

# COMMENCEMENT TODAY



Members of the Class of 1926 entering Trinity Church for the Baccalaureate Service. (Tech file photo)

## FACULTY APPROVES NEW REGULATIONS

**Modifies Chemistry,  
Science Distribution Requirements**

**MILITARY FUNDING TO BE EXAMINED**

(By Katie Schwarz)

The MIT faculty approved changes in the regulations concerning Institute and departmental requirements in a meeting on May 15, according to Professor Arthur C. Smith, chairman of the faculty.

The changes, proposed by the Committee on Educational Policy (CEP), will eliminate options for the chemistry requirement, limit the number of subjects a department can require for the bachelor's degree, and modify the Science Distribution Requirement. Most changes will take effect beginning with the Class of 1990.

The new regulations were adopted by the necessary three-fifths majority vote after extensive discussion and some opposition, Smith said.

All new policies adopted by the faculty were proposed at least a month before the meeting, according to Smith.

### Chemistry Options Removed

The faculty passed a proposal to remove General Biology (7.01) and Chemical Thermodynamics (5.60) as options for satisfying the General Institute Requirement in Chemistry with little discussion and no dissension, Smith said. The proposal will affect classes entering the Institute in and after the fall of 1985.

An enclosure with the call to the April faculty meeting stated that 7.01 and 5.60 were "unrealistic beginning courses" and that few students used them to fulfill the require-

ment.

Gene M. Brown, head of the Department of Biology, and Mark S. Wrighton, undergraduate curriculum chairman of the Department of Chemistry, introduced the proposal at the April meeting.

Introduction to Solid-State Chemistry (3.091) and Principles of Chemical Science (5.11) are the remaining classes which satisfy the chemistry requirement.

### Number of Required Subjects Limited

The new regulations specify that departmental programs

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### ERRATUM

Director of the Office of Career Planning and Placement Robert K. Weatherall's comment about job prospects for graduates with degrees from the Department of Electrical Engineering and Computer Science was incorrectly reported in the May 14 issue of *The Tech*, due to an editing error. Weatherall said the high number of Course VI graduates has not saturated the demand for MIT students in these fields.

## Iacocca Appearance May Cause Record Attendance

**GRADUATION CEREMONY TO RUN LONGER THAN USUAL**

(By Diana ben-Aaron)

A record attendance is expected at MIT's 119th commencement exercises, which begin at 10 am today in Killian Court. Over 1700 seniors and graduate students will receive their degrees.

A large graduating class and the popularity of commencement speaker Lee A. Iacocca, chairman and chief executive of Chrysler Corporation, may combine to add more than 1000 spectators to the 6000 usually expected for commencement, according to Dorothy Bowe, a member of the Commencement Committee.

The ceremony, which normally lasts until approximately 2 pm, will be longer than usual this year, according to Bowe. "Iacocca has indicated that his speech will be long, and also the degree presentation will take longer," she said.

Over 6500 tickets had been given out by 5 pm Friday, according to the MIT Information Office. This is a higher number than usual, an Infor-

mation Office official said. Tickets were still available at 8 am this morning to graduates who had not previously picked them up.

The academic procession, consisting of dignitaries, faculty, and graduates in academic robes, will leave duPont Gymnasium at 9:30 am and proceed down Massachusetts Avenue, down Memorial Drive, and into Killian Court. Mary Frances Wagley '47, president of the Alumni Association, will lead the procession.

Wagley will pick up the four-foot high gold mace traditionally carried by the president of the Alumni Association as she

enters the court, and hold it on a stand as the procession files past her. This is a change from previous years, when taller Alumni Association presidents carried the heavy sceptre throughout the procession.

"The problem is not weight so much as balance," Bowe said. "The staff is top-heavy, and a lot of people have had trouble carrying it. The stand will be used in the future."

David S. Saxon '41, chairman of the MIT Corporation, will lead the dignitaries in the academic procession and will preside at commencement.

(Continued on page 2)

## FERRARO SPEAKS AT WELLESLEY RITES

**Former Congresswoman  
Addresses 543 Seniors  
at 107th Commencement**

**TEXT OF SPEECH, PAGE 2**

(By Robert E. Malchman)

Geraldine A. Ferraro stressed the interdependence of nations and the opportunities available to women in a speech Friday to Wellesley College's Class of 1985.

The 1984 Democratic vice presidential candidate gave the address, frequently interrupted by applause, at Wellesley's 107th commencement exercises. The college graduated 543 seniors.

Ferraro made two partisan

remarks aimed at the President Ronald Reagan. She said that America's allies "are unhappy when we move unilaterally, when we impose sanctions without consulting them, as President Reagan recently did

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Geraldine Ferraro addresses Wellesley's Class of 1985. (Tech photo by Carl LaCombe)

# CONGRATULATIONS, GRADUATES!

# Ferraro gives Wellesley Commencement speech

*Editor's note: The following is the text of the commencement address, "New Doors, New Directions: Facing America's Challenges in a Changing World," given Friday by 1984 Democratic vice presidential nominee Geraldine A. Ferraro at Wellesley College. Wellesley President Nannert O. Keohane introduced Ferraro.*

Thank you, Dr. Keohane for that kind introduction. I am very glad to be here in Wellesley this morning. I must say, it is wonderful to be in a place that already has a woman President. I understand that when Wellesley was founded, one fellow objected that "vigorous study will prove too strenuous for the feminine mind and condition." I just want you to know I ran into a few of his relatives and they didn't think a woman could run for a national office, and I'm glad you and I have proven him wrong.

But what makes me happy, as I look out from the podium today, is knowing that I'm not just looking at a graduating class, I'm looking at part of a return on my generation's investment in the future. You, like thousands of other graduates throughout the country, are the most valuable resource our nation has. Your years at Wellesley have given you a voice in our future, and equipped you for the tasks our nation will face in the years to come.

The liberal arts training that you have received is probably the single most important tool our nation can have to help us face tomorrow. You have acquired the ability to think. You have learned to analyze and research. You have learned to separate fact from fiction, to gather data and understand what it tells you. You have met the thinkers who have built our history and our culture. You have learned, not just to make a living, but to make a life.

But I hope that's not all Wellesley gave you. I hope it also gave you the vision to see beyond yourselves; that sometime in these past four years, somewhere between meeting your first Ask-Me and sitting down to the champagne breakfast, you have taken the time to ask the larger questions.

I am confident that Wellesley has taught you to see yourselves as part of a larger community. Not just as women, or as Americans, but as global citizens. If our country is to survive, we can no longer stand isolated. Today we are entirely interdependent on other nations' well being. This is true economically, scientifically, and culturally.

This means new directions for us all, and new doors opening up. Those of you graduating today have been raised as members in a global family. In the next years, you will have more knowledge of, and more contact with, people of other nations than any generation in history. Your lives will be richer for that. That contact will bring you economic and scientific progress, and exciting cultural discoveries.

It also brings new responsibilities. To be concerned not just about ourselves, but about each other.

The problems that will face us tomorrow demand solutions that transcend our borders and national interests. We need a long range perspective, one that looks beyond what will solve today's crisis to what will build tomorrow's society. Nowhere is this wider view more important than in our nation's foreign policy.

I recently returned from a three-week trip to Europe, where I met with several heads of state. I spoke in detail with defense and finance ministers and foreign secretaries of our NATO allies. Today I want to share with you some of what I found on that trip.

I was encouraged by what I saw among our NATO allies in Europe. Our alliance is strong and healthy. We are working well together, and our friends want to continue that.

We are a strong coalition because we hold strong principles. NATO began as a union to build and defend the values that our countries hold in common. Together, we support the ideal of a participatory democracy. We believe in the free competition of ideas. Above all, we have a firm commitment to human rights.

Of course we have disagreements. Those I talked with stressed that the United States must work to maintain a partnership of equals. They pointed out that being friends means we must ask before we act. They are unhappy when we move unilaterally, when we impose sanctions without consulting them, as President Reagan recently did in Nicaragua. Only by cooperating fully can we get their help for programs we all need. They expect to be partners in fact, not after it — and they are right.

As I look to our future as global citizens, I am most concerned about our relationship with the Soviet Union, the issue I considered most important in my campaign. We must have no illusions in dealing with them. They are our chief adversary. Their totalitarian system is based on values which are repugnant to us as a free nation.

But I remember reading in the papers an interchange that occurred between a

Western reporter and a Czechoslovakian farmer after the Russians invaded that country. The reporter asked if the Czech viewed the Soviets as friends or brothers. The farmer didn't hesitate: "Brothers, of course. You choose your friends."

We are today in the same position as that farmer. We do not like what the Soviets stand for, and we are opposed to much of what they do. But we do share a globe with them. In the years to come, our challenge is to find areas of common concern, where we can work together to build bridges between our nations. We must learn to cooperate where we can, and compete where we must: in the free flow of ideas and the realm of human rights.

I know we can do better. Last month, President Reagan went on a trip to Europe to mark the 40th anniversary of the end of World War II. His visit to Bitburg was a sorry and insensitive slight to all of us who recognize the horrors of that terrible war.

But instead of going to that dark cemetery, he might have used the opportunity to mark another anniversary. Forty years ago last month, Russian and American soldiers met and shook hands at the River Elbe. It was a dramatic image of those weary men greeting each other.

But it also marked the end of our last great alliance with the Russians. We missed that anniversary, and we missed, too, a chance to send the Soviets a positive signal that we want to work at improving relations with their country. The Soviets are not like us, but neither are they ten feet tall. Our future demands more than the will to stand up to the Soviets: it also demands the wisdom to sit down with them as well.

The next few months will mark a crossroads in US-Soviet relations. Chairman Gorbachev is clearly consolidating his power. He has postponed the Communist Party Congress until February, which gives him time to marshal his forces still further. He will have an opportunity to name additional members to the Politburo and change fully one-third of the members of the Central Committee. Those signals are clear: the Soviet leadership is now in the process of drawing up a blueprint which will last five, ten, or fifteen years. That is the program that will affect us in the years ahead and we must act now to shape that policy. Again, we must look beyond ourselves, beyond our time, into the future. We must work with each other now, or risk confrontation later.

We need that long-range view in our dealings with all nations. Too often, we have found ourselves in a position of having to react — simply because we didn't hold a vision of the future. The time has come to ally ourselves, not with the powers of repression, as we have done in so many parts of the globe, but with the ideal of liberation and empowerment.

It is our duty to become involved in human rights wherever they are being violated. As Americans, we have something in common with people everywhere who seek a greater voice in shaping their lives. Americans have always believed in the principle that nations are better off when their people are free. Those are the roots of our country, and it is what we have always stood for. Freedom has been the central theme of our great struggle to become a nation.

We must apply that standard throughout the world, whether we are dealing with our adversaries like the Soviet Union or nations we call friends, like the Philippines. America's voice must be heard calling for human rights wherever people are oppressed, in Chile, in Haiti, in Ireland, in Cuba and in South Africa. We have a moral obligation to speak out.

American students have made their voices heard very clearly on this issue. It is tremendously impressive to see young people speaking out at universities across the country. I spoke at Hunter College in New York two days ago, where I met their student body president. It was a young woman who spearheaded the successful effort to make the entire City University of New York system divest its South African holdings. We have seen such actions at Yale, at Columbia, and here at Wellesley. I congratulate those of you here at Wellesley who successfully worked with your Committee for Social Responsibility to urge divestment in companies who refuse to abide by the Sullivan principles, and I thank you for wearing those white armbands today.

This is global citizenry at work. When we expand our actions beyond our own concerns, we do more than just focus attention on the problem. People get involved. They learned that when we raise our voices together, we are heard.

Our moral convictions inspire us to speak out, but it is also in our national interest to do so. The United States cannot ally itself with powers of repression in South Africa; it is clear that majority rule will come to that country. We cannot interfere with the self-governance of our Central American neighbors; it is

clear they will take their own road to development. Nor can we stay silent when there are prisoners of conscience in jails in the Soviet Union, for it is clear that some day their voices will be heard.

As we look for new opportunities in that direction, let me make a suggestion. We will soon have a perfect opportunity to stand up for these principles. This summer marks the 10-year anniversary of the signing of the Helsinki Accords. Those accords were a landmark stand in our fight for human rights in the Soviet bloc countries. Let's not miss that anniversary. Let us use it to reaffirm what America has always stood for: the right of all people to be free. That is the path of our future.

There are new opportunities, too, for human rights in our own country, and that was the message of our campaign. We did not win the election, but we did win something very important: a victory of spirit that will help our country face the future. We broke down an unjust and unwise barrier. The night he chose me, Walter Mondale opened a door that will never again be closed. By putting a woman on the national ticket, we declared that the tyranny of expectations is over.

My campaign was part of a larger shift in our society, one landmark in an age of important landmarks for women. Now we have had the first woman in space, the first women on the United States Supreme Court, the first women on the national ticket of a major party, the first woman ever to win the 18-day dog sled race in Alaska, and just last month, the first woman to be ordained as a conservative rabbi. Not to mention the first women's rowing crew in the nation, right here at Wellesley.

Why this breaking of barriers everywhere at once? Because, in my opinion, there is so much unfortunate history to break with and repudiate — a history of unequal treatment and low expectations for women.

When I was about to go to college, my uncle said to my mother: "Don't bother, Antonetta, she's pretty, she'll get married." Well, I was . . . and I did. I am only sorry that he didn't live to see that niece nominated for the second highest office in the land.

When I applied to law school, a university official asked if I was "serious" — because, after all, I was taking a man's place. Today, no professor would be caught dead saying that to a female student. First of all, that professor could be a woman. In fact, if she were at Wellesley, you can bet her Department Chair would be a woman. More

important, the greatest achievement of the women's movement has been to transform our expectations.

