Volume 49 – Number 24
Wednesday – April 13, 2005

TechTalk
SERVING THE MIT COMMUNITY

Telecom leader to speak at Commencement

Denise Brehm
News Office

Irwin M. Jacobs, a leader in the wireless telecommunications industry and a staunch advocate for improving math and science education in the United States, will give the Commencement address at MIT's graduation ceremony on Friday, June 3. Jacobs is an MIT alumnus (S.M. 1957 and Sc.D. 1959) and former faculty member in electrical engineering (1959-1966).

Jacobs is co-founder, chairman and CEO of Qualcomm Inc. He is known as an innovative entrepreneur and engineer who places high value on research. Qualcomm holds nearly 1,400 patents and has more than 2,000 patents pending; the San Diego-based company has been compared to a think-tank with thousands of employees. Its digital wireless communications technology (CDMA—Code Division Multiple Access) is among the most widely used in the world.

"The extraordinary technological contributions of Irwin Jacobs have transformed global telecommunications. Dr. Jacobs' career, which began with graduate study and a first faculty position at MIT, has changed countless lives, not only through invention and entrepreneurship, but also through remarkable support of secondary math and science education, and of the arts," said MIT President Susan Hockfield. "We are honored and delighted that he is returning to MIT to inspire our graduates and their families, and to share his unique perspective on technology and education."

Jacobs and his wife, Joan, have made significant contributions to science and math education and the arts through their philanthropic work. The engineering school at the University of California at San Diego is named after them—The Jacobs School of Engineering—and last year, Qualcomm and the Jacobs made a $14.5 million gift to San Diego State University to establish the Qualcomm Institute of Innovation and Educational Success and to help launch the National Center for Urban School Transformation at SDSU. These two institutions aim to make the United States more competitive in math and science through improving education in all grades, kindergarten through graduate school. The Jacobs have made generous contributions to the La Jolla Playhouse and the San Diego Symphony as well.

Their son, Gary, has taken on the mantle of math and science education as well. He was involved in establishing and funding High Tech High, an innovative school in San Diego where students spend much of their time working on

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Irwin M. Jacobs

PHOTO / **DONNA COVENEY**

Spring transforms campus

Biology senior Jerry Chao takes his studying out into the sunshine last week.

$20M project entrusts MIT with future of computing

MIT has teamed up with Quanta Computer Inc. on a five-year, $20 million joint research project designed to change the way people interact with technology.

Project TParty, announced on Friday, April 8, will address the complexity of today's computing landscape. Whereas people currently have to maintain a wide array of "smart" devices—from cell phones to computers to personal digital assistants—on their own, TParty is intended to move such work into the background, making such computing tasks as upgrades and backups more or less invisible to the user.

MIT President Susan Hockfield commented, "I am delighted that MIT and Quanta are collaborating in this ambitious initiative, which has tremendous implications for the future of personal computing. This partnership builds on MIT's long tradition of technological innovation and creative interaction with industry to address issues that are increasingly important to all of us in the digital age."

The work means creating the next generation of platforms for computing and communication. TParty will require reengineering and an extension of the underlying technical infrastructure, the creation of new interfaces and the exploration of new ways of managing and accessing information.

The partnership pairs the huge brain trust of MIT with the practical skills of the world's largest maker of laptop computers.

"We strongly believe that the best value for our research partners is achieved when we work together," said Professor Rodney Brooks, Director of the MIT Computer Science and Artificial Intelligence Laboratory (CSAIL), the MIT laboratory that will house TParty. "Together Quanta and CSAIL will establish a team and work toward a new world of self-organizing devices that will make our lives more pleasant and productive."

Mr. Barry Lam, Chairman and Chief Executive Officer of Quanta, said at the signing ceremony in Taipei, Taiwan: "We are very pleased to team up with the renowned research institution, MIT, to embark on a new IT trendsetting endeavor. Combining the exceptional research resources of MIT with the world-leading innovative design and manufacturing engine of Quanta, we are excited about the prospects of bringing brand-new products and services to the world that will improve all of our lives and cultures."

Lacing up for 24,795-Smoot race

Sarah H. Wright
News Office

If you're planning to attend the Boston Marathon on Monday, be sure to give a shout out to the many members of the MIT community participating in the race.

Thanks to "Smoot Smart," MIT's web site for members of the Institute community involved in the Marathon, you'll know whose names to yell.

"Smoot Smart" went live on March 30 and within days, MIT runners, fans and family members had shared their enthusiasm for the 26.2-mile (or 24,795-Smoot) race from Hopkinton to Boston in which 20,000 people will compete.

"Smoot Smart," named after the MIT measurement derived from an old fraternity prank, now contains dozens of stories from MIT marathoners, from first-timers to veterans, from students to alumni.

Some first-timers, like Michelle Tiu, a senior in management, were surprised to be running at all. Tiu's original intent was to support her friends. She would run alongside them for five miles, no more.

But, true to the MIT spirit, she got

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NEWS

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Four earn place in Time

Sarah H. Wright
News Office

Three men and one woman with ties to MIT were among the 100 most influential people in the world last year, according to Time magazine.

"The Time 100: The 2004 Most Influential People in the World," which will appear on newsstands on Tuesday, April 19, cites Kofi Annan (S.M. 1972), secretary general of the United Nations and Nobel Peace Prize winner in 2001; Eric Lander, professor of biology at MIT and founding director of the Broad Institute; Carly Fiorina (S.M. 1989), former chairman and chief executive officer of Hewlett-Packard; and Frank Gehry, the visionary architect who designed MIT's Ray and Maria Stata Center for Computer, Information and Intelligence Sciences.

Eric Lander

Carly Fiorina

Kofi Annan

Frank Gehry

All four will be honored at a dinner party at the Time Warner Center in New York City on April 19.

The 2004 Time 100 profiles 84 men and 22 women who "shape world events," according to the editors. Some, like George W. Bush, "came to their status by means of a very public possession of power." Others, like Fidelity's Abigail Johnson, are "rarely heard from in public, but have a real influence on the great events of our time." Still others on the list "affect our lives by their moral example," such as Nelson Mandela, the Time editors note.

Annan, 67, one of 22 "Leaders and Revolutionaries" on the Time 100 list, became U.N. secretary general in 1997. The 2001 Nobel Committee described Annan's U.N. leadership as "pre-eminent in bringing new life to the organization," by emphasizing the U.N.'s obligations to protecting human rights; to meeting such new challenges as HIV/AIDS and international terrorism, and to efficient use of its resources. Among Annan's peers in world influence, according to Time, are Bill Gates and Pope John Paul II.

Lander, 48, is founding director of the Broad Institute of MIT and Harvard and a popular professor of biology at MIT. A MacArthur "genius" award winner in 1987, he achieved world renown for his leadership role in the Human Genome Project, which completed sequencing of the human genome in 2003. Lander appears on the Time 100 list of "Scientists and Thinkers," which includes U.S. Supreme Court Justice Sandra Day O'Connor and Steven Pinker, former MIT professor of psychology. Tim Berners-Lee, CSAIL senior research scientist and inventor of the World Wide Web, was a 1999 Time honoree in this category.

Fiorina, 51, served as chairman and chief executive officer of Hewlett-Packard Co., from July 1999 to February 2005. A member of the MIT Corporation, Fiorina sits on the New York Stock Exchange and wields influence among such "Builders and Titans" as investment guru Warren Buffet, media mogul Rupert Murdoch and Apple CEO Steve Jobs, according to Time. Fiorina was the 2000 MIT commencement speaker.

Architect Gehry, 76, is the 1989 Pritzker Prize winner known worldwide for his adventurous, often controversial buildings such as the titanium-clad Guggenheim Museum in Bilbao, Spain. He joins producer Jerry Bruckheimer, actor Sean Penn and Harry Potter author J.K. Rowling on the influential "Artists and Entertainers" list for 2004.

PHOTO / **DONNA COVENEY**

Workers begin paving a section of Massachusetts Avenue between Vassar and Albany streets on Friday, April 8.

Facilities offers construction update

As part of the continuing reconstruction of Massachusetts Avenue, Roads Corp. is working this week to remove 19 trees adjacent to the sidewalk, the Department of Facilities reported on April 11.

