How can trombones help keep whales safe at sea? With a little MIT ingenuity.

Lines attached to conventional fishing buoys can snag a whale’s pectoral fin, tail fluke or mouth, leading to injury or death. MIT Sea Grant’s Cliff Goudey was sure there had to be a simple way to prevent such entanglements. “I was trying to come up with something having the right shape so I could test some ideas,” he said. “I played the trumpet when I was in high school and realized that the shape of a brass instrument bell was what I was looking for, and a trombone would provide the ideal size.”

He bought two trombone replacement bells—tenor and alto shapes were good candidates—and he used them to make replacement buoys. "It keeps the whales safe and it’s a cooler design," he said. "It’s pretty practical and it’s much easier for oceanographers from the National Marine Fisheries Service to sight and locate a modern buoy on the water than it is a traditional buoy."
A new service, MIT Video Productions and Digital Technologies, has launched with two high-profile projects: a multimedia presentation at the Start Center dedication and MIT Hawkcam.

MIT Video Productions and Digital Technologies (MV&P&DT), part of Academic Media Productions Services, is the result of a recent merger between MIT Video Productions and the Streaming Media Operations Group.

"This consolidation allows us to continue to streamline the capture and delivery process from the camera to the desktop," said Larry Gallagher, director of MV&P&DT. "In the past we would acquire [images] in an analog tape format and convert to digital for delivery, but now we can convert direct to digital for subsequent streaming, and we can originate live webcasts from practically anywhere in the world.

At the recent Start Center dedication, MV&P&DT's multimedia production staff collaborated with the computer graphics group in the Computer Science and Artificial Intelligence Laboratory to create a presentation to kick off the ceremony. Time-lapse images that compressed the six-year construction process into a few seconds shared the screen with historic images of Building 20, first impressions of staff and students, and wide-screen aerial shots of the newly completed building.

"Our greatest visual assets in creating pieces are often provided by the researchers," said MV&P&DT multimedia specialist Doug Bolin. "Professor Seth Teller and student Matt Willkerson provided us with unlimited access to the millions of images that they captured since the demolition of Building 20 in 1998.

MV&P&DT's most popular program of late is the MIT Hawkcam, a sort of "reality TV" offering. Since late April, the group in a nest on campus on MIT cable channel 11; since late April, the birds have also been live webcast 12 hours a day.

"We simply capitalized on our good fortune regarding the parents' choice of nest location. Our existing infrastructure allows us to share this without the significant commitment of resources that a project like this would normally require," said David Myeuce, associate director of MV&P&DT.

The webcast has attracted thousands of viewers from MIT and across the country, averaging 200 hits per day with a peak of over 1,000 hits. The project was spotlighted on the MIT home page. We've received e-mail ranging from simple thanks to a request that we publish a log of when and what each of the chicks eat.

The parents and chicks have been named by some at MIT and their lives have been followed with great interest since the parent hawks first brought in twigs to build the nest. The fledglings are expected to take flight sometime early next week.

MVP&DT provides production support and content delivery to many clients around MIT, including distance education initiatives such as the Singapore-MIT Alliance, the System Design and Management program, OpenCourseWare and MIT@World. For more information, call 253-7603, see http://web.mit.edu/arts/services or e-mail mitvideo@mit.edu.
What specific qualities should we be looking for in MIT's 16th president?

Mary Frances Wagley

Background is not as important as character

Mary Frances Wagley (S.B. 1947) of Baltimore, a retired educator, is a life member emeritus of the MIT Corporation. She served on the last two presidential search committees at MIT, which ultimately selected Paul Gray and Charles M. Vest.

I am not a member of the presidential search committee but was asked to contribute some observations. These are personal and are based mainly on the seven MIT presidents I have known since entering the Institute in 1944. Karl Compton, Jim Killian, Jay Stratton, Howard Johnson, Jerry Wiesner, Paul Gray and Chuck Vest. Of these, two were outsiders and five had previous connections to MIT; they were a mix of physicists, engineers, scientists and humanists. I conclude that external backgrounds and circumstances are not as important as character and personality.

Above all I want our next president to be a person of principle, of high ideals, with a genuine spirit of absolute trustworthiness, I would add to this a quick mind, a sense of humor, and the ability to see promise in a wide variety of people and the skill to mobilize such people to positions and responsibilities. More particularly, I believe our 16th president must continue the Institute's core values, which I take to be a commitment to excellence, to diversity and to meritocracy.

