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Folding, folding ... et voilà!

Origami creates beauty from repetition

Denise Brehm
News Office

True, they rattled paper throughout the 90-minute lecture, but the audience—rapt, eager, enthusiastic—hung on every word from the lips of origami master Robert Lang as he demonstrated the basics of the art and described, in a very rudimentary way, the mathematics behind it.

Lang had placed four sheets of 8.5 x 11 inch paper on all 318 seats in Kirsch Auditorium; each page had lines and dotted lines denoting crease-marks to come. Most members of the audience folded at least one of those forms while Lang talked about “From Flapping Birds to Space Telescopes: Origami, Mathematics and Art.”

Lang, a former laser physicist who now does origami full-time, was at MIT to work on an algorithm for computational geometry with Erik Demaine, an assistant professor of computer science. While on campus, he gave the public lecture on Thursday, Nov. 11 and taught a beginning and an advanced origami workshop. He also taught one class in Demaine’s origami course—the first one MIT has ever offered—through the Department of Electrical Engineering and Computer Science.

Although the public talk was an evening event on a mid-week holiday, the auditorium was packed, overflowing

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PHOTO / L. BARRY HETHERINGTON

Erik Demaine, assistant professor of computer science, sculpts the tail of a duck during the beginning origami workshop offered by visiting artist Robert Lang on Nov. 13. Lang was on campus to work with Demaine on a computational geometry problem.

Next generation of researchers honored by Museum of Science

Sasha Brown
News Office

Though far from finished with their own work, three senior MIT researchers passed the torch to a new generation of scientists on Tuesday, Nov. 9 at the Museum of Science in Boston.

For the past two years, the museum has named several young New England scientists as the “Next Generation” of revolutionary researchers whose work already has made a significant contribution to their field. This year, the three honorees all work in biotechnology at MIT.

Angelika Amon, the Linda and Howard Stern Career Development Associate Professor of Biology; Chris Burge, Whitehead Career Development Associate Professor in the Department of Biology; and Manolis Kellis, assistant professor in the Department of Electrical Engineering and Computer Science, were all honored. Each honoree gave a presentation of his or her work after being introduced by a senior MIT faculty member—Phillip A. Sharp, Mary Lou Pardu and Eric Lander.

Amon, the 2003 recipient of the National Science Foundation’s Waterman Award, is “an emerging star in the field of bioscience,” said Institute Professor and Nobel laureate Phillip A. Sharp. “I am sure there will be more awards in her future,” he said.

Amon, who thanked Sharp for his words upon taking the podium, shared her work in cell division with the audience of just over 100 people, mostly museum staff and

trustees, MIT faculty, and local people in the biotechnology industry.

Amon said she is “obsessed by order,” so her work in cell division—where so many small things need to occur with such precision—is only appropriate. “Humans are especially bad at the cell cycle that creates sperm and eggs,” said Amon. Ten percent of all human conceptions have an incorrect number of chromosomes, said Amon. This problem can lead to miscarriage and birth defects. “We are hoping we can shed some light on this,” she said.

“We want to understand how every single aspect is controlled.” Amon’s hope is that the work in her lab will “lay the foundation to find cures and drugs for cancer and birth defects in humans,” she said.

Mary Lou Pardue, the Boris Magasanik Professor of Biology and internationally known geneticist and cell biologist, introduced Burge. “It has been a delight to watch the younger generation,” said Pardue, who expects great things from the bevy of young researchers who have tools she only dreamt of using. “Genomes are available that we never thought would be,” said Pardue.

Burge’s work in RNA has been revolutionary. Over the past couple of years, Burge and members of his laboratory have learned which specific gene sequences can activate or suppress RNA splicing, and they have developed the first effective models of the human RNA splicing process. Burge said Tuesday night that his ongoing work is

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Boat brings hope to Indian villagers

Sasha Brown
News Office

Two MIT researchers have joined forces with a humanitarian effort half a world away to help bring relief to a region of India routinely flooded by monsoonal rains each year.

The two at MIT who are associated with the student group, Association for India’s Development (AID), are working with The Center for Northeast Studies (CNES) in New Delhi and grassroots groups in India to design and build a cargo boat for use by two villages in Assam state in Northeastern India.

Each year, monsoonal rains arrive in June causing the River Brahmaputra to flood its banks, leaving thousands of people at the foot of the Himalayas temporarily homeless while the waters come rushing down from the mountains.

The new boat will help people in villages on the river banks by bringing emergency supplies in during flooding, something that boats currently used by the Assam government can’t always do because they lack the power necessary to forge the current during monsoons. People who need to be transported to dry ground will also use the boat.

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PEOPLE



DISCIPLINE DEAN

William Fischer, the new associate dean for student conduct and risk management, arrived at MIT Nov. 1 from Northeastern University. Peer mediation will be an important part of his conflict resolution program, he said.

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NEWS



CASPAR TURNS 10

The homeless shelter celebrated 10 successful years at a town and gown event Nov. 10.

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ARTS



MASTERY OF KEYS

Jazz pianist Kenny Werner performs and shares his approach to creative endeavors—what he calls “effortless mastery”—with the MIT community Nov. 17 and 19.

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Ruehr shares notes in time

Sarah H. Wright
News Office

Composer Elena Ruehr used a red plastic flute, a moment from early motherhood and an inconspicuous sound system to reflect on her own music-making process in an hour-long talk in Killian Hall on Nov. 10.

Ruehr, 41, a lecturer in music and theater arts at MIT, is composer in residence at the Boston Modern Orchestra Project. Her lively, intimate presentation, titled "Everything You Always Wanted to Know About Modern Music—Ancient Traditions in the Modern World," was organized by the MIT Women's League.

Ruehr spoke without notes. There was no threat of power points. Occasionally, she waved the toy flute, which belongs to her daughter, Sophie, now 8. The flute worked in Ruehr's talk like the madeleine pastry in Marcel Proust's novels: it brought back the moment that set a life in motion.

"When Sophie was two, we had one of those long days at home sitting on the couch. I was a little bored. I picked up this flute and came up with this song. My third string quartet started with these four notes," Ruehr said, playing the tune.

For "Shimmer," an orchestral work, Ruehr traced more cerebral roots. "Shimmer" premiered in Jordan Hall in 1997 and will be performed there again in February, by the Boston Modern Orchestra project.

"Shimmer" derives its complexity and cyclical structure to both modern and classical works. Ruehr was "influenced by two very different new

music composers—Steve Reich, who is very interested in cyclical patterns, and Milton Babbitt, who is interested in complex structures. And I was also influenced by Vivaldi, whose string music inspired the orchestral structures," she said.

As Ruehr played a two-minute excerpt from "Shimmer," her arms revealed years of dance training. She pointed to signify musical changes as if the notes could be seen in the room, like tame birds.

Since composing "Shimmer," Ruehr's interests have included computers ("Not programming. My brother's a computer scientist. I don't like programming.") and recently, experiments with bird songs. She whistled one.

"That's a song I heard when I was a little kid. I liked it. I also liked what happened when I recorded woodpecker sounds off the Internet and slowed them down. Inside each 'digga-digga-digga' is another 'digga-digga.' They're fractals with so much information! I couldn't hope to write it all down," she said.

Ruehr played a recorded segment of "The Law of Floating Objects," inspired by computers and bird songs, to illustrate.

Circling back to her topic, Ruehr said, "Forget about bird songs. For-

get about the computer. I'm interested in flutes. I'm back to ancient instruments," said Ruehr. Her newest piece, a string quartet, was commissioned by the Cypress Quartet to respond to works by Mozart and Beethoven.

Elena Ruehr's compositions have been commissioned and performed internationally by musicians and orchestras including the Boston Modern Orchestra Project and the Metamorphosen Chamber Ensemble. Her dance opera "Toussaint Before the Spirits" opened to critical acclaim as part of Boston's Opera Unlimited Festival in June 2003.