Today, in America, women can be whatever we want to be. We can walk in space, and help our children take their first steps. We can run a corporation and work as wives and mothers. We can be doctors and we can teach our six-year-old children how to bake cookies.

Or we can choose none of these. We don't have to be superwomen. For the first 14 years of my marriage, I worked at home as a mother and wife. That was a fine profession, and nothing I have done since has filled me with more pride and satisfaction. For me, it was the right thing. Then I decided to work outside the home, and that was also the right decision for me. Not every woman would agree with my decisions, but the point is, they were mine — I made them for myself. I know that every woman can take pride in whatever she chooses to do.

No school understands that pride better than this one. For more than a century, you have made history for women. For a decade, your Center for Research on Women has been doing fine work in areas like education, employment, and minorities. Only twelve years ago, there was no law guaranteeing a woman's right to compete in school athletics. This fall, Wellesley will dedicate its own spectacular women's sports complex. Even the most sacred Wellesley traditions reflect the new options open to women: I understand Hoop Rolling now helps your career, not just your marital status.

That freedom isn't just good news for women, it's good news for all Americans. I believe that a nation can only be great by using all of the talents and all of the energy of all of its citizens.

I'm not speaking just to women today. You don't have to be a woman to be offended by discrimination. Most men are. Every father is diminished when his daughter is denied a fair chance. Every son is a victim when his mother is denied fair pay. The fact is that when we lower barriers, when we open doors, we free all of us to reach wherever our dreams will take us.

Let me share a letter I received from a Rhode Island woman with two young daughters, aged four and two. "I brought my two daughters to a rally in Providence, because I wanted them to see you. I wanted them to know what they could aspire to, that the possibilities for them were limitless, that they could, if they wanted, be President, and that being female would not preclude them from doing or being anything they

chose."

That was really what our campaign was all about — making America the best it can be by using the talents of every American. And that is why, whatever else happened in 1984, I will never regret the campaign. It was a gain, not just for women — it was a plus for all Americans. We took down that sign that said "Men Only" on the door to the White House. That was more than just an idea for 1984 — that was an *ideal* to carry us to the year 2000 and beyond.

I spoke in Seattle two weeks ago, in a room packed with 1150 women. Afterwards, a young girl spoke up. She said: "I'm 17 years old, and when I hear you list women's accomplishments in the last few years, I just wonder what will still be left for my generation to do?" [In response to a laugh from the audience, Ferraro then extemporized a remark to the effect that it was a good thing no conservatives were present because the audience's reaction would have upset them.]

To me, that question symbolized where we are as women in 1985: we've made enough progress so that young women take so many things for granted. The fact that any 17-year old can honestly look around her life and wonder "what's left" is a tribute to a lot of hard work.

But we can't stop there. We must continue those strides, broadening our horizons and our hopes. I remind you of what I reminded her: The good is the enemy of the better, and still greater enemy of the best. We talked for a few minutes about the Equal Rights Amendment, and about comparable pay and pay equity, and all the other vital issues facing us as women in 1985. I think, when we finished, she was relieved to find that her generation just might have one or two battles left to fight.

And that is my message to you today. You are free to rise as high as your dreams will take you. Your task is to build the future of this country and of our world. You are our new global citizens. Whatever you do, I remind each of you that *your* potential and possibilities at this juncture of your lives are absolutely limitless.

Wellesley has given you the skills to make this world a better place. It has offered you the vision to make it more human. For my part, I wish you the courage to stand up for what you believe in. I know there are new doors ahead for our country, and I hope we'll go through them together. With your help, I look forward to seeing what lies beyond them. Congratulations and good luck.

## Ferraro discusses American issues and new opportunities for women

(Continued from page 1)  
in Nicaragua."

The former New York congresswoman also took the president to task for his visit to Bitburg's military cemetery, last month as "an insensitive slight to all of us who recognize the horrors of that terrible war." Both comments received applause from the audience.

The United States missed an opportunity to send the Soviet Union a positive signal by failing to commemorate the 40th anniversary of the meeting of American and Soviet soldiers at the River Elbe, she said.

Ferraro praised young people who worked to have their schools withdraw investments from companies which do not adhere to the Sullivan Principles in South Africa. She thanked those students wearing white armbands for demonstrating their support to that goal.

Nearly half the class, including an ROTC graduate in uniform, wore the armbands, but to protest US policy in Central America, not investment in South Africa. "The people wearing armbands want to show support for self-determination for the peoples of Central America," said protesting graduate Sarah P. Mulkern, former editor in chief and publisher of *The Wellesley News*.

A smaller number of students wore yellow flowers to show opposition to apartheid. It was not clear whether those protesters supported the Sullivan Principles, or objected to South African in-

vestment under any circumstances.

Ferraro declared that there are "new opportunities, too, for human rights in our own country."

"Today, in America, women can be whatever we want to be," she continued. Not everyone would agree with the decisions Ferraro made for her life, "but the point is, they were mine — I made them myself."

## Iaccocca's speech will be long; its content was not disclosed

(Continued from page 1)  
MIT Provost Francis E. Low will lead the deans of schools, and Professor Judith T. Kildow will lead the faculty. Dean for Student Affairs Shirley M. McBay will lead the graduating students.

Rabbi Daniel Shevitz, MIT Religious Counselor, will present the invocation at the beginning of the ceremony.

Iaccocca's address is scheduled to begin at approximately 10:35 am. He has not indicated what his topic will be and does not plan to release copies of his speech, according to the MIT News Office.

Iaccocca is the fourth outside speaker at an MIT commencement since 1963. The president of the Institute delivered the commencement address at the intervening 18 commencements.

Following Iaccocca's speech, Inge Gedo, president of the Class of 1985, will present the Class Gift to President Paul E. Gray '54. Gray will then address the graduates briefly.

Ferraro told of a girl in Seattle who said to her, "I'm 17 years old, and when I hear you list women's accomplishments in the last few years, I just wonder what will still be left for my generation to do."

What is left is to expand on the gains of this generation, Ferraro said. "The good is the enemy of the better, and still greater enemy of the best."

After the speeches, Gray will confer degrees on each graduating student while the deans of their respective schools read their names. Few other schools of MIT's size present degrees to each graduate individually in one large ceremony.

MIT commencements have been held in Killian Court since 1979. Previous commencement sites included MIT's Rockwell Cage, Symphony Hall, and Trinity Church.

The foul-weather location for the ceremony is the New Athletic Center, but storms have not driven MIT's commencement indoors in the 7 years it has been held outdoors. Advance weather forecasts indicated a clear day today, Bowe said.

Receptions for graduating seniors and their families will be held following Commencement. The reception for the School of Engineering will be held in duPont Court outside Building 1, and the receptions for all other schools will be held in Lowell Court outside Building 2.

# news roundup

## World

**Schultz says Hussein talks will foster peace** — Secretary of State George P. Shultz PhD '49 said his talks with King Hussein of Jordan last week were likely to help the Middle East peacemaking process. The next step would be a meeting between the United States and a Jordan-Palestinian delegation, Shultz said, adding that there is now motion towards negotiations between Jordan and Israel.

**Reagan stands fast on Geneva talks compromises** — President Ronald W. Reagan told arms negotiators to remain inflexible until the Soviets show some flexibility in their position. Soviet officials in Washington said the Soviet Union will probably respond with more specific proposals at the next round of arms talks.

## Nation

**Long-distance users will be assigned companies** — Long-distance callers who do not choose a long-distance carrier company will be assigned one as a result of a Federal Communications Commission order. Local telephone companies will allocate the long-distance companies among the 75 million users affected.

**Tornadoes kill 85** — Several tornadoes ripped through Ohio, Pennsylvania, Western New York and Ontario Saturday, killing at least 85 people. Northern Pennsylvania suffered the worst damage. The American Red Cross said it is sheltering 1000 victims in the three states.

**Espionage charges have reached a peak** — Eleven people are accused of spying against the United States, more than ever before, according to federal officials. Federal officials and intelligence officers cited better enforcement and greater Soviet spy operations here for the increase.


## Sports

**Celtics lose to Lakers** — The Los Angeles Lakers defeated the Celtics yesterday at the Los Angeles Forum. The Lakers now lead the Celtics two games to one in the National Basketball Association Championship Series. Game Four of the best-of-seven series will be played Wednesday night in Los Angeles.

## Weather

**Hot item: 1700 degrees today** — Temperatures for graduation will be high in the mid 70s with partly sunny skies. Skies will be fair tomorrow and Wednesday with a chance of showers Thursday.

Ben Stanger



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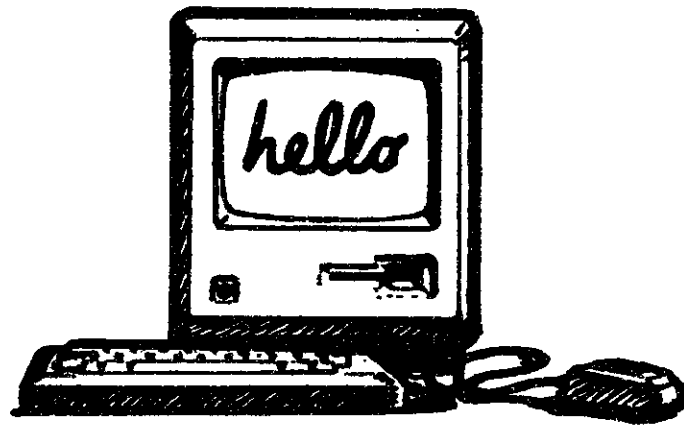
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## New Student Directors

The Coop is pleased to announce that the following candidates have been elected as Student Directors for the Harvard Cooperative Society for the year 1985-1986.

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Duncan A. Yin	Harvard Graduate
Troy Davis	Harvard Undergraduate
Daniel K. Fujii	Harvard Undergraduate
Kalyanaram Gurumurthy	M.I.T. Graduate
Kevin R. Howley	Harvard Graduate
Maria Elena Lara	Harvard Graduate
Vivienne Lee	M.I.T. Undergraduate
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Killian himself played a major role in bringing about many significant changes in the Institute's focus and direction during his sixty years tenure at MIT. In his memoir, he shows how MIT grew from an engineering school into a research university of a unique kind, with a new focus on developing better links between the "two cultures" of science and the humanities.

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# opinion

Column/Diana ben-Aaron

## Success means much more than an MIT degree

I've complained about a lot of things on these pages. I've bitched about tuition, frivolous class gifts, ineffectual student government, bad libraries, worthless course evaluation guides, suicide. But not today. Today should be a time for celebration, so I'd like to tell you some success stories.

I could tell you some success stories about people who graduated a year ago, people you probably won't read about in the

alumni news among all the "Joe Tool is working for Monolithic Computrex in Gallium Arsenide County, hang gliding on weekends, and says a big hello to all '85s" entries.

Steve is joining the Peace Corps at the end of the year. He's looking for work as a chef ("I'm auditioning by cooking appetizers") to tide him over until he leaves to teach science in French-speaking Africa. Lisa is still following the Grateful Dead.

Trish is at Harvard Graduate School of Education, "finding out that a lot of my intuitions about education were right. At MIT they always concentrated on the content and not on what the process did to you. Also, when I left MIT, my self-confidence was way down. I thought, 'Who'd want to hire me?' Now I know there are lots of things I can do and even if it takes me a few years to work things out, it'll be all right."

I could tell you some success stories about people who are graduating today. Jeff survived cancer as well as MIT. Jennifer cheerfully commuted from her parent's house in a Boston suburb for four years — a serious handicap here, because an all-night review session with friends or an all-night siege in the terminal room often means the difference between passing and failing a course.

Donald is going to work for a company, but once he has paid back his loans he plans to join the Peace Corps "as a reward," and then he wants to be a teacher. I could fill up the whole paper like this, because everyone who is graduating today is a success story. But the editors won't let me fill up the whole paper, so I'm

only going to tell you one more: I didn't know Marie (I've changed her name) very well. I still don't. She was in a few of my roommate's classes freshman year; they used to do their chemistry homework together sometimes. She was very quiet, very shy.

After my roommate moved out, I lost track of Marie without noticing it. Two years later, it occurred to me to wonder what had happened to her. Soon afterward I saw her twice in Central Square. She was pushing a baby stroller. With a baby in it. It appeared to be hers.

The next term, Marie was in a large lecture class of mine. One day there was a review session, and she turned up with her baby. She took notes with one hand and tried to quiet him with the other. He wasn't crying, just practicing talking, saying "Look, Mama," and he hadn't learned to keep his voice down yet.

The class was not amused. Marie asked a question, but she couldn't hear the answer over the cries. Finally she took the child and left so everyone else could hear the rest of the session.

"Marie was very naive when she came here," one of her freshman roommates said. "She decid-

ed to get married and keep the baby — her choice — and she took part of a term off to have it; she only took two courses that term. But she is graduating. On time. With both her degrees.

"Her husband is in medical school in New York," she continued. "He wanted her to transfer to Columbia but her friends up here persuaded her to finish here because she has a support system here, and she knows she can get day care. When she graduates she will join her husband and work for an engineering firm in New Jersey.

"When she was a freshman, Marie didn't work very efficiently," her roommate said. "She would get up in the early morning to do extra work, but it didn't seem to be helping her. Though she always knew she wanted to double-major, and she had a UROP from Day One, she seemed to have a lot of trouble at first.

"Marie would never have been my candidate for Superwoman freshman year," her roommate concluded, "but she is now."

If we can beat odds like that, we can do anything. Congratulations, everyone.