Excellence—MIT seeks excellence in the triad of teaching, research and community, and also in architecture, communications, innovation, influence in national affairs and relationships with universities everywhere. Achieving excellence takes striving and, as Paul Gray often expressed it in his forceful and direct way, "Get it right.

Diversity—MIT has made remarkable progress towards diversity and inclusion since my days as a "cord. But much remains to be done with respect to the graduate student body, especially. Our next president must continue the progress and also keep us ever vigilant as external circumstances can threaten our graduate student population and the faculty. Our next president must continue the striving and, as Paul Gray often expressed it in his forceful and direct way, "Get it right.

Meritocracy—MIT has stood resolutely for merit-based admissions and need-based financial aid. This resolve was severely tested in the early 1990s by a Justice Department suit brought against the Ives and MIT in the so-called overlap case. With Chuck Vest's principled leadership, the Institute stood firm and we were vindicated. MIT won national respect for upholding our values. I have never been more proud of my alma mater. I believe our next president must have these values, too, and be prepared to defend them.

Finally, our next leader has the capacity to inspire. That was important to me as a member of the Compton Committee called the Institute community together in the Great Court on the occasion of the Allied victory in Europe. We students hoped for a leader who would celebrate the victory but reminded us that we were still fighting in the Pacific. He admonished us that as students of science and engineering, we were important to the war effort and to the postwar task of reconstruction and rehabilitation. He asked us to return immediately to our classrooms, labs and libraries to get on with our important work.

My classmates and I were inspired and energized. To inspire others, a leader must be inspired. This ground is, by definition, in principles, in a capacious heart, and the ability to communicate.

We are seeking an exceptional person. MIT deserves no less.

Mary Frances Wagley
Tonegawa's Fenway first pitch, 'secret waves' aid Boston Red Sox

Suzumu Tonegawa is a Nobel Prize-winning neuroscientist, but his greatest achievement may be his ability to help the Red Sox win baseball games through the influence of brain waves.

Tonegawa, the Whitehead Professor of Biology and Neurosciences and director of the Picower Center for Learning and Memory, was the second MIT faculty member to throw the ceremonial first pitch at a Red Sox game this season. His moment on the Fenway mound came on May 7 as part of an ongoing tribute by MIT to the Boston area's scientific and medical communities. Professor Ron Rivest did the honors on Vassar Street, which he called "a traumatic experience."

"I couldn't put together what I saw on Vassar Street with what I knew to be true about this great institution," said Vest, who added that during one of his early visits he stayed on the top floor of the Marriott Hotel. As he looked out over the campus, the rectangular buildings pinned by the two flagpoles reminded him of a naval base, he said.

"Still, he didn't expect campus construction to play such a major role in his presidency. The impetus for that came in 1986, when he saw the Report of the Task Force on Student Life and Learning, which recommended a new focus on community and campus life. Since then, MIT has modified 25 percent of the buildings on campus. The plum is Gehry's "Stata Center." Gehry, who said he was raised on Talmudic discussions with his grandfather, compared that discussion process with design—"a constant inquiry that hones your thinking until sooner or later you come up with an essence. In the Talmud, that is conveyed with the Golden Rule. I believe I'm doing that with my buildings. I want to be a good neighbor by respecting the work of the architects around me, some of which I like and some I don't like," he said.

Each piece of the "collage of parts" that makes up the Stata Center has a precedent in Cambridge, Gehry said. He described it as "pieces of buildings collaged on one building, helping to break down the scale and humanize it."

The interior is "unfinished" at the request of the rugged individuals who inhabit it, he said. Gehry said. "In time, this building will become theirs. I think the building is strong enough to become their home."

Before offering more traditional architectural perspective, Venturi asked the audience to forget him if he sounded "grouchy about his good friend Frank." Then he launched into a series of not-so-flattering comments about Gehry's work.

"I would think it's important that an institution could employ 'cutting edge' as a product and not as an image. Campuses as community is not a stage set. Cutting edge should be defined by viable action and not an architectural form. Research needs a setting where dramatic change happens and is not itself dramatic change—not 'form follows function,' but 'forms accommodate function.' It is important to create identity, but the iconic quality should not dominate," said Venturi.

"We do this all the time," interjected Gehry, referring to his interactions with Venturi. "When he rags on me, his son finds out and makes him call me to apologize. Today, he turned Venturi, "you sound like you're sitting well into the resurgence of fundamentalism"—causing Venturi to put his face in his hands and laugh.

When I go to Bilbao—which, by the way, is a very remote little budget, listened to the clients and paid for itself in its first eight months of existence—little old ladies come up and touch me," Gehry lauded. "If I make 10 more buildings like the Stata Center, it's not going to destroy the fabric of America, and it might be positive."

