



## Back to the future

Harvard's Museum of Comparative Zoology hurtles into the digital world, with DNA discoveries along for the ride.



A new program gives voice and safety to visiting literary dissidents who are threatened in their homelands.

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President Faust visits southern Africa to tour Harvard-aided programs and tout education as the path to progress.

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Senior Samuel Bjork wins the coveted Marshall Scholarship; five Rhodes Scholarships are also announced.

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### LIGHT YEARS

After 40 years at the Harvard Business School, Dean Jay Light (left) looks back on how the School has evolved.

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### HARVARD'S STATISTICS DEPT. FETES CENTENARY OF A FOUNDER

The Harvard Statistics Department marked the centennial birth year of one of its founding members, William Gemmell Cochran, with a symposium celebrating his landmark scholarship.

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### THE DECIDING FACTOR

What, exactly, distinguishes humans from apes? It's certainly more than just our genes, says renowned anthropologist Sarah Blaffer Hrdy (left). Hrdy, who received her A.B. in 1969 and Ph.D. in 1975 for work in Harvard's Department of Anthropology, returned to speak on "Mothers and Others: The Origin of Emotionally Modern Humans."

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### GOD AND WALMART

"If you want to reach the Christian population on Sunday, you do it from the church pulpit," said scholar Bethany Moreton, quoting the executive director of the Christian Coalition from 1995. "But if you want to reach them on Saturday, you do it at Wal-mart." Moreton examines the success of the discount retail chain Walmart and its Christian corporate ethos.

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**AFTER TWO TOURS, PROFESSOR OFFERS 'GROUND-TRUTH' DESCRIPTION OF WAR**  
Kit Parker (right), U.S. Army major and bioengineering professor, offers a "ground-truth" description of how the war is being fought in Afghanistan, and a personal assessment of the challenges faced by U.S. forces.

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# Forward into the past

As it celebrates its 150th anniversary, the Museum of Comparative Zoology is acknowledging its history and looking toward its future as a digital source for zoological knowledge.

By Alvin Powell | Harvard Staff Writer



Mark Omura and Hopi Hoekstra examine pelts that, as “type specimens,” help define the species for science. Full-size whale skeletons (below) hang from the ceiling of the renovated Hall of Mammals.

## COVER STORY



At Harvard’s Museum of Comparative Zoology (MCZ), there’s a New Guinea butterfly whose collector was himself captured and eaten by cannibals. There’s a 150-million-year-old kronosaurus, whose toothy skeleton covers an entire exhibit wall. There’s a now-extinct black mammoth, a bird with a long curved beak caught on explorer James Cook’s 1778 voyage to Hawaii, which he “discovered” for Europeans.

The now-extinct species in the museum’s display cases, drawers, and cabinets include a dodo and a great auk, a passenger pigeon and ivory-billed woodpeckers, a Steller’s sea cow and a Tasmanian tiger. There are many thousands of present-day creatures too, including giant whales, giraffes, and gorillas.

The museum, which marks its 150th anniversary this year, is full of musty, dusty specimens, about 21 million and counting.

But if you thought the MCZ is frozen in time, you’d be dead wrong. The digital and the DNA revolutions have arrived in full force, and the museum is roaring headlong into the Internet age.

Museum staff members already have loaded almost 700,000 digital records onto the Web, where they are accessible to researchers and students alike, and officials hope to complete the process within five years. DNA testing, which was unknown when many of the specimens were gathered decades ago, has become a master key in tracing animals’ lineage and evolution. Even the oldest samples generally yield telltale DNA.

In short, the museum is stuffed full of specimens, from basement to attic — where a blue whale resides — but it has never been about the specimens, as such. It was, and is, about the knowledge that they contain.

The beetles, bats, and other beasts sitting in drawers, cabinets, and display cases constitute both a vast library of life and a scientific time machine. They tell scientists who are savvy enough to ask not just the details of a specific bird or lizard or snail, but about where it lived and when.

In this anniversary year, the MCZ is allowing itself a reprieve from the frenetic pace of collecting, educating, and research-



Online ►► Photo gallery: [news.harvard.edu/gazette/?p=31682](https://news.harvard.edu/gazette/?p=31682)

ing to remember its past. Yet in examining the intent of its founder, Louis Agassiz, it also finds itself looking at its future.

MCZ Director James Hanken said Agassiz's vision of the museum as a place for education and research on the origin, history, and diversity of life endures today. And though the traditional collections remain, that search for knowledge is executed increasingly through modern methods. There are several major drives under way to digitize the museum's collections, beginning with the so-called metadata, the written details accompanying a specimen, where it was collected, when, and by whom.

Other information is being added as it becomes available, such as digital images, X-rays, and field notes. The digitized, online database for the ichthyology collection, for example, shows 23 specimens of piranha, the famed flesh-eating fish that haunts South American waterways. The records show where, when, and by whom the fish were collected, and that two species, despite the piranha's fearsome reputation, are fruit eaters.

#### Examining specimens with a mouse click

Another effort, begun last summer, raises the bar on the type of information available to far-flung scholars over the Internet. A program called Aves 3D uses advanced laser scanners to create three-dimensional digital images of the museum's 12,000 bird skeletons, which include such gems as a complete skeleton of the extinct dodo. The effort will result in an online database available to scholars and schoolchildren alike that will allow those interested not only to see the bird bones, but to measure and manipulate them in three dimensions.

Hanken reeled off a list of other digitization efforts, among them HerpNet for reptiles and amphibians, FishNet for fish, ORNIS for birds, and MaNIS for mammals. There are others, each with a different wrinkle in the nature and type of information available.

Hanken said the museum's digital strides have already resulted in increases in the number of scholars using the collections and decreases in the number of requests for in-person visits or for specimens to be mailed to researchers' home institutions. That has the twin benefit, Hanken said, of increasing the collection's usefulness while decreasing wear and tear

These deer mouse bones were collected by Hoekstra, who is studying the impact of natural selection on deer mice fur color.



on the specimens.

"We're basically going to digitize everything associated with the specimens. Anyone, anywhere can pull up information anytime for free," Hanken said. "We're sitting on a gold mine of information. The trick is to get this stuff out there. Many scientists don't know what we have."

The digitization effort across the MCZ has already generated 687,210 records, encompassing more than a million specimens. Though funding may prove a limiting factor, Hanken said he expects the process to be completed in the next five years.

Then there are the myriad cutting-edge uses for DNA, that revelatory foundation of modern science, which is in every MCZ specimen. It is held in death as it was in life, in tissues preserved in various ways, soaked in alcohol, dried, or held in feathers or fur.

In recent years, investigating a creature's DNA has become as important as measuring its beak size or skull dimensions in science's efforts to understand a creature and how it interacts with its environment. Hanken and the MCZ's faculty curators say that the rising prominence of DNA in scientific inquiry has made the museum's specimens more relevant, not less.

Hopi Hoekstra, the MCZ's curator of mammals and Loeb Associate Professor of the Natural Sciences, said that for virtually every mammal specimen collected a bit of tissue is also taken and held frozen as a DNA specimen. That practice is true for other collections as well, Hanken said, and the museum plans to create a holding area for deep-frozen tissues as part of a centralized collection.

"People routinely collect materials for genetic analysis," Hanken said. "It'll hold hundreds of thousands of specimens."

While tissues collected specifically for DNA analysis are valuable, Hoekstra said one strength of the MCZ collections is that for many specimens, even the older ones, usable DNA can still be extracted.

Hoekstra's own research, which has added 3,000 specimens to the mammal collection in the past two years, examines natural selection's impact on the coat color of deer mice.

"A lot of our work depends on collections from 100 years ago, so we can compare temporally," Hoekstra said. "We can ... get DNA out of ancient specimens. We can look not only at differences in color but also at genetic change through time. Some older specimens have been skinned, dried, and dipped in benzene, and we can still get useful DNA out of them."

Hoekstra and Hanken said that with an extinction crisis under way amid a warming world, museum collections are more important than ever in helping to unravel the changes taking place.

"If you think about global climate change, we can document changes in the ranges of animals. Things are being found in places they never have before and



Hopi Hoekstra and Mark Omura walk through the collections in the "attic" of the MCZ.

are lost in places where they once were," Hoekstra said.

So much for the idea that the museum is a musty home for stuffed animals.

#### A collection born amid controversy

The MCZ was founded in 1859 by famed Swiss scientist Louis Agassiz, who was known for discovering the Ice Ages. Agassiz came to Harvard intent on starting a museum that would rival the great institutions of Europe. Today, however, Agassiz is as much remembered for being on the wrong side of the evolution debate as he is for his work at the MCZ or for his earlier scientific findings.

His efforts not only established an enduring scientific institution, but also drove collecting efforts that enriched it. One expedition to the Amazon, during which Agassiz hoped to find evidence against Charles Darwin's theories of evolution, gathered specimens representing 2,200 species, an astounding 2,000 of which were new to science.

Agassiz's son, Alexander, furthered his father's efforts. He became the museum's second and longest-serving director and used his great personal wealth to bring his father's museum vision to fruition.

There have been nine directors since the museum's founding, including prominent scientists such as evolutionary biologist Ernst Mayr, who led the institution from 1961 to 1970. In addition to the museum's directors, research is conducted by faculty curators of 12 departments and the Concord Field Station, covering subjects and collections from ento-

(see *Museum* next page)



## Museum

(continued from previous page)

mology to vertebrate paleontology. These curators also hold appointments in Harvard's Department of Organismic and Evolutionary Biology.

### Presenting a popular public face

Though research and teaching are the MCZ's main reasons for being, its public galleries have been an important component of its educational mission since its founding.

In 1998, the MCZ joined with two other Harvard institutions, the Harvard University Herbaria, owner of the famed Glass Flowers collection, and the Mineralogical and Geological Museum to form the Harvard Museum of Natural History (HMNH). The HMNH manages the three institutions' public programs, employing museum professionals who collaborate with curators to design exhibits, arrange lectures, and put together weekend classes and workshops.

The galleries represent a mix of historical and modern museum sensibilities. New exhibits on color in nature; on the broad array of insects, crustaceans, and other arthropods; and on evolution employ the latest in museum-presentation techniques, with eye-catching, interactive displays, explanatory placards, and sometimes dazzling arrangements of specimens.

But the museum also contains galleries as Agassiz intended them. Agassiz was widely praised after the MCZ's opening for his arrangement of specimens according to geographic location, something that was not done at other museums and that allowed visitors to gain a better understanding of the natural context in which creatures were found. To this day, several galleries remain organized according to those guidelines, presenting animals from Africa, South America, and other locations.

To celebrate its anniversary, the museum renovated one of its gems, the Great Hall of Mammals. The two-story room, surrounded by a gallery level holding more exhibits, is the last survivor of the original halls that filled the museum building when it opened. The others became victims to the space squeeze that has been a constant at the



Type specimen of a gorilla.

museum, their galleries floored over, and their space divided up to other purposes.

Soaring and bright, the Mammal Hall now holds a full-sized giraffe, camels, and other large mammals enclosed in glass cases, presented today as they were when the museum opened. Hanging from the rafters — at eye level from the gallery — are large skeletons of a sperm whale, a fin whale, and a right whale. The renovation saw the floors refinished, the walls painted, and the exhibits cleaned and rearranged, but the effort kept the hall true to its original grandeur.

"The idea was to very much retain its Victorian look. That's one of the [unique] things of this museum, it's a museum of museums," Hoekstra said.

Harvard's "museum of museums" is alive and well, at least from the visitors' standpoint, with their numbers increasing, approaching 200,000 last year.

"We're one of the University's best 'front doors,'" Hanken said.

Hanken believes that the museum's most valuable collections are its holotypes, the first members of a species to be collected and named. These sample specimens are taken and kept in museums as examples of new species, providing critical reference points for future biologists working on them. The MCZ, Hanken said, has tens of thousands of type specimens, including the gorilla, the wolf, the Florida panther, and the fox.

With aging specimens providing massive amounts of fresh knowledge, at the MCZ, the past is prologue.

## Forests focus of gift

Paul Zofnass commits to fund New England Forests exhibition at Harvard Museum of Natural History.

Paul Zofnass '69, M.B.A. '73, has become the Harvard Museum of Natural History's (HMNH) largest donor since its founding in 1998 with a commitment of \$500,000 to create a major, permanent multimedia exhibition focusing on the natural history, environmental significance, historical development, and conservation of New England forests.

New England Forests: The Zofnass Family Gallery, scheduled to open in spring 2011, will feature Harvard's natural history collections and draw on current research from the Departments of Organismic and Evolutionary Biology and Earth and Planetary Sciences, the Harvard Forest, and scientists across the University.