## The Tech

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Monday, June 3, 1985

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Column/Robert E. Malchman

## Technology is only a means

Today's graduates, like others past and future, will be bombarded with a plethora of platitudes, an onslaught of observations and an agglomeration of advice. If one chooses to ponder but one deep thought this day, perhaps the best one concerns the philosophy of the technology so many of today's graduates will study, create and use.

Technology is neither good nor bad, as some technocrats and Luddites might have you believe. Technology is a tool, a means toward an end.

What that end shall be remains open to determination, and therein lie the potential problems. The American system of government, though the best one around, is notoriously inefficient. A poorly informed public elects representatives to make decisions for them. The most important decisions of the future will regard the uses of new technologies.

The solution does not lie in a technocracy. Concentration of the power among the few — even the best-educated few — leads inevitably to abuse and statism. We must instead follow two courses of action to ensure the proper implementation of technology.

The long-term course is education. A scientifically knowledgeable public will more likely elect scientifically knowledgeable representatives. The United States has a long way to go, however, even in the basic education of its citizens. One cannot consider the efficacy of the Strategic Defense Initiative if one cannot read so much as a *Star Wars* comic book.

The government's greatest domestic priority, after food and shelter, should be education. Two immediate improvements would be to raise teacher salaries significantly and to remove all economic bars to higher education. Government — and the taxpayer — can make no better investment than in the public's education.

Conversely, scientists must realize they do not live in a bubble. They — we — must learn and adopt ethical approaches to their work. A technical education

without a philosophical one is like giving a blind man a driver's license.

The second course of action lies in our hands. Whether we like it or not, we are the new elite. In an increasingly technologically oriented society, the creators and managers of that technology assume a prime

importance.

We can, of course, duck that responsibility. We can get caught up by the beauty of the process, by the thrill of creation, by the glamour of a new technology.

Then someone else will make the decisions, just as someone else decided to drop the Bomb on (Please turn to page 5)

Column/Scott I. Chase

## Valedictory address by one contented graduate

At the freshman picnic in September 1981, President Gray told us to look around at our fellow classmates: We would not assemble as a class again until graduation. When I look around today, where once there were a thousand faces, there are now a thousand compatriots, and many dear friends.

In the fall I will attend the University of California at Berkeley. The fact that I will be about as far from MIT as one can reasonably expect to be is purely a coincidence. MIT is a great place to be, in spite of the famed "fire-hose effect." I am glad I was here and am sorry that it is time to move on.

In looking back upon our time at MIT, I have discovered that many things have changed over the last four years.

The physical environment has changed. We have seen the dedication of 500 Memorial Drive (a.k.a. "Next House") and the new Athletic Center. We have seen the construction of Green House, uh, I mean Hall (a.k.a. "Sick House"), the EG&G Building (a.k.a. "Egg Building"), the Arts and Media Technology Building (a.k.a. "The Bathroom"), the Whitaker Medical Building, the Whitehead Institute for Biomedical Studies, and the new Amherst Alley.

The educational environment has also changed. New degree options exist in physics, mathematics, management, cognitive

science and more. We now have hidden grades, grade requirements for prerequisites (a D by any other name is still an F), and we finally have a dean for undergraduate education. Oh yes, I almost forgot — there is also Project Athena. Attitudes are changing quickly. Was your education better for each of these changes? Perhaps so. But the votes aren't all in yet.

The social environment differs drastically from when we showed up four years ago. Who would have envisioned a committee that screened movies to see whether they met "community standards"? Or needing to have a four-hour bartending course given by the Dean's Office before being certified to serve wine at a social function? Or parties being closed down at 1 am because the Campus Police don't want to deal with the possibilities of problems that might arise after that? Or the suggestion that tutors be required to turn in students who confide drug or alcohol problems to them?

I want to make it clear that I realize everyone is well-intentioned. I don't envision Dean McBay and Vice President Simonides sitting around deciding the best way to alienate and frustrate members of the MIT community. Many of the changes, such as 1 am party shut-down, are responses to Cambridge laws. But students are losing (Please turn to page 5)

# opinion

Column/Ben Stanger

## The Tech editorial can stand alone

Assistant Professor of Management John Parsons's May 10 letter accused the editors of *The Tech* of a "self-righteous call for students and others at MIT to become more informed" without being informed themselves.

Although this observation is correct to a certain extent, I read a deeper message in the editorial board's opinion.

Opponents of apartheid demonstrated in front of the Student Center on April 24. Following the rally, the protesters walked to the office of President Paul E. Gray '54 and made an effort to see him. They were unruly and loud — part of an effective public protest.

When Gray came out to speak to them, however, their mood did not change to hear his position. The protesters became accusatory and downright rude. Gray tried to say he could only speak for MIT and himself, not the MIT Corporation.

University presidents at other schools refused to talk to anti-apartheid demonstrators. At Columbia, President Michael I. Sovern talked to leaders of the blockade of Hamilton Hall only after two hunger strikers had been hospitalized.

The editors of *The Tech* were trying to show that there are limits beyond which protesters cannot go if they desire changes in large social structures. The limits are not of passion, zeal or morality; they are limits of manners. The only way MIT's investment policy will change is if pressure is

placed on the MIT Corporation. President Gray is perhaps the best single source for this kind of pressure, if he is inclined to argue for a cause.

Gray said MIT is not likely to withdraw its investments in corporations with operations in South Africa, because MIT's investments do not strengthen the South African government. Before he even spoke to the protesters, however, one student proclaimed, "[Gray] will gladly lie if it will defuse student activism on campus."

The main point of the *Tech* editorial was that change will not be effected with this inability to communicate.

I believe the editorial board wanted to make a statement which would redirect the course of protests at MIT. The best way to protest injustice is to convince the target — the MIT Corporation, in this case — of the improprieties in its policies. Before any debate can occur, however, both sides must be prepared with a thorough familiarity with the issue on both sides, not just their own.

When the editorial called for students to inform themselves about divestment, it was because the board considered ignorance the main source of the childish confrontation.

Parsons correctly pointed out that the duty of *The Tech* is to provide this information. The editorial, however, was as much a call to the editors of *The Tech* to become informed as it was a call

to the student body. The editorial was printed a few weeks before the end of the term and, in effect, offered a topic for summer reading and inquiry. I hope the staff and editors of *The Tech* will use this time to inform themselves so that future reporting and commentary on the subject will be better founded.

The issue of South African apartheid has been around for a long time, but recently it has become a "burning issue," in Parsons words, on campuses across the country. *The Tech* is aware that the issue has been studied for a long time. The Dean's Office may sponsor seminars in the fall to help educate the community. I encourage Professor Parsons to participate in their planning.

I do not believe it was with the spirit of "carping at those" who are discussing the apartheid issue that the editorial was written. Its purpose was rather to ameliorate the conditions under which the discussions and protests take place. We all seek an end to apartheid and wish for fruitful, not childish, talks with the administration.

Perhaps it was "self-righteous" to tell students to inform themselves, as Parsons charges. It will take some time for *The Tech* to fully cover all the facets of a very broad issue like apartheid. In spite of this lack of information, the points made in the editorial were important enough to stand on their own.

## Four years have seen many changes

(Continued from page 4)

ing their faith in the Dean's office. There is a feeling that the administration has not played fair.

Most importantly, people have changed. When I first came to MIT I was sure that I had the world in my hip pocket. I was confident that I would make friends, get A's in all my classes and have a great time at school. I wasn't scared a bit when we gathered in Killian Court for the Freshman Picnic.

It's four years later. I'm going to start over again at graduate school. And I'm scared to death. I'm not so sure I will pass all of my courses, not so sure that I'll find a good thesis advisor, and not so sure that I won't spend four years alone in my apartment wishing I had a close friend.

It has been a sobering four years. Emotional changes have come along with intellectual changes every step of the way.

My charge to the graduating Class of 1985 is to take hold of the future and shape it into your vision of a better world. Many of you will find yourselves at the helm of large corporations or universities. You will have the opportunity to work for social change. Use it well.

I'm sure that I speak for everyone when I thank all of the faculty and staff of the Institute for their deep commitment to our education. Whether we have learned the most important lessons has yet to be seen. The best

proof of our education would be to bring our society out of an age of injustice and threat of nuclear war.

## Iacocca is a bad model for use of technology

(Continued from page 4)

Hiroshima, to build the interstate highway system, and to permit or deny human euthanasia. These decisions may have been good or bad, but the people who made them were not technologically knowledgeable.

Who shall decide about future weapons systems, genetic engineering, or an economically efficient robot technology that replaces human workers?

We must consider the potential effects of the technologies we will create. We must make scientific and business decisions that may be unfavorable to us, but that will benefit the public.

An example of a good business decision, but a bad public decision, was made by the Ford Motor Company during the 1970s. Commencement speaker Lee A. Iacocca worked for Ford at the time. Engineers there discovered a design flaw in the Pinto model. Its gasoline tank had a tendency to explode from rear-end collisions.

Some real cost attached to altering the design. Ford managers calculated that cost. It was extremely high. They estimated it

Finally, to the members of the Class of 1985: I wish you all much health, good fortune, and peace.

would cost less to settle the law suits arising from the design flaw by people injured in the explosions — or by their estates, than it would to repair the vehicles.

I don't know the extent of Iacocca's culpability in this case. His hierarchical position was somewhere over the Pinto division, but how far over I don't know.

It seems possible, at the very least, that he was aware of the problem. We do know he did nothing about it. That alone would make him an offensive choice for commencement speaker. Iacocca embodies technological materialism at the expense of human beings. His is not the proper model for MIT graduates.

Whoever did make the Pinto decision deserves to be execrated. Somewhere in that process, an engineer did not blow the whistle. He abdicated his responsibility with calamitous results.

We will have the power to adversely affect people's lives. We must carefully consider our actions and creations before allowing others to implement them. To do otherwise is both cowardly and reckless.

Column/Arthur Lee

## No regrets over errors gone by

I have no regrets.

No. None whatsoever. Life is too short to dwell on past mistakes. I will just try to not make them again. That's all. I have done what I could here. Won some. Lost some.

I have learned some things about chemical engineering here, but I have also learned many other things that can only be categorized as "Life's Experience." Writing was another thing that I picked up here. Not picked up too well, mind you, just reasonably well. In fact, I have come to enjoy putting words together on paper. Among other things, they have the power to amuse, to sadden, to create, to destroy, and, also, to bore. Like right now.

So let me get to the point.

Where do we go from here? What do you want to do with your life? (I want to rock!) Recently, my good buddies Mr. Foo, Mr. Lam, Horlo, and I had just such a discussion. We came to one general conclusion. For most people, the short term goals are always pretty much set. But the exact long term plans are, by their very nature, never clear. I know what I will be doing next year. My friends know what they will be doing. You and your friends do, too. But do you know what will make you happy ten

years from now? Twenty years?

I have no answer to that myself. But I do know the following Bob Seger song. Read some of the lyrics:

*Stood alone on a mountain top  
Staring out at the Great Divide.*

*I could go East. I could go West.*

*It was all up to me to decide.  
Just then I saw a young hawk flyin'*

*And my soul began to rise.*

*And pretty soon*

*My heart was singin'*

*Roll me away. I wanna roll me away.*

*Roll me away into the night.*

*Gotta keep searchin', gotta keep ridin'*

*Till I find what is right. . .*

The open-road imagery may be too romantic; the Harley-Davidson idealism is perhaps too easy. But with proper caution, they can be words to live by. Keep looking until you find that which is right for you. Keep searching for that elusive truth in your specialty and in people. Remember this plagiarized saying that the other Institute has printed on their T-shirts: "The truth shall set you free." Go and be free.

Congratulations and perhaps we will meet again in Pasadena.

## feedback

### Apartheid protests will include armbands and pickets today

To the Editor:

On this commencement day, guests to the Institute may be curious about the various forms of anti-apartheid protest that are in show.

The red armbands being worn today by many graduates and the picket at the entrance to Killian Court reflects the student and community support for the South African people's struggle against the oppression of Apartheid. More than 600 MIT students, faculty, and staff have already signed a petition calling for MIT's divestment. Divestment would require the withdrawal of all Institute funds now invested in companies that do business with the racist government of South Africa.

These actions are the latest in a series of efforts to educate the community of MIT's supportive ties with the apartheid government of South Africa. The first rally was held on April 24 in solidarity with universities nationwide to support the South African people's struggle. On May 13 the coalition held a second protest and listened to a member of the South African National Congress speak on the need for American divestment. He emphasized that because of MIT's prestige its decision to divest would command international attention and would be a strong signal to the struggling people of South Africa. He also offered to assist the Institute in locating financial guidance so that divestment would involve no financial burden.

We realize that persuading MIT to divest is an ambitious goal. Yet it is a goal that the black leaders of South Africa

have asked us to pursue. As Bishop Desmond Tutu, the Nobel Peace Laureate, has said, "We ask our friends to apply economic pressure. . . . Our last chance for peaceful change lies in the international community applying political, diplomatic, and especially economic pressure. . . . Any black leader who calls for economic sanctions is already guilty of treason under the Terrorism Act and subject to five years in prison for death. We have said as much as we can possibly say. We hope we have reasonably intelligent friends overseas who will know what we are saying."

To those who feel that these actions are inappropriate at a noteworthy occasion like commencement, we would like to answer that this is the only humanitarian alternative. We have pointed to the evil of apartheid. We have shown that American corporate ties to the apartheid regime only strengthen this evil. We have brought a representative of the victims of apartheid to the steps of this institution and he has reaffirmed the need for MIT's divestment from the supporters of this evil. We have gathered hundreds of signatures in support of this position. We have even pointed out that divestment is not likely to cost MIT one cent.

