Chance Encounters

From daguerreotype to digital, Robin Kelsey traces photography’s efforts to reconcile good luck and high art

How graduate students are helping to build Harvard’s new undergraduate curriculum

A composer grapples with the Holocaust and family legacy

Kit Parker: Soldier, scientist, scholar
Course-Building from Scratch
Inside the inventive collaboration between FAS’s College and Graduate School that’s helping to fuel Harvard’s new undergraduate curriculum.

Speaking the Unspeakable
In language both abstract and grounded, composer Chaya Czernowin probes the limits of time and space.

Colloquy with Kevin Kit Parker, associate professor of biomedical engineering
Finding the line between soldier and scientist.

Lucky Shot
Where good fortune and good form come together, a photograph becomes art.

Alumni Books
GSAS authors on environmental sustainability, the history of American business, World of Warcraft, and the nexus of neuroscience and aesthetics.

On Development
A Graduate Research Workshop on environmental economics nurtures new ideas in a vital and growing field.

On the cover: Robin Kelsey, PhD ’87, Shirley Carter Burden Professor of Photography in Harvard’s History of Art and Architecture Department. Photograph by Webb Chappell.
The Best Defense

I recently served on the dissertation committee for a student in anthropology, and when the time came for the defense, it was an eye-opening and deeply affirming experience. The room was full; faculty and other students had taken every seat. The defending student answered questions not just from committee members but from peers, and he came away with solid ideas about how to steward his project to its next publishable phase. It was an intellectually satisfying and truly celebratory day for both the student and the department.

Defenses present a crucial opportunity to engage with a student’s most important work — work that reflects the intellectual energy and values of the department as a whole.

I believe that every Harvard PhD student deserves a defense like that, and so this year, I have asked all of our departments to evaluate their culminating activities. I’ve urged them to assess how the dissertation defense may best serve their students and advance the intellectual goals of their communities.

An excellent defense has the power to recognize and validate the significance of the work the student has done. Defenses offer an opportunity to evaluate critically that which is truly original and innovative in the work. And they encourage students — and faculty, for that matter — to sharply articulate what they have achieved, what questions still remain, and where a particular line of inquiry might lead.

Defenses present a crucial opportunity to engage with a student’s most important work — work that reflects the intellectual energy and sympathetic audience. The idea of sharing work publicly is at the core of what we do as an academic community, and students still have too few chances to present their work in forums that are both engaged and informed. All scholars want their work to be taken seriously, and defenses are a clear signal of that serious reception.

In some institutions, defenses devolved or were abandoned, largely due to a mostly apocryphal series of horror stories that told of good students who were hammered with unfair questions or committee members who despised one another and capsized a project. When students are conscientiously mentored during the earlier stages of graduate school, receiving the intellectual support and the oversight they need to successfully conclude a dissertation project, the foundations for a positive defense are firmly established.

I am very pleased to report that the departments of History and English have both reinstituted defenses this year, and Mathematics has modified its approach to the defense. Numerous other departments are reviewing their activities, looking at various models and thinking seriously about the parting lessons that a dissertation defense, in whatever form, might offer. Obviously, it is best for departments to establish practices that fit well with their particular disciplines and academic cultures. More departments are rightly seeing the defense as the last chance for committee members and other faculty to make valuable suggestions about work done under their auspices.

The dissertation defense ought to be the capstone of a productive and creative graduate career, the symbol of a department’s success in fostering a new generation of scholars. I am gratified that our departments share that vision.

Allan M. Brandt
Dean, Graduate School of Arts and Sciences
Amalie Moses Kass professor of the history of medicine, Harvard Medical School; professor of the history of science, Faculty of Arts and Sciences

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course-building from scratch

INSIDE THE INVENTIVE COLLABORATION BETWEEN THE COLLEGE AND GRADUATE SCHOOL THAT’S HELPING TO FUEL HARVARD’S NEW UNDERGRADUATE CURRICULUM

By Bari Walsh

In the 17th and 18th centuries, with colonization of the Americas reaching full tilt, foodstuffs were flowing back and forth across the Atlantic, and Europeans slowly developed a taste for the exotic substances of the new world. These alien foods were often first accepted because of their reputed medicinal powers, not any great shift in dietary preference or practice, which only came later.

European medicine at the time was based on the theory that the human body was governed by four humors — blood, phlegm, black bile, and yellow bile, each with associated temperaments based on heat, dryness, cold, and moistness.

Good health meant achieving an optimal balance among the humors and their characteristics. Sugar, from the Caribbean colonies, was thought to preserve the body, just as it did fruit, by increasing the coolness that preserved life. Tobacco, considered food-like in its early uses, was thought to stimulate the body, increasing the heat that provided vigor. Despite a forceful warning by King James I in 1604, and the growing sense that its use was unsavory or vulgar, tobacco retained its medicinal reputation for decades. Among the long list of diseases it was thought to cure: cancer.
That's one of the many snapshots of the past that make it easy to understand why 200 students are enrolled this spring in American Food: A Global History, a new course led by Joyce Chaplin, James Duncan Phillips Professor of Early American History. The course surveys the role of food in America’s birth and evolution and examines how food choices, production strategies, and policies and politics helped to define the country — and its relations with the world — at its outset and into the present.

It’s a great topic, but the class is interesting for another reason, too. It’s one of several in Harvard College’s new Program in General Education that were conceived and designed in graduate seminars, in an inventive collaboration that gives graduate students a direct role in the most sweeping shift in Harvard’s undergraduate curriculum in more than 30 years.

The Graduate Seminars in General Education, the invention of GSAS dean Allan Brandt, began a year before the new General Education undergraduate curriculum itself was launched last fall. That curriculum, adopted by the Faculty of Arts and Sciences in 2007 after years of review and negotiation, lays out a set of requirements that all Harvard College students — starting with this year’s freshman class, the Class of 2013 — must fulfill outside of their concentrations in order to graduate. The program’s vision is broad: the curriculum seeks to inspire in students a firm sense of the connection between what they learn in the classroom and the life they will live outside of the University.