The broad goal of the exhibition is to enhance public understanding of the dynamic nature of forest ecosystems, the impacts of human activity in shaping the landscape, and the relationships between forest landscapes and habitats and the distribution and evolution of varied flora and fauna. The exhibition will present the latest research on the role of forests in carbon sequestration and address the threats created by invasive species. It will also demonstrate the methods and tools that scientists use to investigate these issues.

"We are deeply grateful for this generous gift, which offers an extraordinary opportunity to showcase dramatic specimens, present important research, and raise critical policy issues in the context of a regional landscape familiar to most of our visitors," said Elisabeth Werby, executive director of HMNH.

Zofnass is president of The Environmental Financial Consulting Group Inc., a New York City-based strategic consulting firm. He is a magna cum laude graduate of Harvard College '69 and an alumnus of the Harvard Law School and Harvard Business School, M.B.A. '73. Zofnass' wife, Renee Ring, is a finance attorney in New York City. They have two daughters, Jessica '08 and Rebecca '09.

An avid sailor and outdoorsman, Zofnass grew up in Belmont, Mass., and as a child often visited the public galleries of the Museum of Comparative Zoology. Zofnass has been a passionate advocate for forest conservation near his home in Pound Ridge, N.Y. Over the past 20 years, with his sister Joan Zofnass, Paul used his mergers and acquisitions skills to create the Westchester Wilderness Walk, which formally opened to the public in 2001. Through this 250-acre preserve, just 40 miles from New York City, he laid out and built a 10-mile-long hiking trail that winds around the unique forest and geological features, showing no trace of civilization.

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Implant-based cancer vaccine is the first to eliminate tumors in mice.

John Rinn, assistant professor of pathology at Harvard Medical School, writes down RNA formulas on a decorative fish tank inside the Center for Life Science.

researcher who is laid-back and informal — until it comes to science.

When “you start talking about science, he’s quite focused, very intense, very creative,” Saffitz said. “He’s having a lot of fun. And in this field, if you’re not having fun you need to re-examine what you’re doing, because it’s really hard.”

Rinn’s work got him named to Popular Science magazine’s “Brilliant 10” list of the nation’s most-promising young researchers in October. Rinn was also named a National Institutes of Health New Innovator this fall, which came with \$1.5 million to further his work.

Though he is focused now, few would describe a young John Rinn that way. He attended a succession of high schools and admits he put little effort into his schoolwork. Instead, he hung out with friends in downtown Minneapolis, riding skateboards and perfecting tricks. In winters, he and his friends left the city for local ski resorts.

After high school, Rinn enrolled in a community college and continued to put in little effort. He and his friends were seeing a bit of success on the slopes, though. They landed a local snowboarding sponsorship and talked about going to Denver to see if they could cut it on the big-time circuit.

But something inside told Rinn not to go. He had seen one friend paralyzed when a big jump went wrong, and another killed in a car crash while driving to the mountains. Though Rinn had embraced the teen skater culture, he sensed there was a time limit — like that on his teenage years themselves — on how long his body could take the punishment of a life pointed at skateboarding and snowboarding.

“I felt I needed to give something else a try,” Rinn said. “All I had was college. I had no idea how to approach it or get started.”

By the time of his snowboarding accident, Rinn had transferred to the University of Minnesota. After that summer of rehab, he took up running and considered a career as an exercise physiologist. He enrolled in science classes and found his passion, switching to chemistry and graduating with a bachelor of science in 1999.

Perhaps it was his anti-establishment youth that led Rinn to push on when some critics told him that his early lab results recorded just noise in the genome. Rinn admits to having something of a chip on his shoulder, to always feeling like he has to prove himself.

“A lot of people thought it was an artifact,” Rinn said. “We figured we’d give it a chance, give it a fair trial.”

# Biologist turns genetic trash to treasure

Researcher John Rinn overcomes a rocky start in life through his passion for biology, discovering a new category of RNAs on the way.

By Alvin Powell | Harvard Staff Writer

A troubled snowboarder’s fateful twist on a Minnesota ski hill 13 years ago put him not only in the hospital, but also on a new life path that eventually led to laboratories at top research institutions. His resultant research led him to new insights into RNA’s role in the human body and the part it plays in disease when it goes awry.

John Rinn, an assistant professor of pathology at Harvard Medical School (HMS) and a researcher at Beth Israel Deaconess Medical Center (BIDMC) and the Broad Institute of Harvard and MIT, traces his scientific successes to an epiphany he had the summer after the snowboarding accident, while a University of Minnesota undergraduate.

As a torn knee slowly healed at his mother’s sweltering Georgia home, he read and reflected on opportunities missed and lessons learned during years spent doing little other than skateboarding in the summer and snowboarding in the winter.

His path since has included graduate study at Yale University, a postdoctoral fellowship at Stanford University, and his current work as a researcher. Over those years, Rinn discovered and is now investigating a new category of RNA. RNA is single-stranded genetic material once thought mainly to function as a biological tool to change DNA’s instructions into proteins. Research since the early

1990s, however, has revealed more types of RNA than previously known, with some playing key regulatory roles.

Rinn’s work revealed a new class of the molecule called “large intervening noncoding RNA,” or lincRNA, found in a part of the genome that science had previously thought to be filled with nonfunctional genetic junk.

Rinn’s 2003 discovery of lincRNA was met with scientific skepticism. That has slowly turned to acceptance as Rinn first identified a single lincRNA — which he called HOTAIR — and traced its function.

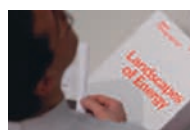
Rinn found that HOTAIR played a key role by delivering proteins to particular genes. He has since found many more lincRNAs that are involved with immune response, cancer growth, and fat and stem cell production.

Jeffrey Saffitz, BIDMC’s chief of pathology and Mallinckrodt Professor of Pathology at Harvard Medical School, said Rinn is among several bright young investigators he hired to intensify the hospital’s research focus on disease, specifically cancer.

“He’s onto something very big,” Saffitz said. “The guy has just come on so strong.”

Saffitz described Rinn as a creative and enthusiastic

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‘Landscapes of Energy’: A Harvard journal investigates energy’s spatial dimension



## FACULTY PROFILE

## Wizard at circuits, physics

Donhee Ham, Gordon McKay Professor of Electrical Engineering and Applied Physics, uses his personal energy and understanding of physics to design innovative integrated circuits.

By Alvin Powell | Harvard Staff Writer

Once a top physics student who aspired to study black holes, Donhee Ham turned his sights from the huge to the small, from a study of the spacious skies above to tiny quantum wires, transistors, and integrated circuits.

Ham, who was named Gordon McKay Professor of Electrical Engineering and Applied Physics in July, designs silicon chips containing millions of transistors for radios and computers, but his unique skills come out in projects that blend circuit-building with physics for unconventional applications and new scientific pursuits. Ham built the world's smallest nuclear magnetic resonance (NMR) system by controlling atomic nuclei motions on a silicon chip, for example. The system, 1,200 times lighter than a commercial instrument, can be used as a handheld biomolecule sensor for disease screening, oil detection, and quantum computing.

"He's using his skill as an electrical engineer to go into other fields and really make an impact," said Robert Westervelt, Mallinckrodt Professor of Applied Physics and of Physics.

In announcing Ham's promotion, Cherry Murray, dean of the School of Engineering and Applied Sciences, said Ham's work at Harvard has helped to boost the School's presence in electrical engineering. She hailed his "nearly encyclopedic understanding of physics and solid-state circuits," which, she said, has led to creative and innovative applications in diverse fields such as biotechnology and medicine.

In creating the mini-NMR system, Ham and graduate student Nan Sun rethought how NMR works. A magnet is essential to NMR. Because a larger magnet yields a stronger signal, most NMR machines use bulky magnets. Sun and Ham took an opposite approach, using a magnet only the size of a Ping-Pong ball and building a high-performing radio-frequency silicon chip that can retrieve the signal weakened by a small magnet. The result is a 0.2 kilogram NMR system that can be held in the palm of the hand. It is not only 1,200 times lighter than a conventional NMR system, but also 150 times more sensitive.

Another project in Ham's lab seeks to observe and engineer a state called "plasmonic resonance" in a metal where many electrons vibrate together as a group. The state has long been observed in optics, but at a very high rate of vibration. Ham's pursuit is observing plasmonic resonance at a slower vibration rate — hundreds of billions of cycles per second — which falls in the electronics domain. The work, conceived by doctoral student Xiaofeng Li and carried out by Li and graduate student William Andress, envisions enabling plasmonic resonance in the electronics domain by exploiting the unique properties of tiny metals called "quantum wires."

If researchers can create waves, Ham said, they will be able to learn more about electron-electron interactions in quantum wires. Practically, the study could lead to the development of new types of resonators and transistors, Ham said, which could suggest a new avenue for electronics.

Ham got his start in physics in college in South Korea, winning several prizes



and graduating summa cum laude from Seoul National University in 1996, where he also won the Valedictorian Prize and the Physics Gold Medal. After a year and a half of mandatory service in the Korean Army, he went to the California Institute of Technology (Caltech) for his graduate work.

He began working in astrophysics under Barry Barish, Caltech's Linde Professor of Physics. Though Ham loved physics, during his first year his career interest shifted to a more practical field. After considering chucking it all for law or business, he settled on electrical engineering as an area where he could put physics to use. His doctoral work examined the statistical physics of circuits and earned him the Wilts Prize, given for the best electrical engineering thesis at Caltech.

After Ham earned his Ph.D. in 2002, he came to Harvard as an assistant professor. He became associate professor in 2006, and Loeb Associate Professor of the Natural Sciences in 2007.

"I owe my career to my teacher [Barish] and students," said Ham. "Barry taught me how to do and enjoy science and how to help others. When I was quitting physics and not knowing what to do next, Barry generously went out of his way to support me. He said it was an investment in young people."

Top electrical engineering students gravitated to Harvard to work with Ham.

"Not only did Xiaofeng Li, International Physics Olympiad gold medalist

and two-time top ranker of the U.S. Intercollegiate Physics Competition, devise the plasmonics work with his superb science," Ham said, "but he solved in two weeks a circuit noise problem that avoided solution for 40 years, revealing a surprising, beautiful connection between classical circuits and quantum electrodynamics. Xiaofeng is an incredibly deep and clear thinker who has an inside track to truth."

Discussing another gifted contributor, Ham said that Andress, 2004 Hoopes Prize winner, "created tiny electromagnetic and plasmonic devices I could not think of."

On Nan, who is a top graduate from Tsinghua University and a two-time Harvard Teaching Award winner, Ham said: "Nan should have received all the recognition I've received for the NMR work, for he singlehandedly and brilliantly built a series of ever-shrinking NMR systems in just one year, with the highest intellectual and technical virtuosity and scientific breadth."

"I am blessed to work with students with the highest quality of minds," Ham said.

Ham's physics background, Westervelt said, makes him a good collaborator with physicists. For example, Westervelt has found that when he talks with chip designers, he finds that they understand the project, but not the physics behind it. In talking with Ham, Westervelt added, it's apparent he understands not only the engineering but its underlying science, making him a good sounding board for ideas.

"He's a very creative guy who knows his science as well as engineering. He not only understands an idea, he can deliver the goods," Westervelt said.

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section/campus-n-community](https://news.harvard.edu/gazette/section/campus-n-community)



Erez Manela describes his study of international history, which takes you from 1910 to the 1970s.



# In defense of Gutenberg

Harvard Library director pens book that in itself is an ode to the form.

By Sarah Sweeney | Harvard Staff Writer

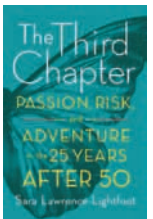
## HARVARD BOUND



### ENCHANTED HUNTERS: THE POWER OF STORIES IN CHILDHOOD

(W.W. Norton, 2009)  
By Maria Tatar

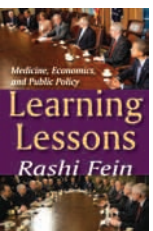
Tatar plumbs the lore and enchantment of children's stories, revealing their power to ensnare imaginations, and highlights the magic of reading and what children take from it.



### THE THIRD CHAPTER: PASSION, RISK, AND ADVENTURE IN THE 25 YEARS AFTER 50

(Farrar, Straus and Giroux, 2009)  
By Sara Lawrence-Lightfoot

Sociologist Lawrence-Lightfoot's inspiring book says that ages 50-75 are prime time for adventure. Forty interviews with people living in their "third chapter" show how fulfilling life can be then.



