MIT presents package on educational reform

By Niraj S. Desai

The Cambridge Rent Control Board voted last Wednesday to exclude evidence of the impact of the University Park development when it decides whether to grant MIT a removal permit for five houses on Blanchard and Green Streets. The move appears to be a setback for community groups who claimed that the MIT has not shown enough concern for the houses' tenants or for the city's housing needs.

The houses are on the site of a 350-room hotel and conference center, part of MIT's University Park project.

In March, the board granted MIT's request for a permit to remove the 12 apartments — four of which are occupied — from the rental market. But that ruling was vacated by the Middlesex County Court Judge Joseph Mitchell in October. The judge ruled that it would only decide to hold a hearing in which it asked opponents of the removal to present evidence on the impact of the development on the low- and moderate-income housing in the city. Wednesday's hearing was held in response to that ruling.

William S. Noble, one of the tenants, said that a legal complaint has been filed against the board's Wednesday decision. Mitchell also met in October that the process had been compromised at the original hearing because evidence on the negative impact of the development on the low- and moderate-income housing in the city. The board ruled that it would only grant (the permit if MIT changed its petition to make all the arguments subject to rent control. MIT agreed, but opponents argued that they had not been allowed sufficient opportunity to respond to the revised petition.

As a result, another hearing will be held on Feb. 15 for the board to hear the revised petition again. At that time, the board might reject MIT's removal permit which would allow it to demolish three of the houses and move the other two.

At Wednesday's hearing, John L. Mason Jr., an attorney representing one of the tenants, argued that Mitchell had ordered the board to send the case to a hearing examiner. MIT contended that evidence on the impact of University Park development would not be needed.

The board decided to hold a hearing in which it asked MIT to present evidence proving that there was sufficient reason to collect such evidence.

"We object to the procedure," Mason told the board. He charged that the board was deliberating ignoring the judge's instructions. "The court's order speaks for itself . . . the court does require a fact-finding hearing," he added. That was inapprop- riate for the board to ask the tenants for offers of proof. The complaint filed yesterday seeks to find the board in contempt of Mitchell's ruling.

MIT's attorney, Scott Lewis, countered that the tenant "has (Please turn to page 27)"
Intifadah affects every aspect of West Bank life

By Andrew L. Fish

(Reporter's Notebook)

The streets of Nablus were teeming with people on a sunny winter day. There was little evidence of the intifada — the Palestinian uprising. But this was only a full day in what has become a 14 month battle. The intifada has become a way of life in Nablus and other towns and villages in Israel's occupied territories. Even on this calm day one rock was thrown at our bus, and the army saw fit to have two jeeps park our group around the area.

Photographs are forbidden inside the military administration headquarters, with the exception of one room — a makeshift intifada museum. The army has collected artifacts from the uprising, ranging from the banned Palestinian national flag and cans of spray paint to marbles, clubs, and other weapons. The army placed a rifle and many axes and knives in the display, but these weapons have generally been burned during the uprising. The purpose of the display was futile — it could have been for propaganda purposes, some sort of training device, or merely a hobby for the soldiers in the region. Regardless of motive, the display showed that there is no place in the territories where the intifada cannot be seen or felt.

Soldiers with maps and high powered binoculars watch Nablus. It was a good day for the army as no shots were fired. But this was only the beginning of the uprising. The streets of Nablus were teeming with people on a sunny winter day. There was little evidence of the intifada — the Palestinian uprising. But this was only a full day in what has become a 14 month battle. The intifada has become a way of life in Nablus and other towns and villages in Israel's occupied territories. Even on this calm day one rock was thrown at our bus, and the army saw fit to have two jeeps park our group around the area.

Materials from the intifada displayed at the military administration headquarters in Nablus.

When Kalifer was asked about excessive use of force against Palestinians, he responded that "most times we do not do as you say." Wesner added that "you can always find examples of violence and youth are responsible for most of the activities." Siniora said "we have one homeland; we have to learn to share it." Siniora admitted that some Palestinians who have suggested a dialogue with Israel have paid with their lives. But Siniora stressed that "the intifada and war, which all of us are against," or "political settlement and negotiation to the troops below. But it has been quiet the past week," he added.

"But Siniora stressed that "the intifada and war, which all of us are against," or "political settlement and negotiation to the troops below. But it has been quiet the past week," he added.

"I think you have a beautiful home," he said. "There's a lot of fear here now." Efrina said. "We have one homeland; we have to learn to share it." Siniora admitted that some Palestinians who have suggested a dialogue with Israel have paid with their lives. But Siniora stressed that "the intifada and war, which all of us are against," or "political settlement and negotiation to the troops below. But it has been quiet the past week," he added.

"I think you have a beautiful home," he said. "There's a lot of fear here now." Efrina said. "We have one homeland; we have to learn to share it." Siniora admitted that some Palestinians who have suggested a dialogue with Israel have paid with their lives. But Siniora stressed that "the intifada and war, which all of us are against," or "political settlement and negotiation to the troops below. But it has been quiet the past week," he added.

"I think you have a beautiful home," he said. "There's a lot of fear here now." Efrina said. "We have one homeland; we have to learn to share it." Siniora admitted that some Palestinians who have suggested a dialogue with Israel have paid with their lives. But Siniora stressed that "the intifada and war, which all of us are against," or "political settlement and negotiation to the troops below. But it has been quiet the past week," he added.

Simaon Siniora, a member of the Palestinian National Council, noted the "intifada" as a man who all parties can work with and he sees a two-state solution to the Palestinian-Israeli conflict.

"There's a lot of fear here now." Efrina said. "We have one homeland; we have to learn to share it." Siniora admitted that some Palestinians who have suggested a dialogue with Israel have paid with their lives. But Siniora stressed that "the intifada and war, which all of us are against," or "political settlement and negotiation to the troops below. But it has been quiet the past week," he added.

"I think you have a beautiful home," he said. "There's a lot of fear here now." Efrina said. "We have one homeland; we have to learn to share it." Siniora admitted that some Palestinians who have suggested a dialogue with Israel have paid with their lives. But Siniora stressed that "the intifada and war, which all of us are against," or "political settlement and negotiation to the troops below. But it has been quiet the past week," he added.

"I think you have a beautiful home," he said. "There's a lot of fear here now." Efrina said. "We have one homeland; we have to learn to share it." Siniora admitted that some Palestinians who have suggested a dialogue with Israel have paid with their lives. But Siniora stressed that "the intifada and war, which all of us are against," or "political settlement and negotiation to the troops below. But it has been quiet the past week," he added.

"I think you have a beautiful home," he said. "There's a lot of fear here now." Efrina said. "We have one homeland; we have to learn to share it." Siniora admitted that some Palestinians who have suggested a dialogue with Israel have paid with their lives. But Siniora stressed that "the intifada and war, which all of us are against," or "political settlement and negotiation to the troops below. But it has been quiet the past week," he added.

"I think you have a beautiful home," he said. "There's a lot of fear here now." Efrina said. "We have one homeland; we have to learn to share it." Siniora admitted that some Palestinians who have suggested a dialogue with Israel have paid with their lives. But Siniora stressed that "the intifada and war, which all of us are against," or "political settlement and negotiation to the troops below. But it has been quiet the past week," he added.

"I think you have a beautiful home," he said. "There's a lot of fear here now." Efrina said. "We have one homeland; we have to learn to share it." Siniora admitted that some Palestinians who have suggested a dialogue with Israel have paid with their lives. But Siniora stressed that "the intifada and war, which all of us are against," or "political settlement and negotiation to the troops below. But it has been quiet the past week," he added.

"I think you have a beautiful home," he said. "There's a lot of fear here now." Efrina said. "We have one homeland; we have to learn to share it." Siniora admitted that some Palestinians who have suggested a dialogue with Israel have paid with their lives. But Siniora stressed that "the intifada and war, which all of us are against," or "political settlement and negotiation to the troops below. But it has been quiet the past week," he added.
Bush announces S&L bailout

President Bush announced a plan to bail out the savings and loan industry that would impose no direct cost to taxpayers. But it would increase the federal deficits paid by banks and thrifts. The higher costs could be passed on to depositors. Bush told a White House news conference that savers have never lost one dollar in federally insured institutions and that he was "determined that they never will." Under Bush's plan, $50 billion in bonds would be issued to supplement the $40 billion Bush said has already been spent to bail out institutions that have failed.

In addition, the President proposed changes in the federal penalty appeals system. The United States opened unprecedented talks in China in 1971.

FDA approves aerosol AIDS drug

The Food and Drug Administration granted permission for the expanded distribution of an experimental, aerosol version of the drug Pentamidine, which helps prevent the type of pneumonia that often strikes AIDS patients. Pentamidine is marketed by Lymphoid Incorporated. Under normal conditions of the approval, 18 aerosols would have very low counts of the infecting white blood cells that are destroyed by the AIDS virus.

Reagan to lobby for balanced budget

Former President Reagan said he's "saddled up and ready" to lobby for a balanced budget amendment to the Constitution. Reagan's speech at the University of Southern California was his first since leaving office two-and-a-half weeks ago. Reagan, who arrived in the area Thursday, told the students he was glad his retirement was over.

Vienna display will come to Bay State

A replica of the Vietnam Memorial in Washington will travel to the Bay State this summer. The traveling wall will be on display in Greenfield two weeks this summer. Congressman Silvio Conte of Pittsfield said to Greenfield residents. The 40-foot replica, which reaches 225 feet in length and stands six feet high, will be on display at the Franklin County Fairgrounds this July. Conte said the wall was in demand and would be displayed across the country. He said people who see the wall won't be touched by its significance and power. Conte announced he would be in the Bay State at the Franklin County courthouse in Greenfield.
Editorial

Education reform lacks direction

The reports of the Committee on the First-Year Program and the Science-Engineering Working Group, both released this week, present a bleak picture of MIT's struggles over educational reform since its inception four years ago. Each report presents significant problems that must be resolved before a faculty vote is called. Furthermore, the proposals often conflict, making the goals of educational reform unclear.

The reasons given by the CFYP for abolishing second-term pass/no-credit (freshman pass/no-credit are not convicitive) are not convincing. The committee relies on hidden grades as evidence. In addition, some of the reasons the CFYP gives for the elimination seem strained. For example, two reasons the CFYP gives for pass/no-credit elimination are: (1) "some students" express frustration with pass/no-credit in the second semester and (2) the recording of hidden grades causes confusion regarding who actually gets to see the grades. Clearly, neither reason carries much weight in a proposal of this magnitude. Moreover, the CFYP glosses over those freshmen who need two terms of pass/no-credit to properly adjust to MIT. CFYP argues that these students are probably few in number and suggests that the new system would be better for these students in any case. The report, however, gives no clear reason why this would be the case.

SEWOPs argues the addition of one subject to the science core, while reducing the overall Science Division classes by one. Regardless of whether or not SEWOPs recommends that one science education subject remain outside of the departmental requirement, it offers little empirical evidence. Moreover, the benefits of ever-fewer freedom in course selection.

In the end, it remains unclear whether the committee that fashioned the two proposals shared the same visi for the goals of educational reform. While the CFYP's proposals are motivated largely by a desire to spread the core requirements beyond the freshman year, the SEWOP proposal of a year-long chemistry course would seem to disregard that. Is there a clear goal in sight for those who advocated sweeping changes four years ago?

In December 1986 President Paul E. Gray '54 wrote in The Chronicle of Higher Education supplement in April 1986 that MIT's task, according to Gray, was to develop "a true educational partnership among the technical, artistic, social, and humanistic disciplines." By "educational partnerships" he called it, that could not be addressed in "isolated, piecemeal" fashion by faculty members in different disciplines. Yet, if educational reform at MIT continues on its present course, we will have nothing of the kind.

The release of the two reports by the Committee on the First-Year Program and the Science-Engineering Working Group does constitute progress on educational issues. But little has been seen of the core. The gut of the issue is that, in order to reorder the undergraduate experience at MIT, departmental requirements must change and the teaching format of all courses must be significantly altered. Without changes in departmental requirements and philosophy, any student's program at MIT will remain the same. Schedules for major departments are already tight; no room is left for innovation in the curriculum. The much-touted contest courses, for example, will have a hard time finding their way into the curriculum unless departments are willing to give up some requirements in exchange.

