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TechTalk
SERVING THE MIT COMMUNITY

# Dining cooks up delicious changes

**Sasha Brown**
News Office

MIT's hungry masses have a lot more choices this year.

Renovations to Lobdell Food Court, the Building 4 Café and the soon-to-reopen Pritchett Grill have made the dining alternatives more varied and plentiful than ever before.

Patrons at Lobdell Food Court may now choose Japanese sushi and stir-fry from Shinkansen Japan; Middle Eastern cuisine, including falafel, from Sepal of Watertown; and pasta casseroles, salads and soups from an Italian specialty shop, Mangia Mangia.

"We wanted to vary our offerings, give people more choices in dining," said Richard Berlin III, director of campus dining.

By January, a burger and Philadelphia cheese steak

See **DINING**
Page 6

PHOTO / **DONNA COVENEY**

The MIT International Science and Technology Initiative (MISTI) held a series of events last week to draw attention to its programs, including a dragon dance in Lobby 10 on Tuesday, Sept. 20 (above), and 'The Future of the Car — the Car of the Future' talk (which featured Professor John Heywood, below) on Thursday, Sept. 22.

# MISTI week sees 'Future of the Car'

**Sarah H. Wright**
News Office

The cars of the future must work more like living things and less like living rooms on wheels if we are to mitigate problems of fuel consumption and traffic congestion, according to a panel of experts who discussed "The Future of the Car – the Car of the Future" on Sept. 22 in Room 4-237.

Three MIT engineers, two Media Lab designers and an auto industry executive participated in the panel discussion organized by the MIT International Science and Technology Initiative (MISTI) to publicize the 11-year-old international student internship program.

The talk was just one event in a weeklong series of festivities, which included foreign films, food and entertainment, a soccer tournament and a series of orientations for students interested in participating in the program, which helps students get internships in China, France, Germany,

PHOTO / **DONNA COVENEY**

India, Italy, Japan, Mexico and Singapore.

"Car of the Future" panelists were John Heywood, the Sun Jae Professor of Mechanical Engineering and director of the Sloan Autolab; Daniel Roos, professor in the Engi-

See **MISTI**
Page 4

# Reid takes new top post

## Will spearhead diversity efforts

**Denise Brehm**
News Office

MIT Chancellor Phillip L. Clay announced today that alumnus Karl W. Reid (S.B. 1984, S.M.) will become assistant to the chancellor and associate dean for undergraduate education effective Oct. 1. As assistant to the chancellor and associate dean, Reid will be responsible for coordinating many of MIT's endeavors to increase diversity in the undergraduate and graduate student populations. He also will have the title of director of the Office of Minority Education.

The chancellor made the announcement jointly with Dean for Undergraduate Education Robert P. Redwine, indicating that the OME will in the future work with many offices at MIT to support minority students not just in their early years, but throughout their undergraduate and graduate education.

Reid is currently executive director of special programs in the School of Engineering and director of the nationally renowned MITES program that brings minority and other high school students to MIT during the summer and encourages them to matriculate at MIT or other selective universities. He founded two enrichment programs for local middle and high school students at MIT, and he teaches a freshman seminar on race, identity and achievement.

**Karl Reid**

"Karl's leadership of MITES has been nothing short of excellent," said Clay. "He is super at analysis, but what makes him extraordinary is his ability to connect with young people in a way that motivates and inspires them. He is also a wonderful colleague. As an alumnus, he brings deep knowledge about how to support students and has demonstrated experience in partnering with faculty in promoting student learning."

Redwine said, "I am delighted that Karl Reid, whom I have known and admired for years, has agreed to take on the leadership of the Office of Minority Education here at MIT. Karl is a gifted teacher and administrator with a wonderful track record of accomplishments in this area. I know that all of us in the Office of the Dean for Undergraduate Education look forward to working with him to provide the best possible programs for our students."

The creation of the expanded position follows the recommendations of a faculty advisory committee that conducted a review of the OME during the past year and also served as the search committee for the director. The committee recommended that the new director have strong connections to the MIT senior administration, as well as to students and alumni.

Reid will be guided and assisted by another faculty advisory committee to be appointed by Clay. He replaces Kim R. Beamon, who has served as interim director of the Office of Minority Education for the past year and who will resume her previous role as associate director.

Reid is currently completing his doctoral degree at the Harvard Graduate School of Education, where he said that his research on diversity draws heavily on perspectives gained at MIT. "We have known for years that a diversity of backgrounds, ideas and learning proclivities raises the quality of the intellectual enterprise for all stakeholders at MIT," Reid said. "It is thus imperative that every subpopulation achieves academic success at the highest levels so that everyone will benefit."

## NEWS



## RESEARCH



## ARTS

# A letter from the president

To members of the MIT community:

Welcome back! I hope that all of you had a wonderful summer, including some sunny days spent with family and friends. Now that the first flurry of activity associated with the beginning of the semester is past, I wanted to bring you up to date on some developments over the summer and plans for the year ahead.

Welcome to new students and faculty

First, I extend my warmest welcome to the remarkable new undergraduates, graduate students and faculty who have joined our community this fall. The tone at this year's orientation events was warm and upbeat, and all of us owe special thanks to the many enthusiastic students, staff and faculty who helped make the events a spectacular introduction to MIT. This year's freshman class represents the global reach and academic strength of our community, with students joining us from 46 states and 64 countries, and entering with the highest academic rankings of any previous year. Of course, their talents stretch well beyond academics: They include many musicians and artists, athletes, actors, entrepreneurs and leaders of all kinds.

### New faces

Over the summer we announced a number of changes in our academic and administrative leadership. As most of you know, our former provost, Bob Brown, is now president of Boston University and has been succeeded by Professor Rafael Reif. Executive Vice President John Curry left at the end of August to head the higher education practice at Huron Consulting Group; Sherwin Greenblatt, an MIT alumnus and former president of Bose Corp., has agreed to serve as interim executive vice president. And Allan Bufferd announced his intention to retire as treasurer by the end of the academic year. With his retirement, we will, like most universities, separate the functions of treasurer and chief investment officer, with the functions of the treasurer becoming part of the responsibilities of the executive vice president for finance and administration. We have begun searches for both of these positions. I am most grateful to Bob, John, and Allan for their years of leadership and service to MIT.

### New places

Summer has also seen many physical changes on campus. Having completed a number of remarkable new buildings in a short time frame, we need to maintain momentum on a capital program that will provide much-needed new and renovated facilities. And we are doing just that.

The first occupants are now moving into the magnificent new complex that will house the Department of Brain and Cognitive Sciences, the McGovern Institute for Brain Research and the Picower Institute for Learning and Memory, with dedication festivities scheduled during the fall.

We have also begun work on the new and renovated facilities for the Departments of Physics and Materials Science and Engineering and the Spectroscopy Laboratory in Buildings 4, 6 and 8. The project will add a 49,000-square-foot building in the Building 6 courtyard and revitalize the infrastructure for almost one-third of the Main Group.

This project will serve as a model for future renovations to the historic heart of our campus. The Main Group laid the architecture for the culture of collaboration that underlies so many of MIT's greatest contributions to knowledge and society. As we approach the hundredth anniversary of the original Cambridge campus, it is critical that we ensure the continued centrality

**Susan Hockfield**

of these buildings in the intellectual life of the Institute.

### Energy Research Council

We have launched the new Energy Research Council, which will provide a focus for MIT's efforts to address the world's mounting energy problems and to help frame our contributions to a national discussion on this critical issue. Recent events have underscored the importance of this work to the nation and the world. We have asked the council to develop an outline for an Institute-wide response to the global energy crisis by the beginning of February.

Under the leadership of faculty co-chairs Bob Armstrong (chemical engineering) and Ernie Moniz (physics and engineering systems), the council has been very active over the summer, compiling an inventory of current energy-related research at MIT and facilitating faculty and student activity in this area. Planning is under way for a series of high-level colloquia on campus, and the Industrial Liaison Program is organizing a December workshop to bring industry perspectives to bear on the council's work.

I am confident the Energy Research Council will maintain MIT's strong tradition of creative and effective responses to the great challenges of our era.

### MIT's response to Hurricane Katrina

As I have said elsewhere, the response of the MIT community to the devastation wrought by Hurricane Katrina has been remarkable.

Institutionally, we are hosting 10 undergraduates and at least 15 graduate students as special visiting students for the fall term, waiving tuition and fees and providing housing for them; we are also looking at making bench space available in our labs for some faculty, postdocs and graduate students from the Gulf Coast region.

Our students, faculty, and staff have responded with a combination of energy and insight that is characteristic of the Institute, organizing drives to support relief efforts, service projects and new educational and research initiatives. You can find updates on these activities and can contribute your ideas at the website: web.mit.edu/katrina/.

### Academic integrity

Many of you are aware of a charge of scientific misconduct brought against two scientists at Lincoln Laboratory. Although such matters are normally treated in a strictly confidential manner, there have been sufficient public disclosures to warrant my commenting on this matter.

