

NEW APPROACHES TO TREATING AUTISM *p.8*

TRADITIONAL VIRTUES IN A POSTMODERN
WORLD *p.18*

FALL 2012

Colloquy

The GRADUATE SCHOOL *of* ARTS AND SCIENCES | HARVARD UNIVERSITY

Nobel laureate Brian
Schmidt, PhD '93,
and the race to build
the biggest telescope
yet. p. 12

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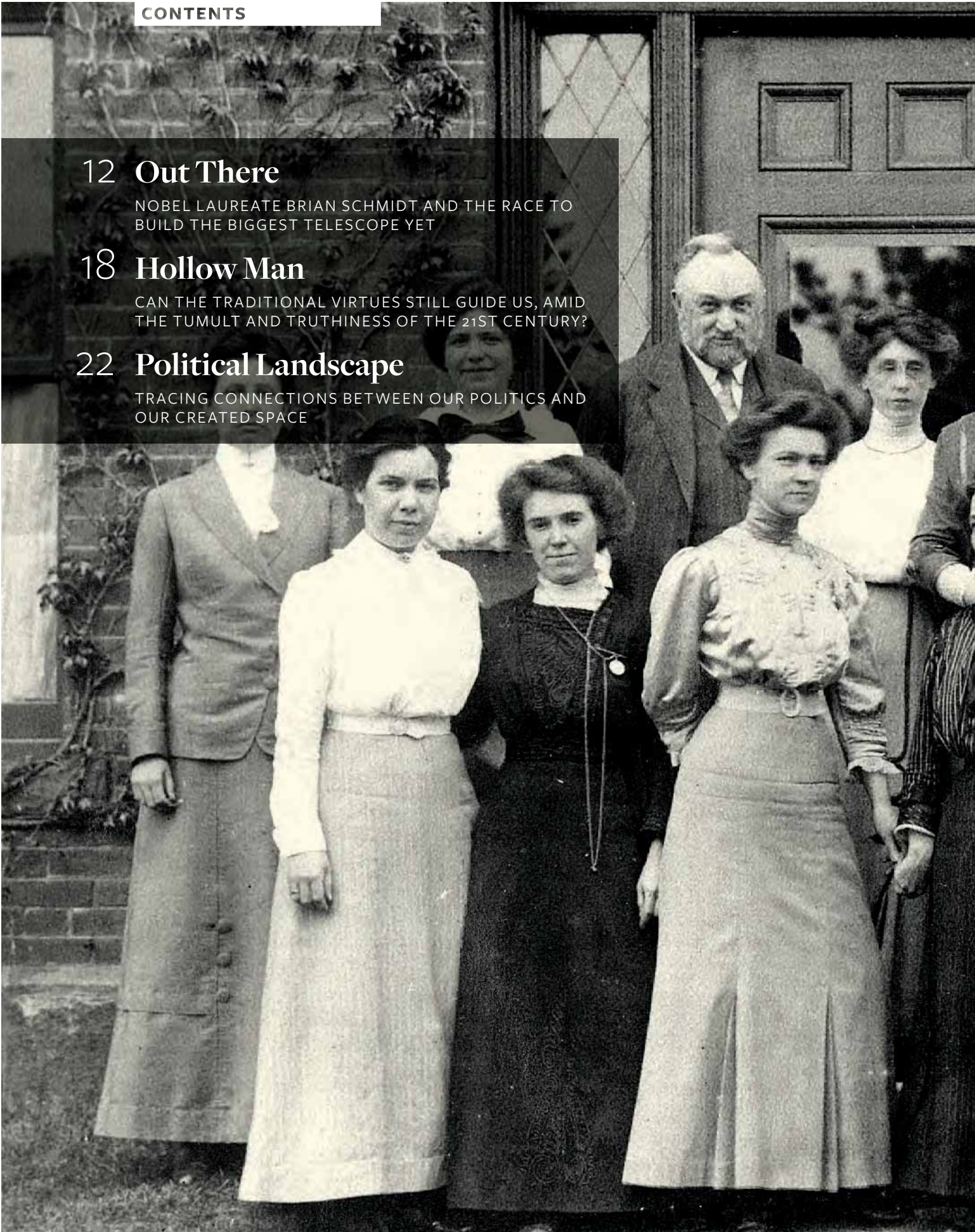
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Colloquy

An alumni publication of Harvard's Graduate School of Arts and Sciences

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Cover: Nobel laureate Brian Schmidt, photographed in Canberra, Australia, by Nick Cubbin

Facing image: In the latter decades of the 19th century, Harvard Observatory Director Edward C. Pickering (back row) employed a group of women to help in the project of identifying and classifying stars. In addition to laying the foundation for modern astronomy, they helped create a role for women in science that hadn't existed before. Among them was Annie Jump Cannon (1863–1941; back row, fifth from the left), who went on to become the first woman recipient of the Draper Medal of the National Academy of Sciences, according to a retrospective in the March 19, 1998, edition of the *Harvard Gazette* (searchable online).

Photo courtesy of the Harvard-Smithsonian Observatory Archives

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Colloquy

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Sydney-based photographer **Nick Cubbin**, who shot the cover photo for this issue, worked as a staff photographer at *The Weekend Australian Magazine* for eight years before embarking on a freelance career. His portraiture has since been published in *Time*, *The Guardian Weekend* magazine, *The Australian Women's Weekly*, and *Australian Geographic*.



Science writer **Maggie McKee**, the author of this issue's cover story, has contributed to *New Scientist*, *Nature*, *Astronomy*, and *Health*, among other health and science publications. She recently was awarded high commendation in the first European Astronomy Journalism Prize competition for a feature on the Venus transit, published in *New Scientist*.



Lars Blackmore is a photographer, writer, and photo editor currently on a six-month assignment in Rwanda, where he took the photo of Delia Wendel for the “Political Landscapes” story. You can read about his adventures in Rwanda with his family (including his two school-aged children) at <http://ameridane.org>. He's otherwise based in Vermont.



Ben Gebo is a Boston-based photographer who traveled to Brooklyn to shoot Fallon Samuels-Aidoo for the “Political Landscapes” feature. He also shot the portraits of our Howard Hughes international scholars (page 6). A partial list of his clients includes British Airways, New England Conservatory, the Boston Public Library, *HGTV Magazine*, *Boston Globe Magazine*, and *Boston Home*.



Child Hall. Harvard's 350th anniversary. That was where and when I started my Harvard journey. Twenty-six years later, I am given the extraordinary privilege to greet you as the new Dean of the Graduate School of Arts and Sciences. Four and half years as a student, twelve as a faculty member, and seven as a department chair have brought me to many corners of Harvard. Yet my curiosity and excitement about this institution are stronger than ever. Harvard is a place of constant renewal, and I am also acutely aware of the size of the shoes my predecessor, Allan Brandt, has left for me!

I particularly want to thank Allan for his extraordinary leadership. Because of him, the Graduate School weathered the fiscal storms of the last several years in excellent fashion, managing both fiscal prudence and great progress toward core priorities. I extend my deep appreciation also to Richard Tarrant, who so generously stepped in to serve as interim dean this past spring.

The initiatives that I hope to lead over the coming years will build upon Allan's dedication to recruiting and preparing the next generation of exceptional scholars and educators, industry leaders, policymakers, and builders and leaders in all walks of life. Under Allan's watch, the quality of our applicant pool — and the achievements of our admitted students — reached unprecedented heights. And one of the cornerstones of his deanship was the support he offered those students after they joined our community. He strengthened the advising and mentoring structures across our disparate graduate programs, equipping students not only to succeed academically but to thrive professionally.

In the years since I was a GSAS student, the academic and research landscape in this country has shifted dramatically. Economic challenges, and the political decisions they prompt, can have a profound impact on our abilities to compete for the brightest and to fund our education programs, and on the career opportunities available to our graduates.

It is therefore essential that we recognize these new realities and prepare our students to grapple with the chal-

Xiao-Li Meng,
PhD '90, Dean, Graduate School of Arts and Sciences, Whipple V. N. Jones Professor of Statistics

"It is therefore essential that we recognize these new realities and prepare our students to grapple with the challenges of the changing times, even as they embrace new opportunities."

lenges of the changing times, even as they embrace new opportunities. As Harvard prepares to launch a university campaign that promises to be among the most ambitious in history, this is an opportune moment to begin to formulate our equally ambitious agenda.

My view of the Graduate School's mission is a chronological one, extending from entering students to returning alumni: We must attract the best students anywhere of any background; give them the best scholarly and professional training; help them to launch the best possible careers that match their passion and training; and engage them in the most effective and creative ways after their graduation.

I'll discuss these ideas with you in greater detail — in future issues of *Colloquy* and when we meet on the road or on campus. Here I will only mention, as brief examples, that we are creating new venues for students to showcase their research on campus and online and to develop their networks, in partnership with alumni in their fields. We are working hard to further Allan's effort on diversifying graduate education by supporting recruitment efforts that will expand the pool of applicants from underrepresented communities. And we are striving to highlight the ways in which our *global* diversity enriches the academic experience we offer to students and the professional path we lay out for graduates.

To successfully complete our mission, we will need your help and rely on your counsel. I therefore look forward to meeting you, my fellow alumni, at gatherings across the country and around the world, or right back here in Cambridge — perhaps next spring at our annual Alumni Day. Until then, I welcome you to contact me at gsasmeng@fas.harvard.edu or through the Graduate School Alumni Association, at gaa@fas.harvard.edu. 

The Power to Change

To the endeavor of improving health care in the world's poorest regions, Scott Lee brings two conspicuous assets.

The more obvious is the \$100,000 grant that the MD/PhD student in Harvard's Health Policy program won this April from Massachusetts General Hospital, for research into community health in rural Africa and India.

Money alone, though, is not as impressive as it once was in global development. Easy enthusiasm about the transformative power of Western largesse is increasingly running up against a recognition of the complexity of intercultural cooperation, and a growing chorus of critics is challenging core assumptions of international philanthropy.

In this atmosphere, Lee's second asset may be the more significant: when he began his global development career ten years ago, it was not with enthusiasm, but with a sense of despair.

At the time, Lee was a Harvard College junior who had just returned from his first trip to Africa. During sophomore year, he had discovered an interest in global health and begun working with Partners in Health, the nonprofit co-founded by Paul Farmer, MD/PhD '90, Kolokotronis University Professor. Encouraged by Farmer to get field experience, Lee traveled to Ugunja, a village in western Kenya, during what happened to be the nadir of the country's HIV crisis. He had hoped to discover a way to make a difference, but instead spent most of his time by the bedsides of the dying.

"I came back for junior year traumatized by what I had seen," Lee remembers. "Suffering there was so ubiquitous that it seemed utterly mundane. I couldn't reconcile that with the notion I had developed that unnecessary suffering is a moral travesty, something we can and should eradicate. Going into that summer, I felt a ton of agency. Coming out, I felt helpless and hopeless." He even wondered whether basic concepts like justice and suffering weren't merely Western constructs. "What if for them, when someone died at thirty, that was just a routine matter — premature only by our Western standards of longevity?"

He decided to ask just that question. He designed a senior thesis on how AIDS sufferers in western Kenya made sense of their illness, and returned to Ugunja to interview villagers about whether *they* found it unjust that treatment for their illness was scientifically available but not within financial reach. "And the answer I got, time after time, was that, 'Yes, this is unjust, yes, the world shouldn't be this way, and yes, we can change it. *You* should change it.' It restored my senses of both responsibility and agency." Since then, Lee has returned to Ugunja every summer, working with villagers to establish two schools, a microfinance program, an agricultural training program, a computer training center, and a health clinic. Along the way, he co-founded a nonprofit, earned master's degrees from Cambridge and Princeton,

An MD/PhD student works to mobilize and motivate local communities to improve health care in Africa



and spent time working for the World Health Organization.


For Lee, what made the difference between despair and determination was an understanding of the power of local communities to create positive change. "I learned very early on the futility of fashioning myself as a hero trying to save the world by myself. The only tenable path is partnership, and the best way that I can contribute toward a better world is by empowering others in their efforts toward the same."

He remembered this when it came time to plan a dissertation. He began speaking with a friend from college who worked for Dimagi, a Cambridge-based company that develops innovative health care solutions, including mobile phone software for community health workers (CHWs) — locals trained to provide basic primary care in areas where access to doctors is scarce. The recent availability of cheap cell phones has effected something of a renaissance in community health, by allowing workers to quickly access, record, and transmit information about their patients. Lee appreciated the value of this technology, but also recognized that its full potential lay in its interplay with underlying social factors, such as what motivates health workers

Above: Scott Lee, an MD/PhD student in health policy, envisions a new community-based health system. Opposite: Lee talks with a community health worker in India.

to serve their communities. Together with the company's directors, he began thinking of ways to make the software socially meaningful. "What I really like about Dimagi is that even though they believe in technology, they recognize that it's not a panacea, that there's a need for a human component behind all of this."