### LEARNING LESSONS: MEDICINE, ECONOMICS, AND PUBLIC POLICY

(Transaction Publishers, 2009)  
By Rashi Fein

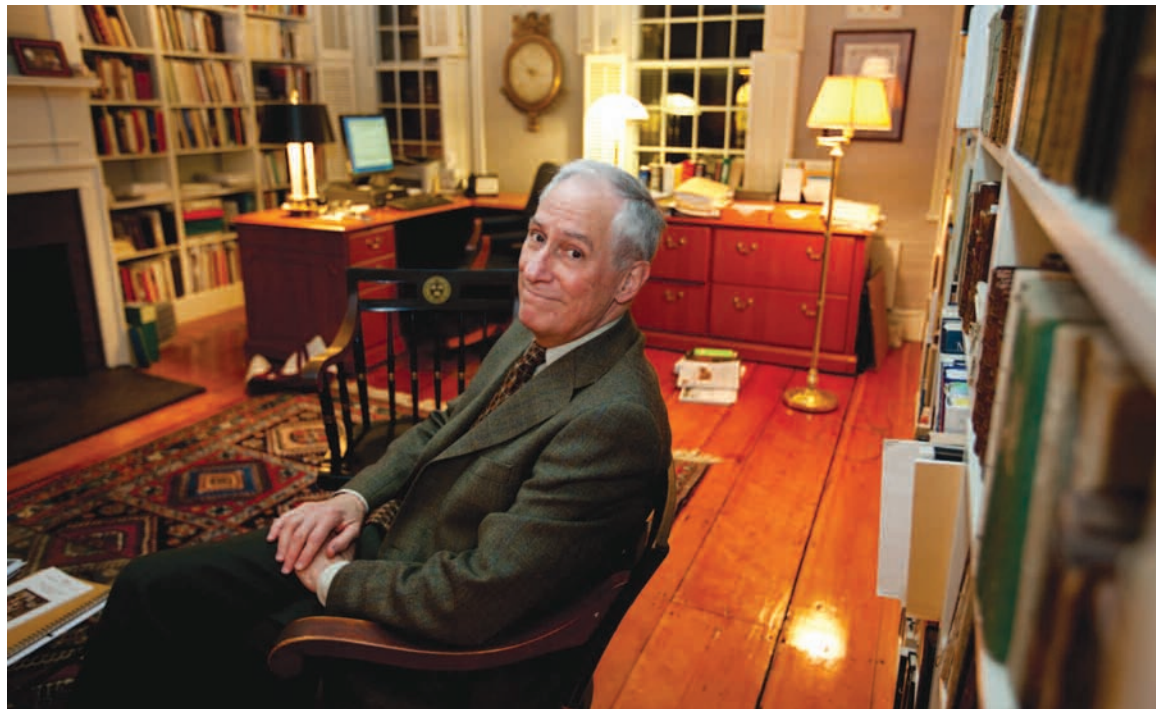
With more than 50 years of experience in the economics and policy worlds, Fein dishes the lessons he's learned on government, decision making, and more, attempting to breathe new life into our nation's welfare.

In "The Case for Books" (2009), Harvard University Library Director Robert Darnton questions the future of books in a rapidly digitized world.

He knows that they will never be truly obsolete, though they are transforming. In an age when e-books threaten to supersede printed ones, when Google is scanning and making literature available online, when Kindle allows long-form reading on a digital platform, and when many publications are sinking into bankruptcy, how much longer can readers hold on to good old-fashioned paper?

"Digitization is transforming the communication systems of the modern age without replacing print," consoles Darnton, noting that the death of the book is predicted all the time, but more books appear in print each year.

"Soon one million new titles will be published annually throughout the world. The codex — a book you read by turning pages as opposed to the *volume*, a scroll that you unroll to read — is one of the greatest inventions of all time. Two thousand years old and still going strong, stronger than ever in print form."



Darnton's own book is part history of the form, part plan for the future. He argues that the value of the book cannot be surpassed, though digitization has its rewards.

"In an e-book, you can provide endless supplementary material in various formats — archives, photos, films, and hyperlinks to other sources."

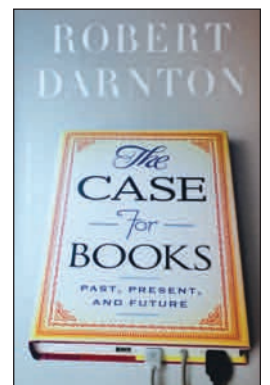
Next year, Darnton will publish a book with Harvard University Press about Parisian street songs. "The reader of the print edition will be able to tune in to the online material and hear the songs sung to their original tunes, while following text on the page."

But this library leader also has concerns about the difficulties of preserving digital works: "Their hardware and software will become obsolete; they are fragile; their digits can unravel, and their metadata may not be adequate to locate them, years hence, in cyberspace."

Darnton agrees that the physicality of books provides irreplaceable pleasure, saying, "They delight the eye, feel good to the touch, and even smell good." He tells of a French producer of e-books who "offered its customers a sticker that they can put on their computers and scratch to produce a musty smell like that of an old volume."

How's that for staying power? And, of course, there's that child wizard.

"Publishers have learned from Harry Potter that there is a public out there, eager to devour a well-told tale."







Cornelia James Cannon recounts a trip to Europe she took with her four daughters and her sister-in-law. This watercolor by Cannon's daughter Wilma illustrates her mother's typescript narrative.

## Women on the move

A new Schlesinger Library exhibit, “To Know the Whole World,” introduces an interactive Web site on women’s travel writing.

By Corydon Ireland | Harvard Staff Writer

Cornelia James Cannon, an 1899 graduate of Radcliffe College and a longtime Cambridge resident, set off with her sister on an automobile camping trip in the summer of 1917.

“Our plan is to leave our homes, our eight young children, our social and domestic responsibilities, and sally forth to see the world, as free lances and comrades of the road,” she wrote later. “A Ford, a tent, a camp stove, and the world is ours for the taking.”

Cannon’s account, “A Middle-Aged Adventure,” is wry and defiant. (“Our consciences were wrenched at the thought of our careless irresponsibility — for about a mile,” she observed.) It was never published, but is now

available through a new digital project at Harvard, “Travel Writing, Spectacle and World History.”

The project, accessible through HOLLIS to Harvard students and researchers, collects hundreds of travel accounts by women. The earliest is an 1818 letter describing a family wedding, the start of a nine-year sojourn to England. The latest is a 1972 account of a trip to China.

Along with manuscripts like Cannon’s, there are diaries, sketchbooks, photographs, letters, watercolors, and ephemera, including cruise ship menus and old passports.



The passport of Edna Rankin McKinnon (1893-1978), a birth control advocate who worked closely with Margaret Sanger.

Online ► View photo gallery: [news.harvard.edu/gazette/?p=31730](http://news.harvard.edu/gazette/?p=31730)





The digital archive, which opened last month (November), was assembled from collections at the Arthur and Elizabeth Schlesinger Library on the History of Women in America. The library's extensive archives, begun in 1943, go well beyond travel writing. But a lot of such writing, evocative of women's history, is contained in 3,200 collections of family papers, institutional archives, and manuscripts.

The Schlesinger also has set out in its first-floor gallery an exhibit of artifacts called "To Know the Whole World," which will be on display through Feb. 26.

Cannon (1876-1969), a novelist who traveled the world well into her 80s, is represented in part by hand-colored sketches from her 1929 "Art Awheel in Italy," an account of a three-month trip by Cannon, her four daughters, and an aunt. (The Italians were surprised to see women drivers.)

In the exhibit, there is also a travel diary recounting a seven-month tour of Europe by Sarah Shurtleff, who grew up in a wealthy Boston family. The diary, from 1898 to 1899, is a handsome pastiche of handwritten documents, photographs, and printed material.

"Part of my delight in the travel project is seeing the artistic output of women," said Marilyn Dunn, the Schlesinger's executive director. Dunn co-authored an introductory essay on the Web site with Ellen Shea, head of public services at the Schlesinger.

The women travelers in the collection display a breadth of time, class, and geography. The writers include Mary Adams Abbott, Chloe Owings, Rowena Morse, Rosamund Thaxter, and Catherine Filene Shouses (who wrote hair-raising accounts of early air travel). All are travel writers you otherwise would not know about.

One of Dunn's favorites is Tabitha Moffett Brown, a Missouri widow who in 1846 set off on a harrowing wagon trip across prairies and mountains. After facing wolves, Indian attacks, starvation, and deep snow, she arrived in the Oregon Territory with just 6 cents. "In our extremity," she wrote, "tears could avail nothing."

Like the digital collection, the library exhibit reveals the literary, the artistic, and the odd. In one glass case, a passport stretches accordion-style for several feet. It belonged to Edna Rankin McKinnon (1893-1978), a pioneering advocate of birth control whose papers the Schlesinger holds.

Cannon was an early birth control advocate too. The Schlesinger's collection of travel writing reveals threads of feminist thought. After all, it is drawn from papers that had wider intent, writings and artifacts that in sum illustrate and document a sweep of interests: reproductive health, women's rights, home economics, sexuality, fashion, war, family life, social justice, politics, and leisure.

"While we are a women's-history repository," said Dunn, "there is no end of topics."

Alice Rich Northrop was a botanist who toured Central America with members of her family. This brochure from one of her trips touts the ocean liner's amenities: "These vessels are fitted with the Electric Light throughout, and all modern improvements, including luxurious saloons, Ladies' Rooms, Music Saloons, Smoking Rooms, Refrigerating Chamber, &c. They thus offer unsurpassed facilities for Passengers traveling for pleasure and health."

The wider topics are accessible, since digital collections are searchable. That too is a form of modern travel, on the back of a computer mouse.

The ease of digital travel is helpful to researchers. "Once a scholar breaks through the initial avalanche, the quality and depth of the material is excellent," Katherine Stebbins McCaffrey said of the digital archives. "I found things I never would have otherwise."

She is a history and literature lecturer at Harvard who teaches "Americans Abroad," a freshman seminar on travel writing. She plans to have her class visit the exhibit soon.

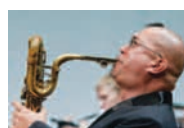
Digital collections allow scholars to share sources and insights more easily, said McCaffrey. For students, the online collections are not a replacement for visiting the archive, but they are an attractive bridge to it.

The travel-writing archive was digitized in collaboration with Adam Matthew Digital. The British-based company digitizes collections at libraries around the world, and then offers them for sale as teaching and research aids. The for-profit path is one model of getting the Schlesinger archives "into the digital arena," said Dunn. The library is also exploring grants to fund this kind of work.

A for-profit model is acceptable for some collections, but not others, said Dunn. The suffrage collection, for instance, would be better digitized as an open-source archive, available "at no cost," she said, "for the public good."

Following that open-access model will be the Schlesinger's collected papers of France Perkins (1880-1965). She was U.S. Secretary of Labor from 1933 to 1945, the first woman appointed to a Cabinet post. Her papers will be digitized and available next year, in celebration of the 130th anniversary of her birth.

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Blowing his own horn: Arts Medalist Fred Ho shares "rebirth," debuts new piece



Learning's online fate: The digital age challenges teachers, teaching, books



# Citizen spies, spied-on citizens

An exhibit of Czech secret-police photos from the Communist era, at Harvard through Dec. 21, shows Big Brother as unintentional artist.

By Corydon Ireland | Harvard Staff Writer

The photos are unsettling, depicting years of humdrum, everyday life framed through the lenses of unendingly suspicious watchdogs.

“Prague Through the Lens of the Secret Police,” at Harvard through Dec. 21, is an exhibit of spooky images from the 1970s and 1980s. They depict the “normalization” period in Czechoslovakia, an intensely repressive interval between the Soviet-led crackdown in 1968 and the collapse of Communist rule in 1989.

The exhibit, at the Center for Government and International Studies, consists mostly of banner-size photos and text cards translated from Czech.

There are also six minutes of looped video. In one scene, filmed with a hidden camera, a man simply eats an apple. “From now on, when I eat an apple, I’m going to be watchful,” said Mark Kramer, a fellow and director of the Harvard Project on Cold War Studies, part of the Davis Center for Russian and Eurasian Studies.

The Czech secret police went to great lengths to keep track of people “who were perfectly innocuous,” he said. “These weren’t terrorists. They weren’t dangers to the state.”

The images, grainy and haunting, capture the dreary pe-

Czech archive, established by law, is the freest and most accessible, said Jiri Ellinger, first secretary and head of the political section at the Embassy of the Czech Republic in Washington, D.C. At Harvard, he spoke at an opening reception Nov. 15 to a crowd of about 150.

This is not an art exhibit, though the photos have “a peculiar charm,” said Ellinger. “Rather than enjoy it, I would ask you to think about it.”

The people in the pictures could not speak, read, or gather freely, he said. And the people taking the pictures thought of citizen surveillance as normal.

Still, the black-and-white photos, tilted and blurry, carry the unmistakable, if accidental, imprint of art. “An important work of art,” admits the catalog, “can also sometimes be created by people of whom it would not have been expected.”

The exhibit begs the questions: Who were these unintentional artists, whose photos can move onlookers years later? Who were these secret-police officials, whose naïve pictures — taken without aid of the human eye from satchels and pockets — evoke so vividly the drab Prague of the Communist era?