One of every three letters that contributed to the Tech opinion supplement in April 1986 thought that MIT education was probably best left beyond science and engineering, but within science and engineering. Professor Jack Kerberrook, associate dean of the School of Engineering, recently commented that many subjects cover too much material at the expense of depth of understanding. And MIT students pet little extra effort to problems with ambiguous answers, wrote Professor Alvin W. Drake '57 of the Department of Electrical Engineering and Computer Science. Freed of some departmental requirements, Drake said, some students could take courses on the social contexts of science and engineering, while others might expand the design experiences within our curriculum.

Column/ Michael Gojer

Education reform losing focus

In December 1986 President Paul E. Gray '54 wrote in The Chronicle of Higher Education that 1996 was one of the educational reform movement at MIT was to expand students' creative and design capabilities. There is evidence, Gray wrote, that the Institute somehow stunts the enthusiasm and creativity of its students during their four years program, and Kerberrook, in The Tech, questioned the effectiveness of the current lecture/recitation/testing format in higher education.

What is being studied by any of these curriculum issues right now? The extent and focus of departmental requirements areas, and the teaching formats of technical subjects, perhaps the two most important issues in educational reform, are presently under serious review, albeit for understandable reasons. Changing requirements or teaching formats will stir up serious intra-Institute politics, which educational reformers may not be willing to combat. Until they do, the MIT experience will remain the same. Given educational reform review reports may be missing the forest for the trees. The new HASS requirement went through two years of debate and fine tuning, with the end result that it almost entirely resembles the old requirement. In the meantime, those extracurricular programs, such as the establishment of a College of the New Liberal Arts, proposed by Professor Leo Marx, in his book in 1966, have disappeared from the educational reform discussion. Perhaps the most lasting effect of the reform movement will be a change in MIT's image, even if its curriculum remains the same. When MIT announced that it was revising its requirements, newspapers across the country echoed headlines like "MIT to humanize engineers." The stories, of course, were inaccurate, but the headlines did strike a chord. An admissions office video triumphantly displays CFYP as the place for humanistic scientists, and it is clear that MIT seeks a humanistic image.

Yet, within the Institute, confusion abound over the goals of educational reform. Some perceive the quest for curriculum review to be whether MIT could turn to focus on educational issues - after all, an MIT student, it is misleading to suggest that little, if any, good things in the wrong ways. The disallation that many students feel with the curriculum may result not from too much to study, but from studying the wrong things at the wrong times.

Ultimately, the biggest barrier to creating the kind of "educational synergy" that has been defined by itself as a stature of a premier technological authority, but broadening MIT's curriculum may require redefining its identity.

One thing is certain: if the Institute truly wants to humanize MIT undergraduate education, it must take on the big issues. Until that happens, we may have to be content with just the headlines.

I urge MIT students to seize the opportunity for study in Britain.

Michael Gojer, a sophomore in the Departments of Humanities and Physics, is opinion editor of The Tech.

Feedback

Fulbright offers valuable cultural experiences

To the Editor:

I read with dismay Michael P. McCue's letter of Jan. 18 ("Fulbright offers valuable cultural experiences"). I wish to raise two points. First, while it is true that English (and indeed, British) science has suffered serious losses in management, financial support and morale recently, it is misleading to suggest that little, if any, good science is being done in the United Kingdom. There are still many world-renowned scientists and laboratories in Britain; in fact, Oxford Physiology (at which McCue apparently had the misfortune to study) has several first-rate research groups. Secondly, the value of awards such as the Fulbright does not lie purely in the academic domain. They allow students to broaden their social and cultural horizons. I count myself very lucky to study at Oxford (in Physiology — biology, not the University of California, and MIT). I urge MIT students to seize the opportunities to study in Britain. However, I would take Stanford for the sun...

R. M. Brackwell
feedback

Bring Columbian president for 1990 commencement

( Editor's note: The Tech received a copy of this letter addressed to Mary Morrissey of the Commencement Committee.) To the Editor:

As I have already mentioned to you and to President Paul E. Gray '54, I would like to nominate Virgilio Barco '43, president of the Republic of Colombia, to be our guest speaker for the 1990 commencement.

I believe that we at MIT should recognize important people from within our own community. What better than to have as a guest the only graduate of our institution who has been able to become head of a country. Furthermore, because Barco served for many years as a member of our Corporation, he knows the Institute from that perspective as well.

Moreover, I believe that the role Latin America is playing in US foreign policy is becoming very day more important in the internationalization of the US economy.

We hear every day what the American press tells us about this matter but we really do not know the perspective from within Latin America. Barco, more than any other of our graduates, is the most suitable person to address us about this other side of the coin.

I believe it is important also to know that by June 4, 1990, the day of our commencement, Barco will still have two months left in office but there will already be a newly-elected president to succeed him. This will not only facilitate his visit, but will allow him to expand the limits of his address.

I hope the committee will agree with me regarding the importance of this matter and will extend an invitation to Barco for our 1990 commencement.

As the only Colombian graduating in that perspective in that year, I avail myself of this opportunity to assure you of my eager involvement and participation in this event.

Julian Iragorri II '90

To the Editor:

The question of putting Smoots on the restored Massachusetts Avenue Bridge is now front page news for The Tech. One fraternity member was quoted as saying, "I wonder how many Smoots there are on the bridge..." (Jan. 18). Undoubtedly, this precious relic is being revered precisely in the long-established, holy chambers of that fraternity. Perhaps it is stuffed in an empty bottle of Smoots.

Let us not confuse the ritual of painting over Smoots for the original spirit that gave birth to Smoots. It is one thing to be aware of things past, and wonder how they came to be, but it is another thing to adhere to old forms simply because they are there. The former is an appreciation of history, the latter a mockery of it.

Walter H. Smoot and Feynman of 1899 enjoy the MIT of today? Or would a prevailing Pacific island mentality drive them to sunny California with the rest of the "brain drain"?

By now Oliver Smoot and his two crorets, I wager, would have learned through no several "ideas" to replace the old ritual and to keep the Pacific islands at MIT busy for yet another quarter century.

Parmet Singh Chaddha '87
NOW OPEN AT M.I.T. STUDENT CENTER!
WHY GO FAR TO PAY MORE ??

PRICES REDUCED!
MOST COMPACT DISCS

JUST $11.99!
WITH COUPONS BELOW

WHY PAY TOWERING PRICES???

$2.00 OFF
ANY COMPACT DISC
Purchase of $9.99 or more
Newbury Comics
(Sale Items Excluded. No Double Discounts. Expires 2/13/89)

$1.00 OFF
ANY POSTER
Purchase of $9.99 or more
Newbury Comics
(Sale Items Excluded. No Double Discounts. Expires 2/13/89)

$2.00 OFF
ANY T-SHIRT
Purchase of $9.99 or more
Newbury Comics
(Sale Items Excluded. No Double Discounts. Expires 2/13/89)

OUR TOP 70 CD'S ARE ALWAYS ON SALE
- MOST FOR JUST $11.77 OR LESS!!

Newbury Comics

36 JFK ST. The Garage, Harvard Sq. 491-0337
BOSTON: 332 NEWBURY ST. 236-4930
SAUGUS: ROUTE 1 NORTH 233-3233
FRAMINGHAM: ROUTE 30 620-0735
BURLINGTON: MALL ROAD 270-9860
Classified Advertising

For the career-oriented, we're offering a career in the Orient.

If you're seeking a successful future with a leading electronics company, Nippon Motorola Ltd. headquartered in Tokyo, Japan is offering you a world of opportunity. As an industry leader in information systems, communications and semiconductor technologies, we have a variety of openings immediately available for technical and nontechnical graduates. Working in our Tokyo, Sendai or Atsugi facilities, you'll have the chance to advance your career with one of Japan's most accomplished and respected American high-tech companies. Summer internships are also available in Japan and the U.S. Career-minded individuals with Japanese speaking and writing fluency and a desire to live and work in Japan are encouraged to find out more about openings in the areas of:

- DESIGN - Systems Design Engineer - RF Design Engineer - Circuit Design Engineer - Hardware/Software Development Engineer
- ACCOUNTING and FINANCE - Financial Analyst - Cost Accounting - Property Accounting Engineer
- ARCHITECTURE - Programming Analyst - Systems Analyst
- FACILITIES - Assembly Engineer - Final Test Engineer - Quality Control Engineer - Production Control Engineer
- WAFER PROCESSING - Process Engineer - Device Engineer
- MATERIALS - Equipment Engineer - Facilities Engineer - Safety Engineer
- MIS - Programmer Analyst - Systems Analyst
- ADMINISTRATION - Accounting/Parent - Operations/Parent - Production Scheduling - Personnel
- SUMMER INTERNSHIP PROGRAM - Accounting/Parent - MIS - Design Engineering - Manufacturing
- DEPLOYMENT - Operations of parent - MIS - Design Engineering - Manufacturing

We'll be here February 22

If unable to attend, see your Placement Office or International Student Office. Or write to: Chikara Okabe, Nippon Motorola Ltd., 725 S. Madison, Tempe, AZ 85281. Or call us collect at (602) 944-6394. Equal Opportunity/Affirmative Action Employer.
Would You Like To Add Anything?

Microsoft will be interviewing on the MIT campus
Monday, February 13, 1989
for Software Design Engineers/Program Managers
and Summer Internships. See your Career Planning
and Placement Office for more details.

We are an equal opportunity employer.
“Working at Microsoft means working with the best programmers around. You're always challenged and always learning. By the same token, you don't waste time talking to people who don't understand. Because all our managers are programmers too.”

- Doug Klunder, Software Design Engineer
MIT SB (6-3) '81

“Being a summer job, I was afraid that I would only be able to work on trivial sections or in-house tools, but I got to work, largely unsupervised, on meaningful additions to the C compiler, including optimizations. I was encouraged to develop my own algorithms, and I spent many afternoons reading articles in the technical library or sitting outside by the pond. When the new version of the compiler comes out, I’ll know that my changes are in it and that it's producing better code because of me.

“I've learned much more about programming this summer than at any of my other summer programming jobs.”

- Ellen Sper tus, Software Development-Intern
MIT (6-3) '90

“One of the great things about working at Microsoft is that it is the center of the microcomputer universe. We get our hands on the latest hardware long before it becomes public; this allows us to define and set future standards in the industry.”

- Mike Koss, Software Design Engineer
MIT SM (6-3) '83

“Summer in Seattle is a lot like late Spring in Boston — it's sunny and warm, but not humid. There aren't too many places in the country where snow-peaked mountains, waterfalls, unpolluted ocean beaches and lakes, and undeveloped wilderness are all less than two hours away.”

- Eric Berman, Associate Program Manager-Intern
MIT SM (6-1) '88

“I studied course 16 at MIT, specializing in Computational Fluid Dynamics. While interviewing, I was generally dissatisfied with the low level opportunities and slow career paths offered by other companies. Here at Microsoft, they were ready to provide me with as much responsibility as I was ready to face. Really, I run my own show. Microsoft was interested in my capabilities, not my resume.

“As a Program Manager, I interact with major corporations, design documentation, courses, and actually program to customize our product. I determine the needs of the developers, define the desired product, then work with marketing to distribute the product all over the world. I can’t imagine having the freedom and impact I enjoy here being offered at other organizations.”

- Bill Johnson, Program Manager
MIT SB (16) '88

“Life at Microsoft is really relaxed. There is no drug test, no dress code (really, you can come to work in shorts and a tie-dye shirt), and no security badge. Some programmers go barefoot and some dress up. Every intern or employee can meet and talk with everyone, including Bill Gates. The real world doesn’t have to be all that different from MIT.

“There are many projects which would interest an MIT engineer. You can use your 6.004 knowledge of multi-tasking operating systems and semaphores to develop on OS/2, which will match the power of most mainframe operating systems. Any X Windows programmer would be interested in the OS/2 Presentation Manager, which will give real graphics capabilities to microcomputers. Use your experience of Athena’s networks to develop OS/2 LAN Manager, a distributed operating system. Anyone who has taken MIT’s 6.035 compiler course can expand their experience and work on one of the best optimizing compilers available. You can help change the future of business computing with applications like Microsoft Excel, Works, and Word.

“Microsoft = MIT - exams + pay.”

- George Hu, Software Development-Intern
MIT (6-3) '89
On Tuesday, February 7, 1989, the following units of United Technologies Corporation will be on campus at the Career Opportunity Center with technical recruiters.

