Bringing Pedagogy into the 21st Century
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Editor: Robert Ast
Assistant Editor: Andrew Ng
Senior Director for Alumni Relations: Jill Galas-Hickey
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One of the principal raisons d’être for the Graduate School of Arts and Sciences is enhancing the academic and professional life of our students. But graduate students—both Master’s and doctoral—typically devote between one and eight years in pursuit of the degree that brought them to Columbia. This investment of time means that students often spend a significant number of their formative adult years among us, years in which the realm of the personal usually takes a backseat to the requirements of the academic pursuits that brought them to campus. Graduate students have traditionally postponed or set aside significant personal decisions while in graduate school, owing to the belief that life and its big choices resume upon receipt of the degree and after reintegration in the larger world outside the university.

The reality is, however, that there has never been such a transparent split between life and the graduate experience: graduate school IS life for our students. In fact, graduate school is in most cases the first time in which students will not be under the tutelage of someone in loco parentis—in other words, it is the first truly adult autonomous experience some of them will entertain. It is also quite possible that graduate school be the first time there is significant geographic distance from their family environment, since most students tend to remain relatively close to home when choosing an undergraduate institution. This is especially the case with international students, who cast a much wider net when applying to institutions in which to pursue their postbaccalaureate education. Graduate school is not just what life is for our students, it is also a most significant season of that life from an existential point of view.

In my time as a faculty member, and now as dean, I have noticed a gradual but quite significant change in student attitude toward their graduate experience. Students nowadays tend to see graduate school as coextensive with their personal lives and are continually searching for ways in which to make graduate life fit into their lives, as opposed to the other way around, which was the norm traditionally. I do not have the space here to explore the reasons for this development, which I would argue nonetheless should be regarded as both healthy and welcome, since it demystifies graduate education and the graduate experience, and forces both to conform to realistic and humane parameters. This transformation requires, nevertheless, that graduate school administrations and support services evolve to accommodate our students’ novel understanding of their relationship to their programs, to the institution, and to their discipline at large.

This development accounts, for instance, for two changes in policy that the Graduate School instituted since I became dean: first, the existing policy on the “Suspension of Responsibilities for Childbirth” was broadened two years ago to include male student parents, as well as instances of adoption and foster parenthood; second, the Graduate School announced last year that graduate student parents would be entitled to receive for each child a $1,000 subsidy to defray the cost of child care expenses. The realization that graduate school has to be better integrated into our students’ lives was also one of the reasons behind the creation of a new program of Internships in Academic Administration, in which graduate students explore non-academic careers in university administration that may give them more flexibility at the moment they endeavor to combine the personal and the professional. Our newly created Office of Student Affairs in GSAS has been given the consequent mandate to address the many facets of the nonacademic dimension of our students lives, while recognizing the particular and specific needs of our Master’s and doctoral constituencies.

Graduate school used to be regarded by students, faculty, and administrators as a parenthesis or hiatus in the lives of graduate students. The current move toward the closer integration of life and the graduate experience is a salutary transformation that nonetheless presents us with new challenges that we in the Graduate School are ready and eager to assume. I would be extremely interested in hearing from you, the alumni of the school, about how we could best fulfill that responsibility.

Carlos J. Alonso
Dean, Graduate School of Arts and Sciences; Morris A. and Alma Schapiro Professor in the Humanities
Bringing Pedagogy into the 21st Century: The GSAS Teaching Center and the Science of Teaching and Learning

By Alexander Gelfand

One sunny day this past June, a clutch of doctoral students from various departments—Music, Sociology, Earth and Environmental Sciences—sat, stood, and circulated in a large room on the fifth floor of Barnard College’s Diana Center. The space was crammed with themed tables devoted to various digital tools: one bore a piece of paper with the word “SIMS,” for computer simulations, scrawled in black sharpie; another proclaimed “Blogs!” Many of the tables were littered with lists and diagrams and flow charts, and each one was equipped with an educational technologist from the Columbia Center for New Media Teaching and Learning (CCNMTL). The students had all been appointed as teaching assistants or preceptors for the coming year, and the technologists were there to show them how to use the software to design and deliver assignments.

In other rooms, students munched on box lunches as presenters from CCNMTL and the GSAS Teaching Center—including Mark Phillipson, the Center’s interim director—demonstrated how to use the library’s online resources or set up a website where students could upload and annotate text and images for a class. All the while, informal groups of TAs lounged on comfy chairs in a common area framed by large windows, sipping bottled water and talking shop.

The setting was the second day of the Teagle Summer Institute, a three-day-long series of workshops and discussions devoted to pedagogy and technology.

Now in its second year, the institute is part of a larger three-year program, the Preparing Doctoral Students for the 21st Century Initiative. Offered by the Teaching Center and CCNMTL under a grant from the Teagle Foundation, a nonprofit dedicated to improving the quality of undergraduate learning in the arts and sciences, the initiative seeks to equip graduate students to teach in the new millennium and, by extension, to bring the quality of undergraduate learning at Columbia to an even higher level. And it is emblematic of the way in which the University is trying to rethink the role and function of the Teaching Center at a pivotal moment in higher education.
Since they first began to appear in the 1960s, teaching centers have become increasingly common on American college and university campuses; more than two hundred schools now have some kind of center devoted to helping faculty and graduate students improve the quality of their teaching, including many of Columbia’s peer institutions. Yet Columbia itself came to the party relatively late.