I consider the resolution of this charge to be of great importance to the Institute, as well as to the affected individuals. The complexities and resulting delays in concluding this matter have been extremely frustrating to all of us. I have been working toward a resolution with colleagues in the senior administration, and with advice from the chair of the faculty and an expanded Research Policy Committee. Our actions to date have taken two forms. First, we have redoubled our efforts to resolve an impasse with the Department of Defense over the conduct of the investigation. Second, we are establishing a process to examine the factors that have complicated and delayed the resolution of this matter, so that the risk of recurrence can be reduced or eliminated. I will keep the community informed of developments on this issue.

### Working together for our future

We are emerging from a difficult period of budget reductions, and our fiscal situation, while stronger, remains tight.

At the same time, we remain very concerned, as does the rest of the American academic and research community, about declining federal funding for R&D. MIT will continue to advocate forcefully for the importance of investing in our nation's future through all available channels, including my monthly visits with government leaders in Washington.

The work of the Institute is complex and varied, yet there are opportunities for us to work together even more productively than we do now. This is a job for all of us, especially given the decentralized nature of many of our administrative functions, and I am optimistic about the chances of success. Our staff is exceptionally talented and dedicated, with a tremendous loyalty to MIT and its mission. I am certain that together we can become even more effective in supporting MIT's mission of teaching and research.

I am especially hopeful that we can make real progress on the issues that inevitably arise at the interface between academic and administrative areas. We are, for example, looking at how we can make research administration both more efficient and more responsive. I anticipate more such initiatives to come.

### A look ahead

What do I see as I look to the year ahead?

Most important, the significance of MIT's role in the world cannot be overemphasized. Hurricane Katrina's destructive effects highlight today's pressing challenges in energy, urban infrastructure and many other domains in which MIT has made and will continue to make significant contributions. Our distinctively interdisciplinary approach, exemplified by our work at the intersection of the life sciences and engineering, will continue to generate creative insights and innovations. In addition to helping to solve the world's problems through our research, we must also rededicate ourselves to an education that prepares our students to be the leaders of a world that is increasingly interconnected and dependent on technology.

After my first 10 months at MIT, I still learn new things about MIT every day. Everything I learn gives me confidence that, working together, we will enjoy continued success as one of the world's greatest research universities.

I hope that all of you had a chance to recharge over the summer. Everyone I have met during the last few weeks has been excited about the year ahead, and I know I am.

*—MIT President Susan Hockfield*

# Nominations open for Doherty Professorship

Nominations are now open for the Doherty Professorship in Ocean Utilization. All nontenured MIT faculty members are eligible.

Endowed by the Henry L. and Grace Doherty Charitable Foundation, the two-year chair opens the way for promising, nontenured professors to undertake marine-related research that will further the innovative use of the ocean's resources. Any aspect of marine use or management may be addressed, whether social, political, environmental, economic or technical. The chair will receive $25,000 per year for two years, beginning July 1.

In 2005, Patrick Doyle, assistant professor in the Department of Chemical Engineering, was awarded the Doherty Professorship to study the dynamics of single polymers and biomolecules under forces and fields. That research is expected to increase the understanding of turbulence in the marine environment.

Department heads may submit one nomination every year. The deadline for nominations is Oct. 28. Final selection will be made by a committee that includes the vice president and dean for research, the dean of engineering, the dean of science, the chairman of the Sea Grant Committee and the director of the MIT Sea Grant College Program, following a review and recommendation from the full Sea Grant Committee.

The vice president and dean for research will announce the new Doherty Professor in early 2006. While serving as the Doherty Assistant or Associate Professor of Ocean Utilization, the incumbent cannot hold another MIT-funded chair.

Anyone wishing to be nominated should contact his or her department head for procedures and selection criteria. Please contact Kathy de Zengotita for more information, Room E38-300, x3-9305, kdez@mit.edu.

## NEWS YOU CAN USE

### Innovation grants

MIT's Deshpande Center for Technological Innovation has issued a call for proposals for its spring 2006 round of grants. The grant program is open to all MIT faculty and awards two types of funding to support leading-edge research in emerging technologies — ignition grants for early-stage, proof-of-concept explorations with broad potential impact, and innovation grants for later-stage innovations that faculty inventors are eager to see commercialized.

In its first six rounds, the Deshpande Center has funded 44 projects for a total of $4.9 million.

Preproposals are due Oct. 12 at 5 p.m. For more information, visit web.mit.edu/deshpandecenter/grant_rfp.html or call x3-0943.

### Arts grants available

Friday, Sept. 30 is the deadline for the year's first round of arts funding through the 2005-06 Council for the Arts Grants Program. All students, faculty and staff may apply. Forms are available in the Office of the Arts (Room E15-205) or on the office's web site at web.mit.edu/arts/do/funding/grants.html.


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# Expert outlines energy problems for MIT crowd

**Denise Brehm**
News Office

The future of energy over the next three decades looks rosy for those whose greatest fear is running out of oil, but dismal for those who worry about the negative environmental impact of continued reliance on fossil fuels, according to Steve Koonin, chief scientist for BP, who described the energy industry for a packed crowd in Kirsch Auditorium on Sept. 22.

In his talk on energy trends and technologies, hosted by MIT's Energy Research Council, Koonin said that 85 percent of the world's energy currently comes from fossil fuels, a percentage that hasn't changed much over the past decade. Based on the continued availability of fossil fuels and the economic challenges of developing alternatives, he said he doesn't expect that percentage to change soon.

"Unless one does something dramatically different, it's fossil fuels for the next few decades," said Koonin, an MIT alumnus (Ph.D. in physics, 1975) who was a faculty member and provost at Caltech before moving to BP last year. Koonin is responsible for BP's long-term technology plans.

He said the world's known oil reserves will last at least 40 years, and probably 20 beyond that, but he believes that advanced solar and fusion techniques will likely provide much of our energy a bit further down the road when the cost of finding and developing such fossil fuels as oil and coal outstrips what society is willing to pay. Right now, we lack the political and social will to invest the necessary capital to develop new energy sources, he said.

"Local pollution in many ways is a solved problem," said Koonin. "The technologies exist; it's just a matter of how much you want to spend to clean things up. More problematic is climate change."

"We are emitting about twice the amount of $CO_2$ that the atmosphere can integrate. So we must drop our carbon energy use to one-quarter what it is today in the next 50 years just to stabilize," he said. "Modest reductions only delay growth; a 10 percent reduction buys about seven years." The United States is still responsible for the largest percentage of $CO_2$ emissions relative to gross domestic product; France, which uses nuclear power to produce electricity, has the lowest emissions per GDP. By 2020, the developing world will surpass the industrialized world in $CO_2$ emissions, Koonin said.

Some of the follow-up questions from the audience challenged Koonin to look beyond the quantitative and descriptive analysis he had presented, but Koonin steered clear of the political realm. One audience member asked if BP's interests were getting in the way of new ideas. "I have a lot of money to spend," said Koonin. "If you come to me with a technically plausible idea that we can utilize, I'll fund it."

Another audience member asked if a shift in perspective is needed in looking at the capital costs of investing in new technology. "Yes," Koonin said, "But if you want to assign a cost to the future environmental issues, you must be able to quantify it better."

"But there must be a way for people at MIT to find a way to do that," responded the questioner.

"Yes," Koonin said.

# Train fan on board for MIT

*This is the third in a series of profiles of members of the freshman class.*

**Sasha Brown**
News Office

Freshman Anthony Rizos of Lake Havasu City, Ariz., discovered his life's dream at the age of 9 when he stepped aboard a train.

"I found my calling atop wooden ties and steel rails," Rizos said in his blog on MIT's web site.

After his first train trip in 1996 along the West Coast with his mother, the enterprising elementary school pupil started his own web site dedicated to Amtrak train service. "I fell in love," said Rizos, who has logged more than 40,000 miles on Amtrak since that first trip.

"There is something about the experience on board a train. There is a romantic aspect to it," he said.

Replete with personal stories of train trips, photographs and a discussion feature, the site earned a lot of attention quickly. The chief information officer at Amtrak was soon interested and, in 2000, he personally offered the 14-year-old a job with the company.

Since then, Rizos has worked remotely in the information technology department of Amtrak, which is based in Washington, D.C. "When you live in the middle of nowhere, you have to make your own opportunities," Rizos said with a laugh.

The early success was not unusual. At 18 months, he taught himself to read street signs from his car seat. At 4, he learned how to use a computer. By the time he entered kindergarten, his teachers had recommended him for placement in a gifted program for third-graders.

Being younger than his fellow students was not always easy, said Rizos, who graduated from high school at 16.

With a lifelong interest in computers, coming to MIT was a no-brainer for Rizos, who first heard about the school through a co-worker at Amtrak. It was difficult to get help at his high school. "It was unusual in my school for someone to apply to MIT, so my teachers had trouble helping," he said.

Rizos applied for early admission and waited, hoping that he would be accepted. "I just knew it would be a good environment for me," he said.