Carrier
Air Conditioners

Hamilton
Standard
Aero Controls

Norden
Defense Electronic Systems

Ottis
Elevators

Pratt & Whitney
Jet Engines

Sikorsky
Helicopters

UT Research Center
Basic/Applied Research

We offer you the opportunity to personally explore and identify possible matches between your career interests and the exciting opportunities at any of the participating units.

On Tuesday our recruiters will describe their opportunities and discuss your interests. All interviews will be conducted by open sign-up. Interviews will be held on February 15 - 16.

Areas of Career Interest
- Product Design, Development & Experimental Test Engineering
- Electronic Design
- Software Design/Development
- Manufacturing Engineering
- Technical Sales
- Technology Research

Degree/Field of Study
- BS, MS Aeronautical Engineering
- BS, MS Mechanical Engineering
- BS, MS Electrical Engineering
- BS, MS Mechanical Engineering
- BS, MS all Engineering majors
- MS, PhD all Engineering majors along with Computer Science and Mathematics

Remember, see us on Tuesday, February 7, in the lobby of Building 13 on Campus, from 10 AM to 3 PM. Information on the above units will be available in the Career Planning Center and the Placement Office.
LEARN JAPANESE FROM JAPAN IN JAPAN

Live in a complete Japanese environment for one year (or four). Learn the language, absorbing the culture.
for complete information and costs, write today.

Rehab International/University of Washington
3050 35th Ave. W., Seattle, WA 98107
360-768-1900

Travel Trivia

1. In Japan, what is the most valuable item a traveler can bring?

2. What is the capital city of Japan?

3. What is the official language of Japan?

4. What is the currency of Japan?

5. What is the main island of Japan?

Answers:

1. A rock is the most valuable item a traveler can bring.

2. Tokyo

3. Japanese

4. Yen

5. Honshu
Classified Advertising

Classified Advertising in The Tech: $5.00 per insertion for each 35 words or less. Must be prepaid, with complete name, address, and phone number. The Tech, W20483; or PO Box 29, MIT Branch, Cambridge, MA 02139.

National marketing firm seeks ambitious, mature student to manage on-campus promotions for top national companies this school year. Flexible hours with earnings potential to $2,500. Call Lisanne or Rebecca at 1-(800) 592-2121.

Students needed to conduct phone interviews for market research. Calls will be made in the evenings and on weekends from applicant’s home phone. This is an ongoing project allowing flexibility in scheduling. Compensation is $10/hour plus expenses. Pleasant phone voice and simple computational skills required. For more information call 225-0660, weekdays 9am-4pm.

Office Space.
Space available in our 5th floor office. 153 sq. ft. (17 x 9) for $180 per month plus utilities. Ideal for software startup. Next to Toscanini Ice Cream on Main Street. 868-7100.

Piano & Theory instruction by qualified graduate of Indiana Univ. with 10 years experience. Am also an experienced accompanist (singers, ensembles). Hillary Kruh - 628-7660 (H).

Spring Break '89 packages are here! Travel to Jamaica, Mexico, or Daytona starting at $399 or join the Student Travel Services Sales team. Get a group of 20 together and earn a free trip. Call 1-(800) 648-4849 for details!

20% Discount for MIT students Mathematical and scientific software for Macintosh and PC. Call for details. Lascaux Graphics (212) 654-7429.

Seeking individuals with chronically ill sibling for Master’s research. Focus on your experiences through interview. 1 hour confidential interview at your convenience. Susan Revekl 568-3189 daytime phone.

The Tech Subscription Rates: $17 one year 3rd class mail (1822 two years); $44 one year 1st class mail (1886 two years); $48 one year foreign; $88 one year MIT Mail (12 years 815). The Tech, W20-483; or PO Box 29, MIT Branch, Cambridge, MA 02139. Prepayment required.

ASHTON-TATE, the premier developer of microcomputer business software products like dBASE IV™ FRAMEWORK III™ MultiMate Advantage II™, MASTER GRAPHICS™ and the Macintosh products, including Full Impact™ and FullWrite Professional™ will be on campus:

Tuesday, February 28

interviewing

Computer Science, Engineering and Applied Math degree candidates

for positions in:

Microcomputer Software Development

See your Career Planning and Placement Office for more details and to sign up.
INFORMATION

WHAT: OPEN HOUSE / TOSCI'S TASTING

WHEN: SUNDAY, FEBRUARY 12
   3 PM

WHERE: THE TECH
       STUDENT CENTER
       ROOM 483

AN ANONYMOUS SOURCE HAS REVEALED THAT THE MIT
STUDENT BODY IS DIVIDED REGARDING THE TASTIEST
TOSCI'S ICE CREAM FLAVORS.

HELP US DO SOME INVESTIGATIVE REPORTING TO
UNCOVER THE REAL STORY. NO EXPERIENCE NECESSARY!
IF YOU ARE INTERESTED IN THIS ASSIGNMENT, BRING
YOUR TASTE BUDS TO THE FOURTH FLOOR OF THE
STUDENT CENTER NEXT SUNDAY, FEB. 12TH.

SOURCES

GUS AT TOSCANINI'S

Photo Suggestions

SEE LISETTE AND KRISTINE

Filed by  MARIE  Phone  253-1541  Date filed  2/6/89
Assigned by  NIRAJ  Phone  253-1542  Date assigned  2/7/89
SEWG releases report on science core reform

(Continued from page 1)

According to Undergraduate Association President Jonathan Katz '90, some faculty members may be troubled by the SEWG report's wording of the revised science distribution requirements, which is as follows: "It is preferable (though we would not at this point insist) that no more than one science distribution subject out of the two remaining [after the integrated course] be a departmental requirement. This conclusion reflects our desire to encourage diversity, but we also recognize that some well-conceived departmental programs may still need to require two subjects that extend knowledge in science disciplines beyond that in the science core offerings."

For those majors such as Course II and Course VI which currently have more than one departmental requirement labeled as a science distribution requirement, if the "preferable" is ever changed to "mandatory," then the integrated sequence would result in an additional requirement for those majors.

SEWG also suggested a two-stage plan through which the integrated subject sequence would be introduced into the MIT curriculum. The first stage would consist of the development and pilot offering of the two-term sequence for the 1989-1990 academic year on an experimental basis. The first term of the sequence would fulfill the Institute chemistry requirement and the second would act as a science distribution subject. If the experiment is successful, then the sequence would be put before the faculty for adoption in the 1991-92 academic year as the recommended way of satisfying the proposed Institute requirement in chemistry, materials, and biology. In addition to the integrated sequence, the group advocated the development of a new two-term core physics sequence which would include exposure to basic concepts in atomic and quantum physics. According to the SEWG report, this addition to the core physics requirement would "support and strongly complement other recommended developments in chemistry-materials-biology."

SEWG determined that the content and scope of 18.01 and 18.02 "meet the science core goals to a significant extent" and therefore recommended that they be left unchanged. The Institute laboratory requirement was also judged sufficient by the Committee.

The SEWG report will be discussed at the February and March faculty meetings, and is likely to be voted on during the April meeting, according to MacVicar.

"Though there may be some reservations voiced by faculty members - I was surprised if the SEWG proposal didn't get the faculty vote," Katz commented.

SIMPSON BREAK 1989
MONDAY MORE LESS!

MEXICO 7 NIGHTS
February 28-March 5
Mexican Villa 821
Flights: New York
Flights: Seattle
For reservations contact your travel agent and ask for a<br>

CARNIVAL CRUISE<br>8-Day Mexico Cruise<br><br>Spring Break, 1989

We have provided today's technology solutions worldwide.
Now we want you to join our team to create solutions for tomorrow.
Representatives will be on campus looking for Electrical Engineers, Science and Physical Science majors.

Product Display and Open House — February 7, 1989
Campus Interviews — February 8-9, 1989

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

Tutors Needed: Boston area tutoring firm seeks bright, energetic people to tutor biology, chemistry, physics, all levels of mathematics to high school students.

Don't set parameters. Push them.

At some companies, good enough is good enough. At Mentor Graphics, however, we set a tougher agenda. And our team of world-class professionals wouldn't have it any other way, because their individual and collective mission is to advance the state of Electronic Design Automation. To push parameters as far as they'll go.

We firmly believe our vision of next-generation tools is the answer to a lot of design engineers' dreams. That's why we're committing our resources, our company and our people to this challenge. We'll give you a world-class goal and the resources to meet it. Most importantly, we'll provide a forum for your ideas, a place where your technical opinion is respected.

If you're about to graduate with an advanced or undergraduate degree in electrical engineering, computer science or related fields including management, come talk with us about joining a team where your ideas make an impact. We have opportunities in the following technologies:

- CASE
- Design Creation
- Simulation
- IC Design Tools
- PCB Design and Layout
- Electronic Packaging
- Design Management and User Interfaces
- Computer-aided Publishing

ON-CAMPUS INTERVIEWS
Tuesday & Wednesday
February 7th & 8th

Schedule your interview through the Office of Career Services. If you cannot attend, please send your resume to: Professional Staffing, Mentor Graphics Corporation, Dept. C2009, 8500 SW. Creekside Place, Beaverton, Oregon 97005-7191. We are an equal opportunity employer committed to affirmative action.

For undergraduates interested in the new MINOR programs in Humanities, Arts, and Social Sciences (HASS) contact the appropriate field office:

- Anthropology/Archaeology ................................................. 20B-131 ........ 3-3065
- Economics ................................................................. E52-380 ........ 3-0951
- Foreign Languages ......................................................... 14N-307 ........ 3-4771
  - French
  - German
  - Russian
  - Spanish
- History ............................................................................ E51-210 ........ 3-4965
- Literature ......................................................................... 14N-409 ........ 3-3581
- Music ............................................................................... 14N-207 ........ 3-3210
- Political Science ............................................................. E53-460 ........ 3-3649
- Philosophy ................................................................. 20D-213 ........ 3-4141
- Psychology ................................................................. E10-008 ........ 3-0280
- Science, Technology, and Society .................................... E51-128 ........ 3-0457
- Women's Studies ........................................................... 14E-316 ........ 3-8844
- Writing ............................................................................. 14E-303 ........ 3-7894

For general information contact the HASS Information Office 14N-408, x3-4441.
Hotel Terminus is sidetracked by director Ophuls’ pent-up feelings

HOTEL TERMINUS
THE LIFE AND TIMES OF KLAUS BARBIE
Produced and directed by Marcel Ophuls.
At the Coolidge Corner Cinema.

By MANAVENDRA THAKUR

DIRECTOR MARCEL OPHULS HAS PRODUCED HOTEL TERMINUS: THE LIFE AND TIMES OF KLAUS BARBIE a film that is as disappointing as it is successful. No one makes epic documentaries the way Ophuls does, and indeed, the highly complex film is a monumental exploration of both the Nazi past and its remnants in the present. But 15 years after Le Chagrin et la Pitié (“The Sorrow and the Pity”) established his international reputation, Ophuls seems to have forgotten his famous ability for understated narration and downplayed the demonstrated clarity of his vision.

Ophuls originally intended to write a series of articles for The Nation magazine about the war crimes trial of Klaus Barbie, the ex-Gestapo chief known as the “Butcher of Lyons.” Barbie was extradited from Bolivia to France in 1983. But as delays in the trial date mounted, Ophuls grew more and more frustrated and decided instead to begin filming interviews with those who had known Barbie during and after the war. By the July 1987 end of Barbie’s trial Ophuls had accumulated 120 hours of footage.

From the final cut of the film, it is apparent that many persons approached by Ophuls would rather bury the Nazi past than address it forthrightly. Typical of the American intelligence officials who recruited and shielded Barbie from prosecution is Robert Taylor, who evaluated Barbie in 1943 as “an honest man” and “a Nazi idealist.” When asked four decades later what he meant by those words, Taylor can only shrug and reply “I don’t know.” Jean-Marie Le Pen, leader of the far-right National Front party in France, even goes so far as to claim that the number of Jews killed in the Holocaust is less than the universally accepted figure of six million.

Unfortunately, Ophuls reacts to provocative remarks like these by venting his impatience and anger as he makes fun of and argues with his subjects. At one point, Ophuls even includes a mock telephone call to a prospective interviewee, with himself playing the part of the reluctant subject, to demonstrate the typical evasions, half-truths, and denials that he encountered while making the film.

Clearly, the remarks made in the film are inflammatory enough to outrage anyone, but it was precisely for transcending reactionary emotionalism that Ophuls was so widely praised in the past. Far from leading the way with wisdom and clarity as he might have done earlier, Ophuls ends up lashing out with sarcasm and bitterness instead, and it is this tendency that imbues the film with a harsher edge that borders on the polemical.