According to Carlos J. Alonso, Dean of the Graduate School of Arts and Sciences and Vice President for Graduate Education, the University first explored the possibility of creating a full-service teaching center that would cater to both faculty and graduate students in the 1990s. At the time, however, the cost seemed prohibitive, and so in 2006 the University established a more limited center, focused on the needs of graduate students. Helmed for two years on an interim basis by Jan Allen, then the associate dean for Ph.D. programs, the Teaching Center acquired its first permanent director in 2008, when Steven Mintz came on board.

Mintz wanted to move the Center in several directions at once. For one thing, he wanted it to address not only teaching but also research into learning—more formally known as scholarship on teaching and learning, or SOTL. SOTL emerged as an academic discipline less than a quarter-century ago with the publication of Scholarship Reconsidered: Priorities of the Professoriate by Ernest Boyer. Boyer, who was at the time president of the Carnegie Foundation for the Advancement of Teaching, argued that instruction merited the same systematic study and professional recognition accorded to other areas of scholarly investigation, and his contention was quickly taken up as a rallying cry by others.

Allison Pingree, director of professional pedagogy in the Strengthening Learning and Teaching Excellence Initiative at Harvard’s John F. Kennedy School of Government, says that research in areas relating to SOTL is already beginning to count toward academic promotion and tenure. To Mintz, a professional historian with a long list of publications to his credit, acquiring those scholarly bona fides was crucial. Otherwise, he suspected that a teaching center would never be taken seriously at a top-tier research institution like Columbia—the kind of institution where scholarship, not teaching, has historically been regarded as the real work of faculty and graduate students. Judith Shapiro, former president of Barnard College and current president of the Teagle Foundation, recalls that when she was hired by the anthropology department at the University of Chicago in 1970, even talking about teaching with your colleagues “would have been the professional equivalent of a burp.”

A generation later, when he was a doctoral candidate at the University of California, Berkeley, Mark Phillipson recalls a similar silence surrounding the art of teaching—and the concomitant experience of walking into his first teaching section at ten o’clock one morning, writing his name and phone number on the board, and realizing that he had to “turn around, face the class, and do something.”

The Teaching Center’s emphasis on SOTL is a means of redressing precisely that lack of attention to how teachers do what they do and how they can do it more effectively. Cognitive psychologists like Columbia’s own Janet Metcalfe and Lois Putnam have for many years conducted research into learning and memory, and their findings can be directly translated into helpful teaching strategies. Metcalfe, for example, points to three or four basic techniques that virtually any teacher can use to improve learning outcomes, such as spacing practice sessions...
out to help learners retain new concepts and requiring students to generate their own answers (even if they are wrong, the process is ultimately more effective than simply giving them the correct answers to begin with). “The empirical findings are very solid,” Metcalfe says. “And it works beautifully.”

Some months ago, Metcalfe addressed the staff at CCNMTL, and the results were apparent at the Teagle Summer Institute when Michael Cennamo, an educational technologist who is working toward his doctorate in education at Teachers College, then presented a series of digital tools that can be used to deliver more effective presentations by exploiting the ways in which our minds process data.

Wendell Hassan Marsh, a third-year Ph.D. candidate in the Department of Middle Eastern, South Asian, and African Studies, attended a similar workshop at the Teaching Center last year. Marsh is hardly a novice when it comes to either digital technology or teaching—a former journalist, he’s well acquainted with new media, and he taught English to refugees while in Egypt on a Fulbright—but he says that the strategies he learned “kind of changed the way I present things in general now.” They also kept him coming back to the Center for more training.

* * *

The digital side of the workshop that Marsh attended, of the presentation that Cennamo and Garber gave, and of the entire Teagle Summer Institute, points to another development at the Teaching Center: its growing emphasis on educational technology. Phillipson is well suited to manage that change: before being appointed interim director of the Center, he spent six years as a senior program specialist in the faculty support unit at CCNMTL; as an assistant professor of English at Bowdoin College and an adjunct assistant professor in the Department of English at Columbia, he has made extensive use of wikis, the popular web apps that allow people to collectively create and annotate online content. As a teacher, Phillipson has found that such tools bolster students’ sense of participation, and can even influence the direction of a course through the generation of new ideas and avenues to explore—an effect that can have a transformative impact on overall student engagement.

The word “transformative”—along with its close cousins “revolutionary,” “game-changing,” and “disruptive”—has often
been used to describe the role of technology in higher education. Much of the hubbub has in recent years come in response to the phenomenon of massive open online courses, or MOOCs: strictly digital combinations of text, images, and video delivered to vast numbers of people over the web. Because they are free and available to anyone with a computer and an Internet connection, MOOCs have been heralded as a means of making higher education accessible to almost everyone. Some proponents even believe that they might represent a cure for what economist and former Princeton president William Bowen calls the “cost disease” of higher education, which manifests in ballooning tuition costs and skyrocketing student debt. And they’re spreading like wildfire: Columbia currently offers a number of MOOCs in subjects ranging from virology to economics through Coursera, a Silicon Valley startup that at last count had more than nine million enrollments from students scattered across nearly two hundred countries.