Many of the targeted trees have suffered damage from trucks, road salt and years of being overshadowed by larger trees, trees that are healthy enough will be transplanted, the department reported. When the new sidewalks are installed next fall, 100 pin oak trees will be planted along Massachusetts Avenue from Memorial Drive to Lafeyette Square.

The project is not expected to affect MIT trees or landscaping.

Meanwhile, Vassar Street traffic will be affected by utility work over the next three weeks, the department reported. Vehicles will be restricted to one lane at times during work hours, between 7 a.m. and 3 p.m., but a police officer will be on duty.

For more information on construction on or around campus, visit the Department of Facilities web site at web.mit.edu/evolving/updates.shtml.

DIGITALK: WHERE IT'S AT

Change passwords online

IS&T recommends that members of the community practice good personal IT security by changing passwords regularly. IS&T recently released a web-based service to change Kerberos passwords, available from web.mit.edu/accounts/www/password.html. Kerberos passwords are used to access @mit.edu email accounts, create MIT web certificates, log into Athena or WinAthena, and access such web services as TechTime.

Changing passwords regularly limits the amount of time an intruder has to guess your current password, while also limiting how long a compromised password could be used. It is also important to select a good password: one that is easy for you to remember, but that people who know you could not easily guess. Strategies include creating a long password (at least eight characters), mixing numbers and punctuation into uppercase and lowercase letters, and misspelling common words or phrases.

IS&T User Accounts provides support to MIT users who need to change passwords. Reach them at accounts@mit.edu.

Back it up with TSM

TSM is MIT's enterprise data backup and restoration software. Backing up the contents of your computer to a secure network server lets you restore data in case of error or computer failure.

TSM 5.2.3 for Windows and Macintosh includes minor bug fixes and, for the Macintosh, encryption and improved scheduled backups—two features already available to Windows users. With the TSM scheduler installed, scheduled backups will run whether or not the user is logged in. (Your computer does need to be turned on, though!) Encryption keeps your data secure during transmission over the network. If you opt to use encryption, it is critical that you keep a copy of the key (equivalent to a password) in a safe location, such as on removable media or another computer. Without the key, you won't be able to restore your data.

To learn more about this fee-based backup service, search with the keyword "backup" from the MIT home page.

MIT hosts SAP conference

MIT and SAP hosted the annual SAP Higher Education and Research User Group (HERUG) Conference at the Stata Center in March. The mission of the HERUG is to foster the development and more effective delivery of SAP functionality to the higher education and research community. Membership in the SAP HERUG is open to all degree-granting higher education and research institutions that are SAP customers with signed contracts for one or more R/2 or R/3 software modules.

A full program of SAP topics was offered, as well as events to encourage attendees to network with colleagues from around the world. Eighteen sessions were held with 113 participants from 13 countries. For more information on the HERUG Conference, go to web.mit.edu/her/MIT05/.

Tech directions for higher ed

The 2005 Horizon Report highlights six technology areas that may become very important to higher education over the next one to five years. These range from intelligent searching to augmented reality. IS&T's Phil Long, who contributed to the report, is the chair of the 2006 Horizon Project Board—a collaboration between the New Media Centers, the National Learning Infrastructure Initiative and Educause. For a PDF version of the report, go to www.nmc.org/projects/.

Digitalk is compiled by Information Services and Technology.

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Office of the Arts
http://web.mit.edu/arts

Printed on recycled paper

Publisher
Arthur Jones

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Kathryn O'Neill

Photojournalist
Donna Coveney

Production
Roger Donaghy

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Tech Talk is published by the News Office on Wednesdays during term time except for most Monday holiday weeks. See Production Schedule at http://web.mit.edu/newsoffice/techtalk-info.html. The News Office is in Room 11-400, Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, MA, 02139-4307.

Postmaster: Send address changes to Mail Services, Building WW15, Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, MA 02139-4307.

Subscribers may call 617-252-1550 or send e-mail to mailsvc@mit.edu.

TechTalk is distributed free to faculty and staff offices and residence halls. It is also available free in the News Office and the Information Center.

Domestic mail subscriptions are $25 per year, non-refundable. Checks should be made payable to MIT and mailed to Business Manager, Room 11-400, MIT, 77 Massachusetts Avenue, Cambridge, MA 02139-4307.

Periodical postage paid at Boston, MA.

Scale weighs in on risk of asteroid impact

Elizabeth A. Thomson
News Office

Astronomers led by an MIT professor have revised the scale used to assess the threat of asteroids and comets colliding with Earth to better communicate those risks with the public.

The overall goal is to provide easy-to-understand information to assuage concerns about a potential doomsday collision with our planet.

The Torino scale, a risk-assessment system similar to the Richter scale used for earthquakes, was adopted by a working group of the International Astronomical Union (IAU) in 1999 at a meeting in Torino, Italy. On the scale, zero means virtually no chance of collision, while 10 means certain global catastrophe.

"The idea was to create a simple system conveying clear, consistent information about near-Earth objects [NEOs]," or asteroids and comets that appear to be heading toward the planet, said Richard Binzel, a professor in MIT's Department of Earth, Atmospheric and Planetary Sciences and the creator of the scale.

Some critics, however, said that the original Torino scale was actually scaring people, "the opposite of what was intended," said Binzel. Hence the revisions.

"For a newly discovered NEO, the revised scale still ranks the impact hazard from 0 to 10, and the calculations that determine the hazard level are still exactly the same," Binzel said. The difference is that the wording for each category now better describes the attention or response merited for each.

For example, in the original scale NEOs of level 2-4 were described as "meriting concern." The revised scale describes objects with those rankings as "meriting attention by astronomers"—not necessarily the public.

Equally important in the revisions, says Binzel, "is the emphasis on how continued tracking of an object is almost always likely to reduce the hazard level to 0, once sufficient data are obtained." The general process of classifying NEO hazards is roughly analogous to hurricane forecasting. Predictions of a storm's path are updated as more and more tracking data are collected.

According to Dr. Donald K. Yeomans, manager of NASA's Near Earth Object Program Office, "The revisions in the Torino Scale should go a long way toward assuring the public that while we cannot always immediately rule out Earth impacts for recently discovered near-Earth objects, additional observations will almost certainly allow us to do so."

The highest Torino level ever given an asteroid was a 4 last December, with a 2 percent chance of hitting Earth in 2029. And after extended tracking of the asteroid's orbit, it was reclassified to level 0, effectively no chance of collision, "the outcome correctly emphasized by level 4 as being most likely," Binzel said.

"It is just a matter of the scale becoming more well known and understood. Just as there is little or no reason for public concern over a magnitude 3 earthquake, there is little cause for public attention for NEO close encounters having low values on the Torino scale." He notes that an object must reach level 8 on the scale before there is a certainty of an impact capable of causing even localized destruction.

The Torino scale was developed because astronomers are spotting more and more NEOs through projects like the Lincoln Near Earth Asteroid Research project at MIT's Lincoln Laboratory. "There's no increase in the number of asteroids out there or how frequently they encounter our planet. What's changed is our awareness of them," Binzel notes.

As a result, astronomers debated whether they should keep potential NEO collisions secret or "be completely open with what we know when we know it," Binzel said. The IAU working group, of which Binzel is secretary, resoundingly decided on the latter.

The revised wording of the scale was published last fall in a chapter of "Mitigation of Hazardous Comets and Asteroids" (Cambridge University Press). The revisions were undertaken through consultation with astronomers worldwide for nearly a year before being published.

Binzel concludes that "the chance of something hitting the Earth and having a major impact is very unlikely. But although unlikely, it is still not impossible. The only way to be certain of no asteroid impacts in the forecast is to keep looking."

For more information on the revised Torino scale go to: neo.jpl.nasa.gov/torino_scale.html.

PHOTO / **JUSTIN KNIGHT**

Professor James Gustave Speth, dean of Yale University's School of Forestry and Environmental Studies, addresses the crowd during the inaugural MIT Environmental Fellows Invitational Lecture on April 6.

Speaker presses case for climate

Nancy Stauffer
Laboratory for Energy and the Environment

Global warming is real, dangerous and ignored at great risk to the planet, a leading environmentalist told an audience of about 250 at last week's inaugural MIT Environmental Fellows Invitational Lecture.

