, other campuses, and the Boston area.

We need energetic people with good ideas who can make them work with the help of others. Editors are responsible for publication and distribution of the calendar.

The people in this position will play a major role in upgrading the social life on campus. There's plenty of opportunity to gain rewarding experiences in publishing and publicizing the many activities that will happen during this academic year.

If you are interested, please call Bernie Teh (Burton), Rossana Chiang (McCormick), or leave a message in the SocCom mailbox in the UA office.



CLASS OF '86 SENIORS 'R US

At last, we have found a staff to help coordinate our senior year. Thank you to everyone who ran and congratulations to:

- Martha McKinney, Leon Roisenberg and John Swartz. They are our new Social Chairperson Triumvirate.
- Natalie Lewis and Kerry O'Neill, selected as Senior Week Coordinators.
- Mike Vidauri, the Senior Gift Coordinator.

If you are interested in joining one of these committees, contact Beth at dl-7373. Our next council meeting is Tuesday, October 8, at 7:30 pm in room 400 of the Student Center.

NOTICE

The UA NEWS AND WORLD REPORT is now a weekly media event and invites all Classes, living groups, ASA Activities and any other groups to advertise their special events in bold print. These announcements may be any one-time event that may be of interest to the undergrad community, such as parties, picnics, ice cream orgies, teas, argument clinics, etc.

The UA NEWS will be coming out each Tuesday. Please send all submissions to the UA office, Room W20-401. Submissions must arrive four days before publication (Saturday), typed, with the author's name and phone number, and with the understanding that we reserve the right to edit as we see fit.

ARTS ARTS ARTS ARTS

Virtuoso Baroque

Banchetto Musicale, Jordan Hall, October 4. Event in The Tech Performing Arts Series.

Banchetto Musicale opened their season at Jordan Hall Friday night with an enjoyable evening of "virtuoso Baroque" music.

The program opened with Bach's *Orchestral Suite No. 2 in B minor*, with soloist Christopher Krueger on the Baroque flute. Although this instrument sounded like a modern flute, it seemed to have a smaller dynamic range.

The overture was played too fast, and the orchestra went way too far on the one-bar crescendo-diminuendos, creating an undulating effect uncommonly reminiscent of a difficult boat ride. This overture is the most intricate movement of the suite, almost as long as the other movements combined, and when played quickly its lush contrapuntal complexity is not easily absorbed.

The other movements were quite good, although the undulations returned briefly in the Sarabande. Krueger played with excellent articulation and attack. He slipped an octave once or twice and showed little dynamic range, but this may be attributable to Banchetto's policy of using "authentic" instruments. He handled the virtuoso passages with dexterity and grace. My only quibble is that in the Polonaise the ornamentations were not quite on-beat and sounded forced.

The orchestra and soloist coordinated well in the middle movements, but not the first and last. The final *Badinerie* is best played in as lively a manner as possible; it is one of the gayest pieces ever written in a minor key. Here the requisite abandonment was not there, although it still sounded good.

The next piece was a curious cantata by Handel, *Agrippina condotta a morire* (Agrippina led to her death). Written while the young Handel was in Italy, it is a dramatic monologue in which the mother of the Emperor Nero curses her ungrateful son and despairs because he has ordered her death. Also composed during this period was his opera *Agrippina*, inspired by the same character.

Soprano Sharon Baker did a marvelous job with this difficult piece, going convinc-

ingly from fury to despair to resignation. She sang with real feeling, and her facial expressions were also very good. The accompaniment was unobtrusive but just right. Handel's technical mastery is already evident here, and the Arioso in the middle of the piece gives hints of his later grandeur.

Bach's great D minor harpsichord concerto was originally written as a violin concerto, but that version is now lost. Undeterred, Banchetto violinist Daniel Stepner reworked the piece for violin, basing the solo violin part on the harpsichord part and adding notes to the orchestra to make up for the replacement of the polyphonic harpsichord by the violin.

When a musician reworks a masterpiece, the seams often show. It is a tribute to Stepner that in this case it is impossible to tell that the whole work was not written by Bach.

The performance equalled the quality of the adaptation. The soloist and orchestra both played beautifully. Stepner wrote himself a virtuoso part and played it almost perfectly. His timing, dynamics, and phrasing were irreproachable, although in spots his tone sounded a little thin. The orchestra showed great coordination and drive. The third movement, especially, was excellent in most places and sublime in the rest.

The final work of the evening was *The Elements*, a suite by Jean-Ferry Rebel (1666-1747). I must confess I had not heard of Rebel before the concert, and thought he was the token "modern" composer sneaked in between the good ones. Although Rebel predates both Bach and Handel, *The Elements* is a strikingly daring and modern-sounding piece.

It depicts the creation of the World, and the first movement, *Chaos*, begins with shocking (especially to a Baroque audience) dissonances, which gradually resolve as the elements (air, earth, water, and fire, of course) emerge one by one. The later movements, which treat the elements individually, are interesting and enjoyable.

The piece was a nice dessert to an evening which provided an auspicious opening for Banchetto's fall season.

Joseph Shipman



The Tech Performing Arts Series presents...

SINFONOVA

All Mozart Concert

Includes Mozart's *Concerto for two pianos in E flat, K.365* and the Boston premiere of Mozart's newly rediscovered *Symphony in A minor, K.16a*.

Jordan Hall, October 11, 8pm. MIT price: \$6.

ANDREI GAVRILOV

Pianist

The youngest-ever first prize winner in Moscow's Tchaikovsky Competition will make his Boston debut. Program includes *24 Preludes* by Scriabin and works by Rachmaninov.

Symphony Hall, October 13, 3pm. MIT price: \$5.

WESTMINSTER CATHEDRAL CHOIR

From London

Westminster's famous boys' choir will perform a program of plainsong, polyphony and modern works ranging from Dupré and Bach to Howells and Elgar.

Symphony Hall, October 20, 3pm. MIT price: \$6.

Tickets for all three events are on sale courtesy of the Technology Community Association.

Drop by Room W20-450 in the Student Center, or call 253-4885 to check on availability.

The Tech Performing Arts Series, a service for the entire MIT community from *The Tech*, MIT's student newspaper.

GET OUT ON THE TOWN WITH THE TECH PERFORMING ARTS SERIES. . .!

Erratum

The third paragraph of the BSO review that appeared on October 4 should have read as follows:

André alas followed the Marcello with a trumpet arrangement of *Der Hölle Rache* from Mozart's *Die Zauberflöte*. Sung by a great soprano, this is the most numbing aria of the opera; a voice as sharp as diamonds can cut like ice, transfixing the au-

dience with the cold darkness of the Queen of the Night. While as Mozart intended it there is beauty, but no balm, André played sickly sweet, while messy strings still further stole from the piece's power. The extrovert playing kept secret the complex emotions that illuminate the inner torments the aria distills.

Attention Psych Majors: Our Loans Will Blow Your Mind.

We believe the last thing that should keep someone from going to college is money. So call 1-800-SHAWMUT or come in and see us about our comprehensive education loan program.

Because when it comes to helping students, our heads are in the right place.



Shawmut
Look To Us For Direction.

Shawmut banks are members FDIC and equal housing lenders

ARTSARTSARTSARTS

Glorious opera

Agrippina, Boston Lyric Opera Company, Alumni Auditorium, Northeastern University, October 4. *Event in The Tech Performing Arts Series*. John Gibbons, harpsichord, and Daniel Stepner, violin, in all-Mozart program, Museum of Fine Arts, October 6.

Who could ever see Anne Ewers' brilliant production of Handel's *Agrippina* and still insist that the conventions of the *da capo* aria condemn *opera seria* to be dramatically static?

Ewers masterfully held the audience in the palm of her hand both between and within each aria, while Thomas Dunn's orchestra, transparent, subtle, yet vivacious, took us on a fantastic journey beyond the flesh and blood of each character, and into their psyches, their souls.

Agrippina, Emperor Claudius' wife schemes to put Nero — her son by a previous marriage — on the throne. Guilefully she makes Claudius believe that Ottone — who saved the Emperor's life and who is his immediate choice for succession — is a traitor. A series of deceptions later, all ends happily: Nero gets the throne, but *Poppea* is released from Claudius' lustful clutch for Ottone to marry.

Janice Felty's *Agrippina* is indeed a nasty piece of work: Each word is articulated with firmness and resolve; even during moments of setback this Empress is planning the next ploy. Felty commands the stage, not only with stunning execution of arias, but with carefully directed body movements, thought given to the dramatic intensity of every instant. "Rely on my discretion," she cheerfully urges Ottone, bile-soaked falsehood seeping beyond her ensnared prey to her enraptured audience.

Nancy Armstrong did a beautiful job of *Poppea*. She is vain, she is seductive, but

overcome by Handel's radiant music Armstrong's *Poppea* is touchingly human. Silken-voiced she sings "Love conquers you completely;" later, mistakenly believing Ottone unfaithful, she mournfully laments to him "You love your glory more than you love me"; it is in tragic, reflective voice that Handel is most penetrating, and Armstrong's open plaint was powerful.