The speed with which MOOCs have proliferated—many of Columbia’s peer institutions have introduced their own courses, while Harvard and MIT have partnered to create the MOOC provider edX—has also raised concerns about the future of the technology. Some fear that turning toward a fully online model might further imperil academic jobs at a time when tenured positions are already dwindling, while others believe that it will inevitably dilute the educational experience. In a recent piece for the online magazine The New Inquiry, Aaron Bady, a Ph.D. candidate in African literature at the University of California, Berkeley, assailed MOOCs for being a pedagogically shallow means of content delivery that will benefit only the most self-directed students, and he also contended that the rush to adopt them has more to do with serving corporate interests than educational ones. (In an earlier post to the blog Inside Higher Education, Bady described MOOCs as “only better than nothing.”) Because of these conflicting views, and perhaps because of the fundamental uncertainty that surrounds a phenomenon that is still in its infancy, the subject of MOOCs tends, as Mark Phillipson says, to get people “very excited, and very scared.”

The changes underway at the Teaching Center could help assuage at least some of those fears. For example, more technologically oriented offerings ought to help teachers bring the same quality of instruction that Columbia students have come to expect in the classroom to the digital realm as well—whether that is in the context of a MOOC or of a course that mixes face-to-face and online elements.

Holly Myers, a Teagle Summer Institute participant and doctoral candidate in the Department of Slavic Languages who was preparing to lead a section in first-year Russian, was visibly thrilled to be sitting next to Michael Cennamo as he demonstrated an application called VoiceThread on his laptop. VoiceThread allows students to create online conversations around material they have uploaded to the web, and Myers could already see her undergraduate students videotaping their own Russian-language skits, uploading the videos to their class website, and commenting on one another’s work. She was especially excited because, prior to attending the Institute, she hadn’t even realized that such a thing was possible—or that someone like Cennamo might be around to show her how to do it.

“I had some vague notion of an office somewhere in Butler if I had questions about CourseWorks,” she said, referring to the University’s online course management system. “I had no notion that there was this vast network of professionals who were available to help make things more engaging for students.” —Holly Myers, Teagle Summer Institute participant
things more engaging for students.”

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The idea of a “vast network of professionals” hints at yet another role that a reimagined Teaching Center could potentially play, as a place for graduate students to get a sense of the possibilities that lie beyond academia and to find the support they will need to capitalize on them.

The fear that MOOCs and other digital technologies will render some tenure-track positions obsolete is accentuated by the very real tightening of the academic job market, which has sent increasing numbers of graduate students into so-called alt-ac—short for “alternative academic”—careers that include staff and administrative positions at colleges and universities, not to mention careers that
have nothing to do with academia whatsoever. Not surprisingly, this can be difficult terrain to negotiate. Many graduate students are uncomfortable discussing alt-ac or nonacademic options with their faculty advisers, either because they feel ashamed of abandoning a traditional academic career or because they are afraid that betraying even the slightest lack of commitment could have catastrophic results. And many faculty advisers don’t know enough about the world beyond academia to be of much help. This is why Steven Mintz originally envisioned the Teaching Center as a “safe place” for Teaching Fellows to explore alternative career paths, and why Mark Phillipson says that the University would be failing graduate students if it did not help them confront the realities of the job market—whether by assisting in the creation of the kinds of robust professional portfolios they’ll need to land their first faculty positions or by preparing them for life outside the ivory tower.

Phillipson is therefore introducing sequences of workshops that graduate students can complete in order to receive a formal certification. Bill Rando, director of the Yale Teaching Center, which awards a certificate of college teaching preparation to graduate students who complete a comprehensive training program, says that many graduates of tier-one research universities who are lucky enough to land academic positions will likely find themselves working at liberal arts colleges, which have traditionally emphasized teaching over research, or at state schools, which have come under increasing pressure to demonstrate their efficient use of taxpayer dollars with evidence of effective teaching. Under those circumstances, proof of participation in teacher-training activities can only help.

In addition to what Phillipson refers to as the “quiet mentoring” that already takes place as graduate students are exposed to alt-ac professionals such as Cennamo and Garber, the Graduate School is also launching an initiative to explicitly address alternative career options. Beginning with the spring 2014 semester, advanced doctoral students will have the opportunity to intern in some twenty administrative offices across the University, where they can get a glimpse of the day-to-

Judith Shapiro, Ph.D. ’72, Anthropology
By Alexander Gelfand

When Judith Shapiro became head of the Teagle Foundation this past July, the former Barnard president took the reins of an organization that for nearly eighty years has given grants to institutions of higher learning and research with an eye toward improving undergraduate learning in the arts and sciences. Which seems only fitting, since Shapiro herself has spent the last forty-odd years trying to advance the same goals.

Many of the Foundation’s efforts are aimed at bolstering the quality of teaching, a vocation that is in Shapiro’s blood. Her mother taught Latin and supervised the high school libraries in the New York City public school system, the same system Shapiro herself attended (at PS 29 in Flushing Meadows, Queens), along with classmates such as Jonathan Cole, future sociologist and provost of Columbia, and Stephen Jay Gould, future paleontologist and public intellectual. “I used to play teacher when I was a kid,” she says.