The research for which Lee and Dimagi won the MGH grant is specifically designed to study the importance of performance feedback. "In most community health worker programs, CHWs fill out reports, submit them, and never hear back. Have they done a good job? How does their performance compare to other workers?" Without this information, Lee contends, the entire task of health work becomes demotivated. By providing workers with a phone-based "dashboard" containing automatic, dynamic charts and graphics depicting their performance, he hopes to enable health workers to track their impact and progress over time. Feedback is only one strategy by which Lee hopes to reinforce the human component of community health work; other factors he is studying in related projects include goal setting, social recognition, and team incentives. "My social science training has taught me that, in general, no one is fundamentally good or bad. We're all the same, and we all have agency, but social conditions tint that agency dramatically. Under the right conditions, we can all do heroic things."

For Lee, this work is as much about the *developed* world as the developing. "Our primary care system in the US is even more broken in terms of the misalignment of incentives, our lack of tools — beyond drugs — to help our patients, our pattern of seeing patients once a year and doing nothing for them in between," he says. So the question Lee's work addresses is a universal one: "How to mobilize and motivate communities to take health into their own hands." Whether you are an African villager who knows you should treat your water with chlorine solution, or an American office worker who knows you should eat more nutritious food, Lee says, "We know what we need to do, but it's hard to do it. Being the healthiest version of ourselves is harder than climbing Mount Everest. We all need support to climb that mountain." 



LEFT: PHOTO COURTESY SCOTT LEE, RIGHT: STUART WATSON, COURTESY UNIVERSITY OF PENNSYLVANIA

Ivies and Peers Collaborate on Diversity



Sorell Massenburg, second from left, sat on a panel that focused on graduate student life.

The Graduate School of Arts and Sciences was among the sponsors of the inaugural Ivy Plus STEM Symposium for Diverse Scholars, held at the University of Pennsylvania on October 4–6. This unprecedented conference was a collaborative effort by the country's leading universities to expand the pipeline of underrepresented minority scientists and encourage undergraduates to pursue advanced training in science, technology, engineering, and mathematics — the so-called STEM fields.

The conference, set to become an annual affair with a rotating campus location (Harvard is next, and alumni participation will be invited), accepted nearly 100 undergrads from colleges across the United States.

Harvard's participation was coordinated by Sheila Thomas, a Harvard Medical School faculty member and the GSAS assistant dean for diversity and minority affairs. Three Harvard faculty members delivered talks: Melissa Franklin, Mallinckrodt Professor and chair of physics; Catherine Dulac, Higgins Professor and chair of molecular and cellular biology; and Karine Gibbs, assistant professor of molecular and cellular biology.

Tiffany Horng, an assistant professor at the School for Public Health; Sorell Massenburg, a PhD student in applied physics; and Loni Philip Tabb, PhD '10, biostatistics, now an assistant professor at Drexel University, took part as well — as did faculty and staff from the other sponsors: Brown, Columbia, Cornell, Dartmouth, MIT, New York University, Princeton, Stanford, University of Chicago, Yale, and Penn, the inaugural host.

"If I were an undergraduate, I would have found the symposium to be invaluable," says Massenburg. "In addition to learning about the admissions process and how to thrive in graduate school, you have a unique opportunity to network with other scientists who look like you."

The undergraduates were "very excited about science and were particularly successful students," adds Franklin. "If the poster session had been longer, I would have wanted to spend the whole day looking at posters and talking to students. Of course, after meeting the students, I wanted to bring them all back to Harvard with me."

That is music to the ears of organizers like Thomas, who says that such gatherings emphasize "that there is great talent everywhere, which is eye-opening for all of us. Events like this show us that we should keep our minds open, so that we're attracting outstanding students from all schools — and this is one way to do that." — *Bari Walsh*

Global GSAS

A strong showing in a fellowship competition that supports biomedical research as a multinational enterprise

Five Harvard PhD students — the most from any university — are among the 50 winners of a national fellowship competition sponsored by the Howard Hughes Medical Institute that awards full-time funding to exceptional international students in the third, fourth, and fifth years of graduate programs in science and engineering. The HHMI's 2012 International Student Research Fellowships will allow these talented students to devote full attention to research at a critical time in their professional development. The awards serve a key role, according to the HHMI, since much of the available funding for graduate education is reserved for US citizens. "Biomedical research is a global, collaborative enterprise," says HHMI President Robert Tjian, PhD '76. "This program is designed to nurture the career development of scientists who have the potential to become international scientific leaders."

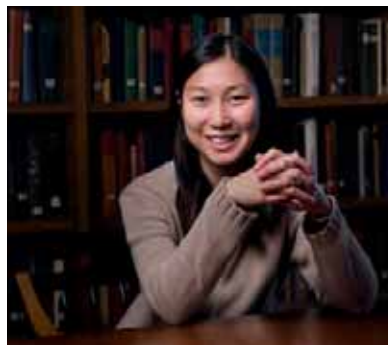
Guo-Liang Chew

Guo-Liang Chew, a native of Singapore and a PhD candidate in Alex Schier's lab in molecular and cellular biology, says he was drawn to developmental biology in part because of how visual it is. Exploring questions of how gene expression is regulated in a developmental context — in particular, how the process of making proteins from RNA is regulated — "you can actually see the processes happening over time," he says. That is especially true in the case of the zebra fish, where researchers can observe the organism growing from a single cell into a recognizable animal within 24 hours.

"Of course, the process of development itself is absolutely fascinating," Chew adds. "The concurrent control of the expression of over 20,000 genes over the time and space of develop-

ment, with multiple layers of control, to yield a single coherent organism — that's just a beautiful problem that's aching to be solved."

And working to do so at Harvard is "fantastic," he says, "because I'm simply not restricted in the directions that I want to take my research. I have all the resources I need to tackle my research project, with the support of a great community with expertise in a wide variety of topics."



Wendy Liu

Wendy Liu, a PhD candidate in the Division of Medical Sciences who came to Harvard from Australia, works in Rachel Wilson's neurobiology lab to discover how the brain perceives and processes sensory information, and how these perceptions are transformed from one brain region to another. "Ultimately, we are interested in how these sensory representations give rise to behavior," Liu says. "I study the role of interneurons in modulating the activity of the olfactory circuit in *Drosophila* and how diverse interneuron types may shape the response to olfactory stimuli." The fly is an ideal model in which to ask the kinds of fundamental questions about brain processes that interest her, Liu says.

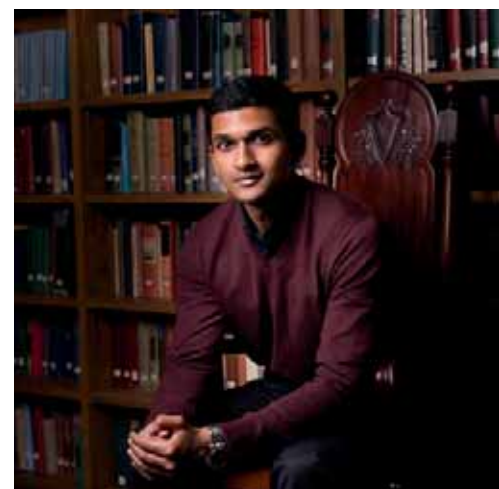
She was drawn to electrophysiology "because I get instant feedback in real time: I deliver a sensory stimulus and can immediately see how the cell is responding, and that's extremely exciting," she says. Doing that work at Harvard is valuable "because everyone around me is so smart and talented, and it's great to be able to learn so much from your colleagues."

Sandeep Koshy

Sandeep Koshy, a PhD candidate in engineering and applied sciences who came to Harvard from Canada, is working on an implantable cancer vaccine in David Mooney's lab at the Wyss Institute for Biologically Inspired Engineering.

Koshy's work builds on significant results that Mooney's lab announced in 2009, when researchers described an implant that could carry vaccine material into the body and then pull in immune cells, program them against the tumor, and release them to communicate with other immune cells to combat the tumor. The approach was earlier shown to successfully eliminate tumors in mammals, and the group has recently demonstrated success against a melanoma tumor model in mice. Koshy is currently trying to pinpoint the mechanism of exactly how the vaccine works and test its interactions with human immune cells. "This will give us clues if our work in animal models will translate to humans. It serves as a critical bridge between bench and bedside for our technology," he says.

Koshy finds daily motivation just outside his door. "I walk out and see Children's Hospital Boston, where Sidney Farber tested the first chemotherapies on children with leukemia more than 60 years ago. Being in a place with such a history of individuals who dared to fight this 'unsolvable' disease is truly inspirational. Harvard continues to be at the forefront of research in cancer biology and therapy, and I'm glad I can be a small part of it."





Ghazaleh Ashrafi

Parkinson's disease is the second most common neurodegenerative disorder, says Ghazaleh Ashrafi, a PhD candidate in Thomas Schwarz's lab in molecular and cellular biology, and there is currently no method to halt its progressive, and devastating, course.

Ashrafi, who hails from Canada, says that the loss of muscle control that Parkinson's gradually inflicts is due to the death of a subset of brain neurons, but the mechanisms underlying that process are not well understood. Expanding on previous work that suggests that cells' mitochondria play a role, Ashrafi will investigate two genes, PINK1 and Parkin, which are mutated in the inherited form of the disease, and which — when functional — can remove damaged mitochondria and promote the survival of brain neurons. She hopes to “shed more light on the molecular mechanisms that are potentially lost in PD.”

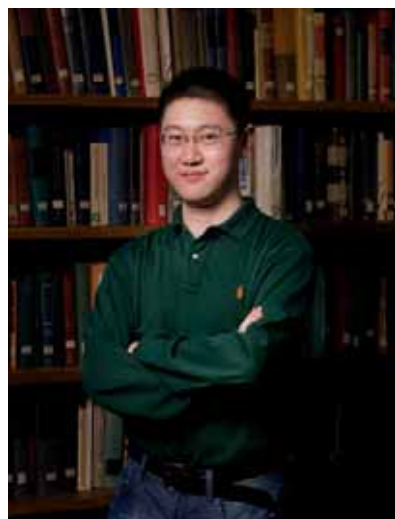
Ashrafi is excited at the opportunity “to study a fundamental cell biological question — namely, mitochondrial dynamics — in the unique context of a neuron.” And she finds satisfaction in the fact that her work “is directly relevant to neurodegenerative diseases.”

Mingjie Dai

Mingjie Dai, a PhD candidate in biophysics who is originally from China, is working with Peng Yin at the Wyss Institute for Biologically Inspired Engineering to develop novel ways to use DNA as a tool for drug delivery and other molecular interventions.

“Although DNA is commonly understood as a medium of inheritance, in this field we exploit the precise Watson-Crick pairings to perform molecular computation and construction, and trigger biological signaling and regulation,” Dai says. “I was personally fascinated by this ability of DNA when I was an undergrad, and, as a physicist by training with great interest in understanding biology and the meaning of life in general, I was deeply attracted by the ability to rapidly prototype biological matter with nanometer precision.”

At Harvard, he says, “the vibrant environment and super-supportive community” has helped him hone his once-theoretical ideas. “I have been involved in more realistic and application-relevant projects, including the single-stranded tile assembly method that uses engineering-like modular bricks to build and write on a 100nm canvas, building scaffolds and engineering metabolic pathways in cells, and trying to enhance resolution of optical microscopy via programmable binding kinetics — each of which has great potential and wide biomedical applications.”



A Lofty Scene

Mining the sounds and spirit of a 70s jazz archive

“In most standard jazz survey textbooks,” says Michael Heller, PhD '12, “the decades are mapped like this: 30s—swing; 40s—bebop; 50s—hard bop or cool jazz; 60s—avant-garde. When it comes to the 70s, they just shrug their shoulders.”

But musicians connected to the era talk about how vibrant the jazz scene in lower Manhattan was, how you could walk to five different rehearsals in a single night. Musicians were organizing their own performance spaces, Heller says; rather than being controlled by nightclub owners, they were holding performances in parks, churches, and, mainly, lofts.

“It was the exact opposite of the narrative I'd read in history books,” he says. “The 1970s loft scene was exciting, eclectic, and uncharted. It was any number of styles: fusion, jazz rock, a continuation of early forms, avant-garde, mainstream revival. History hasn't yet figured out how to talk about jazz in the 70s.”

Lofts didn't always have the cachet (or the price tags) they do today, says Heller, now an instructor in Harvard's Music Department. They were dilapidated 19th-century manufacturing buildings, abandoned after the post-World War II industrial exodus from New York City. Visual artists moved in first, creating the Soho scene of the 1960s, and jazz musicians followed, giving life to what's now known as the “Loft Jazz Era.”