Harvard College students will complete one course in each of eight categories: Aesthetic and Interpretive Understanding, Culture and Belief, Empirical and Mathematical Reasoning, Ethical Reasoning, Science of Living Systems, Science of the Physical Universe, Societies of the World, United States in the World. The program explicitly...
aims to prepare students for civic and ethical engagement, while grounding them in the essential ideas and traditions that constitute a broad education.

“IM CONVINCED THAT IN GREAT RESEARCH UNIVERSITIES, THE RELATIONSHIP OF UNDERGRADUATE TO GRADUATE EDUCATION IS ONE OF THE CRITICAL QUESTIONS.” — Allan Brandt

It's “a curriculum about connecting,” said Harvard College Dean Evelynn Hammonds last fall, at a forum introducing the new program. Connections, as it turns out, not just among the disciplines, or between the classroom and life outside, but also between the two parts of the FAS.

“One of the things we know is that when we present a curriculum, graduate students are always significantly involved,” says GSAS Dean Brandt. “It seemed to me, around the time I was becoming dean, that it would really be a shame for the faculty to be having this intensive debate — devoting time to developing new courses and thinking about what general education is, how it should be presented, and how to innovate pedagogically — without engaging the Graduate School.”

Brandt also understood that “in any transition to a new curriculum, it’s always difficult to develop genuinely new, innovative courses, especially when the faculty has a significant investment. So the question looming for our College was how best to really intensify the transition.”

He began to consider strategies for utilizing the intelligence and energy of graduate students in a way that might also encourage faculty members to sign on to develop new courses. The idea of making that process itself into a course for graduate students seemed like a natural win. “That way, faculty could set aside the time, and graduate students could really become engaged in substantive ways,” Brandt says. “Rather than do this in an ad hoc way, we could actually do it in a course that was promoting the intellectual development of graduate students, helping to develop their instructional and pedagogic abilities, and assisting in the outcome of a new course.”

Conceptualizing new courses is a primary responsibility of any faculty, and it can be among the most creative work that faculty do, Brandt says. “But it’s often done in a not completely observed way,” he continues. “We go off and think about readings, materials, lab resources, fundamental theoretical questions in our fields, and then we develop a course. This all seemed to me to be inadequately transparent to our graduate students, who, of course, will be asked to do this when they become faculty.”

Thus was born the initiative that resulted in the new Graduate Seminars in General Education (GSGEs), 8 of which were offered last year, 13 this year, and more to come. The seminars have so far generated four courses for the undergraduate curriculum, two being taught this year (including Chaplin’s American Food) and two next. Stephanie Kenen, associate dean of undergraduate education and the administrative director of the Program in General Education, says that at their best, these seminars have been “incredible collaborative efforts” in which graduate students make substantial contributions, rather than just receive training in how course development happens.

The experience for graduate students can be rewarding on levels that encompass pedagogy, disciplinary expertise, and professional development, Kenen says. “They’ve taught for people, but to do all this research and read deeply in the field, beyond what you know, but then to go through the thought process of how and why do you choose the materials and assignments you’re going to use in an undergraduate course — it’s very exciting. How do you take this sophisticated, methodological scholarship and translate that into an undergraduate course?”

Participants in the seminar are given first rights to become teaching fellows in the resulting undergraduate class, so students will in many cases have the chance to judge the fruits of their work in real time. Learning firsthand about what works best, and what doesn’t work at all, in an undergraduate classroom is even more meaningful when you have an ownership stake.

Joyce Chaplin knew she’d give students in her graduate seminar, which was offered last spring, a substantial role to play in helping her build her new course on American food and its history.

Chaplin, who considers herself an environmental historian, had written about agriculture and early modern dietetics in earlier research, but says, “Food was nothing I had ever taught before. One of the incentives of the graduate seminar was that you could train your TFs. I thought, ‘Perfect. These smart young people will help me think through the material and then maybe they’ll come along and teach the course with me.’”

The students helped her explore readings and craft exercises for the undergraduates, she says, but she was also trying to teach them how to teach. “I encouraged them to think in terms of the books you assign to your students and the books you use for your lectures (and don’t mix them up!), how much information you put onto a syllabus, and what a paper topic should look like.” She says she gained insights of her own about pedagogical challenges that might arise with a course like this. “I was trying to make sure the lectures and materials were a good mix — that there would be some stuff about domesticity and cooking, some stuff about empires — so that there would be shifting, but cumulatively meaningful, ways of looking at food,” she says. “I thought, ‘This can’t be a course on cuisine and taste only. It probably can’t be a course only on labor regimes.’” Instead, it had to be about all of that, and more.

Stephen Vider, a third-year PhD student in history of American civilization, took the graduate seminar and now TFs for the under-
graduate course. He laughs as he recalls Chaplin’s habit of bringing in food that she cooked (or, in the case of an intricate jello mold, created) to tie in with whatever historical period they were examining in the seminar.

As he describes the process of designing paper assignments, Vider says he was mindful that “one of the purposes of the Gen Ed curriculum was to liberate professors to come up with new strategies.” The assignment he designed follows that inspiration, pointing students to a database, rather than a single source, and asking them to explore it and come up with a topic. “It’s more like the experience historians actually have when they’re digging through an archive to find a topic that interest them,” he says.

Vider and his fellow TF Jerad Mulcare, another former seminar student who also designed a paper assignment, say there’s something both exciting and slightly unnerving about watching the results of those design sessions play out in real time. “As a bunch of graduate students sitting around in seminar, we thought they’d be fine. But you never know. You only find out by doing it,” says Mulcare, a third-year student in history.

Nicolas Sternsdorff, a second-year student in anthropology, says he enrolled in the seminar not just because he’s interested in food cultures, but also for the pedagogical benefits. “I definitely see a trajectory between the seminar, the course, and my own teaching,” he says. “It’s helpful to have a sense of where the lectures are going and why the assignments are there. I remember discussions we had in the graduate seminar that are coming up now.”