Nonetheless, it took her some time to find her subject. Armed with a degree in history and French from Brandeis University, Shapiro entered the graduate program in history at the University of California, Berkeley in 1963. She quickly realized that the life of a professional historian was not for her, however, and dropped out after only a month—a decision that cost her a front-row seat at the landmark student protests of the Free Speech Movement just one year later. Back in New York City, a friend hipped Shapiro to the work of the French anthropologist Claude Lévi-Strauss, and she applied to the graduate program in anthropology at Columbia, where she was admitted on scholarship despite never having taken a single course in the subject.

Despite the false start, it didn’t take long for Shapiro to get up to speed. By 1965 she was doing “salvage ethnography”—fieldwork aimed at preserving cultures on the brink of extinction—among the Northern

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Paiute of the Great Basin, the massive watershed that lies between the Rocky Mountains and the Sierra Nevada range. A few years later she undertook a series of studies of indigenous groups in Brazil. Her research among the Yanomami yielded some of the earliest anthropological analysis of gender differences—not because of any ideological motivation (“second-wave feminism hadn’t yet happened,” Shapiro recalls), but because the differences between the lives of Yanomami men and women were simply too obvious to ignore.

Gender would prove to be a defining issue in Shapiro’s professional life.

In 1970 she became the first woman appointed to the anthropology department at the University of Chicago. It was, she says, an overwhelming, even paralyzing experience to be a junior female faculty member adrift in a sea of distinguished senior male colleagues. Though she hadn’t yet finished her dissertation, for example, Shapiro suddenly found herself ensconced in the office previously occupied by the revered cultural anthropologist Clifford Geertz. In what she now describes as an extremely wise professional move, Shapiro moved on to Bryn Mawr in 1975, discovering in the process “the wonderful world of women’s colleges”—a world in which she would spend the bulk of her working life.

Though she claims never to have considered a career in administration, Shapiro was named dean of the college and then its first provost. The role...
Faculty at all levels of seniority profit when they have the chance to mingle with colleagues from other disciplines.

siloed along departmental lines: physicists hang out with physicists, English profs with English profs, and never the twain shall meet. While this may be natural, it is not particularly healthy. If those physicists never develop a genuine appreciation for what those English profs do (and vice versa), they will never develop a sense of shared purpose—a situation that can eventually breed mistrust. Moreover, drawing together faculty from different departments gives them the opportunity to share their respective insights into teaching and to discuss the common challenge of reaching students. This, Rando says, is one of the most powerful aspects of a teaching center: done right, it can become a University-wide faculty center.

The new and improved Teaching Center will also benefit from its new and improved digs: a sleek, digitally enhanced space in Butler Library known as Studio@Butler. Everything in it—the tables, the whiteboards, the digital projectors—is on wheels and can be easily configured for a variety of uses: graduate-student workshops and faculty seminars, one-on-one consultations on teaching strategies and departmental discussions of curricular planning, maybe even improvised study halls for students taking MOOCs—a physical complement, as it were, to the online classroom—and a laboratory where faculty and staff can gauge student reaction to the digital environment.

Phillipson also sees Studio@Butler as a response to the desire expressed by many graduate students for a “third space” on campus: a refuge beyond the orbit of one’s department and immediate social circle, where graduate students from across the University

JUDITH SHAPIRO, CONTINUED

she played in helping to establish and strengthen interdisciplinary programs and cooperative arrangements with other top-tier schools such as Swarthmore and the University of Pennsylvania helped attract the attention of Barnard College, where she was appointed president in 1994. Coming to Barnard, she says, was like choosing a spouse: in addition to being a close sister college of Bryn Mawr, Barnard had the advantage of being located in her native New York, and its relationship to Columbia felt more like a genuine partnership than the kind a small women’s college might be expected to have with a major research university across the street.

Shapiro likens the role of a college president to that of a small-town mayor; her primary role, as she saw it, was to hold the Barnard community together and to “hear the song of the institution”—to see its distinctiveness and to understand its mission. When she stepped down in 2008, Shapiro was credited with tripling Barnard’s endowment and doubling the number of applications it received, refining its curriculum, and ramping up its commitment to educational technology. (One of her first moves was to get all of the members of her senior senior staff on email, at a time when the new communication platform was far from ubiquitous.)

Yet Shapiro herself dismisses much of the praise she has received as “leadership fetishism,” lays most of the credit for her alleged accomplishments at the feet of her colleagues, and claims that being a university or college president is “an endless opportunity for screwing up.” (Along with self-deprecating humor, traces of Shapiro’s anthropological training can also be discerned in her take on the college presidency—for example, when she describes the “rituals of opposition” that inevitably arise between faculty and administration.)

When she was first asked if she might like to be a candidate for the Teagle presidency—she was a member of the search committee at the time—Shapiro said no. She was content to teach part time at Barnard and to pursue her other interests, from singing and knit-
can come to find informal support and a sense of community. You could see the outlines of such a space emerging at the Teagle Summer Institute, as participants from different disciplines temporarily coalesced into small, informal groups where they commiserated over the difficulty of balancing teaching and research, talked about their job prospects, and bonded with one another regardless of their respective departmental affiliations or areas of expertise.