With his Amtrak job secure, Rizos decided to wait to come to MIT. "I was so much younger all through high school," he said. "It was very difficult."

Armed with two years of full-time work experience and knowledge to share, Rizos was ready to embark on his new life this fall. "This is the first time in my life I will be with peers I can talk to," he said. "I have been ready for this for years."

PHOTO / **DONNA COVENEY**

Freshman Anthony Rizos stands on the tracks by MIT's new brain and cognitive sciences complex earlier this month. Rizos turned his love of trains into a job at Amtrak.

**Class of 2009 by the numbers**

**82%**
**participated in high school academic competitions**

**44%**
**had a job during the school year**

# Faculty meeting now features open forum

**Deborah Halber**
News Office Correspondent

The first faculty meeting of the academic year included an open forum for questions and comments, a new feature — suggested by the officers of the faculty — that will become a regular agenda item.

There was a new venue too. The meeting was held in Classroom 141 in the Stata Center, and almost every seat was filled. Provost L. Rafael Reif said it was the first standing-room-only faculty meeting he had ever seen.

MIT President Susan Hockfield and Reif gave overviews of the new academic year.

Hockfield lauded the 990 members of the incoming freshman class, saying, "They have higher SAT scores than any previous class, and close to 40 percent graduated first from their high schools… They entered with an enthusiasm and excitement about being at MIT that is absolutely infectious."

She said she is concerned about the poor outlook for federal research funding, which has been decreasing steadily relative to gross domestic product. Hockfield said she travels to Washington, D.C., at least once a month to meet with leaders of Congress and various agencies that fund research, and has found that "while there is tremendous interest in and understanding of the role that research, and federal funding of research plays in maintaining America's innovation economy, there is not much optimism that things are going to get better anytime soon." However, she said MIT "will do better than most in an era of narrowed research funding."

Commenting that "communication is a little bit more difficult here" than it could be, Hockfield said she wants to find ways to make it "easier for people around the community to know what is going on." The new session at the end of the faculty meeting in which Hockfield, Reif and Chancellor Phillip L. Clay respond to questions and comments is one way Hockfield said she hopes to hear what is on people's minds.

Chair of the Faculty Lorna Gibson, Matoula S. Salapatas Professor of Materials Science and Engineering, said improving communication between the administration and faculty also is a goal of the Faculty Policy Committee.

Reif, in his first address to the faculty as provost, said he has been thinking about "where MIT is going as an academic institution" in part because "the world watches what MIT does."

Some major themes he brought up were the convergence of life sciences and engineering; incorporating international experiences more fully to "enrich student life"; and working for more progress in

See **FACULTY** Page 6

# Alumni Leadership Conference honors Rafael Bras

**Nancy DuVergne Smith**
MIT Alumni Association

The 2005 Alumni Leadership Conference brought more than 375 MIT alumni and guests to campus Sept. 23-24 to honor outstanding volunteers – including MIT Professor Rafael Bras — and to brainstorm ways to strengthen the alumni network and raise funds for MIT.

Bras, the Edward A. Abdun-Nur Professor of Civil and Environmental Engineering, won the MIT Alumni Association's highest award, the Bronze Beaver, for his successful fund raising and his service on the Alumni Association Board and Annual Fund Board. Bras, a hydrologist, holds three MIT degrees — S.B. '72, S.M. '74 and Sc.D. '75. Bronze Beavers also went to Southwest Florida volunteer Frank Hulswit '49 and New Jersey club leader Dale Schain Krouse '71.

The MIT Alumni Association builds connections among the 117,000 alumni in 149 countries and between these alumni and the Institute. Association groups, led by 8,502 volunteers, host more than 1,500 events a year. In fiscal year 2005, alumni gifts totaled $33 million for the Alumni Fund.

President Susan Hockfield saluted the volunteers' efforts — and asked for more. "I have seen the spectacular benefit that MIT gets from its incredibly devoted alumni," she told the audience. "I view this group as our information army, and your dedication and help in spreading the news about MIT is important beyond description. The nation desperately needs the kind of inspiration that comes out of MIT."

# Post-hurricanes, MIT gets to work

**Sasha Brown**
News Office

The students in the Experimental Study Group seminar "New Orleans — Sinking or Rising City?" are hoping to learn just what it means to miss New Orleans.

Together, the group is studying the background of the city devastated by Hurricane Katrina.

"I'd like group participants to learn more about the history and culture of New Orleans," said lecturer Holly Sweet, who organized the seminar. The group of about 10 will also spend some time studying what went wrong after the hurricane and how some of the problems might have been prevented.

Students will listen to the music of New Orleans, watch film clips, sample Cajun food and hear from a variety of speakers on topics ranging from political issues to the volunteer experience.

"Eventually, I hope the students will get more involved beyond the study group in some way that will prove helpful in the short and long run," said Sweet.

Sweet's study group is just one of the educational initiatives that have cropped up in response to the disaster in the Gulf Coast region, which was slammed on Aug. 29 by Hurricane Katrina and then again by Hurricane Rita on Sept. 24.

A series of MIT symposia addressing "Big Questions After Big Hurricanes" starts this week, co-sponsored by the Katrina Response Advisory Group, which was appointed by MIT President Susan Hockfield, and is convened by Vice President Kathryn Willmore.

The first symposium, to be held Friday, Sept. 30, is titled, "How Can We Improve Disaster Response?" and will include a discussion of the federal response to Katrina and recurring problems with disaster response systems.

Subsequent symposia will address "How Can Communities, Cities and Regions Recover From Disaster?" (Oct. 5); "How Can We Plan for Safe and Sustainable Regions?" (Oct. 18); "What Does Current Scientific Research Have to Say About the Present and Future Risks Associated With Hurricanes?" (Oct. 31); and "What's so Natural About Natural Disasters?" (date to be determined).

Each of the first three symposia will be held in Kirsch Auditorium from 4 to 6 p.m. The location for the Oct. 31 section has yet to be determined. For more information, visit web.mit.edu/katrina/symposia/.

The Department of Urban Studies and Planning is also planning events related to the hurricanes. On Oct. 3, "The Future of Architecture in New Orleans," will feature a panel of architects and historians from New Orleans. And on Oct. 17, the former planning director of New Orleans will talk about the city and its challenges.

For more on MIT's ongoing response to the disaster, visit web.mit.edu/katrina/.

# Artists describe their 'Journey From Subways'

**Sarah H. Wright**
News Office

Five members of TATS CRU, the first and only graffiti art crew to gain props in their community, New York's beleaguered Bronx, and also profit from corporate America, jointly delivered a talk on "The Journey From Subways to Urban Media Marketing," in the Stata Center's Kirsch Auditorium, on Tuesday, Sept. 20.

Bio, Nicer, BG183, HoW and NoSM — the young men used only their "tags" — represented the 10-member CRU. As they spoke, they displayed images from 25 years of urban artwork, ranging from rollicking subway car writing to dramatic memorials to outdoor ads for Coca Cola and Chivas Regal.

"We're the link from the corporate world to the street. But if you'd told us 20 years ago that we'd be using a computer to print our work, or we'd be a company that employs six artists, whew," said Nicer, one of CRU's three founding members, along with Bio and BG183.

TATS CRU arose "back in the day," meaning 1980, when Ronald Reagan was president and rap music meant Grandmaster "it's a jungle out there" Flash, they said.

"Subway cars were the world's largest comic book. When I saw those 'rolling canvases,' I thought, 'That's what I want to do!' Back then it was a misdemeanor in New York — now it's a felony — but it was so powerful, so compelling, to see those cars go from Brooklyn to Manhattan to the Bronx. Millions of eyes could see your work in a day! Graffiti is about fame. It's about sharing your art with the rest of the world," said Bio.


PHOTOS / **DONNA COVENEY**


Graffiti artist Bio, above, tells an MIT audience about his move from the streets of the Bronx, N.Y., to corporate America. Bio is a member of TATS CRU, the graffiti art crew that produced the memorial wall pictured left, a photo of which was displayed during the group's talk on Tuesday, Sept. 20.

For BG183, the most stressful time in his CRU career was when he was painting memorial walls. These giant visual obituaries, often commissioned by grieving family members, were "tricky," he said. "We'd be painting the walls, and the mother or friends would be crying, throwing themselves on the ground. It affected us."

TATS CRU — the TAT used to stand for "Train Art Theater," now it's "Top Artistic Talent" — stopped painting subway cars in 1987. CRU members still live in the Bronx and mentor younger artists in their community, said Nicer.

"Those kids in that gray neighborhood — we used to be them. Writing is their way of sticking their arms out of the crowd and saying, 'I exist!'" he said.

The CRU's talk on its hip-hop trip to the top was part of the 44th annual Abramowitz Artist-in-Residence Program. The aerosol artists also led student workshops in mural making, with the collective goal of producing works inspired by Hurricane Katrina.

For information and a sampling, visit www.tatscru.com.