In 1948, when Czechoslovakia became a Communist state, there were 14 men in a special police unit who



dressed in a white-striped outfit and white shoes. She was carrying a white plastic bag and a brown purse. Afterwards ...”

Haviland Smith, the U.S. Central Intelligence Agency’s station chief in Prague from 1958 to 1960, attended the opening. He called surveillance “an expression of the regime’s desire to stay in power — nothing more, nothing less.”

Surveillance was often layered, professional, and constant.

It could be comical too. Shortly after arriving at a Prague hotel, Smith’s wife complained how there was only one towel in their room. “Within two minutes,” he said, “there was a knock on the door, and the maid stood there with an armful of towels.”

By 1989, police spies had amassed more than 7,000 files on civilians. They gave their operations code names



riod known as “dumpling socialism,” a term of ironic nostalgia for Czech Communists. “The Prague we see,” reads the exhibit catalog, “is full of scaffolding, peeling facades, and socialist-era cars with two-stroke engines.”

The exhibit is from the Institute of Totalitarian Regimes in Prague, where a related Security Services Archive opened last year. The show’s first U.S. stop was the Woodrow Wilson International Center for Scholars in Washington, D.C. Its second is Harvard.

Kramer has worked extensively in the Czech police archive. Stored end to end in file cabinets, he estimates, are more than 30 miles of documents. Czech authorities say it will take a decade to digitize all of that paper, microfiche, film, and photography.

Similar archives are open to the public in most former nations of the Soviet-controlled Eastern Bloc. But the

were spying on citizens. They had only one camera. By 1989, just before the Velvet Revolution transformed the Czech Socialist Republic into a democracy, 795 men and women were in the Surveillance Directorate of the State Security Service.

These domestic spies embraced a James Bond modernity. They used many cameras — concealed in tobacco pouches, purses, briefcases, transistor radios, lighters, and on engine blocks (for mobile surveillance). They mounted Sony television cameras in parked cars and in a baby carriage wheeled around by operatives posing as married couples. They ran up tabs for meals and beer. All was carefully archived, including deadpan written reports that read like postmodern fiction.

One began: “ALI was caught at the train station hall while perusing the arrival board. ALI was bareheaded,

with novelistic resonance, including Rome, Tennis Player, Bula, and Condor. They nicknamed their surveillance subjects with similar verve: Alice 83, Smoke, Typist, and Aloe, for instance.

Producer 1, tailed from 1982 to 1989, was filmmaker Milos Forman. Doctor A — bespectacled, bearded, and on crutches in the exhibit photos — was Zdenek Pinc, a Prague professor of ancient philosophy.

“He was dangerous to the regime,” as were his beloved philosophers from 2,000 years ago, said Ellinger, because “he wanted to study and think freely.”

Online ► View photo gallery, see exhibition: [news.harvard.edu/gazette/?p=31122](http://news.harvard.edu/gazette/?p=31122) and [ustrcr.cz/en/exhibitions](http://ustrcr.cz/en/exhibitions)



# When writers become targets

A Harvard instructor, concerned about literary artists threatened overseas, proposes Writers at Risk, an academic harbor.

By Corydon Ireland | Harvard Staff Writer

It is June 29, 2004, in St. Petersburg, Russia.

Magazine writer Maksim Maksimov, investigating police corruption, gets a tip. He follows an informant to an apartment on Furshtatskaya Street.

Five men are waiting there. Seizing Maksimov, they beat him, then choke him to death. They wrap his body in plastic, stuff it into the trunk of a car, and drive to a forest nearby. The body is never found.

Maria Yulikova, a freelance Russian journalist now studying at Tufts University, told the story of the 41-year-old Maksimov last month in a classroom at Harvard's Memorial Hall. The setting was a freshman expository writing class taught by Jane Unrue.

Yulikova told the assembled students that she has the facts, and has talked to witnesses. But no one will go on record. One of the murderers is a high-ranking Russian federal police officer, she said. She asks them, as students of the persuasive essay, how she should get her message heard?

Unrue is an experimental-fiction writer with an M.F.A. from Brown University. In both sections of her class, Expository Writing 20: "The Voice of Authority," she hosts two international writers every semester. They tell stories such as Yulikova's, though more often through literary fiction — the kind of art that galls repressive governments.

Her literary visitors, all of whom she called "exceptional artists," have included a Chinese dissident poet, an Iranian novelist unwelcome in his own country, a writer from Zimbabwe who is translating "King Lear" into his native Shona, a Buddhist story writer formerly jailed in Burma, and an Iraqi novelist whose painful reality sometimes emerges in the mask of science fiction. (One of her Saddam Hussein-era books speaks volumes with its title: "Things That Did Not Happen.")

After the visits, Unrue's students do a comparative literary analysis of the writers' work, "often in light of the oppression they have endured," she said.

Last spring, Unrue launched a Visiting Writers Series of public panels. Next spring's panel will include participants from literary journals, most of which have been banned. The event will be partly funded by the Humanities Center at Harvard. Center Executive Director Steven Biel said of Unrue, "She does amazing stuff," but future funding, he added, remains uncertain.

This year, Unrue also has put a name to the idea of hosting important literary artists from overseas: Writers at Risk. She hopes her new initiative will grow into a formal University shelter for important writers who face threats in their own countries.

Unrue's idea has the support of the Harvard chapter of Scholars at Risk, which is part of an international network of institutions that provides refuge for 50 dissident academics a year. Most of them come from traditional disciplines such as science and law.

Photo by Stephanie Mitchell | Harvard Staff Photographer

Since 2002, Harvard has sponsored 20 scholars at risk; six are in residence this year. But only three of the 20 so far have been poets or novelists, said Unrue, who is on Harvard's Scholars at Risk committee. The first, in 2007, was celebrated Iranian novelist Shahriar Mandanipour. The other two, in danger at home, remain anonymous.

Writers at Risk is a dynamic, though unofficial, component of Harvard's Scholars at Risk chapter, said co-director Jacqueline Bhabha, who is also executive director of the Harvard University Committee on Human Rights Studies.

Bhabha, an authority on asylum law, is the Jeremiah Smith Jr. Lecturer in Law at Harvard Law School and a lecturer in public policy at the Harvard Kennedy School. Bringing such high-end writers to Harvard classrooms, she said, has been "spectacular."

The presence of dissident and threatened writers enriches the classroom experience, and Writers at Risk could institutionalize that, said Unrue. "This is something we would like to build."

Unrue also has a program that conducts audio interviews with dissident writers visiting from abroad. The interviews, two hours long, are historical but strongly literary, burrowing down into the level of technique, said Unrue. "They are really meant for the young writer."

Yulikova's visit was intended as a lesson in persuasive strategy for Unrue's first class of 15 that day. Visits by any writers, she said, must have "a rigorous, practical nature."

The students were seated around a large table under stained-glass windows. "We've been moving, from day one, to the real world," said Unrue.

Her students had started the semester by reading "One Flew Over the Cuckoo's Nest," a 1962 novel by Ken Kesey. Now the real cuckoo's nest was present, in the form of stories like Yulikova's.

To the amazed freshmen, the Russian journalist opened a window into a world in which news writers, novelists, and poets are routinely murdered, imprisoned, or harassed for their work with words.

According to International PEN, the writers group, at least 68 online and print journalists have been killed in the last year, seven of them in Russia. Another 1,000 writers have been attacked, often by authorities; 200 of those assaulted were then sentenced to prison for 20 years or more.

Many such cases remain obscure, including Maksimov's, said Yulikova, a master of arts in law and diplomacy candidate at the Fletcher School at Tufts.

"I feel like I'm the only journalist on the story," she said, recalling her last interview in St. Petersburg, to which she brought a bodyguard. "It's not big. It's not a Moscow story."

In the past five years, Yulikova has gleaned facts in the Maksimov case, in part as the one-time Moscow representative of the New York-based Committee to Protect Journalists.

But she has worked on the case as a friend too — a friend of Maksimov's mother, who is still haunted to know the truth about her son's death and yet remains helpless.

"I talk to her on the phone," Yulikova told the class, as if to impart the writer's real gift: empathy. "I hear her voice all the time."







President Drew Faust visited the Apartheid Museum in Johannesburg (above) and later addressed an audience at the University of Johannesburg at Soweto (below). While in Botswana, she saw firsthand how Harvard is helping the African nation to fight AIDS when she toured facilities in two communities where a Harvard-Botswana partnership is operating anti-AIDS programs.

## Faust in Africa

President tours Harvard-partnered facilities, announces initiative between HGSE and the University of Johannesburg.

GABORONE, Botswana — Harvard President Drew Faust saw firsthand how the University is helping the African nation of Botswana to fight AIDS, when she toured facilities last week (Nov. 25) in two communities where a Harvard-Botswana partnership is operating anti-AIDS programs.

Faust, the first Harvard president to visit Africa, met with young Harvard-trained researchers in a state-of-the-art laboratory built and operated by the Botswana-Harvard Partnership for HIV Research and Education (BHP), a novel collaboration between the Harvard School of Public Health's AIDS Initiative (HAI) and the government of Botswana.

Botswana's anti-AIDS programs are considered models of how to fight the disease, although the nation remains among those hit hardest by AIDS.

Botswana was an early stop on Faust's six-day trip, during which she visited Johannesburg and Cape Town in South Africa, and delivered a speech at the University of Johannesburg last Thursday (Nov. 26).

In that address, Faust described education as a force for liberation, and she announced that Harvard and the host university were developing an initiative to train school principals in



some of the country's most desperate regions.

Her trip highlighted Harvard's ties to southern Africa, where faculty are engaged in a variety of initiatives, from improving business education to delivering health care in some of the most remote areas.

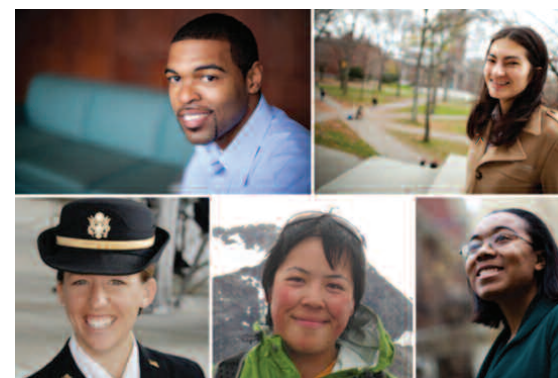
In her speech, titled "The Capacity to Make History," Faust, a scholar of the American South, noted parallels between South Africa's long struggle for freedom and that of the United States following the Civil War.

In that vein, Faust also toured the Apartheid Museum in Johannesburg, where she viewed many exhibits showing how the white and black races were separated in South Africa as recently as two decades ago.

[Online ►► To read more about President Faust's trip: news.harvard.edu/gazette/?p=29679](http://news.harvard.edu/gazette/?p=29679)



Photos by Justin Ide | Harvard Staff Photographer



Two Harvard undergraduates and three recent graduates are among the 32 American men and women named Rhodes Scholars. They include (clockwise from top left) Darryl W. Finkton '10, Eva Z. Lam '10, Jean A. Junior '09, Grace Tiao '08, and Roxanne E. Bras '09.

## Five receive Rhodes

Scholars will attend University of Oxford in England.

By Steve Bradt | Harvard Staff Writer

Two Harvard undergraduates and three recent graduates are among the 32 American men and women named Rhodes Scholars. Each of the five will begin study next October at the University of Oxford in England.

Harvard's newest Rhodes Scholars are Roxanne E. Bras '09 of Celebration, Fla.; Darryl W. Finkton '10 of Indianapolis; Jean A. Junior '09 of Troy, Mich.; Eva Z. Lam '10 of Milwaukee; and Grace Tiao '08 of Marietta, Ga. They were chosen from among 805 students nominated by 326 colleges and universities nationwide.

Created in 1902 by the will of British philanthropist Cecil Rhodes, the scholarships cover all costs for two or three years of study at Oxford. Winners are selected on the basis of high academic achievement, personal integrity, leadership potential, and physical vigor, among other attributes.

This year's recipients, named on Nov. 22, bring Harvard's total number of Rhodes Scholars to 328, more than a 10th of the 3,196 Americans who have received the award.

Roxanne E. Bras, who graduated from Harvard College in June with a degree in economics, will pursue an M.Phil. in international relations at Oxford, focusing on strategic studies.

Currently a second lieutenant in the U.S. Army Corps of Engineers, Bras is also a Truman Scholar and a marathon runner. As an undergraduate, Bras studied counterinsurgency as part of the economics of national security. Her senior thesis focused on quantitative metrics in counterinsurgency, primarily in Iraq and Afghanistan. She plans to focus on studying other post-World War II conflicts at Oxford. After Oxford, Bras intends to return to the Army.