Polemical filmmaking per se is hardly something to be avoided at all costs. In the proper place and time, it can be the most effective way to call attention to a problem ignored in the past. The Holocaust, however, has been the subject of countless bombasts. In fact, there have been so many that the repeated warnings to “never forget” have begun to take on an increasingly perfunctory nature. Ophuls must be aware of this since he himself has addressed the Nazi past several times, and yet one wonders why he reacts as though he were being rebuffed by interviewees for the first time.

But Ophuls’ awareness of the complexity of reality remains as sharp as ever, and that alone is enough to carry the film far beyond the distortions found in television documentaries. Ophuls’ films are one of the many insomniac discussions in Hunting Cockroaches.

HUNTING COCKROACHES
Written by Janusz Glowacki.
Directed by Jane Sanborn.
At the New Ehrlich Theatre. Continues through February 19.

By PETER PARNASSA

An immigrant Polish couple on the Lower East Side of pre-war New York City is the subject of Janusz Glowacki’s Hunting Cockroaches. When dealing with the hardships that the couple faces, the uneven play reaches brilliant heights.

One of the many insomniac discussions in Hunting Cockroaches.

The Burchard Scholars Program brings together distinguished members of the faculty and promising juniors and sophomores who have demonstrated excellence in some aspect of the humanities and social sciences as well as in science or engineering. The Burchard Program format is a series of dinner-seminars held throughout the year to discuss topics of current research or interest introduced by faculty members, visiting scholars or Burchard Scholars.

THE BURCHARD SCHOLARS PROGRAM IS SPONSORED BY THE OFFICE OF THE DEAN, SCHOOL OF HUMANITIES AND SOCIAL SCIENCE
TRME’s Lysistrata presented without complex interpretation

LYSISTRATA by Aristophanes

The Tech Random Music Ensemble
February 3-5 and 10-12, The Student Center

by MARK ROBERTS

S o you THINK there are innocent innen- do and jokes about sex-starved men doubled up over aching erec- tions when the pretense of Ben- ny Hill! The genre was alive and squirm- ing through the romantic age, and led by Lysi- trata, hatch a plot to end it and set the country back on a more peaceful footing. Seizing the temple of Athene as a strong- hold, they withdraw their sexual favors un- til enforced celibacy brings the men to their knees. The language is a steady bar- rage of puns and innuendo that encom- passes both straight forward smut (“some- thing to say about the theatrical experi- ence. The two most likely characters to say ma- jority failed to find this voice. The one ex- ception is the excellent Arthur Fuscaldo. An accomplished singer and strong actor, he is an ideal performer for musical com- edy or light opera. As the narrator, he pro- vided the much needed glue which held the production together.

As the young lover, Janet Ann Licini ’92 had a pleasant personality and a strong voice, although she tended to whine a little thing to say about the theatrical experi- ence. The two most likely characters to say ma- jority failed to find this voice. The one ex- ception is the excellent Arthur Fuscaldo. An accomplished singer and strong actor, he is an ideal performer for musical com- edy or light opera. As the narrator, he pro- vided the much needed glue which held the production together. The costumes and makeup, designed by

The Fantasticks
Presented by the Musical Theater Guild
February 9, 10, 11,
In the Sala de Puerto Rico.

by JULIAN WEST

I N HIS DIRECTOR’S NOTE, Gerald Skel- ton makes some insightful com- ments: “The Fantasticks is a play about storytelling. There is this tale needing to be told and a bunch of people acting it out for us... Is it just a story? Or is it something a little more personal?” When directed, the production is a limbo between characters in and actors out of character. Like the Player in Ham- let or the characters in Our Town, they should be able to speak with equal facility to the audience or to the other characters. In this production, the actors have gen-

Despite fine performances, Fantasticks lacks personality

The Chorus, a standard part of any musical play, is used by Aristophanes to point up some of his satire of other writ- ers. This is no longer quite as startlingly topical as it once was, but there are some- thing to say about the theatrical experi- ence. The two most likely characters to say ma- jority failed to find this voice. The one ex- ception is the excellent Arthur Fuscaldo. An accomplished singer and strong actor, he is an ideal performer for musical com- edy or light opera. As the narrator, he pro-

But the Fantasticks should have more than technical strength and a few strong voices singing attractive songs. A play this full of references to Shakespeare — there are allusions to Romeo and Juliet, Hamlet, Julius Caesar, Henry V, Much Ado, and Anto- nyo and Cleopatra — must have some- thing to say about the theatrical experi- ence. The two most likely characters to say ma- jority failed to find this voice. The one ex-

The Fantasticks
Presented by the Musical Theater Guild
February 9, 10, 11,
In the Sala de Puerto Rico.

by JULIAN WEST

I N HIS DIRECTOR’S NOTE, Gerald Skel- ton makes some insightful com- ments: “The Fantasticks is a play about storytelling. There is this tale needing to be told and a bunch of people acting it out for us... Is it just a story? Or is it something a little more personal?” When directed, the production is a limbo between characters in and actors out of character. Like the Player in Ham- let or the characters in Our Town, they should be able to speak with equal facility to the audience or to the other characters. In this production, the actors have gen-

Despite fine performances, Fantasticks lacks personality

The Chorus, a standard part of any musical play, is used by Aristophanes to point up some of his satire of other writ- ers. This is no longer quite as startlingly topical as it once was, but there are some- thing to say about the theatrical experi- ence. The two most likely characters to say ma- jority failed to find this voice. The one ex-

Despite fine performances, Fantasticks lacks personality

The Fantasticks
Presented by the Musical Theater Guild
February 9, 10, 11,
In the Sala de Puerto Rico.

by JULIAN WEST

I N HIS DIRECTOR’S NOTE, Gerald Skel- ton makes some insightful com- ments: “The Fantasticks is a play about storytelling. There is this tale needing to be told and a bunch of people acting it out for us... Is it just a story? Or is it something a little more personal?” When directed, the production is a limbo between characters in and actors out of character. Like the Player in Ham- let or the characters in Our Town, they should be able to speak with equal facility to the audience or to the other characters. In this production, the actors have gen-

Despite fine performances, Fantasticks lacks personality

The Fantasticks
Presented by the Musical Theater Guild
February 9, 10, 11,
In the Sala de Puerto Rico.

by JULIAN WEST

I N HIS DIRECTOR’S NOTE, Gerald Skel- ton makes some insightful com- ments: “The Fantasticks is a play about storytelling. There is this tale needing to be told and a bunch of people acting it out for us... Is it just a story? Or is it something a little more personal?” When directed, the production is a limbo between characters in and actors out of character. Like the Player in Ham- let or the characters in Our Town, they should be able to speak with equal facility to the audience or to the other characters. In this production, the actors have gen-

Despite fine performances, Fantasticks lacks personality

The Fantasticks
Presented by the Musical Theater Guild
February 9, 10, 11,
In the Sala de Puerto Rico.

by JULIAN WEST

I N HIS DIRECTOR’S NOTE, Gerald Skel- ton makes some insightful com- ments: “The Fantasticks is a play about storytelling. There is this tale needing to be told and a bunch of people acting it out for us... Is it just a story? Or is it something a little more personal?” When directed, the production is a limbo between characters in and actors out of character. Like the Player in Ham- let or the characters in Our Town, they should be able to speak with equal facility to the audience or to the other characters. In this production, the actors have gen-
Even Timothy Leary's burned-out drug jokes were stale

DR. TIMOTHY LEARY
An Evening of Stand-up Comedy and Philosophy,
At the Catch A Rising Star Comedy Club,
Wednesday, February 1.

By DAVID M. J. SASLAV

That Dr. Timothy Leary was doing at Catch A Rising Star near his former home at Harvard Wednesday night, I really cannot say. It wasn't stand-up comedy (as he himself was quick to point out), and sure enough, it wasn't funny. But neither was it cogent dissembling, deep thinking, stimulating debate, or compelling reasoning. In fact, there were virtually no redeeming elements whatsoever to Leary's presence on stage.

In a painfully long "set," Leary rambled on in a detached, quasi-improvisatory style about the need for improvisation in everyday thinking. He name-dropped and muddled his way through a condemnation of institutionalized education, and garbled a history of quantum physics. His attacks on organized religion were utterly pedestrian. In defending "new thinking in the face of accepted teaching," he never once mentioned Galileo or Copernicus, and championed the likes of former MIT professor and world-renowned crackpot Ed Fredkin. His analogies, while timely, lacked appeal. And worst of all, perhaps, he demonstrated a fundamental misunderstanding of the societal forces about which the masses had come to be enlightened. Through overgeneralization and underpreparedness, he only narrowly avoided making a complete fool of himself.

There were some diverting moments, of course, though they were few and far-between. He raised a hearty cheer when he proudly proclaimed I'll gladly do anything Ed Meese tells me not to do! His depiction of the ultimate Orwellian nightmare come true ("Million of people sitting around, mucking up junk food from the big screen in their living rooms") was apt, although an easy target. I particularly enjoyed one of his analogies, namely, that expressionism in art served as a parallel to quantum descriptions of the nature of physics.

Throw in some stale, burned-out drug jokes and you have about all that was even memorable from this aridus monologue.

The Tech Performing Arts Series presents... PRO ARTE CHAMBER ORCHESTRA Rafael Frühbeck de Burgos will lead the Pro Arte Chamber Orchestra in a program to include Mozart's Symphony No. 31, Schubert's Symphony No. 4, "Tragic," and Ives Symphony No. 3, "The Camp Meeting.

Sanders Theatre, February 12 at 3 pm. MIT price: $5.

ENGLISH BAROQUE SOLOISTS
The world's leading interpreters of Handel's oratorios, John Eliot Gardiner, will conduct the English Baroque Soloists and the Monteverdi Choir in Handel's Israel in Egypt. This is the single most important event in this year's Wang Celebrity Series. Don't miss it!

Symphony Hall, February 17 at 8 pm. MIT price: $8.

EMERSON STRING QUARTET
The Emerson String Quartet will perform Prokofiev's Quartet No. 1 in B minor, Mozart's Quartet in E-flat and Brahms' Quartet in A minor, Op. 51, no. 2.

Jordan Hall, February 18 at 8 pm. MIT price: $5.

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

Another Grab Your Arts Copy Center
is open in the Stratton Student Center in Room W20-028.

It provides the following:

- Self-service copying 24 hours per day. Use coins or save $5 by purchasing a special credit card.
- Full-service copying by our operator from 8am to 5pm, including OBC and Velo-binding.
- Full graphics-oriented Macintosh II Workstations with color monitor, laser printer, and scanner. Bring your own software or use basic programs we provide. Rent use of a system for 15-minute intervals—reserve time or use on a first-come, first-served basis.
- FAX Service— we can send or receive material anywhere in the world.

For information, Phone 258-7375 or 258-7367
Cheap Trick’s Lap of Luxury tour comes after long dry spell

CHEAP TRICK

By ALFRED ARMENDARIZ and STEVE FULFER

A LONG DRY SPELL, a commercial comeback can bring new energy to a band’s live performances, not to mention a larger and more enthusiastic audience. On Thursday night, nearing the end of a 13-month world tour, Cheap Trick played at the Orpheum Theater. Cheap Trick is touring in support of their platinum album Lap of Luxury. They played a spirited set composed of songs from earlier albums and many songs off of Lap of Luxury. Thursday’s show was one of the best live shows the Orpheum has hosted in recent months, as the veteran rockers kept the crowd screaming and on their feet for the entire 90 minutes.

Cheap Trick has ridden the roller coaster of success over their 12-year career. They enjoyed a brief platinum period in the late seventies and had a top 10 hit in 1979 with “I Want You To Want Me.” However, in the eighties they went through personnel changes and lost their previous popularity. They were sentenced to a life of endless touring behind albums that sold only a fraction of the amount of their earlier material.

Lap of Luxury is Cheap Trick’s first platinum album since their 1980 release Dream Police. With heavy airplay on both MTV and radio, “The Flame,” the first single off the album, became their first #1 hit. With House of Lords opening, Cheap Trick played to a packed audience. The BOSO, the first stop of their tour, was appropriately sold out. The set opened with the Feelies’ “Doomsday” and included classics from earlier albums, leaving the crowd screaming for more.