# MISTI

**Continued from Page 1**

neering Systems Division and of civil and environmental engineering; Erica Fuchs, doctoral student in the Technology and Policy Program; William Lark and Raul-David "Retro" Poblano, graduate students in the MIT Media Lab; and Karl-Ernst Noreikat of DaimlerChrylser.

Heywood and Roos painted a grim picture of current car use, fuel economies and traffic patterns, affirming the average commuter's sense that we're all driving more and taking longer and longer to get where we're going.

"With 600 million in the U.S., cars dominate our personal transportation system. We want personal mobility. But we don't need living rooms on wheels. We need to use 200 to 300 percent less fuel, and we have to get people out of Hummers," Heywood said.

Heywood cited various strategies for shifting to more efficient cars — improving combustion, reducing car size, reducing car weight, switching to diesel fuel, developing hybrid electric cars — but cautioned the standing-room-only crowd not to underestimate the power of consumer car culture.

"The hybrid is the poster boy of cars of the future. Everybody thinks it will save us from our appetites. But are hybrid cars for the masses? They cost much more than other cars; they're for the high economic end, for an elite," Heywood said.

While dire in their analysis, Heywood and Roos admitted the delight of driving itself — the "performance" aspect of car design — was not to be dismissed. Even people who use their cars for city driving buy "high performance, zero-to-60 in seven seconds" machines.

Fuchs' research showed that the prestige of big cars and the zero-to-60 thrill exists even in markets where autos are less embedded in the culture. Chrysler, GM and DaimlerChrylser had all tried to market an "unsophisticated, low-performance, low-prestige" car in China, and they all failed, she said.

Roos described new approaches to managing road use within cities and on highways by charging tolls that vary with the time of day and level of congestion.

"In the future, systems will tie the driver and the vehicle with the roadway through intelligent transportation's variable pricing system," Roos said.

The "concept car" presentation by Lark and Poblano brightened the gray scene of present car use like Technicolor brightened Dorothy's landing in Oz.

The two Media Lab students showed slides of gum-drop-shaped cars, cars that required drivers to move like athletes, cars that adapted for storage by standing up on rear wheels and cars that could manage that all-important 90-degree pop into a parking space, thanks to hubless robotic wheels.

The Media Lab group seeks to create a car that "makes you a better citizen of your city and that does no harm," Poblano said.

For more information about MISTI, visit mit.edu/misti/.

# Jobs are key to rebuilding, professor says

**Sarah H. Wright**
News Office

"It's all about jobs" must be the tireless mantra of efforts to rebuild the families, communities and economy of the region devastated by Hurricane Katrina, according to a professor in the Sloan School of Management.

In a Sept. 15 essay published online by the Center for American Progress, Thomas A. Kochan, the George M. Bunker Professor of Management and co-director of the MIT Workplace Center, asserted that the federal government, organized labor and community-based agencies must unite to reconstruct the Gulf Coast's shattered economy.

In his essay, "Jobs for All: The Key to Rebuilding After Katrina," Kochan wrote, "The key principle should be to give all adults able and willing to work access to training and a guaranteed job in the clean-up and rebuilding process."

He recommended that Congress and President Bush lead the effort by creating an emergency economic and social reconstruction fund.

The federal emergency fund would provide incentives for private-sector firms to work with labor and community groups and apply to rebuilding efforts their combined "best practices in job training, employment and labor relations, health care and family social service delivery," he wrote.

Kochan, the author of "Restoring the American Dream: A Working Families' Agenda for America," described the goal of post-hurricane recovery efforts as a chance to "restore hope and trust in the American dream for Katrina's victims."

In his essay, he noted that for many people in the storm-ravaged coastal zone, a united intervention by government, labor and community agencies to provide jobs and training would equal building, rather than rebuilding, a viable economy.

For the complete text of Kochan's article, visit www.americanprogress.org.

# New web site explores local hurricane risk

**Andrea Cohen**
MIT Sea Grant

The early lessons of Katrina are that preparedness and education about hurricanes are invaluable defensive tools in fighting (or fleeing) natural disasters. MIT Sea Grant's newly launched hurricane web site provides information about planning and risk, as well as news about hurricane-related research being conducted by MIT experts such as Professor Kerry Emmanuel of the Department of Earth, Atmospheric and Planetary Sciences.

While the below sea-level phenomenon of New Orleans is not mirrored in New England, other Gulf Coast conditions are similar. And with hurricanes increasing in power and more people living in coastal areas, our vulnerability also increases. What to do?

One option is to think about risks when choosing where to live. A link from the hurricane site lets users access online hazard maps that indicate the flood hazard areas and paths of past hurricanes.

Better preparation also comes through research. With funding from MIT Sea Grant, Nick Makris, associate professor in MIT's Center for Ocean Engineering, has been exploring how hydrophones deployed in the ocean might gather acoustic data and provide critical information about the strength of hurricanes. Improved assessments of a hurricane's power can mean avoiding unnecessary evacuations and ensuring evacuation when a deadly storm threatens.

For more information, visit web.mit.edu/seagrant/hurricanes/mitsghurricanes.html.

# HST celebrates 35 years of innovation

Thirty-five years ago, two of the world's greatest universities got together to build a community of scientists and clinicians that would work together to harness the power of science and engineering for the benefit of human health.

During the weekend of Sept. 23-25, that community turned out in force to celebrate the anniversary of the Harvard-MIT Division of Health Sciences (HST).

HST brings great minds from MIT, Harvard and their affiliated teaching hospitals and research centers together to educate students and conduct research at the intersection of biology, physics, engineering and medicine.

MIT President Susan Hockfield, Provost L. Rafael Reif and former MIT President Howard Johnson participated in the celebration, along with Harvard University Provost Steven Hyman and Dean of the Harvard Medical School Joseph Martin.

"HST has been a training ground for the finest young people in their fields," Hockfield said. "When you read the list of HST graduates and the people who are here at this celebration, it reads like a Who's Who in modern biomedical science. This program has had an impact on this nation and the world unlike any other."

Events included a full-day alumni symposium, an evening gala and an exhibition of HST's graduate-level educational programs and many interdisciplinary research centers, including the Harvard-MIT Bioengineering Center; the Center for Biomedical Innovation; the Children's Hospital Informatics Program at HST; the Clinical Research Center; the Martinos Center for Biomedical Imaging; and the Wellman Center for Photomedicine.

The longest-standing collaboration between MIT and Harvard University, HST was founded in 1970 by people who anticipated the impact that science and engineering could have on medicine and human health. Led by Dr. Irving M. London, who was honored at the celebration, a group of dedicated faculty decided to create a curriculum that would integrate a range of sciences basic to the study of medicine, engineering and medicine and that would offer students the opportunity to immerse themselves in the culture of the laboratory and the culture of the clinic.

HST today has one of the largest biomedical physician scientist training programs in the country, with more than 400 students and more than 1,100 alumni occupying leadership positions in research, academia, industry and government. The division is at the leading edge of research in its three primary focus areas: biomedical imaging; bioinformatics and integrative biology; and regenerative and functional biomedical technologies.

Alumni/ae participating in the symposium included Mark Saltzman, who chairs the Department of Biomedical Engineering at Yale University; Dr. Joseph Smith, senior vice president of Guidant CRM; Susan Voss, an assistant professor of engineering at Smith College and a lecturer at Harvard Medical School; and George Wodicka, head of the Weldon School of Biomedical Engineering at Purdue University and chair of the joint Purdue-Indiana University biomedical engineering graduate program.

For more information on HST and the 35th anniversary celebration, visit hst.mit.edu.

PHOTO / **DONNA COVENEY**

Peter Perdue, an MIT historian and expert in East Asian civilizations, discusses his new book, "China Marches West: The Qing Conquest of Central Eurasia," which challenges the Eurocentric view of 18th century Asia.

# Historian relates Chinese imperial saga

**Sarah H. Wright**
News Office

A new book by MIT historian Peter Perdue shows how the Qing empire of China conquered and controlled Central Asia during the 18th century, shedding light not only on the intricate machinery of empire-building 300 years ago, but also on the challenges facing modern-day Beijing as unrest and regional inequities recur.

Perdue, who is the T.T. and Wei Fong Chao Professor of Asian Civilizations, began working on "China Marches West: The Qing Conquest of Central Eurasia" more than 20 years ago. Published by Harvard University Press earlier this year, Perdue's book was named an Outstanding New Book by Foreign Affairs in the spring.

Foreign Affairs reviewer Lucien Pye described "China Marches West" as a "major work" that effectively challenges the conventional casting of Central Asia as a crossroads of European powers and rejects a linear view of history.

Perdue opens his book in a way that dispenses with Eurocentrism and the "railroad track" view altogether. He focuses with cinematic clarity on three great powers—the Manchu Qing, the Muscovite Russians and the Mongolian Zunghars—who fought for control of Eurasia from the 17th to the mid-18th century.

"By the end of this epic confrontation, an early version of the 'Great game,' only two empires were left standing. The Qing and Russians faced each other along an extended border … This binary division of Eurasia lasted until the collapse of the Soviet Union in 1991," he writes.