Elena Ruehr

Ruehr studied at both the University of Michigan and the Juilliard School of Music. Her early orchestral works also received prizes from the Cincinnati Symphony, the Omaha Symphony, and the Civic Orchestra of Chicago. Ruehr began teaching at MIT in 1991. In 1995 she received MIT's Baker Undergraduate Teaching Award. She teaches the music theory sequence (Harmony and Counterpoint 1 and 2) and has also taught Composing with Computers, 20th Century Music and Women in Music.

A CD of "Shimmer" is available from Albany Records.

NEWS YOU CAN USE

Two faculty meetings scheduled

A regular meeting of the faculty has been scheduled for Wednesday, Nov. 17, at 3:30 p.m. in the Kirsch Auditorium of the Stata Center. Agenda items are a vote on a master of engineering in manufacturing degree in the Department of Mechanical Engineering, by David Hardt; a proposal for a master's degree in computation for design and optimization, by Robert Freund and Jaime Peraire; a preliminary discussion about the new minor in management, by Thomas Kochan; an update on MIT's capital campaign, by Barbara Stowe; and a brief status report on the proposed merger of the departments of ocean engineering and mechanical engineering, by Rafael Bras.

A special meeting of the faculty has been scheduled for Monday, Nov. 29 to hear a proposal for the merger between the departments of ocean engineering and mechanical engineering, which will be presented by Dean Thomas Magnanti, Professor Stephen Tannenbaum and President Charles Vest. That meeting will be held at 3:30 p.m. in the Kirsch Auditorium.

Invention prize coming up soon

The Lemelson-MIT Program invites MIT student inventors to apply for its annual \$30,000 Lemelson-MIT Student Prize for inventiveness. All currently enrolled MIT seniors and graduate students are eligible to apply, regardless of major or area of study. The application deadline is 4 p.m., Jan. 12, 2005.

Past Lemelson-MIT Student Prize winners have garnered national media coverage from MSNBC, the Associated Press, The Boston Globe and other outlets. Saul Griffith, 2004 winner, and James McLurkin, 2003 winner, both appeared on CNN Headline News. 2002 winner Andrew Heafitz gained a contract with the U.S. Air Force after appearing on Tech TV as a result of winning the prize.

Interested students should submit the one-page application and attach a 1,000 word (max.) description of their inventiveness while at MIT, two letters of recommendation and a current resume. Supporting photos or diagrams may be included. For more information or an application, go to the program's web site or contact Michael McNally at 253-3490 or mmcally@mit.edu.

The winner will be announced at a press conference the morning of Feb. 16, 2005.

Proposals for Goody Award sought

Proposals are being accepted for the Marvin E. Goody Award of \$5,000 from students in any department at MIT who are expected to complete a master's thesis or equivalent (e.g., MArch, SMArchS, SMBT, MCP, M.Eng.) at the end of the spring 2005 term. The award aims to extend the horizons of existing building techniques and use of materials, to encourage links between the academic world and the building industry, and to increase appreciation of the bond between good design and good building. To be eligible for the Goody Award, a thesis proposal must address one or more of those aims. Proposals are due by Dec. 13. Winners will be announced Dec. 22.

Applications will be judged on the promise of the thesis; on evidence that the work it contains is likely to satisfy the intentions of the prize; and the student's record, as evidenced by letters of support and the student's statement. In the last regard, the Committee will look for evidence that the promise of the thesis will be realized. Details and instructions for application available at <http://architecture.mit.edu/handbook/ch11.html#goody>.

Benefits open enrollment is now

The Benefits Office annual open enrollment period continues through Friday, Dec. 3. Personal enrollment guides will not be sent to active employees in paper form. Instead, the guides were sent to all benefits-eligible employees through MIT e-mail. To maintain current coverage for 2005, no action is required, except to enroll in a Flexible Spending Account for next year. Employees who want to make changes will need to use Employee Self-Service on the web during the open enrollment period.

GENERATION

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focused on the question: "How can we manipulate the splicing of a disordered gene?"

Professor Eric Lander, founding director of the Eli and Edythe L. Broad Institute, whose mission is to create tools for genomic medicine, make them broadly available and use them to propel the understanding and treatment of disease, called it "a good and new experience for me to be part of the old generation." In his

introduction of Kellis, Lander said he was impressed with the young scientist's enthusiasm and insights, referring to Kellis as an "extraordinary ball of energy."

Kellis proved Lander's point by speaking enthusiastically about his work. He called it "using evolution to inform genomics, and using genomics to understand evolution." Kellis, who earned his Ph.D. in computer science from MIT, has developed new computational paradigms to help decipher DNA signals, understand

gene regulation and clarify the evolutionary mechanisms of genomes. He has applied these tools to the yeast and human genomes, to systematically study all genes and regulatory elements. His work also showed that the yeast genome arose by whole-genome duplication, and that a similar event shaped the early vertebrate evolution of several fish.

Kellis' "never-ending smile and unabashed optimism has always impressed me," Lander said. "This is definitely our future."



Chris Burge



Angelika Amon



Manolis Kellis

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Dean Fischer hopes to use peer mediation to solve student conflicts

Sarah H. Wright
News Office

On a clear day, you can see forever. But on a day when your laptop died, your paper is due and your roommate has stayed up all night *again* and left a pizza box on the floor *again*, you can't see an inch beyond the next shouting match.

That's the moment that William Fischer, the new associate dean for student conduct and risk management, wants to address at MIT.

"Conflict is inevitable. It's part of life and part of all relationships. And one way to deal with some conflicts is to stay away from the person or, in a roommate situation, to change rooms. But there are more positive and healthier approaches to resolving conflict that not only build community but also offer students life skills they can rely on when they leave college," Fischer said.

For Fischer, one of the most productive approaches to conflict resolution is mediation, a process in which the two people in conflict meet with a neutral third person who is trained to assist in identifying the issues, building common ground and helping those involved come to a long-lasting solution.

"By the time the alienated roommates get into a fight, we're dealing with the fight as a disciplinary matter and not the issues that led up to the physical altercation. Keeping disagreements from escalating is a lifelong skill," Fischer said.

Fischer, a lawyer, has been involved with the field since 1995, when he left his private law practice in New Jersey to work in the field of student judicial affairs and develop mediation programs at colleges



William Fischer

and universities to benefit students.

"I saw there were peer mediation programs for elementary schools and high schools, but the programs dropped off at the level of higher education. I had seen how effective mediation was. I knew the magic and the power of peer review when it came to disciplinary processes. I went to work in the area that I thought offered a meaningful educational opportunity for students—a way to learn to keep conflicts from escalating," Fischer said.

A resident of Natick and father of two, Fischer worked in several university settings before coming to MIT. He served most recently as the director of the Office of Student Conduct and Conflict Resolution at Northeastern University. Before that, he was associate director of Student Life for Judicial Programs at the University of New Hampshire in Durham, N.H., and assistant director of the Student Judicial Office, at Illinois State University, Normal, Ill.

Fischer has also conducted mediation training programs at colleges around the country. He is a contributing author of "Mastering Mediation in the College and University Setting" (LRP Publications). He received the B.A. in English from Villanova University and the J.D. from Seton Hall University School of Law.

Dean for Student Life Larry Benedict said, "I am delighted that Bill Fischer has agreed to join us at MIT. Bill is a nationally recognized expert on matters of mediation and college judicial affairs, and he brings years of experience with him. My staff and I are very excited about working with him."

MIT has offered training programs in mediation to faculty and staff over the years, and it was partly this commitment that attracted Fischer to the Institute, he said.

"Mediation is part of the culture here," said Fischer. "So is respect for students."

Medieval historian appointed director of Burndy Library

Philip N. Cronenwett, a medieval historian who has written extensively on library history, the history of the book, and the history of the polar regions, has been appointed director of the Burndy Library at the Dibner Institute for the History of Science and Technology at MIT.

The trustees of the Burndy Library announced Cronenwett's appointment, which became effective Oct. 1.

In making the announcement, David Dibner, president of the library, said, "We are exceedingly pleased to have Phil Cronenwett join the Burndy Library to take this fine collection—started by my father to document and honor our scientific and technological heritage—boldly into the 21st century, where it remains ever more relevant."