Ten journalists from the United States, Japan, Argentina and the Czech Republic have been selected to spend the 2004-05 academic year on campus as the 22nd class of Knight Science Journalism Fellows. The incoming Knight Fellows, who will be taking classes, attending seminars and conducting interviews at MIT through the year, are part of the Program in Science, Technology and Society (STS).

The new group, all working journalists who will be taking a sabbatical year to study here, comprises:

Brian Bergstein, who has been covering electronic technology for the Associated Press
Ingrid Chen, a free-lancer who has written most recently for The New York Times, Discover and Science magazine's web-based "Science of Aging Knowledge Environment."

Judy Fadys, the environment reporter of the Salt Lake Tribune.


Taro Mi tamura, a television science reporter for NHK, the Japan Broadcasting Corp.

Martin Uhrie, science reporter for Lidero Noviny, one of the biggest daily newspapers in the Czech Republic.

Valentia Roman, science and medical reporter for Clarin, the largest daily newspaper in Argentina.

Brian Bergstein, who has been covering electronic technology for the Associated Press

Ingrid Chen, a free-lancer who has written most recently for The New York Times, Discover and Science magazine's web-based "Science of Aging Knowledge Environment."

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Professor Gene Brown is not an MIT alumus, but he's celebrating an unusual Institute milestone nonetheless—teaching the same class for 50 years.

In addition to teaching general biochemistry every year since his arrival at MIT in 1954, Brown has filled many other roles, including dean of science from 1985-91 and, before that, head of the Department of Biology from 1975-85 and associate head from 1967-75. He's taught other courses and mentored 27 Ph.D. students as well.

Brown, 78, discontinued his research program when he became dean of science, but he has taught continuously and still enjoys it. The biology department recognized his long service recently with a reception and a dinner at the Faculty Club in his honor.

"I think biochemistry is a beautiful subject to teach. I really enjoy laying it out to students so they can understand it," Brown said with a hint of an Ozarks accent (he was born in southern Missouri). "Tell me, these students at MIT are very smart—they're basically smarter than I am, but I have it over them because I'm wiser and I know more than they do," he said with a chuckle.

Brown pioneered the practice of open-note exams ("we teach them to think logically," he says and he's something of an educational pioneer in his own right. He was the first in his family to attend high school and was the only student in his graduating class of 17 to go to college.

When Brown arrived at MIT right out of graduate school, there were very few biology majors; today, 60 percent of biology majors are women. Students of both genders have changed in other ways as well. Decades ago, "students were more willing to focus on one particular thing. Now they have more diverse interests, which I think is good. They have other activities, so they don't spend all their time on one subject," Brown said.

Another milestone during Brown's tenure was the opening of the Koch Biology Building in 1984. Much of the planning for that facility happened while Brown was dean of science. Faculty members and the architects "lived to one another, and we got a building that functions the way it's supposed to," he said.

Brown has no plans to stop teaching any time soon. "It's what I like to do. As long as the students and the department feel I'm being useful, I'll stick around, I guess," he said.

Professor Gene Brown, who has taught general biochemistry at MIT for 50 years, says simply of teaching: "It's what I like to do."
ILE X,” said Clapp. “It offers the hope that a single compound could target such dis- parate symptoms of Fragile X syndrome as epilepsy, anxiety, hypersensitivity to touch and loud noises,” Bear said.

Building new connections
Glutamate, the main neurotransmitter in the brain, helps neurons communicate. mGluRs respond to glutamate by activating proteins inside brain cells and fine-tuning the signals sent between cells to maintain balance in neuronal activity. Ac- tivation of glutamate receptors is critical for two key brain processes called long-term potentiation (LTP) and long-term depression (LTD), which many believe are the basis for learning and mem- ory. LTD helps build new connections among brain center for Bar Harbor, Maine, and the Texas Southwestern Medical Center in Dallas and the Rhode Island Hospital in Providence, R.I. Sention has licensed the rights to the resulting mGluR inhibitors to Sention Pharmaceuticals of California, which is preparing to conduct clinical trials. “It’s very exciting,” current holder of six U.S. patents, said. “The FDA has approved the first compound.”

“Even the most skeptical would agree it is aston- ishing that a single compound could target such dis- parate symptoms of Fragile X syndrome as epilepsy, anxiety, hypersensitivity to touch and loud noises,” Bear said.