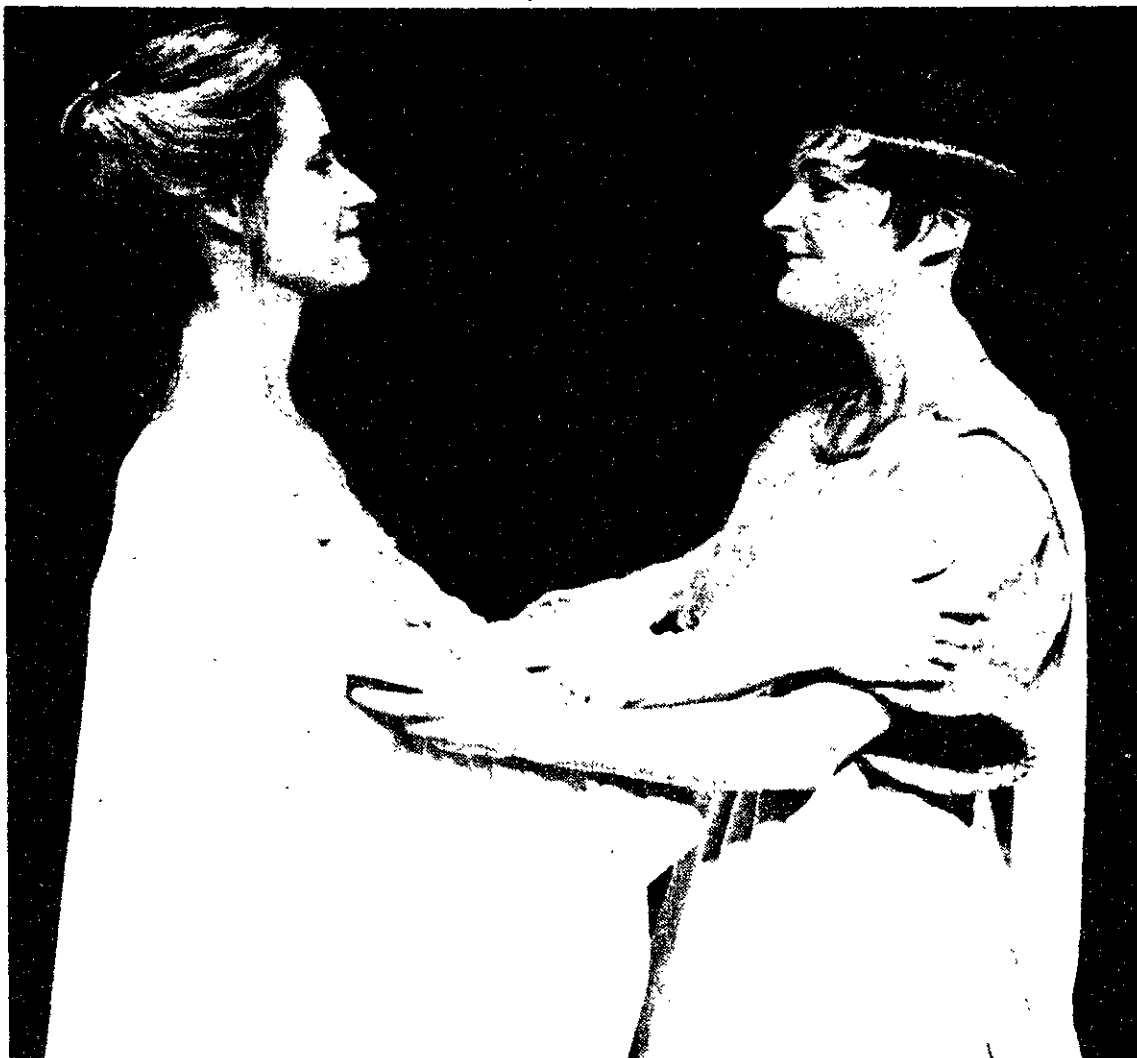
Lorraine Hunt sang Nero sweetly, Brian Davis was strong in voice for a characterful Pallas. Richard French, alone, was a little disappointing. His diction could not match the clarity of other members of the cast; at times his singing was weak.

Ewers remained in continual control of the action; with her uncommon talent, the opera was as fresh as today. In league with an orchestra whose every phrase provided pleasure, Boston Lyric Opera Company has produced an opera that would do justice to any stage in the world; this adventurous local opera company is on strong form, and deserves Boston's attention.

* * * *

John Gibbons and Daniel Stepner demonstrated that the most civilized of Sunday afternoons are spent in Remis Auditorium at the Museum of Fine Arts: Their all-Mozart program was delightful. Gibbons was playing a fortepiano with a bright, dance-like tone. The instrument — which dates from around 1815 — has a lower resonance time than a modern concert grand, enabling a pianist to explore the finest details of Mozartian sonata form with clarity.

The program started with the *Sonata in G*, K. 11. Written when Mozart was 9, and relatively simple in form, the piece already exhibits quintessentially Mozartian joy, and Gibbons played it nimbly while Stepner provided a breezy violin accompaniment.



Gibbons virtuosity brought new insight to the *Sonata in A*, K. 305; the opening was elating, the theme and variations compelling.

But the most interesting performances came with the most mature work on the program, the *Sonata in B flat*, K. 454. Gibbons playing remained flowing and sweet but, with Mozart's smiling face ever remaining, we poignantly delved beneath the surface to depths of reflection that only Mozart's music can command; only in Mozart there remains no contradiction

with the joy on the surface, a joy Gibbons eloquently melded with the pathos beneath. Daniel Stepner provided further illumination with his colorful violin playing; the duo in tandem proved to be a telling combination.

Discount tickets for the Boston Lyric Opera Company's productions of Poulenc's *La Voix Humaine* and Walton's *Façade* on October 25 will be on sale at the Technology Community Association through The Tech Performing Arts Series.

Jonathan Richmond

Stoering — adventurous contemporary programming

Donna Stoering, Longy School of Music, October 6. *Event in The Tech Performing Arts Series*.

Temperament, energy and a uniformity of expression were characteristic of Donna Stoering's Boston debut performance at the Longy School of Music. The program, postponed because of Hurricane Gloria, consisted of mostly twentieth century piano works.

Stoering started her musical career at the age of five, and has received awards in numerous competitions including two US national competitions. She recently completed a tour of the midwest, played in the new Concord Pavillion in California and has appeared throughout New Hampshire.

Three Sketches for Piano (1983) by Masayuki Nagatomi and *Death Angel (Metamorphosis)* (1983) by John Anthony Lennon were heard for the first time in Boston during this performance.

Nagatomi's pieces — "Air," "Fire" and "Water and Earth" — were thematic, as their names suggest. Stoering explained

that, in the impressionistic tradition, the composer has tried to create a unified experience, to bring these phenomena to the immediate attention of all the senses. As is often the case with contemporary music, the sounds did not reach one's senses directly: One had to first process the music through the intellect.

Stoering said the music in *Death Angel* was meant to present death and all the stages to be gone through in facing it — struggle, apathy, acceptance — as a change, with a positive resolution.

In keeping with the rest of her playing, Stoering emphasized rhythmic irregularities and dynamic range, with most attention paid to fast, forte passages. The themes were often hard to find, and the piece should be heard more than once to be appreciated.

The program also included three rarely-heard pieces by Debussy. With each of them one saw another face of Debussy. Stoering's playing beautifully accented Debussy's unsurpassed talent for painting im-

pressionistic musical paintings — as in *Relfets Dans L'Eau*, his musical story-telling — as in *Masques*, which describes a play of masks, and his romanticism — as in *Valse Romantique*, a romantic experiment: within the confines of a waltz.

Chopin's *Nocturnes in B flat minor and D flat*, Op. 9 no. 1 and Op. 27 no. 2 respectively, and the *Waltz in A minor*, Op. posth., evoked mixed reactions.

Gottlieb felt Stoering's performance did not add much to the music. The overdone left-hand rhythm of the waltz obscured the harmonies and made for static music. But Stanger thought the waltz was played with the strong rhythmic and harmonic formula required of a Chopin waltz.

Stoering played two Scarlatti *Sonatas in E major*, 1. 373 and 1. 10, in celebration of the composer's 300th birthday.