Not incidentally, the Teaching Center shares Studio@Butler with the Digital Humanities Center, which offers technological and research support to faculty and students who work in the humanities and history. Phillipson hopes that this cohabitation will blur the line between teaching and research in productive ways. The entire Columbia community would gain something, for example, if more TAs and professors were to discover the scholarship of teaching and learning, or if they came to regard their own teaching as something that warranted the same rigorous procedures of inquiry they employ when conducting their scholarly investigations. “Why teach on hunches and guesses,” Phillipson asks, “when you don’t treat your own scholarship that way?” That question gets at the heart of the Teaching Center’s mission and purpose. It may be many things to many people—support center, digital training ground, professional development office, communal gathering place—but all of those roles and functions are undergirded by a fundamental commitment to helping faculty and students become as serious about their teaching as they are about their research.

“Teaching isn’t a mark of failure, says Shapiro, and it can help teachers use their time more efficiently, freeing them up to more effectively mentor their students.

Above all, Shapiro remains committed to continuing the Foundation’s commitment to improving undergraduate student learning, which she believes is inextricably linked to the quality of teaching. That, in turn, is why she feels it is important to back the kinds of programs that the Teaching Center is developing and that Teagle is encouraging at other colleges and universities across the country.

“When you develop faculty as teachers,” Shapiro says, “you’re supporting students.”
Tenure-track positions at community colleges offer valuable job opportunities for people with graduate degrees in the humanities. In the early 1990s when I was looking for a job, it seemed that taking a position at a community college wasn’t normal for those with Ivy League Ph.D.s. It didn’t initially occur to me, either. Having taught part-time for four years—and after interviewing at four-year colleges to no avail—I had largely given up the search for a tenure-track position in English and was working as a legal secretary when I saw an ad in *The New York Times* for an opening teaching college composition at Bergen Community College (BCC) in northern New Jersey. Once I joined the BCC faculty, though, I found that a few of my colleagues also had degrees from GSAS in English and Comparative Literature, including Bonnie MacDougall, M.A. ’70, Ph.D. ’82 and the late David Kievett, M.A. ’70, M.Phil. ’74, Ph.D. ’75.

However, since joining Bergen in 1994 I have served on a number of search committees, and in that time very few GSAS graduates have applied for tenure-track or lecturer positions—somewhat odd given the paltry job offerings for those with Ph.D.s in the humanities in the past few decades. The dearth of applicants for positions at BCC is particularly surprising, since the school is located only eight miles from Manhattan (in fact, many of my colleagues live in Manhattan and Brooklyn).

Another professional consideration to note is that there is no “publish or perish” culture at the typical community college. Tenure, usually granted after five years of good service to the college, does not depend on getting a book out. This frees up those who wish to publish to work on whatever they want, at their own pace. It also provides more time to focus on the college’s core mission: teaching.

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Previous to BCC, I taught Logic and Rhetoric (the introductory writing course now known as University
Writing) at Columbia and First-Year English at Barnard. Teaching at BCC has been a different, and in many ways more satisfying, experience.

Most books about pedagogy seem to be written for people at elite universities. For example, at BCC there is little need to challenge a student’s sense of privilege—the college has open admissions, and many of our students are part of the working class, new immigrants, and members of traditionally understood minority groups. We don’t have to push the institution toward a more student-centered classroom, since that is already the law of the land. We also don’t have to convince students that professors are not distant authoritarian figures, since few see us that way to begin with. There is no academic “star system,” or anything precious about the college environment. To illustrate the latter: one rainy spring day, the BCC commencement was held on the ground level of the parking garage.

My greatest hope as an instructor is to create an opportunity for pleasure in discovery during each class. I work in an academic environment that could seem generic and rudimentary, a force that pushes against unquantifiable or even improvisational aspects of teaching. But over the years I have carved out my own special classroom space in the area of Cinema Studies.

Most of my students come into class with the view that school is a burden. I’ve found that teaching “critical thinking skills” does little to help that situation. In fact, I’ve had greater success deliberately ignoring those very skills at times. (Any self-satisfied teaching of these “skills,” as if in a list, defeats the purpose of this approach anyway.) Quite wonderful bursts of ideas can emerge when students experience moments of chaos and surprise, such as when they watch Paul Sharits’s T,O,U,C,H,I,N,G or Maya Deren’s Meshes of the Afternoon.

My students at BCC generally feel not only burdened but also tired. I teach evening classes, and many of them have worked a full eight-hour day—often involving physical labor—before coming to class. Why should a college class make a person even more burdened and tired? In the world of open admissions (compared to Columbia and Barnard), pleasure is generally thought to be unrelated to classroom experience. One way I try to address this problem is to encourage students to become interested in new and unusual things, such as the discontinuity editing at the beginning of City of God. Energy can be created from that interest. Exposure to unanticipated—even bizarre—ideas has the potential to move a student into a fun and exciting place, a place where truly original thinking can take place.

These moments I’ve described are rare and unpredictable, but when they arrive—what a great class it can be. (And I feel happy on my end.)