“This was a musician-run activity that came out of Black Nationalism and the Civil Rights movement,” says Heller. “It was a narrative of empowerment, of re-taking control of the economics of performance. The combination of political thinking and physical space created a community structure.”

Heller discovered a rich vein of original music in the archive of percussionist Juma Sultan, who was a friend of Jimi Hendrix (and on stage with him at Woodstock). It includes 432 tapes, many with musicians not represented on commercial recordings. “They range from formal recording sessions to casual get-togethers and jam sessions,” he says. “One consists of two hours of Sultan and a few friends improvising next to a lake filled with frogs. The collection evokes that period in a way you can't describe in words.”

The archive was stored in a barn in upstate New York for 25 years. When Heller learned about it, Sultan had begun collaborating with Clarkson University to preserve the music. Heller joined Sultan in the barn in 2009, helping him organize, catalogue, and digitize material. The first outcome was a boxed set from Sultan's band, Aboriginal Music Society, called *Father of Origin*. Eremita Records released it in 2011; Heller wrote the liner notes. It was the band's first record.

— Lesley Bannatyne



Michael Heller, left, with Juma Sultan. Photo courtesy Michael Heller

Q + A

Catherine Lord

An autism expert moves from diagnosis to “what happens next”

“My goal is nothing short of transforming the way autism is treated,” says Catherine Lord, PhD ’76, who has arguably done more than anyone to shape our current understanding of how to diagnose and evaluate the disorder.

The author of more than 160 peer-reviewed papers and nine books, she led the development of the Autism Diagnostic Observation Schedule and the Autism Diagnostic Interview, international benchmarks for the early identification of children on the autism spectrum. In May 2011, she announced that she was leaving the University of Michigan’s Autism and Communication Disorders Center, which she had directed for almost ten years, to head New York-Presbyterian Hospital’s new Center for Autism and the Developing Brain. An innovative clinical and research facility developed with the medical schools of Columbia and Cornell, and initiated at the impetus of a parent-led nonprofit, the Center is scheduled to open this March. She is currently serving on the panel of researchers revising the definition of the disorder for a new version of the all-important Diagnostic and Statistical Manual, DSM-5, to be published by the American Psychiatric Association next May.

Are we seeing an “epidemic” of autism, as many claimed last spring when the Centers for Disease Control estimated that 1 in 88 American children has some form of the disorder?

References to “epidemic” are probably too strong. Whether or not there are more children with autism now than years ago is a real question. What is clear is that the definition has broadened, awareness has increased radically, and we’re identifying more children younger. What’s also clear is that if the United States does things right and we get better services for everybody, the numbers are only going to grow: we know that currently, kids of ethnic minorities are identified later and less likely to be identified. It’s important to note that, even with all these explanations, they still don’t seem to be enough to account for the huge increases, which seem pretty consistent across North America, Europe, Australia, Japan, and Korea. But I worry about the word “epidemic,” which implies something contagious, which autism is not.

Will explaining autism’s prevalence be a goal of the Center?

Well, only indirectly. We want to figure out what are the core symptoms of autism, what differentiates it from other disorders, and what are reliable, valid, and efficient ways to identify kids with autism. Then, we want to figure out how their behavior changes over time, both in response to treatment and also naturally. So that has implications for the measurement of prevalence, as we move toward a more accurate characterization of autism.

What is your response to critics who claim that the DSM-5’s redefinition of autism is too restrictive?

I don’t think it’s true. We’re all stuck at this point looking at old data and trying to match it up with new ideas. We just had a paper come out using three large data sets, finding that DSM-5 was a much better fit than suggested by older studies that had used smaller data sets. We are being more restrictive in terms of the principles that define autism, but we’re also being more expansive in terms of the symptoms



Q + A ID

NAME:
Catherine Lord,
PhD ’76

FIELD OF STUDY:
Psychology

TODAY:
Center for
Autism and
the Developing
Brain, White
Plains, NY

associated with those principles. The very reason we rewrote the definition is to expand recognition that autism exists in adults, it exists in toddlers, it exists in girls.

How early can we now diagnose autism?

It’s very hard to diagnose autism in children who aren’t walking, because social behavior changes once you can walk. Even crawling isn’t the same as being able to walk with your head up, looking at people or not looking at people, carrying things. Maybe eventually we’ll have biomarkers, or tasks just involving looking at pictures. But right now, we really can’t tell for sure until about twelve months. And I think even twelve months is really hard; it is important to get started in some treatment if we are worried about very young children, but we need to be humble about the reliability of these very early diagnoses.

What led you to autism research?

I was an undergraduate at UCLA when Ivar Lovaas got the idea that

with behavioral principles maybe we could teach children with autism, who he thought just weren't socially motivated, to seek out people and to learn to approach people and to talk. Back in those days of early behaviorism, the idea was that kids were blank slates, and somehow children with autism had just missed the idea of social motivation, and we could teach it to them. So I was part of an army of undergraduates working with kids brought out of institutions. When I went to graduate school, I became more interested in cognitive development, and wanted to focus on how this happens. I was struck by the mystery of it all.

What will set the new Center apart from similar institutions?

We've decided that we want to focus on moving from diagnosis, assessment, and evaluation to treatment and working with the community. It was really sort of fortuitous that I got into diagnosis and assessment at all — it was not because they were what I was really interested in. I was interested in looking at development and how things change, but you can't do that if you can't measure things and get others to agree on whom you are talking about. Then, after the first instruments were developed, there was a time in my life where I had to say "Look, I'm going to go insane if these tools aren't standardized, and if I don't really work on them nobody else will." So we've been able to do informative and family-friendly assessments for a long time, but now it's time to ask how we can we move ahead and focus on what happens next.

Here in New York, we have a clear clinical mandate, because our funds were raised by the nonprofit organization New York Collaborates for Autism, and this group was founded by parents and people who have a very vested interest in autism. So we have the opportunity to set up the best clinical services possible. In addition to offering a whole repertoire of different treatment options, then, we'll

be working with parents, families, and communities to make those treatments as effective as possible.

Talk about promising treatment methods you're exploring

We're very interested in building on evidence-based treatments that have scientific data to support them, but also recognizing that children and adults with ASD are unique, as are their families, and we need to create individualized plans that build on strengths and weaknesses, work with what is available in communities, and recognize that there may be multiple ways to accomplish a goal. We are very interested in using the Early Start Denver Model with young children, as well as aspects of the Early Social Interaction parent-oriented program, Pivotal Response Training, and various approaches to applied behavior analysis. We are also interested in combining direct treatments such as cognitive behavioral therapy with community-based social networks and parent involvement.

How will the Center's physical layout help your work?

We're going to be housed in an old, historic gymnasium, and the outside won't look any different than it has for a hundred years. On the inside, though, will be a little "village" within this towering, high-ceilinged structure. We want kids to be able to move around the village, but also to know which room is theirs: each room will have its own little roof, and you enter them from little streets. The buildings have different roof heights, they're different colors, and there's a lot of glass, so parents can sit and watch their children, and trainees can easily observe what we do.

Will the Center help with the transition into adulthood?

Absolutely. You're an adult a lot longer than you're a kid. In the last 20 years, the level of education of students with autism has increased tremendously,

but the level of independent employment has not increased that much. And while there are vocational programs, they're much more focused on getting students into a job than helping them learn what to do when they're in the job. So before we've even opened, we've started a supported employment program with some important collaborators, where students in the last year of high school meet with a vocational teacher and attend classes in the morning and then go off and work in various locations all around New York-Presbyterian Hospital for three-month rotations. The idea is to really put them to work, and I've been really impressed with the degree to which the hospital staff has welcomed them there and really got them started.

"In the last twenty years, the level of education of students with autism has increased tremendously, but the level of independent employment has not."

What still needs to change in society's understanding of autism?

We need better funding for medical services. It's ridiculous that insurance still treats autism so differently from, you know, a torn ligament or back pain. That's one bottom line.

Intentions and fairness of treatment in education are much better than in health, but education is just a small part of your life. And in education, we still need to figure out how to address the individual needs of the students. We go back and forth between fads of pulling the kids out for one-on-one, and then putting them back in the classroom, and then having someone follow them around in that classroom — so that's another thing. Trying to figure out how to provide the least restrictive environment, but still provide adequate teaching and support. ♡

Shelf Life



TODD PITTINSKY (PhD '01, organizational behavior) visited a local elementary school and learned of a new campaign in which the school had students pledge to “challenge prejudice and be aware of my own biases against people who are different from me.” There hadn’t been any troubling incidents; administrators were just being proactive. Still, Pittinsky wondered, why treat these youngsters like spring-loaded bigots? Other responses to social difference — religious, political, or academic (the *Journal of Hate Studies* has no obverse) — likewise seem to anticipate and fix on the negative outcomes of difference. Prejudice certainly exists, Pittinsky writes, but not *only* that. And in *Us + Them* (Harvard Business Review Press, 2012), he advances a different and broader approach that recognizes a positive appreciation of cultural difference.



In 1965, as part of Vatican II, Pope John XXIII and his bishops disavowed centuries of official Roman Catholic animus toward Jews. *From Enemy to Brother* (Harvard, 2012) analyzes the roots of this doctrinal shift. **JOHN CONNELLY** (PhD '94, history) opens with Hitler’s rise but notes that Nazism alone didn’t produce the change. The key was a small group of anti-Nazi theologians and activists, often converts from Judaism. They aided Jews fleeing Germany, challenged anti-Jewish sentiments in church teachings, and unsuccessfully urged Pius XII to speak out. Some, like Karl Thieme, painfully confronted their own prejudices. And, with peace, Thieme and others continued and ultimately succeeded in their transformative efforts.



The Secret Lives of Ants (Johns Hopkins, 2012) recounts anecdotes and

research findings about the ant world, highlighting its diversity and sophistication. **JAE CHOE** (PhD '90, organismic and evolutionary biology) recalls once spotting a line of leafcutter ants in the South American rainforest. But these leafcutters carried flower petals (like a subminiature Rose Bowl parade without the marching bands). Leafcutters don’t collect leaves (or petals) for food; they chew the plant matter up for use in growing mushrooms, having developed agriculture 50 million years before the Agricultural Revolution. Other species practice micro-scale dairying with aphids or other insects, while army ants’ pillaging raids put the Vikings and conquistadors to shame.

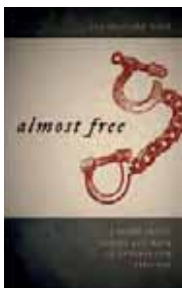
Historians can draw on many American slave narratives, but there are few accounts of nineteenth-century free blacks. **EVA SHEPPARD WOLF** (PhD '00, history) helps to right this situation with *Almost Free* (University of Georgia, 2012), a beautifully written biography of Samuel Johnson. Johnson, a slave, reached an agreement to buy his freedom in 1802 — and nine years later succeeded. He then purchased his family, property, and a house. Since Virginia forbade freed slaves from remaining in the state after their emancipation, the illiterate Johnson (with white allies) successfully petitioned for an exemption that allowed him to stay. *Almost Free* rescues Johnson and his struggles from oblivion, making use of meager public records to craft a remarkable and moving portrait.

MARK WARSHAWSKY (PhD '84, economics) opens *Retirement Income: Risks and Strategies* (MIT, 2012) with a familiar litany: reduced 401K and IRA

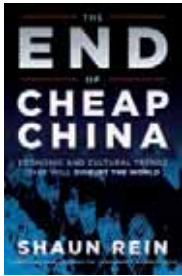
savings, diminished home values, less generous employer pension and health plans, and rising pressures on Social Security and Medicare. Our best option? Retire in the 1980s or '90s (the “high point of . . . a support structure and safety net for older workers”). Barring time travel, Warshawsky offers this careful review of two insurance products: life annuities, which date to Roman times, and long-term care insurance, first developed in the 1970s. Both, he writes, could play a valuable role in one’s retirement planning. He meticulously analyzes risks and benefits, typical terms, and other factors needed for informed decisions about both strategies.

The End of Cheap China (John Wiley, 2012) warns that China probably won’t long be a source of cheap labor to satisfy American consumers. Drawing on long experience living and working in China and on conversations with Chinese billionaires, workers, and prostitutes, **SHAUN REIN** (AM '02, regional studies-East Asia) concludes that China is undoubtedly experiencing progress, especially for its women. And while its one-child policy has tightened the labor supply, and workers want higher wages and more consumer goods, that won’t translate into a surge for democratic reform. Comparing their circumstances to the chaos of the Cultural Revolution (still the key benchmark), most Chinese are hopeful and optimistic about the future.