In response, there has been no answer to our arguments. The administration has unequivocally declared its refusal to divest. Paul Gray has stated that even if the vast majority of people in the MIT community were to state their support for divestment, he would not represent our position to the corporation as a viable option. (Please turn to page 6)

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.

## opinion

→ feedback

## Concerns over MIT's involvement in SDI

*Editor's note: The Tech received a copy of the following letter, which also appeared in Tech Talk May 29.*

To the Editor:

I would like to repeat and amplify some of the remarks I made at the May 15 faculty meeting in response to the letter by Robin Wagner G, et al. [Feedback, May 14].

The letter suggests that Institute officials have "tried to prohibit faculty from publicly voicing objections to the Strategic Defense Initiative (SDI) program if they mention their Institute affiliation." In addition, a petition circulating on campus asks signatories to affirm that they "have learned that the MIT Administration has discouraged faculty who have reservations about SDI from expressing their views publicly as an MIT professor (sic)." The petition then goes on to ask the MIT Administration to reverse itself on that position.

The MIT Administration has never taken such a position. On the contrary, it has always insisted on the right of faculty members and staff members to express their views on any subject together with their institutional affiliation. It, of course, expects those who do so to make it clear, if there is any doubt, that they are not speaking for MIT but are speaking as individuals.

The letter of Wagner et al. also lists a number of concerns which I share, some of which I will list and will discuss below. These concerns are not qualitatively different from ones with which we have had to deal in the past, but

come with special force because of the controversial nature and public awareness of the SDI program.

1. *MIT researchers might inadvertently commit themselves under this program to projects which later become classified or have other contractual restrictions on publication or access placed on them.* This is a real concern. However, we have now ongoing programs that have been and others that may become targets for the imposition of various kinds of restrictions. In each case, with help from concerned faculty members, as well as from sympathetic officials in Washington, we have been able to avoid any such imposition, and we will work in the future to do the same. Should an SDI project have such restrictions, we will not accept it. Should one acquire such restrictions after we have accepted it, we will withdraw from it.

2. *If the Department of Defense (DOD) transfers areas of research in which MIT is involved to the SDI program, MIT researchers will undoubtedly apply to the program for support, or even find themselves automatically transferred into it. MIT will then be put in the position of appearing to support the program.* Our position on this is the following: The same tradition of academic freedom that permits professors to take public positions on public issues also permits them to work on research projects of their choice, provided that the projects carry no contractual restrictions on publica-

tion or on access, and are appropriate projects for the university. Within very broad limits, the source of funding has not been used as a criterion for acceptance of a contract by MIT. To do otherwise would amount to applying a political test to MIT research projects. The step from that to applying similar tests to appointments and promotions is not large. We must make it clear that our acceptance of research under the SDI program is based on our tradition of faculty initiated research, and in no way constitutes an institutional position on the SDI program.

3. *SDI has a narrower goal than other DOD projects. Thus, SDI is likely to fund research at MIT in a narrower range of disciplines. The number of research opportunities in SDI-related areas will probably increase at the expense of "irrelevant" fields.* This is true, but not only for the SDI program. It also holds true whenever funding is transferred into a highly mission oriented program. A further problem not discussed in the Wagner et al. letter is the instability associated with such funding. Politically motivated, mission oriented programs can have a meteoric rise followed by a precipitous fall. Recent examples are the solar energy and the synthetic fuels programs of the Department of Energy.

4. *The Wagner et al. letter calls for a thorough discussion of the SDI program and its implications for academic research in general and on MIT in particular.* I agree

that such an open discussion would be useful and should take place. As the letter suggests, these issues will certainly be explored by the committee that was recently formed to examine the impact of military funding at MIT. In addition, the Technology and Culture Seminar, which has been funded by the Office of the Provost, has decided to present a series of meetings and discussions in the Fall term on several aspects of SDI. Sessions are planned dealing with the technical feasibility of SDI, its political and economic implications, and its impact on academic research in general and on MIT in particular. These sessions will provide an opportunity for members of this community to listen to discussions of various issues and to comment on them. These sessions, however, should not be expected to result in an MIT institutional position.

Francis E. Low  
Provost

*Editor's note: The Tech was sent the following response to Low's letter.*

To the Editor:

We greatly appreciate the prompt and thoughtful reply of Provost Francis E. Low to our previous letter to *The Tech*, in which we expressed our concern over the political manipulation of MIT by the Strategic Defense Initiative (SDI) program. We would like to respond to his comments.

First, however, we wish to correct a statement made in our previous letter and in the initial version of the MIT/SDI petition which we circulated. Contrary to the impression given in that letter and petition, Institute officials have not tried to prohibit faculty from speaking publicly on the SDI program. Rather, there was faculty discussion on public disclosure (alluded to in our previous letter) which included ambiguous statements. These ambiguities led some to question

(Please turn to page 13)

## Report on Craft's lecture was biased

To the Editor:

As an MIT secretary who attended the Nikki Craft presentation on April 24th, I was dismayed and ultimately confused by the review which appeared in *The Tech* ["Craft claims a need exists for civil disobedience in the women's movement," May 3].

Since Craft began her lecture with a dedication to her sister, who committed suicide at the age of twenty-two because she felt that she had "nothing to contribute to society," that she was "cute now" but once her looks faded she would have no reason to continue living, Craft's subsequent remarks must be viewed in relation to her reasons for presenting them. Any society which values women on the basis of their physical appearance is one worth changing. It is for this reason that Ms. Craft sees civil disobedience as a vital means of expressing feminist concerns.

My initial disappointment in the *Tech* article stemmed from reporter Harold A. Stern's failure to discuss Nikki Craft's words in the context she created for them. The disappointment turned to dismay as I continued reading and realized that he had taken most of her other points out of context as well. At first I thought that this was due simply to poor writing, bad reporting, lack of sensitivity to subject matter or inability to conceptualize what the speaker was talking about. When I began to examine the structure of Stern's article, however, I had to question his motives.

Why, for example, did he choose to head the list of activist groups formed by Ms. Craft with Women Armed for Self Protection: "A small group of women admitted to becoming proficient

in the use of various weapons, who called for immediate and drastic retaliation against rapists by their victims," which was a minor part of her talk, and ignore her creation of the "Myth California Pageant" and other topics which she discussed at length? The "Myth California Pageant," which features a float consisting of 120 ceramic Barbie-doll figures wearing banners across their chests with their names on them ("Miss Informed," "Miss Guided," "Miss Ognist," etc.), reveals Ms. Craft as the person she truly is, namely an activist-artist whose art form is creative, reasoned and often humorous protest. Why then did Stern decide to strike an alarmist chord at the outset of his article?

Why also did he choose to omit the fact that images of women hanging from trees and dashed against rocks in *Penthouse* were of Asian women? Because he didn't want to suggest that Bob Guccione is as Craft presented him — an amoral, anti-humanistic racist who is willing to promote images of hatred

in order to make a fast buck for himself?

The result was an incomplete, disjointed, poorly-written and distorted review of the Nikki Craft lecture, and this is where my dismay turned to confusion. Was Stern trying to trivialize what Craft had to say in order to present her as another rabid feminist, foaming at the mouth humorlessly about concerns which don't interest anyone, least of all Mr. Stern? That's certainly the impression I got.

Nikki Craft may not have turned me into a criminal (a remark which would have been recognized as part jest by anyone who attended the lecture), but she certainly has turned me into a more cautious reader of *The Tech*. The editors and reporters ought to realize the importance of credibility to any newspaper which hopes to be effective in formulating opinion and promoting an open discussion of issues in a community as intellectually smug as MIT.

Lisa Yaffee  
Secretary

## Socially responsible policy is demanded by demonstrators

(Continued from page 5)

tion. The ultimate decision to divest lies with the corporation and though we may be 6000 strong, we have no voice.

Therefore we take our cause to the people. We call upon alumni, parents, students, faculty and staff to let your voice be heard. Do not feel embarrassed to express your freedoms in an effort to win the freedom of others. Stand up and march in our picket. Come to the coalition meetings. Organize to change MIT's

policy. Work to end apartheid.

As seniors, many of us feel very strongly about this issue. At a time that is for most the last chance to evoke some change in the Institute, we would hope to replace the inhumane, short-sighted views of the administration with long lasting guidelines for socially responsible policy making. We ask that anyone who supports these ideals join us in our efforts.

Julian Joseph '85  
Steve Penn '85

## Come meet James R. Killian, Jr.

Signing copies of his latest book on Thursday, June 6th between 2 and 3pm at the Tech Coop



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feedback

# Anti-abortion argument lacks foundations

To the Editor:

In a letter published in *The Tech* ["Argument that an abortion is murder," May 10], Mr. Roberts expresses disappointment in my letter on abortion ["*Silent Scream: the issues and analogies of abortion debate*," May 3]. It seems to me that his reaction is largely the result of a series of misunderstandings.

Mr. Roberts seems to think that my reference to medical difficulties was an invitation to treat all possible or conceivable cases; in fact I sought merely to show that Mrs. Elliot was by no means confronted with all the "hard cases" (her phrase, not mine). I am not sure why Mr. Roberts thinks

that I am confused about medical difficulties or that I had forgotten the only such case discussed at the screening of "*Silent Scream*."

Mr. Roberts suggests that if abortion should be legal to make it safer, then so should murder. This might be reasonable if there were the same degree of certainty about the need to prohibit these activities, but there is not.

Mr. Roberts rightly remarked that the correctness of *Roe vs. Wade* depends on whether abortion is murder, but wrongly stated that I missed this point. In fact I noted that one of Mrs. Elliot's objects was to show that abortion is murder, and devoted a large part of my letter to argu-

ing that it is not. Indeed, Mr. Roberts' reply is largely devoted to my discussion of this question.

He repeated the standard rebuttal of the viability argument, suggesting that if a fetus is not human until it is viable outside its mother then a man on a dialysis machine is not human either. This ignores both the distinction between a woman and a dialysis machine (which was mentioned in my letter), namely that the latter has no rights or feelings, and the fact that my purpose in discussing the analogy of a man forcibly connected to a famous violinist to provide vital functions was to show that abortion should be permitted, even if a fetus does have the same rights as any other human being. I do not see what point Mr. Roberts thinks I have missed here: it seems to me that he has misunderstood the analogy (not mine, incidentally) of the violinist.

Mr. Roberts appears to have three things to say about this analogy: one incidental remark and two objections to the comparison with abortion.

He says of abortion that "Even calling it a 'right' does not

change the result: death." I do not see what is meant by this remark: the result might be a reason for not calling abortion a right, but if it is a right why should it be denied?

Mr. Roberts pointed out that in the analogy of the violinist, abortion corresponds more to attacking the great man with a sword than to disconnecting oneself from him. This, however, is not an objection to inducing a miscarriage, and to allow this and only this is a pedantry which I am sure the "pro-life" lobbies do not favor.

The other objection is that in the case of abortion the mother "... took upon themselves [herself?] the risk and responsibility of pregnancy and parenthood." This seems to me to assume a degree of forethought and control not ordinarily present in human activities and, as Mr. Roberts admits, is complete nonsense in the case of rape, a case which caused extraordinary misunderstandings.

Far from presupposing (as Mr. Roberts says) that abortion would be allowed in the case of rape, I noted that Mrs. Elliot argued against it even then. Her ar-

gument on this point is so unclear to me that I cannot help feeling that the idea is to discuss the more usual case and then state as an afterthought that the conclusion also applies in the case of rape.

A third communication failure is revealed by Mr. Roberts' talk of sentencing a child conceived through rape to death. I do not propose this any more than I would propose sentencing the violinist to death because his supporters used illegal means to preserve his life. The question is whether the victim of rape should be sentenced to a further burden, namely that of carrying and providing for an unwanted child.

Jorgen Harmse G

## Profemina did not show a pornographic movie

To the Editor:

While most of Kevin Dickens's column [May 10] is too ridiculous to merit response, we would like to clarify one of its many gross inaccuracies. Profemina never sponsored lesbian porn movies. We were the campus sponsor for a group who showed two lesbian movies. The dates for their showing were planned independently of the Lecture Series Committee (LSC) porn movie, and the movies were not intended as a protest of the LSC movie. Many people, including Dickens and a *Tech* junior muckraker, immediately assumed that the movies were pornographic, because they were about lesbians. Actually, if they had been rated, they barely would have been explicit enough to merit a PG.

It is illuminating that several people instantly concluded that a movie about lesbians must be pornographic. Apparently these people know nothing about lesbians, except, perhaps, what they've "learned" from pornography. Dickens did, however, seem to know that "most of the outspoken feminists are lesbians." With his logic, it's surprising he didn't conclude that the movies were about outspoken feminists.

Profemina consists of lesbians and non-lesbians. We object to the implicit assumptions that we'd have no credibility if most of us were lesbians, whether or not this is the case. We object to being called hypocrites, especially when the accusation is a best based on misinformation and at worst based on prejudice and vindictiveness.

The Members of Profemina Editor's note: The *Tech's* March 5 story on the LSC protest stated, "A lesbian organization associated with Profemina showed an alternative film Saturday night." There was no statement or attributed comment as to the nature or content of the film.

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Deadline June 20, 1985

# Spectacular opening to Early Music Festival

Handel's *Teseo* conducted and directed by Nicholas McGegan, highlights the Boston Early Music Festival; reviewed on May 30; two further performances tonight and tomorrow at 8pm at the Boston College Theatre Arts Center (at the end of the "B" Green Line); Handel's *L'Allegro, Il Penseroso, ed il Moderato*, performed by Ban-chetto Musicale under Martin Pearlman, Jordan Hall, June 2.