"It is a privilege to be associated with this remarkable collection that is both a tribute to Bern Dibner and internationally recognized as a bibliographic treasure," Cronenwett said.

Cronenwett comes to the Burndy after a distinguished 24-year career at Dartmouth College, where he served most recently as associate director in the Office



Phillip Cronenwett

of Leadership Giving. He was the Special Collections librarian and curator of Manuscripts at the Dartmouth College Library.

The author of "The Spiral Press: A Bibliographical Checklist" (2002), Cronenwett has served as president of the New England Archivists, chair of the International Polar Libraries' Colloquy and as a trustee of the American Printing History Association. His current research relates to British science in the late 19th-century Arctic.

The Burndy Library was founded in 1941 and moved to MIT in 1992 when the Dibner Institute was established. The library houses more than 50,000 volumes.

A list of the collection's highlights is nearly indistinguishable from a list of the critical texts in the western scientific tradition. There are copies of Galileo Galilei's "Sidereus Nuncius" (Venice, 1610); Tycho Brahe's "Epistolarum Astronomicarum Libri" (Uraniborg, 1596) and Sir Isaac Newton's "Principia Mathematica" (London, 1687), to name but a few titles.

—Sarah H. Wright



PHOTO / DONNA COVENEY

Snowy fall

A snowstorm on Friday, Nov. 12, brought 4.1 inches of snow to Boston, the most snow the city has received this early in the season since 1987. People sought shelter in hats, umbrellas and the Whitaker Building, among other places on campus.

Himalayan folktales tell about cultural differences

Sarah H. Wright
News Office

A writer in residence at MIT who spent his childhood in the foothills of the Himalayas has been awarded a 2004-2005 Fulbright grant to research folktales from the mountainous region that is home to Mount Everest and people from contemporary India, Pakistan, Bhutan, Nepal and Tibet.

The Fulbright grantee, Stephen Alter, will spend January to October 2005 in different parts of the Himalayas affiliated with Himachal Pradesh University of Shimla, India, and Tribhuvan University of Kathmandu, Nepal.

Alter described a unique aspect of the folktale tradition he will study as the "way in which nature is interpreted differently from one range of mountains to the next."

"A bird's call in Nepal will elicit a very different story from the same bird's call in Kashmir. The allegorical significance of a certain wild herb in Garhwal will take on different meanings in Bhutan. All of these narratives are drawn from nature and reflect cultural differences as well as ecological diversity," said Alter.

Alter has taught in the MIT Program in Writing and Humanistic Studies since 1995. He is the author of four novels, "Neglected Lives" (1978), "Silk and Steel"

(1980), "The Godchild" (1988) and "Renuka" (1990). All are set in India and address the dilemmas faced by characters straddling different cultures.

The son and grandson of American Presbyterian missionaries, Alter, 48, grew up in Mussoorie, India. In addition to his fiction works, he has written a memoir, "All the Way to Heaven: An American Boyhood in the Himalayas" (Holt, 1997), and two travelogues, "Amritsar to Lahore: A Journey Across the India-Pakistan Border" (Upenn, 2000) and "Sacred Waters: A Pilgrimage up the Ganges River to the Source of Hindu Culture" (Harcourt Brace, 2001).

In commenting on "Sacred Waters," Alters said, "I see myself as a pilgrim who seeks to find the subtle and mysterious connections between human experience, mythological narratives and natural history."

Alter's newest work, "Elephas Maximus: A Portrait of the Indian Elephant" (Harcourt, 2004), explores the mythology and natural history of India's elephants.

The Fulbright Scholar Program is the U.S. government's flagship academic exchange effort, conducted since 1947 by the Council for International Exchange of Scholars (CIES) on behalf of the United States Department of State. CIES annually recruits and sends nearly 800 U.S. faculty and professionals to 140 countries and brings 800 foreign faculty and professionals to the U.S. to lecture and conduct research.



Stephen Alter

ORIGAMI

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even, thanks to an article about Lang that appeared in the Boston Globe that day.

Jon Madison of Newton, a neurobiologist at Massachusetts General Hospital, saw the article in the Globe and made his way across the river for Lang's talk. A novice, Madison had been working at the craft for three weeks, trying to teach his three-year-old daughter to fold farm animals. "Turned out she's not that interested, but I got hooked," said Madison, who came to hear Lang talk because he was intrigued "by the idea that you can apply mathematics to something I always thought was a game."

At least a dozen youngsters age 10 or under were present, as well as many septuagenarians and all ages in between. Neat, conservatively dressed, middle-aged couples sat beside 20-something men wearing long hair and barrettes. They leaned forward in their seats, shouted questions to Lang well before the Q-and-A period, and exclaimed

"Oh my God!" and "That is so cool!" when he demonstrated the "One Cut" property.

That property, proved by Demaine and others in 1997, says that any shape or combination of shapes can be created using a single sheet of folded paper with a single, straight cut through it. Lang folded a sheet several times, cut once and unfolded it to reveal a star-shaped cutout in the center. He folded another sheet, made the cut, and unfolded it to reveal a triangle, a square and a pentagon lined up in a row. His final demonstration revealed the MIT letterform.

A second property, "Two-colorability," describes origami's property of keeping the colors in a double-sided sheet of paper separate; once folded, no two adjacent facets will have the same color. Another, the "Maekawa-Justin Condition," says that the differ-

ence in the number of mountain folds (creased downwards) and valley folds (creased upwards) in an origami sculpture will always be two.

The relationship between math and origami is symbiotic, Lang said, allowing mathematicians to use origami to prove mathematical theorems and vice versa. For instance, the "Delian Problems" had puzzled even the ancient Greeks, who couldn't trisect an angle, square the circle or double the cube using a compass and unmarked straight edge. The first two problems were solved by scientists using origami in the 1980s.

When mathematicians and computer scientists started getting involved in origami in the 1990s, the art form of creating sculpture by simple folds became more dynamic. The basic valley and mountain folds were joined by linkages, flaps, circles, rivers and molecules. For instance, Lang's model for a deer requires 16 circles, 9 rivers and solving 200 equations to create.

The "Maekawa-Justin Condition" says that the difference in the number of mountain folds (creased downwards) and valley folds (creased upwards) in an origami sculpture will always be two.

Lang's own models, many of which are made using the computer program he created called Treemaker, come in many shapes and sizes. His Black Forest Cuckoo Clock (folded from a single sheet of paper, unbelievably) has 216 steps, not counting repeated steps. He

built a set of life-sized musicians using flaps and linkages. When the guitarist's head is pulled up, his arm moves, strumming his guitar. Similarly, the cellist moves his bow across his instrument, and the organist's arms move. Lang's forms also include sculptures with textured surfaces, such as the fish with 400 scales and the rattlesnake with 1,000 scales, each made with a single sheet of paper. "There'll never be a second one," Lang said of both of those.

The true love for many origami masters, Lang said, is the creation of extremely detailed



PHOTO / L. BARRY HETHERINGTON

Claire Sawayanagi (at right), 8, her father Junichi Sawayanagi and sister Sarah, 11, drove from W. Barnstable to attend the beginning origami workshop offered by visiting artist Robert Lang on Nov. 13. Claire is using the wet-folding technique, where the heavy paper is dampened with a cloth to give it a leathery consistency. She's making the third and final duck of the day.

insects, many-legged creatures whose body, antennae and legs are all folded (and folded and folded) from a single sheet of paper. "Origami seems to be peculiarly well-suited to folding insects," said Lang.

Theoretically, any shape can also be created by folding a single sheet of paper with no cuts, no tears. But, says Lang, the finished product could be microscopic, or it could be as tall as a building. The computer program lives in the realm of possibilities, not practicalities.