In *We Shall Be No More* (Harvard, 2012), **RICHARD BELL** (PhD '06, history) recounts Americans’ changing views of suicide from the Revolution to the Civil War. Initially, suicide was regarded as a sin, a crime (the Latin term: *felo-de-se*), and a portent of waning republican vir-



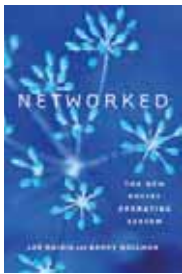
Alumni authors: Would you like your book (general interest, published within the past year) considered for inclusion? Send it to *Colloquy*, Harvard Graduate School of Arts and Sciences, Holyoke Center 350, 1350 Massachusetts Avenue, Cambridge, MA 02138. Questions? E-mail gsaa@fas.harvard.edu.



ture. Some blamed novels that romanticized suicide for the apparent increase in the number of suicides. Gradually, condemnation gave way to empathy and a more therapeutic focus — with reformers urging intervention (e.g., through the Massachusetts Humane Society or McLean Hospital). Bell also discusses suicides of prisoners facing execution, which catalyzed opposition to capital punishment, and of slaves, which gave abolitionists stark evidence of slavery’s iniquity.



Coquilles, Calva, and Crème: Exploring France’s Culinary Heritage — A Love Affair with French Food (Pegasus, 2012) infectiously blends autobiography, travel writing, and the pleasures of French cuisine. **G. Y. DRYANSKY** (AM ’60, English and American literature and language) spent two decades as senior European correspondent for *Condé Nast Traveler* and, with Joanne Dryansky, has prepared a deliciously light memoir, redolent of exquisite dishes, creative chefs, and memorable restaurants — spiced with lively cultural commentary. This paean to French food and culture (with occasional detours among the hoi polloi of Philadelphia and Frankfurt) also includes a variety of recipes, so those of us who can’t be in France might still enjoy its flavor.



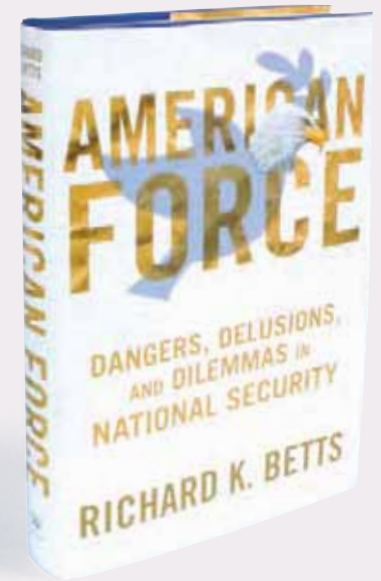
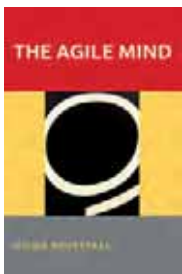
Has technology heightened social isolation? Many think so, but Lee Rainie and **BARRY WELLMAN** (PhD ’69, sociology) demur. In **Networked** (MIT, 2012), they identify a “triple revolution,” involving the Internet, mobile communications devices, and social networks, that has transformed (but not *undermined*) our ability to interconnect. The authors distinguish this new reality from classic individualism (“rugged” and unconnected) and traditional groups with clearly defined membership (e.g., religious, civic, and fraternal organizations — and the traditional family). What increasingly characterizes American life is “networked individualism,” distinguished by complex, fluid interactions grounded in mutual affinities and trust. Besides



countering recent jeremiads, *Networked* offers practical suggestions designed to improve our social networking skills.

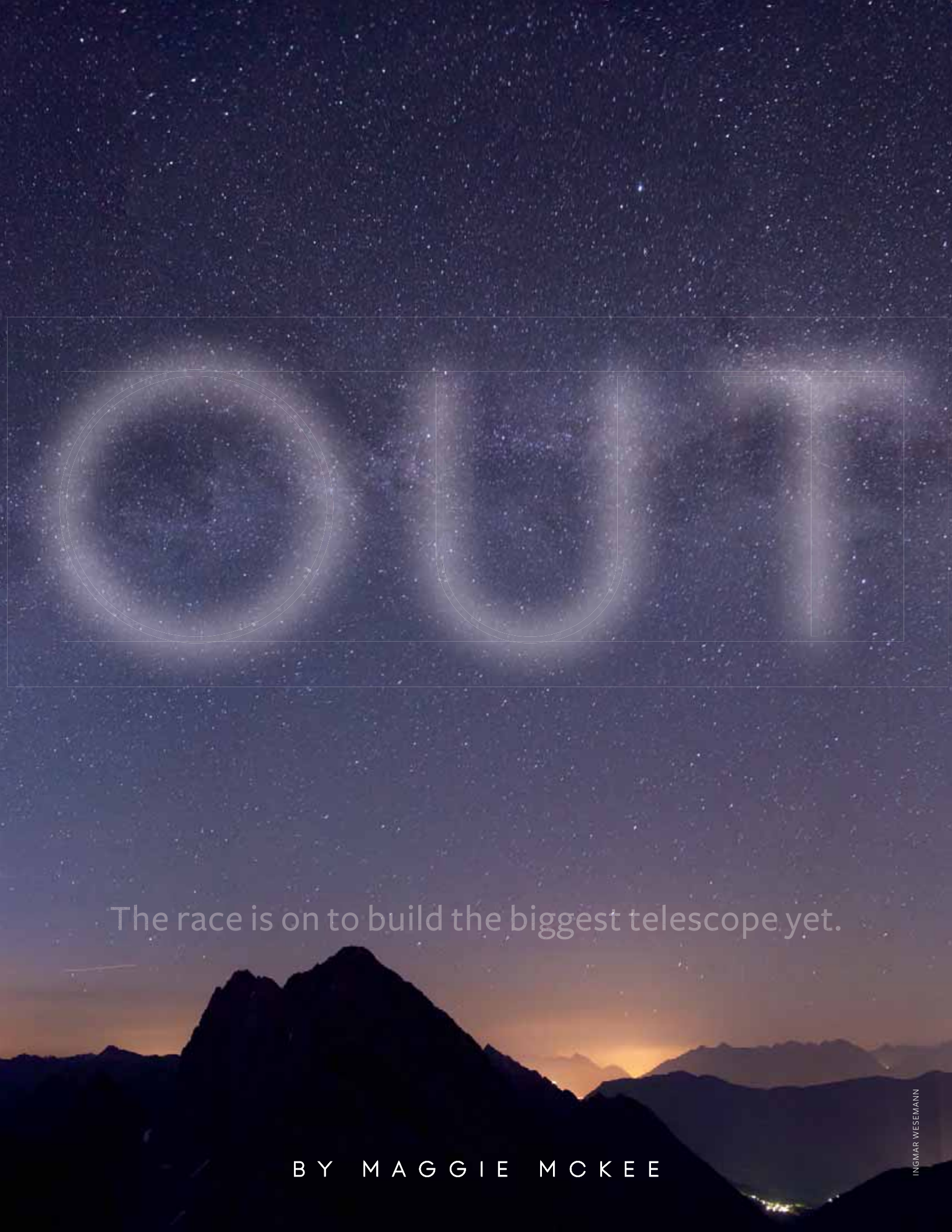
In **The Italian in Modernity** (University of Toronto, 2011), Robert Casillo and **JOHN PAUL RUSSO** (AB ’65, PhD ’69, English) explore Italy’s nineteenth- and twentieth-century ebb tide, when it lagged behind the rest of Europe. Casillo and Russo emphasize the Italians’ sense of political, economic, and historical “belatedness,” making their case in eight kaleidoscopic essays that marshal a wide range of observers and texts, including the Italophilic yet critical Stendhal, literary New Englanders on tour (e.g., James Russell Lowell and Margaret Fuller), William Dean Howells’s depictions of Italian immigrants, Hemingway’s *Across the River and into the Trees*, and Hollywood films, especially Francis Ford Coppola’s *Godfather* trilogy.

How do we encourage creativity, intellectual flexibility, and the knack for reacting quickly to change (when necessary, improvising or “making it up as we go”)? That is, how do we cultivate mental agility? The answers lie at the intersection of research on the mind and the brain. In **The Agile Mind** (Oxford, 2012), **WILMA KOUTSTAAL** (PhD ’96, psychology) invites readers on a fascinating journey through psychology, neurobiology, medicine, and cognitive science. She summarizes empirical research on strengthening cognitive abilities across the life span and proposes a model that emphasizes smooth shifts among various cognitive functions and thinking styles as a framework for understanding (and maintaining) mental agility. 🍷



In **American Force** (Columbia, 2012), **RICHARD K. BETTS** (AB ’69, PhD ’75, government) offers a potent critique of American over-reliance on military force after the Cold War. Being the world’s sole superpower seemed like an unprecedented opportunity, but it soured as leaders committed Americans to combat and peacekeeping missions around the world. Betts argues that force should be our last option — or close to it. War is unfortunately a blunt instrument, and its consequence, messy. In particular, the unintended deaths of civilian noncombatants (which occur no matter how smart the bombs or surgical the interventions) alienate local inhabitants, who come to regard our troops as unwelcome occupiers.

Success has also been undermined by American leaders’ embrace of two seemingly unimpeachable principles: 1) impartiality and evenhandedness, and 2) application of minimal force. The results hurt the victims (as the UN arms embargo harmed Bosnian Muslims and Croats far more than the ethnic-cleansing Bosnian Serbs). If right and wrong seem clear, Betts writes, we *should* take sides to aid the victims and bring hostilities to a rapid close. Likewise, minimal force might seem attractive (and easier to sell to a skeptical American public), but a substantial commitment is needed to persuade belligerents to give up recourse to violence. For Betts, the key considerations should be distinguishing between international and national security and not confusing military force with diplomacy.



The race is on to build the biggest telescope yet.

BY MAGGIE MCKEE

T H E R E

Astronomy, by its very nature, is a lofty pursuit. Its photogenic subjects are awesome and humbling in their vastness — shimmering pillars of star-forming gas spanning dozens of light years and giant galaxies that look like mere fireflies against the surrounding void. Actually doing astronomy, however, is a decidedly more earthly endeavor, and astronomers compete fiercely to be first to make a discovery.



An artistic rendering of the Giant Magellan Telescope

And so the race is on to build the largest optical telescope in the world, with three projects vying to raise enough money to build their design. Harvard's own horse in the race, the Giant Magellan Telescope, is arguably in the lead, with key pieces of hardware already built and the tip of a mountain-top in Chile razed this March in preparation to support the 1,100-ton structure. Whoever is first to the finish line will reap the glory of imaging alien worlds with unprecedented precision and peering back at the early universe to study the first galaxies and to follow up on the Nobel Prize-winning discovery, by a pair of GSAS alumni along with a Harvard College alum, of the cosmos's accelerating expansion.

WATCHING THE HISTORY OF THE UNIVERSE — AND TRACING OUR COSMIC ROOTS — WITH UNPRECEDENTED PRECISION

Plans call for the GMT, as the project is known, to be composed of seven 8.4-meter mirrors that together function as a single mirror stretching 25.4 meters across. By comparison, the largest optical observatories in existence today are the twin 10-meter Keck telescopes in Hawaii. "It is hard to imagine the scale of the GMT," says Wendy Freedman, chair of the telescope's board and director of the Carnegie Observatories in Pasadena, California. "The whole facility will stand about the height of a 20-story building. It literally is giant." First, though, the telescope must be built. The ambitious project is estimated to cost upwards of \$700 million, and so far only \$300 million or so has been raised, mainly from Australia, South Korea, and the Carnegie Institution for Science. Another seven partners, including both Harvard and the Smithsonian Institution, have yet to decide on their level of participation. The Harvard effort is

being given a strong endorsement by the Faculty of Arts and Sciences, thanks to the personal commitment of Astronomy Department chair Abraham Loeb, the Frank B. Baird, Jr. Professor of Science. Loeb is working with University officials to push the project as a central priority.

Raising money for one big project in this economy would be tough, but two larger and more expensive projects, known as the Thirty Meter Telescope (TMT) and the European Extremely Large Telescope (E-ELT), are also scrambling for funding. The competition among the different teams "ranges from collegial at technical meetings to quite cutthroat," says Charles Alcock, director of the Harvard-Smithsonian Center for Astrophysics (CfA) and a member of the GMT board. "We're all still seeking new partners — that's the cutthroat part."

But Brian Schmidt, PhD '93, who as a faculty member at the Australian National University led the effort to get Australian funding for the GMT, says such struggles are only to be expected. "Anything worthwhile doing is always going to be competitive," he says.

He should know. In 1994, he and a group of collaborators set out to beat a rival team led by Saul Perlmutter, AB '81, of the University of California, Berkeley, at studying the expansion history of the universe using supernovae. The other team had a six-year head start, but Schmidt's team raced to catch up. In 2011, Schmidt and collaborator Adam Riess, PhD '96, shared the Nobel Prize in physics with Perlmutter for discovering that the universe's acceleration is speeding up due to an unknown "dark energy," rather than slowing down due to tugs from all the matter in the universe, as was expected.