Professor James Gustave Speth, dean of Yale University's School of Forestry and Environmental Studies, urged the scientific community to make its case to the public, which remains unconvinced of the crisis despite decades of first-rate science and policy analysis, he said.

Temperatures at the Arctic are already climbing, and there will be "irreparable damage in the decades ahead due to our negligence" in addressing climate change. U.S. policy makers and citizens must be spurred into action, Speth said in his talk, "Some Say by Fire: Climate Change and the American Response," held Wednesday, April 6.

"If I had a hundred million dollars," Speth said, "I think I'd put almost every penny of it into a public service advertising campaign…because we've got to reach lots of people quickly with this issue."

Speth is a founder of the World Resources Institute, co-founder of the Natural Resources Defense Council and former advisor to Presidents Carter and Clinton. His lecture was sponsored by the Laboratory for Energy and the Environment.

Climate-change research results and forecasts appear repeatedly in the scientific literature—some information "startling in its significance"—but Speth said good climate science rarely reaches the public in a "forceful and meaningful way." Indeed, the mainstream American press persists in portraying global change as controversial and uncertain, he said.

There is now clear consensus among scientists that Earth's climate is being affected by the greenhouse gases generated by human activities. "We've seen these credible forecasts and credible warnings coming from the scientific community for the better part of three decades," Speth said. "But the influence of all the good science on policy and action has been puny compared with the need."

Noting MIT's phenomenal capacity to help tackle this critical global problem, Speth called for scientists at MIT and elsewhere to actively engage in public policy debates and issues. "Only the scientific community has the credibility to take the climate issue to the public and to the politicians," he said.

Given the lack of action at the federal level, he called for building a broad network of civic, scientific, environmental, religious, business and other communities to demand action and to take concrete steps to reduce emissions.

What can universities do? He recommended that they join together and commit to reducing their own emissions, which are often significant.

As it happens, MIT is collaborating with the City of Cambridge to implement its Climate Protection Plan, which calls for a reduction of citywide greenhouse-gas emissions to 20 percent below 1990 levels by 2010. To set an appropriate emissions-reduction goal, MIT recently completed a detailed analysis of its emissions. For more information on MIT's environmental commitment and activities, visit web.mit.edu/environment.

Geologists' find is evolutionary

Cathryn M. Delude
Special to the MIT News Office

Figuring out what happened hundreds of millions of years ago requires some guesswork, and that lack of precision plagues controversial theories about whether complex animals arose before or after the last global ice age, and whether sea ice actually did once cover even the tropics. Now MIT geologists have introduced more method to the madness, and in doing so have exciting new insights regarding ancient climate and early animals, and the link between the two. Their findings, which are crucial to models of both evolution and climate change, appeared in the April 1, 2005, issue of Science.

Geologists believe that Earth experienced at least three global ice ages from 800 to 580 million years ago (mya) during the Neoproterozoic Era, at the end of the Precambrian Age. In most places, evidence of the glaciations has disappeared, but traces remain in several areas with "cap carbonates," thin layers of limestone containing distinctive ratios of carbon isotopes. "When the ice melts, the oceans rapidly precipitate carbonate, which appears in the sedimentary rock," explains one of the geologists, Daniel Condon, a postdoctoral fellow in geology/geochemistry. "Cap carbonates are very unusual and restricted to glacial periods in the Neoproterozoic."

Extreme fluctuations of this carbon signature in the rock allow geologists to correlate time periods from continent to continent. But it's also easy to make mistakes and align the wrong squiggles on the graph, Condon says, like mismatching buttons on a sweater.

Such mismatching may have happened in China regarding the age of tiny fossil animal embryos. The overlying rocks have a similar carbon spike to cap carbonates, so geologists assigned the rock to a 580 mya glaciation. Then, using relative comparisons, they assumed the embryos were 600 million years old.

That age made many scientists uncomfortable, however, because it left a gaping 45 million years between the age of the embryos and the appearance of larger, more complex animals in Russia, evidence of which was in rocks presumed to be 555 mya. "Evolution just doesn't stand still for so long," points out Condon's advisor, Samuel A. Bowring, especially when a global ice age intervenes, as in this case. Bowring is a professor of geology/geochemistry in MIT's Department of Earth, Atmospheric and Planetary Sciences. Condon and Bowring collaborated on their paper with scientists from the Nanjing Institute of Geology and Paleontology in China.

The geologists suspected that the embryo ages were off, so they applied the zircon dating technology they had been fine-tuning, essentially adding centimeters to a meter measuring stick. This method uses the rate of decay of uranium to lead in volcanic ash to calculate the absolute age of rocks containing such ash. Then, the team headed upstream of China's Three Rivers Dam to the Yangtze Gorge. There, the Doushantuo rock formation has the fortuitous and unusual combination of glacial deposits, volcanic ash, and the fossil embryos. "Here we can date the fossils directly," Condon says, "and for the first time, we can accurately calibrate the relationship between glaciations and biology."

Contrary to previous assumptions, the researchers

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Series to explore modern religion

Sarah H. Wright
News Office

The dynamics of religion and its role in contemporary political and social life will be explored in an MIT lecture series beginning tomorrow, April 14.

The series, "Religion in the 21st Century: Understanding the Dynamics and Impact of Change," will offer four sessions of lectures and discussions on how the shifts among and within religions are affecting the way many of us work, vote, use technology and even live or die.

Dean of the School of Humanities, Arts, and Social Sciences Philip S. Khoury said, "The series couldn't be more timely, and the featured speakers are well-known authorities on the impact of religion and culture on politics, society, gender and the media, domestically and globally."

"Religion in the 21st Century" opens on April 14 with "Women's Rights and Islam," a talk by Lama Abu-Odeh, associate professor of law at Georgetown University. Abu-Odeh has taught courses in criminal law, comparative family law and Islamic law. She has written widely on feminism and Islam and is the author of a forthcoming publication, "Modernizing Muslim Family Law: The Case of Egypt."

The MIT Program in Human Rights and Justice sponsored the talk by Abu-Odeh.

"Around the world, there are now two competing forces for social change: one emanating from within religion and another emanating from within secular and liberal ideals. Both promise utopias but often deliver nightmares. The real issue is this: Are there elements within both forces who could somehow come together and collaborate toward a more human and just world order? Are the two worldviews so incompatible? This seminar series will shed some light on this question, which is crucial for the future of human rights," said Balakrishnan Rajagopal, Ford International Associate Professor of Law and Development and Director, MIT Program on Human Rights and Justice.

On April 21, R. Scott Appleby, director of the Kroc Institute for International Peace Studies at Notre Dame University, will discuss "The Rise of Fundamentalism in the 20th Century."

Appleby, a professor of history, is the editor of "Spokesmen for the Despised: Fundamentalist Leaders of the Middle East" (1997) and co-editor of the five-volume "The Fundamentalism Project" (1992-1995).

Mark Juergensmeyer, director of Global and International Studies, University of California, Santa Barbara, will analyze "The Meaning of Religious Terrorism" on April 28.

Juergensmeyer's most recent book, "Terror in the Mind of God: The Global Rise of Religious Violence," is based on interviews with violent religious activists around the world, including individuals convicted of the 1993 World Trade Center bombing, leaders of Hamas and abortion clinic bombers in the United States.

On May 5, Gustav Neibuhr, associate professor of religion and the media at Syracuse University, will deliver a talk, "Religion and the Media in the U.S."

Neibuhr worked as a religion reporter at The New York Times and, prior to that, at the Washington Post, The Wall Street Journal, and the Atlanta Journal/Constitution.

The "Religion in the 21st Century" series was organized by the Technology and Culture Forum at MIT with co-sponsorship by the Program in Human Rights and Justice at MIT, the School of Humanities, Arts, and Social Sciences and the Office of the Dean for Student Life.

All four "Religion in the 21st Century" sessions will be held at 7 p.m. in Building W11. The events are free, and registration is required. For more information, contact Patricia Weinmann at 617-733-9515 or by email, weinmann@mit.edu.

PHOTO / **DONNA COVENEY**

Julia Kurnik, left, and Shannon Nees worked together to create the 'Women's Guide Around MIT.'