Still, it all comes back to a love for the art. The algorithm Demaine and Lang are perfecting for Treemaker is one that would allow the computer to show a 3-D model of a form, rather than a stick figure, based on an image of, say, a raccoon or a car. Using that stick figure or 3-D model and the folding instructions given by the computer, a master like Lang can fold just about any figure. For now, the more robust computer program would still be used for artistic origami, rather than industrial applications. Airbags are a prime example of the use of origami, or computational geometry, in indus-

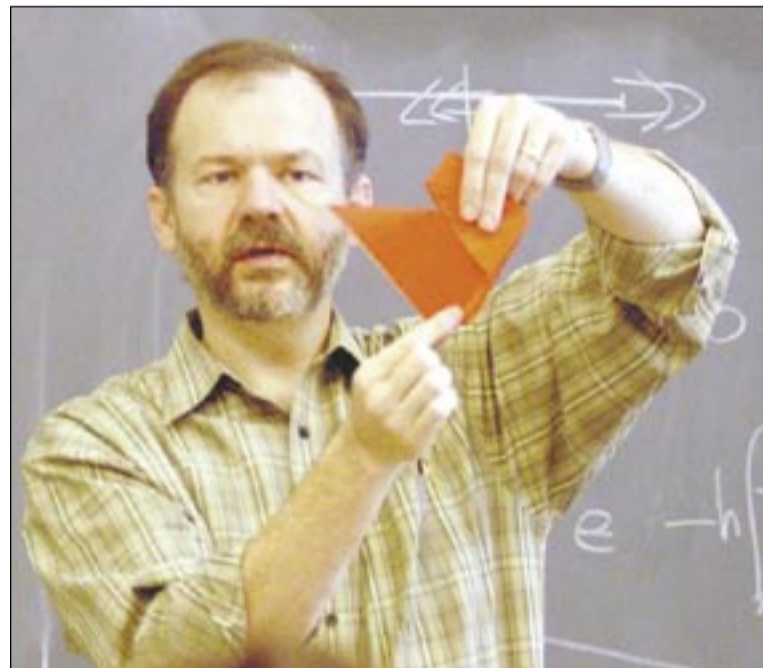


PHOTO / L. BARRY HETHERINGTON

Origami master Robert Lang, artist in residence at MIT, demonstrates how to fold a duck from a square piece of paper.

try, Lang said.

Later, near the end of the Q-and-A, one very young man asked if Lang thought there was the pos-

sibility of earning a living doing origami. "I sure hope so," said Lang, "since that's what I'm trying to do."

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First proposed by journalist Sanjoy Hazarika of CNES, the project now is taking life, thanks in part to Manu Prakash, a graduate student in the Center for Bits and Atoms, and Anand Sivaraman, a post-doctoral associate in the Biotechnology Process Engineering Center.

CNES is raising money for the boat and working with the approximately 150 families to develop small-animal husbandry (mainly Croller chickens, which have high egg-yielding hens) and other small-scale industries like weaving so that during drier times, the new boat will allow the villagers to develop alternative means of trade. They'll be able to use it to transport agricultural crops, such as eggs, and woven goods to markets downriver. Eventually the boat also might be used as a floating schoolhouse. "The boat will satisfy both purposes—the need for a more formal school for children of the communities and for a boat that can help act as a relief vessel during flood emergencies," said Sivaraman.

The first boat, expected to cost about \$25,000 to build, is a prototype for what the group hopes will become a fleet,

if they can convince the Inland Waterways Department in Assam that building many of these boats is a worthwhile endeavor.

Working with independent design engineer consultant Hari Nair in Boston, who is reviewing designs pro bono, the proposal prepared by the MIT pair and CNES became one of 10 selected from 1,500 entries to receive a \$20,000 development marketplace grant from the World Bank. Using that money, Sivaraman said, local shipbuilders in India have begun building the prototype boat.

If that prototype is effective, the Inland Waterways Department in Assam has agreed to fund 50 percent of the cost of the additional vessels. The villagers, with help from CNES, will need to raise 30 percent; supporters of northeast India who live in the United States will raise the remaining 20 percent in this country.

The boat needs to be ready by May 2005 for the start of the monsoon season, but there is still much to be accomplished. Although the structural design of the 80 x 20-foot vessel is complete, the engine design is still in question. Jain believes more MIT minds would help.

"One issue with the design of boats for

flood-ravaged rivers is the need to design a suitable engine and a gear box that can take the load when driving against the current," said Sivaraman. "Mechanical engineers and people working in the area of fluid dynamics and naval architecture may be able to contribute to the solution of this problem."

But it has to be an engine that can be built and repaired locally, Sivaraman points out.

"We just finished the overall rough functional requirements, and are starting the detailed design phase," said Prakash. "The objective is to retrofit commercially available heavy automobile parts to design most of the mechanical components so the least amount of customized machining is required."

Thus far, the project has been wholly unique, said Sivaraman. Bringing professional engineers who rely on their measurements and equations together with the locals who understand the needs of the community more intuitively has been humbling, he said.

"We are working with people who do not need calculations to know that something is not going to work," said Sivaraman.



PHOTO COURTESY / CNES

The provincial government of Assam, India, uses boats like the one above on the River Brahmaputra. During monsoons, this boat can't forge the currents to go upstream.

A look back at 10 years of sheltering CASPAR

Denise Brehm

News Office

and

Rachel Jellinek

Government and Community Relations

MIT administrators and City of Cambridge representatives looked back with satisfaction on the occasionally intense siting process for the CASPAR homeless shelter at a celebration Nov. 10 honoring the shelter's 10th anniversary. Officials spoke of their remembrances of the process and offered gratitude for the outcome, but the real message of hope came from Leona Bennett, a former shelter client who is now an employee of CASPAR.

"CASPAR Emergency Service Center was my home for over four years—first in the trailers, and later in the new shelter facility. As an unsheltered homeless woman, I was made to feel like a subhuman species, as if I somehow deserved what I had become," said Bennett. "The [shelter] offered me what no other shelter provides: a safe place for those afflicted with the disease of addiction. It was the only door that was never shut in my face."

Reaching agreement on a home for the shelter in 1994 required town and gown cooperation involving the City of Cambridge, MIT, representatives for the homeless, and Cambridge residents, all of whom had a stake in the decision. (CASPAR stands for Cambridge and Somerville Program for Alcoholism and Drug Abuse Rehabilitation.) It was finally built on MIT land at 240 Albany St., adjacent to the MIT campus. The celebration was held at the Sidney-Pacific Graduate Residence at 70 Pacific St.

"It is fitting that this event is taking place here ... not simply because of its proximity to the shelter, but because of the work that is being done here by our student leadership and the shelter staff to educate students about homelessness and all the issues that surround it and to recruit ever more volunteers," MIT President Charles M. Vest told the celebrators, as he recalled the early negotiations, which occurred not too long into his tenure as MIT leader.

"When I think back to the shelter's siting process, I am still struck by the level of turbulence that was caused by the many divergent, yet valid, views of how we in our city should respond to this crisis.

"It was clear to me and to many around the Institute that a solution was imperative, and that MIT was going to have to play an important role along the way, but I wasn't sure how we would, or should, arrive at that resolution. In the end, the unique agreement we came to was regarded as a first. But the form of the agreement was not the important thing. What really mattered was the goal: that those who needed these services would be able to receive them in a professional and supportive, caring setting," Vest said.

Cambridge City Manager Robert Healy thanked the MIT administrators who were key to sheltering the shelter on MIT-owned land.

"I want to personally thank Chuck Vest for siting and saving CASPAR. Your commitment to the entire community of Cambridge is much appreciated," said Healy. "With the cooperation of MIT, including Ron Suduiko, Paul Parravano, Sarah Gallop and Phil

Trussell, we worked and worked and worked to find a solution."

"CASPAR is about helping others, real people. It's not about the number of beds, but about the people occupying them," said Mayor Michael Sullivan.

Offering proof of Sullivan's sentiments, Bennett spoke to the crowd about her transforming experience from a homeless woman to a self-confident advocate for the homeless.

"The new shelter gave me a schedule, a purpose of time which my life on the streets had stolen from me," said Bennett. "Treatment began at the shelter with little things, fulfilling simple, basic needs, which helped make me feel alive. It was not until later that I realized that keeping me indoors and feeding my self-esteem was part of the staff's master plan. 'Leona, could you help with the laundry? Leona, would you sit with this intoxicated woman?' I began to realize that I was not helpless, and I felt the will to live and become the woman I was growing into.