These sonatas sounded a bit too much like the modern pieces on the program. All through the sonatas one heard rather incongruous overtones of 19th and 20th century romanticism. Where the music

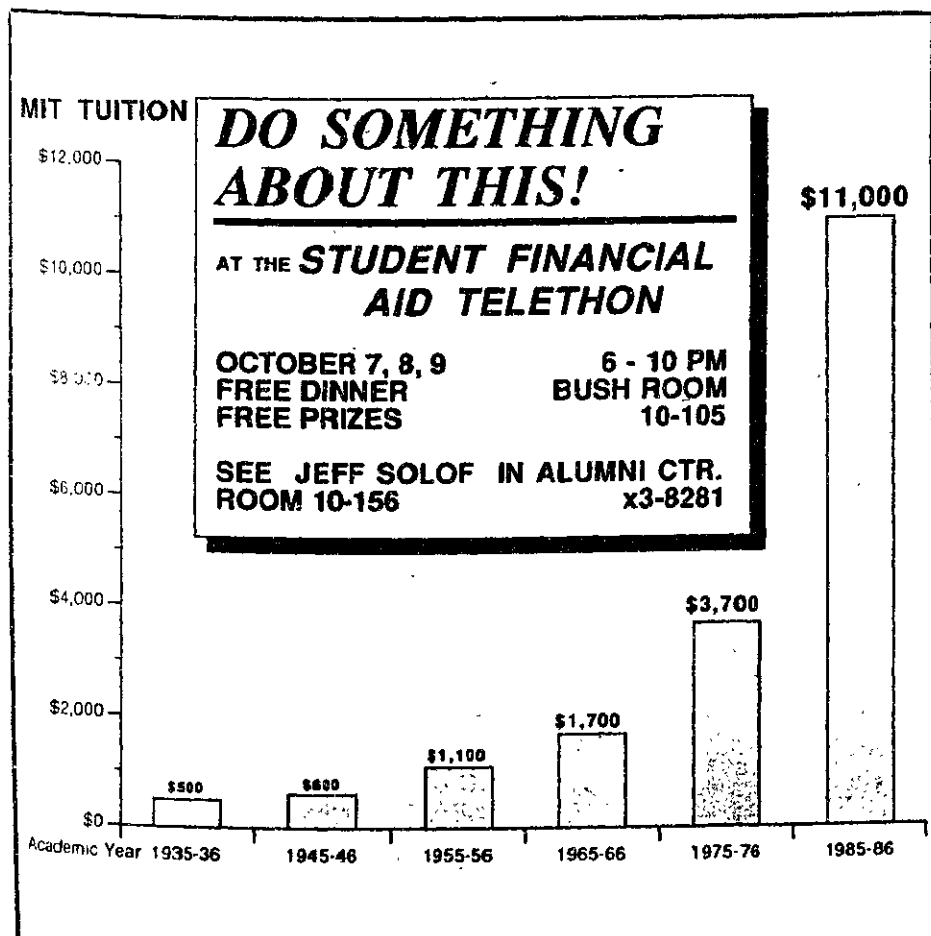
should have been crisp and controlled, there was too much pedal and dynamic fluctuation. But Stoering's technical confidence in these pieces was excellent.

Stoering was at her best with Granados' *Three Dances* op. 37, which ended the afternoon. These simple and captivating pieces gave her ample opportunity to express vivacity and a sense for color and rhythm.

The dances were inspired from Spanish folk tunes. They were laden with the imagery of a Goya painting. The most enjoyable of the set was the dance Stoering chose to play as an encore — *Villa Nueva*, which Stoering aptly described it as a "Spanish mantra." Its short motif never left the music and one never tired of hearing it.

Stoering's strength in contemporary music could not be denied and overall she gave the impression of a dynamic, serious and capable musician.

Jacqueline Gottlieb
Ben Stanger



GAY?

YOU'RE NOT ALONE

CALL x3-5440
to find out about a
NEW PERSON'S MEETING
for lesbian, gay, and bisexual students
WEDNESDAY, OCTOBER 9
7:30pm, Room 50-306
GAYS AT MIT

Institute to prepare profile of undergraduate students

(Continued from page 1)

Moser expects the committees to announce exactly when and how they will include students within the next few weeks.

MacVicar had felt that the committees were not yet ready to listen to students because they were still organizing, Moser and Brunco said. But Moser called the appearance of an article on MIT's curriculum reform in the *New York Times* Sept. 29 a "signal" that the reforms are now beyond preliminary stages and should be ready for student input.

"I'm very surprised that they announce these reforms to the *New York Times* before they announce them to students," Moser said.

SCEP chairman to join CUP

MacVicar last week directed the Committee on the Undergraduate Program (CUP) to include the chairman of SCEP as an *ex officio* non-voting member at the request of Moser and SCEP. CUP, a standing committee of the faculty, sets educational policy.

The voting members of CUP include: six faculty members; an

undergraduate to be nominated by NomComm; a graduate student to be nominated by the Graduate Student Council; the associate chairman of the Faculty; and the dean for Undergraduate Education.

Formal representation is only one means of student input, MacVicar observed. Informal student groups may act as staff aides to committees, taking on projects and studies, she said. She also welcomes personal communication from students.

Fuller student profile wanted

Moser expressed concern that the discussion has so far included only faculty views. "It is important for students to be in the discussion from the beginning, so any misinformation about student life can be corrected," he said.

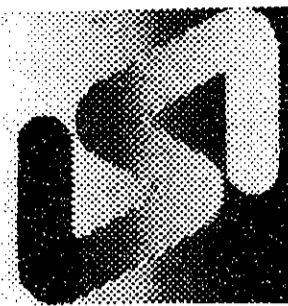
The Woodstock meeting notes contain much discussion of students and student life by faculty. But the faculty opinions may be inaccurate or overly-broad generalizations, Moser said. "The faculty doesn't mix as much as it should with students, and even students don't understand each other that well."

MacVicar is interested in "fleshing out the portrayal of the MIT undergraduate" through direct communication from students.

To this end, David Wylie, executive secretary to the faculty Committee on the Undergraduate Program, will coordinate the preparation of a factual profile of the freshman year for MacVicar's office. Wylie will compile data on subjects taken by freshmen and selection of majors. SCEP will help prepare this profile.

The true nature of the student body lies "somewhere between the faculty view of students and the students' view of themselves," because students have not yet acquired a long-term perspective, MacVicar said.

Your foreign language ability is valuable!



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

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

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

Into-English translations from Russian, East European languages and many others also available.

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

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

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

notices

Listings

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

Tuesday, Oct. 9

It is estimated that 500,000 to 1.5 million Americans are affected by Alzheimer's disease, a condition in which one loses intellectual functioning. From 7:30 pm to 9:30 pm, Mount Auburn Hospital will offer a program on Alzheimer's disease. Speakers at the program will be Don Lipsitt, MD, chief of psychiatry and a member of the Governor's Commission on Alzheimer's Disease; Linda Buchwald, MD, chief of neurology; and Lisa Hartzell, chief technologist in neurology.

Dr. Lipsitt will review the goals and accomplishments of the commission; Dr. Buchwald will discuss the neurological exam and diagnosis; and Ms. Hartzell will provide information on the EEG (brain wave) testing procedure.

The program will be held in the Hurlwitz auditorium at Mount Auburn Hospital in Cambridge, free of charge. For additional information, please call 492-3500, extension 1508.

Thursday, Oct. 10

A seminar entitled *What's the Matter with 3D?* sponsored by the MIT Communications Forum will be held from 4 pm to 6 pm in the Bartos Theatre of the Wiesner Building, E15-070, 20 Ames Street. Speakers will be Stephen Benton of MIT/Polaroid; Rene Paul Barilleaux of the Museum of Holography; and William Paul of MIT. Open to the public.

The 128 Venture Group will meet at the Newton Marriott at 7:30 am for breakfast. Speakers will be Joe Donovan or Rene Eeley from Mass. Department of Commerce and Robert Crowley from Mass Technology Development Corp. They will talk about the state's enthusiasm, advocacy and support for entrepreneurs and new businesses. This includes the Venture Capital Fair and other free assistance. Crowley will discuss MTDC's financial advisory and investment services.

* * * *

Ford Hall Forum Fall Lecture Series. Speakers: US Surgeon General C. Everett Koop and Richard Daynard, President of Group Against Smoking Pollution. Topic: Smoking: The Medical and Legal Implications. Faneuil Hall, Congress Street, Boston, 7:30 pm. Free. For information contact Donald Gratz or Kevin Aylmer at 338-5350.