“It’s unique, to have helped create this course,” says Vider. “I do feel more ownership. Other courses have been collaborative, but this was new.”

A perpetual challenge in curricular development is finding ways to sustain the momentum and continue to introduce new courses over time, says Brandt. He sees the GSGEs as one mechanism for ensuring that curricular innovation continues at Harvard. As they grow in number and reputation, the GSGEs can be a standing invitation to faculty thinking about a new course, helping to provide a mutually beneficial framework for the process. And they can serve other instrumental goals of both the College and the Graduate School, not least of which is firming up connections within the FAS.

“I’ve been concerned about the insulation of graduate education from undergraduate education in general,” Brandt says. “I’m really convinced that in great research universities, the relationship of undergraduate to graduate education is one of the critical questions.

“There can be tensions between goals and priorities, and the time and energy that faculty invest in both,” he continues. “Anytime we can find approaches that make clear the advantages of embedding graduate and undergraduate education, that’s a desirable outcome.”

“I THOUGHT, ‘PERFECT. THESE SMART YOUNG PEOPLE WILL HELP ME THINK THROUGH THE MATERIAL, AND THEN MAYBE THEY’LL COME ALONG AND TEACH THE COURSE WITH ME.’” — Joyce Chaplin

Joyce Chaplin, James Duncan Phillips Professor of Early American History, conceived of the class as a way to explore connections among people and the natural world.
SPEAKING

THE UNSPEAKABLE

In language both abstract and grounded, composer Chaya Czernowin probes the limits of time and space.

When Chaya Czernowin's first opera was premiered at the Munich Biennale in 2000, audience members were moved to tears. The piece, Pnima . . . ins Innere, is based on the opening chapter of the 1989 novel See Under: Love, by Israeli writer David Grossman. In the story, a precocious Israeli boy tries to connect to his grandfather, a concentration camp survivor whose life was shattered by the trauma. In many ways, that story is Czernowin's own.

"Pnima was autobiographical," says Czernowin, a native of Israel and a leading figure in experimental contemporary music, who last fall became Walter Bigelow Rosen Professor of Music at Harvard. "Both of my parents are Holocaust survivors. David Grossman created something completely autobiographical and personal, based on his own history. I did as well.

"I think we both needed to talk about the Holocaust," she continues, "not in a self-righteous, blaming, or justifying way, but to figure out the way it was present in our lives. How does one approach a trauma that is unspoken, impossible to talk about or comprehend, but that is present in one's life on every level, through one's parents?"

The haunting work, which will have another staging in July at the Stuttgart Staatstheater, grapples with the difficulty of communicating a deeply harrowing experience. Perhaps fittingly for a piece that attempts to speak about the unspeakable, Pnima opened a new window onto Czernowin’s work, putting her on the map as a composer who not only wrote ethereal, “difficult” new music, but who was able to create emotionally intense internal landscapes of sound with universal themes.

"My contemporary operas are not abstract," Czernowin says. "They are a place for me to figure things out. In Zaide/Adama [commissioned by the Salzburg Festival in 2005–06], I could reflect on and express my anger and frustration with Palestinian/Israeli relations, and in Pnima, reflect on my own childhood biography. These works consider the fabric of life, as it were.

"My chamber and orchestral music, on the other hand, creates islands of alternative life," she continues. "There I can be extremely probing and push things toward questioning every aspect of music we take for granted, or..."
create alternate realities, like strangely mutated organic elements — stones, roots, or water, for example.”

Czernowin’s compositions have been performed at more than fifty festivals around the world and include commissions by major ensembles, orchestras, and festivals (among others, Ensemble Modern, the Arditti Quartet, Klangforum Wien, Ensemble InterContemporain, ELISION, the San Francisco Contemporary Music Players, the Vienna Radio Symphony Orchestra, and the Munich Philharmonic). She has received many international awards for her work, including the Kronschtein Music Prize (1992), Asahi Shim bun Fellowship Prize (1993), the Schloss Solitude Fellowship (1996), the IRCAM reading panel (1998), the Rockefeller Foundation Prize (2004), and the Fromm Foundation Award (2008).

In 2005 and 2006, when she was composer in residence, the Salzburg Festival commissioned her to supplement Mozart’s opera Zaide. The resulting work, Zaide/Adama, fragments, was the first attempt to answer an unfinished work with an intervening contemporary “counterpoint work.” It was broadcast on Germany’s ARD network and recorded for Deutsche Grammophon.

And Pnim a . . . ins Innere, the work that helped shape her career, was awarded the Bavarian Theater Prize at its debut and later named the best premiere of the year by the magazine Opernwelt. The opera is still very much a part of Czernowin’s creative life. In 2008 it had a new production in Weimar, and Czernowin has been involved with the upcoming Stuttgart production for the past three years. “It will involve 100 children and be directed by Korean director Yona Kim,” she says. “The theater wanted to highlight the universal side of the work. I am really looking forward to this.”

She’s now working on a piece called lovesong, for the German ensemble Recherche’s 25th anniversary, and she’s thinking ahead to two orchestral commissions: Sand, snow, a study of dust, for the Bavarian Radio Symphony Orchestra, and a piece for guitar and orchestra for the Lucerne Festival, where she will be in residence in 2011.

“I work on one thing at a time,” says Czernowin. “But there are many pieces growing inside me in various stages of completion. I let them grow subconsciously while working on other pieces, and then when I work on them the inquisitive light of conscious thinking shines on them as well.”

And teaching? Where does that fit into her creative life?

Czernowin laughs. “From a young age — I was maybe four or five — I would gather the children from my neighborhood and sit them in a line in our small yard. I had a blackboard, and I would play the teacher in a classroom. Teaching has always been very natural for me.” As early as elementary school, she says, she was sent to classrooms whose teachers were absent, because the children would listen to her stories.

Teaching has been part of her professional life since she was 20. Before Harvard, she was at the University of California San Diego and then the University of Music and Performing Arts in Vienna.