Cheap Trick mixed new and old in their 17-song set at the Orpheum. Carlos and Petersson set down a strong beat that backed Zander’s colorful vocals and Nielsen’s playful guitar. Petersson played the 12-string bass guitar melodically, giving the band a solid base while taking counter melodies to Nielsen’s lead. Zander switched back and forth between acoustic and 6 and 12-string guitars as he played rhythm parts to most of the songs. The raucous three guitar sound of Nielsen/ Zander/Petersson brought intensity to opener “Just Got Back” and precision to their latest hit “Ghost Town.” They went on to play 5 more songs off of Lap of Luxury, including the electric “Let Go” and their hits “Don’t Be Cruel” and “The Flame.” However, the crowd really exploded when they performed their classic hits “Dream Police”, “I Want You To Want Me”, “Ain’t That A Shame”, and “Clock Strikes Ten.” Tom Petersson sang lead vocals on “I Know What I Want” and played a solo introduction to “California Man” that showed off his first-rate musicianship.

Guitarist Nielsen kept in constant communication with the crowd as he introduced songs and reached out to touch screaming fans. Midway through the first half he even gave a commentary on to the state of music in America. He asked the crowd, “How many of you watch MTV?” After hearing the loud crowd response he asked “Why?!?” and continued “You watch it to see groups like Aerosmith, INXS, and Cheap Trick.” The crowd answered with a loud “Yeah!” He went on, “But Tiffany and Debbie Gibson should go back to K-Mart right now! They’ve played some bad music before but that stuff is just... awful.”

The big surprise of the evening came at the encore when, after playing their classic anthem “Surrender,” Rick Nielsen asked “two friends” from back stage to join them. Joe Perry and Steve Tyler from Aerosmith jumped on stage. They jammed through a blistering rendition of “Train Kept A Rollin’” and a medley of the Rolling Stones’ hits “It’s All Over Now” and “The Last Time.” Tyler sang lead vocals and both Perry and Nielsen gave rousing solos. The energy of the concert showed that Cheap Trick is ready to bring back their style of rock and reestablish themselves as the popular group they once were.

Marek Janowski directs pleasant, risk-free program

BOSTON SYMPHONY
ORCHESTRA
Works by Schumann and Wagner.
Guest Conductor Marek Janowski.
At Symphony Hall, Feb. 2.

By JULIAN WEST

THE BOSTON SYMPHONY was fortunate to recover from the cancellation of one conductor of international stature, Giuseppe Sinopoli, by obtaining the services of another, Marek Janowski. Yet the program selected for Janowski’s concerts was too conservative to fill a five-evening series.

Two expansive and evocative, if unexciting, Schumannian pieces began the program, which was rounded out by two sure crowd-pleasers from the Wagnerian repertoire. The demanding Strauss tone-poem, Also Sprach Zarathustra, which was originally scheduled for the evening, was dropped after Sinopoli’s cancellation. Janowski, noted as a Wagnerian conductor, quite naturally wished to select pieces from his own repertoire, and the Wagner preludes are a required part of the repertoire of any major orchestra. Yet without the Strauss, the evening lacked weight. Schumann’s melodic Rheingold Symphony created the pleasant sensation of floating down the Rhine, a sort of less-exalted Water Music. Surely directed and excellently performed, the piece nevertheless sounded somewhat clichéd. And, although Janowski evoked confidence and stability from the podium, some of the movements did suffer from tempo problems.

With the Wagner, both Janowski and the BSO seemed to be on more familiar ground. The prelude to Die Meistersinger received a textbook performance, although again it sounded fast throughout.

The evening’s highlight was the prelude to Tristan and Isolde, which was performed with great expression and feeling. The “Liebestod” was performed without a soprano, but the darkness underscoring the vocal line was effectively captured. Aside from the intrusive dissonance of the final few bars, the music built to an effective and moving climax, rounding out a thoroughly pleasant, if unadventurous and risk-free, evening.
**ARTS**

**On The Town**

Compiled by Peter Dunn

**TUESDAY, FEBRUARY 7, 1989**

**JAZZ MUSIC**

**CLASSICAL MUSIC**

- The Boston Symphony Orchestra, conducted by Seiji Ozawa, presents works by Schumann, Wagner, and Dvorak at 8 pm at Symphony Hall. Tickets: $12, $14, $16. Telephone: 536-5111.

**FILM & VIDEO**


**TELEVISION**


**CONCERTS**

- The Boston Symphony Orchestra, conducted by Seiji Ozawa, presents works by Schumann, Wagner, and Dvorak at 8 pm at Symphony Hall. Tickets: $12, $14, $16. Telephone: 536-5111.

**PUB & NIGHTCLUBS**


**TUTORS NEEDED**

Courses 2, 3, 5, 6, 8, 10, 16, 18

For the Office of Minority Education's Tutorial Program (T.P.)

Please attend the tutor meeting on Wednesday, 2/8, 5 pm in the T.P., room 12-124.

**An Announcement**

Bose Foundation is sponsoring a full one-year fellowship for a first year graduate student in electrical engineering and computer science at MIT.

The fellowship is for the full amount of tuition for the fall and spring terms (1989-1990) plus a stipend of $10,000 per month for nine months (based on current tuition this is approximately $24,000).

Nomination for the fellowship will be by faculty recommendation or by direct application by the student.

For more information, contact the Graduate Office or write: BOSE Foundation, The Mountain, 75 South Washington Street, Cambridge, MA 02139, Attn: Susan Herman.

Application deadline extended through February 28, 1989.
Classical music

The New England Philharmonic presents a Ravel program at Symphony No. 1 in Symphony Hall, 301 Massachusetts Ave., Boston. For information, call 451-3200. Tickets $8 general, $4 students. For more info, call 349-2300.Tuesday, February 7, 1989

Stage and Cinema

Ophuls also has a startling ability to craft a moving and inspired drama of the Salem Witch Trials, *The Crucible,* on the green line. Performances are Friday also at 9 & 10 pm, and Saturday-Sunday at 8 & 9 pm. Tickets: $16. Telephone: 527-5317.

**Film and Video**

The New England Philharmonic presents a Ravel program at Symphony No. 1 in Symphony Hall, 301 Massachusetts Ave., Boston. For information, call 451-3200. Tickets $8 general, $4 students. For more info, call 349-2300. Tuesday, February 7, 1989

**Going to the theater**

In the Reference Gallery, and Room A, the Tech portrays a film using participants and students at a 3 pm in Sanders Theatre, 4th floor, 77 Massachusetts Ave. Room B, 300 Memorial Drive, Cambridge. For information, call 253-4444.

**Upcoming Events**

**Cinema**

Magazine project dropped for disappointing and successful Klaus Barbie documentary (Continued from page 16)

four and a half hours long precisely because he refuses to insult the intelligence of the audience by packaging decades of history into ready-made and predigested chunks. The thematic issues that underlie Barbie's story are as rich and complex as the geographic and historical span is broad, and Ophuls' film rises to the occasion.

This is most apparent in the film's last hour, where Ophuls concentrates on Jacques Verges, the left-wing lawyer who vehemently defended Barbie inside and outside the courtroom. Like the strong-willed defense counsel in Stanley Kramer's *Judgment at Nuremberg* (1961), Verges argued that the atrocities Barbie was accused of were necessary to ensure the success of the Nazi regime. Verges brilliantly underscored his arguments by reminding the French procurator and public that France justified its own tortures and atrocities in Algeria with precisely the same claim. This one issue alone immediately raises wrenching dilemmas about moral relativism, historical accuracy, personal motivations, legal precedents, and a host of others. Ophuls, to his immense credit, presents the various complexities involved without exaggerating or simplifying any of them.

Ophuls also has a startling ability to foster debate among people who are not directly speaking to each other. His technique is to ask penetrating questions to one person, ask similar or follow-up questions to another person, and then feed the answers back to the original person to compare responses. This is, of course, the classic role of a moderator, but there is a crucial difference between Ophuls and, say, Ted Koppel. That difference is the power of editing afforded by the medium of the film, an ability which is considerably more flexible than cutting off a speaker or interrupting a heated discussion. This difference has the direct and immediate result of introducing an added element to the criteria by which Ophuls' work should be judged: the ability to edit the large amount of footage into a coherent, meaningful whole.

It is reassuring to realize that Ophuls' expertise in knowing what to film retains intact after all these years. It is that ability, after all, which brings so many fascinating points to light and fuels the film's progress toward artistic success. That is why it is so unfortunate that the film became sidetracked by Ophuls' post-film feelings. One can only hope that his resort to didacticism was cathartic and that Ophuls was able to reach in his next film the moving and inspiring heights he was known for in the past.
The Tech News Hotline x3-1541

RIGHT ON CAMPUS!

SEAFOOD RESTAURANT

- Express Lunch only $4.99
- Take Away
- Daily Specials
- Table Service

Catch A Great Meal At Networks!

First Floor
Stratton Student Center
84 Mass Ave
11th am-10pm M-F
4pm-10pm Sat Sun
VISA, MASTERCARD & VALIDINE ACCEPTED

COUNCIL FOR THE ARTS AT MIT
Grants Program

ARTS FUNDING AVAILABLE

The Grants Program of the Council for the Arts at MIT is now accepting applications for its third deadline of the 1988-89 academic year, on Monday, February 13.

The Grants Program has been established to promote cultural activity at MIT by providing financial and administrative support to arts projects in all disciplines. The Program welcomes proposals which offer members of the MIT community opportunities to create, participate in, and learn about the arts. Typical projects include the design and production of new work, performances, exhibitions, films/ video screenings, and cultural programs. Grant awards may range from a few hundred to several thousand dollars. Applications submitted by students receive primary consideration in the review process. Previous experience in the arts is not a requirement for funding. The final deadline for this year is April 10.

Please stop by the Council officer (E15-205, Wiener Building) for application forms and Grants Guidelines brochures, or call Mark Palmgren for more information (x-4003).

The Tech News Hotline x3-1541

The Artificial Intelligence Revolution
Superconductors, New Materials, and the Japanese Challenge
written and highly readable.
"... a welcome look at the possibilities and issues of Artificial Intelligence..."
— Cynthia Solomon, a leading educational researcher who has worked with both Seymour Papert's group at MIT and the Argosy Research Laboratory.

Remember! If your textbook is published by The MIT Press, we have it at the bookstore!
Underneath Wellesley, there are...  
A tech photo essay by Simson L. Garfinkel

... Grates looking to the outdoors ...

... Dangerous high voltage boxes ...

... Rooms filled with shelves ...

... steam tunnels ...

... and elevator winches.
Would You Like To Add Anything?

Microsoft will be interviewing on campus for summer internship positions on Thursday, February 16, 1989. See your Career Planning and Placement Office for more details.

We are an equal opportunity employer.
"One of the things I like most about Microsoft is that if you have good ideas and initiative, you can accomplish a good deal here. There is little bureaucracy or policy to stand in your way.

"And, it's easy to like living in Seattle. There are so many natural resources—lakes, ocean, mountains, rain forests—nearby. And, it's so easy to take advantage of them. I never knew how many shades of green existed until I went camping in the Quinault Rain Forest."

— Linda Archer, Product Manager Intern Sloan, '89

"I accepted a product management position at Microsoft because I was impressed with the caliber of people, I was interested in the dynamic nature of the computer industry and its impact on the business world, and I was excited about the quality of life at Microsoft and in Seattle.

"Specifically, I created a plan to conduct a test market for a network-priced version of Excel, developed a Macintosh research project, and ran a promotional offer for Macintosh Excel and Macintosh Word courseware."

— Audra Uzpurvis, Product Manager Intern Sloan, '89

Microsoft is an extremely exciting and talented organization. This past summer I was a project manager in Systems Marketing for the powerful new operating system—OS/2. There, I contributed to new product strategies and decisions, negotiated with an industry giant—IBM, and planned and coordinated product development. What I experienced was a highly motivated and creative marketing organization—successful in channeling the brilliant engineering talent of Microsoft people, into great software product for the end-user."

— Bill Rossi, Project Manager Intern Harvard, '89
O’CONNOR & ASSOCIATES
A HIGH-TECH MIX OF TRADING HOUSE AND RESEARCH LAB

INVITES ALL STUDENTS TO ATTEND OUR PRESENTATION & RECEPTION

UNIQUE CAREER OPPORTUNITIES in OPTIONS TRADING

Tuesday, February 14, 1989, at 7:00 p.m.
The Cambridge Marriott Hotel, Salon #3

A private partnership, O’Connor is the leader in the options and futures marketplace. We are recognized as a pioneer in the application of sophisticated analytical techniques for valuing and trading derivative securities. We trade, for our own account, a growing list of financial products in domestic and international markets. Currently, we trade options and the underlying securities in the equity, index, currency, bond, metal, and energy markets. Our activities also include index arbitrage, convertible securities trading, and special situations arbitrage.