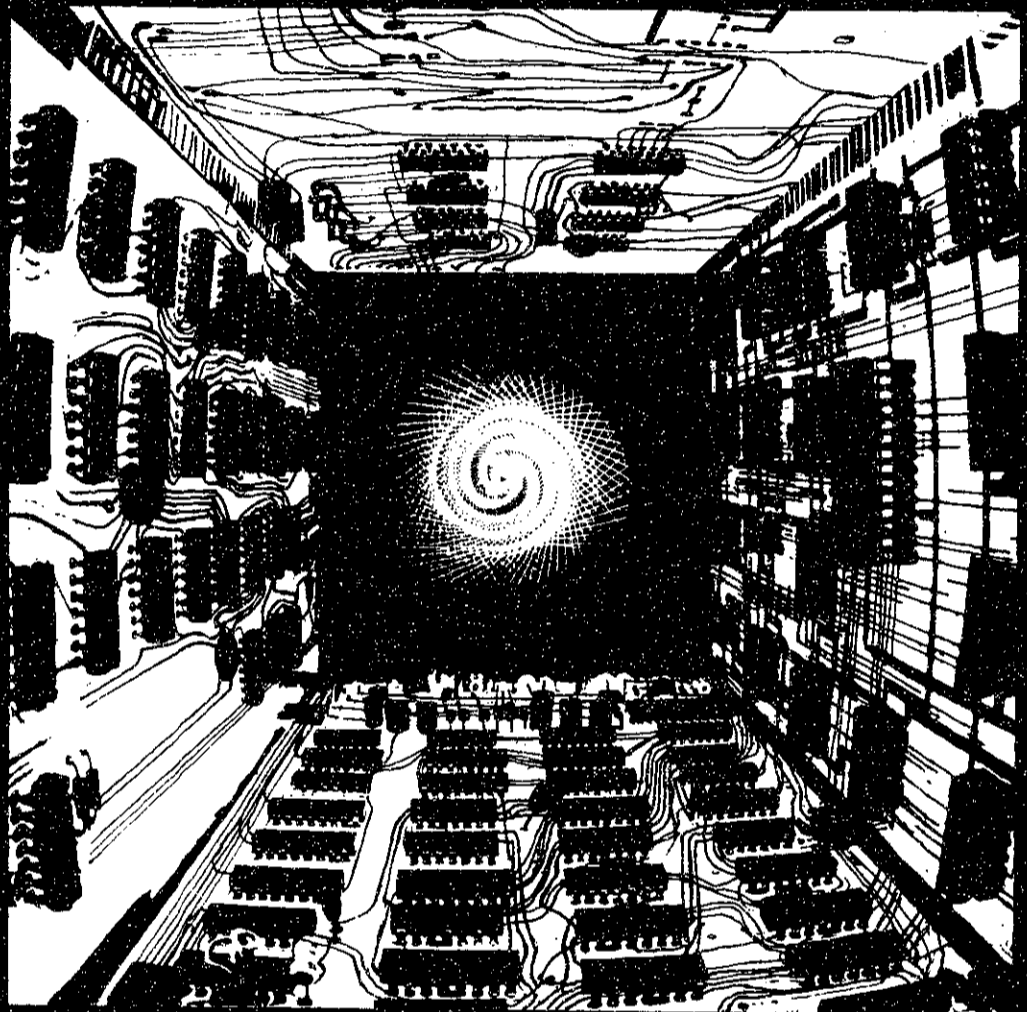
Saturday, Oct. 19

Famed economist Lester Thurow and other authorities will in international fields will be featured speakers at the **International Careers Forum**, scheduled for 8:30 am to 5 pm, at the Starr Auditorium of Kennedy School of Government, Harvard University. The event is sponsored by the United Nations Association of Greater Boston and the Office of Career Services, Harvard University, and will provide a rare occasion to interact with international professionals and to hear their view on available opportunities. Careers in International Law, International Finance, International Health, Government, United Nations, Non-Profit and Journalism will be discussed. For registration, interested persons should call 482-4587 or contact their college career counselor.

Ongoing

Reference librarians in each of M.I.T.'s fourteen libraries will be glad to explain how to find and use the materials in their libraries. Call to find out about scheduled or specially arranged tours.

INSIDE TEKTRONIX



A WORLD OF POSSIBILITIES

Today's possibilities become tomorrow's products, thanks to the efforts of dedicated professional scientists and engineers.

We will take you to the frontiers of CAD/CAE/CAM, artificial intelligence, gallium arsenide, liquid crystal shutter, graphics and real-time software systems, avionics, engineering workstations, and the world's fastest scopes.

If you are graduating with a degree in Electrical Engineering, Computer Science or Physical Science, we invite you to the following events:

OPEN HOUSE—October 16, 1985, 7:00-9:00pm Room 1-150

Presentation will begin at 7:00pm and will include displays and demonstrations of Tektronix 4404 artificial intelligence system, high-speed scope and Tek's logic analyzer.

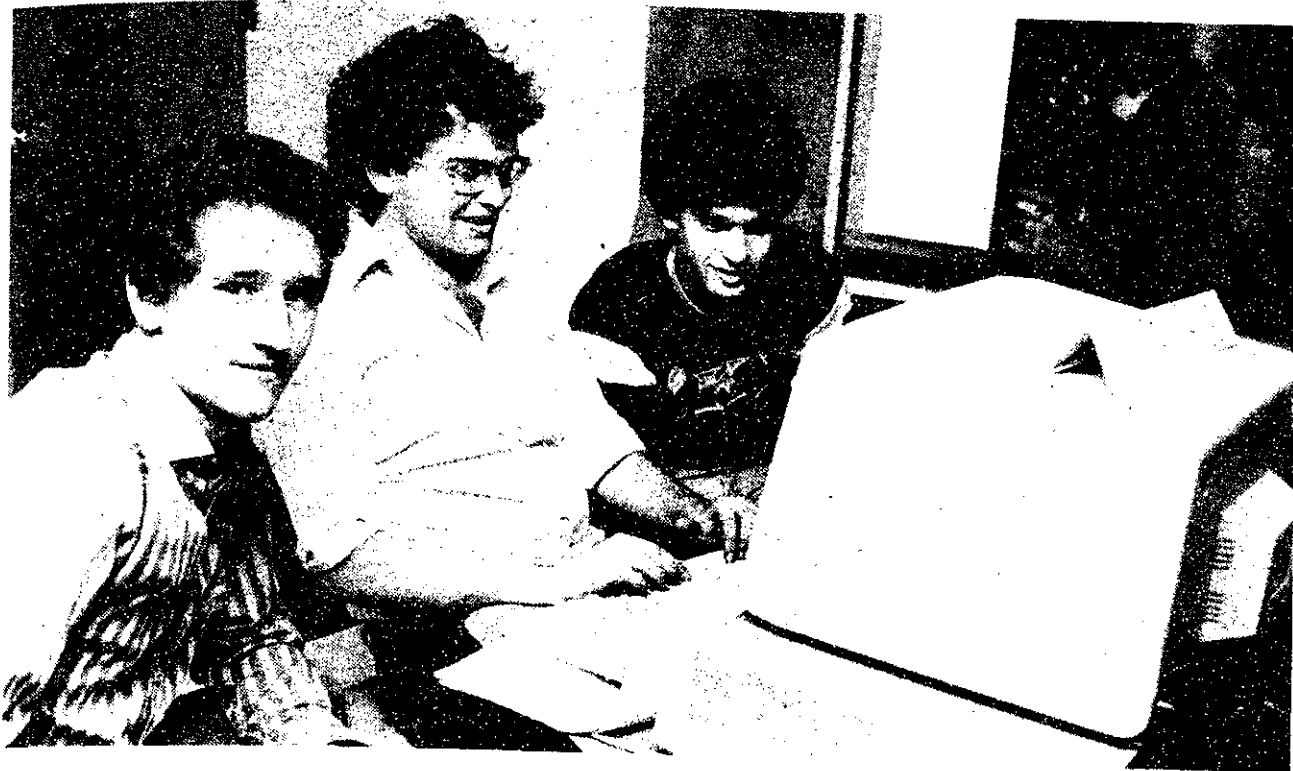
Refreshments will be served.

CAMPUS INTERVIEWS—October 17, 1985

If you are unable to meet with us, please contact Diana Smiley, Tektronix Inc., Corporate College Relations Y6-044, P.O. Box 500, Beaverton, OR 97077, or call 1-800-547-1516.

We are an equal opportunity employer m/f/h.

Tektronix



Tech file photo

MIT Team II members Derek Laufenberg '87, John Colombo '88 and Steve Wasserman '88 plot their next move at the first annual Marathon of the Mind held Sept. 29 at Boston Museum of Science's Computer Place. Teams from more than six area colleges challenged Infocom's new game Spell Breaker and each other for 18 hours and 45 minutes. The MIT and Wellesley teams were tied until Wellesley pulled ahead Sunday afternoon.

Institute offers AIDS testing

(Continued from page 1)

agnose AIDS, according to Goldstein. The patient is first examined for the presence of diseases and opportunistic infections which would normally be fought off by a healthy immune system. If these infections are present, the patient's blood is tested for the presence of antibodies against HTLV-III, the virus which causes AIDS.

The AIDS virus is spread by intimate contact with infected bodily fluids, primarily blood, blood products and semen (see sidebar). Because all donated blood is now routinely screened for the AIDS antibody, the primary mode of transmission for the disease is believed to be sexual contact.

The Medical Department "pushes [the use of] condoms" in both homosexual and heterosexual intercourse in order to avoid infection, Goldstein said. A monogamous lifestyle is "probably best," he added, "but condoms at least provide a barrier" to the virus.

Male homosexuals were among those first affected by AIDS in the US, and more than half of all AIDS victims in this country are members of that group. A member of Gays at MIT (GAMIT), who did not wish to be identified, said members of that organization are "very well informed" about the modes of transmission

of the disease. No member of GAMIT has contracted AIDS, he said.