"The staff were always non-judgmental and available around the clock with words of understanding, compassion and encouragement. The staff understood the impact of the disease of addiction in a way that neither my family nor friends did. They gave me hope and believed in me.

"I am now a dedicated women's advocate, a full-time counselor at CASPAR's Womanplace, a residential treatment program for women of which I am a proud graduate, and an undergraduate student at Cambridge College.

"Any hope for tomorrow must begin with life today, and CASPAR offers that hope," she said.



PHOTO COURTESY / CASPAR

The CASPAR homeless shelter, located at 240 Albany St., opened its doors 10 years ago.

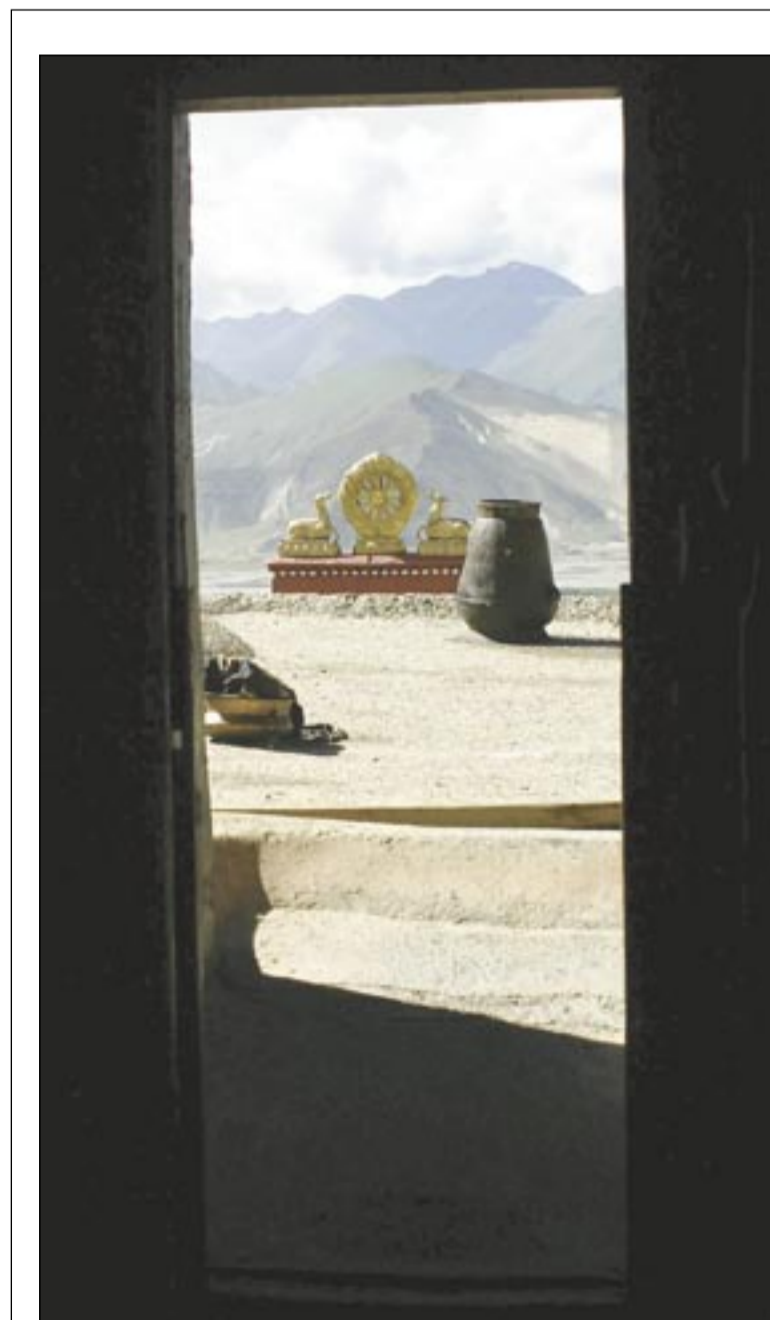


PHOTO / TENZIN L.S. PRIYADARSHI

The Drepung Monastery in Lhasa, Tibet.

Buddhist Chaplain's photography featured in Simmons show

"Pilgrimage Through a Monk's Eye," a photographic exhibition by Venerable Tenzin L.S. Priyadarshi, the MIT Buddhist Chaplain, is on display Nov. 19 to 25 at Simmons Hall, 229 Vassar St.

The artist will give a talk on Friday, Nov. 19 at 6 p.m., followed by a reception and a performance by the Simmons Orchestra.

Tenzin Priyadarshi, who is also a visiting scientist in residence at Simmons Hall as well as a Buddhist monk, led a pilgrimage last summer to India, Nepal and Tibet. He describes his images as reflective of the "importance of the 'visual' and 'vision' in sacred Buddhist sites and the journeys one takes to encounter them."

Admission to the wheelchair-accessible exhibition is free. It is sponsored by the Buddhist Community at MIT, Simmons Hall, and a Director's Grant from the Council for Arts at MIT.

Political progressives focus on the future

Sasha Brown
News Office

As the first snow of the season fell outside the Student Center, political progressives gathered together in the Mezzanine Lounge on Nov. 12 to find the proverbial silver lining following the Presidential election.

The forum, organized by Rev. Amy McCreath, MIT's Episcopal Chaplain; Suzanne Nguyen, a graduate student in biology; and Professor Hugh Gusterson of anthropology, was planned to focus efforts on the next few years. The Technology and Culture Forum sponsored the event, which was publicized as "an open forum on positive next steps for all those who were disappointed by the election results."

McCreath said she decided to hold the forum after hearing from many disappointed students. "I had a lot of conversations with students over the last week who have a lot of concerns," said McCreath, who urged speakers to focus on the positive. "What kind of bridges and strategies can we build?" she asked.

Gusterson encouraged the political left to choose battles more carefully and also enter into a dialogue about moral values with people of faith in this country. "There is space for us to enter into a conversation about that," he said.

Rev. McCreath was troubled by an e-mail that circulated after the election depicting the "blue" states—whose electoral votes went to Kerry—as "The United

States of Canada," and the "red" states—whose electoral votes went to George Bush—as "Jesusland."

"As a progressive Christian, I find myself nowhere on that map," said McCreath. "Where are the millions of liberal people of faith on that map?"

The political left, McCreath said, has a tendency to "preach to the choir." She recalled an ad taken out by a number of religious groups denouncing the morality of war in Iraq in a Cambridge newspaper. "They have been talking to themselves," she said.

The shifting of political power throughout the decades "will go on for more than four years," said Professor Emeritus Aron Bernstein of physics. "It has been going on my whole life."

For Professor David Thorburn of literature, the silver lining is found in the fact that the Bush administration will be accountable for its mistakes. Thorburn also said the left is larger than it ever has been.

"We are in a much better position now than the anti-Vietnam War movement ever was," said Thorburn. With half the country reporting dissatisfaction, he believes protests are not far off.

Nguyen looked no farther than herself to find optimism. Just eight years ago, she was as right as she is now left. It took a trip to Vietnam and a broader worldview to open her eyes.

"We think of conservative America as untouchable; it really is not," she said. "We are not as geographically divided as it may seem."

DIGITALK: WHERE IT'S AT



MIT benefits from Microsoft Agreement

Information Services and Technology (IS&T) has negotiated and funded a Microsoft Campus Agreement for Windows operating systems and Client Access Licenses (CALs). This agreement grants MIT faculty, staff and undergraduate students the right to use Windows XP Professional and subsequent operating system releases from Microsoft.

IS&T has also negotiated a second agreement funded by participating departments for Microsoft Office Professional for Macintosh and Windows. This agreement gives departments, labs and centers further cost savings compared to the Microsoft Select agreement available through GovConnection.

To learn more about or to participate in this program, please contact the Software Release Team at swrt@mit.edu. Also visit the IS&T web site at <http://web.mit.edu/ist> in the near future for the latest information regarding these agreements.