In "China Marches West," Perdue explores how the Qing were able to dominate Central Asia for so long. He shows how the Qing faced problems similar to other colonial empires, employing both repression and investment to control their vast, multicultural, multi-climatic realm.

Modern Beijing confronts problems similar to the Qing's with similar tools. As Perdue notes in his preface, the "imperial legacy of conquest still hangs heavy over the future of the Chinese nation-state."

Perdue, 55, began work on "China Marches" when he was in Beijing completing his first book, "Exhausting the Earth: State and Peasant in Hunan, 1500-1850 A.D." Hunan is the birthplace of Chinese Communist Party Chairman Mao Zedong, who founded the People's Republic in 1949 and ruled absolutely until his death in 1976.

"After normalization in 1979, I had access to very rich archival material in Beijing. I discovered precise records on military supplies, such as grain, during the Qing period. There were also wonderful documents in the Russian archives—literally transcribed conversations between Mongolian and Russian officials in which they passed along political news about China. This was exciting. I quickly saw I could do a survey or dig in and get the whole story," Perdue said.

The "whole story" is a 750-page volume that illustrates the Qing imperial saga with photographs from the 1920s and fine-arts quality reproductions of individual ruler's portraits, armies setting out from palaces and scenes of thronged victory banquets.

The text sustains the cinematic approach of Perdue's opening scene, bringing to life intricate military campaigns, religious conflicts and the role of medicine (the Qing developed inoculations against smallpox) and science.

The book is full of maps, and Perdue uses them to show how science and technology were used for imperial purposes.

A "radically simplified map of the northwest frontier shows only blank space beyond the Great Wall … the most troublesome area of conflict between the empire and Mongolian tribes … The atlas gives no hint that diverse peoples moved through the space it depicts, or that there were contested claims to the area," Perdue writes.

Later, he notes that the "imperial gaze" approach was common to the Qing maps of Central Asia and the British maps of India.

"The message of cartography was that 'this is an imperial space to be governed by us.' Both the Manchu and British conquerors shared the drive to create a comprehensive, abstracted vision of an imperial realm … even though it did not fit the features of the local terrain," Perdue writes.

Sections on state formation, the economic basis of empire, fixing frontiers and the legacies of the Qing provide structure and narrative to the book.

In the final section, Perdue moves his topic into the present with chapters on "Geopolitics and Emperor Worship," "Empires, Nations and Peoples" and "Rethinking the Qing in the World."

Noting that his book "demonstrates the continuity between empire and nation," Perdue outlines in his conclusion the long shadow cast by the Qing on contemporary Chinese politics and international relations.

The rise and fall of the Qing empire "may offer some guidance to Chinese interested in negotiating a new identity for their nation in the twenty-first century," he writes.

# International Development Forum set

MIT students and other members of the MIT community interested in international development are invited to the fourth annual International Development Forum and Fair this Thursday, Sept. 29, and Friday, Sept. 30.

The forum on Thursday, "Innovation Everywhere," will include a talk at 3:30 p.m. by Ray Kurzweil, CEO of Kurzweil Technologies Inc., on "How the Acceleration of Genetics, Nanotechnology and Robotics Will Create a Flat and Equitable World." At 4 p.m., a panel will discuss "Why the World Isn't Flat Enough." The forum, which will take place in Kresge Auditorium, is co-sponsored by the International Development Forum (IDF) and Technology Review.

The fair, which will take place Friday from 1-3 p.m. in Lobby 13, will feature representatives from more than 40 MIT academic programs and student groups who are doing development-related work, as well as student groups representing particular countries or cultures. Each group will have a table with a display where attendees can learn about the group, get to know the people involved and discover opportunities for participating.

Some of the groups at the IDF focus on a particular need in developing countries such as water, food, transportation or education. Others focus generally on human rights, economic analysis or the dynamics of globalization. Their work varies too, from offering public forums at MIT that raise awareness of issues to conducting research aimed at solving particular problems overseas.

The fair is co-sponsored by the Technology and Culture Forum at MIT, the MIT Public Service Center, the Edgerton Center, the Center for International Studies, the Graduate Student Council, the Division of Student Life, mitTechLink, Design That Matters, Bill '77 and Betsy Leitch and Peter Fiekowski '56.

For more information, contact the Technology and Culture Forum at x3-0108 or visit web.mit.edu/idf or web.mit.edu/tac.

All events are free and open to the public.

## AWARDS & HONORS

**Paul Joskow**, professor of economics, has been selected by the Association of Yale Alumni to receive the Yale Medal for 2005. Joskow was chosen for his many contributions to the Yale community, foremost among them his presidency for 12 years of the University Council and his associated roles on the honorary degree selection committee and the alumni fellow nominating committee for the Yale Corporation.

**Moe Win**, associate professor of aeronautics and astronautics, is a co-recipient of the Institute of Electrical and Electronics Engineers 2006 Eric E. Sumner Award for his contributions to ultra-wide band communications science and technology.

# ‘Genius grants’ go to 2 with MIT ties

A computer scientist specializing in mapping “six degrees of separation”-style links among people and a historian of modern American sound — both with ties to MIT — were among the 25 recipients of MacArthur Fellowships, known as “genius grants,” awarded last week. Each MacArthur Fellow receives $500,000.

Jon Kleinberg, a professor of computer science at Cornell, received the S.M. and Ph.D. degrees in computer science from MIT in 1994 and 1996, respectively.

Kleinberg works in the field of network theory. He is renowned for his analyses of how people are connected in “small worlds” and of how the web is more or less navigable for individuals according to the information structure of networks.

Kleinberg has also developed an algorithm for identifying the structure of web site interactions, making it possible to identify web-based communities of interest.

Emily Thompson was a senior fellow at the Dibner Institute in 2002-2003 and a visiting scholar in MIT’s Program in Science, Technology and Society in 2003-2004. She is an associate professor of history at the University of California at San Diego.

Thompson is a historian who integrates studies of science, sound and technology; she focuses on how American acoustics were transformed between the turn of the century and the opening of Radio City Music Hall in 1933.

The John D. and Catherine T. MacArthur Foundation in Chicago has awarded the fellowships since 1981 to persons and groups that “foster lasting improvement in the human condition.” Recipients may use the awards as they please, with no papers or reports required.

*— Sarah H. Wright*

# DINING

**Continued from Page 1**

grill and an Indian offering will open at Lobdell. Also in January, a Thai and noodle bowl restaurant will take the vacant Alpine Bagels spot in the student center.

Off the Infinite Corridor, the Building 4 Café has been redesigned by architecture graduate students Nicholas Senske and Scott Francisco, who also collaborated on the Steam Café in Building 7.

“We are trying to improve student life and culture,” said Senske. The Steam Café has been a very popular choice among students, faculty and staff, and the Building 4 Café is designed to build on that success. Though the food will be slightly different, the cafe will offer stew entrées similar to the ones served in Steam.

For Senske, working on Building 4 offered an opportunity to tackle real-life problems he will encounter throughout his career. “We had to work within the existing space while preserving the integrity,” he said.

> *We are trying to improve student life and culture.*
>
> **Nicholas Senske**
> Architecture graduate student

Senske and Francisco’s design opened up the ceiling and unblocked the window. The pair introduced hot pink countertops, black chalkboard walls, better lighting and a better general flow. Although they were not able to make all the changes they would have liked, Senske said he thought the changes significantly improve the space. “We really want to make a lasting change.”

On East Campus, the Pritchett Grill will reopen in mid-October as Pritchett Dining. The new dining hall will feature a grill, hot entrees, made-to-order stir-fry and a salad bar. Pritchett Dining will have two dining areas, one with couches and more of a lounge feel, and a more active space with televisions and a pool table.

“These are very much students’ ideas,” said Berlin.

Finally, there will be a cafe opening in the new brain and cognitive sciences complex, said Berlin.

“It is nice for people to be able to take a break and get together over a meal,” said Berlin. “We want to provide that for them.”

PHOTO / **DONNA COVENEY**

**Prize portrait**

Winners of the School of Science’s teaching prizes in undergraduate education pose with Dean Robert Silbey, second from left, after a ceremony held Friday, Sept. 23. From left are chemistry Professor Daniel Nocera, the W. M. Keck Professor of Energy; senior research scientist Sonal Jhaveri of brain and cognitive sciences (BCS); Assistant Professor Christopher Moore of BCS; and Assistant Professor James DiCarlo of BCS.

# Grad student wins Hatsopoulos prize

**Jay Chrepta**
Department of Mechanical Engineering

Mechanical engineering graduate student Chulmin Joo is the first recipient of the Hatsopoulos $50,000 Innovation and Thesis Award.

**Chulmin Joo**

The award is named for George Hatsopoulos, an MIT alumnus and entrepreneur whose doctoral thesis provided the basis for what is now a $2 billion high-tech firm. Hatsopoulos, who created the award this past February, announced the winner in July along with mechanical engineering department head Rohan Abeyaratne.

The prize is designed to recognize original research that leads to a patentable invention or innovation. Joo won for his original research that improves the method by which clinicians can view cells and molecules both clearly and accurately.