“Composition and teaching can mutually benefit each other,” Czernowin says. “In order to teach in a deep way, which I always try to do, you have to see the score almost as if it were a person. What is hiding in this score, what is trying to emerge, be expressed? It is an intimate dialogue with another person’s mental language. One can learn so much from this kind of dialogue. It is an approach to acceptance and to critique which leads to stronger clarity about where and when to deepen or refine something, versus where and when to erase or change.

“Exercising this clarity is very pertinent when returning to one’s own work. This is one of the ways in which teaching keeps me on my toes creatively.”

UPCOMING PERFORMANCES

• Summer Institute for Contemporary Performance Practice
  Composer-in-residence
  New England Conservatory
  June 12–19, 2010
  http://sicpp.org

• Pnima . . . ins Innere
  Opernhaus, Stuttgart, Germany
  July 9–22, 2010

• Composer Portrait
  Miller Theatre at Columbia University
  April 8, 2011
  www.millertheatre.com

alumni notes

Chemistry

Eric Block, PhD ’67, has published Garlic and Other Alliums: The Lore and the Science. The book is the culmination of over 35 years of research on the history, culture, and chemistry of the members of the Allium genus: garlic, onions, and leek. Block is currently the Carla Rizzo Delray Distinguished Professor of Chemistry at the University of Albany, State University of New York, and sits on the editorial board of the Journal of Agricultural and Food Chemistry.

Comparative Literature

Deborah Heller, PhD ’70, has written Daughters and Mothers in Alice Munro’s Later Stories, an essay on how the interpretation of Munro’s earlier autobiographical works is shaped by mother-daughter conflict in her later fiction. Heller is an associate professor of humanities emerita at York University.

Economics

Felipe Larraín, PhD ’85, is Finance Minister in the new government of Chilean President Sebastian Piñera. Phd ’76. He is also a member of the Graduate School Alumni Association Council.

English and American Literature and Language

G. Y. Dryansky, AM ’60, is busy writing novels in Paris, with his wife, Joanne. Their latest, Satan Lake, is coming out in June from Actes Sud. They’ve also done the sequel to Fatima’s Good Fortune, published by Miramax Books in the United States and republished worldwide. The new Fatima book, Fortune’s Second Wink, debuts with the Editions Héloïse d’Ormesson in April.

Michael Winkler, PhD ’64, has won the annual Frandsen Award for Literature given by the University Continuing Education Association (UCEA) for his recently published book, The Gates Unbarred: A History of University Extension at Harvard, 1910–2009. [See page 14.] Shinagel is Dean of Harvard Extension School.

Helen P. Trimp, PhD ’66, has published Crimson Confederates: Harvard Men Who Fought for the South, a biographical register of the 357 Harvard alumni who served in the Confederate Army during the Civil War. Trimp has taught at Stanford University and previously published a book and several essays on Herman Melville.

History of Science

Lara Freidenfelds, AB ’94, PhD ’03, is pleased to announce that her book, The Modern Period: Menstruation in Twentieth-Century America (Johns Hopkins University Press), has won the 2009 Emily Toth Award for Best Book in Women’s Studies continued on page 9
As a researcher, Kevin Kit Parker delights in exploring the nuances of cardiac cell biology and tissue engineering, traumatic brain injury, and micro- and nanotechnologies. An associate professor of biomedical engineering, he leads the Disease Biophysics Group at the School of Engineering and Applied Sciences, and he’s a core member of Harvard’s Wyss Institute for Biologically Inspired Engineering.

But he has another profession, one that’s equally important to him. He is a major in the U.S. Army, and late last summer he returned from his second tour of duty in Afghanistan.

There wasn’t much time for R&R. Parker’s lab needed his attention, and as keenly as he’d felt a sense of duty on the battlefield, he felt the same on campus. Almost a dozen manuscripts were nearing completion, a PhD student needed a dissertation ushered, and postdocs needed letters of recommendation. “They did a great job while I was gone,” says Parker of his junior researchers, “but their lives can’t be put on hold for mine.”

The balancing act is a burden that would fall heavily on some, but Parker, known informally as Kit, is a larger-than-life figure (literally, at 6’5”, as much as metaphorically) with an easy sense of humor and a deep Southern drawl that defuses tension even as it establishes leadership. Once you’ve been where he’s been, his manner suggests, there’s not much else to get riled about.

In a recent conversation, he talked about his work and drew connections between the lab and the battlefield.

What’s exciting you in the lab these days?
One thing is our tissue engineering effort. Two of my postdocs, Adam Feinberg and Mohammad Badrossamay, are working on new techniques to make protein textiles — making fabrics and fibers out of proteins. You can exploit the secondary and tertiary structures of the protein to get unique mechanical and chemical properties.

How did the work develop?
The nanofibers story is a good one. I got invited to speak at a Society of Laparoendoscopic Surgeons meeting on the future of surgery. I got there early and was checking out the equipment demonstrations, and it dawned on me: Wow, we do all this tissue engineering that starts off with a chunk of polymer. But now, when you get operated on, it all goes in through a small hole. Nothing we’re building in the lab right now is going to go into a hole that small.

So what did you do?
A long time ago, I’d seen someone use a cotton candy machine to weave fibers. I got this idea: What if you could take a cotton candy machine, weave some protein fabrics out of it, and then miniaturize it and put it inside the body? You’d go in there, inflate someone’s abdomen with gas, weave a three-dimensional structure with your nanofibers right in the body, and use it as a scaffold for your engineered tissue or to repair a damaged organ.

Associate Professor Kit Parker says his military training helps him run a more efficient lab, with an emphasis on mutual trust and accountability.
I had my lab manager, Josh Goss, go out and buy a cotton candy machine, and I just said, “Play with it. Just play.”

Adam had already been doing protein nanofabrics, and I wanted to see if we could make something more deployable. So I hired Mohammad, who had a background in textiles and an in-depth understanding of polymer science. He got here two months before my last deployment to Afghanistan. I said, “Make me nanofibers. I gotta go fight.”