"In seeing, touching, tasting, we reach through the sensation to an object, to a thing," writes Victor Zuckerkandl in *Sound and Symbol*.

"Tone is the only sensation not that of a thing. In the case of color, hardness, odor, we ask, *What* is it that possesses the color, the hardness, the odor . . . ? Sensations are our answer to the world as given. Seeing, touching, smelling, tasting, we respond to its physicality, its materiality. . . . Because music exists, the tangible and visible cannot be the whole of the given world. The intangible and invisible is itself a part of this world, something we encounter, something to which we respond."

Music, in Zuckerkandl's eye, opens the door to that which is intangible but essential; it "pierces to the core of the phenomenon." There are two composers in whose work we see this transcendent quality of music most compellingly illuminated: One is Mozart, the other Handel.

When we listen to Mozart's characters we do not merely sense them; we become one with them. As Guglielmo overcomes Dorabella in *Il core vi dono*, as Cherubino reveals his yearnings in *Voi che sapete*, as the Countess reflects wistfully on a seemingly lost past in *Dove sono*, never letting a hopeful C major displace the insecurity of the mournful C minor, we cease to be mere observers: We become participants in a drama whose truth — elusive though it may seem in image, action, or word — is fathomed through tones which cannot lie.

So it is with Handel's greatest characters. Among the more telling of Handel's later works one may pick out *Jephtha* which recounts the Old Testament story of the warrior who, having promised to sacrifice whomever he sees first on returning from battle, encounters first his daughter. The depth of recitatives such as "deeper and deeper still" and "Hide then those hated beams" cannot be surpassed: The listener is necessarily disturbed by the all-encompassing anguish from which he cannot escape.

*Teseo*, completed towards the end of 1712, 39 years earlier, is clearly a less mature work. It was conceived as a "magic" opera, complete with elaborate scenery and machinery, in the hope of repeating the success of *Rinaldo* the previous year. It is in many ways structurally clumsy, which makes for periods of looseness in dramatic flow; character studies are, nonetheless penetrating, and none more so than that of Medea.

Perhaps the power of this role inspired Nancy Armstrong to a performance of both brilliance and depth. Medea, like Mozart's Queen of the Night, is no stock character of "simple" evil; there are many hues to her darkness and, although by opera's end there is little light remaining in her, there is a humanity to her condition which grabs our attention: Medea has, after all, been reduced to bitterness by failures of love; she is, furthermore, never to get *Teseo*, whom she craves.

When first we meet her we could well be in the regal presence of Mozart's Countess. Armstrong's *Dolce riposo* was indeed thoughtful; nobility of voice, purity of tone evoked sympathy more than alarm.

It takes only a few more pages, however, for Medea to totally lose control. For *Ira, sdegno, e furore* Armstrong laid on a display of superb vocal control to deliver the maximum bite from every syllable of bite. An angry battle in the orchestra marks the transition from jealousy to resolve. Armstrong's voice reveals the increased danger of focused determination in *O stringerò nel' sen'*. With a tightly modulated color of crystalline-clear black, she launches a "Recitativo Orrido con' Stromenti," in which ghosts are summoned to obscure and torment her rival, Agilea. The aria, *Sibillando, Ululando*, was

stunning, precision and clarity of enunciation endowing the hypnotically-flowing essay in onomatopoeia with mesmerizing strength; spirits emerge to threaten as Agilea is ensnared in music which, for the moment, insists that Medea reign supreme.

Medea's final desperate ruse is to pretend to forgive her rival, with the intention of quietly poisoning her lover instead. The words of forgiveness are smooth, too smooth to hide the ill-disguised hatred which Armstrong masterfully presents: Latent under every breath in the presence of Agilea, fully emergent and sinister in a rendition of *Uno' Morir; ma vendicata* that dances with danger; Armstrong's coloration here was particularly remarkable. Her presence on stage was striking, and the drama in action as well as voice dissipated the static atmosphere which at times might otherwise have stultified the production.

Other performances were all solid. Judith Nelson's Agilea was spirited; her first aria, *E pur' bello* was freshly sung while *Deh serbate* which follows closely behind, came across as an open outpouring of quintessentially Handelian depth and beauty. Supported by a pensive oboe accompaniment, Nelson also brought a Mozartean smile to lead her audience to find rapture in sorrow and terror. Her *Vieni, torna Idolo mio* was the essence of gentleness and sweetness, while *Amarti io si vorrei* was profoundly moving.

*Teseo*, the object of Medea's desire and Agilea's love, was sung by Randall Wong, not a counter-tenor but a soprano, with a voice hard to distinguish from that of a female soprano; probably the closest we can get to a castrato sound without the performance of certain unpleasant surgical operations. If we are persuaded by the Jungian observation that every man has an unconscious feminine side to his personality, then the soprano voice becomes a logical medium to convey the "very soft emotional life" Jung attributed to men.

The lulling lute and easy naturalness of Wong's voice allowed *Teseo's* declaration of love, *Quanto che à mè sian' care* to be uninhibited and therefore convincing.

Christine Armistead and Drew Minter were a well-balanced pair for the parts of Clitia and Arcane — another couple of lovers on hand to provide added diversion. Armistead made Clitia quite a tease with the racy number *Ti credo si ben' mio*; Minter's Arcane provided a purely passionate response in *Ah cruda Gelosia*.

(Please turn to page 10)



Top: The newly formed Boston Early Music Festival Orchestra in rehearsal. The playing in Handel's *Teseo* tonight and tomorrow at Boston College, in the St. John Jordan Hall on Wednesday and in an orchestral concert in Jordan Hall on Friday. Bottom Left: Drew Minter as Arcane and Christine Armistead as Clitia in Handel's *Teseo*. Top right, Anner Bijlsma, and, bottom right, Malcolm Bilson, baroque cello and forte will give a Beethoven concert in Jordan Hall, 8pm, Friday.

## Boston Early Music Festival Events

The Boston Early Music Festival Exhibition opens tomorrow at The Castle and the Boston Park Plaza Hotel, Columbus Ave and Arlington St. Musical instruments, books, rare printed manuscripts, and recordings will be on display 12:30 - 6pm through Saturday and 1 - 6pm on Sunday. Some highlights of the festival are listed below. For further information call 262-1240.

### Today

8 pm Handel's *Teseo* will be performed at the Boston College Theatre Arts Center; Handelian scholar Winton Dean will precede the performance with a lecture on "Handel's Opera Today" at 6:30.

### Tuesday

12:30 Exhibition opens.

8pm Trevor Pinnock harpsichord recital of music by Scarlatti and Handel, Jordan Hall. Final performance of *Teseo* at Boston College.

### Wednesday

8pm Bach's *St. John Passion*, Jordan Hall.

### Thursday

8pm A Schütz Celebration, Jordan Hall.

### Friday

8pm Anner Bijlsma and Malcolm Bilson give a Beethoven recital on cello and fortepiano.

11pm The Boston Camerata presents music of the German Renaissance at the Church of the Covenant.

### Saturday

8pm Boston Early Music Festival Orchestra, conducted by Trevor Pinnock, Jordan Hall.

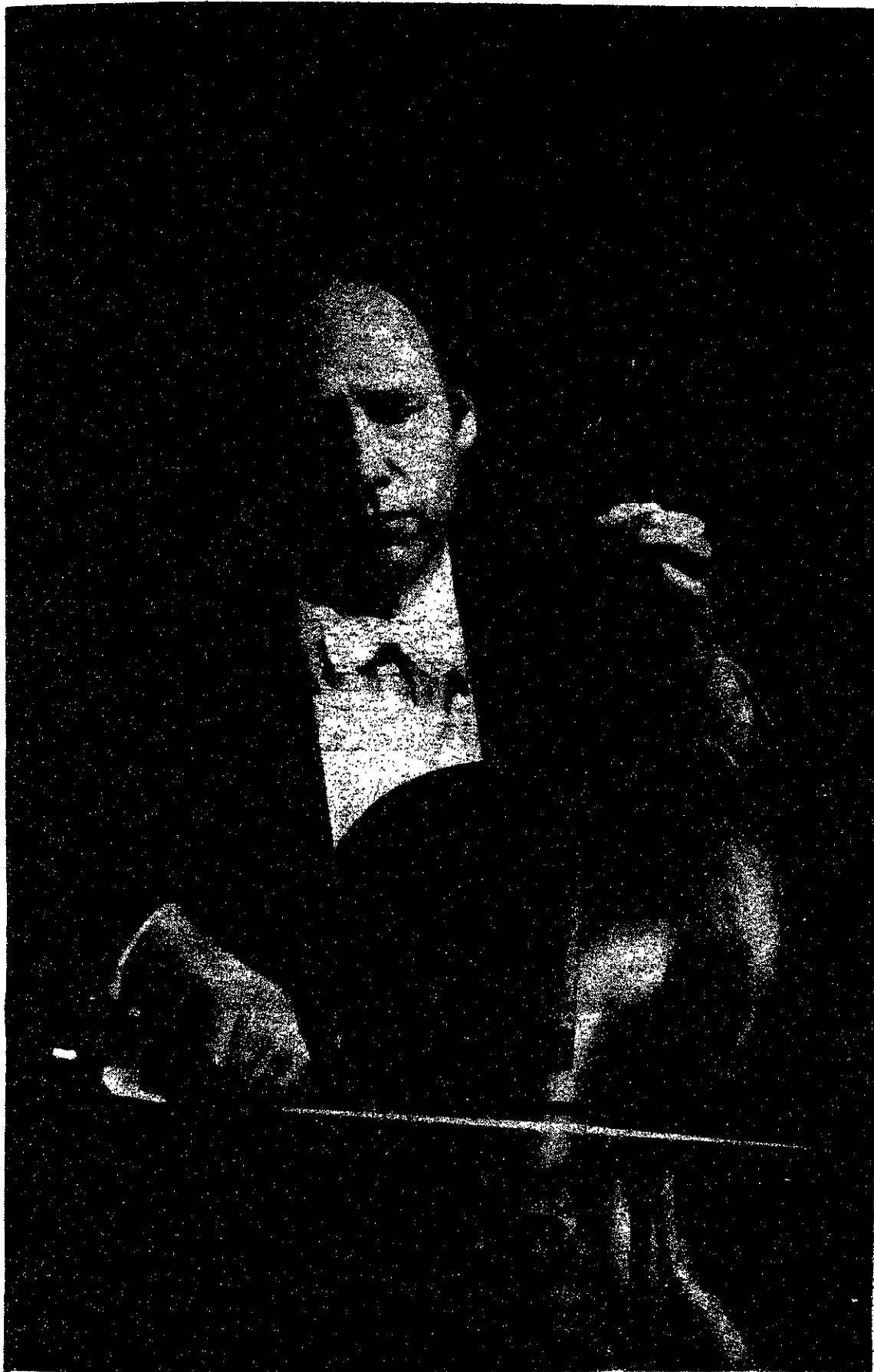
11pm Lute Duos and Monodies, Paul O'Dette and Jakob Lindberg perform with Nigel Rogers, First Baptist Church.

### Sunday

3pm Bach's *The Art of Fugue*, played by Bernard Lagacé, Old West Church



# ARTSARTSARTSARTS



## The essence of mind and pattern: Hofstadter strikes again

Tortoise: Good afternoon, Achilles, what brings you to this part of the woods?

Achilles: Why Mr. T., what a pleasant surprise. I was hoping to find you here. Have you heard? Dr. Hofstadter has done it again!

Tortoise: He's moving to another University again?

Achilles: No, I mean he has written another fascinating book. It's called *Magical Themas*, and it's published by Basic Books for only \$24.95. There is a review of it in this issue of *The Tech*, the MIT student newspaper. The review says that *Magical Themas* is on everything from artificial intelligence to strategies for survival in a nuclear age. It's a charming little book. It is highly recommended by the reviewer. As a matter of fact, he suggests that everyone go out and buy it today.

Tortoise: That sounds like a good idea, but it seems to me that there are only so many copies in existence. If every reader of this conversation tries to buy a copy, many of them will find that there are none left, and there will be riots in Harvard Square. I could defect and rush to get my copy before everyone else. But in the interest of cooperation, I think I will wait and not buy my copy yet.

Achilles: But assuming that everyone is as rational as you are, then nobody will buy a single copy!

Tortoise: Oh, my! This is simply too strange!

Achilles: That sentence doesn't seem strange to me.

Tortoise: No, not that 'this'. I meant whether to cooperate or defect.

Achilles: I think that there is simply a defect in your logic.

Tortoise: Are we in this new book?

Achilles: Of course, Mr. T. . . But it depends on what you mean by 'we.' I mean, I think 'we' are in his book, but that Achilles and that Mr. T. were invented by Dr. H. . . You and I are here courtesy of the author of this book review, this discussion, this statement, this sentence, this phrase, and this 'this'.

Tortoise: Now wait a minute. I am here because I decided to out for a walk and accidentally happened to stop and talk to you.

Achilles: But that is exactly what he wanted you to do. Your free will is more like free won't. You think you're doing exactly what you want. Actually, you've played right into his hands. He wanted an indirect way to say that Hofstadter's new book is full of ideas on self-reference, statistically emergent intelligence, thoughts on the Prisoner's Dilemma, and other thoughts on rationality and the nature of thought.

Tortoise: You mean there are thoughts on thoughts?

Achilles: Yes, along with thoughts on thoughts on thoughts and thoughts on thoughts on thoughts on thoughts, and. . .

Tortoise: Enough! Seems to me that I've read all about that stuff in *Scientific American*.

Achilles: Well, as a matter of fact, this new book includes Dr. H.'s articles from that wonderful periodical along with long post-scripts with lots of new ideas.