“MIT students, faculty and alumni have produced most of the best new ideas in engineering and technology during the past century, and it looks like that trend will continue into the next century,” said Hatsopoulos, commenting on many proposals reviewed for this first-ever honor.

More than 50 years ago, during his doctoral studies at MIT, Hatsopoulos hit upon the concept of transforming heat energy into electrical energy. The idea ultimately formed the basis for his company, Thermo Electron Corp. Rich in resourcefulness but, like any graduate student, poor in resources, Hatsopoulos persuaded the School of Engineering to invest seed money in his new idea. Shortly thereafter, an angel investor put up $50,000 to transform the subject of a doctoral thesis into a bricks-and-mortar enterprise.

Fifty years later, Chulmin Joo, a South Korean doctoral student who received his master’s degree in mechanical engineering two years ago, was able to convince a three-judge panel, which included Hatsopoulos, that his idea — officially titled “Spectral Domain Optical Coherence Reflectometry for Highly Sensitive and Selective Detection of Biological and Chemical Species” — is the next big thing.

# FACULTY

**Continued from Page 3**

hiring faculty “from a broader spectrum of society.”

In the new discussion session at the end of the meeting, faculty brought up a variety of issues, including whether MIT should reconsider its restriction on seeking earmarked federal funding for research; how to get more kids interested in and excited about science at the K-12 level; how to make MIT students “ambassadors” who spread the word about the value and integrity of the scientific method outside the Institute; ways that MIT can “push back” on federal policies that restrict non-U.S. graduate students’ access to information and technology in the name of national security; and MIT’s obligation, and opportunity, to help address the national problem of disintegrating infrastructure made apparent by Hurricane Katrina.

### Energy Research Council

The meeting included an update on the Energy Research Council (ERC), announced by Hockfield in the spring. Co-chair Ernest J. Moniz reported the council is on a fast track toward fulfilling its mission — recommending by February 2006 how MIT can change its image “from brown to green” and have a significant local and global impact on energy and the environment.

Through meetings with 90 faculty members and groups of students, the council is developing a picture of MIT energy-related research and expertise. “There’s a lot going on,” said Moniz, co-director of the Laboratory for Energy and the Environment. “We are developing a list of promising science and engineering research areas that match global needs and MIT capabilities.”

The council is planning to get industry input through an Industrial Liaison Program-organized workshop on Dec. 6 chaired by software executive and MIT benefactor Kenan Sahin. A series of seminars and colloquia are also planned (the first colloquium took place Sept. 22 to an overflow audience).

### Singapore-MIT Alliance

Professor Anthony A. Patera, co-director of the Singapore-MIT Alliance (SMA) gave the faculty an update on the newest incarnation of the program, “SMA-2.” The National University of Singapore (NUS), Nanyang Technological University of Singapore (NTU) and MIT have been working together since 1998 to achieve seamless instruction across 12 time zones.

In SMA-2, launched this academic year, master’s students apply separately to both MIT and to one of the two Singaporean partner universities; if independently admitted to both MIT and NUS/NTU, they are then eligible for an SMA fellowship that covers their tuition at both universities as well as travel costs and stipend.

Upon completing the regular degree requirements at both universities — including at least one semester in residence at MIT and an additional semester taking MIT courses delivered by interactive videoconferencing — these students earn two master’s degrees, one from MIT and one from NUS or NTU.

## CLASSIFIED ADS

**Members of the MIT community may submit one classified ad each issue. Ads can be resubmitted, but not two weeks in a row. Ads should be 30 words maximum; they will be edited. Submit by e-mail to ttads@mit.edu or mail to Classifieds, Rm 11-400. Deadline is noon Wednesday the week before publication.**

### HOUSING

Woburn 2BR house nr Lexington line. Spacious ranch LR w/ energy efficient woodstove & cath. ceiling, formal DR. Hrdwd floors, new roof, farmers porch. Basement w/ unheated family rm & exercise area. Garage & yard. $379,900. Call Jean Cullinane, 781-933-0005.

Private 2BR half duplex for rent in Bedford Center, avail. Nov. 1. LR w/ fireplace, hrdwd floors, yard, patio, garage, off-street parking. Refrigerator, washer/dryer, dishwasher, microwave. Pets possible. $1600/month, plus heat & utilities, first and last month’s rent. 508-430-8680 or conniegansss@comcast.net.

Farmhouse, Waldon VT, 4BR, 1.5 bath, c.1840 post/beam on 5+/- acres. $179K, www.joesbrook.com/bodo/ or 802-563-2120.

### VEHICLES

2001 Harley Davidson 1200 Custom Edition Sportster. Low mileage, well maintained, many extras. Very good looking/running bike. Deep burgundy sunglow. $5,999. Chicarello@psfc.mit.edu or 978-764-8331.

1997 Chrysler town and country minivan LX. 77K, V6 3.8 liter engine. Taupe w/ beige interior. Automatic transmission. Excellent condition. $5500. 617-253-0325 or jane@media.mit.edu.

1998 VW Jetta GLX, 52K, great condition, well-maintained, fun to drive. 6-cylinder standard transmission, luxury model, 6-CD sound system, sunroof, black w/ gray leather interior. $6800. 617-504-8396.

### FOR SALE

Used futon w/ frame in good condition, rarely used, $60/bst. Portable single size bed with cover, $15/bst. syhl@mit.edu or 617-969-4260.

55-gallon aquarium, Biowheel 330 filter system (currently functioning, to stay wet), 12 high-quality artificial plants, stand. On campus. No problems w/ equipment: wrong size for new office. $150. 253-1341 or thill@mit.edu.

Japanese style table lamp, light wood, $10; Holmes electric double fan for window use, $20; large yellow metal duck crossing sign for hanging, $15. cavril@mit.edu or 253-9411.

Estate sale: Pool table, foosball table, dining room set, upright freezer, Xmas tree w/ lights/decoration, fireplace screen & tools, piano & much more all priced to sell. Call Amy at 978-761-1729.

### LOST AND FOUND

Found: CD wallet on Mass Ave., in Arlington. E-mail hconroy@draper.com or call 781-643-9678 with a few of the CD names to verify it belongs to you.

### STUDENT POSITIONS

Positions for students with work-study eligibility

BELL afterschool program seeks tutors. Duties incl: ensure students’ academic/social development; tutor school aged children; serve as a mentor; develop scholars’ goals and lesson plans; select and implement appropriate behavior management tools. Req: passion for working w/ urban elementary school children, HS diploma, strong behavior management skills, at least 1 yr classroom teaching or childcare exp. $10/hr. Apply at www.bellboston.org.

Math tutors to work w/ students who failed MCAS exam at Cambridge HS Extension Program. Up to 6 hours of tutoring and 2 hours of reflecting/planning per week. See www.readingmd.org. Req: passion for working w/ Cambridge youth, adherence to strict professional standards. Training and curriculum guidance provided, curriculum can be adapted to student needs. $16/hr. mdestler@cpsd.us.

## ARTS NEWS

### 'Hope' is a hippo

**Jennifer Allora**, who received her degree from the Visual Arts Program in 2003, and her artistic partner, Guillermo Calzadilla, are among the 49 artists presenting works in the 51st Annual Venice Biennale's "Always a Little Further" exhibition. "Hope," their life-sized clay hippopotamus with a person sitting on top reading and occasionally blowing a whistle, is installed in the Arsenale district of warehouses and shipyards. The Biennale continues through Nov. 6.

### A musical 'Adventure'

"Ensemblance," a composition by Professor **Peter Child** of the music and theater arts section, will be featured in "Cybersonic Adventures," Boston Musica Viva's Oct. 7 concert. The concert is billed as "a visit to the crossroads of live performance and prerecorded work." The 8 p.m. concert will be held at the Tsai Performance Center at Boston University (685 Commonwealth Ave.). Tickets cost $22, $18 for seniors/WGBH members, $12 for students.

### Vocal Band Aid concert

MIT graduate students **Liz Baraff** (brain and cognitive sciences) and **Mike King** (mechanical engineering) are continuing an effort to raise funds for music education programs in Greater Boston schools. Vocal Band Aid, a benefit concert featuring local and national bands, will be held Saturday, Oct. 8, at 7:30 p.m. at the Somerville Theater in Davis Square.

Last year's inaugural concert raised more than $5,000 for teaching materials and instruments for Everett and Boston schools. Baraff and King are members of the band Integration by Parts, which is hosting the event; the concert will also feature the groups M-Pact, Vote for Pedro, Similar Jones and Downtown Crossing.

Tickets ($25) are available in person through the Somerville Theater box office, (617) 625-4088 or, for an additional fee, through Ticketmaster (www.ticketmaster.com). For more information, call (617) 251-8410 or e-mail info@vocalbandaid.org or see www.vocalbandaid.org.