* * *

Community colleges these days are gaining popularity with the rising expense of private colleges and universities. But community colleges are still outsiders to the Ivy League and most four-year colleges. Maybe someday we won’t seem so alien. Ironically, one of the strongest imperatives of my graduate study at GSAS was to pay attention to suppressed voices, repressed populations, and underrepresented viewpoints. Community colleges are a repressed population in the world of higher education. It’s surprising that more GSAS graduates wouldn’t be interested in exploring this world of the Other!

As I was writing this short piece, I received an email announcement for the 2014 annual meeting of the Eastern Sociological Society: “Invisible Work: Exploring the Invisibility of Teaching, Learning and Researching at the Community College.” The précis reads as follows: “Community colleges—their students, faculty, and role in higher education and American society—remain largely invisible, despite growing national attention and swelling numbers. In academia, we continue to talk about ‘traditional students’ and ‘college’ as if most students are between the ages of 18 and 21 and attending residential four-year institutions. They aren’t. . . . What are the consequences of this invisibility for those at community colleges and for higher education itself?”

Apparently I’m not the only one thinking about such issues.
Applied Humanities: Ramona Bajema, Ph.D.
The call first came at four a.m. Ramona Bajema, then a doctoral student in modern Japanese history, was on spring break, finishing up her dissertation at her mother’s house in picturesque Ojai, California. Her best friend, Ella Gudwin, vice president of emergency response for the aid organization AmeriCares, was trying desperately to reach her.

“The first couple of calls, I thought, She probably just thinks I’m in New York, and doesn’t know the time difference,” Bajema recalls. “I picked up the phone and she said, ‘Do you know what’s going on?’ I said, ‘No, are you okay?’ I was laughing, thinking, Ella, I’m in California, it’s five in the morning. She said, ‘Okay, I need you to sit down for a second and turn on your computer.’”
What Bajema saw when she opened her computer were images of devastation that shocked and horrified the entire world. On that morning, March 11, 2011, a 9.0-magnitude earthquake struck just off the coast of the Tohoku region of Japan. It was the fifth-largest earthquake ever recorded, and it was followed by a tsunami with record-breaking, 133-foot high waves. Entire villages were swept into the sea. The final death toll would reach upwards of fifteen thousand people. The tsunami also precipitated a partial meltdown of the Fukushima Daiichi nuclear reactor. Thousands were evacuated from areas near the plant, and two years later authorities still struggle to keep tons of radioactive wastewater from contaminating the local water supply.

In the aftermath of the earthquake, many in the Columbia community helped. But Bajema went one step further. Temporarily setting aside her academic career, she signed on as a program director for AmeriCares’s relief efforts in Japan.

“The difference with Ramona,” her adviser, Carol Gluck, George Sansom Professor of History and Professor of East Asian Language and Cultures, notes with admiration, “was that Ramona went—and she stayed.”

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Ramona Bajema has always been an outlier. She grew up around artists, intellectuals, and academics: her mother is an artist and art dealer, and her father is an actor and writer. Raised outside the mainstream of American culture, Bajema was drawn to Japan from an early age. Her mother introduced her as a young child to Japanese art, cinema, and cuisine, and Bajema, who has no familial ties to the country, was intrigued by what appeared to her to be a drastically different world.

The early infatuation eventually blossomed into a lifelong interest, fueled in part by her politics: as a high school student in San Francisco, she protested against the Gulf War. The young Bajema saw Japan as a counterbalance to American power. “This was during the time of ‘The Japan That Can Say No,’ this alternative capitalism, state capitalism. It looked like Japan could rival
She quit in a hurry, literally that finance wasn’t for her. But Bajema soon found finance. To a lucrative career in before graduation; she interned the summer Brothers, where she had a position with Lehman SAIS, Bajema accepted After graduating from Johns Hopkins University. International Studies at Nitze School of Advanced degree at the Paul H. then completed a master's prefecture of Fukui. She taught English in Japanese schools. assistant language teachers English speakers as initiative to place native in her future disaster relief only in graduate school, but to be valuable assets, not openness and independence Bajema found her decision to take Bajema committed,” Gluck says of work—a vocation she never anticipated. “Ramona would always take on very difficult things,” Gluck says. “She wouldn’t just work in her comfort zone.” ** When Bajema saw the images coming out of Tōhoku, she was immediately reminded of her time in Fukui. Tōhoku and Fukui are both largely rural places, made up of fishing and farming villages, and both are home to many nuclear power plants. “It just looked like it had happened to Fukui,” Bajema says, “and I saw these flashes of the faces of my kids and the teachers that I worked with.” Bajema found she could process the shock by helping. She connected Gudwin with her contacts from SAIS and colleagues from Columbia who were in Tōhoku. She spent hours researching and emailing clinics and hospitals—unaware that many of the clinics she was trying to contact had been swept out into the sea. “I realized within twenty-four hours that, in this case, I could actually help, and that was an amazing feeling, to not just hear about something horrific passively,” Bajema says.

Bajema didn’t fly to Japan immediately. When spring break ended, she returned to New York as she had originally planned. She

America,” Bajema recalls. “I thought, Oh, great, I’m going to become this in-between force between Japan and America.”