IS&T implements Google search

IS&T has launched a phased rollout of Google at MIT that will seamlessly replace the free Google search on the MIT home page that is run by Google with a licensed version of Google run by IS&T. By running its own installation of Google, MIT can increase the frequency of indexing and better control its completeness. In addition, search results can be returned in a look and feel that is customizable by each department's webmaster. This implementation of Google does not index images.

IS&T will continue to support the Inktomi search engine until departments have migrated their web site search forms from Inktomi to Google. Within the next few weeks, IS&T will provide examples of Google search forms on the web, as well as tips for maximizing search engine ranking and customizing the look and feel of the search results.

If users have comments after trying the new Google search form on the MIT home page (the default search option), please send e-mail to google@mit.edu.

Usability Lab expands

The IS&T Usability Lab in N42 has reopened for business. Over the summer, the Usability Team reconfigured the lab to provide a more spacious observing room and a more comfortable test room. While the Usability Team is still working with a simple video and monitor broadcast system between the two rooms, team members are experimenting with software that creates QuickTime movies that combine images of the tester and the tester's monitor. MIT community members who are interested in seeing the Usability Lab or discussing a project for testing, should send e-mail to usability@mit.edu or see the web site at <http://web.mit.edu/ist/usability>.

New phone and network rates set

IS&T has worked with a cross-Institute team of administrative officers and other key network and telephone users to develop rates for these services for FY06. Effective July 1, 2005, most departments, labs and centers will see a lower total cost for telephony and network services. For details on these rates, see <http://web.mit.edu/ist/services/pricelists/06telephones.html> and <http://web.mit.edu/ist/services/pricelists/06network.html>.

Digitalk is compiled by Information Services and Technology.

Chocolate will mark MIT's observance of World AIDS Day

The theme for World AIDS Day 2004 is "Women and AIDS" to focus attention on accelerating global response to the disease and promoting equal access to treatment.

The highlight of the MIT observance of World AIDS Day on Wednesday, Dec. 1 will once again be the Chocolate Buffet in Lobby 10. Tickets for the buffet are \$5. Participants can pass by the tables of chocolate, peering at the assortment before finally choosing the three items that hold most appeal. These can be eaten in the lobby while viewing panels from the AIDS Memorial Quilt or taken back to the office or dormitory to share. Chocolate desserts for the buffet are being donated by local bakeries, hotels, restaurants, catering services and members of the MIT community.

The MIT Women's League, a social and service organization open to all women in the MIT community, initiated MIT's annual observance of World AIDS Day in 1999 and has continued to coordinate the event each year. The group seeks additional volunteers to donate store-bought pastries, to bake, sell raffle and buffet tickets in advance, and to staff the buffet. To volunteer, contact Sis de Bordeave at 253-3656 or esdeb@mit.edu.

The Women's League also will hold its annual raffle of

goods and services donated by Boston-area businesses. Tickets for the raffle are \$5. Proceeds from the buffet and raffle will be donated to The Names Project Boston, a non-profit organization that assists with HIV prevention education, raises money for community-based AIDS service organizations, and sponsors the AIDS Memorial Quilt. The quilt provides a creative means for remembrance and healing that illustrates the enormity of the epidemic.

Other participating groups at the Lobby 10 event will have information booths. Those groups include Health Education at MIT Medical, the Children's Hospital AIDS Program, the Children's AIDS Program at Boston Medical Center, the AIDS Action Committee, the Names Project Boston, MedLINKS, United Trauma Relief, the African Student Association and the LGBT Issues Group.

World AIDS Day emerged from the call by the World Summit of Ministers of Health on Programs for AIDS Prevention in 1988 to open channels of communication, strengthen the exchange of information and experience, and forge a spirit of social tolerance. Since then, World AIDS Day has received the support of the World Health Assembly, the United Nations, and governments around the world.

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ARTHUR L. JONES, Publisher

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

Queen-sized cherry oak bed frame, mattress, and box spring. Less than 2 years old. \$600/bst. Pick up in Waltham. Picture avail. l_andler@yahoo.com.

Used large ping-pong table w/new paddles, new balls, \$50. Used Creative WebCam NX - Model No. PD1110, \$10. Cheryl at 253-3092 or cheryl@mit.edu.

5 pairs of skis, sizes 80 to 180. Great kids and adult skis, nice condition. Bindings and poles included. Three pair ski boots, child sz 12, 3, 4. Elaine at 781-643-4176.

4 Grand Prix GT 16" alloy wheels valued at \$800. Asking \$500/bst. Jennifer at jbsmith@mit.edu.

VEHICLES

1991 Toyota Camry. Station wagon, auto, AC, PW. 127K, mostly highway. Runs great, professionally maintained yearly, good cond., many new parts. \$1,500. John at 253-8286 or feng@psfc.mit.edu.

2001 VW GTI 1.8T. Black, 2 dr, auto, 33K, heated seats, most options, exc. cond. \$12,000/bst. Indira Pottebaum at ipottebaum@il.mit.edu or

'98 Ford Windstar GL Minivan. Auto, AC, power everything, tilt wheel, mp3 stereo, airbags, ABS, hitch, roofrack. 124K, highway. Rustless, nice interior. \$4,000/bst. Tim at 617-253-2060 or robot@mit.edu.

MISCELLANEOUS

Childcare/babysitting avail. Dec. 19-Jan. 14 by college student majoring in elementary education. Four years' daycare experience, first aid/CPR licensed. Flex hours/days. Liz at 339-223-0146.

HOUSING

Cambridgeport: Large 1BR, \$1,295. Laundry in house, free parking, hardwood flrs, bay windows, porches, backyard, close to MIT. 617-253-7665.

Chestnut Hill: Single-level home for rent. 3BR, 2 full baths, FP, tiled eat-in kitchen, gas heat, attached one-car garage. Quiet cul-de-sac location. Baker School district. \$2,700/mo. 617-686-8941.

Somerville: 8 rm house for rent. \$2,100/mo. Off-st. prkng. 7 min. walk to Porter Sq. Hdwd flrs, skylights, cathedral ceilings, rooms, porch w/ views of Boston. Pics on Craig's List. Betsy at 617-628-4952 or betsh@rcn.com.

So. End: Pembroke St. Lg 1-BR w/private entrance in owner-occupied home. Hdwd flrs, cook's kitchen, good closets, freshly painted. Smoke free. \$1,075 inc heat/utilis. Great area. Avail. 1/1/05. 617-267-5924.

WANTED

Volunteers needed for a Seasonal Affective Disorder (SADS) study testing different beverages' effects on mood, appetite and energy levels. Requires 1/wk from 3:30 to 6 pm. Pays \$300. 452-4184 or janine@mit.edu.

STUDENT POSITIONS

Positions for students with work-study eligibility.

Junior, Senior, Grad w/ background in genetics needed to identify overlaps between genes, regions of genome. Requirements: familiarity with location and use of bioinformatics databases, ability to present material. Opportunity for collaboration after identification of overlap. Martha at mherbert1@partners.org.

After-school tutors for K-5 students in Union Square, Somerville. Tutoring and homework support takes place Tuesday-Thursday from 3-4:40pm. Steven Stone at 617-284-7829 or ssstone@prospecthillacademy.org.



PHOTO / WILLIAM CLAXTON

Kenny Werner

Jazz pianist to share 'Effortless Mastery'

Jazz pianist, composer, author and recording artist Kenny Werner will participate in three public events over the course of two days, Nov. 17 and 19, as part of a four-day residency at MIT.

The Nov. 19 concert will mark the first time local audiences will have the rare opportunity to see Werner perform in solo, duo, combo and jazz ensemble settings all in the course of one performance. The concert features the world premiere of a new work by Werner, "Higher Learning," commissioned by the MIT Festival Jazz Ensemble.

Werner has been a jazz pianist and composer on the national and international scene for more than 25 years. He has worked with such jazz giants as Charles Mingus, Ron Carter, Bobby McFerrin, Gunther Schuller and Toots Thielmans. He has led his own trio and recorded with it on labels including Sunnyside Records, RCA/BMG, and most recently, Half Note Records. A noted composer, Werner has received numerous commissions and is currently artist in residence at New York University.