So a little competition can be a good thing, and everyone recognizes that ultimately, more telescopes mean more science. "I want to see them succeed as well," says Schmidt,

Save the Date: Graduate Alumni Reunion

The Astronomy Department invites alumni of its graduate programs to return to campus on April 5, 2013, for a day of intellectual engagement with leaders in the field. www.gsas.harvard.edu/reunion

who, along with Riess, used his Nobel winnings to bring unfeted collaborators to Stockholm for the ceremony and then donated the rest to charity. “I hope that in the next ten years we have all three of them up and running,” agrees Michael Bolte of the University of California Observatories, associate director for the competing Thirty Meter Telescope. “The universe is a huge place. We’re out here in the boondocks of one little galaxy trying to figure out how it all works. There’s plenty of room for lots of next-generation telescopes.”

If all three projects are built, they will differ markedly in their designs. The TMT and the E-ELT both plan to create their expansive main mirrors by assembling hundreds of relatively small hexagonal mirrors in a kind of jigsaw pattern — the so-called small segment approach. The GMT, by contrast, will use large segments; six giant circular mirrors will surround a central one like the petals of a flower. Each design has its pros and cons. “When you have big segments, you can’t fit them quite as closely together because they don’t have those straight edges,” says Bolte. “That makes control of the mirrors, making sure they’re all pointing in the right direction, a little trickier.” But Alcock says the calculations needed to ensure this control have already been worked out for the GMT, and points out that having to control a larger number of small segments — 492 for the TMT, for example — offsets the ease of having each segment closer to its neighbor. “We thought that was the tougher challenge, and they’ve made a different bet,” he says. “My guess is that both will work.”

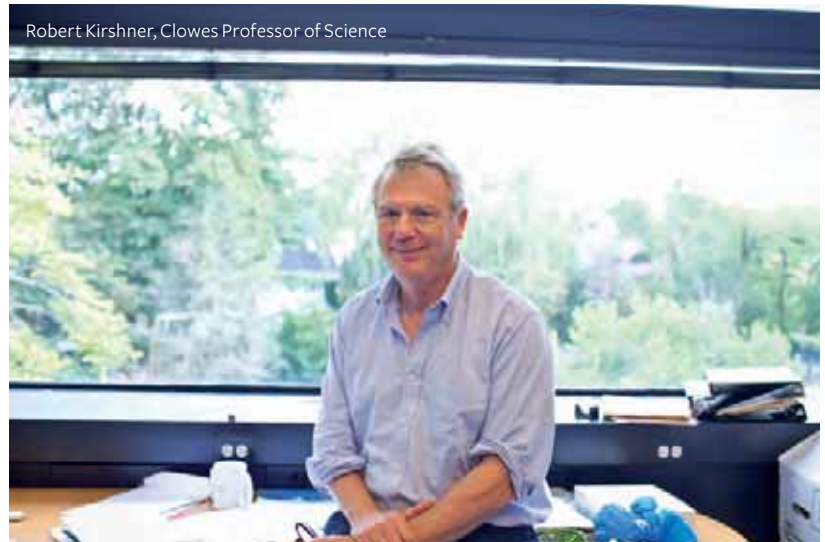
The toughest challenge for the GMT by far is actually making the 8.4-meter mirror segments. The engineering feat takes place in a huge lab — the Steward Observatory Mirror Lab — beneath the football field at the University of Arizona in Tucson. Each individual mirror is made of about 20 tons of glass that is melted inside a honeycomb-shaped mold in a huge, spinning oven. As the oven spins, the surface of the glass curves into a desirable parabolic shape, while the honeycomb backing saves on weight and will ultimately make it easier to cool the mirror to the temperature of the air at the observatory site high in the Chilean Andes, reducing distortions in the observations.

Such huge slabs of glass have been fashioned into mirrors at the lab before. But the GMT’s flower-like design created unprecedented challenges, since each of the identical six outer petals — or “off-axis” mirrors — is asymmetrical, with one side thicker than the other. To get just the right shape, the mirror mold uses honeycomb segments of varying heights, and the cooled glass has to be polished with exquisite precision. “The outer six are the most complex surfaces ever polished,” says Alcock.

After an unexpectedly long seven years of work, the first such mirror is now finished. “If this mirror were as big as the 48 states of the USA, the error would be about the thickness of a typical coin,” Alcock says. “It’s an extraordinarily good surface.” The second mirror was cast in January, and the



Brian Schmidt, at Mount Stromlo,
Australian National University



Robert Kirshner, Clowes Professor of Science



Charles Alcock, director of the
Harvard-Smithsonian Center for
Astrophysics

team expects the remaining mirrors to be finished by 2020. Each of the seven giant mirrors will also have a smaller, 1-meter counterpart hanging above it, forming a sort of “mini-me” GMT hovering over the main 25.4-meter super-dish. Each of these smaller mirrors will be able to flex 1,000 times per second to correct for turbulence in the atmosphere, allowing the GMT to take images that are 10 times as sharp as the Hubble Space Telescope. “It’s a contact lens for the telescope,” says Schmidt. “It is really bleeding edge.”

Indeed, so far such “adaptive optics” systems have consisted of fairly small deformable mirrors — about a third of a meter across — that were fitted on to an existing telescope, so that the light bounced through all the telescope’s mirrors first. “The GMT has a nice way of doing it — the deformable part is their secondary mirror,” says Isobel Hook, a member of the rival E-ELT team at the University of Oxford in the UK. “That’s quite difficult to do because the secondary is quite big, but if you can do it, you get extremely nice images because there are fewer reflections.”

All three of the giant telescope designs incorporate adaptive optics, and the increased sharpness of the resulting images means they will be able to spot fainter objects than they would otherwise. “The light is concentrated in a smaller little point, so it pops up against the background more easily and you can see fainter things,” Hook says.

Such eagle-eyed vision will help pick out the faint reflected light of an alien planet from the glare of its host star. The telescopes will also look for even smaller planets than can be seen directly by the subtle wobble they induce in their host stars. The CfA is designing the instrument on the GMT that will look for such wobbles from Earth-like worlds. Called G-CLEF, it will not only measure a planet’s mass but also give an estimate of its distance from its host star, and thus its temperature. That will provide important hints about how cozy the planet might be for life, says David Charbonneau, PhD ’01, one of 50 or so exoplanet researchers at the CfA. “The GMT is the facility that we are all working toward so that we can one day point to a nearby star with a potentially habitable Earth-like planet, and perhaps even make informed statements about whether or not it is inhabited,” he says.



Abraham Loeb,
Astronomy Department
chair

The GMT’s giant eyes on the sky would also allow astronomers to peer back at the universe’s infancy, when the first galaxies were born. Because the light from these early sources has been traveling through space for some 13 billion years, spreading out and passing through cosmic gas along the way, very large “light buckets” like the GMT are needed to collect it. “Because of its large collecting area, the GMT will allow us to observe the first galaxies in the universe,” says Loeb. “These represent our cosmic roots, since the first stars started the process that led to our existence.” This quest to understand how the oldest and most distant galaxies first formed is “one of the most exciting frontiers in astrophysics today,” adds Loeb, who has devoted much of his own recent work to the subject and will publish the textbook *The First Galaxies in the Universe* (Princeton) in January. With the GMT, astronomers hope to survey the universe’s cast of characters at various times in order to understand how today’s galaxies came to be. Such surveys would also help pin down the source of the radiation that lifted the fog of neutral hydrogen gas that filled the early cosmos soon after the big bang, blocking most wavelengths of light from passing through it. Galaxies, giant black holes, or something more exotic — perhaps a new type of particle — might have zapped and ionized the gas, making space transparent to light.

The GMT would also shed light on dark energy. The quickening cosmic expansion accounts for most of the universe’s matter and energy. “So you could say we found two-thirds of the universe in 1998,” says Robert Kirshner, Clowes Professor of Science, who was Schmidt and Riess’s advisor and collaborator at the CfA and is also a member of the GMT board. “Of course,” he adds, “this grandiose claim is made a little less vibrant by the fact that we don’t know what it is.”

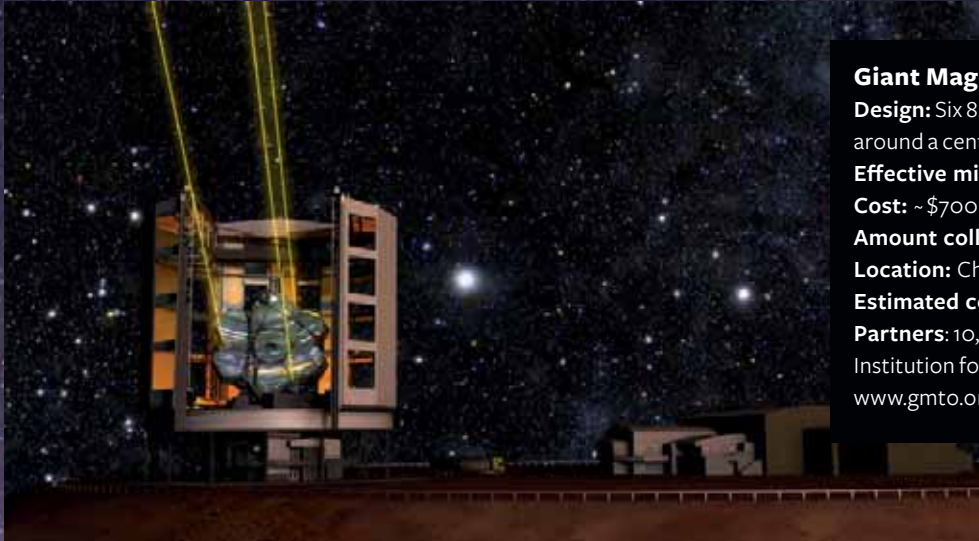
The nature of the lead-footed entity pushing on the accelerator remains a mystery. Is it simply an inherent property of space itself, so that every cubic inch of space fizzes with a certain amount of repulsive energy? Or is dark energy weirder and more quixotic, perhaps morphing in strength depending on the time and the place?

For the Nobel-winning work, Schmidt, Riess, and Perlmutter and their teams found that supernovae exploding within the last 7 billion years were dimmer than expected, suggesting that something has been pushing space apart ever faster over time. The GMT will allow researchers to study supernovae whose light left them about 11 billion years ago, helping to track dark energy’s behavior over more of the universe’s 13.7-billion-year history and allowing them to predict its future effects.

“If dark energy has its simplest form, the expansion of the universe will continue to accelerate, leading to a universe where we can’t see any other galaxies,” says Kirshner. “So it’s very important to get this work done in the next few billion years — we should get going on building the GMT!”

THE NEXT

BIGGEST



Giant Magellan Telescope

Design: Six 8.4-meter mirrors arranged like petals around a central 8.4-meter mirror

Effective mirror size: 25.4 meters

Cost: ~\$700 million

Amount collected: ~\$300 million

Location: Chile

Estimated completion date: 2020

Partners: 10, including the Carnegie Institution for Science, Australia, and South Korea
www.gmto.org/partners.html

Thirty Meter Telescope

Design: 30-meter primary mirror made of 492 segments, each 1.45 meters wide

Effective mirror size: 30 m

Cost: \$1.15 billion

Amount collected: \$450 million

Location: Hawaii

Estimated completion date: 2021

Partners: Six, including the University of California, Caltech, Canada, Japan, China, and India
www.tmt.org/about-tmt/partners



European Extremely Large Telescope

Design: 39.3-meter-wide primary mirror made of 798 hexagonal segments, each 1.4 meters wide