Tortoise: And we're even in it, if that's really us.

Achilles: Why, of course. I'm sure it couldn't have been any other way.

Tortoise: I feel suddenly compelled to tell you that I am telling you that I feel suddenly compelled to tell you that. . .

Achilles: Are you feeling well?

Tortoise: Why yes. I'm feeling better now.

Achilles: Do you realize that most of the people reading this are graduating today?

Tortoise: Graduating? From what?

Achilles: It's not 'what,' but 'where.' And 'where' is MIT.

Tortoise: Oh? Didn't Dr. H. spend some time there working on his Seek Whence project?

Achilles: Why, yes, he did! As a matter of fact, he spends a lot of time talking about Seek Whence and thinking about analogies in *Metamagical Themas*.

Tortoise: Well, that's rather like Lee Iacocca talking about bailouts or Casper Weinberger talking about nuclear weapons or Mickey Mouse talking about animation, or. . .

Achilles: OK, OK. We get the message.

Tortoise: Does Dr. H. talk about the COPYCAT project at all in this new book?

Achilles: Does Dr. H. talk about the COPYCAT project at all in this new book?

Tortoise: Huh?

Achilles: Huh?

Tortoise: What are you. . .

Achilles: What are you. . .

Tortoise: Now stop that. That's not what the COPYCAT project is about. It's all about analogies. It addresses the question of how to abstract the essence of a pattern from an example. It is an extension of the Seek Whence project.

Achilles: As a matter of fact, he talks all about it.

Tortoise: I'm intrigued. Dr. H. has done it again.

Achilles: You mean he's moving to another university again?

Tortoise: Huh? Sometimes you are such a heel.

Achilles: Well, Mr. T., I think that I should be moving on. I was just on my way home to write a letter to my congressman. I have decided to cooperate, and do my share to end the arms race.

Tortoise: Have fun. I'm going home to take a nap.

Scott I. Chase

# ARTSARTSARTSARTSARTS

## Moskowitz/Shea exhibition austere

**Robert Moskowitz: Recent Paintings and Pastels; Judith Shea: Recent Sculptures, at the Hayden Gallery. Differences: On Representation and Sexuality, at the Reference Gallery. Arts & Media Technology Building (E15), through June 23.**

In recent years a new spirit has come to animate the visual arts. The excellent *Currents* exhibitions at Boston's Institute of Contemporary Art, for instance, or (somewhat further away) this year's Biennial at the Whitney in New York sum up the new tendencies in an impressive way. They attest to a new interest in elaborate communication, supported by a sense of exuberant color, of complex, figurative forms and meaningful connotations which for many years seemed all but lost in the mainstream of modern art.

MIT's Hayden Gallery, however, in its second exhibition after its relocation to

Arts & Media, features two artists whose recent work is still firmly rooted in Minimalist aesthetics. While probably neither Robert Moskowitz' paintings nor Judith Shea's metal sculptures could be termed Minimalist in the strict sense of the word, a commitment to a common cause is unmistakable.

Moskowitz paints silhouettes of familiar objects against essentially monotonous backgrounds. His subjects are taken both from art (Rodin's *Thinker*, Brancusi's *Bird*, Giacometti) and reality (a lighthouse, an iceberg, the World Trade Center), and sometimes from both (the *Bowler*, in which the profile of the well-known *Discus-Thrower* can be recognized).

The scale of these works is remarkable. Each single motive is put on a huge canvas, in what seems an attempt to blow up its existence to monumental proportions. The effect is enhanced by the orientation

of the works, as a rule strongly vertical.

Moskowitz' emphasis on the silhouette is reflected in Judith Shea's method of creating sculpture. The metal is molded on fabrics and cast or bent to surround hollow volumes.

All her works on display are at least vaguely figurative; some refer explicitly to aspects of human relationships. *For Mom* depicts a baby lying against a mother formed as a contorted bronze cylinder. In *He and She*, a female figure is seen lying in a man's coat.

Invariably, the figures lack heads, arms and feet, thus evoking ancient sculptures surviving in fragments. *Standing There*, for instance, reminds one of the *kore* figures from Archaic Greece.

It is fortunate that, both in Shea's work and in that of Moskowitz, such affinities exist; in fact, the opportunity to sort them out largely exhausts the pleasure provided by the exhibition. Apart from that, I am afraid it suffers too much from that problem of all art extolling austerity of expression and purity of form: it requires associative powers of Tetazoic proportions to bring it to life.

\* \* \* \*

*Differences: On Representation and Sexuality* is both more puzzling and more interesting. Originally presented at the New Museum of Contemporary Art in New York, the exhibition is now on view (in a somewhat condensed form) in the Reference Gallery.

The avowed purpose of the show is to address the relation between sexuality, meaning and language as it appears in the visual arts, against the background of recent work in psychoanalytic theory, in particular that of Lacan. Frankly, I did not realize this intention until I read the catalogue (which, incidentally, is a very interesting one). Still, the exhibits are worthwhile.

Most are photographic collages, some accompanied by text. There is a sense of ambiguity to almost all of them. The result stimulates senses and intellect alike, irrespective of any higher meaning intended.

Michiel Bos

## Handel

(Continued from page 8)

Nicholas McGegan conducted the newly formed Boston Early Music Festival Orchestra, producing a crisp sound ideal to Handel. Instrumental voices were well defined, but the whole was sharply coordinated and pleasing. Tensions in the drama were exploited to maximum psychological effect, aided by a close relationship with the singers.

McGegan made the evening a long one by presenting the full original text, its less inspired sections along with its measures of genius; at times this became tiring. But, McGegan's attempt to faithfully reproduce the original production also provided stylized (*ad absurdum*) costumes and scenery to provide an intriguing glimpse of what Handel's patrons might have witnessed at the Queen's Theatre, Haymarket.

Clever effects transport us to Heaven and Hell, characters descend out of the skies, furies dance, and a "Horrid Monster" (Gale Ormiston) turns up to entertain. But, most importantly, the music was

groups, giving the ensemble the body as well as precision needed to give substance to the imagery of this work. The warmth of Daniel Steptner's baroque violin playing complemented the clarity of Martin Pearlman's harpsichord, and there was other wonderful solo work as well.

The discovery of the evening was Sharon Baker, a soprano with a bright and attractive voice well-cast for *L'Allegro* and an interesting foil to the more mature sound of Nancy Armstrong in *Il Penseroso*. Among many enjoyable arias, her "And ever against eating cares" was particularly delightful.

Nancy Armstrong, meanwhile, appearing in the middle of her *Teseo* performances, was still on top form; her rendition of "Sweet bird, that shun'st the noise of folly" was idyllic and made the more so by the inspired baroque flute playing — simple and direct — of Christopher Krueger, highlighted by a gossamer lightness and sensitivity in the strings.

James Maddelena provided an evocative



magical: The audience experienced the rebirth of a work too-long neglected and Handelian melodies which we may hum less readily than those of Verdi, but which strike the subconscious with a power none other than Mozart was ever to achieve again.

\* \* \* \*

Yesterday afternoon Banchetto Musicale presented Handel's *L'Allegro, il Penseroso, ed il Moderato* in Jordan Hall. The texts of *L'Allegro* and *Il Penseroso* were written in 1631 by John Milton. "The first of these poems," writes Martin Pearlman in a program note, "depicts the joys of the active, or extroverted life, the second the joys of the contemplative, or introverted life." Charles Jennens, librettist for *Messiah*, adapted Milton's work for Handel's use, and also added a third section, *Il Moderato* "representing the golden mean between *L'Allegro* and *Il Penseroso*."

Banchetto provided a lively performance; their brand of "original sound" is allier than that of some early music

baritone voice which went especially well when matched against the chorus; his aria on the theme "Mirth, admit me of thy crew!" got off to a rollicking start, and was nicely accompanied by Jean Rife on natural horn.

Sergio Pelacani, counter-tenor was disappointing: his diction was muddy, and not on a par with the other singers. Frank Kelley, the tenor, did not always show the strongest of voices, but provided the most touching of endings to *Il Moderato*, in duet with Sharon Baker. The soft, contemplative nature of this conclusion brings to question whether Handel was content to settle on "moderation" at all: This is the only duet of the work, and it combines a personal, human side with intellectual reflection. Rather than having arrived at a "mean," we had been taken from thesis through antithesis to a synthesis, not an average of, but greater than the sum of the parts, representing a new harmony to transcend the old differences.

Jonathan Richmond

## Chamber Music Society gives end-of-term concert

MIT Chamber Music Society, Thursday May 9, in the Sala de Puerto Rico.

The third Chamber Music Society recital this spring evening opened with Schubert's Piano Variations op. 35, played by Mark Culotta '85 and Ella Atkins '88. There was a nice dialogue between the two pianists in the beginning and a few of the more passionate variations were well-played. But overall, the music did not attain the poetic tone, the humor and the lyricism present even in Schubert's smallest pieces.

The short *Trio for Clarinet, Cello and Piano* by Brahms fared much better. The three instrumentalists were in concert from beginning to end, each aware of the coloration his instrument brought to the piece. The phrasing was very good.

Bertha Chang '88 and Una Hwang '88 followed with Mozart's *Piano Sonata in C, K.521*. It was a delight to listen to them. There were a few audible technical difficulties, especially in the ascending scales. But the tone was crisp, assured, the music full of zest. The two pianists understood each other very well, and stayed together easily both in the technical aspects of the music and in the spirit they wanted to convey. One was left wishing to hear more.

The flute of Caroline Hoemann G had a beautiful tone in Fauré's *Fantasy for Flute and Piano op.79*. The piano accompaniment by Ike Chang '88 was equally good.

Schubert's famous *Lebensstürme* was much less ethereal than Fauré's fantasy. It opened with a few rhythmical chords that reoccurred, hauntingly, throughout the piece. Susie Lee '88 and Ondria Jaffe '85 gave much of their enthusiasm and feeling to the forte of these chords. There were some problems with the balance between the two pianists, as the lower registers tended to overwhelm the melody in the upper ones. Only when the melody shifted to the lower keys did the struggle resolve. The bass notes touched one with their new, unexpected expression.

The program ended with Dvorak's *Piano Quintet in E Flat Major op.87*. Chung-Pei Ma '88 played the violin, Sheila Davis '85 the viola, James Butler '85 was the cellist, Monty McGovern the pianist. The tone of the group was beautiful (one didn't hear a single harshness in the strings), the control and depth with which the music was rendered was impressive.

Jacqueline Gottlieb

## Fascinating plasma sculpture at the Compton Gallery

*Expanded Vision, an exhibit at the Compton Gallery (10-150). Monday-Friday, 9 am to 5 pm; Saturday, 10 am to 4 pm. Now through October.*

It's all based on plasma physics, but you don't need Maxwell's equations. You can also ignore the obscure, stuffy statements about "kineticism" on the plaque at the gallery entrance. The beauty of plasma sculptures is easy to enjoy. They are technological devices, but they appeal to a simple, childlike sense of wonder at nature.

Plasma "sculpture," invented by Bill Parker '74, is not sculpture in any usual sense. It is best described as controlled lightning. A plasma sculpture is a hand-blown glass form, usually a sphere or tube, containing a mixture of noble gases. High-voltage, high-frequency signals ionize the gas and drive currents through it, and the paths of the current glow with light emitted by excited atoms. The sculpture appears to be filled with threads of light wandering across the face of the glass. The color and appearance of the light vary from one sculpture to another, depending on the composition of the gas mixture and the programming of the signal generator. Touching the glass is safe, and spectacular, since it causes the strands of light to cluster at your fingers (your

body provides an electrical ground).

The Compton Gallery contains about a dozen plasma sculptures standing in darkened rooms, so that there is little reflection from the glass and the patterns of light seem to be suspended in space. The high-voltage circuitry is well hidden; nothing distracts you from the coruscating display. You can just watch the currents, which may look like rippling water or like a tangle of silvery hair whipping back and forth. Or you can interact with them, touching the glass and turning knobs which change the way the patterns move.