He has written several articles and his book, "Effortless Mastery," influenced many musicians' approach to practice, play and listening. The "Effortless Mastery" method applies Eastern philosophy, Christian and Jewish mys-

ticism and ancient disciplines such as yoga and tai chi to help remove blocks to creativity.

Werner's event schedule

Today, Nov. 17, Werner will perform with MIT faculty and student poets who will share their work with him. Werner will respond to it with piano improvisations. "Words and Music" will be held in Killian Hall from 3:30 to 5 p.m.

"Effortless Mastery with Kenny Werner: Liberating the Master Musician Within," a lecture-demonstration based on Werner's book, will be held this evening at 7:30 p.m. in Kresge Auditorium. Some of MIT's musicians will perform for Werner, who will offer his insights into their performances.

Friday, Nov. 19, the MIT Festival Jazz Ensemble, directed by Frederick Harris, Jr., will perform a program with Werner. "The Musical World of Kenny Werner" will feature the world premiere of a composition commissioned from Werner by the ensemble entitled "Higher Learning," as well as other of Werner's original works for jazz ensemble. Werner will perform in big band, small group and solo settings. Admission is \$5 at the door. The concert begins at 8 p.m.

Make art extra-ordinary

Italian psychiatrist and conceptual artist Cesare Pietrousti will bring his process-oriented, interactive practice to MIT's Center for Advanced Visual Studies Nov. 16-18.

Pietrousti's work may not be easily recognized as art, and that's the way he likes it.

"An artist's intervention in an urban context should not be easily recognizable as 'art.' It's better to contribute to creating a moment of uncertainty and doubt in the casual observer than to confirm expectations. I prefer 'Who knows what that is?' rather than, 'It's art, so it's not intended for me,'" Pietrousti has said about his focus on the art of plumbing—and even planning—peculiar, provocative moments or events.

His small-scale book, "Non-functional Thoughts" (1997), contains approximately 100 useless or incongruous ideas to be realized as art projects by anyone.

Like Freud, Pietrousti finds that unconscious motives seep into ordinary acts and daily life. Like Yoko Ono, he creates "instructions" that may (or may not) access individual depths. His practice is often centered on setting himself or others a task that is "nonfunctional" and an adventure to complete, as a choreographer might do.

According to Center for Advanced Visual Studies (CAVS) associate director Larissa Harris, following his instructions can shed humorous light on everyday life and illuminate experiences of architectural and social spaces.

While at MIT Pietrousti will present his work and conduct a workshop with a class of undergraduate architecture majors. As part of the workshop, students

will present public "micro-performances" today (Nov. 17) from 11 a.m. to 6 p.m. throughout buildings N51 and N52, which house CAVS and MIT's Visual Arts Program. Because of the spontaneous nature of the event, says Harris, "We won't know exactly who will be where doing what until that day."

Art and social change series shown

Pietrousti's visit and "micro-performances" are part of "Europe in Motion: New Practices in Art and Social Space," a series of events hosted by CAVS. The series includes screenings of two documentary films, "The Invisible Object: Art in Social Change" (2003) and "Fluid Cities: Berlin to Istanbul" (2004) today at 6:30 p.m. in Room N52-390. Both films document artistic and architectural projects designed and built for public space in post-Cold War Europe. Bartolomeo Pietromarchi, director of the two documentaries, and Pietrousti will be present at the screening.

Public art works featured in these documentaries will also be on view at CAVS today and tomorrow from 3-6 p.m. in Room N52-390.

Starting today, "The Traveling Magazine Table," a traveling library of publications by nonprofit and alternative spaces, groups, and artists' collectives, is on view at the CAVS through spring 2005. Organized and circulated by the international artists' collective, Nomads & Residents, which was co-founded by Pietrousti, the "Traveling Magazine Table" is updated with new materials at each venue. The collection is on view in Room N52-390 on Mondays, Wednesdays and Fridays from noon to 6 p.m. or by appointment.

Brevity is soul of MTL list

The MTL Chamber Players will perform a concert titled "Something Old, Something New, Something Borrowed, Something Blue," featuring music by Bach, Riegger, Harbison, Muczynskii and Rutter in pieces all selected for their brevity. The concert is Friday, Nov. 19 at 7 p.m. in Killian Hall.

The MTL chamber group was formed in 2003 by Professor Emeritus Stephen Senturia, a clarinetist, and Ole Nielsen (S.B. 2001, S.M. 2002), a flautist. The ensemble includes bass clarinetist Joe Kanapka (S.M. 1998, Ph.D. 2002), and clarinetist Elizabeth Connors, (administrative assistant, Music and Theater Arts Section). Senturia and then-doctoral candidate Ole Nielsen discovered their common devotion to chamber music while working together in MIT's Microsystems Technology Laboratory, giving the group its name.

The ensemble players deliberately chose works with movements averaging two minutes in length, said Senturia. Most concertgoers are "either suspicious or actively negative about contemporary music," he noted. But by offering short bursts of music, he said, the audience member who likes the piece will be "sorry

it ends so soon" while those who are "put off by a particular movement can rest assured it will not last long."

Senturia offered a guide—brief, of course—to the program.

Bach's "5 Inventions, from BWV 772," clearly not a contemporary work, is offered as "something old." Best known in its piano arrangement, the work has been transposed by arranger Lloyd Conley for flute and clarinet.

Wallingford Riegger's "Duo for Flute and Clarinet"—the program's "something new" is taken from a set of "Three Duos for Flute, Clarinet and Oboe."

Institute Professor John Harbison's "Trio Sonata for Two Clarinets and Bass Clarinet," presented as "something entirely different," is almost "unique, in that it consists of four movements each titled 'Fast,'" according to the program guide.

Senturia noted that the ensemble "borrowed" three of Robert Muczynski's "Duos for Flute and Clarinet" from his "Opus 34, Six Duets for Flute." The concluding work, John Rutter's "Three American Miniatures," offers "something blue" with movements titled "Blues" and "Rag."

Beat poet Pickard reads tomorrow

Tom Pickard, a New-castle-born writer who left school at 14 and fell swiftly under the spell of American Beat poetry and poets, was not only present at the birth of the British Poetry Revival in 1965 but also is credited with leading the charge.

The author of 10 books of poetry and prose, Pickard will present a poetry@mit reading on Thursday, Nov. 18 at 7 p.m. in Room 6-120.

As a poet, Pickard is known for his poetic range, from erotic to political, from lyrically delicate to poignantly sad to bluntly expletive-driven. He was described as a "voice of finesse and powerful emotion" by The Guardian (UK). In the preface to "F***wind," former Beatle Paul McCartney wrote, "This collection of poems and songs soars over the fells, screeching



Tom Pickard

truth, sex, humor, anger and love."

During the 1960s, Pickard ran bookstores and organized readings in England by well-known American beat poets including Allen Ginsberg, Lawrence Ferlinghetti and Gregory Corso. The British Revival is said to have grown out of these efforts, bringing wit, modernism, romance, excess and sexual expressiveness to poetry.

Pickard, 58, lives on the edge of Fiends Fell on the English-Scottish border. He has directed and produced a number of documentary films for British television and is currently writing a libretto for composer John Harle. "The Ballad Of Jamie Allan" is based on the 18th-century gypsy whose reputation as a great musician was matched by his reputation as an outlaw.

ARTS NEWS

Visiting artist airs ideas

Origami master Robert J. Lang, artist in residence at MIT from Nov. 11-17, will be a guest on "The Connection" on WBUR (90.9 FM) today. The live broadcast, a daily conversation about ideas, airs from 11 a.m. to 1 p.m. daily.

Alumna stages performance

Kortney Adams received the S.M. degree in civil and environmental engineering in September 2000 and has gone on to receive glowing reviews for her performance in Company One's "Spell #7" playing through Nov. 20 at the Boston Center for the Arts. "Kortney Adams nearly steals the show," wrote Nick Dussault for Metro, adding, "Company One should spend more time looking for roles for her."