### Lecturer performs in NYC

Visual arts program lecturer **Pia Lindman** (S.M. 1999) participated in New York City's "What Comes After: Cities, Art and Recovery," an international summit focusing on arts and culture after catastrophe, organized by the Lower Manhattan Cultural Council. The summit took place Sept. 8-11.

For her "The New York Times Performance," Lindman re-enacted gestures of grieving collected from the pages of The New York Times. Lindman will also perform the piece in Helsinki (Oct. 15-Nov. 6), New York City's Battery Park (Oct. 30), at the Vera List Center for Art and Politics in New York (Nov. 12) and at Artists Space in New York (Dec. 6).

# MIT to air works for flute

**Lynn Heinemann**
Office of the Arts

Some of Boston's finest classical musicians will be at MIT this weekend performing works by some of MIT's finest composers. But the real star will be the flute.

"Flutings and Floatings," a concert this Sunday, Oct. 2, at 7:30 p.m. in Killian Hall, will feature Sue-Ellen Hershman-Tcherepnin, one of Boston's most active and prominent flute soloists.

Hershman-Tcherepnin, a founding member and flutist of Pro Arte Chamber Orchestra of Boston, will be joined by Lynn Chang, violin; Anne Black, viola; Joshua Gordon, cello; Robert Schulz, percussion; and Yukiko Ueno, piano.

The program will feature MIT Professor Peter Child's 1979 duo for flute and percussion; lecturer Elena Ruehr's "Law of Floating Objects" for flute and electronics (2000); Assistant Professor Brian Robison's "Cat's Cradle" for piccolo and percussion (1995); lecturer Fred Harris' "A Tern's Flight" for solo flute (1997); and Institute Professor John Harbison's "Six American Painters" for flute, violin, viola and cello (2002).

MIT composers have varying affinities for the flute. Ruehr has made a personal study of the instrument, having played it intensively between the ages of 8 and 20. Robison admits he's actually not fond of the flute; he wrote his piece to fill a programming need of a composer friend whose wife is a flutist.

Ruehr's original idea for "Law of Floating Objects" was to write a piece for flute, drums and prerecorded bird songs. Before composing, she studied bird songs through the use of computer-aided digital sound analysis. "The fluid, chaotic melodic phrases and rhythmic structures in 'The Law of Floating Objects' reflect the influence of bird songs, although I don't use the original bird songs in the piece," she says.

Hershman-Tcherepnin

When Fred Harris composed his "A Tern's Flight," he too was inspired by birds. "Watching terns fish, using acrobatic ability to hover and then plunge, diving head first at a moment's notice, is a great treat," he said, calling it a "frenetic yet graceful dance."

Robison's composition has less airy roots, composed for three specific instrumentalists, on piccolo, drums and piano. "I banged out the piece in about three weeks," says Robison, wryly commenting that it turned out to be as good as, if not better than, pieces written at a more deliberate pace.

Child also composed his work for specific musicians, a couple that broke up before the piece even premiered. "Amor brevis, ars longa," Child said ("Love is fleeing, art endures").

Harbison's "Six American Painters" is a tribute to the American painters George Caleb Bingham, Thomas Eakins, Martin Johnson Heade, Winslow Homer, Hans Hoffmann and Richard Diebenkorn, inspired by specific paintings in the Metropolitan Museum of Art in New York City. "I wanted to find an instrumental combination that would draw, or graphically trace, these kinds of linear issues. So that's how I hit on the combination of flute and strings," Harbison said. "I associated the flute with gesture, with a graphic impulse."

Hershman-Tcherepnin received her undergraduate degree from Boston University and a Master of Music degree from the State University of New York at Stony Brook. She has performed with many Boston-area ensembles. With pianist David Witten, she frequently performs around the world as a member of Dúo Clásico.

Since 1985 she has been flutist with Dinosaur Annex Contemporary Music Ensemble, and was appointed co-artistic director of Dinosaur Annex in 2002. She has also taught at South Shore Conservatory (Hingham, Mass.), New School of Music (Cambridge, Mass.), New England Conservatory Preparatory Division, and at MIT since 1991.

For more information, call x3-9800.

PHOTO COURTESY / **ACCONCI STUDIOS**

Vito Acconci's Instant House is a self-erecting architectural unit consisting of flags, wood, cables and pulleys. Acconci will speak at MIT next week.

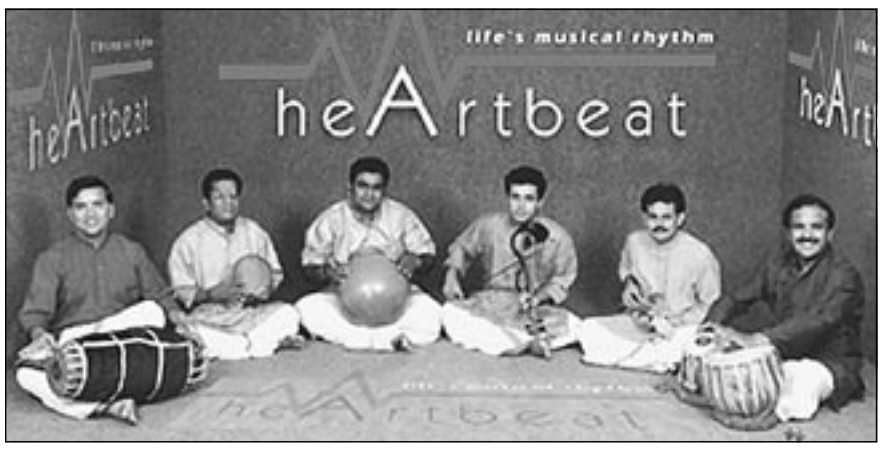
# CAVS artist's presentations begin next week

Acconci Studio founder Vito Acconci, one of America's foremost conceptual artists, will give this year's first Center for Advanced Visual Studies (CAVS) artist's presentation on Tuesday, Oct. 4, at 6:30 p.m. in Room N52-390.

Acconci, who began as a poet in the early 1960s, started in the mid-1970s producing audio and video installations that turned exhibition spaces into community meeting places. More recently, he has been creating large-scale architectural projects.

Acconci's latest projects explore the difference between public and private space and seek to invent a new kind of architecture that is fluid, changeable and portable. At the CAVS, he and contributing members of Acconci Studio, a theoretical design and building workshop he formed in 1988, will talk about how they work and discuss several upcoming projects, in a rare appearance as a group.

Subsequent CAVS presentations this fall will be made by Canadian artist Christina Mackie (Oct. 25) and the Danish artists' group N55 (Nov. 15).




### MITHAS' fall season in full swing

HeArtbeat Ensemble, a group of six South Indian classical musicians, will headline the third concert of the season offered by MIT Heritage of South Asia (MITHAS). HeArtbeat Ensemble performs Carnatic music in an ensemble-style presentation. The concert will take place on Saturday, Oct. 1, at 7 p.m. in Kresge Auditorium. Tickets are $25-$50 and are available at the door or at www.sulekha.com/mithas. Other upcoming MITHAS concerts include vocalist Aruna Sairam, known for her interpretations of light classical music and for her fusion concerts with western and Indian artists, on Oct. 23; and violin duo Ganesh and Kumaresh on Nov. 20.

# Violist Thompson celebrates Mozart

Internationally acclaimed violist Marcus Thompson will perform at MIT with six of the world's finest string ensembles in a two-year series of concerts planned to commemorate the 250th anniversary of Mozart's birth in 1756.

The Guest Artist Series of free concerts, to be held in Kresge Auditorium, will begin with the St. Petersburg String Quartet on Sept. 30 at 8 p.m., performing Mozart's Quintet in B flat, K.174 with Thompson. The concert will also include Shostakovich's Quartet No. 8 in C minor, Op. 110 and Dvorak's Quartet in F major, Op. 96 ("American").

Marcus Thompson

Thompson, the Robert R. Taylor Professor of Music at MIT, has appeared throughout the Americas, Europe and the Far East. He performed the West Coast premiere of Institute Professor John Harbison's Viola Concerto with the Los Angeles Chamber Orchestra; the Chicago premiere with the Chicago Sinfonietta; and the Boston premiere with the New England Conservatory Honors Orchestra.

Born and raised in the Bronx, Thompson earned his doctorate degree at the Juilliard School. At MIT, he heads programs in chamber music and performance studies. He is also a member of the viola faculty at the New England Conservatory of Music and violist in the Boston Chamber Music Society.

The 2005-06 MIT Guest Artist Series will also feature Thompson with the Endellion String Quartet (Oct. 28) and the Biava String Quartet (Feb. 17).

In 2006-07, the series will feature Thompson with the Jupiter String Quartet, the Vogler String Quartet, and a third quartet still to be announced.

The Guest Artist Series is presented by MIT's Music and Theater Arts Section. For more information, call x3-9800.

## MIT EVENT HIGHLIGHTS SEPTEMBER 28-OCTOBER 2

Science/ Technology · Performance · Architecture/ Planning · Humanities
Music · Exhibit · Reading · Special Interest
Business/ Money · Film · Sports · Featured Event

### Virtual fish

Iquarium is an interactive virtual aquarium designed by three MIT students to illustrate the hydrodynamics of swimming fish. On display at the Hart Nautical Gallery, 8 a.m. to 9 p.m. daily.