"I applied for the Rhodes because I wanted to study international relations in a graduate program, and I

Photos: top row and bottom (far right) by Stephanie Mitchell | Harvard Staff Photographer; bottom row (center) courtesy of Grace Tiao; bottom row (left) courtesy of Roxanne E. Bras



wanted to do so overseas,” Bras said. “More specifically, I’d like to research the relationships between countries’ diplomatic and military institutions.”

“My life goal is to remove income as one of the factors of life expectancy,” said College senior Darryl W. Finkton, a resident of Quincy House concentrating in neurobiology with a secondary concentration in African and African-American studies. “I don’t believe that the access someone has to health care, the cleanliness of their water, or the expertise of their physician should be determined by something so arbitrary as wealth.”

During his freshman year at Harvard, Finkton co-founded (with Sangu Delle ’10) a sustainable-water-delivery system for a community in Ghana. He has also researched infant cognition, and played varsity basketball for two years.

Finkton will now pursue an M.Sc. in global health during his first year at Oxford and an M.B.A. in his second year.

Jean A. Junior sees an M.Phil. in comparative social policy from Oxford as a logical bridge between her undergraduate studies in sociology and medical school.

“I applied for a Rhodes Scholarship because I saw it as a golden opportunity to learn about some of the most effective ways to address the socioeconomic challenges facing the destitute sick,” she said. “I realized that while medical school would prepare me to address people’s clinical challenges, I needed additional training to address people’s socioeconomic challenges and to become as familiar as possible with effective policies and strategies for poverty alleviation.”

Since graduating summa cum laude in June, Junior has been a Fulbright Scholar researching HIV/AIDS in South Africa. As a Harvard undergraduate, she studied health behaviors of the rural poor in Bangladesh and co-directed CityStep, which engages public middle school students in dance and other creative activities. She also immersed herself in sociology studies.

“My undergraduate work, particularly my senior thesis, has focused on cultural competency training in an American context — which almost always refers to white, middle-class teachers working with low-income, black, and Latino students,” said Eva Z. Lam, a senior in Leverett House concentrating in social studies. “At Oxford, I hope to consider cultural competence and teacher training in a broader international context.”

Lam will pursue two one-year master’s degrees at Oxford: one in comparative and international education, and the other in comparative social policy.

Grace Tiao went far after graduating summa cum laude in 2008 with degrees in history of science and English and American literature and language. She ran a yearlong research expedition on ecosystem biodiversity in Antarctica.

“Environmental microbiology is a discipline that relies heavily on computational expertise,” Tiao said. “I realized that if I wanted to continue to work in the field, I’d need to go back and learn a good deal of basic and some more advanced statistics.”

So Tiao applied for the Rhodes, which she will use to pursue a second bachelor’s degree, this one a B.A. in mathematics and statistics. She will also have the luxury of working more often on her first book.

## Samuel Bjork awarded Marshall

He plans to use the first year to work toward an M.Phil. in the history and philosophy of science at Cambridge University.

By Steve Bradt | Harvard Staff Writer

Harvard senior Samuel Bjork has won a prestigious Marshall Scholarship, allowing him to study for two years in the United Kingdom at the university of his choice.

Bjork, a chemistry concentrator who lives in Eliot House, is one of 35 new Marshall Scholars nationwide. He plans to use the first year of his scholarship to work toward an M.Phil. in the history and philosophy of science at Cambridge University, followed by an M.Sc. in chemistry, with a focus on synthetic organic or inorganic chemistry.

“I’m very grateful for the opportunity to explore areas of research, especially in the history of science, that I might not otherwise encounter in graduate school, and that might inform my future work,” said Bjork, a native of Cambridge, Minn., who now lives in Minneapolis. “I’d like to look at the development of evolutionary theory at the beginning of the 20th century and at some of the ethical issues surrounding current advances in biological engineering.”

Bjork has conducted research with Jack Szostak, professor of genetics at Harvard Medical School; Andrew Myers, Amory Houghton Professor of Chemistry and Chemical Biology; and George Church, professor of genetics at Harvard Medical School. His work in these labs has touched on the anti-cancer effects of tetracycline antibiotics and the study of ethanol production in a novel bacterium as a possible source of renewable energy.

“While it seems like a distant possibility at this point, I would love to lead my own research group someday,” said Bjork, who is teaching organic chemistry at the Harvard Extension School this semester. “I am increasingly interested in using the tools of synthetic chemistry in the rational design of molecules with useful reactivity patterns, especially as applied to environmental and energy problems.”

Bjork received a Carl and Lily Pforzheimer Foundation Public Service Fellowship to take a leave of absence after his sophomore year at Harvard, which he spent working at a pediatric HIV/AIDS clinic in Gaborone, Botswana. He helped to design teacher-training workshops on HIV education and worked with the Botswana Ministry of Education and the World Bank to implement these workshops for Botswana educators. He was also involved in community outreach and educational activi-



Samuel Bjork '10, a chemistry concentrator who lives in Eliot House, is one of 35 new Marshall Scholars nationwide.

ties for HIV-positive teens.

For his first three years at Harvard, Bjork was a violinist in the Harvard-Radcliffe Orchestra. He has written for Harvard Magazine, the Harvard Book Review, the Harvard Crimson, the Harvard Gazette, and the “Let’s Go” travel guides.

“I bounced back and forth between the humanities and the sciences my first two years,” Bjork said. “Along the way, I was fortunate enough to take classes with more dedicated professors than I can name. Their patience, encouragement, and advice has meant a great deal to me.”

Bjork cites as especially important influences Andrew Myers, Amory Houghton Professor of Chemistry and Chemical Biology; Cynthia Friend, Theodore William Richards Professor of Chemistry and Professor of Materials Science; Peter Galison, Pellegrino University Professor and Walter Jackson Bate Fellow; and Janet Browne, Aramont Professor of the History of Science and Harvard College Professor.

Including Bjork, 247 Harvard students have won Marshall Scholarships, which were created in 1953 to commemorate U.S. aid to Europe after World War II under the Marshall Plan. The program is aimed at promising scholars and likely future leaders in their fields. Prominent Marshall Scholars include U.S. Supreme Court Justice Stephen Breyer, former Duke University President Nannerl Keohane, and New York Times columnist Thomas Friedman.

Photo by Stephanie Mitchell | Harvard Staff Photographer



## IN THE COMMUNITY

# Harvard program points schoolchildren toward the stars

The Harvard-Smithsonian Center for Astrophysics is giving middle school children in three Massachusetts towns a taste of astronomy, using robotic telescopes they control themselves to fuel their interest in careers in science, technology, engineering, and math.

By Alvin Powell | Harvard Staff Writer

Middle schoolers in three Massachusetts communities are peering deep into the night skies this year, controlling robotic telescopes on their own to observe the moon, the planets, and the stars.

The children are part of a unique after-school partnership between Harvard University and the communities of Cambridge, Lynn, and Fall River, Mass. Called ITEAMS, for Innovative Technology-Enabled Astronomy for Middle Schools, the program is funded by the National Science Foundation and aims to use astronomy to introduce students to subjects central to careers in science, technology, engineering, and mathematics (STEM). It also aims to keep them engaged in math and science at a time in their academic lives when some students are turning away from those subjects.

"Astronomy is intrinsically interesting to everyone," said Bruce Ward, senior research associate and ITEAMS manager at the Harvard-Smithsonian Center for Astrophysics. "This [astronomy] becomes a wonderful hook to get kids to see the value of STEM."

The program is run by science educators at the Harvard-Smithsonian Center for Astrophysics (CfA), whose researchers probe fundamental questions about the universe, such as its probable creation in the big bang, its expansion afterward, and what conditions are like on planets circling other stars.

Through an online interface, the students can give instructions to three robotic telescopes located on the CfA's roof in Cambridge and at the Whipple Observatory in Arizona. The short, boxy telescopes rely on the same CCD technology to take images that is employed in millions of digital cameras. Images

taken of the night sky are e-mailed to the students the next morning for processing and discussion in class.

Ward said the program was originally designed for 60 kids across all three towns, but twice that many showed interest, causing organizers to expand it. About half of the students are beginning their second year in the program, Ward said, allowing them to move on to more sophisticated imaging.

"The kids are voting with their feet, and really coming," Ward said.

At the students' instructions, the telescopes point at distant objects in the sky, from the familiar moon and nearby planets, such as Jupiter, to mysterious spiral galaxies and interstellar clouds of gas and dust called "nebulae." Because the telescopes follow the students' instructions, Ward said, the images they take can be imperfect: over- or underexposed, off-color, or blurry. By correcting their mistakes, students learn not only about the objects they're targeting, but also about light and color, distance and perspective.

"The most important factor is that you learn from your mistakes. That's an article of science, you learn more from your mistakes than from your successes," Ward said. "We want kids to go down blind alleys. You don't take a 30-second exposure of the moon. They get guidance, yes, but not controlling guidance."

Students also go on field trips and visit the telescope on the CfA's roof at least once to see it. During an October visit to Cambridge by Fall River students, students not only met their robotic partner in the ITEAMS endeavor, but they also got to see a bit of

U.S. astronomical history, visiting telescopes it shares roof space with, including the Great Refractor, built in 1847, which for 20 years was the nation's largest telescope.

During their day at Harvard, the students also visited the University's Earth and Planetary Sciences Visualization Lab and the Collection of Historical Scientific Instruments, and participated in class exercises whose aim was to help them better understand the concepts of distance, size, and scale.

The students, from the Matthew J. Kuss School in Fall River, were shepherded by science teachers Sarah Chapin and Sandy Sullivan, who said they are beginning a research project focused on Jupiter and its four biggest moons.

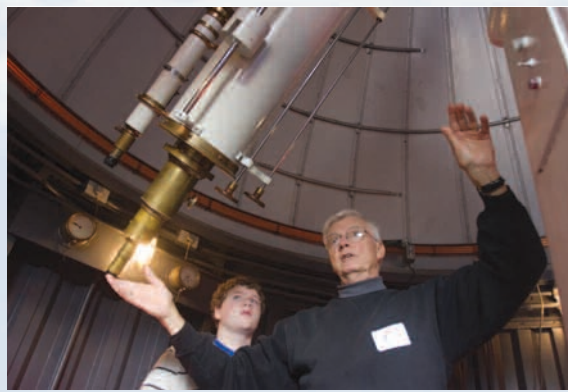
"Getting to use the telescope is very exciting for the students and myself," Sullivan said.

Lin Tucker, coordinator of science and engineering at the Benjamin Banneker Public Charter School in Cambridge, said that, as an after-school program, ITEAMS gives teachers flexibility to cover topics that are of interest to students that may not show up on required tests.

"It lets us play around with some ideas that are not on MCAS but which are inherently interesting to kids," Tucker said, adding that ideas introduced during ITEAMS sessions can make their way back to the regular classroom. "Student [mental] models of what space is, how objects in space are — their size, how they relate to each other — is very fuzzy."

Ward said the program is aimed at underserved

(see *ITEAMS* next page)



Photos by Kris Snibbe | Harvard Staff Photographer

The Harvard-Smithsonian Center for Astrophysics' Bruce Ward teaches Kuss Middle School students from Fall River, Mass., during a visit to the Harvard Observatory's Great Refractor, Clark, and MicroObservatory telescopes. Alex (above, center) gets a close-up look. Students Andrew (above, from left), Jaela, Katelyn, and Megan listen intently.





The CfA's Frank Frederick Sienkiewicz teaches Kuss Middle School students during a visit to the Harvard College Observatory.

## ITEAMS

*(continued from previous page)*

communities and seeks to increase the awareness of opportunities in science, technology, engineering, and math for girls and in Hispanic and African-American communities.

Science teacher Laurie Ferhani, who runs the ITEAMS program at Amigos School in Cambridge, said that before ITEAMS there was no way for students to do hands-on astronomy. She said two students from last year's program come from family backgrounds where it's unlikely they'd have similar opportunities without such a program. The students, she said, have since moved on to ninth grade but have remained interested, asking her whether there are similar programs for older students.

Annie and Jaylin, both Banneker fifth-graders, were enthusiastic about their after-school program, which is run by Tucker and Barbara Brothers, Banneker's head of after-school programs. Annie said she enjoys seeing the stars and constellations in the night sky and wanted to see Jupiter up close. She also instructed the telescope to take a picture of the pinwheel galaxy, because she thought it looked similar to our own Milky Way.

ITEAMS involves not just teachers, students, and science educators, but also community volunteers from the Amateur Telescope Makers of Boston and a group of retired Raytheon engineers from the Retirees' School Volunteer Association. To assess effectiveness, students are tested before and after the program. The effort is in the second of three years.

Though ITEAMS is an after-school enrichment program, its Internet interface is available to students even from home computers, allowing them to work independently once they know what they're doing.