Students offer guide to women

Sasha Brown
News Office

When sophomore Shannon Nees and junior Julia Kurnik first came to MIT, they wished for a book that would detail all of the Institute's many services and offer tips for women new to the area. Just a couple years later, Kurnik and Nees have produced such a guide filled with humor, color and tons of useful information for first-year female students.

The "Women's Guide Around MIT" came out last week and was offered to high school students during campus preview weekend. The 30-page pink-and-purple booklet offers tips on everything from housing to health. Never preachy, the book has a humorous tone, a bit like an older sister guiding her younger sibling.

"We wanted to highlight resources that people did not know," said Nees, who called it, "a cute approach to giving a lot of important information."

The idea came to them during the annual Pan-Hellenic October retreat. "We were talking about vision," said Kurnik, and it occurred to her that what was needed was a project that could help people on a larger scale.

One of the main goals for the booklet is that it will encourage women to look at MIT differently. "It is a good way to convince people that there are opportunities here," said Kurnik, a humanities major. "We want them to see that is a good place for women to be."

Close to 20 writers contributed to the project, offering tips they believed would prove useful during a student's first months at MIT. For example, the booklet includes maps locating women's restrooms and emergency phones. There are also directions to major shopping areas. Much of the information was hard earned after years of experience at the Institute. Some of it was even new to the writers.

"I am so excited to have the book now because now we will have all this information too," said Kurnik with a laugh.

Both Nees and Kurnik agreed that women often have a different MIT experience from many men. "Sometimes it feels like you have to prove yourself, both to yourself and to other people," said Nees, a chemical engineering major.

Both women said that the Institute has been moving in a positive direction in the past few years. Women now make up 43 percent of the undergraduate population according to the booklet, which offers a "history of women at MIT" on the back.

The booklet, sponsored by Admissions, the Academic Resource Center, Student Life Programs and the Department of Athletics, Physical Education and Recreation (DAPER), will be updated each year, Nees said. "We especially want to get feedback. We will want suggestions. It would be nice to update it each year."

NEWS YOU CAN USE

Tech Talk awards issue

Tech Talk is gearing up for its annual awards issue, which will be published June 1 to be available at Commencement. Please submit information on your department's annual award winners by Tuesday, May 10, at 8 p.m. All submissions should be made online at web.mit.edu/newsoffice/tt/awards-issue.html. For more information, contact Kathryn O'Neill at kathryno@mit.edu or 258-5401.

State of Institute Forum

The Administrative Advisory Council II is again sponsoring the popular State of the Institute Forum with MIT's senior officers. The entire MIT community is invited to attend the forum on Monday, May 23. from 1 to 3 p.m. in Kresge Auditorium.

President Susan Hockfield, Provost Robert Brown and Executive Vice President John Curry are scheduled to speak and answer questions.

The council works to enhance communications and working relationships among central administrative offices and administrators in the academic departments, research labs and centers. In conjunction with the Offices of the Executive Vice President and the Provost, ACII is planning an "Issues in Higher Education" lecture for administrative staff to be held at the beginning of the 2005-06 academic year. Tufts University Professor Sol Gittleman, who served Tufts as provost for more than two decades under three presidents, will be the featured speaker.

For more information about AACII, visit web.mit.edu/aacii/.

Blood drive slated

The American Red Cross Team and Network at MIT is holding a blood drive from noon to 6 p.m. today, tomorrow and Friday (April 13-16) at the Student Center's La Sala de Puerto Rico. For more information or to make an appointment, visit web.mit.edu/blood-drive/www/.

PHOTO / **AHSAN IQBAL (S.B. 1984)**

Water, water everywhere

Alumnus Ahsan Iqbal (S.B. 1984) was on hand April 2 to snap this picture of the MIT freshman lightweight crew team heading out to battle Army. Despite the pouring rain, the MIT team coached by Matthew Berean emerged victorious.

Hillel reception celebrates 60 years at MIT

MIT Hillel has affected the lives of thousands of Jewish students at MIT since it was established 60 years ago. So it was no surprise that Gray House was filled to overflowing on April 3 when President Susan Hockfield and Dr. Thomas Byrne hosted a reception in honor of MIT Hillel's 60th anniversary. Guests included alumni and their families, students, and members of the faculty and staff.

Co-chairing the celebration were Lawrence Bacow, former chancellor of MIT and current president of Tufts University and his wife, Adele Fleet Bacow (MCP '77). Lawrence Bacow is also a former member of MIT Hillel's Board of Directors.

In their remarks, both Hockfield and Bacow referred to how students and academics live simultaneously in many communities–cultural, religious, academic–and call them all home. Hockfield also spoke about how MIT's "strong" education combines so well with a "warm" community, as richly exemplified by MIT's Jewish community, Hillel, and the Institute's extensive student-life initiatives.

MIT Hillel Director Miriam Rosenblum added, "MIT is an incubator for society's future leaders in science and technology. It is MIT Hillel's job to complement and supplement this work by creating informed, passionate Jewish leaders who will take with them Jewish values and a commitment to 'tikkun olam,' service to humanity."

Adoption essays explore family 'Matters'

Sarah H. Wright
News Office

A village of children is raising new families, and "Adoption Matters," a book of essays co-edited by Sally Haslanger, professor of linguistics and philosophy, portrays the ways that families formed through adoption are altering how we define "family," "mother" and even, "love."

That village among us is 6 million strong—the current estimate of the number of adoptees in America–with 1.5 million under the age of 18. Most of those children live or have lived in new kinds of families–families inclusive of birth mothers and adoptive parents; families with international and racial diversity; single-parent families; and families where there are two moms or two dads.

"Adoption Matters" (Cornell University Press), which came out this month, offers 13 essays that combine personal experience within these new families–the growing village—with a feminist and philosophical framework through which to envision the implications of adoption for policy, culture and ideas about identity in the United States.

Haslanger's own experience dramatically and movingly illustrates the book's double purpose. Like most of the essayists, she is an adoptive mother and a philosopher.

Haslanger and her husband, Steve Yablo, MIT professor of philosophy, are both white; they adopted two black children, Zina, 8, and Isaac, 10. Haslanger was present at Zina's birth; Isaac joined their family when he was 4 weeks old.

Haslanger and Yablo were chosen to be the adoptive parents by the birth mother (in Isaac's case) and by the birth parents (in Zina's case). "Their birth families are tremendously supportive of us," Haslanger said. The resulting large, extended family has maintained mutual contact, including visits back and forth among parents, siblings and grandparents (see excerpt).

Haslanger's interest, she writes in her own essay, "You Mixed?" is in how racial identity can be "disrupted and transformed."

Her own "racial identity has changed tremendously through the experience of parenting Black children. … As I've emphasized, I am not marked as of African descent. But as a parent of children who are, my day-to-day life is filled with their physical being and social reality, and by extension, the reality of their extended families and their racial community. And their realities have in an important sense become mine," Haslanger writes.

In conversation, she added that local community culture has a role, too. "Zina has never been the only transracially adopted child in a school classroom in Cambridge," Haslanger said.

The essays in "Adoption Matters" explore the "contrast and overlap between the family as a social association and the family viewed as a natural or biological entity," the editors write in their introduction. Historically, "kith" has referred to the former and "kin," to the latter, they note, and they suggest adoption animates both in new ways.

Charlotte Witt, Haslanger's co-editor, includes an adopted daughter in her family. Witt, professor of philosophy and humanities at the University of New Hampshire, explores the social and personal impact of narratives of family resemblance–"You have Uncle Murray's eyes!" "Heath women should never drink!"–in her essay, "Family Resemblances: Adoption, Personal identity and Genetic Essentialism."

In "Being Adopted and Being a Philosopher: Exploring Identity and the 'Desire to Know' Differently," essayist Kimberly Leighton reports her experience as an adopted child who, as a young adult, sought–and located–her birth mother and now includes her along with her parents as "family." Leighton teaches philosophy at Cornell.

Other essays trace directly the contrast between what's considered "normal" for families according to legal and social policy and what is real life among contemporary kith and kin.

PHOTO / **DONNA COVENEY**

Sally Haslanger, professor of linguistics and philosophy, shares a warm moment with her family—husband Steve Yablo and their two children, Zina, left, and Isaac, both of whom are adopted. Haslanger recently co-edited 'Adoption Matters,' a book about adoption.