Building new connections
Glutamate, the main neurotransmitter in the brain, helps neurons communicate. mGluRs respond to glutamate by activating proteins inside brain cells and fine-tuning the signals sent between cells to maintain balance in neuronal activity. Activation of glutamate receptors is critical for two key brain processes called long-term potentiation (LTP) and long-term depression (LTD), which many believe are the basis for learning and memory. LTD helps build new connections among brain cells and LTD helps destroy unneeded connections.

Bear says that the lack of FMRP seems to lead to too much LTD, which can slow the maturation of synapses by tying down the balance of synapse gain to loss during a critical period of brain development.

Inhibitory signaling by mGluR5 could contribute to many of the symptoms of fragile X. The receptor is found in many different parts of the nervous system, where it has different func- tional roles. Inhibiting mGluR5 in the brain reduces anxiety and susceptibility to seizures; in the gut, inhibiting the receptors reduces bowel motility; in the skin, it produces analgesia.

A key finding is that a non-peptide mGluR5 (phenylthiohydantoin) inhibitor inhibits mGluR5 receptors and is being tested in mice and in a new theory. Bear is a found- er and chairman of the scientific advisory board of Sention, a pharmaceutical development company in Providence, R.I. Sention has licensed the rights to develop a drug based on this new research, and will continue to be to test this class of compounds in humans once critical preclinical research is success- fully completed.

We are evaluating opportunities to develop a new drug treatment for humans with fragile X syndrome. We anticipate this process could take any- where from 18 to 24 months before we are ready to apply to the FDA for permission to begin clinical test- ings in humans,” Bear said.

In addition to Bear, authors of the Trends in Neuroscience paper are Kimberly M. Huber of the University of California, San Francisco, and Stephen T. Warren of Emory University School of Medicine in Atlanta. This work is supported by the FRAXA Research Foundation and the National Institute for Child Health and Human Development.

### Classified Ads

**Members of the MIT community may submit one classified ad each issue. Ads can be revised but should not be 30 words or longer; they will be edited to fit publication or deleted if they do not fit the guidelines. Submit by e-mail to classifieds@mit.edu or mail to Classifieds, 32 V_EXTENSION, Cambridge, MA 02142.**

**FOR SALE**

Baby grand piano. Beautiful black Samick, imperial German Scale, model 55; rich sound, very good condition, $2,500.00. Contact Youri, 617-374-3887.

Full size kitchen table w/4 chairs, perfect condition, $125.00. Contact Susan, 617-505-4045.

Computer with printer, $10. Don, 978-975-2774 (after 5 pm) or don@space.mit.edu.

White Rosewood washer, $150. Sayl, 617-785-1020.

Smaller, sleek, electric waterbed, ideal for college dorms, $200. Contact Jeff, 617-315-2804.


Good condition. Contact Dan, 253-1919.

Drum circle. Tuesdays at 7:30. Contact Don, 617-872-2923.

Whitewater washer, $150. Sayl, 617-785-1020.

Smaller, sleek, electric waterbed, ideal for college dorms, $200. Contact Jeff, 617-315-2804.


Good condition. Contact Dan, 253-1919.

**FOR RENT**

Lrg studio/1BR, 10min walk to MIT/6/1, $1,100/mo + utils. Rosemary or Michael, 617-579-0595.

Queen mattress, $70 ($100 w/box spring). Sherry, 253-6717 or 617-799-3648.


Old Orchard Beach: Lrg, furnished apt, 2 BRs, 3 miles, auto, $4,000/bst. 577-5665, 617-642-7996.

Some wks still avail in July/Aug. $1,300/wk. 617-484-6833.

3 min walk to beach, w/d, linens, cable TV, DVD. Andy, 617-876-6257.

**Vehicles**


1987 Audi 4000CS. ~120K miles, 4cyl, 5-speed, cloth seats, wing chair and ottoman, blue sleep sofa, baby grand piano. Model GH1, 5’. $50. goeke@space.mit.edu or 253-1919.

1986 VW Vanagon Westfalia. Clean California plates, can’t find East Coast Vanagons in this model, sleeps 6, automatic, $4,000/bst. 577-5665, 617-642-7996.

2002 Coachman Cascade travel trailer. Slide out, screen house, like new, never towed, worth over $14,000, must sell, moving out of state. Contact Lene, 617-872-2923.

**Miscellaneous**

Looking to share wonderful nanny to my new-born baby girl, 2 yrs. Any age child OK, $9/hr. catherine@space.mit.edu or 253-1919.
European artists round out List season

The List Visual Arts Center is now presenting the works of two European artists: Slovenian-born artist, architect and sculptor Marjetica Potrc and video artist Artur Zmijewski, who is based in Warsaw, Poland.