Jesse, a sixth-grader at Cambridge's Amigos School, hit the ground running after beginning the program this fall, exploring the MicroObservatory Web site at home and taking a few pictures.

"She immediately got on the computer," said Jesse's mother, Laurie Rothstein. "I knew she was really excited about it. This is making a connection to the real world."

# Seeding new ventures at Radcliffe

"We want to engage faculty from all disciplinary areas to explore new approaches to pressing questions."

By Pat Harrison | Radcliffe Communications

To meet the faculty associates for the Radcliffe Institute, you would have to travel from one end of Harvard's campus to the other, from the bustling streets of the Longwood Medical Area to bucolic Observatory Hill, with stops at the Barker Center across from Harvard Yard, the shiny new Center for Government and International Studies on Cambridge Street, and the towering William James Hall on Kirkland Street. Then you would have to call Berlin, where a faculty associate is at an institute for advanced study, the Wissenschaftskolleg zu Berlin.

This geographic span shows the breadth of Radcliffe's Academic Engagement Programs (AEP), the faculty-led initiative that Barbara J. Grosz, dean of the Radcliffe Institute and Higgins Professor of Natural Sciences in Harvard's School of Engineering and Applied Sciences, is building. "We want to engage faculty from all disciplinary areas to explore new approaches to pressing questions," said Grosz, who served as Radcliffe's dean of science from 2001 until 2008. Grosz says her goal is to advance research and to promote cooperation among faculty members by providing them with resources and space that foster collaboration.

Since becoming dean of the institute, Grosz has appointed six new faculty associates, all of them accomplished in their fields: Ewa Lajer-Burcharth, Brigitte Madrian, Leah Price, Robert J. Sampson, Dimitar D. Sassellov, and Rosalind A. Segal.

Ewa Lajer-Burcharth, a Radcliffe faculty associate in the humanities and the William Dorr Boardman Professor of Fine Arts in the Department of History of Art and Architecture, has worked with a faculty committee drawn from across the University to design the institute's annual gender conference for April 15-16, 2010. At the conference, artists and scholars will explore the ways that gender affects how people experience physical and personal spaces and how space affects the way they think about gender.

Leah Price, RI '07, a Radcliffe faculty associate in the humanities and a Harvard College professor in the English Department, and Ann Blair, a former Radcliffe faculty associate in the humanities, a Harvard College professor in the History Department, and the Henry Charles Lea Professor of History, will convene academics, librarians, and students at the institute next fall for a conference called "Why Books?" on Oct. 28-29. Realizing a vision of Grosz and Diana Sorensen, dean of the arts and humanities in the Faculty of Arts and Sciences, and planned in consultation with faculty from a range of fields, the conference will further conversations on the history and future of books.

One of the most ambitious AEP ventures is the City as Social Science Laboratory, part of the Radcliffe Institute's new Policy Studies Initiative, designed by Robert J. Sampson and Brigitte Madrian, the institute's social science faculty associates. Madrian and Sampson are working with faculty from other Schools at the University to link records in the Boston area — including medical reports, crime records, census data, and immigration information — with the goal of studying city problems such as substandard housing, failing schools, and crime.

"There's a wealth of data in the Boston area that researchers and administrators in local institutions have compiled," said Sampson, chairman of Harvard's Department of Sociology and the Henry Ford II Professor of the Social Sciences. He and Madrian, the Aetna Professor of Public Policy and Corporate Management at the Harvard Kennedy School, think Boston has been underutilized as a laboratory for social issues. By launching the City as Social Science Laboratory, Madrian and Sampson can bring local practitioners together with leading academic researchers and apply data to urban problems.

Madrian and Sampson have strong ties to other social scientists at Harvard. Among their collaborators is Nancy E. Hill, a professor at Harvard's Graduate School of Education, who was named the first appointee to Radcliffe Institute's Suzanne Young Murray Professorship in July.

To work with AEP faculty to strengthen the institute's connections across the University and to expand AEP activities, Grosz has appointed Rebecca Wasserman as director of AEP. A longtime member of the Harvard community, Wasserman has already collaborated with faculty members and senior administrators at many Harvard Schools. She earned an A.B. in history from Harvard and a J.D. from the University of Michigan Law School.

Discussing the AEP initiatives, Grosz described the institute as an "engine of intellectual innovation." The institute has supported activities that engage Harvard faculty members, students, fellows, and the public. But organizing these activities under the one AEP umbrella is Grosz's innovation. "The best way to draw people at the University together is to engage people from its different parts to address important problems," Grosz said. "That's how the Radcliffe Institute is seeding new intellectual ventures."

"This is a terrific program," said Harvard President Drew Faust. "It places the Radcliffe Institute at the center of our efforts to foster collaboration among faculty members from across the University who bring a range of disciplinary perspectives to issues of pressing concern."





## Voluntary retirement program

Customized program being offered to 127 eligible FAS faculty; four graduate, professional Schools unveil similar plans.

The Faculty of Arts and Sciences (FAS) offered a customized voluntary retirement program Wednesday (Dec. 2) to 127 eligible faculty members. At the same time, four of Harvard's graduate and professional Schools — Harvard Medical School, the Harvard School of Public Health, the Harvard Divinity School, and the Harvard Graduate School of Education — unveiled similar plans to eligible faculty.

Each School designed its one-time program to meet the specific needs of its faculty members, some of whom have been contemplating the next stage of their academic careers.

Although there are differences in the plans, the five programs share similarities. Each offers a range of options. Eligible faculty who are ready to retire can do so in the next academic year, while others can wind down their teaching and research careers over several years. Faculty at the participating Schools must sign up by the deadline of June 30, 2010.

"I am committed to supporting faculty members at every stage of their careers, from the day they enter the tenure track to the time they decide to transition into *emeritus* status," said Dean Michael D. Smith of the Faculty of Arts and Sciences. "The program FAS is offering is designed to be flexible, so that eligible faculty who are interested in participating will be able to choose an option that suits them best."

The Office of Faculty Development & Diversity worked closely with the Schools to provide analyses of retirement programs at peer institutions and assess the resources needed to offer the programs. Across the University, about 180 faculty members are eligible to participate in the Schools' programs.

"These programs aim to support faculty renewal and provide an opportunity for

long-serving faculty to make plans for staged retirement, consistent with their preferences and economic circumstances," said President Drew Faust.

The retirement programs were designed in response to expressions of interest from faculty members, and were crafted with the understanding that Harvard's faculty members seek in retirement not an end to their relationships with their Departments, their Schools, and the University, but rather a new beginning, marked by opportunities for personal and intellectual renewal following years of dedicated service.

"For our School, having an umbrella program creates a transparent and equitable array of options for senior faculty who are considering retirement," said Dean Kathleen McCartney of the Graduate School of Education. "It also affords the time to renew the senior faculty in response to planned retirements."

The Harvard Business School already has a robust faculty retirement program in place. Other Schools — the Harvard Kennedy School, the Harvard Graduate School of Design, and the Harvard Law School — are continuing with existing plans for faculty renewal while also managing for planned and anticipated retirements.

"In part because of our size, our approach is to work with individual faculty as they approach retirement age to discuss what might make the most sense for the faculty member and the School," said Dean David Ellwood of the Harvard Kennedy School. "But we would like to use this occasion to encourage a larger discussion of our current set of retirement options and incentives and to discuss the situation facing faculty who are at or near traditional retirement ages."

## Newsmakers

### ROCKEFELLER FELLOWS CHOSEN FOR 2010-11

Concluding its annual meeting and interviews at Harvard on Nov. 20-21, the Michael C. Rockefeller Memorial Fellowships Administrative Board awarded fellowships to six graduating seniors for 2010-11.

Rockefeller Fellowships contribute \$18,000 toward a year of purposeful postgraduate immersion in a foreign culture for candidates at critical stages in their development who feel a compelling need for new and broadening experiences.

The six recipients are **Thomas Brennan** '10 of Lowell House, for travel to Tanzania; **Judith Fan** '10 of Leverett House, for travel to Peru; **Jessica Frisina** '10 of Mather House, for travel to Honduras; **Gerald Tiu** '10 of Winthrop House, for travel to China; **Adam Travis** '10 of Mather House, for travel to Kenya; and **Devon Youngblood** '10 of Mather House, for travel to Egypt.

### BARNES APPOINTED CHIEF RESEARCH COMPLIANCE OFFICER, GORODENTSEV NAMED DIRECTOR OF OSP

**Mark Barnes** has been hired as Harvard University's chief research compliance officer and senior adviser to the provost. Working closely with the vice provost for research, Barnes will play a leading role in reviewing and revising research administration policies across the University to ensure consistency. A lawyer, Barnes also will monitor educational and training programs for Harvard's research faculty, students, and staff. He will oversee the Office for Sponsored Programs (OSP). In a related appointment, **Cathy Gorodentsev**, most recently acting dean for administration for the Faculty of Arts and Sciences (FAS), has been named the new director of OSP.

### NIEMAN FOUNDATION PRESENTS 2009 CONSCIENCE AND INTEGRITY AWARD

The Nieman Foundation for Journalism at Harvard presented the Louis M. Lyons Award for Conscience and Integrity in Journalism to slain Sri Lankan newspaper editor **Lasantha Wickrematunge** and the journalists of Afghanistan on Nov. 17.

The Class of 2010 Nieman Fellows made the selections in recognition of the terrible risk that many journalists around the world face in pursuit of their calling. In making their decision, the fellows cited Wickrematunge for daring to stand up, at the cost of his life, for free-

dom of the press and human rights. The journalists of Afghanistan are being recognized for their bravery in delivering the news from one of the most dangerous reporting environments in the world.

To read the full story, visit [nieman.harvard.edu/newsitem.aspx?id=100128](http://nieman.harvard.edu/newsitem.aspx?id=100128).

### WASSARMAN NAMED DIRECTOR OF RADCLIFFE'S AEP

**Rebecca Wassarman** has joined the Radcliffe Institute for Advanced Study as director of Academic Engagement Programs (AEP). A longtime member of the Harvard community, Wassarman brings an extensive understanding of the University from an administrative perspective and a wealth of experience with faculty and academic planning — especially in the social sciences — from her positions in the Faculty of Arts and Sciences' offices of Faculty Development, Faculty Affairs, and Academic Affairs.

At the institute, she will work with AEP faculty to strengthen the institute's connections across the University and its roles in cross-disciplinary collaborations and intellectual innovation. (See related story, page 17)

### REISCHAUER INSTITUTE AWARDS JAPANESE STUDIES PRIZES

The Reischauer Institute of Japanese Studies and Kodansha Publishers recently hosted the 15th annual Edwin O. Reischauer/Kodansha Ltd. Commemorative Symposium and the 14th annual awarding of the Noma-Reischauer Prizes in Japanese Studies. These prizes, \$2,000 for the best undergraduate essay and \$3,000 for the best graduate essay, are given annually by Kodansha Publishers for the best essays written by Harvard students on Japan-related topics. The prizes this year also included Kodansha's three-volume edition of "Seeing Japan/Tokyo/Kyoto," "The Decorative Art of Japanese Food Carving," "Autumn Colors of Kyoto," or "Cherry Blossoms of Kyoto."

**Audrey Ji-eun Kim** '09 (history), won the undergraduate prize for her essay "Crediting Empire: Politics, Policies, and Perceptions of Japan in the London Bond Market, 1900-1914." The graduate essay prize went to **Kathryn Handlir**, A.M. '09, in regional studies-East Asia, for her essay "Fads, Brands, and Fashion Spreads: Print Culture and the Making of Kimono in Early Modern





A group of 20 incoming mayors from large cities across the country gathered at Harvard's Institute of Politics for a three-day seminar (Nov. 18-20) on leadership and the issues they will face. President Drew Faust greets Mayor A C Wharton of Memphis, Tenn., as Mayor Elizabeth Kautz of Burnsville, Minn., looks on.

Japan." Both winners were in attendance to describe their research and accept the awards. Kodansha Ltd. was represented by Ryu Yamane, vice president (Tokyo); and Yoichi Kimata, senior vice president, and Tomoe Sumi, project coordinator, both of Kodansha America LLC (New York).

The deadline for submitting essays for the next Noma-Reischauer Prize is June 30, 2010. For more information, contact the Reischauer Institute at 617.495.3220 or visit the Reischauer Web site at [fas.harvard.edu/~rijs](http://fas.harvard.edu/~rijs).

**FERGUSON'S DOCUMENTARY WINS INTERNATIONAL EMMY**  
Harvard economic historian **Niall Ferguson's** four-part documentary, "The Ascent of Money" (2009), which examines the creation of the economic system by taking viewers on a global trek through the history of money, was named Best Documentary at the 37th International Emmy Awards in New York City on Nov. 23.