Speakers from the AIDS Action Committee, a group which provides information about AIDS and support for AIDS patients, have spoken to members of GAMIT during GAMIT's regularly scheduled meetings. Copies of "Safe Sex," a pamphlet outlining the relative risks of different sexual practices, are available in the GAMIT lounge.

Any student who believes he or she has been exposed to AIDS may ask to be tested by the MIT Medical Department. The results of the test, whether positive or negative, will be entered on the student's permanent MIT medical record. The Medical Department will also provide the locations of other testing centers to people who do not wish their test results to be recorded.

Students who donate blood through the TCA blood drive will automatically have their blood tested for the AIDS antibody. The donor will be contacted by the Red Cross if the test is positive.

The Medical Department held a meeting for all health care and support staff Thursday to clarify the epidemiology of AIDS and, according to Goldstein, to "educate ourselves as to better serve the MIT community." The Medical Department established a task

Transmission of AIDS

(Continued from page 1)

length of time outside the human body.

According to an article by Staff Assistant to the Executive Director of the Medical Department Kathy Marshall, the virus cannot be "transmitted through the air or . . . picked up from contact with a surface (i.e., skin, toilet seat, kleenex) previously exposed to a carrier." Marshall's article, which will be made available to all members of the MIT Health Plan, adds that a recent study of children with AIDS has shown they do not pass the disease to family members.

Three groups in the US are at highest risk for AIDS infection: male homosexuals, who contract the disease through sexual intercourse; intravenous drug users, who contract the disease through sharing a needle (which contains traces of blood) with a carrier of the virus; and hemophiliacs, who until recently could be exposed to the virus through the blood products necessary to control their disease.

The risk to hemophiliacs has been reduced through the introduction of heat-sterilized clotting factor concentrates, and through

the routine screening of all donated blood. The latter practice will also considerably reduce the risk of transmission of the virus through transfusion. The Red Cross began screening all donated blood in April of this year.

Homosexuals can reduce the risk of transmission through the use of condoms (although the *Science* article notes that the effectiveness of condoms in reducing infection is unproven). Anal intercourse, because it can cause rectal trauma and thereby allow direct contact between infected semen and the blood stream of the passive partner, is considered the sexual practice most likely to transmit the disease.

Although homosexuals, hemophiliacs and drug users are at highest risk, those who are not members of or sexual partners of members of these groups should not consider themselves immune to AIDS. According to the *Science* article, studies "have shown that sexual contact with prostitutes and large numbers of heterosexual partners are risk factors for AIDS in heterosexual men." Heterosexual women can also contract the disease through sexual contact.

force in August to study the AIDS problem.

Two Medical Department staff physicians who specialize in infectious diseases have been given the duty of interviewing possible victims, who must be referred by another staff physician. Upon request, the Medical Department will send a physician to address living groups and campus organizations about the disease. Information about AIDS is also available through the Dean's Office.

JPL/California Institute of Technology
Campus Interviews Th., Oct. 31 & Fri., Nov. 1

SPACE LINK

At JPL, we're known for pioneering paths to the stars. Now our EEs are designing a communications laser to beam back more data from space. If you're qualified, you may be able to help build it.

Future generations of deep space probes will use optoelectronics to move masses of mission data at 4 megabits/second to relay stations in earth orbit, a 16-fold increase over radio frequency transmission speeds. Relayed back to Earth by broadband RF, information from space will give science its clearest image of the solar system. And the galaxy.

JPL offers scientists and engineers unrivaled vistas in planetary and space disciplines.

Meet with a JPL campus representative. Find out how you can link your future with our stars.

An Equal Opportunity Employer M/F

JPL

Jet Propulsion Laboratory
California Institute of Technology

CIA... for Careers of Consequence

If you are seeking meaningful work in an atmosphere that encourages and nurtures professional development, join the CIA.

The CIA is seeking dedicated people to engage in both in-depth research and fast-breaking reporting on topics of importance to senior U.S. policymakers. These one-of-a-kind challenges will provide you with the opportunity to become personally involved with the pressing foreign issues of our time while building a rewarding career. Opportunities exist for:

- Aeronautical and Astronautical Engineers
- Computer Specialists
- Economists/Econometricians
- Electrical Engineers
- Mechanical Engineers
- Nuclear Engineers
- Operations Research/Statisticians
- Physical Chemists
- Physicists

Opportunities in the Nation's Capital

the challenges you will face.

Individuals chosen for these positions will be trained while on the job and will be rewarded with starting compensation ranging from \$18,000 to \$40,000, depending on qualifications. You will enjoy living and working in the Washington, D.C. area, with a choice of athletic, cultural, and historic attractions.

See your Placement Office for additional information, or send your resume to:

Recruitment Activity
Officer
Department S (M27)
P.O. Box 1920
General Mail Facility
Boston, MA 02205



Central Intelligence Agency

The CIA is an equal opportunity employer. U.S. citizenship is required.

MIS

Management Training Program

at

Morgan Stanley

One of Wall Street's leading investment banking firms invites Bachelor's and Master's candidates of all majors to apply to our Management Information Systems Management Training Program.

We are seeking FALL GRADUATES and RECENT ALUMNI with superior academic records.

OUR PROGRAM OFFERS:

- *A means of establishing a career on Wall Street.*
- *Rapid career progression.*
- *Significant level of technological training focused on the securities industry.*
- *An outstanding compensation program.*
- *An environment with high intellectual standards and sophisticated approaches to the markets.*
- *A commitment to maintaining a competitive edge.*

MIT Recruiting Date: Friday, October 25

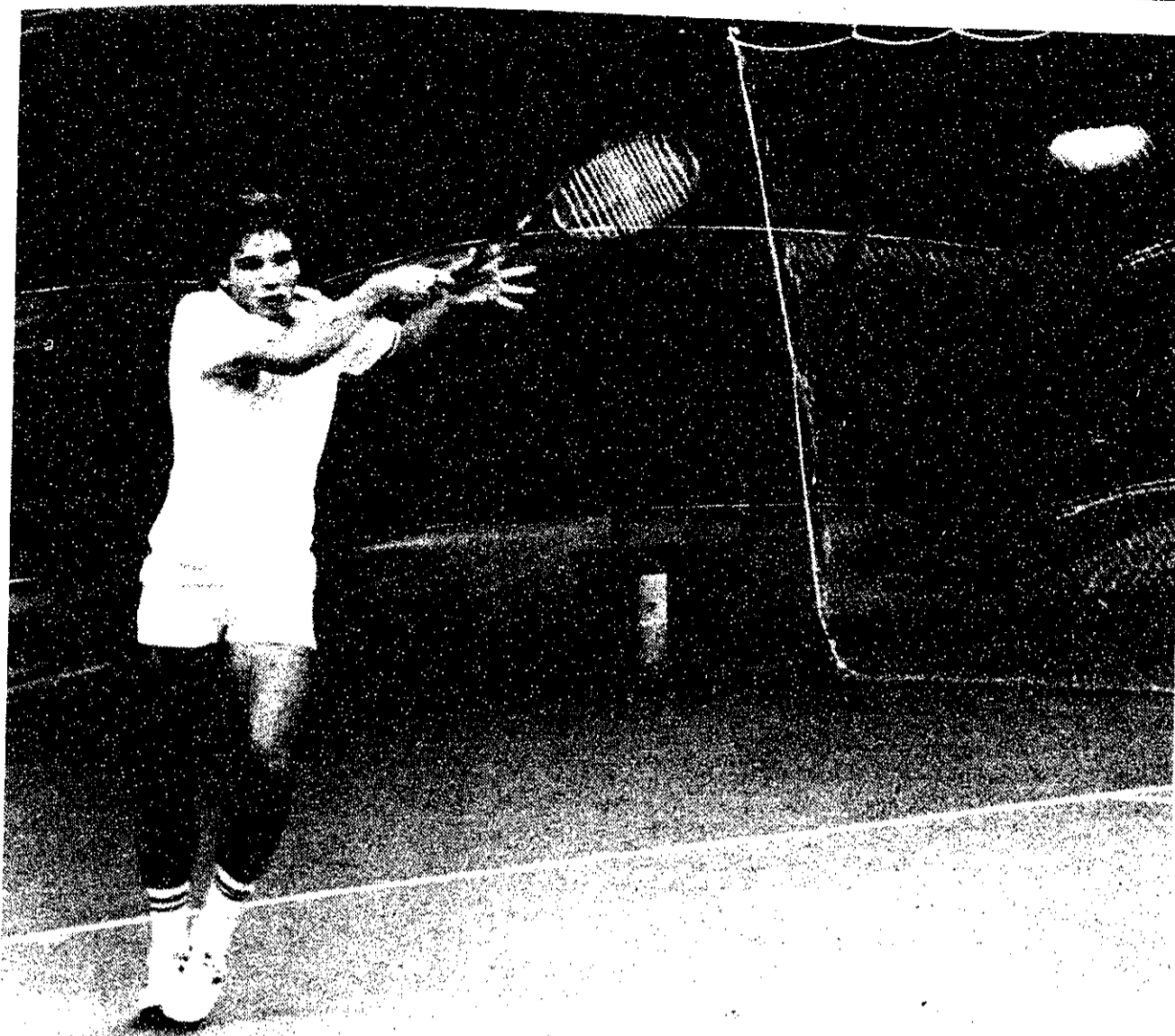
Sign-up Deadline: Tuesday, October 8

For more information and to forward your resumé, visit the office of Career Services or write:

MORGAN STANLEY & CO.
Incorporated

Christine A. Schantz
Manager, MIS Recruiting
1633 Broadway
New York, NY 10019

Morgan Stanley is an Equal Opportunity Employer.