Excerpt

From "You Mixed?" an essay by Sally Haslanger, MIT professor of linguistics and philosophy, in "Adoption Matters: Philosophical and Feminist Essays" (Cornell 2005).

Sometimes, through parenting a child of another race, one is drawn into cultural rituals concerning the body. In the case of White parents of Black children, the most obvious are the rituals of caring for hair and skin. I remember vividly our first trip to a Black barbershop for Isaac's first haircut, our anxiety at crossing an important color line. Having moved several times since Isaac joined our family, each time we've had to negotiate the dynamics of entering with him a predominantly Black male space. And when Isaac met his birth grandparents for the first time (we visited them for a long weekend), one of the most important trips of the weekend was to the barbershop, where we were introduced as family.

The issue of girls' hair is even more laden and contested: a friend and mentor confided in me shortly after our daughter Zina joined our family that when she gave birth the second time and the doctor announced, "It's a girl!" the very first thing that went through her mind was, "Oh my gosh THREE heads of hair to do each morning!" I had only the vaguest appreciation of what she meant until I found myself trying to comb out my sleeping (toddler) daughter's hair to find myself two hours into it with her awake, screaming, and me in tears. But I have been guided and coached by friends and acquaintances, by beauty store clerks, the crowd at the barbershop, by Zina herself.

AWARDS AND HONORS

Three MIT faculty members have received Guggenheim Fellowships for 2005: **Drazen Prelec**, a professor in the Sloan School of Management; **Madhu Sudan**, a professor in the Department of Electrical Engineering and Computer Science; and **Santosh Srinivas Vempala**, an associate professor of mathematics. The three are among 186 artists, scholars and scientists selected for this year's awards out of more than 3,000 applicants to the John Simon Guggenheim Memorial Foundation. A total of $7,112,000 will be awarded to this year's fellows. Guggenheim Fellows are appointed on the basis of distinguished achievement in the past and exceptional promise for future accomplishment.

The Center for Studies in Higher Education at the University of California has announced that **Charles M. Vest**, former president of MIT, will present the Clark Kerr Lectures on the role of higher education in society. The lecture series was established in 2001 in honor of Clark Kerr, chief architect of California's master plan for higher education, who died in 2003.

In two programs at Berkeley and one at U.C. Santa Barbara, Vest will talk about the dynamics of federal science and technology policymaking, and the role of three distinct constituents: the public, government and industry. CSHE Director Judson King said that Vest "possesses unique insight, due to his combined public and private university backgrounds, and is an articulate and highly effective spokesperson for higher education."

MIT is this year's co-recipient of the American Chemical Society's Division of Chemical Health and Safety 2005 College/University Award. This award was established by the American Chemical Society to recognize a college or university that has an outstanding and comprehensive laboratory health and safety program (undergraduate study only). Sharing the award with MIT is the University of Nevada at Reno. This is the second time that MIT has received this award. In 1991, MIT's Department of Chemistry was the award recipient. This August, Lou Diberardinis, director of the Environment, Health and Safety Office, will accept the award on behalf of the Institute at the American Chemical Society meeting in Washington, D.C.

MIT math team wins Putnam

Sasha Brown
News Office

For the second year in a row, the MIT math team has finished first in the celebrated William Lowell Putnam intercollegiate mathematics competition.

Of the close to 4,000 college students from across the country and Canada who took the six-hour test, three of the top five students came from MIT. Two of the three were on the math team. With more than 100 student test-takers, MIT sent more students than any other of the 515 colleges and universities that competed.

"We knew we had a very strong team," said co-coach Richard Stanley, the Norman Levinson Professor of Applied Mathematics. The three-person team, composed of senior mathematics majors Reid Barton and Emanuel Stoica and junior mathematics major Daniel Kane, had two of the top five finishes. The third MIT student, junior civil engineering major Vladimir Barzov, was not on the team. Both Kane and Barton have been part of the team in each of their years at MIT, Stanley said.

The annual 12-question test, first administered in 1938, is typically given on the first Saturday in December and the results are announced toward the end of March. There are two three-hour sections, one in the morning and one in the afternoon.

More than 3,500 students from the United States and Canada take the test, tackling "atypical" questions in the field of mathematics. The questions do not ask students to know much more than calculus, algebra or what Stanley calls, "sophomore math." However, the problems themselves are far from simple. "The problems do require original thoughts or ideas. There is no formula learned in a class that they can plug in," Stanley said.

The test is so difficult that many of the tests are returned to Putnam graders blank. Worth a total of 120 points, the median score on the exam was a 0 this year, said Stanley. The highest score was 109.

The winning team's score is a compilation of the scores of the three members. The team members are generally chosen based on each student's score in previous years, said Stanley, although there have been exceptions. Barton, for example, first took the test as a freshman. Since then, he has finished in the top five each year. "We do typically have a very strong team," Stanley said.

Though there is a freshman seminar preparation course offered during the fall semester, students usually opt to prepare on their own, Stanley said. "There really is not much time to prepare," he said.

The MIT Department of Mathematics will receive an award of $25,000, and each team member will receive $1,000. Also, the students who made it into the top five will each receive $2,500. "We are quite pleased," Stanley said.

Brush up on history for Patriots Day

Sarah H. Wright
News Office

Believe it or not, Monday isn't a holiday because of the Boston Marathon. It's Patriots Day, the day set aside to honor the Battle of Lexington and Concord, which began the Revolutionary War.

So this weekend, why not bone up on your American history?

Pauline Maier, William R Kenan Professor of History, recommends the books below about life in the young U.S.A.—a little later than the Revolution, but in a formative period. Maier is the author of "American Scripture: Making the Declaration of Independence" and "From Resistance to Revolution: Colonial Radicals and the Development of American Opposition to Britain 1765 to 1776."

Maier, who first picked the books for the November/December 2004 issue of American Heritage magazine, described the list as "idiosyncratic, favoring titles I have read and loved, that seemed to work well with my students or that my friends and colleagues praise."

Maier recommends several works about prominent historical figures. "Founding Brothers: The Revolutionary Generation," by Joseph J. Ellis, was "long on the bestseller list and won the Pulitzer Prize for all the right reasons: solid scholarship, full of insight and written with a style leavened by Ellis' un-intrusive sense of humor," she said.

Already read "Brothers"? Try Maier's personal favorite, a book on Massachusetts' native son, President John Adams. Ellis' "Passionate Sage: The Character of John Adams," captures the "endearingly crusty Adams in ways that are missing even in David McCullough's massive 'John Adams,' " Maier said.

Lowell, Massachusetts, just an hour north of Boston, played an instrumental role in the industrial development of New England, and Maier recommends two books on the subject. "Women at Work: The Transformation of Work and Community in Lowell, Massachusetts, 1826-1860," by Thomas Dublin, is a "terrific book on the country's pioneering textile industry and the first generation of female factory operatives."

"Enterprising Elite: The Boston Associates and the World They Made," by Robert F. Dalzell, examines the industry from management's side.

For contrast, Maier also recommends "Bond of Iron Master and Slave at Buffalo Forge," by Charles B. Dew, a "gem of a book about an antebellum Virginia ironworks that used slave labor, its Pennsylvania-born owner and the enslaved men who worked there."

Harriet Beecher Stowe's 1852 fictional account of the "sinful institution of slavery," "Uncle Tom's Cabin," is the "most important novel, and perhaps the most important book, in American history," Maier notes.

A few more recommendations:

- "Harpers Ferry Armory and the New Technology: The Challenge of Change," by Merritt Roe Smith, MIT's Cutten Professor of the History of Technology.
- "American Reformers, 1815-1860," by Ronald G. Walters.
- "The Discovery of the Asylum: Social Order and Disorder in the New Republic," by David J. Rothman.
- "Democracy in America," by Alexis de Toqueville.

MARATHON

Continued from Page 1

caught up in the Marathon challenge. "Soon the five miles became eight, which quickly turned into 13. Eventually, since I was training so much anyways, I got talked into running the WHOLE thing," Tiu said.

For Marathon veterans like Steve Bratt, chief operating officer for the World Wide Web Consortium, and Ed Steinfeld, associate professor of political science, running has become a way of life.