Our excellence as a trading firm relies heavily on the interaction among our Trading, Systems, Quantitative and Fundamental Research groups. Their interdependence enables O’Connor & Associates to excel in accurate theoretical valuation and in the practical application of that theory in the marketplace.

O’Connor’s intense, fast-paced, and innovative trading environment provides talented individuals with the opportunity to shape their own future. We seek exceptional individuals with quantitative, analytical, and problem-solving abilities to join our team.

Meet us and learn more!

For more information contact:

O’Connor & Associates
College Relations & Recruiting
141 W. Jackson Blvd., 7th Floor
Chicago, IL 60604

Equal Opportunity Employer
Credit classes for IAP grow in popularity

(Continued from page 1)

Reactions among faculty and students who participated in the credit courses were mixed. The consensus seemed to be that the courses were interesting and useful, but some faculty members questioned the feasibility of teaching, and learning, a full term's worth of materials in one month.

"I don't know if you can do a serious 12-unit course in 3½ weeks," said Professor Nancy H. Hopkins, who taught two courses, the 12-unit Genetics (7.56) and the six-unit Genetics and Molecular Medicine (7.73), with several other members of the biology faculty. "I have mixed feelings about [the credit courses]." Hopkins said. "It's an enjoyable format for the students and for faculty ... but we didn't have time to correct the direction of the course." Hopkins explained that, in retrospect, the professors teaching the course saw that it had been taught at too easy a level.

Hopkins also pointed to the excessive amount of time the courses required of both the students and the faculty. Her thoughts were echoed by Professor Michel Baranger, who taught Introduction to Special Relativity (8.20). "You don't realize how much of a drain [it is going to be]," he said. "It's a very efficient way of teaching, of learning ... but it must be really full-time." Twenty-five students took Baranger's course for credit, including 10 freshmen.

Freshman attendance varied widely from course to course. Some courses, like Instructor Charles D. Paton's Introductory Instrumentation Laboratory, were aimed specifically at freshmen, while others, like the real estate seminars offered by the Center for Real Estate, attracted primarily graduate students.

Response to the issue of compensating the instructors of credit-bearing courses varied among departments; some faculty members essentially volunteered their time.

In the Foreign Languages and Literatures section, teaching an IAP course is equivalent to teaching a full-semester course in terms of an instructor's course load, according to administrative officer Phyllis Guttermen. The IAP foreign language courses are popular every year, and meet daily for three hours.

Hopkins said that the question of compensation had never been formally raised, but that she expected to have her spring teaching load reduced.

Faculty taught most of the courses, but some, like Professor Markus Zahn, who led Introduction to Computer Methods (10.001), said that more work should be given to graduate teaching assistants.

The IAP credit courses were a varied group. There were the typical offerings, like the intensive language programs and introductory laboratory courses. And there were some not-so-typical programs.

Graduate student Lawrence McKenna led a group of seven students to Death Valley, CA, for a six-unit course on the geologic study of basin-formation processes. The trip, which is conducted every IAP, is partially funded by the Institute, and partially by the students themselves.

Another course, "Reporting Science and Technology: Writing Feature Articles," matched students with members of the Knight Fellowship Program, which brings science journalists from around the world to MIT for a year of study.

Setback for residents

(Continued from page 1)

never offer any coherent argument that if given proof [of the housing impact] that you would decide differently than the board did in March." Board chairman Ellen M. Semonoff said that Mason's objections were legally irrelevant, and that Mitchell had explicitly upheld the board's right to exclude the evidence. She also believed that, even if proof of the negative impact of University Park were admitted, it would have no bearing on the case.

Sally Ackerman and Fred Cohn, the two landlord representatives on the five-person board, joined Semonoff in deciding that no fact-finding hearing was required.

Noble said yesterday that the board was "railroading" MIT's removal permit through. The board, as the object of the tenants' October suit, now finds it difficult to remain a neutral party, Noble charged. Rather it is acting as an "accomplice" in trying to secure the permit, he continued.

A hearing officer should be allowed to report on the housing impact of University Park, and make recommendations regarding the removal permit with this information in mind, Noble said. If this were done, the board might be forced to reconsider granting the permit.

MIT spokesman Ronald P. Sudoik had not received a Notice of Ruling from the board on its Wednesday night action as of yesterday, and he declined to speculate on the meaning of the decision. He did reiterate the MIT position that it has mitigated the hardship on tenants and that the city's housing stock would be helped by the plan.

If you're a Computer Science, Engineering, or Math major, consider our road to success.

Information Technology Training Program

Perhaps you haven't heard of the career potential Wall Street offers to graduates with technical expertise. But if you're interested in the challenge and rewards of solving quantitative problems for a leading investment banking firm, as well as developing the information systems that will drive tomorrow's world markets, there's a place for you at Salomon Brothers.

Our Training Program for Applied Science and Technology graduates not only gives you the chance to broaden your skills, it teaches you how to apply them in a dynamic business. As one of the world's most technologically advanced financial institutions, Salomon Brothers offers a wide variety of professional opportunities where analytical minds can thrive.

For more information contact Kathleen McCrain, Salomon Brothers, 55 Water Street, 28th Floor, New York, NY 10004. We are an equal opportunity employer.

Salomon Brothers Inc
$99 roundtrip airfares on Northwest Airlines.
A special offer for students, only for American Express Cardmembers.

If you want to go places, it's time for the American Express Card. Because now you can take advantage of new travel privileges on Northwest Airlines only for full-time students who carry the American Express Card. Travel privileges that offer:

- Two $99 roundtrip tickets—fly to any of the more than 180 cities served by Northwest in the contiguous 48 United States. Only one ticket may be used per six-month period.
- Special Quarterly Northwest Destination Discounts throughout 1989—up to 25% off the lowest available fare. 5,000 bonus miles in Northwest's WORLDPERKS free travel program—where only 20,000 miles get you a free roundtrip ticket to anywhere Northwest flies in the contiguous 48 United States or Canada.

And, of course, you’ll enjoy all the exceptional benefits and personal service you would expect from American Express. The only requirements for privileged travel: you must be a Cardmember, you must be a full-time student, and you must charge your Northwest Airlines tickets with the Card.*

Getting the Card is easier than ever because now you can apply by phone. Just call 1-800-942-AMEX. We’ll take your application and begin to process it right away. What’s more, with our Automatic Approval offer, you can qualify now while you’re still in school. Apply now, fly later—for less.

Apply Now: 1-800-942-AMEX

*Some restrictions may apply for complete offer details, call 1-800-942-AMEX. Current student Cardmembers automatically receive two $99 vouchers in the mail.
© 1989 American Express Travel Related Services Company, Inc.
Tuesday, Feb. 7

The Program in Science, Technology, and Society (STS) will hold a presentation entitled "The Transformation of Local Architectural Environments" by Hugh O'Neill of the University of Melbourne, Australia, on Wednesday, February 15, at 11:15 am in room 3-132.

Wednesday, Feb. 15

The MIT Japan Science and Technology Program (JSTP) will present a lunch lecture on "Comparative Look at Japan and U.S. Space Programs," by Professor Atsumi Hasegawa, Associate Professor at MIT's Department of Astronomy and Astrophysics, 1-530pm on Wednesday, February 15 in room 4-170.

Thursday, Feb. 16

The MIT Communications Forum will present a lecture on "The Evolution of the Broadband Networks," on Thursday, February 16, at 4:15 pm in the Bartos Theatre, 8:15-9:15pm. The speakers will be Carol Wolin of WOR-FM, Frank Billingsley of MIT's Science Fiction & Fantasy Reading, and Ray Roberts of HBO. Free to the public.

Friday, Feb. 17

Carl Bliek, Associate Editor and Missin- g Pages Editor of the New York Daily News, will give a lecture entitled "Taking the Pulse of Times and the World" on Friday, February 17, at 12:30 pm in 150 Compton Hall. Free admission.

Monday, Feb. 20

Breast reconstruction program: Both In- stitutes Hospital is offering a free discussion for women who would like information about the newest surgical techniques in breast reconstruction. A plastic surgeon and social worker will be present. For more in- formation, call 734-4431.

Tuesday, Feb. 21

The Science and Literature Libraries Harvard University is open only from Monday to Friday, 8 am to 9 pm after being allowed to participate in the pro- gram. The third session of a simultaneous computer entry session, flexibility exists, body fat percentage, and insulin resistance. The program is free of charge and will take place on Wednesday, February 29, 2:30-6:00pm, in room 4-207.

Wednesday, Feb. 22


Thursday, Mar. 2

The Off-Campus Housing Service wel- comed another member of the community. Those interested in finding or renting a room should contact Beth Sauerhaft, Volunteer Tutor Coordinator, x3-1493.

The Student Conservation Association (SCA) is offering opportunities for about 150 students to obtain expense-paid volunteer positions in conservation and resource management. Volunteers will work in state parks and national parks and reserves, including in Washington, Idaho, and Hawaii. Telephone the SCA in New York at 521-5220 or send a postcard to: Student Conservation Associa- tion, 701 Fifth Ave., New York, N.Y. 10019.

Volunteer Opportunities

1. The MIT/Wellesley Upward Bound Program is accepting applications from disadvantaged high school students in math, English, science, social studies, computer science, and foreign languages. For further information, call 451-2254.

2. The Cambridge School Volunteers in- vites you to help kids. Your two hours can really make a differ- ence in a child's life. Volunteer opportunities include teaching English as a Second Language (ESL) to immigrant children, tutoring high school students, teaching art or music to background. For more information, call 488-2318.

3. Do you have something to offer the pub- lic school students of Boston? Nearly all college students do, and are now looking for ways to use their time and talents to make a difference. Volunteer opportunities include teaching English as a Second Language (ESL) to immigrant children, tutoring high school students, teaching art or music, and helping in the library. For more information, call 451-2386.

Rubens

By Lehigh Rubins

Friday, Feb. 10

The MIT Environmental Design Forum and the Boston Parks and Recreation De- partment will host a workshop entitled "Silver Giants A One Day Urban Design Workshop" in service design, and policy: ideas for open space in Boston's neighborhood- heads to be implemented in the fall of 1989. The orientation and panel discussion will take place from 9-10:30 am on Saturday, February 11, at 10 am at the Conservation Commission in Newton. For more in- formation, please call 734-4431.

Saturday, Feb. 11

The Boston Chapter of the IEEE Society of Professional Engineers (SPE) is sponsoring a lecture "Technical and Cul- tural Differences: An International Study of Engineering Education" by Kenji Yabuki of Tsukuba University at 4:45pm on Monday, February 13, in the MIT Starter Lecture (27-622).

The Aga Khan Program for Islamic Ar- chitecture is sponsoring a lecture entitled "The Transformations of Islamic Architecture in Indonesia" by Hugh O'Neill of the University of Melbourne, Australia, on Monday, February 13, at 5:30pm in room 3-132.

Wednesday, Feb. 15

The MIT Student Government is sponsor- ing a lecture "The Future: Long Term Prospects," at 5:30pm on Wednesday, February 15 in the MIT Marlar Lounge (37-252). Free to the public.

Sunday, Mar. 5

The Computer Museum will present a lecture "Computer Sound Illusions: A Mu- sical Bowl" by Carl C. Cook, a French composer and Jean-Claude Krieger at 7pm in the auditorium of the American Museum at 300 Congress Street. Lecture from 7pm till 9pm. Admission fee of $3 per person.

The Cambridge School Volunteers in- vites you to help kids. Your two hours can really make a differ- ence in a child's life. Volunteer opportunities include teaching English as a Second Language (ESL) to immigrant children, tutoring high school students, teaching art or music, and helping in the library. For more information, call 488-2318.

Do you have something to offer the pub- lic school students of Boston? Nearly all college students do, and are now looking for ways to use their time and talents to make a difference. Volunteer opportunities include teaching English as a Second Language (ESL) to immigrant children, tutoring high school students, teaching art or music, and helping in the library. For more information, call 488-2318.