Having witnessed the precarious life of the artists around her, Bajema was determined to be pragmatic. “I thought, I will go and make money and take care of all these people,” Bajema said. She did her undergraduate thesis at the University of California, Berkeley, not on the arts or culture of Japan, but on the history of Japanese financial markets.

After graduation, she participated in the Japanese Exchange and Teaching (JET) program, a Japanese government initiative to place native English speakers as assistant language teachers in Japanese schools. Bajema taught English for two years in the idyllic prefecture of Fukui. She then completed a master’s degree at the Paul H. Nitze School of Advanced International Studies at Johns Hopkins University. After graduating from SAIS, Bajema accepted a position with Lehman Brothers, where she had interned the summer before graduation; she seemed to be on the way to a lucrative career in finance.

But Bajema soon found that finance wasn’t for her. She quit in a hurry, literally fleeing Lehman’s Tokyo offices in the middle of the night. “It was not me, it was not my values, it was not a good fit,” Bajema says. “I came back to the United States just going, ‘Oh my God, my ten-year plan, what am I going to do?’”

Unsure of what to do next, Bajema came to history out of frustration. A friend who worked at the BBC repeatedly picked her brain about Japanese history for news segments, and Bajema obliged—but always without receiving attribution in the resulting programs. “I was in the shower, getting so frustrated that once again I was getting called upon and not getting any credit for it, and then I realized, Oh, if I had a Ph.D. then they’d have to cite me,” Bajema says. “I got out of the shower and said, ‘Now’s the time to do it, I have to go back.’”

Bajema’s background made her an attractive candidate for the Graduate School of Arts and Sciences. “She knew contemporary Japan as well as the history and culture of Japan, she had very good language skills, and she was dedicated and committed,” Gluck says of the decision to take Bajema on as a student.

Bajema would find her openness and independence to be valuable assets, not only in graduate school, but in her future disaster relief work—a vocation she never anticipated.

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Though Bajema was passionate about her topic, the tragedy in Tōhoku preoccupied her. Reminders were everywhere. That semester, she served as a teaching assistant with Carol Gluck in a course on the history and memory of World War II. One day during lecture, Gluck put up a photo of Hiroshima next to a photo of Rikuzentakata, a village obliterated by the tsunami. “She talked about the visual impact it must have on so many elderly people who were born into World War II and are leaving with the tsunami,” Bajema recalls, “and I realized that this was going to be a huge historical moment for Japan, and that I wanted to stay attached to this.”
Bajema was not the only Columbian who felt compelled to assist in the relief effort. Columbia has a large population of Japanese students, as well as many students and faculty with a direct connection to Japan. There were fundraisers and initiatives—bake sales, armbands for sale, photography auctions—at almost every school at the University raising money for the Japan Society, the Red Cross, and other relief organizations. These individual initiatives coalesced into an umbrella organization, the Consortium for Japan Relief, which organizes symposia on topics related to the disaster, such as mental health issues and the lingering effect of radiation.

“Many of us from Japan living in New York City were struggling because we had mixed feelings. Relief that we avoided the crisis, but at the same time guilt for not being able to do anything and a desire to do something for the mother country,” recalls Daiyu Suzuki, president of the consortium and a student at Teachers College. “The fact that so many things happened immediately toward Japan relief was a manifestation of those feelings.”

Bajema felt that guilt and obligation particularly strongly. She began to feel that she had to go herself, stay, and work full time for the relief effort. And Bajema does not compromise on what she feels is right. “I told myself after Lehman that I was never going to do what I thought I should do ever again,” she says, “I was only going to do what I believed in.”

Aside from a sense of a personal mission, sheer coincidence helped to draw Bajema into working for the relief effort. Her friend Ella Gudwin’s organization AmeriCares was looking for a director for their Japan efforts. “Ella was saying, ‘Oh God, I don’t know what I’m going to do, I need a program manager on the ground to spend the money right,’” Bajema recalls. “So I said, ‘Would you consider me?’”

Gudwin accepted the offer, and Bajema passed through the gauntlet, meeting with decision makers in every department and at every level of the AmeriCares organization. She emerged the overwhelming favorite to head up the Japan program. “People identified two key elements,” Gudwin says of the decision to hire Bajema, “One, she’s very ‘spongy’: she’s smart, and she’s going to absorb new information and come to a point of decision on that information very quickly. Two, she’s a natural communicator, she’s a storyteller, and I think that’s rooted in her appreciation for history.”

Formally hired in April 2011, Bajema began commuting three or four days a week to Stamford to train at the AmeriCares headquarters. Her fellow students and professors were very supportive. Chief among Bajema’s supporters: her adviser, Carol Gluck.

“Carol said, ‘Oh, perfect, we’ll see this as a social-service postdoc,’” Bajema recalls.

When Bajema arrived in Tōhoku in June 2011, she was primarily worried about finding dentures.

AmeriCares specializes in providing immediate medical care in the wake of disasters. Robert Macauley, the founder of the organization, started his aid efforts by personally chartering a commercial jet to rescue 243 stranded Vietnamese orphans. A relatively small organization in the field of disaster aid, particularly when compared with giants like the Red Cross, AmeriCares seeks to fill gaps left by the larger organizations.