"My main inspiration is that I really enjoy running," said Bratt, who has been running for 33 years. "I enjoy being outdoors (yes, even in the winter), fresh air, time for reflection, seeing out-of-the-way parts of places to which I travel."

Steinfeld's daily run is both a "habit and a period of meditation—it's usually the most peaceful and focused period of my day, and a time just to detach for a while," he said.

PHOTO / **ANITA VILLANUEVA**

Doctoral student Anita Villanueva will be running the Boston Marathon on Monday.

Many MIT runners took up a double challenge, completing the grueling race itself and raising funds for charitable causes such as cancer research. For these marathoners, helping others has been the fuel that keeps them running.

Anita Villanueva, a doctoral student in electrical engineering and computer science, is a first-time marathoner who "could barely run a half-mile" in her undergraduate years. She is running with Team in Training; she has committed to raising $2,500 for the Leukemia and Lymphoma Society in memory of a family friend, age 12, who died of leukemia.

That death "made me realize that this sort of disease could strike anyone. The fact that I'm running to honor and remember those people who have suffered from leukemia and to bring hope to people that are currently battling this disease is what really has gotten me through all this training, and I know that's what'll get me to the finish line in Copley Square," Villanueva said.

Villanueva also raises funds for charity by making and selling soaps and candies.

Heath Holtz, a graduate student in management, is running the marathon for the Col. Daniel Marr Boys & Girls Club of Dorchester, Mass. His main motivation has been "the organization, kids and just finishing the marathon," he said.

Gaylee Saliba, in electrical engineering and computer science, shares that mix of generosity and excitement. Saliba is running the Marathon with her mother to raise money for CASA, a resource for abused and neglected children.

"I'm really looking forward to the race! The crowd, the start line, the finish line, the midpoint! I look forward to running Heartbreak Hill again. I'm going to miss the Marathon Day when it's over." said Saliba.

To read more stories of MIT's marathoners or to add your own, go to the "Smoot Smart" web site at web.mit.edu/marathon/.

GEOLOGY

Continued from Page 3

found the carbon spike did not occur with the 580 glaciation. It was in fact much younger, around 551, the approximate age of fossil animals found in Russia. Moreover, the embryos in China were also younger, appearing not long before the larger animals. "Our data probably make a lot of people feel more comfortable because it compresses the gap in time between the first appearance of the embryos and occurrences of more complete animals," Bowring comments.

What then caused the unusual carbon spike in 551, if not a cap carbonate linked to the melting of a global glacier? According to Bowring and Condon, the new animals did—by virtue of their guts. "We find complex traces in rocks of this age, markings that show wormlike movements, as if searching for food," Bowring explains. They hypothesize that those grazing animals, and similar ones swimming in the ocean, would have had guts, and would have dropped fecal pellets to the ocean floor, causing a carbon signature similar to a cap carbonate. Since the carbon was no longer recycled in the shallow ocean, the evolution of these animals was probably also linked to changes in the global carbon cycle and in levels of oxygen, which set the stage for the evolutionary "explosion" of complex life in the Cambrian period.

"Now we can apply this calibration using zircon dating to other places," Condon says. For instance, they found that cap carbonates in China and Namibia in western Africa have virtually identical ages, within 200,000 years. "The snowball Earth theory had predicted that sea ice would melt almost instantaneously around the world, but no one has been able to prove it," explains Bowring. "The fact that we can date these cap carbonates on widely separated continents to the same time supports the model of rapid deglaciation on a global scale." Incidentally, the researchers also discovered that that deglaciation happened around 635 mya, not the previously estimated 600.

In addition to clarifying how and when events in the ancient world unfolded, this work bolsters the theory that atmospheric chemistry, climate and biology are strongly linked. Such synergy between geology and biology that will help solidify the framework for the current debate about global climate change in the modern world.

JACOBS

Continued from Page 1

group projects in science and engineering. The school also places an emphasis on arts. Using contributions from the Bill and Melinda Gates Foundation, Gary Jacobs is replicating that concept in other places, including at the New Bedford Global Learning Charter School in New Bedford, Mass., Irwin Jacobs' hometown.

At the August 2004 announcement of the gift to San Diego State University, Jacobs told the audience that his high school guidance counselor at New Bedford told him there was no future in science and engineering. So, young Jacobs enrolled in hotel management at Cornell, although he switched to electrical engineering and took the S.B. in 1956 before coming to MIT for graduate school.

Jacobs was on the MIT faculty from 1959-1966. He later co-founded Linkabit, the company credited with having created much of the digital communications industry through spinoffs, with Andrew Viterbi (S.B. 1956, S.M. 1957). The two sold Linkabit to M/A-Com and founded Qualcomm in 1985.

Jacobs left MIT to become associate professor of computer science and engineering at UCSD in 1966, in part because of the lower cost of housing in San Diego, he said. While teaching at MIT, he co-authored with Professor John Wozencraft "Principles of Communication Engineering," a textbook in digital communications still in use today.

The recipient of numerous awards, Jacobs was honored with the 1992 Entrepreneur of the Year Award from the Institute of American Entrepreneurs, the National Medal of Technology in 1994, the 1998 Medal of Achievement from the American Electronics Association, the 1999 Ernst & Young Leadership Award for Global Integration, the Bower Award in Business Leadership from the Franklin Institute in 2001, and election as fellow of the American Academy of Arts and Sciences in 2001.

Jacobs announced last month that he will step down as CEO of Qualcomm on July 1, but remain as chairman. His son, Paul, will become CEO.

MIT's 139th Commencement exercises—the first for President Hockfield, who took office in December 2004—will be held in Killian Court on the morning of June 3. The ceremony will be televised on MIT Cable TV.

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.

FOR SALE

900 Watt ABI amp $300. (2) Sonic 215HT EV PA cabs $400. Carvin FX1244 12 ch mixer w/ anvil rd case $300. Carvin FX1644 16 ch mixer $300. Jeff at 253-8756 or 617-926-4661 or bryant@ccnmr.mit.edu.

VEHICLES

2000 Jetta GLS, silver. 5 speed manual transmission, low mileage (41,330), great condition, well maintained (one owner). $9,000 (firm). mahoney@space.mit.edu or 617-253-0698.

HOUSING

Gloucester: Victorian home. 2+ BR. Wrap around porch, off street parking, washer/dryer, cable TV. Close to comm. rail, rt. 128. $3,000/July 1–30 or $900/week. Melody at 978-282-9657 or melody@MelodyTheArtist.com.

Martha's Vineyard: 2 BR/1.5b outside of Oak Bluffs with wraparound deck, outdoor shower, BBQ, sunny open interior, DW &W/D. Close to lagoon, tennis and bike trails. Reasonable. Nina at ninad@mit.edu.

Summer sublet wanted: Studio or 1 BR wanted for the Aug., Sept. & poss. Oct. On campus or near campus. Mature female, Admin. Staff employee at MIT. Pam at 617-699-6893.

Summer sublet wanted: mature, serious, nonsmoking Russian student. Speaks English, some Spanish. June–Aug. Room or studio close to subway (5-15 min. walk). goodfellow@rambler.ru.

WANTED

Summer UROP @ CSAIL- Want to work on cool projects, have fun and get paid? www.csail.mit.edu or jennifer@csail.mit.edu.

STUDENT POSITIONS

Positions for students with work study eligibility.

Machine Science Inc. seeks CS/engineering mentors for middle or high school students. 1 day/week, after school, 2hrs/wk, $14/hr. 253-4973.

SciPro seeks Program Coordinator. SciPro builds science interest in 8th and 9th graders by enabling them to work with an MIT mentor on science projects of their choice. Requirements: creativity, enthusiasm, leadership, dedication, vision, patience. $10/hr. 253-4973.

Positions Available

Graduate Housing Opportunity

Positions Available for live-in Resident Advisors for MIT's Fraternities, Sororities, and Independent Living Groups. **Applications are due by April 29, 2005**, and are available online at: http://web.mit.edu/slp/fsilgs/ra-application.html.
Description: A Resident Advisor is expected to serve as a mentor, guide, and resource for students and to serve as a liaison between the chapter and the Dean's Office. The RA is expected to know and educate FSILG students about MIT policies, applicable Chapter and/or Fraternity/Sorority headquarters policies, and common sense safety practices. Training is provided.
Remuneration: All Resident Assistants receive free room and board. In addition, some organizations may include a small stipend. Each Resident Advisor is furnished with a single room in the chapter facility.
Qualifications: A BA or BS and/or graduate enrollment at an accredited institution are required.