And six months later, he had it. Josh is an expert scientific instrumentalist, and he essentially built our own version of a cotton candy machine — but it’s tricked out. Now we’re getting ready to start working with Rob Howe [Gordon McKay Professor of Engineering at SEAS], a surgical roboticist, to miniaturize this thing and take it in vivo.

What else are you working on?
Our lab is primarily a cardiac tissue engineering lab, but we launched a big effort in traumatic brain injury [TBI] a few years ago. As an undergraduate in our lab, Borna Dabiri [AB ’07] started building tools for mimicking blast injury to engineered neurons and vascular tissues. He went to medical school at UC Irvine, but I convinced him to take a sabbatical to come back. He’s here on a Pierce Fellowship to do a PhD in biomedical engineering. He’s working with another PhD student, Matt Hemphill, and they’re going great guns after this TBI problem.

What’s their approach?
The idea is to build in vitro models of blast injury — to develop a set of tools that mainstream this science. Because in trauma science, the problem is that the experiments usually require animals. They’re pretty gnarly. The question is, can you use engineered tissues to mimic in vivo structures and do these kinds of experiments without blowing anything up. Our team has built a series of technologies to help us understand the scaling laws of blast injuries — understand them all the way from the protein ensemble or macromolecular scale up to whole engineered tissues.

It’s important work, judging from all the news about IEDs. Even before it got out in the press, it was clear we had a problem. These guys were getting their bells rung. Early on, the IEDs were kind of crude, but on this last tour, I saw much more sophisticated technology.

We’ve got soldiers out there that have been blown up 12 or 13 times. The question is, what are the long-term consequences for these young guys? Are we going to see our VA hospitals flooded with a bunch of 40-year-old men who suffer from dementia, Alzheimer’s, Parkinson’s? This is a public-health crisis that we’re about 15 years out from, but it’s going to hit hard.

I believe there are therapeutic opportunities in first 10 minutes to an hour after a blast. What I want to know is, what are the signaling pathways that get turned on first? In combat casualty care, we talk about the golden hour, trying to get casualties off the battlefield and back to medical care within an hour. Now we’re starting to think about the platinum ten, the ten minutes after the injury, and about what’s happening. That’s when people are suffering a cascade of injuries that later can’t be reversed.

What part of your scientist self goes with you to the battlefield?
The scientific method is applicable anywhere. My first tour in Afghanistan, I had a very good team sergeant named Aaron Chapman. He and I would patrol and develop hypotheses about what we were seeing. We’d say, if this is what we think is happening, then we need to answer questions A, B, and C to test that out. The tools are different, the scale is different, the thinking is the same.

What part of the battlefield do you take back to the lab?
Managing people is probably the best thing I bring back. In both situations, the key to productivity is accountability and teamwork. Look, in both of my professions, the 18–30 year old demographic is where I live. I put my life in their hands on the battlefield, and I make my living with them in the lab. In both situations, these are young people who are pushing hard to push the envelope. I have seen what they’re capable of in the lab, and I’ve seen what they’re capable of on the battlefield. The achievers are the same, it’s just the medium of their achievement that differs.


Music
Jack Behrens, PhD ’73, reports that Centaur Records has released a CD of his Homages for Piano Solo, performed by Bianca Baciu. Baciu’s book, Death of the Author — A Tribute: Aspects of Postmodernism in Jack Behrens’ Homages for Piano Solo, has been published by VDM Verlag. Dr. Müller (2008). Behrens is currently Dean of Advanced Studies at the Pennsylvania Academy of Music.

Organismic and Evolutionary Biology
Michael J. Balick, PhD ’80, has compiled and edited Ethnobotany of Pohnpei: Plants, People and Island Culture, a volume about the relationship between plants, people, and traditional culture on Pohnpei, an island of Micronesia. Balick is the vice president for botanical science and director and philecology curator of the Institute of Economic Botany at the New York Botanical Garden. He teaches ethnobotany courses at Columbia University.

Sociology and Study of Religion
Robert R. N. Ross, PhD ’73, has published Walking to New Orleans: Ethics and the Concept of Participatory Design in Post-Disaster Reconstruction, co-written with Deanne Ross. The book is an exploration of the relationship between nature and human society, using the example of the Hurricane Katrina tragedy to suggest a practical approach for the collaborative reconstruction of natural environments and neighborhoods. Ross currently teaches philosophy and the study of religion at the University of Massachusetts, Boston, and at Starr King School for the Ministry/Graduate Theological Union in Berkeley, California.
Where good fortune and good form come together, a photograph becomes art

Lucky Shot

By Bari Walsh

On the afternoon of June 8, 1972, on a smoke-filled roadway outside the Vietnamese village of Trang Bang, a young Associated Press photographer named Nick Ut got the shot of his life. Ut had made the dangerous trip from Saigon to meet South Vietnamese units as they prepared to engage the North over control of the road and the village. Along with other photographers, he watched as South Vietnamese jets dropped napalm bombs on the village, then snapped images that captured the panic and despair of civilians, many of them children, who fled the ruined village, burned and desperate. One of those images, in which a nine-year-old girl runs naked and crying down the road, having ripped off her burning clothes, became one of the iconic photographs of modern history.

Thirty-five years later, to the day, Nick Ut took another image that soon made its way to media outlets around the world. This
time, the shot was of a crying Paris Hilton, in a car on the way to county jail in Los Angeles. In both cases, he was in the right place at the right time (no mean feat in either situation), and he was prepared, persistent, and lucky. One photo is art; the other, spectacle.

The difference in outcome, along with questions of intent, meaning, and the proportionality of talent and good fortune, makes photography a fascinating and a tricky art, says Robin Kelsey, Shirley Carter Burden Professor of Photography in the History of Art and Architecture Department. Kelsey, PhD ’87, is exploring those tensions as he prepares the manuscript for a forthcoming book on photography and chance, to be published later this year by the University of California Press.