**WEDNESDAY**
September 28

**"Europe and the Future of American Grand Strategy"**
Talk by James McAllister of Williams College. Noon. Room E38-615. 253-7529.

**"Land of the Settlers"**
Israeli TV journalist Chaim Yavin talks about his controversial documentary. 2-3 p.m. Room E38-615. 253-8306.

**A.D. Little Lecture in Physical Chemistry**
Talk by Lou Brus of Columbia University. 4 p.m. Room 6-120. 253-1803.

**Depression Screening Day**
Talk by health educator Zan Barry. 4–7 p.m. Bush Room. 253-3646.

**THURSDAY**
September 29

**Islamic Information Table**
Free information about Islam and students on hand to answer any questions.10 a.m.–5 p.m. W20. Thursdays through Dec. 8.

**"Innovation Everywhere"**
Talk by Ray Kurzweil, chairman and CEO, Kurzweil Technologies, Inc. 3:30-5 p.m. W16. 253-0108.

**Varsity Women's Tennis vs. Tufts University**
4 p.m. Du Pont tennis courts/JB Carr tennis bubble. 258-5265.

**"Real Deal - Lessons Learned"**
Session exploring real estate transactions that went astray. 5 p.m. Room W31-301. 253-4373.

**FRIDAY**
September 30

**MIT Chemical Oceanography Seminar**
Talk by Marco Coolen. 3-4 p.m. Room E34-430.

**Derby Days 2005 Casino Night**
High-class casino night featuring blackjack, poker, roulette, live music and food. 7 p.m. Johnson Athletic Center.

**Natyanjali**
MIT Natya's annual program showcases the variety and beauty of traditional classical Indian dance. $7, $5 with MIT ID. 7:30 p.m. Kresge Little Theater.

**St. Petersburg String Quartet**
Mozart's Quintet in B flat with Professor Marcus Thompson, viola. 8 p.m. Kresge Auditorium. 253-9800.

**SATURDAY**
October 1

**Videos by Christian Jankowski**
Presented in conjunction with "Everything Fell Together," German artist Christian Jankowski's first major museum retrospective at the List Visual Arts Center. 24 hours. Media Test Wall, Whitaker Building 56. 253-4400.

**Derby Days 2005 Competition**
BBQ at Kresge, followed by competition at Kresge Oval. Noon.

**MITHAS Concert**
HeARTbeat (Indian classical ensemble). Presented by MITHAS (MIT Heritage of South Asia) in cooperation with Sangam. $50, $35 and $25. 7:30 p.m. Kresge Auditorium. 258-7971.

**SUNDAY**
October 2

**"Tu eres mi colonia"**
Video and photography installation by Luis Berrios-Negrón (G), first-prize winner of the 2005 Schnitzer Prize in the Visual Arts. 24 hours. Wiesner Student Art Gallery 253-7019.

**"Mind & Hand: The Making of MIT Scientists & Engineers"**
MIT Museum exhibit. Noon-5 p.m. MIT Museum. 253-4444.

**"Iquarium"**
A virtual fluid flow display. 9 a.m.-8 p.m. Hart Nautical Gallery. 253-5942.

**"MIT Flutings & Floatings": Flute Music by MIT Composers**
Sue-Ellen Hershman-Tcherepnin, flute and guest musicians perform Peter Child's Duo for flute and percussion. 7:30 p.m. Killian Hall. 253-9800.

**Go Online!** For complete events listings, see the MIT Events Calendar at: http://events.mit.edu.
**Go Online!** Office of the Arts website at: http://web.mit.edu/arts/office.

## EDITOR'S CHOICE

"BUSTING VEGAS"
*Sept. 28*
Ben Mezrich, author of "Bringing Down the House," and MIT blackjack whiz Semyon Dukach discuss their new book.
**Room 10-250**
**7-10 p.m.**

DERBY DAYS 2005 KICKOFF
*Sept. 29*
Kickoff for Derby Days 2005, including performing groups from MIT and Wellesley, proceeds to the Children's Miracle Network.
**Room 54-100**
**7-9 p.m.**

INTERNATIONAL DEVELOPMENT FAIR
*Sept. 30*
Representatives from more than 40 MIT groups doing development-related work.
**Lobby 13**
**1-3 p.m.**

## MIT EVENT HIGHLIGHTS OCTOBER 3-9

**MONDAY**
October 3

**"Architecture and Revolution in Cuba: 1959-1969"**
Exhibit focusing on a few of Cuba's state building projects from the first decade of the Revolution. 9 a.m.-5 p.m. Room 7-338. 258-9106.

**Rotating selection of videos by Christian Jankowski**
German artist Christian Jankowski's first major museum retrospective at the List Visual Arts Center. 24 hours. Media Test Wall, Whitaker Building 56. 253-4400.

**Kokikai Aikido**
Japanese martial art that teaches coordination of mind and body through the practice of effective self-defense techniques. 7:15-9 p.m. DuPont Wrestling Room. 253-0772.

**TUESDAY**
October 4

**CAVS Artist's Presentation: Acconci Studio**
Acconci Studio founder Vito Acconci joins contributing members of Acconci Studio to talk about their work. 6:30 p.m. Room N52-390. 452-2484.

**8th Annual Page Hazlegrove Lecture on Glass Art**
Talk by Larry Bell. 7 p.m. Wong Auditorium. 253-5309.

**"Le Grand Voyage"**
Film and discussion with director Ismaël Ferroukhi. 7 p.m. Room 26-100. 253-4771.

**Chicks Make Flicks: Maria Agui Carter**
Discussion follows screening of "The Devil's Music," a historical documentary about the early censorship of jazz music. 7:30 p.m. Room 6-120. 253-8844.

**WEDNESDAY**
October 5

**"Tu eres mi colonia"**
Video and photography installation by Luis Berrios-Negrón. 24 hours. Wiesner Student Art Gallery. 253-7019.

**"Scientific Settings: Photos of MIT Labs"**
Photographs by Scott Globus, MIT Class of 1984, taken during the early 1980s. 9:30 a.m.-5 p.m. Room 10-150. 253-4444.

**EAPS Victor Starr Memorial Lecture**
Professor Friedrich Schott of the University of Kiel (Germany) talks about "Tropical-Subtropical Interactions in the Oceans." 4–5:30 p.m. Wong Auditorium. 253-2281.

**Mind & Body Relaxation Techniques**
Talk by Chi-Sung Hung. 7-9 p.m. Simmons Hall. 324-6030.

**THURSDAY**
October 6

**MIT Chapel Concert**
Lexington Symphonietta Chamber Players. Noon. Chapel. 253-9800.

**"The European Security and Defence Project: What It Probably Is and What It Certainly Is Not"**
Talk by Jolyon Howorth. Noon. Room E38-615. 253-7529.

**The Picower Lecture**
Talk by Josh Sanes. 4 p.m. Room E25-111.452-2485.

**Writer's Series: Haruki Murakami**
Reading by Haruki Murakami, Japanese writer and translator. 7 p.m. Room 10-250. 253-7894.

**First Rehearsal for MIT Women's Chorale**
All women in the MIT community are welcome to join. 7:45-10 p.m. Room 10-340. 484-8187.

**FRIDAY**
October 7

**"Moscow Does Not Believe in Tears / Moskva Slezam ne Verit"**
Film made in USSR, 1980. 6 p.m. Room 3-133. 258-8438.

**Bench Press Competition**
7-9 p.m. Z-Center, MAC court. 258-9643.

**MIT Anime Club Weekly Showing**
MIT Anime Club shows the best of recent and classic Japanese animation. 7 p.m. Room 6-120.

**"Wait Until Dark"**
LSC Fall 2005 Classic Film Series. $3. 10:30 p.m. Room 10-250. 253-3791.

**SATURDAY**
October 8

**Introduction to Self Defense**
Jiu-Jitsu class covering basic self-defense skills: joint-locks, submission holds, throws, strikes, weapons, ground-defense and weapons defense. 3-5 p.m. DuPont Wrestling Room.

**Malaysian Mamak Night**
Dinner of traditional hawker-style food, including roti canai and teh tarik. 6:30-8:30 p.m. Next House Dining. 253-9737.

**"Saving Face"**
LSC Fall 2005 Film Series. 7 p.m. Room 26-100. 253-3791.

**Ballroom Social Dance (participatory)**
Evening of social dancing including ballroom and Latin dances, along with favorites such as salsa, hustle and merengue. $10, $6 students. Beginners 7:30 p.m., non-beginners 8 p.m.. Lobby 13.

**SUNDAY**
October 9

**Varsity Sailing - Metro Series Five**
9 a.m. Charles River. 258-5265.

**"War of the Worlds"**
LSC Fall 2005 Film Series. 7 p.m. Room 26-100. 253-3791.

**International Folk Dancing**
8–11 p.m. Lobdell Dining Hall. 253-FOLK.