The Cambridge School Volunteers in- vites you to help kids. Your two hours can really make a differ- ence in a child's life. Volunteer opportunities include teaching English as a Second Language (ESL) to immigrant children, tutoring high school students, teaching art or music, and helping in the library. For more information, call 488-2318.

Free Information

Do you have questions about Distribu- tion subjects and fields? For assistance re- quirements or procedures, which are HASS Elective subject! Come to the Human- ities, Arts, and Social Sciences Information Service Center, located in the main library at the South End. If you are not sure, stop by or call us at 734- 4443.

The Office of Student Affairs and Business has prepared a new hand- out for students, "College Credibility" to help students to keep track of their academic credits.

The Corporation is offering skill-train- ing for programs utilizing the backgrounds of Peace Corps alumni. Peace Corps volunteers will be available at local universities to assist students in finding opportunities. For more information, call 223-3766, or write PEACE CORPS, 1101 Connecticut Ave. NW, Washington, D.C. 20036.

The Elizabeth Project House of Somer- set, a program for women who are pregnant or have had a baby in the last year, is looking for volunteers to assist with the child care. For further information, call 472-1102.

The MIT Japan Science and Technology Program (JSTP) is sponsoring a lecture entitled "The Future: Long Term Prospects," at 5:30pm on Wednesday, February 15 in the MIT Marlar Lounge (37-252). Free to the public.

Monday, Feb. 13

The Boston Chapter of the IEEE Society of Professional Engineers (SPE) is sponsoring a lecture "Technical and Cul- tural Differences: An International Study of Engineering Education" by Kenji Yabuki of Tsukuba University at 4:45pm on Monday, February 13, in the MIT Starter Lecture (27-622). Free to the public.

The Aga Khan Program for Islamic Ar- chitecture is sponsoring a lecture entitled "The Transformations of Islamic Architecture in Indonesia" by Hugh O'Neill of the University of Melbourne, Australia, on Monday, February 13, at 5:30pm in room 3-132.

Wednesday, Feb. 15

The MIT Japan Science and Technology Program (JSTP) will present a lunch lecture on "Comparative Look at Japan and U.S. Space Programs," by Professor Atsumi Hasegawa, Associate Professor at MIT's Department of Astronomy and Astrophysics, 1-530pm on Wednesday, February 15 in room 4-170.

Monday, Feb. 13

The MIT Japan Science and Technology Program (JSTP) will present a lunch lecture on "Comparative Look at Japan and U.S. Space Programs," by Professor Atsumi Hasegawa, Associate Professor at MIT's Department of Astronomy and Astrophysics, 1-530pm on Wednesday, February 15 in room 4-170.

Wednesday, Feb. 15

The MIT Japan Science and Technology Program (JSTP) will present a lunch lecture on "Comparative Look at Japan and U.S. Space Programs," by Professor Atsumi Hasegawa, Associate Professor at MIT's Department of Astronomy and Astrophysics, 1-530pm on Wednesday, February 15 in room 4-170.

Wednesday, Feb. 15

The MIT Japan Science and Technology Program (JSTP) will present a lunch lecture on "Comparative Look at Japan and U.S. Space Programs," by Professor Atsumi Hasegawa, Associate Professor at MIT's Department of Astronomy and Astrophysics, 1-530pm on Wednesday, February 15 in room 4-170.

Wednesday, Feb. 15

The MIT Japan Science and Technology Program (JSTP) will present a lunch lecture on "Comparative Look at Japan and U.S. Space Programs," by Professor Atsumi Hasegawa, Associate Professor at MIT's Department of Astronomy and Astrophysics, 1-530pm on Wednesday, February 15 in room 4-170.

Wednesday, Feb. 15

The MIT Japan Science and Technology Program (JSTP) will present a lunch lecture on "Comparative Look at Japan and U.S. Space Programs," by Professor Atsumi Hasegawa, Associate Professor at MIT's Department of Astronomy and Astrophysics, 1-530pm on Wednesday, February 15 in room 4-170.

Wednesday, Feb. 15

The MIT Japan Science and Technology Program (JSTP) will present a lunch lecture on "Comparative Look at Japan and U.S. Space Programs," by Professor Atsumi Hasegawa, Associate Professor at MIT's Department of Astronomy and Astrophysics, 1-530pm on Wednesday, February 15 in room 4-170.

Wednesday, Feb. 15

The MIT Japan Science and Technology Program (JSTP) will present a lunch lecture on "Comparative Look at Japan and U.S. Space Programs," by Professor Atsumi Hasegawa, Associate Professor at MIT's Department of Astronomy and Astrophysics, 1-530pm on Wednesday, February 15 in room 4-170.

Wednesday, Feb. 15

The MIT Japan Science and Technology Program (JSTP) will present a lunch lecture on "Comparative Look at Japan and U.S. Space Programs," by Professor Atsumi Hasegawa, Associate Professor at MIT's Department of Astronomy and Astrophysics, 1-530pm on Wednesday, February 15 in room 4-170.
Free Information

There is a Food Addiction Hotline being held at the Florida Institute of Tech- nology and the Heritage Health Corpora- tion. The hotline provides information about the nature and extent of food addiction, and helps people to come in and talk. Service is free, and is completely confidential. Call 426-9444 or write: Alcoholics Anonymous, Box 459, Allentown. Pennsylvania. There is a food addiction hotline on Tuesday at 7-7:30 am for women who are experiencing disapproval in their lives immediately following or up to six months after being raped. The hotline is open to women who are connecting with their bodies during this period. Call 973-547-6784. The Beth Israel Hospital has a Support Group for adolescents aged 14-17 on Tuesdays at 6 pm for sexually abused girls between the ages of 14 and 17. For details, please call 733-4150 or 733-4160.

Today, more than one million men and women are demonstrating by their personal example that abstinence is an idea that can be achieved. If you have an alcohol re- habilitation program, please call Alcoholics Anonymous. The Family Support Network and Parents Anonymous are coordinating a support group for isolated or overwhelmed parents. Every Tuesday night from 6 pm to 8 pm at Rockey's Children's Service, 2244 Hill Ave., Berkeley, California.

Today, March 15th, is National Poetry Day. If you need help surviving the parenting experience, The Family Support Network is also sponsoring a support group for teen parents, every Thursday night from 6 pm to 8 pm at Rockey's Children's Service.

Counseling

The Seminaries - someone to talk to and befriend you, are on call 24 hours a day, 7 days a week. The center, at 500 Water Street, Cambridge, MA 02138, is open to all. All services are free.

Food Addiction Hotline

The Beth Israel Hospital hosts a Hope Club Group on Thursdays at 7:30 am for women who are experiencing disapproval in their lives immediately following or up to six months after being raped. The hotline is open to women who are connecting with their bodies during this period. Call 973-547-6784.

There is a Food Addiction Hotline being held at the Florida Institute of Tech- nology and the Heritage Health Corpora- tion. The hotline provides information about the nature and extent of food addiction, and helps people to come in and talk. Service is free, and is completely confidential. Call 426-9444 or write: Alcoholics Anonymous, Box 459, Allentown, Pennsylvania.

Today, more than one million men and women are demonstrating by their personal example that abstinence is an idea that can be achieved. If you have an alcohol rehabilitation program, please call Alcoholics Anonymous. The Family Support Network and Parents Anonymous are coordinating a support group for isolated or overwhelmed parents. Every Tuesday night from 6 pm to 8 pm at Rockey's Children's Service, 2244 Hill Ave., Berkeley, California.

Today, March 15th, is National Poetry Day. If you need help surviving the parenting experience, The Family Support Network is also sponsoring a support group for teen parents, every Thursday night from 6 pm to 8 pm at Rockey's Children's Service.

Counseling

The Seminaries - someone to talk to and befriend you, are on call 24 hours a day, 7 days a week. The center, at 500 Water Street, Cambridge, MA 02138, is open to all. All services are free.

Food Addiction Hotline

The Beth Israel Hospital hosts a Hope Club Group on Thursdays at 7:30 am for women who are experiencing disapproval in their lives immediately following or up to six months after being raped. The hotline is open to women who are connecting with their bodies during this period. Call 973-547-6784.
Our Store Is Your Store!
The Coop is always at your service. We're here to help you in any way we can. And this Spring we have more fun and excitement in store for you than ever. All semester long we'll have a series of special events created just for our students and members. In early March we'll be having our 107th Anniversary Sale filled with unbeatable buys. So don't miss out on all the exclusive privileges you'll enjoy when you're shopping Coop style.

What's New At M.I.T.?
A grand new Coop at Stratton Center. And it couldn't be more convenient, because it's right where you want it, right on campus. It's filled with all the little necessities you always need like stationery, cards, insignia merchandise, film and processing, batteries, posters and frames and so much more! Come see our newest Coop soon at 84 Massachusetts Ave.

Save Money, Save Time.
Doing your back-to-school shopping at the Coop means you'll save money on everything you need. And since the selection at the Coop is so extensive, you won't have to spend time shopping anywhere else. Come in now and stock up on books, records, stationery, fashions, insignia merchandise, telephones, calculators, towels, sheets, comforters, you name it, the Coop has it!

Charge It, Please!
To make shopping here even easier, we offer our customers the convenience of a Coop charge account. If you would like to open one, simply apply at the Main Cashier's Desk at any store.

Who's Eligible For Coop Membership?
Students, faculty, alumni and employees of M.I.T., Harvard, Episcopal Divinity School, Radcliffe, Lesley, Emmanuel, Wheelock, Mass College of Pharmacy and the personnel of the hospitals affiliated with the Harvard Medical School are eligible for Coop Membership, which costs just $1.00 each year. Applications are available at the Cashier's Desk at any Coop location.

The Annual Coop Rebate.
All Coop members are entitled to an Annual Patronage Rebate check on items purchased at all locations including our new Stratton Center Coop.

Call On Us!
As one of our Special Services, we offer toll-free telephone service, available Mon-Fri, from 9am-5pm.
National 1-800-343-5570
Mass. Only 1-800-792-5170

It's In The Mail!
For your convenience, the Coop will mail customer purchases anywhere in the world.

Get The Picture!
If you're a camera buff, you'll really love the Coop. You can buy all your cameras and film here and you can also get your film developed at all locations including our new Stratton Center Coop. During February, take advantage of our 2 Prints For The Price Of 1 Special!

What A Racquet!
Anyone for tennis or squash? Choose from a wide selection of racquets and the Coop will have them strung for you in just 2 or 3 days.

The Write Stuff.
We also offer 24 hour computer and typewriter repair service, and authorized service for Apple® and IBM computers. Typewriter service available for Smith-Corona products. 24-hour turnaround in service, depending on availability of parts.

Getting Personal.
Order your very own personalized stationery at the Coop.

Frame-Up!
After you make your selection from New England's largest collection of graphics and posters, have it custom framed. This service available at Harvard Only.

Cutting Class!
The Coop Barber Shops for men and women are a great place to get a haircut with class. At our Business School and Kendall stores only.

Special Orders Are Our Specialty!
If we don't have the books or records you're looking for, we'll special order them for you, provided they are still in print. Special Order Desks in the Book and Record Departments.

MIT COOP AT STRATTON
14 Mass. Ave., Cambridge
M-F: 10am-5:30pm; Sat.: 10am-4pm

Extended "Back-To-School" Store Hours:
Monday, Feb. 6 to Wednesday, Feb. 8-9:15am-8:30pm
Fraser sinks winner at buzzer

Sports Update

Second victory in 33 years versus Amherst

Jay Fraser '89 scored a layup at the buzzer off a deflected shot to give the men's basketball team (11-5) a 63-62 home victory over Amherst College (11-4). Amherst led at the half 33-30, but with 10 seconds left to play, the score was tied at 61. Tree Shattuck '90 was called for a foul diving for a loose ball under the MIT basket. The Amherst center made his first shot, but missed the second, leaving the score 61-62. Dave Delligrotte '90 then brought the ball down court and spotted Shattuck. Shattuck's shot, however, was blocked, but Fraser was able to put the rebound in at the buzzer.

Saturday's game was only the second time since the 1955-56 season that the Engineers have defeated Amherst, a team they have met every season. The 11 victories for the Engineers matches their total for last year, and is the most since 1966-67, when they won 13 games.

Fraser led all scorers with 18. This was MIT's second win in a row after breaking an eight game winning streak last weekend.

Shwartz remains undefeated at 142 lbs.