Effective mirror size: 39.3 meters

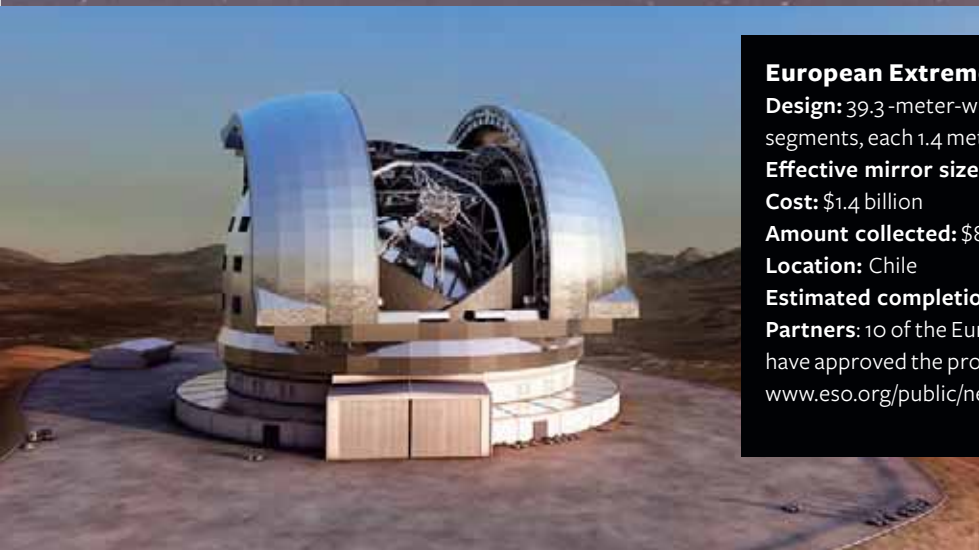
Cost: \$1.4 billion

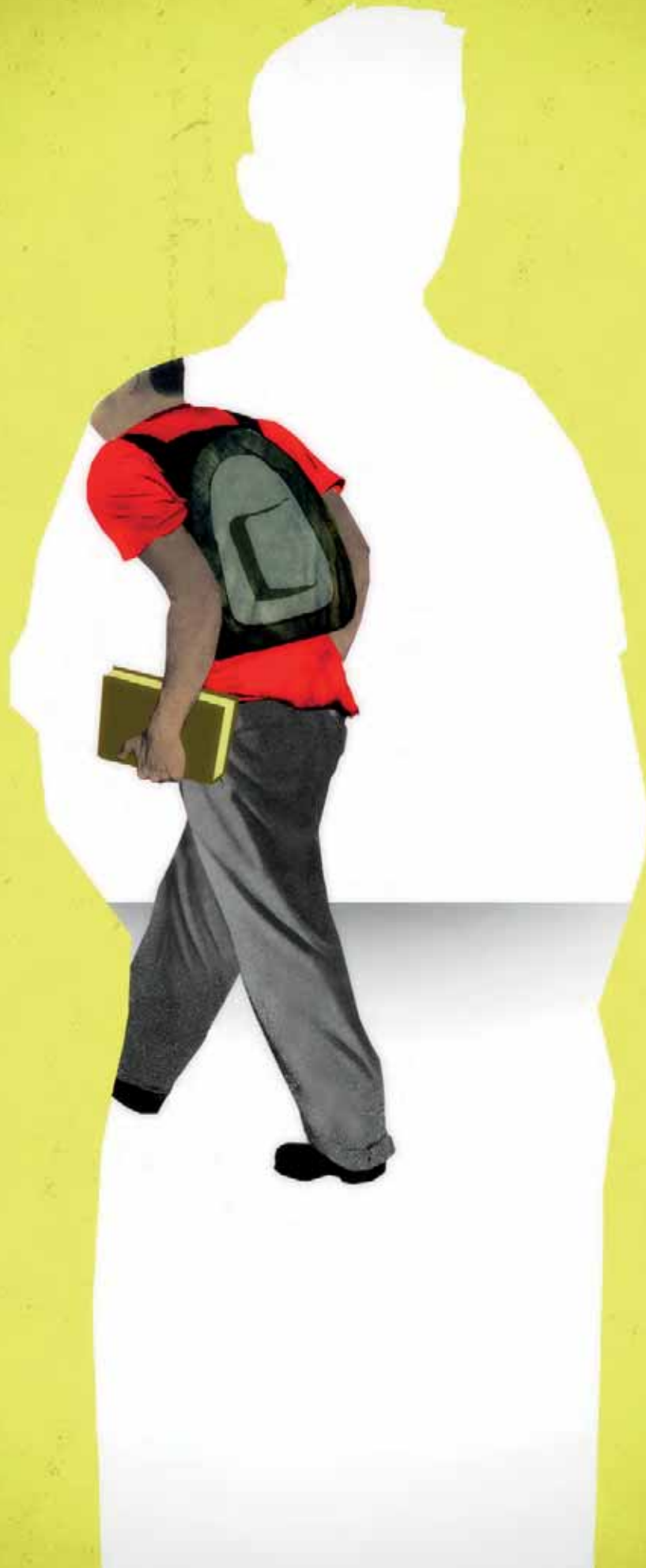
Amount collected: \$805 million

Location: Chile

Estimated completion date: ~2022

Partners: 10 of the European Southern Observatory's 15 members have approved the project so far, and it will go forward.
www.eso.org/public/news/eso1225





CAN THE TRADITIONAL VIRTUES STILL GUIDE US, AMID THE
TUMULT AND TRUTHINESS OF THE 21st CENTURY?

HOLLOW
MIAN

BY BARI WALSH | ILLUSTRATION BY BRIAN STAUFFER

This fall, just as a new class of freshmen was unpacking bags and postering their walls, a cloud descended over Harvard Yard, dimming the seasonal glow of optimism. The university announced that 125 students — an almost incomprehensible number — were being investigated for cheating in a single government class held the previous spring. It was the biggest cheating scandal in Harvard's history.

To Howard Gardner, the famed cognitive psychologist, the incident was depressing, distressing, shocking — but not surprising. In countless interviews and conversations with hundreds of students over the last 15 years — part of a body of work that has increasingly focused on ethics and integrity in professional life, in the classroom, and in the media — Gardner has detected a pronounced shift in the value structure of many young people.

The students that he encounters — at Harvard and elite high schools and universities around the country — are bright, talented, lovable, articulate, and compassionate. They want to be ethical; they want to be good.

But first, they want to be successful.

On every step of their journey from childhood to the cusp of adulthood, these students have carried the stiff expectation that they will, and must, meet the benchmarks of our age: high test scores, robust extracurriculars, spotless grades, and elite colleges. That striving, toward *success* narrowly defined, continues once they've grabbed the brass ring of the "good school." As they look around, into the self-aggrandizement that pervades both popular culture and many of their virtual networks, many young people see two things: the rewards that await them, and the race that others seem to be running to get there first.

"It becomes a case of *what's next*," says Gardner, AB '65, PhD '71, the Hobbs Professor of Cognition and Education at Harvard's Graduate School of Education. "What is the next project — is it Goldman Sachs, is it McKinsey, is it the staff of an influential representative or senator?"

When it comes to landing that coveted "next," cutting ethical corners is sometimes necessary, students say. After all, everybody else does, and they'll be left behind if they're playing by different rules. There is a "hollowness at the core" of many ambitious young people today, Gardner has written — too much evidence of what he

calls a "thinning of the ethical muscle."

Reversing this atrophy is at the heart of his new body of work, most broadly captured in his latest book, *Truth, Beauty, and Goodness Reframed*. The book, released in paperback this fall with the subtitle "Educating for the Virtues in the Age of Truthiness and Twitter," explores the question of how our global, technologically connected society can redefine and adapt the traditional virtues so that they can guide us reliably today. In a culture of emoticons, hashtags, and "reality," how can we promote an authentic model of moral living, one that honors personal responsibility and mutual accountability?

IN SOME WAYS, HOWARD GARDNER IS particularly well positioned to think about the underside of the culture of success. In 1983, after toiling away in what he says was relative anonymity as an experimentally oriented psychologist, he wrote a book that revolutionized pedagogical thinking and brought him wide acclaim. But the satisfaction of seeing his theories embraced was accompanied by the discomfort of watching as applications arose whose motives he distinctly didn't endorse.

The book was *Frames of Mind*, and it launched Gardner's theory of multiple intelligences, which proposed that instead of being smart or not smart — a boiled-down way to state the common perception of cognitive powers — people can possess significant intellectual capacities across a number of distinct areas. From the



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point of view of educators, the theory was a profoundly optimistic one, signaling potential in even the hardest to reach students.

As he saw the impact the work was having — there are now schools based on multiple intelligences theory all around the world — he made a couple of unexpected discoveries about his own identity as a researcher. One was that although much of his influence had been positive, yielding rich lines of inquiry in research and pedagogy, he was at risk of being held accountable for results he'd never intended. After one particularly egregious example in Australia in the mid 1990s, when programs were springing up based on which intelligence each ethnic and racial group had and lacked, "I said, this has gone too far. I was seeing my own work abused, and I realized that if I didn't take responsibility for the distortions I couldn't expect anybody else to."

He realized that he wanted to clarify his own educational principles. One result was *The Disciplined Mind* (2000), arguing that the underlying purpose of education is to "give us the tools to determine what's true and what's not, what's beautiful and what's not, and what's good and what's not," as he recently told C. M. Rubin in the *Huffington Post*. He quarreled both with the contemporary fetish for standardized testing and with the relative smallness of most conversations about improving our system of education. (Vouchers? Charter schools? Unions?) A good education — or, good *educations* — ought to be built on rich examples of human achievement — for good or ill — in the realms of truth, beauty, and morality, he wrote, offering three such examples that could fuel a curriculum: the theory of evolution, the music of Mozart, and the Holocaust.

His thinking dovetailed in important ways with work he was doing on ethics and integrity in professional life, under the umbrella of Harvard's Project Zero, the innovative education-research think tank founded by

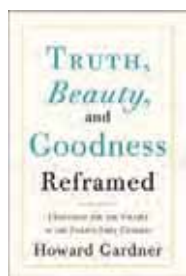


Nelson Goodman and led by Gardner (with David Perkins) for nearly three decades. In collaboration with psychologists Mihaly Csikszentmihalyi and William Damon, he launched the Good Work Project in 1995 to study leadership and professionalism — exploring what it means to do work that is “excellent, engaging, and ethical.”

With colleagues Lynn Barendsen and Wendy Fischman at Project Zero and across the Harvard campus, Gardner then turned attention to young people. They devised a series of reflection sessions with students at Harvard and elsewhere to enhance the understanding and incidence of good work among these potential future leaders. And the Project Zero team, co-led by Carrie James, has begun a thorough immersion into the ethical questions that arise in the use of new and emerging digital media.

Gardner is finally bringing all of this work — variously carried out under the related Good Play and Good Participation monikers — together. He

Harvard's Howard Gardner has launched the Good Project (www.thegoodproject.org) to recognize individuals and institutions that exemplify good work.



has just launched a website for what is now called the Good Project (www.thegoodproject.org), a large-scale effort to identify individuals and institutions that exemplify good work across a variety of fields and life stages.

THE CLASSICAL VIRTUES OF TRUTH, beauty, and goodness are in flux and under attack, Gardner readily admits. They face an external challenge from postmodernism, which disputes the very legitimacy of such constructs. And they face a slippery-slope challenge from within, as our beliefs about the essential meaning of these ideas are undermined by the digital world's pastiche of “claims and counterclaims,” samples and borrowings, hackings and Photoshoppers. But the virtues remain essential touchstones, Gardner argues; even as we view them with a new skepticism, we must not abandon them.

Although he acknowledges that the recent election cycle showed that “truthiness is more powerful than I would have liked to believe,” Gardner insists that truth seekers have a powerful arsenal to combat it. “Our potential to ascertain what is really going on, whether it is about a foreign policy mishap, the misbehavior of a political figure, or the manipulation of financial transactions, is greater than ever before,” he says. “It is just not possible to hide material evidence, as it was in times past.”

If online culture can be a reinforcer of truth and a purveyor, within its distinct communities, of the kind of digital citizenship that Gardner argues for, it also represents one of the biggest threats to our collective ethical compass. “The digital world is at present a Wild West in the ethical realm,” Gardner says. “We need to recompute what it means to create and respect intellectual property, to retain a sense of privacy, to determine trustworthiness, to participate in a community, and to create a meaningful, authentic identity online. There are no convincing models for doing this, and in a sense we have to start from scratch.”

And yet digital culture is “a great boon for experiences of beauty,” Gardner says. “We can have access to the greatest works of art, experiences of music, performances of theater, and wonders of nature. And each of us can create his or her own portfolio of beauty and observe how it changes over time.” Gardner relishes the individuality of beauty, and — as any Pinterest browser would agree — he rejects a canonical definition. “It doesn't matter one whit whether your portfolio is like or unlike portfolios of other people,” he says. “While we need a common view of truth, and need to develop a universal ethic, every one person can have a completely unique roster of beauty. Beauty can occur in any and every sphere of life.”

THE SCANDAL AT HARVARD IS STILL playing out, and it seems clear that fewer than 125 students will be found to have cheated. But how to deal with those who did — or with the numbers of noncheaters who saw no real lapses in this incident, or with those whose horizon is being shaped almost entirely by the desire to get ahead? Gardner proposes the creation of what he calls “commons,” a space where community members can come together to talk honestly about pressures and problems, holding each other and themselves responsible for enforcement.

He has spent 50 years at Harvard, so when he critiques it, he does it the way only a family member could. He says that space for such conversations is in short supply on campus today. “I think we have dropped the ball over recent decades. We're not giving students any real messages other than the message of success,” he says. “When you're not asking yourself the hard questions about what you're doing and why, when you're not looking into the mirror and saying, what kind of person am I, what influences am I having on others — that's when bad things can happen at an institution.

“I've got nothing against success. But at what cost?”

Two PhD students are tracing connections between our **politics** and our created **space**, finding new ways of knowing.