Ben Spehlmann '88 slams a forehand against his Clark University opponent Friday. MIT defeated Clark 8-1. Tech photo by Donald Chan

Classified research would end

(Continued from page 1)

"a deliberate attempt to focus science and technology on narrow areas."

She warned of "a reduction of freedom of choice" and indicated that scientists and engineers in SDI fields would probably have to take a weapons job. There is potential for competition over non-defense research jobs, she said.

Kistiakowsky said it was ironic that the government was directing scientific research, making the United States' policies similar to the controlled research policies in the Soviet Union.

A pledge not to participate in SDI research is being circulated among students and faculty by the MIT Disarmament Study Group. She said that this pledge was a way for "individuals to say they're not going to do something they think is wrong." She called it "a national statement that science and technology are not solidly behind SDI."

"It is not possible for MIT to forbid [all] the research," Kisti-

kowsky said, but "there must be a clear statement that there will be no classified research on campus."

She said classified research would limit access to work and require security clearances for principal researchers and graduate students. A graduate student would have to decide between "a classified thesis or ending research" if a project was classified, she added.

Provost John M. Deutch '61 said, "There is no expectation of classified research on campus." If a project were to be classified, "work would be terminated," Deutch said.

"A faculty member should be free to pursue whatever he thinks is worthwhile," Kaysen said. He said that a committee recommendation against SDI would be "unwise and unsuccessful."

Kaysen said the final report would list facts and the questions they raise. "I believe that's the limit of our mandate."

"We don't take a stance on government R&D [research and

development] programs," Deutch said. He said the Institute "won't get pushed" from this central position.

Stratton to slice cake at Student Center party

(Continued from page 1)

The Wiesner Art Gallery on the second floor of the Student Center will host a photography display which portrays the building at different times during its 20-year history. Steve Burke of the Undergraduate Association (UA) and Andrew Eisenmann '75 of the Student Art Association (SAA) — both members of the Dean's Office — and Kenneth M. Flowers '86 of MIT's yearbook *Technique* coordinated the exhibit.

Barbara Fienman, campus activities director, is coordinating the celebration. Burke worked with the Technology Community Association (TCA), Alpha Phi Omega (APO) and the SAA.

Jeanette Mitrano planned the Dramashop and theater presentations. Rim Cothren G, head of the Lecture Series Committee (LSC), donated promotional services on behalf of LSC, TCA and

APO arranged for the silkscreening of the T-shirts and the UA donated money for the balloons and decorations.

The schedule of the day's activities is as follows:

- 12-2:30 pm: Free make-your-own ice cream sundae party in the Sala de Puerto Rico (sponsored by Food Services). Stratton will cut the cake (donated by SCC) at approximately 12:30 pm.

- 1-2 pm: MIT Dramashop will perform an "Actor's Workshop" in the Sala de Puerto Rico.

- 1-1:30 pm: MIT Brass Ensemble will perform in the Wiesner Art Gallery.

- 2:15-3 pm: The Shakespeare Ensemble of MIT will perform in the Wiesner Art Gallery.

- 3-3:30 pm: The Musical Theatre Guild will perform selections from "Brigadoon" in the Wiesner Art Gallery.

JPL/California Institute of Technology
Campus Interviews Th. Oct. 31 & Fri. Nov. 1

SPACE LINK

At JPL, we're known for pioneering paths to the stars. Now our EEs are designing a communications laser to beam back more data from space. If you're qualified, you may be able to help build it.

Future generations of deep space probes will use optoelectronics to move masses of mission data at 4 megabits/second to relay stations in earth orbit, a 16-fold increase over radio frequency transmission speeds. Relayed back to Earth by broadband RF, information from space will give science its clearest image of the solar system. And the galaxy.

JPL offers scientists and engineers unrivaled vistas in planetary and space disciplines.

Meet with a JPL campus representative. Find out how you can link your future with our stars.

An Equal Opportunity Employer M/F

JPL

Jet Propulsion Laboratory
California Institute of Technology

JEWISH INTRODUCTIONS



We announce for you:

- An unpressured, student-designed service to introduce you to other Jewish graduate and undergraduate students in Boston.
- We feature a brief informal interview with a counselor who will meet and match students from all of the Boston area schools.
- You and your potential friend will each receive a confidential letter, so that you can arrange to meet each other at your mutual convenience. Whenever possible, participants will receive more than one match. All inquiries and information will be held in strict confidence.
- Interviews will be conducted at your campus beginning in October and at regular intervals throughout the academic year. Matches will be made whenever appropriate between November and May. There is a five dollar registration fee, a ten dollar interview fee and a deposit which will be returned upon completion of a follow-up questionnaire.
- Call 266-3882 between 9 a.m. and 2 p.m. for interview appointments and information.

A project of the Metropolitan Outreach Program of the B'nai Brith Hillel Council of Greater Boston, 233 Bay State Road, Boston, MA 02215.

Hi-Fi CRAZY CASH SALE UP TO 70% OFF

\$99 SPECIALS

Sony WMF10 MKII Walkman AM-FM Cassette
Olympus Stereo Micro Cassette Recorder
Sony XR20 AM-FM Auto Cassette Deck
Kenwood 30 - 30 Watt Digital Receiver
Marantz Dolby B, C Cassette Deck
KLH 35 - 35 Watt Integrated Amplifier
Sansui Digital AM-FM Tuner
Scott 3-Way Floor Standing Speakers (each)
KLH 2-Way Speakers (brass reflex) (per pair)
AKAI PU11 - AM-FM Cassette Boom Box
Sony CFS - 900 AM-FM Cassette Boom Box
Sansui Direct Drive Turntable w/Car
AKAI Direct Drive Turntable w/Car
Cybernet AM-FM Digital Tuner w/Presets
Cybernet Preamplifier w/Midrange Controls
Cybernet 60 + 60 Watt Power Amplifier
Sony 6" x 9" 3-Way Car Speakers (per pair)

ACOUSTIC RESEARCH

8 BX (2 WAY) \$ 59 ea.
18 BX (2 WAY) 79 ea.
28 BX (Floor Standing) 119 ea.
38 BX (3 WAY) 139 ea.
48 B (Old Style) 179 ea.
48 BX (New Style) 179 ea.
58 BX (Floor Standing) 229 ea.
AR Turntable w/Arm 249 ea.

COLOR TELEVISION

Hitachi 13" \$199
Sony 13" Trinitron 289
RCA 17" 299
RCA 19" Remote 399
Sony 17" Remote 449
Sony 19" Remote (VIP) 499

\$119 SPECIALS

Sony 3.7" B&W Zoom TV
Kenwood Dolby Hi Speed Dubbing Deck
Kenwood 40 - 40 Watt Equalizer Receiver
Kenwood Direct Drive Turntable w/cart (per pair)
AIWA HS-F07 Stereo Recorder (auto rev.)
Blaupunkt Frankfurt AM/FM Car Unit
AKAI AAA-25 Digital Receiver (black)

\$199 SPECIALS

Blaupunkt 120 Watt Car Amplifier
AKAI 65 + 65 Watt Receiver
Marantz Variable 1/2 Speed Recorder

\$10 SPECIALS

Audio Technica P-Mount Cartridge
Sony Walkman Headphones
Stereo Extension Speakers
Sony Auto Noise Filter
VCR Dust Cover