He’s working through the history of photography episodically, “focusing on practices that I think grapple most intelligently, most sensitively, with the issue of chance,” Kelsey says. “Part of my interest is in understanding chance as a historical idea. It’s often treated as that impish agency which escapes all systemization, and, as a result, it’s often treated ahistorically. But of course, what chance means changes dramatically.
throughout history. I’m trying to give an account of how chance and photography have changed together over the history of the medium.”

At the beginning of that history, in the 1820s and the 1830s, Kelsey notes, a new science of social statistics was gaining prominence. New statistical models were uncovering predictable patterns in seemingly random occurrences. “So, statisticians found that the number of letters in the dead letter office in Paris is approximately the same every year,” says Kelsey. “They found that the number of suicides is roughly the same every year, and not just suicides, but the number of people who kill themselves by jumping out windows is the same. That there’s regularity in things that once seemed random.”

This regularity raised theological questions that would persist for the rest of the century, Kelsey says. “Regularity had traditionally been understood in a theological sense, but it seemed mind-bending to imagine that the divine was concerned with the number of letters in the dead letter office,” he says. The invention of photography — announced to the world by two of its competing pioneers, Louis Daguerre in France and William Henry Fox Talbot in England, in early 1839 — coincided with these new questions about randomness and design. “Talbot was keenly aware that chance played a role in the production of these pictures in a way that it did not in any other medium,” says Kelsey. “This was the first time you had pictures being created in which every mark was not intentionally delivered by a hand.”

Talbot’s *The Pencil of Nature*, the first book illustrated with photographs, motivated Kelsey’s interest in the topic. “I realized that he was, tacitly at least, creating a theory of the role of chance in photography. It’s a deceptively simple book, but I came to believe it’s actually a brilliant book, very subtle in its argumentation. I wanted to trace that forward.”

His project seeks to record “an intergenerational conversation among photographers” on managing and rationalizing chance, he says. After Talbot, Kelsey moves to the Victorian period, where the rise of financial markets helped associate chance with social upheaval, “with the fact that people can...
become millionaires overnight, or paupers.”

There was a discomfort with the moral implications of the new economic order, and for the British photographer Julia Margaret Cameron, a sense that photography had become, in its short history, much too aligned with industry, compromising its aesthetic purpose. “She was largely self-taught, and she understood herself as in some sense reinventing the medium,” Kelsey says. Her photographs have a dreamy, gauzy quality to them, and in their composition they can seem startlingly modern.

“She employed accident or chance in remarkable ways,” Kelsey explains. “Critics have been puzzled by why she accepted what seems like sloppiness or defects in her photographs — things like arbitrary focus, fingerprints, and what some have said was defective equipment. My own theory about that has to do with performance. In letters she talked about the process of making a photographic portrait in a way that suggests she understood it as an exchange of performances. The sitter performs for her, she performs for the sitter. Because she wanted those performances to mingle on the surface of the photograph, she invited her own bodily labor, as well as the irrepressible life of the sitter, to leave its mark.”

In the 20th century, the connotations of chance are influenced first by Freud, “where in a sense you have a return to determinism,” Kelsey says, and then by physics, which theorizes the intentionality of chance, positioning it as a fundamental element in the makeup of the universe. Meanwhile, photographers have become more interested in suppressing chance; art photographers like Cindy Sherman, working in what’s called the directorial mode, produce pictures of elaborate staging and closely controlled drama, and amateur photographers routinely edit the red eyes and ex-spouses out of their pictures.

But all that hasn’t altered photography’s inherent susceptibility to chance, Kelsey says. The role of fortune was on the mind of Peter Henry Emerson, a British photographer of the later Victorian era, when he wrote to the American photographer Alfred Stieglitz, trying to get Stieglitz to enter a photo competition. “Emerson wrote, ‘you have to send me several photographs, because anyone can make a lucky photograph one time.’ This notion that anyone can get lucky is something that I think haunts photography,” says Kelsey. Stieglitz himself ruminated on the role of luck in a later essay, wondering how to measure its effect over a long career.

“It’s all well and good to say that the great photographer shows him- or herself over time by producing many more great photographs,” says Kelsey. “But what does that still say about any individual photograph? It’s fine to say that the track record separates out the Stieglitzs or the Cartier-Bressons, but the question of chance still looms. One imagines that Cartier-Bresson and Stieglitz also got lucky sometimes. So when you’re looking at any individual photograph, what can you read into it in terms of intention?

“For someone working in an art history department, with colleagues looking at Michelangelos and reading into them all kinds of intention and meaning, it’s something one worries about,” Kelsey adds with a smile.

RECENTLY RECEIVED

THE ARABS
A History
By Eugene Rogan, AM ’84, PhD ’91, regional studies — Middle East

This work recounts 500 years of Arab history — marked by the encroachments of the Ottoman Empire, European colonizers, the United States and the Soviet Union (during the Cold War) — and more recent American actions. Yet rather than a litany of victimization, Rogan offers a complex account of Arab achievements and failures, faith and aspirations. He draws on many firsthand observers — an 18th-century Damascus barber, a young Egyptian doing a “reverse Tocqueville” in early 19th-century France, among others. The result is a welcome corrective to the one-dimensional images of Arabs and Islam that have marred popular culture and political discourse.

TREDDING SOFTLY
Paths to Ecological Order
By Thomas Princen, MPA ’83, PhD ’88, political economy and government

For a sustainable future, Princen argues, societies and economies must live within their means. Where current responses to environmental crisis either envision a world much like the present, just “greened up and made more efficient,” or predict a global collapse (the “doom-and-gloomers”), Princen suggests the possibility of a sweeping yet truly positive outcome. The transformation — not just in bricks and mortar, but in assumptions and desires — won’t be easy. Unfortunately, his focus on the “vision thing” doesn’t offer much help with the problem of getting there from here.