PHOTO / **BRIAN ROBISON**

Assistant Professor Brian Robison will perform the improvisational 'Music in Stacks' at MIT's Rosalind Denny Music Library on Friday, April 15.

Music library hosts concerts

The normally quiet, studious atmosphere of the Rosalind Denny Music Library (Room 14E-109) will be transformed twice this month as the library becomes the site of live concerts featuring works from its rich collection.

On Friday, April 15, at noon, the library will host an improvisational performance by Assistant Professor Brian Robison of a work he's calling "Music in Stacks." Audience members will be invited to select scores from the shelves of the library; Robison will then incorporate elements of the chosen music into a polyphonic mosaic of musical styles that could range from medieval chant to Mozart to Miles Davis, which he'll perform on electric guitar and phrase sampler.

The following Friday, April 22, at noon, MIT undergraduates will perform violin music chosen from the extensive collection of Stephen Prokopoff. Donated to the Music Library in 2001 by Lois Craig, Prokopoff's widow and former associate dean of MIT's School of Architecture, this collection contains approximately 2,680 scores from the 18th century onward with special emphasis on 20th century music.

The concert will feature Serge Prokofieff's "Sonata opus 115 for violin solo" by sophomore Sophie Rapoport on violin; Ernst Krenek's "Trio for Violin, Clarinet and Piano" by freshman Brian Kardon on violin, junior Daniel Steele on clarinet and senior Kai Fung on piano; Oedoen Partos' "Yiskor" by graduate student Andrew McPherson, on viola; and Zoltan Kodaly's "Duo for Violin and Cello" by junior Jacqueline O'Connor on violin and sophomore Sunny Wicks on cello.

For more information on these concerts, call (617) 253-5636.

Dramashop heads 'Downtown'

Lynn Heinemann
Office of the Arts

"Count 10 in Arabic and try to run..."

That's how playwright Tennessee Williams subtitled his one-act play "The Demolition Downtown," and that's the starting point for Assistant Professor Jay Scheib's direction of the upcoming Dramashop production.

Using two separate casts and staging the short play as a two-part drama, Scheib presents the work first in English and then in a mix of several languages. As the play is repeated with parts in Korean, Bengali, Oromo, Russian, Spanish, Lithuanian and Cantonese, what at first appears to be an "American problem" is revealed to be an international one.

Written in 1971, three years after the assassination of Martin Luther King Jr., "The Demolition Downtown" reflects the harsh realities of a white-hot civil rights movement seen through the haze of American materialism. Military forces have taken over the government, a curfew has been imposed, and individuals of the upper middle class have disappeared after being invited to a municipal abattoir. Amid the chaos, two families live in denial, trying to survive at whatever cost.

The play shows the end of America as we know it, with the systematic eradication of an entire class of society.

But Scheib has taken the play further—using language to expand this American cautionary tale into global one. "Each actor built his own translation," said Scheib, and many consulted parents for language help. "Part of MIT's richness is the large percentage of students who are first-generation Americans," Scheib said. "This production really brings that fact home."

Scheib has also created a video component for the production with physics senior Nasruddin Abbas Nazerali. Using three live-feed video signals that distort the landscape, this "experiment in live cinema" uses depth of field, point of view and extended close-ups to heighten the impending catastrophe, Scheib said.

The two versions of Dramashop's "The Demolition Downtown" have the same setting, but the foreign language adaptation takes place in the rubble of the first work's conclusion. "Williams predicted a violent revolution and he predicted that upper-middle-class America would have to lose," said Scheib.

The outcome may be bleak, but the play is "packed with Williams' trademark wit and flaming humor, with one explosion after another," Scheib said.

"The Demolition Downtown" plays April 21-23 and April 28-30 at 8 p.m. in Kresge Little Theater. Tickets are $8, $6 for MIT/Wellesley students; tickets to the Thursday, April 21, preview performance are free. For more information or reservations, call (617) 253-2908 or visit web.mit.edu/jscheib/www/.

PHOTO / **DONGYU ZHAO**

Resident artist and master Senegalese drummer Lamine Touré choreographed 'Mbappat: A Spectacle of Senegalese Drumming, Dance and Wrestling,' to be performed Sunday, April 24.

Rambax catches the rhythm of wrestling

Rambax MIT, an ensemble dedicated to learning the sabar drum and dance tradition of the Wolof people of Senegal, West Africa, will present "Mbappat: A Spectacle of Senegalese Drumming, Dance and Wrestling" on Sunday, April 24, at 3 p.m. in Kresge Auditorium.

According to Rambax's co-director, Assistant Professor Patricia Tang, "mbappat" is the Wolof word for a drumming/dancing/wrestling event. Senegalese wrestling dates back many centuries and remains an extremely popular sport in Senegal today, Tang says. Each wrestler's entry into the arena is accompanied by much pomp and circumstance, singing and drumming, and various mystical rituals are performed to help the wrestler win.

MIT's mbappat will consist of two match-ups, one "lightweight" and one "heavyweight" event. Rambax, Tang says, will perform a stylized, more theatrical version of a mbappat, with choreography and artistic direction by resident artist and master Senegalese drummer Lamine Touré. The show will also feature several guest artists from Senegal and from the Boston area, with drumming provided by Rambax MIT.

The name "rambax" (pronounced "rahm-bach") is a vocal mnemonic for a signature sabar rhythm. Founded in 2001 and co-directed by Touré and Tang, Rambax is a 15-member troupe of students and other members of the MIT community. For more information, visit web.mit.edu/rambax/ or e-mail Professor Tang at pjtang@mit.edu.

Jazzy birthday planned for Pomeroy

Herb Pomeroy was just 33 and already a nationally known soloist, bandleader and teacher when he was asked to direct MIT's jazz ensemble in the spring of 1963. He said he found the existing ensemble "very, very bad" and considered leaving. But instead, he said to the musicians, "Let's roll up our sleeves and get to work."

That decision proved a boon for the Institute. During Pomeroy's 22 years at MIT, he transformed MIT's Festival Jazz Ensemble (FJE) into a top-notch, award-winning group.

The celebration of Pomeroy's legacy will continue on Saturday, April 23, as he returns to MIT for a performance on the occasion of his 75th birthday, "Herb at 75: Celebrating Jazz at MIT." The concert, featuring the FJE under the direction of Lecturer Frederick Harris with alumni conductors and musicians begins at 8 p.m. in Kresge Auditorium. Admission is $5.

Conductors for this special evening include James O'Dell, an educator, conductor and tubist who served as music director of the FJE from 1993-99; composer, arranger and trumpeter Everett Longstreth, who directed the MIT Concert Jazz Band for 32 years; and musician and film composer Jamshied Sharifi (S.B. 1983), who led the ensemble from 1985 to 1993.

The concert will feature the world premiere of "The Quiet Words of the Wise" by Sharifi and performances by the MIT Alumni Jazz Band, led by Pomeroy and Longstreth, who will also guest conduct the FJE.

With Louis Armstrong as inspiration, Pomeroy chose the trumpet as his instrument. By age 25, he had performed with Charlie Parker, toured with Stan Kenton and Lionel Hampton and recorded with Serge Chaloff. Since that time, Pomeroy has become known as a "musician's musician," a leader in big band jazz and an improviser of uncommon stature. He was also on the faculty of the Berklee College of Music for 41 years.

"Talkin' Jazz at MIT," a discussion with MIT's past and present jazz directors, moderated by Mark Harvey, will precede the concert at 7 p.m.

PHOTO / **THOMAS MAXISCH**

Herb Pomeroy performs at MIT last April. The jazz leader will be honored with a birthday concert on Saturday, April 23, in Kresge Auditorium.

MIT EVENT HIGHLIGHTS APRIL 13–17

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

ILLUSTRATION COURTESY / **HART NAUTICAL COLLECTIONS**

'Object Lessons: A Submarine LNG Tanker'

In a talk about Liquid Natural Gas (LNG) submarine tankers, Kurt Hasselbalch will present technical brochures and models produced in the 1970s. No submarine tankers were ever built, but Hasselbalch will raise again the concept of using very large nuclear or conventionally powered submarines to deliver natural gas via direct routes beneath the Arctic ice cover.