Political

By Nicholas Nardini

Read about Brooklyn's new sports arena in the media, and you might think "Barclays Center" refers to two totally separate buildings. One is the long-awaited new home of the Brooklyn Nets and the New York Islanders, a billion-dollar jewel in the crown of an up-and-coming borough, inaugurated with blockbuster concerts by hometown heroes Jay-Z and Barbra Streisand. The other is a titanic failure of democracy, built with foreign petrodollars on public land illegally sold to private developers, the latest tumorous outgrowth of a cancer killing the colorful, diverse city Brooklyn used to be. Op-eds, blogs, and demonstrators support both views. Amid all the competing rhetoric, where can the real Barclays Center be found?

Fallon Samuels-Aidoo and Delia Wendel have an answer at once literal and provocative: In Brooklyn. At the corner of Atlantic and Flatbush avenues. Half a mile north of Prospect Park.

Since Socrates talked the ear off Athens, politics has been a verbal art. But as PhD candidates in the interfaculty architecture program with the Graduate School of Design, Wendel and Samuels-Aidoo are trying to restore some connection between the way politics sounds and the way it *looks* — redirecting attention from the words Socrates spoke to the agora in which he spoke them. With guidance from K. Michael Hays, the Eliot Noyes Professor of Architectural Theory, and Diane E. Davis, a professor of urbanism and development, the two are editing a forthcoming volume of essays making the case that to understand social conflict and consensus, our eyes are just as important as our ears.

Landscape

A woman with short dark hair, wearing a blue long-sleeved button-down shirt, a yellow woven belt, black pants, and black loafers, stands with her arms crossed in a dusty, urban environment. In the background, there are simple buildings, some with colorful walls, and a hillside with more buildings under a clear sky. The ground is dirt and littered with some trash.

"Because a basic concern of peacebuilding is how people live together after war, space becomes a critical lens to assess the ethics of Rwanda's transition from conflict."

—*Delia Wendel in Kigali*
PHOTO BY LARS BLACKMORE

Political Landscape



Take the Barclays Center. As a Brooklyn resident, Samuels-Aidoo knows the conventional terms of the debate: economic development on one side, municipal character on the other. But consider the actual location of the redevelopment project, she says, and things don't look so clear-cut. "It's the former site of the Long Island Rail Road yards and was part of their massive commuter rail infrastructure," she says. "For half a century, these railyards housed an increasingly obsolete fleet of railway cars transporting a diminishing number of Long Island residents to a diminishing number of manufacturing jobs in Brooklyn and Queens. Now there's not enough commuting by mass transit to sustain the location as a terminal, so it has to be converted." Whatever the Center says about civic character, then, it says just as much about civic geography — where commuters live and work and how Brooklyn fits into metropolitan space.

Students of architecture and urbanism, of course, are no strangers to politics: from the aspiring peaks of the Egyptian pyramids to the monumental sternness of Soviet housing blocks, ideology and power have always left their imprint on the public spaces they construct. While preparing for their general exams, though, Samuels-Aidoo and Wendel detected what they call a "new wave" of cross-disciplinary interest in political spaces. They found scholars in fields as diverse as geography, science and technology, sociology, and anthropology reaching across disciplinary boundaries and providing new perspectives on politics and the built environment. In 2010, they organized a GSD symposium on the theme of "design politics" to bring these disparate fields together. "The keynote was about the Museum of Tolerance being planned in Jerusalem," Samuels-Aidoo remembers. "Frank Gehry was the museum's designer, so there was considerable interest from inside the

GSD. But since the Middle East and its politics were inextricably linked with this project, it also drew a lot of people from international studies and conflict studies. It brought them together into a conversation about the built environment and how we come to know its politics."

When the Graham Foundation for Advanced Studies in the Fine Arts awarded them a grant to publish a book that would follow up on the conference, Samuels-Aidoo and Wendel began thinking about how to capture the interdisciplinary energy of those conversations. "We needed to define what the common denominator between the various disciplines might be," Wendel says. They soon found that one of the widest disciplinary gulfs they had to bridge was between themselves: Samuels-Aidoo's research focuses on the planning, financing, and engineering of spaces, while Wendel's focuses on their reception, representation, and interpretation. "We'd be talking for ten minutes and only then realize that we'd been saying the exact same thing in different ways," Samuels-Aidoo remembers. Between the conference's disparate fields and their own disparate methodologies, the consensus they eventually reached was that, as Wendel puts it, "there was something fundamentally unique or valuable about a spatial way of knowing — particularly when it comes to political issues." After two years of deliberation, they settled on a title for the book: *On the Spatial Epistemology of Politics, or How We Know Politics Through Space*. "Today, we are reminded of a spatial politics in relation to revolutions and protests," Wendel adds. "Yesterday, it was the spatial politics of apartheid, ethnic enclavism, monumental architecture and its transformations; and earlier still, we should not forget slum living and clearance in England and France."

Despite their professional differences, both Samuels-Aidoo

and Wendel come from backgrounds where the intersection of politics and space was especially clear. Samuels-Aidoo grew up in the New York metropolitan area, but her family background is in Panama, where the promise of a direct route for shipping between the Atlantic and Pacific had long made the narrow isthmus one of the twentieth century's most remarkable demonstrations of how geography shapes politics. Her family had worked on the canal and railroad there since their construction, and when Samuels-Aidoo entered college at Columbia University, the United States was just returning them to Panamanian control. She decided to study civil and structural engineering, hoping to be part of the "new era" of Panamanian autonomy. Her plans were waylaid, though, by the terrorist attacks of September 11, 2001. "After then, if you were a structural engineer, your job was pretty much converted into designing blast-resistant structures full-time." The work of rehabilitating old buildings to withstand new forms of attack involved a great deal of historical research, and Samuels-Aidoo found herself engrossed in that new aspect of her job. Thanks to a political shakeup in the field of engineering, then, Samuels-Aidoo found herself drifting toward academia, eventually en-

resettlement planning, to the symbolic value of architectural aesthetics and memorialization, to the fictional space of a radio soap opera produced by an NGO to address the challenges of trauma and reconciliation after the conflict. In the course of her research, she found that Rwandans were mapping this fictional space onto the real space of their own lives. "I'm currently going through a set of correspondence from listeners noting the parallels between the villages in the soap opera and their own villages."

Meanwhile, Samuels-Aidoo is working closer to home, studying planned expansions to mass transit networks in post-war Philadelphia, Baltimore, Buffalo, Boston, and Washington, DC. "It's kind of a footnote in urban history," she says, "because for the most part what's remembered is these networks threatening to *discontinue* service, because of declining revenues due to competition from automobiles." For a brief time in the 1970s, though, transportation authorities mounted a concerted resistance, outlining plans for growth based on enhanced mass transit, even as city centers were demographically shrinking.

The plans were ultimately nixed, but by unearthing them

"People don't see the consequences of decisions being made until decades later — which is why we need to understand the politics of what we're building while we're building it." —Fallon Samuels-Aidoo in Brooklyn PHOTO BY BEN GEBU

tering a master's program at MIT to study architectural history.

Wendel grew up all over the world; her father worked for USAID in locations as far-flung as Pakistan, India, Egypt, and Indonesia. But the place most formative for her current work was Pretoria, South Africa, where she lived between 1993 and 1995, the years surrounding Nelson Mandela's election as president. The fact of apartheid was manifest in the fortified residences and segregation of the town, but "political activism was also spatially registered in street graffiti, transformations of apartheid-era monuments and symbolic institutions, and protests and demonstrations," she says. After earning a professional degree in architecture and starting her own residential design practice in Virginia, she returned to her childhood curiosity about the political determination of everyday spaces, earning two master's degrees (in cultural geography and architectural theory) for work on post-Katrina New Orleans, focusing on the Lower Ninth Ward.

When they entered the GSD, both Samuels-Aidoo and Wendel were eager to turn their backgrounds in spatial and political analysis to contemporary problems. Wendel has brought her expertise in post-conflict and post-disaster studies to Rwanda, where she is currently researching a dissertation on peacebuilding after the 1994 genocide. "Because a basic concern of peacebuilding is how people live together after war," she says, "space becomes a critical lens to assess the ethics of Rwanda's transition from conflict." Wendel's project interprets "space" liberally — from the concrete matter of

Samuels-Aidoo hopes to intervene in newly reinvigorated dialogues about how mass transit can facilitate the sustainable "smart growth" of American cities. "'Smart growth' is a catchy term because it can mean anything and nothing at the same time," she says. "My aim is to show how transportation authorities have measured this problem for decades, attempting to curb sprawl and revitalize neighborhoods." She adds that she sees a lot of the present in the past: "I think a lot of the policies currently being pursued are not very different from what was being pursued thirty, forty years ago. My work will show what materialized from those previous efforts."

One such materialization, of course, was the Barclays Center. "The whole point of cities holding on to the prime real estate of these railyards was that they were hoping to eventually use the space for transportation or other infrastructural needs," Samuels-Aidoo says. "By the century's end, they couldn't justify that investment any longer." The current controversy surrounding the arena highlights the necessity of a spatial understanding of politics. "Big projects are slow. People don't see the consequences of decisions being made until decades later — which is why we need to understand the politics of what we're building while we're building it."

Agendas are fleeting, but spaces and what we build in them endure. When *On the Spatial Epistemology of Politics* is published in 2015, Samuels-Aidoo and Wendel hope to help bring political discourse down out of the ether, and back to the solid ground it rises from. ♣



Design for Living

Learn more about the forthcoming book *On the Spatial Epistemology of Politics* at www.spaceandpolitics.org. Scholars and practitioners in the social sciences and humanities are invited to see the Call for Papers. The website also features a mapping utility that allows readers to connect and map ideas, research, and activities that concern space and politics.

Noted

Astronomy

SARAH BALLARD, PHD '12, has been named a 2012 NASA Carl Sagan Exoplanet Postdoctoral Fellow. Ballard will serve her fellowship at the University of Washington, Seattle, investigating the potential for life on distant planets by analyzing data from NASA's Kepler mission.

Comparative Literature

LESLIE DUNTON-DOWNER, AB '83, PHD '92, participated in the California Mission Ride (www.thecaliforniamissionride.org), a 600-mile journey on horseback to each of California's 21 Spanish and Native American missions. A documentary about the ride and the history of California is being produced for school-age audiences. A Cambridge, MA-based writer, Dunton-Downer is the author, most recently, of *The English Is*

Coming! (Touchstone 2011), about the globalization of the English language.

Computer Science

DAVID G. SULLIVAN, AB '90, PHD '03, was recently awarded the Neu Family Award for Excellence in Teaching in the College of Arts and Sciences at Boston University. The award honors extraordinary dedication and effectiveness in the classroom and beyond. Sullivan is a lecturer in computer science at BU, where he teaches the introductory course for the computer science major, as well as a course for non-majors on databases and data mining.

Economics

MICHAEL HEMESATH, PHD '88, was inaugurated on October 20 as the 13th president of Saint John's University in Collegeville, MN. Hemesath assumed the position on July 1; he is the first layperson appointed to a full presidential term at SJU in its history. A 1981 SJU graduate, Hemesath was a member of the economics faculty at Carleton College from 1989 to 2012 and served as faculty president at Carleton from 2009 to 2012. In addition to teaching micro and macroeconomics, Hemesath has led courses

on international economics, the economics of multinational enterprises, the British Industrial Revolution, Soviet and post-Soviet economics, and health economics. His research has focused on health economics, student attitudes toward markets, and education in transition economies.

Germanic Languages and Literatures

THOMAS S. HANSEN, PHD '77, and **ABBY J. (DUBMAN) HANSEN, AB '66, PHD '77** [English], have published a new translation of Thomas Mann's *Death in Venice* with Lido Editions at the Club of Odd Volumes, a literary society in Boston's Beacon Hill neighborhood. The "Centennial Translation" is limited to 140 copies, signed by the translators, and celebrates 100 years of Mann's novella. Thomas S. Hansen is a professor of German at Wellesley College in Wellesley, Mass., where his current research focuses on 20th-century book design.



Government

JAMES A. SPADY, PHD '77, the emeritus director of the University of Pennsylvania's Fels Institute of Government, was honored by the Institute at its 75th Anniversary Convocation this June, at which Spady was the speaker. Bound letters from many of his six hundred former graduate

students were distributed, and it was announced that the Institute's main seminar room, as well as a graduate student scholarship, were being named in his honor.



ROBERT A. PASTOR, PHD '77, has published *The North American Idea: A Vision of a Continental Future* (Oxford University Press, 2011). Presenting a critical history of NAFTA, the book argues for a more integrated and interdependent North America. Pastor served as US national security advisor on Latin America and the Caribbean under President Jimmy Carter and is currently a professor of international relations at American University.