“THE GATES UNBARRED”
A History of University Extension at Harvard, 1910–2009
By Michael Shinagel, PhD ’64

Written by Harvard’s long-time Dean of Continuing Education and University Extension, The Gates Unbarred recounts the first century of the University Extension program. Rooted in the Lowell Institute, a lecture series established by John Lowell Jr. (1799–1836), Harvard’s Extension School was established soon after Abbott Lawrence Lowell, Trustee of the Institute, became University president. Over the years, the school has offered inexpensive night courses (often taught by illustrious faculty members), pioneered educational broadcasting (radio and television), and developed an educational program for the US Navy.

Alumni authors: If you have published a general-interest book within the past year and would like it considered for inclusion, send a copy to Colloquy, Harvard Graduate School of Arts and Sciences, Holyoke Center 350, 1350 Massachusetts Ave., Cambridge, MA 02138. Questions? E-mail gsas@fas.harvard.edu.
THE TWO HENDRICKS
Unraveling a Mohawk Mystery
By Eric Hinderaker, PhD '91, history

Mohawk leaders Tejonihokarawa (ca. 1660–1735) and Theyanoguin (ca. 1691–1755) — who as baptized Christians shared the common Dutch name Hendrick — have long been conflated into a single historical figure. The two Hendricks were notable for their alliance with Anglo-America against the French, and their leadership and diplomatic efforts played a significant role in shaping the imperial struggle for North America.

In disentangling their lives, Hinderaker not only sets the record straight but underscores the agency of Native Americans — particularly the Iroquois Confederacy — in the colonial era.

THE NEURAL IMAGINATION
Aesthetic and Neuroscientific Approaches to the Arts
By Irving Massey, PhD '54, comparative literature

In exploring the nexus of neuroscience and aesthetics, Massey's brief but dense narrative investigates how scientific advances can influence the arts (for example, discussing links between 19th-century psychology and the rise of cubism) as well as ways in which neuroscience provides a lens for understanding the creative processes at work in poetry, art, and music. But, he insists, despite its explanatory power, neuroscience can't supplant, displace, or explain away humanistic interpretations of the arts. As ways of knowing, neuroscience and aesthetics simply cannot be conflated.

THE STORY OF AMERICAN BUSINESS
From the Pages of The New York Times
Edited by Nancy F. Koehn, MPP '83, PhD '90, history

This anthology of articles from The New York Times outlines various themes in the history of American business — from corporate consolidation to technological innovation to the changing nature of the American workplace. Koehn provides useful introductions to the various thematically organized chapters, offering background and context, but the work stands on the strength of the selected articles, which are uniformly lively and often strikingly insightful.

The collection focuses on the 20th century (with a relative handful of pieces coming from the 19th and 21st centuries).

THE PUEBLO REVOLT AND THE MYTHOLOGY OF CONQUEST
An Indigenous Archaeology of Contact
By Michael V. Wilcox, PhD '01, anthropology

This book is an excellent case study and a compelling manifesto for what Wilcox (himself a Pueblo Indian) terms “Indigenous anthropology” — anthropology marked by close collaboration between researchers and the Native American community. His interdisciplinary approach to the 1680 Pueblo revolt combines century-old ethnographies, contemporary oral sources, historical scholarship, social science theory, and archaeological findings. And he deftly advances two larger arguments — that research should focus on native cultures’ long-term survival, not their “demise,” and that narratives premised on the role of disease and native population collapse in explaining colonial conquest seriously misrepresent the scale and impact of European violence.

DARROW THE LINE
Public and Private in America
By Andrew Stark, PhD '85, government

One key to our contentious politics involves disagreement over “public” and “private.” However, Andrew Stark argues, liberals and conservatives — in debating welfare, health care, education, etc. — repeatedly ground their arguments in both public and private values (though they do so in quite divergent ways). Stark highlights the resulting ironies — e.g., a gated California community that incorporated as a municipality so its expenses would be tax-deductible but located its “city hall” safely outside the gates (otherwise anyone could enter their exclusive community to reach the public building).

THE WARSCRAFT CIVILIZATION
Social Science in a Virtual World
By William Sims Bainbridge, PhD '75, sociology

Large-scale, multi-player computer games like World of Warcraft are elaborate enough to qualify as virtual societies. And William Bainbridge offers the logical counterpart: virtual sociology. After spending 2,300 hours playing World of Warcraft, Bainbridge is now the undisputed authority on this fantasy game. Indeed, in 2008, he organized the first-ever scientific conference held within the World of Warcraft, although he conceded that the participants “all died during the final day’s social event — a massive raid on an enemy fort.”

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Reviews by James Clyde Sellman, PhD '93, history
Minister Quentin Davies, left, was the special guest at a GSAS alumni luncheon in London. Among the attendees were Allen Sangines-Krause, PhD ’87, and Mia de Kuijper, MPA/PhD ’83.

HONORING A HARVARD CENTENARIAN
The Harvard Club of Hong Kong celebrated the 100th birthday of Dr. Shiu Ying Hu, PhD ’49, with a ceremony at Chung Chi College in Hong Kong on February 26. Hu was one of the first Chinese women to earn a PhD (in cellular and developmental biology) at Radcliffe, and she went on to a 50-year career as a botanist at Harvard’s Arnold Arboretum. Over the course of her accomplished tenure — and even beyond, into her retirement — she made significant contributions to our understanding of Chinese medicinal plants, food plants, orchids, and the flora of Hong Kong, publishing more than 160 papers, a book entitled *Food Plants of China* (in 2005), and an index of 158,844 file cards for Chinese plant names, now housed at the Harvard University Herbaria.

As a Chinese researcher living and working in America during a time when formal ties between the two nations did not exist, Hu was an intellectual ambassador, networking with fellow scientists and sending current books, publications, and journal articles back and forth. She was also a pioneer in crossing gender barriers, conducting fieldwork in western Sichuan in the late 1930s and early 1940s, at a time when few women in any part of the world were doing so.

Hu has spent the later part of her career in Asia, serving as an honorary professor of Chinese medicine at the Chinese University of Hong Kong and senior college tutor of Chung Chi College.