\$54 SPECIALS

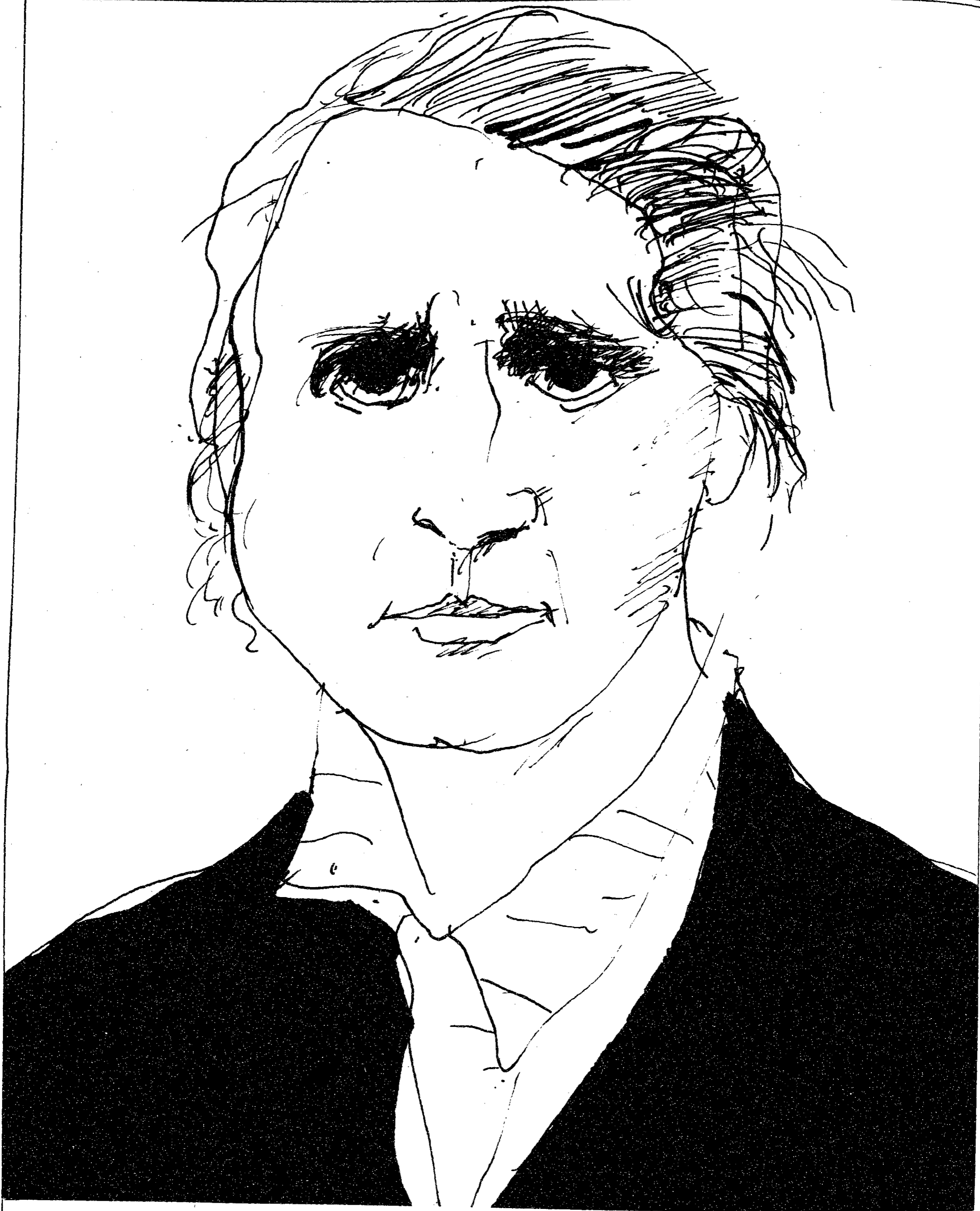
AIWA HS - P05MKII Cassette Player
Sony AM/FM Sports Walkman
Toshiba AM-FM Micro Stereo w/Ear Plugs
Toshiba FM Stereo Micro Headphones
Sony ECM 939LT Stereo Microphone
Sony MDR-M55 Digital Headphones

\$249 SPECIALS

AR (EB-101 Turntable w/Arm)
Kenwood Compact Disc Player
Sansui Compact Disc Player
Sharp Compact Disc Player
AKAI GX-66 Dolby B, C, DBX Deck

A. SMITH'S
CAMERAS, HI-FI, TV'S

401 MASS. AVE.
CAMBRIDGE, MA
HOURS • Mon. thru. Fri. 10 to 6, Sat. 10-5
876-3210



UNITED TECHNOLOGIES IS LOOKING FOR ANOTHER CURIE.

When you spend four years cooking eight tons of pitchblende down to a single gram of radium, that's perseverance.

Perseverance, and the confidence to know when you're right, and the courage to keep going.

We'd like to find a few more people like that. We have a lot to offer in exchange. As a worldwide group of companies, with galaxy-wide interests, we have room for tons of raw materials and time for years of patience. And sometimes it

seems almost everyone here's an engineer, right up to the top, so we speak your language.

We're the world's largest maker of helicopters, aircraft engines, elevators, escalators, and air conditioners. There's always something cooking in spacesuits or fiber optics. We're at the center.

Check us out. Stop in at the campus placement office, or write for more information and a reprint of this ad. United Technologies, P.O. Box 1379, Hartford, CT 06143.

United Technologies means Pratt & Whitney, Hamilton Standard, Otis, Carrier, Automotive Group, United Technologies Microelectronics Center, Norden, Chemical Systems, Essex, Sikorsky, Mostek and United Technologies Research Center.

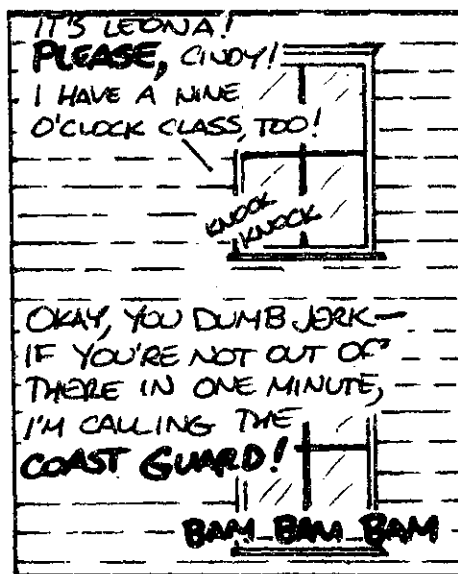
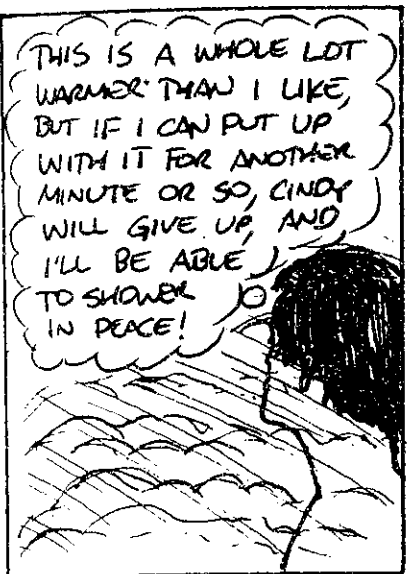
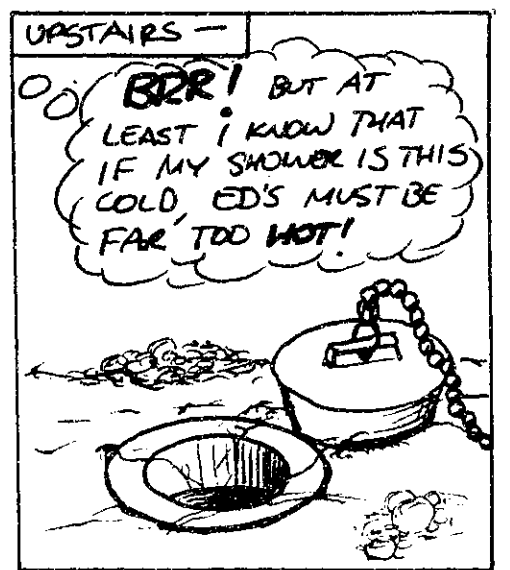
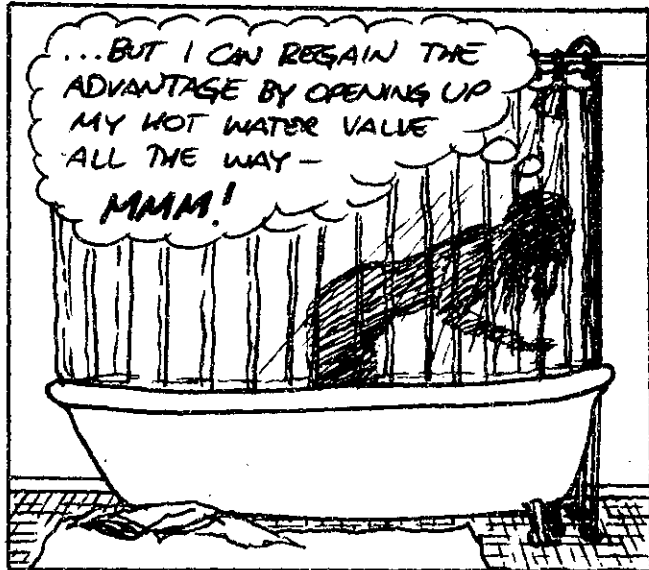
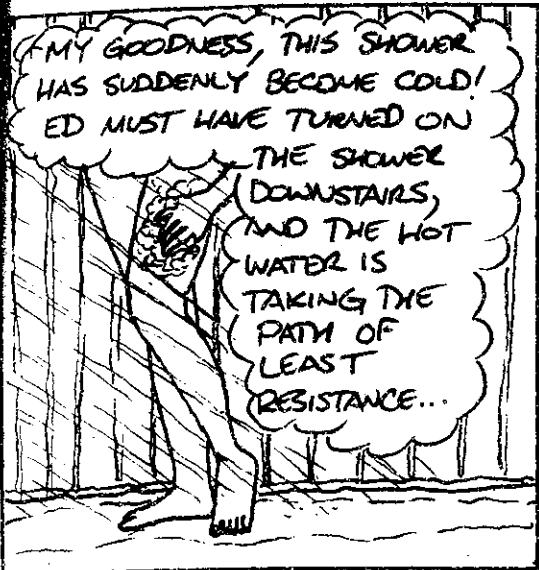
An equal opportunity employer.