Marjetica Potrc: "Urgent Architecture" is the first U.S. museum survey of Potrc’s work since she won the Guggenheim Museum’s 2000 Hugo Boss Prize. Her installations are recreations of her “anthropological urbanism,” in which she explores and critiques government public housing solutions that the poor need for themselves.

Potrc has particular interest in informal or unauthorized cities, such as those in São Paulo, Brazil, Caracas, Venezuela; and San Francisco, which lack public resources. She designs housing for these desolate areas with a scarcity of resources in these communities. Potrc has designed “self-sustaining” housing units that can provide water, sewage and electrical service to the occupants. Rather than designing purely practical residences, she designs her projects with glowing colors as a way of celebrating life and the beauty she sees in shared needs. “We all seek the same things—whether, food, water and beauty,” she said.

Potrc has constructed a massive installation of housing units based on what she had seen of gated communities and temporary shelters that have become permanent in Caracas, the West Bank and West Palm Beach. Using available materials such as concrete blocks, barbed wire, wood and aluminum, Potrc’s installation is a monolithic testimony to the power of art and architecture in shaping and reimagining the human environment. Each (design) brings about a long-needed dialogue between the formal and informal city, which obviously benefits everyone,” Potrc said. “The timing is good, too. Every three days, more than a million people living in forgotten and abandoned slums in many developing parts of the world. Also included are a selection from “Animal Sightings Series” (2001)—digital prints of coyotes, bears and raccoons caught roaming cities and visiting houses.

Organized by List Visual Arts Center Director Jane Farver, “Artur Zmijewski: Selected Works 1998-2003” is the first U.S. solo exhibition by this Warsaw-based artist. His works challenge social codes that prohibit displaying “defective” human beings and notions that the disabled can succeed only if they achieve at the same standards as the physically fit.

In his videos, Zmijewski creates situations in which the relationships between so-called “normal” individuals and those with physical defects, then records what happens. In “Singing Lesson I” and “Singing Lesson II,” deaf children learn to sing. “Eye for an Eye” depicts a fit young woman helping a man wash his disabled body, and two men—one with two healthy legs and one missing a limb—climbing stairs and walking together. In “Out for a Walk,” paraplegics are assisted by able-bodied men in wheelchairs.

Wodiczko to appear on ‘Art Close Up’

Krzysztof Wodiczko, director of the Center for Advanced Visual Studies and professor in the Visual Arts Program, will be profiled on WBUR's “Art Close Up” this week. The program will feature an interview with Wodiczko and scenes of his work, which aims to empower the disenfranchised. The program airs today (May 19) at 8 p.m. on channel 2; Friday, May 21 at 4 p.m. on channel 44; and Sunday, May 23 at noon on channel 44.

Wodiczko is also one of the artists represented in “The Interventionists: Art in the Social Sphere,” a group show that opens on May 31 at MassMoCA (Massachusetts Museum of Contemporary Art) in North Adams. This exhibition, which explores the work of contemporary artists dedicated to social change, provides insight into the changed role of political art since the late 1980s. The show will be on view through mid-March 2005.

VAP student wins residency

Visual Arts Program graduate student Carrie Bodle received a Boston Cyberarts artist-in-residency position for the summer of “What Time is It?” by alumnus Vladimir Zelevinsky (S.B. 1984, S.M. 1985), who is playwright-in-residence with the company, was commissioned to write the play, a fantasy focusing on the Nuremberg town clockkeeper who uses the town clock to change the world around him. The show is at Theater Cooperative at 277 Broadway in Somerville through May 29. For more information, call 617-468-0031 or see http://web.mit.edu/lvac/www.

Theatre Cooperative to perform alum’s play

Theatre Cooperative is presenting the world premiere of “What Time is it?” by alumnus Vladimir Zelevinsky (S.B. 1984, S.M. 1985), who is playwright-in-residence with the company, was commissioned to write the play, a fantasy focusing on the Nuremberg town clockkeeper who uses the town clock to change the world around him. The show is at Theater Cooperative at 277 Broadway in Somerville through May 29. For more information, call 617-468-0031 or see http://web.mit.edu/lvac/www.
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Mezzo soprano Shiba Nemati-Nasser, an administrative assistant at Sloan, performs. 253-1894

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Featuring the student winners of the 2004 Schnitzer Prize in the Visual Arts. 253-7019.

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**EDITOR’S CHOICE**

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