Ferguson, the Laurence A. Tisch Professor of History in the Faculty of Arts and Sciences and William Ziegler Professor of Business Administration at Harvard Business School, based the documentary on his best-selling book "The Ascent of Money: A Financial History of the World" (Penguin Press, 2008), which predicted the current economic crisis and was released within weeks of the meltdown of subprime loans.

To view the series or for more information, visit [pbs.org/wnet/ascentofmoney](http://pbs.org/wnet/ascentofmoney).

#### LOHRE NAMED NCC PRESIDENT-ELECT

**Kathryn M. Lohre**, assistant director of the Pluralism Project at Harvard and an Evangelical Lutheran Church in America representative to the World Council of Churches Central Committee, has been elected president-elect of the National Council of Churches (NCC) by the NCC Governing Board.

Lohre will assume office Jan. 1, 2010. She was installed as NCC president-elect on Nov. 12, in St. Mark's Cathedral in Minneapolis. Lohre will serve in her newly elected position until Dec. 31, 2011. Constitutionally, the NCC president elect succeeds to the presidency.

Lohre, who will be 34 when installed as president in 2012, will be the second-youngest president of the council since 1979.

To read more, visit [news.harvard.edu/gazette/?p=30916](http://news.harvard.edu/gazette/?p=30916).

#### PHI BETA KAPPA WELCOMES NEW MEMBERS

The Harvard College chapter of Phi Beta Kappa (PBK), Alpha Iota of Massachusetts, has elected 48 seniors to its Class of 2010.

The Alpha Iota of Massachusetts chapter of Phi Beta Kappa was first established under a charter in 1779. Shifting from a social and debating club in its early years to an undergraduate honor society in the 19th century, PBK is known as the oldest academic honor society in the country.

Phi Beta Kappa's national mission is to foster and recognize excellence in the liberal arts and sciences, and election to Alpha Iota of Massachusetts signifies that an undergraduate has demonstrated excellence, reach, originality, and rigor in his or her course of study. The honor society recognizes students whose course work demonstrates not only high achievement, but also breadth of interest, depth of understanding, and intellectual honesty. Twenty-four juniors are elected each spring, 48 seniors each fall, and a further number sufficient to bring the total membership to no more than 10 percent of the graduating class in the final election shortly before Commencement.

#### Elected seniors include:

**Adams:** Daniel Eric Herz-Roiphe, social studies; Xin Pan, applied math; Koning Shen, chemical and physical biology; and Lena Yuan-Ning Young, organismic and evolutionary biology.

**Cabot:** Stacy Lynn Carlson, economics; Zhou Fan, math; Jessica Nicole Lacy, chemistry; Matthew Jacob Rubenstein, economics; Alice Tzeng, chemical and physical biology; and Michael Anthony Viscardi, math.

**Currier:** Amanda Roman Mangaser, government.

**Dunster:** Victoria Simone Dubnow Aschheim, music; and Andrei Cristea, economics.

**Eliot:** HyunJin Kim, social studies; and Alexandra Attkisson Petri, English.

**Kirkland:** Trevor Jon Bakker, social studies; and Katherine Martelle Thompson, African and African American studies.

**Leverett:** David Daniel Aguilar, psychology; Jeremy Mark Booher, math; Kristen Elizabeth Calandrelli, anthropology; Kaitlyn Ella Coil, chemical and physical biology; Diane Beatrix de Gramont, social studies; Rachel Ann Esplin, East Asian studies; Judith

## HOT JOBS

### CTSC MANAGER OF GRANTS ADMINISTRATION, REQ. 37417, GR. 057

Harvard Medical School, FT (8/17/2009)

### SENIOR GRANTS MANAGER, REQ. 37166, GR. 056

Financial Administration, FT (7/23/2009)

### IT SUPPORT ASSOCIATE II (SENIOR USER SUPPORT SPECIALIST), REQ. 37966, GR. 055

Harvard School of Public Health, FT (10/7/2009)

### RETAIL OPERATIONS REPRESENTATIVE I, REQ. 38206, GR. 052

Harvard University Credit Union, FT (11/4/2009)

### PART-TIME LECTURERS ON HISTORY AND LITERATURE.

Information and applications at [fas.harvard.edu/~histlit/HL-program.html](http://fas.harvard.edu/~histlit/HL-program.html). Deadline January 15, 2010.

**Online ►► See complete opportunity listings at [www.employment.harvard.edu](http://www.employment.harvard.edu) or contact Employment Services at 617.495.2772.**

#### HOW TO APPLY

To apply for an advertised position and/or for more information on these and other listings, please visit our Web site at [www.employment.harvard.edu](http://www.employment.harvard.edu) to upload your resume and cover letter. Harvard is strongly committed to its policy of equal opportunity and affirmative action.

#### JOB SEARCH INFO SESSIONS

Harvard University offers information sessions that are designed to enhance a job-seeker's search success. These sessions may cover topics ranging from preparing effective resumes and cover letters, targeting the right opportunities, and successful interviewing techniques. Sessions are typically held monthly from 5:30 p.m. to 7 p.m. at the Harvard Events and Information Center in Holyoke Center, 1350 Massachusetts Ave., in Cambridge. More specific information is available online at <http://employment.harvard.edu/careers/findingajob/>.

Ellen Fan, neurobiology; John McLean Kearney, physics; Eva Zhen Lam, social studies; and Matthew Ka Loong Lee, economics.

**Lowell:** Nour Kibbi, history of science; Charles Richard Melvoin, history and literature; Christopher Andrew Oland, engineering sciences; Julia Anne Rudolf, human evolutionary biology; and Yifan Zhang, economics.

**Mather:** Matthew Ross Bloom, history; Catherine Martha Sirois, sociology; and Roxolana Wacyk, economics.

**Pforzheimer:** Gage Russell Caligaris, applied math; and Melissa Tran, sociology.

**Quincy:** Tamar Holoshitz, linguistics; Laura Beth Kaplan, history; Caitlin Marie Kennedy Marquis, history of art and architecture; and Joseph Paul Zimmerman, computer science.

**Winthrop:** Sebastien Dominik Arnold, history; Ilan Joseph Caplan, music; John Paul Fred Chilazi, economics; Daniela Franca Joffe, literature; Gerald Chunt-Sein Tiu, chemical and physical biology; Pierce Tria, government; and Harold Yihao Wu, music.



Online ►► [news.harvard.edu/gazette/se](http://news.harvard.edu/gazette/se)

## Around the Schools



### Harvard Business School

The holiday season is built on spiritual foundations, but it relies on pragmatic shoppers' spending to drive December's all-important retail economy.

Two Harvard Business School professors, Nancy F. Koehn and Rajiv Lal, have weighed in on the Harvard Business School Web site (<http://www.hbs.edu/news/opinions/2009retailoutlook.html>) with their best estimates of how the holiday shopping season will play out. One sees a flat or slightly improved sales period, while the other is guardedly optimistic.

"After the shock and awe of last year's financial crisis, households are taking stock, abandoning the 'next new thing' in favor of more-enduring priorities, and establishing distinct notions of value from those that have prevailed during the last decade," said Koehn, the James E. Robison Professor of Business Administration. "All of this adds up to the New Normal."

Lal, the Stanley Roth Sr. Professor of Retailing and co-chair of the General Management Program, sees some blue patches amid the economic clouds. "While credit is still not easily available, the increasing savings rate over the last year should leave us with more to spend this holiday season," he said. "Therefore, forget about last year's Scrooge-like retail results. I expect this season's sales to be significantly improved."

— Jim Concannon



### Faculty of Arts and Sciences

Harvard College has launched a new online Plan of Study tool to help undergraduates outline the courses they will take throughout their four years at Harvard. This online system replaces paper forms that served the same function, and provides a more intuitive and robust way for undergraduates to plan. The tool's development was a joint venture between the Program in General Education (Gen Ed), the Office of the Registrar, and the Advising Programs Office.

Using the tool located on the Registrar's Web site, students can create an eight-semester planning grid modeling the courses they will take to meet their concentration and Gen Ed or Core requirements. Students can also use the form to switch concentrations, or to switch between the Core and Gen Ed.

Students can update the planning grids each term and share their plans with their advisers to facilitate an ongoing conversation about their plan of study. Students' response to the new system has been overwhelmingly positive, according to the Advising Programs Office.

The Plan of Study tool was first introduced to sophomores, who used this system to declare their concentration on Nov. 18, although all students can access the tool.

— Amy Lavoie



### Harvard Law School

Hundreds of Harvard Law School (HLS) students, faculty, and staff gathered in the School's Pound Hall for a "Thanksgiving for the Troops" event on Nov. 18 to raise money and collect items for soldiers in Iraq and Afghanistan.

The HLS Student Government sponsored the dinner that raised more than \$6,000. Participants also donated items such as toothbrushes, deodorant, and playing cards for overseas care packages. The packages included Thanksgiving Day cards created by third- and fourth-graders at the Cambridgeport School.

"We chose the cause because we know that there are veterans in the HLS community, and we felt that it wasn't something that generally gets much attention at the Law School," said Jennifer Dein, HLS '11, vice president of HLS Student Government and a key organizer of the event.

Several HLS veterans publicized the undertaking by visiting classrooms and sharing their overseas experiences with fellow students.

John Doyle, HLS '12, who served in the U.S. Army's Special Forces in Iraq, was pleased to answer questions about his service. "I think a lot of people are curious about what goes on in the military, but don't know if it's OK to ask," said Doyle.

"I started law school this year after two tours with the U.S. Navy," said Eric Powell, HLS '12. "I know firsthand how truly meaningful it is to receive packages and expressions of appreciation from home."

— Christine Perkins



ction/campus-n-community/news-by-school



## Graduate School of Arts & Sciences

The January break between semesters doesn't have to be the winter doldrums.

The Graduate School of Arts and Sciences is offering a wealth of short courses, seminars, and events designed to provide more work or more play, depending on your preference, from Jan. 4 to 24.

On the play front, the Center for Wellness is offering, among other sessions, "Massage Therapy 101" and the inviting "Eat What You Want: The Intuitive Approach." The Dudley Arts Fellows will have Jazz in the Gato and a series of classic movies (including "High Noon" and "Roman Holiday"). There are ski trips to New Hampshire and an excursion to the musical "In the Heights" at the Boston Opera House.

On the work front, the Office of Career Services is offering its "Career Transition Workshop," along with "Real Life Stories from the Academic Job Search," and "Retooling: Job Search Boot Camp." For something in between, you could sign up for a creative writing workshop or "Writing Boot Camp." In addition, there's a raft of Harvard College Library tutorials.

And, if you really want more academics, there's a slate of science courses, including Cell Biology 330, Genetics 390, and Virology 330. There are other offerings as well. For more information, visit the Web site at [gsas.harvard.edu/january](http://gsas.harvard.edu/january).

— Jim Concannon

## STUDENT VOICE

### Journey to D.C.

"I'm now a Kroc Fellow at National Public Radio, my job an outcome of my HKS policy-analysis exercise ..."

By Sam Sanders | M.P.P. '09

About 900 fellow classmates and I spent a good portion of our time at the Harvard Kennedy School (HKS) fully engrossed with last fall's presidential election.

Walking to class, sitting in the HKS Forum, on a bench in the HKS Courtyard, over coffee, or over books, it was all we talked about.

Witnessing the most electrifying campaign of our generation with classmates who were certifiable political junkies, and all deeply committed to public service, was an almost transcendent experience. And it could only have happened at the Kennedy School.

I remember the debates, especially during the primaries. The passion of my classmates was matched by their abundant political knowledge, a breadth of experience working on and around the issues they discussed, and myriad connections to the political players involved.

Some were absent for weeks at a time, leaving to field organize for Republican John McCain or Democrat Barack Obama. It was not uncommon to read classmates' writing about the campaign in a major publication or see them on the news discussing political strategy or the organizing work they were leading, all while maintaining their course loads.

What touched me the most was the uncommon civility present at all times in our political dialogue. No shouting. No name-calling. No anger that a handshake and a smile couldn't resolve.

I was a Hillary Clinton supporter during the primary season, and one of only two black Clinton supporters at the School. This made me one of the more sought-after faux pundits at HKS. Classmates wanted to get inside of my head, and many wanted me to defend my stance. Some weeks, I'd spend hours debating the intersection of race, politics, and gender with members of the HKS community. But the discussion was never acrimonious. And I always learned to see things a bit differently afterward.



I started writing about politics during the election, creating a blog to keep a record of evolving opinions of the campaign. I took classes at HKS with Luciana Herman, an adjunct lecturer in public policy, and Timothy McCarthy, an adjunct lecturer in public policy, history and literature, that allowed me to spend time finding and developing my voice as a writer. Guidance from those courses ultimately helped me to get one of my commentaries published, with an assist from an Institute of Politics fellow. Without the resources the Kennedy School provided, that opportunity might not have been available.