WEDNESDAY April 13

"The Body"
Works by artists and engineers who have designed new technologies to see, record and transform live movement. 10 a.m.–5 p.m. MIT Museum. 253-4444.

2nd Student Mural Project Deadline
All submissions must be original two-dimensional creations. Winning design will be reproduced as a high-quality wall-sized print to be displayed in the Stata Center. By 5 p.m. Room E15-205.

Artist Behind the Desk
Jazz musician Bob Toabe, instructor at DAPER. Noon. Killian Hall. 253-9821.

"The Argumentative Indian"
Talk by Nobel Laureate, Harvard economics professor Amartya Sen about his new book. 7 p.m. Room 34-101. 258-6745.

THURSDAY April 14

"Crosstalk—Why E-Learning Projects Tend to Fail"
Professor Shigeru Miyagawa's Crosstalk seminar on educational change. 2 p.m. Room 56-114. 253-0115.

"Global Water Crisis: Myth or Reality?"
Annual John R. Freeman Lecture. 6 p.m. Wong Auditorium. 452-3022.

HTC Forum
"Conceptual Art and Architecture" talk by Nana Last, Rice University. 6:30 p.m. Room 32-124. 258-8438.

"Brain Development in Healthy, Hyperactive, and Psychotic Children"
2005 Scolnick Prize winner, Dr. Judith Rapoport gives annual Neuroscience Lecture. 4 p.m. Room E25-111. 452-2507.

FRIDAY April 15

"Music in Stacks"
Composition by Assistant Professor Brian Robison that can only be performed in a music library. Noon. Room 14E-109. 253-5686.

"A Feminist Toolkit for Thinking Reproductively"
Talk by Claudia Castaneda. Noon. Room E51-275. RSVP 253-4062.

Advanced Music Performance Student Recital
Lindy Blackburn (G), piano. Works of Bach, Chopin, Haydn and Rachmaninoff. 5 p.m. Killian Hall. 253-9800.

MIT Chamber Chorus
William Cutter, music director. 8 p.m. Kresge Auditorium. 253-9800.

SATURDAY April 16

MIT Press Bookstore Loading Dock Sale
Tons of books will be on sale at drastically reduced prices—up to 90 percent off the original retail price. April 16 and 17. 10 a.m.–7 p.m. Building E38. 253-5249.

Varsity Softball vs. Harvard JV (Doubleheader)
Noon. Briggs Field. 258-5265.

MIT Ballroom Spring Dance
Evening of social dancing including ballroom and latin dances, along with favorites such as salsa, hustle and merengue. 8 p.m. Sala de Puerto Rico. 686-0823.

SUNDAY April 17

"Phase II: Visualizing Physics: Transforming Science Learning at MIT"
An insider's view of how MIT is redesigning the way it teaches physics. Noon–5 p.m. MIT Museum. 253-4444.

Varsity Men's Tennis vs. Williams College
1 p.m. du Pont Tennis Courts. 258-5265.

International Folk Dancing (participatory)
8 p.m. Lobdell Dining Hall. 253-FOLK.

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

"WOMEN'S RIGHTS AND ISLAM"
Apr. 14
First program in a four-part series on religion in the 21st century. 253-0108.
Building W-11 Main Dining Room
7 p.m.

"COMPANY"
Apr. 14
Musical Theatre Guild production of Stephen Sondheim's musical. $10, $8 MIT. Apr. 14–16, 8 p.m. 253-6294.
Kresge Little Theater
8 p.m.

"THE DEMOLITION DOWNTOWN"
Apr. 21
Dramashop produces Tennessee Williams play. Assistant Professor Jay Scheib directs. $8, $6 MIT. Apr. 21–23, 28–30. 253-2908.
Kresge Little Theatre
8 p.m.

MIT EVENT HIGHLIGHTS APRIL 18–24

MONDAY April 18

PATRIOTS DAY
Also known as Marathon Monday. It's a holiday either way.

MIT Anime Club Cosplay Workshop
Last-minute anime Boston costume help. Noon. Building W20, steps and mezzanine lounge.

Trivia Night at the Thirsty Ear
Every Monday is Trivia Night. Must be 21, proper ID required. 10 p.m. The Thirsty Ear Pub.

TUESDAY April 19

"Figuring out the 1811-1812 Earthquakes of the Mississippi Valley"
Talk by Conevery Valencius. Noon. Room E56-100. 253-6989.

Brains and Machines Seminar Series
Talk by Donald A. Glaser of Berkeley called, "What Can We See, How Do We See It, and Why Do We See Things that Aren't There?" Noon. Room E25-401. 253-0551.

"Who Wants Democracy in the Arab World?"
Talk by Dr. Fawwaz Traboulsi of the Lebanese American University in Beirut. 4:30 p.m. Room E51-095. 253-8961.

WEDNESDAY April 20

"The Future of Warfare: Have the Classic Principles of Warfare Changed, or Do They Still Apply?"
Talk by Geoffrey Wawro, Professor of Strategic Studies at US Naval War College in Newport, R.I. Noon. Building E38, 6th Floor Conference Room. 253-7529.

Information Technology for Sustainable Development
Professor Nazli Choucri talks on sustainable development. 1 p.m. Room 9-151. 452-3022.

Advanced Music Performance Student Recital
Mahni Ghorashi plays the works of Chopin. 5 p.m. Killian Hall. 253-9800.

THURSDAY April 21

Charles L. Miller Memorial Lecture
Talk by James Champy of Perot Systems, Inc, "In Charlie's Vision: The Future of Engineering at MIT." 4 p.m. Bartos Theater. 253-9756.

Development & Democracy: The Human Rights Crisis in Nepal
Talk by Professor William Fisher of Clark University. 5:30 p.m. Room 10-485. 258-7614.

"Fierce Forever 5"
Show features the best drag performers (queens and kings) from the Boston area, as well as MIT students, staff and faculty. 7 p.m. Sala de Puerto Rico.

Student Recital
Pianist Bogdan Fedeles playing the works of Beethoven, Brahms, Debussy. 8 p.m. Killian Hall. 253-9800.

FRIDAY April 22

3rd Annual Prokopoff Violin Concert
MIT undergraduate students perform violin music chosen from the extensive collection of Stephen Prokopoff. Noon. Room 14E-109. 253-5686.

Advanced Music Performance Student Recital
Daniel Stein on the flute with Debbie Emery on the piano and Mary Farbood playing harpsichord for the music of Bartok, Boismortier, Martin, and Kennedy. 5 p.m. Killian Hall. 253-9800.

Introduction to Chenrezig
Bardor Tulku Rinpoche will introduce us to the Buddhist concepts of compassion and Chenrezig. 7 p.m. Room 4-237. 324-6030.

SATURDAY April 23

Varsity Sailing - Priddy Trophy
9 a.m. Charles River. 258-5265.

"COLLISION-seven, Chance"
The seventh event in Collision Collective's popular series will display work by artists from MIT and beyond who use new technologies in their work. 10 a.m.–5 p.m. Stata Center Gallery. 452-2852.

Herb at 75: Celebrating Jazz at MIT
Features the world premiere of "The Quiet Words of the Wise" by Jamshied Sharifi, and performances by the MIT Alumni Jazz Band. $5. 8 p.m. Kresge Auditorium. 253-9800.

SUNDAY April 24

MIT Chamber Music Society Student Recital
Complete piano quartets of Johannes Brahms. 3 p.m. Killian Hall. 253-9800.

"Mbappat: A Spectacle of Senegalese Drumming, Dance and Wrestling"
Artist-in-Residence Lamine Touré and Assistant Professor Patricia Tang, artistic directors. 3 p.m. Kresge Auditorium. 253-9800.

MITHAS Concert: North-South Jugalbandi
Presented by MITHAS (MIT Heritage of South Asia). Tickets available at the door. $20, MIT students free. 4 p.m. Wong Auditorium. 258-7971.

International Folk Dancing (participatory)
8 p.m. Lobdell Dining Hall. 253-FOLK.