LONDON CALLING
GSAS deans and alumni met in London on January 20 for a day of networking, learning, and reconnecting. The Global GSAS series, in partnership with the Harvard Club of the United Kingdom, brought Harvard economist Benjamin Friedman, AB ’66, PhD ’71, to town for an evening presentation in the City on the financial crisis and the moral threats arising in its aftermath. Earlier in the day, a smaller group of alumni, along with GSAS Dean Allan Brandt, Administrative Dean Margot Gill, and several graduate students working in London, met for lunch in Pall Mall at the Oxford and Cambridge Club. Quentin Davies, the United Kingdom’s Minister for Defence Equipment and Support, an M.P. for Grantham and Stamford, and a former Frank Knox Fellow at Harvard, was a special guest at the table. Davies led a lively conversation, during which he reflected on what his time at Harvard had meant to him — he recalled every faculty member with whom he’d had a course — and pointed to recent issues in Europe that he felt deserved greater attention from both American and European governments. After lunch, the group embarked on a private tour of Westminster Abbey and School.
ON DEVELOPMENT

WHERE INNOVATION INCUBATES

Graduate Research Workshops provide a friendly venue for testing out new ideas

By Leigh DuPuy Carlisle

How can we expand the distribution of potable water supplies in Kenya? Can we improve international agreements on climate change? How do large-scale natural disasters affect local economies? These are just some of the questions debated and tested by graduate students and faculty in the Environmental Economics Workshop, one of many Graduate Research Workshops sponsored across the disciplines by the Graduate School of Arts and Sciences.

Matthew Ranson, a PhD candidate in public policy, is untangling data on air pollution. Evaluating the impact of national emission standards since their inception, Ranson is grappling with how to analyze regulations that vary by industry and date of implementation. “It depends on what kind of story you want to tell,” volunteers a peer, one of many students sitting around a rectangular table at one recent lunchtime session.

The feedback he receives from fellow students and faculty provides immeasurable help to Ranson, a predoctoral fellow in the Harvard Environmental Economics Program (HEEP). It’s one of the reasons he helps to coordinate the workshops. “It’s a place to solve problems, put assumptions to the test, and invite people’s opinions,” he says.

In this and other Graduate Research Workshops, peers become collaborators and constructive critics, assisting fellow students as they share works in progress and sharpen their research. GSAS is now funding almost 80 workshops, on subjects ranging from human evolutionary biology and Indo-European linguistics to urban sociology and East Asian archaeology. Faculty and students submitted 86 workshop proposals for the March 2010 funding round, and 19 of those were entirely new. The value of these gatherings is being felt across all fields.

Whether presenting a few slides, unveiling new research, or preparing for interviews, students use the workshops as an informal environment for honing rigorous scholarship. “They are a supportive crowd,” says Ranson, “but they won’t hold back. They’ll tell you their concerns.”

These are key experiences for students preparing for careers in academia. “It is extremely important for graduate students to have regular opportunities to exchange ideas and receive feedback in a nonthreatening, user-friendly forum,” says HEEP director Robert Stavins, the Albert Pratt Professor of Business and Government at the John F. Kennedy School of Government. “These sessions are foundational for future job talks, major publications, and groundbreaking findings.”

The workshops also help to foster a “community of scholars,” says Stavins. For environmental economics, a relatively new field, they offer a valuable opportunity for specialists to connect. The sessions regularly attract not only PhD students but also graduate students and scholars from as near as Harvard Business School and MIT and as far as Beijing.

“Our discussions form a perfect complement to work with an adviser,” says coleader Kelsey Jack, a PhD candidate in public policy who researches how incentives for environmentally friendly land-use practices affect environmental outcomes. “The difference is, instead of getting feedback from a one-on-one encounter, you are getting a myriad of responses in a focus-group setting.”

Unrestricted funds help make the Graduate Research Workshops possible, underwriting the critical stewardship that students need to develop innovative ideas. “This is a great way to ferret out bad ideas — and you can spend a lot of time on bad ideas,” says Ranson with a smile. “It’s key to be able to present early and often.”

For information about how you can support the Graduate School Fund, and about how that support helps students, visit alumni.harvard.edu/give/graduate-schools/gsf.
ALUMNI EVENTS AND NOTICES

Questions? Contact the GSAS Office of Alumni Relations at www.gsas.harvard.edu/alumni, gsaa@fas.harvard.edu, or 617-495-5591.

REGIONAL ALUMNI EVENT | APRIL 22, 2010 | TORONTO
Harvard Club of Toronto
“Veritas in Spring” 2010 Annual Dinner
One King West Hotel & Residence
1 King Street West, Toronto
Reception at 6 p.m., dinner at 7 p.m.

Featuring a keynote address by GSAS Dean Allan M. Brandt. Please contact gsaa@fas.harvard.edu for registration details.

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CALL FOR NOMINATIONS
The GSAS Centennial Medal and Graduate School Alumni Association Council

Help GSAS recognize its most distinguished alumni through nomination for the Centennial Medal. The medal recognizes contributions to society as they have emerged from graduate study at Harvard. Past recipients include theological scholar Elaine Pagels, historian Bernard Bailyn, author Susan Sontag, biologist E. O. Wilson, economist Jeffrey Sachs, and historian and memoirist Jill Ker Conway. The medal is awarded annually at a ceremony held in Cambridge during Commencement Week.

Alumni are also invited to submit nominations for the GSAA Council, the governing body of the Harvard Graduate School Alumni Association. Typically, Council members have achieved distinction in their careers or their community service. Council members share a strong commitment to Harvard and to graduate education.

To nominate: Submit a letter stating your reasons for selecting the candidate, marked either for the Centennial Medal or for the Graduate School Alumni Association Council, to: GSAS Alumni Association, Holyoke Center 350, 1350 Massachusetts Avenue, Cambridge, MA 02138. Nominations may also be e-mailed to gsaa@fas.harvard.edu.