I graduated in June with an M.P.P. I'm now a Kroc Fellow at National Public Radio, my job an outcome of my HKS policy-analysis exercise and an internship I had while a student. In my office, deadlines are hard, and the time to pontificate can be short, as with any news organization. Being where I am now makes me appreciate last year even more.

A chance to talk about politics and policy, in a safe space, with time to really think, and with friends who care, is something hard to come by in our current political climate. Knowing that makes me even more aware of the value my education at the Kennedy School. Witnessing history is amazing. Doing it with class is rare.

*If you're an undergraduate or graduate student and have an essay to share about life at Harvard, please e-mail your ideas to Jim Concannon, the Gazette's news editor, at [Jim\\_Concannon@harvard.edu](mailto:Jim_Concannon@harvard.edu).*

Photo by Ryan Gibbons | [rgvisuals.com](http://rgvisuals.com)



## ON THE JOB (AND OFF)

## Coming and going at Harvard

The woman who works to keep Harvard's commuters out of traffic jams and in the green zone.

By Sarah Sweeney | Harvard Staff Writer

Each morning, Kris Locke rides the Red Line to her job at Harvard. But it's her own job to make sure that thousands of other Harvard employees are riding the T, too.

Locke is manager of the CommuterChoice Program, a part of Transportation Services and University Operations Services (UOS) that offers faculty and staff discounted MBTA passes, carpooling options, and much more. That automatic update at the end of the month on your CharlieCard? Locke makes it happen.

"Our most popular program is the discounted-pass program," she said of the 50 percent reduction offered to employees. "But a lot fewer people know about the carpooling."

Who knew that going to work could be so transforming? Discounted campus parking spots are issued for Harvard carpoolers. Love may be on the horizon, too. Locke said that two people who began carpooling as strangers wound up getting married. Aren't sure how to find a carpool to join? Call 617.384.RIDE.

Locke began her career at Radcliffe in 1996. She left for the Provost's office, then the BRIDGE program, before settling at CommuterChoice two years ago. On Monday mornings, she attends new-hire orientations — "I give 'em my spiel," she said — informing employees about preferred parking for low-emission vehicles, \$25 Zipcar memberships for Harvard affiliates, or GoLoco, a service that quickly arranges ride opportunities, such as lunch trips to Target.

At the end of October, Locke organized a campuswide Walk to Work Day. "We had about 110 people participate," she said, adding that she has bigger plans for the future.

She hopes to implement hour-long campus tours for new hires, and others who want to join, to provide a physical orientation to the campus. "Even people who have been here awhile tell me, 'I'd love to know what's in that building.' And along the way show employees such places as the Queen's Head Pub. Show them the real campus."

Locke recently partnered with WalkBoston to design a map that encourages foot travel



Locke, seen here by the Harvard Square T station, is a transportation maven, overseeing the diverse ways in which the Harvard community commutes.

while highlighting the assorted Harvard museums, art spaces, and theaters along the way. The result is an eye-catching pamphlet — available at many of the CommuterChoice kiosks around campus — that touts the health benefits of walking while enticing participants to familiarize themselves with unfamiliar places.

Locke also monitors biking on campus. When she first joined CommuterChoice, she saw lots of bike racks, but not much organization. "They were filled with abandoned bicycles," she said of the racks, noting that in her first year alone they tagged and removed 75 to 100 bikes, mostly left behind by students who graduated and moved from Cambridge.

The bikes were put in storage for 30 days, in case anyone claimed them, and then donated to Quad Bikes, a nonprofit bicycle shop for the Harvard community, for refurbishing and resale. Locke encourages bicycling to and from campus, but underscores the importance of registering with the University Police Department. "We've found 'lost' bikes in two feet of snow," she said.

Participation in a Greater Boston bike-share initiative is something Locke has on her agenda.

Off campus, Locke watches a lot of basketball — her husband is a college basketball coach in Waltham. Her commuting habits have even rubbed off a bit on her husband, who travels by car. "At the end of the day, he'll call me and ask to pick me up from work," she said, "and I know it's just so we can ride in the HOV [high-occupancy vehicle] lane."

## ATHLETICS

## Crimson stopped by Maryland, 2-0

Sweet 16 turns sour for No. 10 Harvard men's soccer team.

By Gervis A. Menzies Jr. | Harvard Staff Writer

The curtain finally closed on the season for the No. 10 Harvard men's soccer team, which fell to the Maryland Terrapins on Sunday (Nov. 29) in the third round of the NCAA tournament, 2-0.

Unable to create offense, the Crimson gave up an early goal in the 11th minute, which was all the defending national champion Terrapins needed to win.

Despite seven shots on goal in the first half, the Crimson's best opportunity to score came at the 33:03 mark, when senior forward and co-captain Andre Akpan was taken down in the penalty box by Maryland goalkeeper Zac MacMath. But Akpan, who going into Sunday's contest was 2 for 3 on penalty kicks this season, couldn't boot the ball past MacMath.

For Maryland, the final dagger came in the 78th

Online ► See complete coverage, athletic schedules at: [www.gocrimson.com](http://www.gocrimson.com)

minute on a line-drive ball that rocketed past Harvard keeper Austin Harms '12. The goal crushed any hope for a Crimson comeback.

The loss ends the season for the Crimson (14-4-1; 5-1-1 Ivy League), though it was a memorable one. Spending most of the season ranked in the top 15 (peaking at No. 6), Harvard posted the program's best record since 1996, taking home its first Ivy League title since 2006.

This season also saw Akpan add to his legacy as one of the greatest players the program has ever seen. With 12 goals this year, the senior, who entered the season already Harvard's all-time leader in assists and points, finished his career tied with Chris Ohiri '64 as Harvard's all-time leading scorer with 47 goals, leaving an indelible mark on the program.

In addition to Akpan, the Crimson will graduate four other starters: Brian Grimm, Desmond Mitchell, Kwaku Nyamekye, and Adam Rousmaniere. The seniors — who reached the NCAA tournament in each of their four years — leave the program with high expectations for subsequent classes.

"It was a great season for us, and the hardest thing, with as talented a senior class as we had, is to have it end," said Crimson head coach Jamie Clark, who in just two seasons at Harvard has a 26-10-1 (10-3-1 Ivy League) record. "Only one team ends up happy ... but it doesn't take away from our team. We accomplished a ton and had a season to be proud of. These five guys had careers they'll remember well."

Online ► To read the full story, visit [news.harvard.edu/gazette/?p=31585](http://news.harvard.edu/gazette/?p=31585)





## THROUGH JAN. 3 ►

### Best of Both Worlds.

American Repertory Theater, Loeb Stage, 64 Brattle St., 7:30 p.m. Bursting with the sounds of R&B and gospel, "Best of Both Worlds" is a soulful re-envisioning of "The Winter's Tale," Shakespeare's timeless story of heartbreak and redemption. Clap your hands, jump out of your seat, and feel the power of love with this holiday treat for all ages. Tickets are \$25-75; student rush \$20. 617.547.8300, [www.amrep.org](http://www.amrep.org).

## ◀ DEC. 3-5

### 103rd Annual Second Year Show.

Roxbury Community College, 1234 Columbus Ave., 8-10 p.m. Presented by Harvard Medical School and Harvard School of Dental Medicine. Tickets are \$15 general; \$10 students. [www.seconyearshow.com](http://www.seconyearshow.com).



Jeannette Bayardelle in center (photo by T. Charles Erickson)

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27	28	29	30	31	1	2
3	4	5	december/january			

## Calendar HIGHLIGHTS FOR DECEMBER 2009

The deadline for Calendar submissions is Wednesday by 5 p.m., unless otherwise noted. Calendar events are listed in full online. All events should be submitted via the online form at [news.harvard.edu/gazette/calendar-submission](http://news.harvard.edu/gazette/calendar-submission). E-mail [calendar@harvard.edu](mailto:calendar@harvard.edu) with questions.

See complete Calendar online ► [news.harvard.edu/gazette/section/calendar](http://news.harvard.edu/gazette/section/calendar)

## DEC. 3

### Social Science Dean's Conversation: "Changing Education at Harvard."

Tsai Auditorium, CGIS South Bldg, lower level, 1730 Cambridge St., 4:15 p.m. It has been said that Harvard students are so talented they would learn even if locked in a closet for four years. How can we improve on such self-instruction? In this Dean's Conversation, "Changing Education at Harvard: What Twenty Years of Research Tells Us about Effective Teaching and Advising," Stephen Kosslyn, dean of social science, will moderate a discussion between Richard Light, Gale Professor of Education, and Eric Mazur, Balkanski Professor of Physics, about their separate approaches to studying how to maximize learning and engagement in undergraduates. Free and open to the public. Q&A to follow. [isites.harvard.edu/icb/icb.do?keyword=socialsciencedivision](http://isites.harvard.edu/icb/icb.do?keyword=socialsciencedivision).

## DEC. 4 AND 5

### Ivy Dance Exchange in Concert.

Harvard Dance Center, 60 Garden St.,

7 p.m. Students from the Harvard Dance Program (OfA), Brown University's Department of Theatre Arts and Performance Studies, and Yale University's Theater Studies Department unite for a collaborative performance featuring works by acclaimed choreographers Twyla Tharp, Yvonne Rainer, Robert Battle, Trey McIntyre, and Lacina Coulibaly, as well as original student choreography. Tickets are \$12 general admission; \$8 students and senior citizens. [dance@fas.harvard.edu](mailto:dance@fas.harvard.edu), [ofa.fas.harvard.edu/cal/details.php?ID=40613](http://ofa.fas.harvard.edu/cal/details.php?ID=40613).

## DEC. 10

### 38th Annual Dunster House Messiah Sing.

Dunster House Dining Hall, 8 p.m. The Messiah Sing brings together student soloists, the Mozart Society Orchestra, and a chorus of audience members for a performance of most of Part 1 of Handel's "Messiah." Free and open to the public. [dunster.harvard.edu](http://dunster.harvard.edu).

## DEC. 11

### John Keats and Fanny Brawne.

Keats Room, Houghton Library, 2 p.m. In the autumn of 1818, the poet John Keats met a young woman named Fanny Brawne. Despite obstacles — both financial and tubercular — Keats and Brawne fell in love. Their relationship inspired some of Keats' best-known works, along with some of his most poignant and beautiful letters. A new exhibition at the Houghton Library explores their relationship and its legacy, and includes a selection of Keats' letters to Brawne, a lock of Brawne's hair, Oscar Wilde's response to the 1885 auction of Keats' love letters, and more. Free. Available only during Houghton Li-

brary's weekly public tour, Fridays at 2 p.m. 617.495.2449, [hcl.harvard.edu/info/exhibitions/#keats](http://hcl.harvard.edu/info/exhibitions/#keats).

## DEC. 13 AND 14

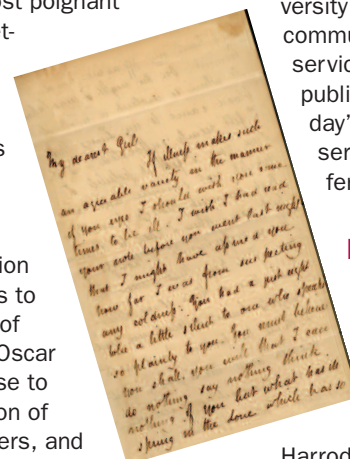
### The 100th Annual Christmas Carol Services.

The Memorial Church, 5 p.m. on Sunday, 8 p.m. on Monday. Seasonal music performed by the Harvard University Choir. Members of the Harvard community are invited to attend the service Sunday, while the general public is encouraged to attend Monday's. Doors open one hour before service. Admission is free; an offering of charity is collected.

## DEC. 15

### 2009 H1N1 Influenza Virus: Evidence for Enhanced Pathogenesis and Replication.

Room 1302, Building I, Harvard School of Public Health, 9:30 a.m. Kevin S. Harrod, director, Infectious Diseases Program, Lovelace Respiratory Research Institute.







## Harvard Rituals: The Game



The oldest rivalry in college football dates to 1875, when Harvard and Yale played a bruising game that resembled rugby more than modern football. Back then, fans journeyed by train, horse-back, and foot from around New England to view the rough-and-tumble spectacle. Old sepia photographs show Harvard Stadium filled to overflowing, with now-unlikely scores of 0-0.

The 1968 game may have been the most memorable of 126 contests. That

was when Harvard scored 16 points in the final 42 seconds to tie, generating the famous headline, “Harvard beats Yale, 29-29.” In this year’s game, held at the Yale Bowl, Harvard again rallied late, this time to win. Still, scores aside, this is more than a football game. At stake are bragging rights for graduates and students who compete with glee clubs, marching bands, and tailgate spreads, ribbing their rivals to gain the upper hand, keeping their jocular rivalry vibrant.



Online ► View photo gallery: [news.harvard.edu/gazette/?p=31614](https://news.harvard.edu/gazette/?p=31614)