MIT EVENT HIGHLIGHTS NOVEMBER 17 - 21

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




PHOTO / MASSACHUSETTS TURNPIKE AUTHORITY

Zakim Bridge, Boston


The Leonard P. Zakim Bunker Hill Bridge was Christian Menn's first project outside of Switzerland. Menn's work is one subject of "The Art of Structural Design: A Swiss Legacy" at the Compton Gallery through Dec. 30.

WEDNESDAY
November 17

 **List Visual Arts Center Gallery Talk**
Led by Jane Farver, director. Noon. List Center. 253-4680.

 **Object Lesson: Hip Enough**
A talk about the Hip Joint Simulator on display at the MIT Museum. Deborah Douglas, curator of science and technology, and Institute Professor Emeritus Robert Mann. Noon-1pm. MIT Museum. 253-4444.


 **Words and Music with Kenny Werner and MIT Poets**
Faculty and student poets share their work with Artist-in-Residence, Kenny Werner. 3:30-5pm. Killian Hall. 253-2826.


 **U.S. premiere of "Invisible Object"**
Documentary on contemporary art and architecture. 6:30pm. Room N52-390. 452-2484.

THURSDAY
November 18

 **MIT Chapel Concert**
Renaissance and early Baroque music from Italy, Spain, France and England. Noon. Chapel. 253-9800.

 **Europe in Motion: New practices in art, social and architectural space**
Mini-Exhibition of film and video works documenting recent art and architecture projects. Nov. 17 and 18. 3-6pm. Room N52-390. 452-2484.


 **Copyright Wars**
Talk by Wendy Gordon, BU School of Law. 5-7pm. Room E25-111. 253-3521.

 **poetry@mit**
Tom Pickard, author of 10 books of poetry and prose. 7pm. Room 6-120. 253-7894.

 **MIT Chamber Orchestra**
Dante Anzolini, music director. Corelli's "Concerto per la notte di Natale," Dvorak's "Serenade." 8pm. Killian Hall. 452-2394.

FRIDAY
November 19


 **The Painter, the Critic, her Pictures, his Words**
Talk on Helen Frankenthaler by Caroline Jones of Architecture. MIT community only. Noon. Room 14E-304.

 **Special Gallery Tour**
Led by William Stover, curator for the MFA's Cerith Wyn Evans exhibition. 6pm. List Center. 253-4680.


 **Weekly Anime Screening**
MIT Anime Club. 7pm. Room 6-120.


 **The Musical World of Kenny Werner**
MIT Festival Jazz Ensemble, Frederick Harris Jr., music director. With special guest pianist and composer, Kenny Werner, MIT artist-in-residence. \$5. 8pm. Kresge. 253-2826.

SATURDAY
November 20

 **Varsity Women's Basketball MIT**
Invitational
2pm. Rockwell Cage. 258-5265.

 **Student Art Exhibit/Sale Annual**
Sidney-Pacific Graduate Residence art works sale. 2-5pm. Sidney-Pacific.

 **Tamasha! Celebrate Africa!**
Performances from all over Africa and an all-you-can-eat African buffet. \$10 MIT students, \$12 college students, \$15 general. 7pm. Walker Memorial. 225-8385.

 **MIT Concert Choir**
William Cutter, music director. Benjamin Britten's "St. Nicholas" with guest soloist Jason McStoots, tenor, and the PALS Children's Chorus. \$5 at the door. 8pm. Kresge. 253-9800.

SUNDAY
November 21

 **MIT Museum Free Admission**
Third Sunday of every month. Always free with MIT ID. Noon-5pm. 253-5927.

 **"In the Middle of the Street"**
Dance Troupe fall concert. \$7. 2pm. Little Kresge Theater.

 **MIT Chamber Players**
Concert by faculty, students and their guests. Berg's Four Pieces for Clarinet and Piano; Brahms' Horn Trio; Schoenberg's "Verklaerte Nacht." 4pm. Kresge. 253-9800.

 **International Folk Dancing (Participatory)**
International folk dancing. 8pm. 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

LIBERATING THE MUSICIAN WITHIN

Nov. 17

Lecture/music demonstration based on artist-in-residence Kenny Werner's 1996 book, "Effortless Mastery." 253-2826.

Kresge Auditorium
7:30 p.m.

FILM SCREENING

Nov. 18

Screening of "A Mi Madre Le Gustan las Mujeres" (My Mother Likes Women) and conversation with director and screenwriter, Inéz Paris.

Room 56-114
7 p.m.

MIT CHAMBER PLAYERS

Nov. 22

Marcus Thompson directs concert by faculty, students and their guests. 253-9800.

Kresge Auditorium
4 p.m.

MIT EVENT HIGHLIGHTS NOVEMBER 22 - 28

MONDAY
November 22

 **"Weekend Campus"**
Nancy Davenport's long looping vertical pan of a scene of some sort of undefined crisis occurring on a college campus. Building 56, Media Test Wall. 253-4400.

 **The Traveling Magazine Table**
An assortment of rarely circulated local and international magazines published by nonprofit and alternative spaces, groups and artists' collectives. Noon-6pm or by appointment. Room N52-390. 452-2484.


 **ESD Faculty-Student Mixer**
Semi-annual faculty-student social event. Free appetizers and cash bar. Must be 21 to attend. 5-7pm. R&D Pub in Stata Center.

TUESDAY
November 23

 **Light and Space on the Mediterranean Sea**

Architecture lecture by Enrico Sicignano, architect, University of Salerno, Italy. 6:30pm. Room 10-250. 253-7791.

 **Thanksgiving Dinner**
Turkey & stuffing, dessert and a lot more. \$3. 6:30-10:30pm. Multipurpose room at Sydney-Pacific Graduate Residence Hall.

 **Imobile Breakdancing Practice**
Open weekly breakdancing practice. 7-10pm. McCormick Hall dance room.

WEDNESDAY
November 24

 **The Art of Structural Design: A Swiss Legacy**

Exhibit celebrating the contributions of a group of highly influential Swiss engineers. 9:30-5pm. Room 10-105. 253-4444.

 **"Lola and Billy the Kid"**
1998 Turkish film. 6pm. Room 3-133. 258-8438.

THURSDAY
November 25

 **Thanksgiving Holiday—Institute Closed**



FRIDAY
November 26

 **Thanksgiving Holiday—Institute Closed**

 **Friday After Thanksgiving Chain Reaction**
Annual art event where teams build sculptures that link and react together. \$10 adults/\$5 children MIT Free. Sponsored by MIT museum. 1-4pm. Rockwell Cage. 452-2111.


SATURDAY
November 27

 **The Clipper Ship Era**
Exhibit about the clipper ship, which represents a powerful symbol of American ingenuity and entrepreneurship. Noon-5pm. MIT Museum. 253-4444.

 **Thanksgiving Dinner**
7pm. Walker Memorial. Free with MIT ID. 225-6464.

 **CSSA Dancing Party**
Chinese Student and Scholar Association party. \$3 student, \$5 other. MIT free. 7:30pm. Student Center, La Sala de Puerto Rico.

SUNDAY
November 28

 **MITHAS Concert**
The Darbari Ensemble, a Hindustani classical fusion of cultures and traditions featuring the sitar of Allyn Miner, the bansuri of Steve Gorn, the sarangi of Ramesh Misra, and the tabla of Samir Chatterjee. \$18, \$14 MITHAS (MIT Heritage of South Asia) members, \$10 students, MIT free. 4pm. Wong Auditorium. 258-7971.

 **International Folk Dancing (Participatory)**
International folk dancing. 8pm. Lobdell Dining Hall. 253-FOLK.



Weekend Campus

"Weekend Campus," Nancy Davenport's long looping vertical pan of a scene of an undefined crisis on a college campus is on view at the Media Test Wall in Building 56 through Nov. 28. Cars are upturned and emergency vehicles try to help, while a vast accumulation of archetypal campus types stand around as if unable to figure out what to do.