Scott Shwartz won the 142-pound weight class at the Northern New England Wrestling Tournament at Plymouth State. Shwartz has not lost this season, in either a dual meet or a tournament.

Two MIT gymnasts honored by ECAC

Although Salem State College edged past the men's gymnastics team 164-41-61.0 at Salem State last Saturday, Eric Reifschneider '89 was named the Eastern College Athletic Conference male gymnast of the week for his performance. Lisa Arel '92 was also named ECAC female gymnast of the week. It was the second time Arel was honored, and the first time for Reifschneider. No other MIT gymnast has ever received the award.

ECAC also honors basketball player

Center/Forward Maureen Fahey '90 was also recognized by the ECAC, named to the women's basketball honor roll for her performance last weekend. Fahey averaged 24 points and 15 rebounds for the Engineers' two losses. This was the second time this season she received the honor.

Fencers take two

The men's fencing team defeated Brown 18-9 last Saturday in a tournament at Brandeis University. At the same tournament, the women beat Brandeis 13-5, and lost to Brown 9-7. MIT hosts a six team tournament this Saturday, beginning at 9 am.

Bowedoin edges MIT in women's hockey

Bowedoin scored past the MIT women's hockey team by a score of 1-0 at the Johnson Athletic Center last Saturday. The Beavers were not scheduled to play at Boston College Friday evening. Compiled by Michael J. Garrison

A look back.

Such in a series

Thinking about your education.

In this series we have discussed topics that are at the heart of the educational process. Your awareness of them and your conscious application of them during your education can aid you in getting the most out of your years in school. Here is a summary of the main points of each essay.

The principle obstacle to achieving creative breakthroughs is a premature conclusion that a better solution is not possible. To overcome this obstacle we need to add to our basic thinking skills and technical foundation the following elements of attitude:

1. A strong desire for a creative breakthrough.
2. Confidence in our ability.
3. An expectation that many false starts may be necessary.
4. Sufficient immersion in the problem to engage all our faculties.
5. A willingness to pursue solutions until a breakthrough is achieved.
6. Analysis of each attempt to aid in the development of insight.

Developing your thought process.

"As students of science and engineering you have an excellent opportunity to develop your thought process by working on problems whose correct analysis yields an unique answer. Searching for the correct solution causes you to rethink the problem until comprehension develops and you get the right answer. The homework problems you solve often involve fundamental concepts that are applicable in areas far removed from the original area of study. To further your understanding of these concepts simply ask yourself what are the basic concepts of the problem and write them down in a few words. Another useful exercise in the development of your thought process is to explain the concepts to another student. This process provides feedback and reactions to confirm or challenge your understanding. In summary, work on problems that have verifiable answers, articulate the central concepts in a few words, then try to explain (teach) the concepts. This will substantially increase your ability to derive the full benefit from your education."

For the full text of this series write Bose Foundation, The Mountain, Framingham, MA 01701-5168.

Bose Foundation

The Mountain, Framingham, MA 01701-5168

Note: Please see an announcement in the issue concerning the Bose Foundation Graduate Fellowship in Electrical Engineering.
**sports**

NCAA rules change will ban tees on FGs, PATs

By Harold A. Stern

The National Collegiate Athletic Association Football Rules Committee voted at its annual meeting last month to prohibit the use of kicking tees on extra points and field goals, according to The NCAA News. The rule will apply to all levels of intercollegiate play, and is scheduled to take effect next season.

The change was effected to try to reduce scoring in college football. Scoring has significantly increased in college football over the years, from an average of 32 points a game in 1958 to 46 points a game in 1987, The NCAA News reported.

"The major factor in that scoring increase has been the increase in field goals and successful point-after-touchdown attempts," said David Nelson, secretary-rules editor of the committee in The NCAA News.

"The average number of field goals has increased from .18 a game to a record .230 in 1987. Successful PAT attempts have increased from 68 percent in 1958 to 93.6 percent in 1987," he explained.

Mike Ahrens '91, a defensive lineman for the Beavers who doubles as the team's placekicker, thought that the rule change "could matter a lot." He used a two-inch block last season to connect on 13 of 17 extra points. Mike Choniere's 24-yarder that Mike Choniere scored last season failed, he explained.

"I could have a tough time getting under the ball" without the tee, he explained.

But regulations which border placekickers might help MIT, since the other teams in the New England Collegiate Football Conference have experienced more success kicking the ball than the Beavers. Opposition placekickers outscored Ahrens last season, 27 points to 13. MIT attempted only one field goal (the kick failed), while opponents connected on a perfect five of five, including Mike Choniere's 24-yarder that won a 17-14 game for Assumption College. MIT did have slightly more success on extra points than the opposition, which scored only 12 points on PATs.

The new rule could have a second beneficial effect on the Beavers' performance if it results in more attempts at two-point conversions. If past performance holds up, the change would increase — rather than decrease — the number of points scored by MIT. The Beavers had plenty of success going for the two-point conversion after touchdowns. Shane LaHouse '90 was a perfect 3-for-3 carrying the ball on extra points. Only Bentley College attempted any two-point conversions against MIT, succeeding once out of two tries.

The committee also voted to increase the penalty imposed on home teams when crowd noise prevents the offense from putting the ball in play, another rule change which should not hurt Beaver football.

The Coop's operation are returned to Coop members annually in the form of a patronage rebate.

The Coop's Board of Directors has a total of 23 members, 11 of whom are students from M.I.T. and Harvard, 11 are members of the faculty and staff or alumni of M.I.T. and Harvard, and one member of the Society. The Board meets monthly during the academic year.

A MESSAGE TO M.I.T. STUDENTS REGARDING NOMINATIONS FOR THE COOP BOARD OF DIRECTORS

If you, as a Coop Member and a degree candidate at M.I.T., are interested in serving as a Director of The Coop academic year, and you are an undergraduate student, contact Suephy Chen, Chairman of the M.I.T. UA Nominations Committee in Room W20-401, office phone number 253-2696. If you are a graduate student, contact Scott Peng in the Graduate Student Council Office, between the hours of 1:30 p.m. and 5:00 p.m., office phone number 253-2195.

Completed applications must be submitted by 5:00 p.m., Friday, February 10, 1989.

The Coop is America's oldest and largest college bookstore cooperative, serving the M.I.T. and Harvard communities. Profits from the operation are returned to Coop members annually in the form of a patronage rebate.

The Coop's Board of Directors has a total of 23 members, 11 of whom are students from M.I.T. and Harvard, 11 are members of the faculty and staff of M.I.T. and Harvard, and one member of the Society. The Board meets monthly during the academic year.

Remember the neediest!!!

**Good Seafood — Fast Try Networks Takeaway**

- Clam Chowder by the pint
- Clam Roll
- Specialty Seafood Salads
- Express Lunch Only $4**
- Sandwiches & Burgers
- Plus Lots More!

Catch a "Reel Deal"
Get 10% Off
A Networks Takeaway Purchase with this coupon
Stratton Student Center 1st Floor
1194am-10pm M-F
4pm-10pm Sat, Sun
Visa, Mastercard & Vaiidine Accepted

IF YOU'RE A TECHNICAL KNOCK-OUT, YOU BELONG AT SCIENTIFIC ATLANTA.

If you're really good at what you do, we want you. We are a winning edge Fortune 500 communications company and an established leader in cable television electronics and satellite-based communications networks.

Come to our company presentation on February 8th and hear about the great opportunities for the innovative use of your electronic engineering talents at Scientific-Atlanta.

COMPANY PRESENTATION
Wednesday, February 8, 1989
4:30-6:30 PM
Room 4-149

Recruiting interviews will be held February 13, 1989

Scientific Atlanta
Atlanta, Georgia
An equal opportunity employer
Track team loses leading scorer to hamstring pull

(Continued from page 36)

pulling that went on in the race as runners jockeyed for position. Pringle found himself in the middle of the pack in the early part of the race.

But by the third mile, Pringle had moved up and was challenging BC freshman Jamall Prince for third place. Prince held on to beat Pringle by about seven seconds.

Scannell jumped a personal-best 15' 4" on Friday evening, but Tung faded in the second half of the race. Sean Kelley '89 placed fifth in the distance medley relay, joining Patrick Cazeau '92, Dan Droney, Brandes, and McKenzie.

Kelley said:-Kelly had expected a stronger performance by Northeastern, eastern, but said that "Harvard always has talent, no doubt about it."

Indoor Track at Greater Boston Championships


60 meter hurdles - 1. Bowdoin, 7.96; 2. Brandeis, 8.42; 3. Harvard, 8.54.

60 meter relay - 1. Bowdoin, 1:04.12; 2. MIT, 1:04.28; 3. Harvard, 1:05.76.

800 meter run - 1. Lewis, 1:44.22; 2. Ferrante, 1:44.28; 3. Tung, 1:45.06.


5000 meter run - 1. CAS, 16:38.40; 2. Bowdoin, 16:41.06; 3. Brandeis, 16:43.95;


4x400 meter relay - 1. MIT, 3:30.52; 2. Harvard, 3:32.00; 3. MIT (Scannell, Cranes, Robinson, O'connell).

4x100 meter relay - 1. Boston College, 4:17.21.

TUESDAY, FEBRUARY 7, 1989

Take out a well rounded individual.

The Four Cheese Pizza

Our individual deep dish pizza is perfectly proportioned for any one person. Or, bring home a good looking regular for two or three people. Uno's. The place for Chicago's original deep dish pizza.
MIT Afternoon at the Greater  
Boston Championships

February 4, 1989

Despite losing leading scorer Bill Singhose '90 (below, shown with vaulter Muphrey Johnson '89) to an injury, the indoor track and field team still managed to score the most points, 38, it had ever scored at the annual Greater Boston Championships, held at Harvard University Friday and Saturday.

At left is the start of the 55-meter high hurdles, in which Paul McKenzie '90 (second from right) placed third, and Dean Moon '92 (third from left) placed fourth.

The Engineers' two first-place winners were Mark Dunzo '91 (center left), who won the 400-meter dash, and co-captain Scott Deering '89 (center middle, shown in the shot put competition), who won the 35-pound weight throw.

Mike Piepergerdes '92 (bottom right) placed fourth in the mile run.

At bottom left is head coach Gordon Kelly, consulting with a meet official.

photos by  
david h. rothstein
Track places fifth at GBC

By David Rothstein

Last weekend the indoor track and field team went up against Boston's best at the Greater Boston Championships at Harvard University. Facing Division I schools like Harvard University, Northeastern University and Boston College, MIT was not expected to finish high among the seven teams competing, less win the GBC outright.

MIT Afternoon at the Greater Boston Championships: a photo essay (see page 35).

No. MIT did not engineer a great upset. It finished fifth, with 38 points, just missing fourth place. Harvard won both the men's (94 points) and women's titles by comfortable margins.

Despite its several impressive performances Friday evening and Saturday in Harvard's Albert H. Gordon Track and Tennis Center, MIT's mood at the end of the championships was subdued. Scoring more points than it had in the GBC outright.

Harvard won both the men's (94 points) and women's titles by comfortable margins.

Gordon Track and Tennis Center, MIT's mood at the end of the championships was subdued. Scoring more points than it had in the GBC outright.

Men's Volleyball beats Dartmouth, Loses to RW

By David Rothstein

Strong defense propelled the men's volleyball team to an easy 15-11, 15-7, 15-7 win over Dartmouth College at DiPunt Gymnasium Saturday afternoon. The Engineers next take on Roger Williams College Thursday in Bristol, RI.

MIT played Dartmouth without senior outside hitter Edwin Marin, who is recovering from a severe ankle sprain which he suffered in a pre-season scrimmage, and without middle hitter Roland Rocafor '90. But Chris White '90, who had been out for two weeks with the flu, was able to play Saturday.

Coach Karyn Altman credited Charles Lee '89 with making a significant contribution to the team's win with his defensive play, and also commended setter Charles Lee '89 and middle hitter Allen Downey '89.

While Altman was pleased with her team's play and high energy level on Saturday, Thursday's match at Roger Williams was a different story. "We didn't play with any energy against Roger Williams," said Altman, noting that the team made a lot of mistakes. "Roger Williams was a bad loss for us," she said.

MIT was plagued by poor serving, with 14 service errors against two aces, and poor hitting. The Engineers next take on Harvard University at Harvard on Saturday at 1 pm. Marin is expected to play in the Harvard match.

(Editors' note: David Rothstein '91 is a member of the men's volleyball team.)