History

MARSHALL S. SHAPO, AM '61, SJD '74, has published *An Injury Law Constitution* (Oxford University Press, 2012). The book explores how American injury law reflects deeply held views in American society on risk and injury, constituting a veritable "constitution" regulating tort law, workers' compensation, and safety statutes. Shapo is the Frederic P. Vose Professor of Law at the Northwestern University School of Law.

Landscape Architecture

MICHAEL LEE, PHD '04, has been named the Reuben



M. Rainey Professor in the History of Landscape Architecture at the University of Virginia. Lee is the author of *The German "Mittelweg": Garden Theory and Philosophy in the Time of Kant* (Routledge 2007), and his research focuses on ideological constructions of nature at the intersection of philosophy, literature, and landscape design.

Regional Planning

CHESTER HARTMAN, AB '57, PHD '67, director of research for the Washington, DC-based Poverty & Race Research Action Council, has been appointed to the Washington, DC Advisory Committee to the US Civil Rights Commission. He has also organized a series of conferences on urban planning at the John Marshall Law School in Chicago, collected papers from which are being published by Routledge and New Village Press.

Regional Studies—Russia, Eastern Europe, and Central Asia

ANTON A. FEDYASHIN, AM '99, has published *Liberals under Autocracy: Modernization and Civil Society in Russia, 1866-1904* (University of Wisconsin Press 2012). Focusing on *Vestnik Evropy*, the flagship journal of Russian liberalism before the revolutions of 1917, the book brings to light currents of Russian political and cultural thought obscured by 20th-century extremism. Fedyashin is executive director of the Initiative for Russian Culture and

assistant professor in the department of history at American University.

Romance Languages and Literatures

STEPHANIE HULL, PHD '92, has been appointed executive vice president and chief operating officer of the Woodrow Wilson National Fellowship Foundation. She will provide leadership for the Foundation's administrative operations as well as its academic programs, a suite of fellowships for graduate study in key fields.



Sociology

MARIO L. SMALL, PHD '01, was appointed dean of the Division of Social Sciences at the University of Chicago, where he was serving as professor and chair of the department of sociology. Small is the author of *Villa Victoria: The Transformation of Social Capital in a Boston Barrio* (University of Chicago Press 2004) and *Unanticipated Gains: Origins of Network Inequality in Everyday Life* (Oxford University Press 2009).


The maps on television news this election season look as polarized as ever, but **IRENE TAVISS THOMSON, PHD '67**, challenges

the idea of a polarized, red and blue America. In *Culture Wars and Enduring American Dilemmas* (University of Michigan 2010), she analyzes hundreds of articles and speeches from the past two decades and concludes that the popularly supposed clash between two fixed American cultures is actually a series of perennially revisited "dilemmas," in which nobody's stance is easy to predict. Thomson is professor emeritus of sociology at Fairleigh Dickinson University

JOSHUA WIENER, PHD '81, was named a fellow of the Gerontological Society of America. Fellowship is the highest class of membership in the society. The author of eight books and over 100 articles on health care for the

elderly, Wiener is director of the Aging, Disability and Long-Term Care Program at the Research Triangle Institute.

Special Student

RICHARD MISEK, GSA '95, recently published *Chromatic Cinema* (Wiley-Blackwell 2010), the first book-length history of color in cinema. Its historical scope extends from the 1890s to the 2000s, from hand painting in early cinema through Technicolor to color grading in digital effects films. The book chronicles color's spread and ultimate effacement of black-and-white cinema, exploring the technological, cultural, economic, and artistic factors that have defined its evolution. Misek is a lecturer in digital media at the University of Kent. 

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VERITAS IN AUTUMN — IN TORONTO

The GSAA partnered with the Harvard Club of Toronto to help sponsor the club's annual gala, *Veritas in Autumn*, on October 18. The Graduate School brought in Professor of Sociology (and Toronto native) Michèle Lamont for a keynote address exploring her work on discrimination and resilience in a variety of national contexts. It was an evening of camaraderie and connection, marking GSAS Dean Xiao-Li Meng's first international trip in his new role.

Raising a toast: GSAS Dean Xiao-Li Meng and GSAS Alumni Council member Yonatan Eyal.



The Graduate School Alumni Association

Governed by its Alumni Council, the GSAA represents and advances the interests of alumni of the Graduate School of Arts and Sciences by sponsoring alumni events and by publishing *Colloquy* three times each year.

Contact

The Graduate School Alumni Association, Holyoke Center 350, 1350 Massachusetts Avenue, Cambridge, MA 02138-3846. 617-495-5591 gsaa@fas.harvard.edu www.gsas.harvard.edu/alumni

Colloquy on the Web

Access current and back issues of *Colloquy*, as well as a range of other alumni services and information, at www.gsas.harvard.edu/alumni.

Letters to the Editor

Colloquy does not print letters, but we welcome your feedback and story ideas. Write to: *Colloquy*, Harvard University Graduate School of Arts and Sciences, Holyoke Center 350, 1350 Massachusetts Avenue, Cambridge, MA 02138-3846; or e-mail gsaa@fas.harvard.edu.

Moving?

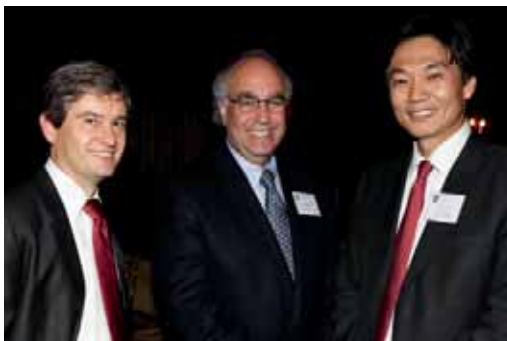
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GSAS TAKES MANHATTAN

The Graduate School Alumni Association (GSAA) brought Professor of Government Stephen Ansolabehere, PhD '89, to New York on October 4 for "33 Days and Counting: An Election Preview." His savvy analysis of the political landscape — well timed, coming just a day after the first presidential debate — drew alums from across Harvard's schools to the Harvard Club of New York City. From left, Stephen Ansolabehere, Daniel Goroff, and John Moon, a GSAS Alumni Council member.



ALUMNI ASSOCIATION HOSTS ORIENTATION AFTER-PARTY

The GSAA helped kick off the 2012–2013 academic year by hosting its first-ever social gathering for new and continuing GSAS students, on the postcard-perfect afternoon of Orientation, August 29. The party took place on the courtyard outside Dudley House, on a day that began with official welcomes from President Faust and the FAS and GSAS deans in Sanders Theatre.



Festivity in the Yard, courtesy of the Alumni Association.



SAVE THE DATES: ALUMNI WEEKEND 2013

The Graduate School's annual Alumni Day has been set for April 6, 2013, and we hope you'll plan to join us in Cambridge! Visit www.gsas.harvard.edu/alumniaday.

Graduate alumni of Astronomy are invited back to campus for a reunion celebration on April 5. Visit www.gsas.harvard.edu/reunion.



Harvard is...

Providing a home away from home for our graduate student community.

Peabody Terrace resident Erika Fredrickson, wife of GSAS student Eric Fredrickson, meets with Doreen M. Hogle, Co-Master of Dudley House, as part of the Graduate Commons Program at Harvard.

ENHANCING THE STUDENT EXPERIENCE

I Choose Harvard...

The first time Ed Tiryakian met his future wife, Josefina, she was deep in discussion about philosophy over lunch with a group of Harvard graduate students. Ed was taken with the “attractive, intellectual brunette,” but didn’t catch her name.

He returned to the same graduate dining room every day until he found Josefina, who was pursuing an advanced degree at Harvard at the time. They married in 1953 and both went on to earn PhDs at Harvard—Ed in 1956 and Josefina in 1969, after the birth of their two children, Edmund and Edwyn. Josefina was also a fellow at the Radcliffe Institute for Independent Study.

The Tiryakians are very grateful for the financial support they received while pursuing their degrees. To pass that gift along to the next generation, they recently established a Graduate Student Dissertation Fellowship Fund to support students in history and sociology, the two fields Ed and Josefina were studying when they met and fell in love.

“We don’t have grandchildren, but helping graduate students at GSAS is the next best thing,” they said.

Choose Harvard today with a gift to the Graduate School Fund. Visit alumni.harvard.edu/gsas-gift.

EDWARD TIRYAKIAN, PHD '56, AND
JOSEFINA CINTRON TIRYAKIAN, PHD '69

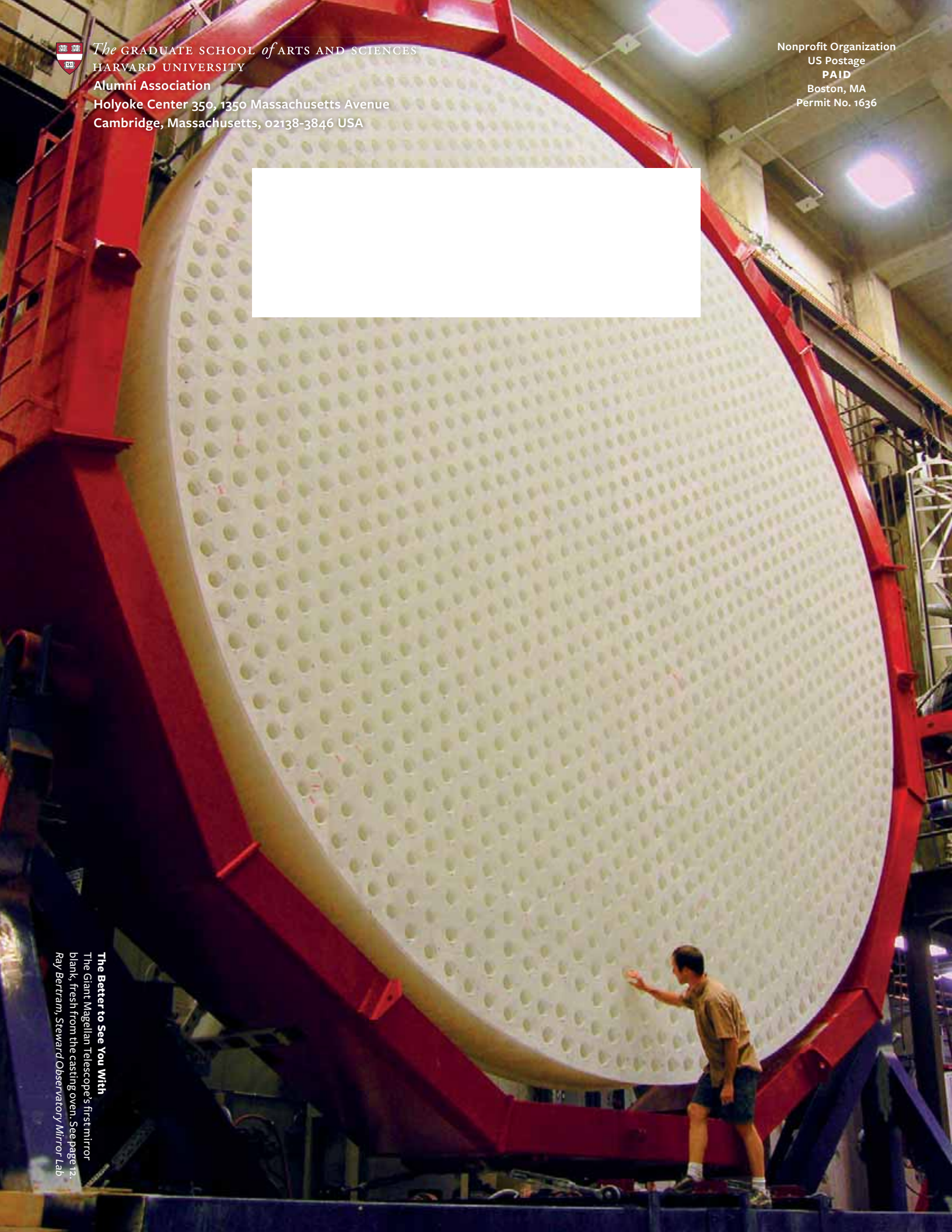
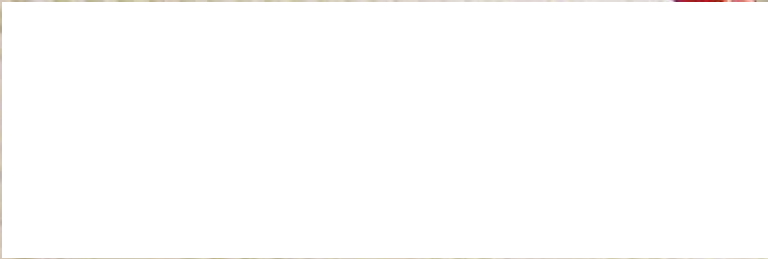


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Ray Bertram, Steward Observatory Mirror Lab