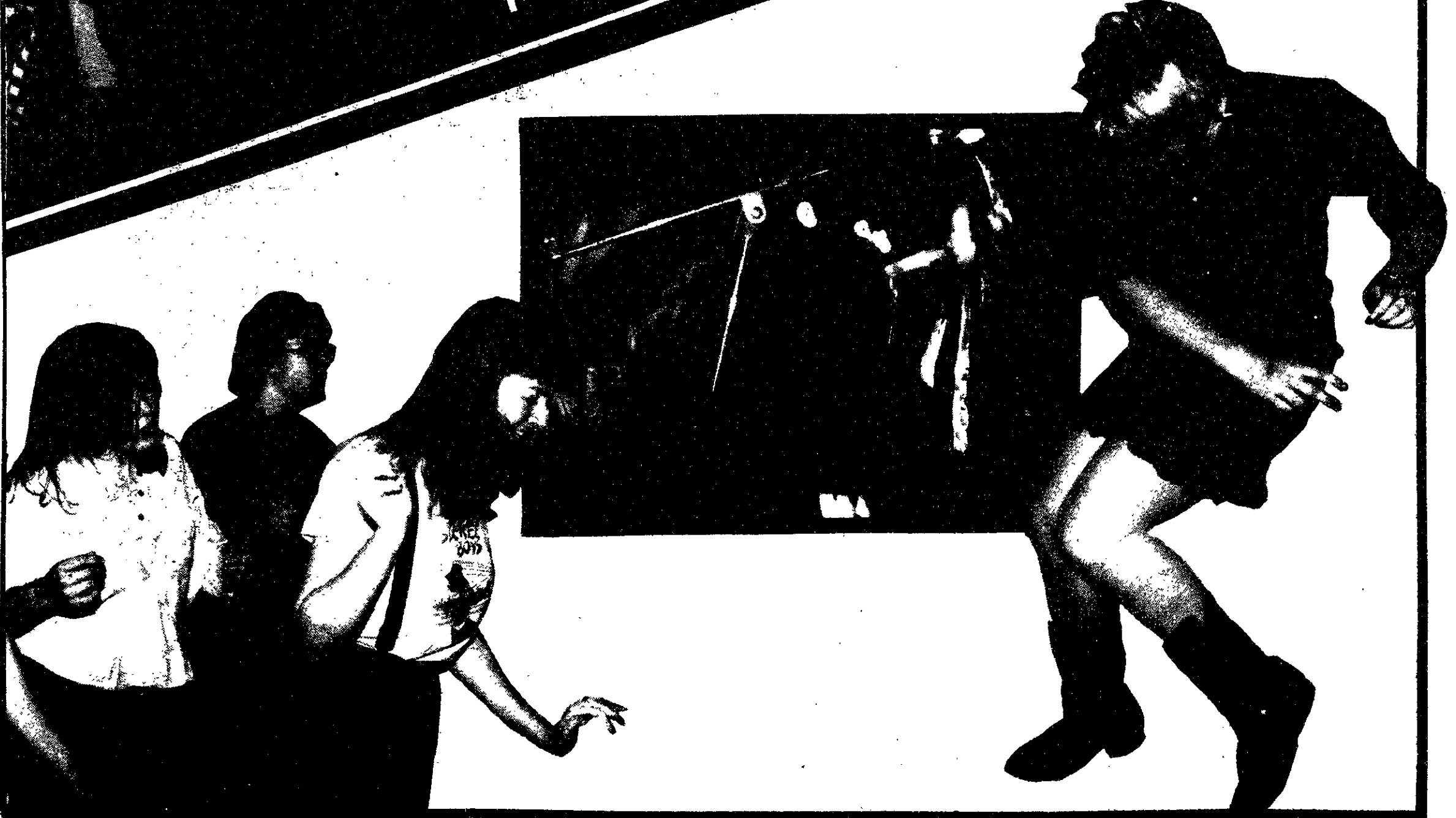
Plasma is an unfamiliar substance, yet the flickering bolts of light in a plasma sculpture are often reminiscent of familiar phenomena in nature, engaging and tantalizing the imagination. Some resemble boiling cauldrons of red tentacles or colonies of lost searchlights; the soft green tendrils of another sculpture look like seaweed drifting on the tide. The bulb at the center of the spherical sculptures, which broadcasts the high-frequency discharge, often brings to mind an eyeball covered with blood vessels or the stormy surface of a star.

Both students and visitors should be sure to see this exhibit. I hope MIT keeps at least one plasma sculpture permanently.

Katie Schwarz



BILL CODERRE WITH MIKE BOVL

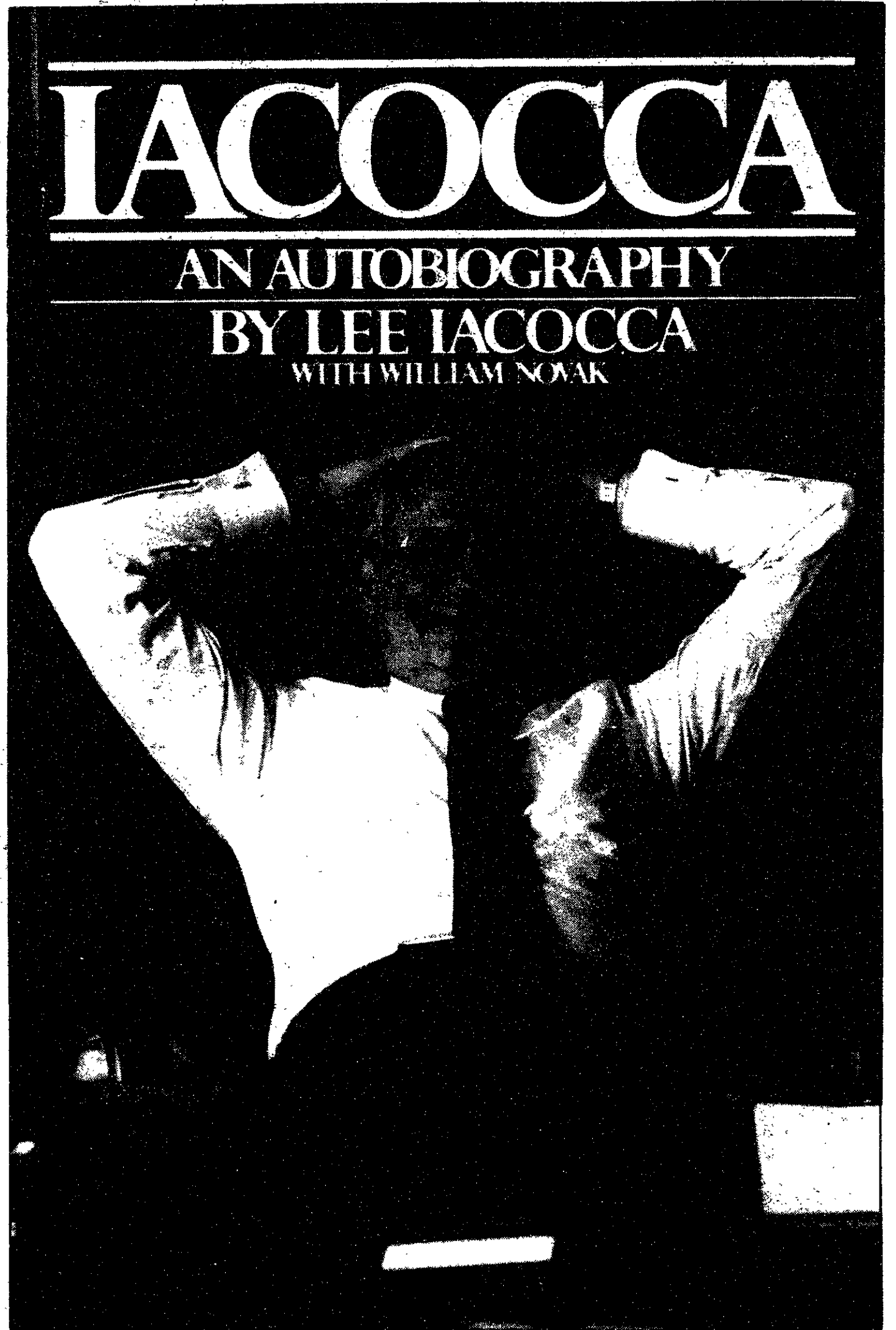


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# opinion

## feedback

### Provost and opponents debate SDI policy

(Continued from page 6)

research projects whose funding source has been or will be shifted to SDI. Publication will greatly facilitate an open and educated discussion of the effects of "Star Wars" funding at the Institute. We hope the Administration will grant our request.

In the long-run, MIT should formulate a policy to deal with the potential impacts of greater reliance on SDI funds on university research and educational programs. For instance, Low agreed with our original argument that mission-oriented programs, such as SDI, may result in sponsorship of narrow areas of research at the expense of "irrelevant" disciplines (such as the life sciences). However, he did not indicate how MIT will respond if money is reduced for research in these "irrelevant" fields on campus. Does MIT plan to make a special effort to secure funds for these fields? These and other problematic issues should be dealt with in a formal university policy statement.

We do not wish MIT to stand alone among major research universities in objecting to SDI research funding tactics. Consequently, we repeat our request that President Paul E. Gray '54 immediately initiate a meeting with these universities to discuss how SDI will affect their research and educational programs. A goal of the meeting should be to produce a public document which outlines areas of concern and possible courses of action which universities can take in responding to their concerns. Because we feel an open exploration of these issues is so important, we will be writing to the presidents of potentially affected research universities to urge them to initiate or participate in such a conference.

In closing, we again would like to thank Low for replying to our first letter. It is gratifying to learn that senior members of the administration share our concerns over the SDI program. We hope that the incoming provost, Dean of Science John M. Deutch '61, will continue to encourage open discussion on campus of these and related issues involving the effects of DOD funding on the MIT academic environment.

Robin Wagner G  
Erik Devereux '85  
'84-'85 Student Representatives  
to the Faculty Committee on  
Educational Policy

whether the net result would be a chilling effect on open discussion. We are pleased that Low has clarified the Institute's position — both at the May faculty meeting and in his letter. Accordingly, we modified our petition. Over three-quarters of the 700 signatures we collected were on the revised petition. We regret any misunderstanding our statements may have caused.

Nevertheless, our fundamental concerns remain. To create an atmosphere of open discussion, we feel the Administration must go beyond reaffirming the right of faculty and staff members to express their personal views, citing their institutional affiliation. The administration should actively promote public discussion of controversial issues, including SDI funding at MIT, which may have great bearing on the future of the Institute.

We understand the reluctance of some high MIT officials to make statements on this subject because of the conviction that MIT's name should not be used for partisan political purposes. We share this conviction, and it forms the basis of our position that MIT has the right and the duty to try to prevent DOD officials from using the Institute's prestige to further their political agenda: to increase federal funding of SDI by 166 percent in the next fiscal year.

How can MIT avoid being politically manipulated? In the short-run, MIT should immediately raise any concerns it has over SDI funding tactics in an official policy statement. To incorporate diverse views into this statement, the Institute should solicit comments from all interested members of MIT in an appropriate university forum. While we believe the Technology and Culture Seminars on various aspects of SDI planned for next fall will make an important and valuable contribution to the discussion at MIT, we do not feel that these seminars can take the place of an official MIT policy position. Furthermore, the fall will be too late; DOD officials and Congress are acting now on proposals to fund a new and controversial \$100 million SDI research program, and MIT's name is being misused in the process. This should not be permitted.

The provost did not comment on our earlier request that MIT publish information on the on-campus and Lincoln Laboratory

Jonathan Weil G  
Student Disarmament Study  
Group

Editor's note: Student Disarmament Study Group member and Tech columnist Scott R. Saleska '86 appended this comment to Wagner, Devereux and Weil's letter.

I concur completely with the response of Wagner, Devereux, and Weil to Provost Francis E. Low's letter. I feel there is one point, however, which was not squarely addressed in that letter. This point concerns the problems of maintaining academic freedom in a world of heavily vested political interests. In order to honestly address the issue of academic freedom we have to face up to the fact that MIT is a political entity in a political world.

Low asserts — correctly, I believe — that "the same tradition of academic freedom that permits professors to take public positions on public issues also permits them to work on research projects of their choice." He does not seem to acknowledge, however, that academic freedom is nei-

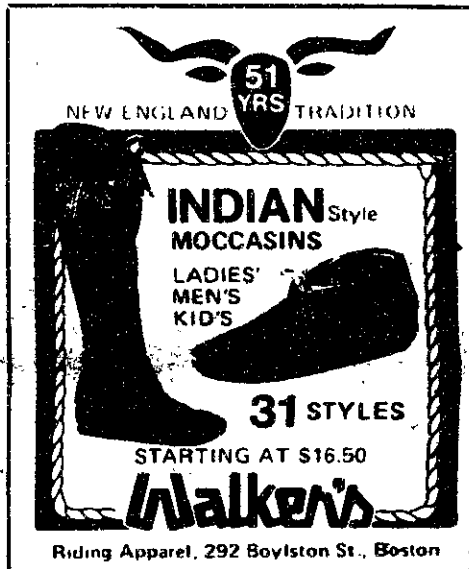
ther established nor maintained by simply proclaiming it. An educational institution abrogates its responsibility to academic freedom if it merely responds passively to external funding sources. It must also act vigorously to make diverse funding available. It is possible, of course, for MIT to do nothing, and accept uncritically the research priorities defined by those in power. But we must recognize that by doing so MIT is making a political judgment which places externally imposed priorities above internal principles. We cannot be so naive as to fail to recognize it as such.

If, however, we are sincerely concerned about preserving academic freedom, then we — as an educational institution committed to certain principles — are obligated to take political stands as a matter of policy. In fact, MIT does this constantly. The Institute's opposition to the Nuclear-Free Cambridge Act, its non-discrimination and affirmative action policies, and its active lobbying position on behalf of student financial aid are all exam-

ples of MIT taking political stands to uphold certain principles.

I am not saying such decisions will necessarily be easy — only that they are unavoidable ones for an educational institution. My personal view is that in the instance of the SDI program, the obligation to speak out is particularly strong. As Wagner *et al.* have pointed out, MIT is being publicly manipulated to further the goals of the DOD — goals which in this case will place constraints on research funds and thereby threaten academic freedom at MIT.

Let us give these difficult questions the serious consideration they deserve. Further, let us not be squeamish about making political decisions because we still believe the fantasy that scientific research is somehow an apolitical pursuit which takes place off in some value-free Platonic heaven where any scientist can do whatever he or she wishes. We are all sufficiently capable, I believe, of dealing with the political realities of the real world without hiding behind such naive illusions.