comics

Outside Looking In

By V. Michael Bove



TALK TO DRAPER

Wednesday, October 16, 1985
MIT

most respected and inventive people at developing innovative and fascinating new technologies. As a leading hands-on "working laboratory" in Technology Square, we offer a unique environment for your career to grow and develop. Positions are currently available for candidates in EE, ME, Aero-Astro, CS, Physics and other technical fields in the following areas:

- Control Systems
- Avionics
- Analog & Digital
- VLSI
- Computer Engineering
- Software Development
- Real Time Software
- Artificial Intelligence
- Solid State Physics
- Optics
- Spacecraft Dynamics
- Guidance & Navigation Analysis
- Test Engineering
- Materials Science
- Mechanical Design
- Tribology
- Robotics/Automation

We are a community of 2,000 and growing. If you're looking for a competitive salary, outstanding benefits package, including tuition reimbursement, and a state-of-the-art professional challenge - we want to talk to you.

INFORMATION SESSION
Tuesday, October 15, 1985

Details available at your Placement Office. The Charles Stark Draper Laboratory, Inc., 555 Technology Square, Cambridge, MA 02139. We are an equal opportunity/affirmative action employer.

U.S. Citizenship required.

 **The Charles Stark Draper Laboratory, Inc.**

Get your career off to the right start with the company that started a revolution in the CAE industry. Our fully-integrated, high-powered, Apollo-based workstations have changed the way designers work. We've captured the lead in world CAE sales, and we're expanding our efforts in both hardware and software.

If you want to do things right, do them at Mentor Graphics. We currently have opportunities for:

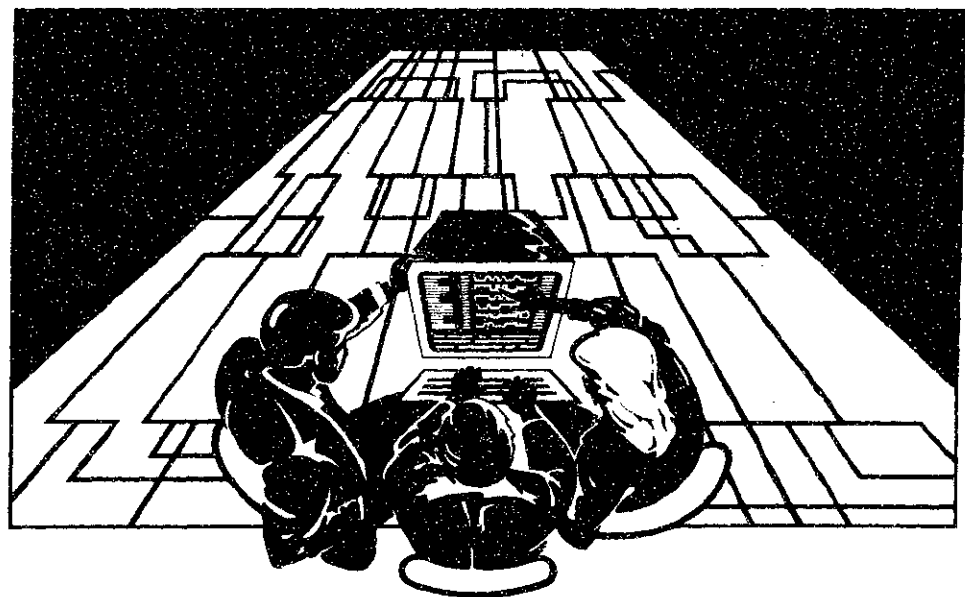
- Software Development Engineers
- Hardware Development Engineers

To Find Out More
See Us On Campus

October 17, 1985
7:00 PM-9:00 PM
Building 4, Room 159

If you can't attend, send your resume to Mentor Graphics, College Relations Dept., 8500 S.W. Creekside Place, Beaverton, OR 97005-7191. We are an affirmative action and equal opportunity employer.

Mentor Graphics™



Start your career
the way we started
our company. Right.

sports

MIT rugby team defeats West Roxbury, 13-7

By Mike Murphy

The rugby club's A side returned to winning Saturday with a 13-7 defeat of West Roxbury RFC on Briggs Field. The victory leaves the side with a 2-1 league record (3-1 overall) and a chance to make the championship bracket of the league playoffs.

Early play saw MIT's forwards, behind Leo Casey G, dominating the action but unable to score. A brief lapse led to a West Roxbury penalty kick and put the home side down 0-3.

MIT roared back after the kickoff with a penalty kick of its own to tie and continued to apply heavy pressure. The pressure

paid off near the end of the first half as Richard Reneti fell on the ball in the try zone. Rich Selesnick G converted to give MIT a 9-3 lead at the half.

The second half brought rain, making ball handling difficult for both sides, but Steve Toule '89 and Reneti were able to combine for a second try early in the half. MIT continued to dominate the game, except for one defensive lapse leading to a West Roxbury try and the final score.

MIT's B-side continued to improve. They fell to a West Roxbury side with several A-side players by a 12-4 score. The first try of the season was scored by Dave Douglas G, after the referee denied an earlier one. The entire game was dominated by defense, as the weather made passing difficult.

(Editor's note: Mike Murphy is president of the MIT Rugby Football Club.)



Tech photo by John Krusac

Players from Delta Upsilon and Phi Sigma Kappa scramble in the mud during their intramural soccer game Sunday. PSK won the game 2-1.

classified advertising

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

WORD PROCESSORS Do you need a skilled word processor for that special project? Or are you an operator looking for word processing placements (9-5 weekdays)? Call the professionals at WPC. THE WORD PROCESSORS' COLLECTIVE 742-6166.

Experienced babysitter needed to care for 3 year old and 4 year old girls in my Harvard Square home. Mon., Wed., and Friday 3:00pm-6:00pm. Please call 868-4034.

Seek reliable, experienced babysitter to care for 5 month old. Fridays only, 8:30-5:30. Start immediately. Accessible Beacon Hill address. Call 723-5041 evenings.

RENT A TERMINAL for less than you can imagine! Full screen editing, auto dial, easy as pie installation! Semester rates available. Reserve yours today! Limited quantities. Call The Terminal Exchange today! 731-6319.

Do you need to consult with an attorney? If you have questions involving a legal issue, or a business problem, or a claim to be pursued, call Attorney Esther J. Horwich (MIT '77) at 56-1150.

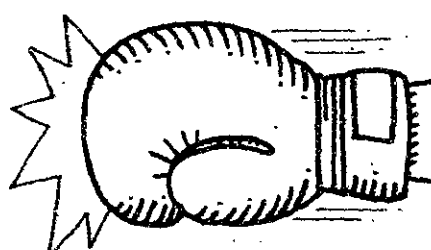
PERSONAL HEALTH General medical care, sports medicine and sexually transmitted disease treatment. Private physicians office. Confidential. Robert Taylor M.D. 1755 Beacon St., Brookline. 232-1459.

COUNCIL TRAVEL/CIEE For Int'l Student I.D., Low cost flights USA and Worldwide. Work and Study abroad and More! FREE Student Travel Catalog! Call 66-196 or drop by at 79 Boylston St., 2nd fl., Boston, MA 02116.

May the sacred heart of Jesus be adored, glorified, and preserved throughout the world, now and forever. Sacred heart of Jesus pray for us, Saint Jude worker of miracles pray for us. Say this prayer nine times a day, by the eighth day your prayer will be answered. Publication must be promised. My prayer has been answered.

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

HELP KNOCK OUT BIRTH DEFECTS



Join the
March of Dimes
BIRTH DEFECTS FOUNDATION

THE NUCLEAR NAVY. RIDE THE WAVE OF THE FUTURE.

You're deep under the sea. There are 4600 tons of nuclear-powered submarine around you. Your mission— to preserve the peace.

Your job— to coordinate a practice missile launch. Everything about the sub is state-of-the-art, including you.

The exercise—a success. You're part of that success and now you're riding high.

In the nuclear Navy, you learn quickly. Over half of America's nuclear reactors are in the Navy. And that means you get hands-on experience fast.

You get rewarded fast, too. With a great starting salary of \$22,000 that can build to as much as \$44,000 after five years. And with training and skills you'll use for a lifetime.

Then, whether you're in the Mediterranean, the Pacific or the Atlantic, wherever you move around the world, you'll be moving up in your career and in the Navy.

Find out more about an exciting future that you can start today.

See your Navy Recruiter or
CALL 800-327-NAVY.

NAVY OFFICERS GET RESPONSIBILITY FAST.