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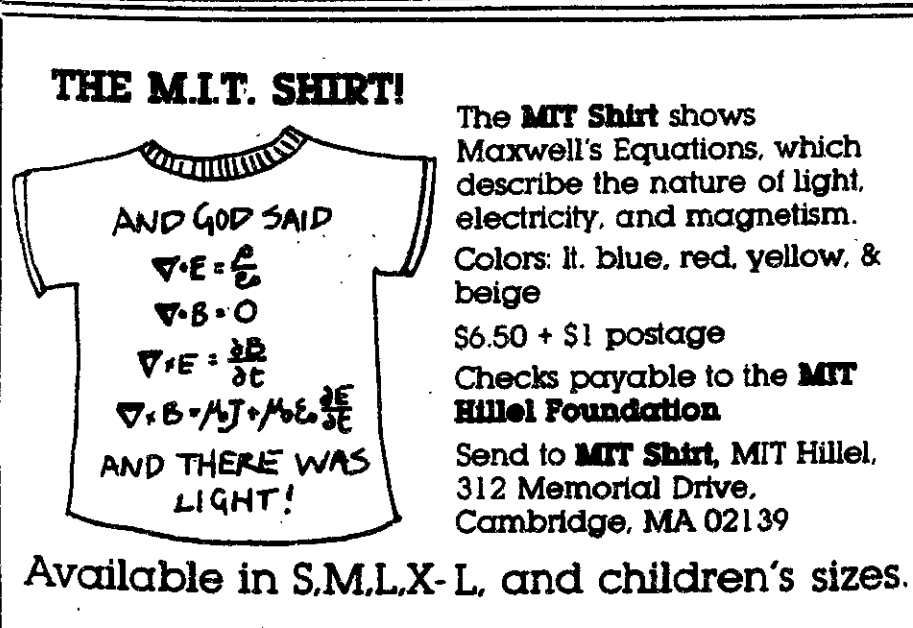
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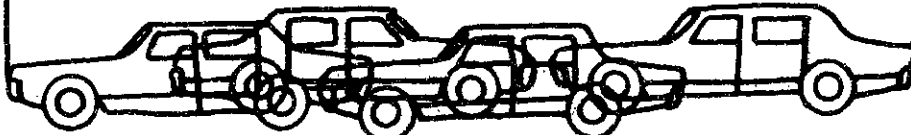
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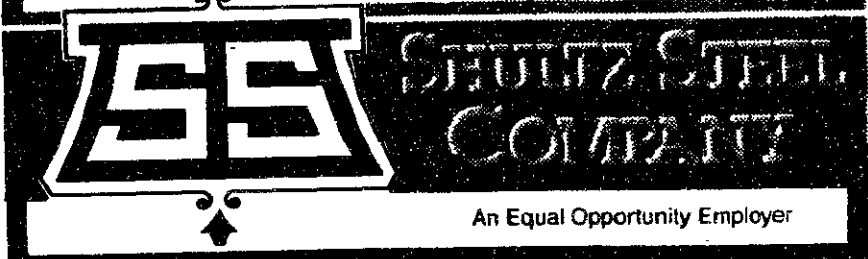
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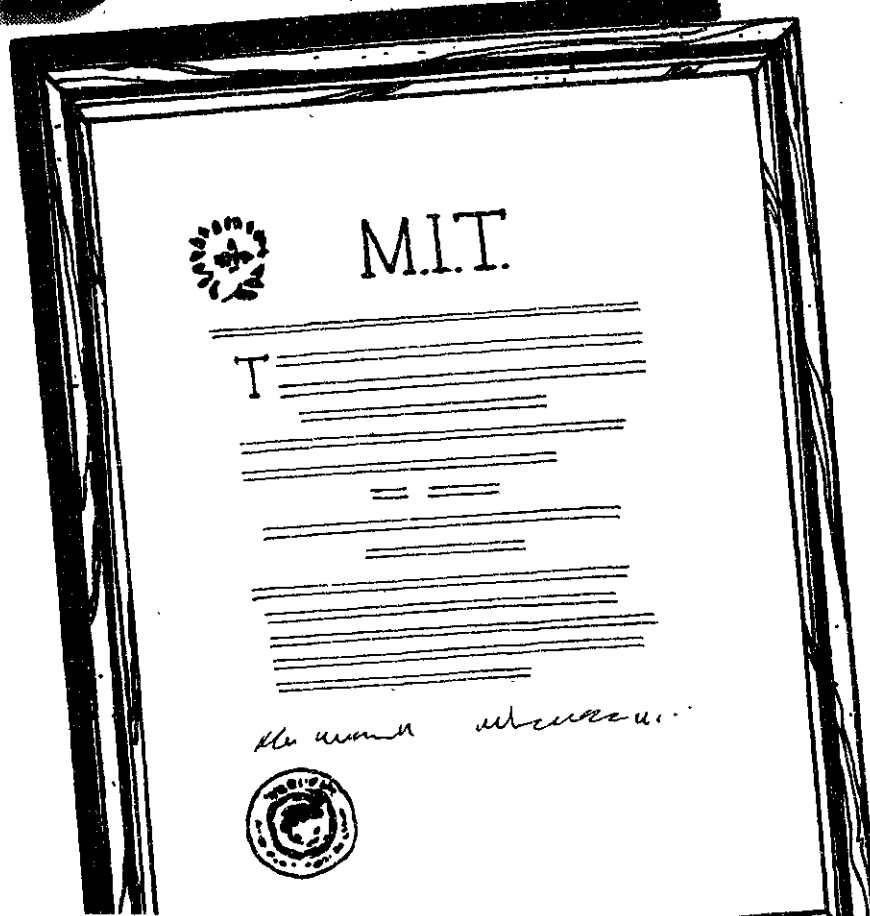
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# CEP's changes approved

(Continued from page 1)  
 should be measured in terms of subjects rather than units.

"Departmental requirements shall permit the student to schedule his or her program each year within a normal load of the equivalent of eight or eight and one-half subjects . . . All approved Course curricula for the degree of Bachelor of Science shall make it possible for students to complete all degree requirements in the equivalent of 32 to 34 subjects," the regulations state.

The CEP believes that the number of credit units does not sufficiently characterize the difficulty of a student's load, according to another CEP enclosure accompanying the call to an April faculty meeting. "In terms of work for students, the number of subjects is a more reliable indicator of effort," the enclosure stated.

An amendment approved at the May meeting excluded an earlier CEP recommendation that most undergraduate subjects be 12 units. "It is very important that all departments make certain that 9-unit subjects really are no more than 9 units of work," the amendment states.

The new regulations redefine the General Institute Requirements, including the Humanities Requirement, in terms of subjects rather than units.

The CEP hopes that more humanities subjects will become 12 units to "encourage students to take the [humanities] areas of study more seriously," according to the new guidelines.

Undergraduate degree programs will now guarantee at least 48 units of unrestricted electives.

### Science Distribution Adds Breadth

The new regulations require students to take at least one science distribution subject outside their departmental program. The CEP expressed concern that some students fulfill the Science Distribution Requirement without taking science distribution subjects beyond those required by their department.

The CEP's April enclosure states, "We recognize that many departments feel that their programs provide ample breadth, but the proposal allows students to choose the area of breadth — which can be particularly important in the process of selecting a major."

### Funding Committee Formed

Smith announced that a committee to examine the impact of increasing military funding of research and education on MIT has been formed.

Smith chose the faculty members of the committee in consultation with the officers of the faculty. The student members were nominated by the Graduate Student Council and the Undergraduate Association. Professor of Physics Vera Kistiakowsky proposed the formation of the committee at the March faculty meeting.

Carl Kaysen, director of the Program in Science, Technology, and Society chairs the committee. Other members are James L. Kirtley, Jr. '67, associate professor of Electrical Engineering; Allan F. Henry, professor of Nuclear Engineering; George W. Rathjens, professor of Political Science; Herman Feshbach, Institute professor; James R. Melcher, professor of Electrical Engineering and Physics; Kistiakowsky; Louisa Koch G, and Daniel J. O'Day '87.

### CEP Reorganized

The responsibilities of the CEP will be divided between two committees. The Faculty Policy Committee will be the top ranking faculty committee, and the Committee on the Undergraduate

Program will oversee undergraduate education. The latter committee will work with the new Dean for Undergraduate Education.

Smith said the faculty unanimously voted for reorganization of the CEP in the May 29 meeting, a meeting normally devoted to the approval of degrees.


### IAP Reviewed


"Recent surveys of the faculty and student body reveal high levels of satisfaction with IAP [Independent Activities Period]," according to a summary in the call to the May 15 meeting. The committee recommended no fundamental change in IAP, but urged that "faculty and departments . . . become more involved in helping undergraduates plan their IAPs."

Professor Shaoul Ezekiel, chairman of the IAP Policy Committee, reported on the status of IAP at the faculty meeting.

### Faculty Officers Elected

Professor of Psychology Mary C. Potter was elected to a two-year term as chairman of the faculty. She will succeed Smith in the fall. Professor of Ocean Engineering J. Kim Vandiver was elected associate chairman of the faculty. Professor of Electrical Engineering Jack Ruina was re-elected secretary.

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# SUNSPOTS

# sports

## Kappa Sigma wins IM frisbee for eighth year

By Janice Marchisava

Kappa Sigma defeated Phi Delta Theta, 10-6, in the A-league ultimate frisbee finals, marking the eighth consecutive year that Kappa Sig won the A-league title.

The teams played a close contest through the first 20 minutes, the score tied 4-4 at the half. Kappa Sig took command in the second half, however, outplaying PDT to win easily.

The first score of the game characterized the play: PDT mistakes resulted in a Kappa Sig score within the first minute.

The teams appeared evenly matched, though, when two minutes later, PDT evened the score after Kappa Sig dropped an extremely catchable pass in the end zone.

Despite some careless plays, Kappa Sig managed to score again two minutes later. Freshman Daryl Habberstad, playing another fine game, stole the frisbee twice to keep the drive going.

A succession of mistakes and missed scoring opportunities for both teams ensued during the next five minutes. PDT missed three passes in the end zone, but the biggest blunder came when a Kappa Sig player threw the frisbee at a PDT player, who caught it on the rebound and scored, evening it up at 2-2.

Team play was minimal, but Kappa Sig outclassed PDT in one-on-one matchups. Habberstad and Kevin Verhage '87 manufactured the drive, leading to an easy score at 12 minutes.

Inability to coordinate the individual players proved costly, though, as Kappa Sig could not score on a PDT turnover 10 yards from the end zone. Again a single player was able to turn things around, though. The score came on a leaping, acrobatic catch by John Travers amid a crowd of three defenders.

Kappa Sig seemed to be well in control, with a 4-2 lead and five

minutes left in the half. But another series of mistakes allowed PDT to score. First, a Kappa Sig defender tipped a PDT end zone pass into the hands of the intended receiver, cutting the lead to 4-3. Careless defensive play left a PDT man open in the end zone two minutes later, making the score 4-4 at the half.

The second half looked like more of the same, as both teams continued to play carelessly, missing throws repeatedly. Kappa Sig still seemed to be almost alone on the field at times, however, outdistancing the PDT defense to score on a strong drive two minutes into the half.

A Kappa Sig defender again tipped a PDT pass to another PDT player, leading to a tie score.

Kappa Sig finally decided that it was time to get down to serious play. Captain Keith Daly '85 provided the motivation, getting support from the teams' four other seniors: Richard Corkran, Ray Lizotte, Kevin Moore and Mark Schlueter.

The game was basically over for PDT, from this point. The cross-river rivals were simply not able to keep up with Kappa Sig's offensive attack. Chris Corcoran G and Eric Park '87 turned in fine performances for PDT, but they could not stop the renewed intensity of Kappa Sig's team effort.

Kappa Sig scored twice to take the score to 7-5. A last-ditch effort by PDT resulted in their final score of the game. The contest then became an exhibition for Kappa Sig, which scored three more times in the game. The first goal came close on PDT's score. It was followed by another one 30 seconds later, and a third after another 45 seconds, yielding a final tally of 10-6.



Tech photo by Henry Wu

Kappa Sigma's Joe DeRosa '86 makes a defensive play against Phi Delta Theta in the A-league ultimate Frisbee finals.

## Five MIT athletes receive awards at Institute Awards Convocation

By Martin Dickau

Track star Patrice Parris '85 was one of five athletes honored at the Awards Convocation held May 8. Ron Smith '85, Lori Peterson '85, Lisa Shields '85, and Mike Ambrogi '85 also received awards at the convocation.

Parris won the 35-lb weight throw at the NCAA Division III Indoor Track and Field Championships and finished fourth at the IC4A Championships at Princeton. For his efforts, Parris was awarded The Class of 1948 Award as MIT's top senior male athlete.

Parris also received the Malcolm G. Kispert Award, given to the top male scholar-athlete. Parris had a 4.7 grade-point-average as a double major in electrical engineering and physics.

Peterson, who captured the one- and three-meter diving titles at the New England Division III Championships and finished sixth in the three-meter competition at the NCAA Division III Championships, was given the Betsy Schumacker Award as MIT's top female athlete.

Tennis standout Shields received two awards — the Pewter Bowl Award for inspiration and leadership in women's athletics and the Malcolm G. Kispert Award as the top female scholar-athlete.

Shields not only was women's tennis team captain and most valuable player, but she compiled a 4.5 grade-point-average in aeronautics and astronautics.

Football and lacrosse co-captain Mike Ambrogi '85 and track co-captain Ron Smith '85 jointly

received the Admiral Edward L. Cochrane Award for leadership and inspiration to teammates.

In addition to these awards, eleven athletes received Straight "T" Awards for outstanding performance in regional and national competition. The award winners are:

Fencers Russell Holtz '85 and Linda Ystuenta '88; swimmers Andy Renshaw '85, Clark Dorfman '87, and Lori Peterson '85; track weightmen Parris and Greg Procopio '85; pistol captain Jerry Martin '86; rifleman Cliff Eskey '85; and volleyball veteran Anella Munro '85.

The women's volleyball team also received a Straight "T" Award for its second-place finish at the NCAA Division III Championships in December. The squad is the first group to be so recognized.



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