In Tōhoku the gap was dental care. The population in rural Tōhoku is overwhelmingly elderly, and the tsunami had literally swept away their dentures. Children trapped in temporary shelters and subsisting on crackers and sugary snacks developed cavities. At the same time, the tsunami and earthquake had destroyed many nearby dental clinics. In response to this crisis, AmeriCares set up three prefabricated, mobile dental clinics to allow local dentists to attend to their patients. “You don’t know these things until you come here,” Bajema says. “How could you know about this problem from New York? Nobody writes about it!”

Bajema had a lot to learn about the nonprofit world. AmeriCares paired her with an experienced humanitarian aid worker, and Gudwin grilled her on stack after stack of grant proposals in a custom-made crash course in NGO management. The learning curve was sometimes daunting, but Bajema discovered that her academic background was helpful for the learning process. “A lot of it was being really honest about what I didn’t know. What my academic background gave me most of all was the ability to say ‘I don’t know, you have to teach me,’” she says.

But Bajema also found she had a lot to offer AmeriCares. For one, she knew the history. Tōhoku is renowned in Japan for its physical beauty. The poet Bash wrote a famous travelogue of his journey to the region, and the Matsushima islands, just off the coast of Tōhoku, are considered one of the...
most beautiful scenic views in all of Japan. But there has also been a dark side to that beauty. “Tōhoku has a hideous history of famine and has always been neglected by Tokyo,” Bajema says. “None of the issues raised during the tsunami are new.” The suicide rate for Tōhoku even before the disaster was the highest of any region in Japan.

Knowing the history of the region, Bajema was determined to stay in Tōhoku, in the city of Sendai. That way, she could prove that she was not just another person to arrive, make promises, and depart before those promises were fulfilled. And she also knew, based on her knowledge of Japanese culture and the specific history of the region, that the next great medical need would be psychological care.

The challenge was addressing those needs in a way that would reach the Japanese. Despite having the highest suicide rate in the developed world, cultural norms and government policy have discouraged mental health treatment approaches built around talk therapy in favor of approaches that emphasize pharmaceutical treatments and institutionalization. Japan has only one psychiatrist for every ten thousand people, roughly half the ratio of the United States, and many Japanese clinics don’t employ any clinical counselors. “Japan has more psychiatric beds per capita than any country in the world,” notes Gudwin, “but it does not have a tradition of counseling or talk therapy or anything like that.”

But Bajema was trained to look beyond cultural stereotypes and would simply not tolerate any
mention of Japanese stoicism. “Because of working with people like Carol Gluck and Harry Harootunian and Marilyn Ivy, cultural explanations are anathema to me,” Bajema says. “I approach it as, All human beings are going to have a similar response to disasters of this nature. People were saying, ‘The Japanese are not going to let you in.’ I said, ‘Oh yeah, they’re human. It’s emotional. They cry, too.’

To devise an innovative solution, Bajema did what any good graduate student would do—research. She came across articles on how horticultural therapy and gardening programs have aided in the rehabilitation of violent criminals and veterans suffering from PTSD. Intrigued, she searched for more information on gardening programs and came across a study conducted after an earthquake in Niigata, Japan. Researchers had built a garden in a temporary community of elderly evacuees. The residents of the community with a garden, when compared with a control group, had lower blood pressure, lower rates of dementia, and less severe arthritis. “So I thought, This is phenomenal,” Bajema says, “because if it could help on a psychological well-being and emotional level, and also on a physical level for the elderly, this could be a real answer.”

Her solution was culturally specific. The residents of rural Tōhoku had always gardened, and Bajema and her partners planned the gardens in a way that would help the residents of Tōhoku maintain their ties to the land where they had lived for generations. Many of the gardens were even built on the foundations of homes that had been swept away by the tsunami.

Bajema’s co-workers at AmeriCares were supportive, but skeptical. They specialized in disbursing funds to distribute medicine and build clinics. They had never built gardens. They applied close scrutiny to the project, in an attempt to make sure that Bajema accounted for every contingency and the project succeeded. “My boss and immediate team never said no, but I was getting a lot of push-back from them,” Bajema recalls. “Then I had a meeting in December of 2011 with the CEO, with a menu of all the things that I wanted to do. He immediately looked at the garden on the list and went, ‘That makes sense.’”

There was no road map for building these gardens, nor would her supervisors be able to tell her what needed to be done. It was not a nine-to-five job. But as a graduate student Bajema had faced those conditions before: it was not unlike the beginning of dissertation research.

Undaunted, Bajema got to work. Partnering with a local organization, Peace Boat, Bajema disbursed more than one hundred thousand dollars to build over a hundred community gardens. Displaced tsunami survivors who had spent months cooped up in cramped, temporary shelters emerged to work the land. Elderly survivors who had been sullen and withdrawn opened up to explain the finer points of growing daikon radishes.

Displaced tsunami survivors who had spent months cooped up in cramped, temporary shelters emerged to work the land. Elderly survivors who had been sullen and withdrawn opened up to explain the finer points of growing daikon radishes.

But one data point in particular demonstrates the remarkable success of the gardening program.

“Ramona,” Gudwin asserts, “has been the recipient of more hugs than anyone else in the entire organization.”

* * *

This year marked the second anniversary of the
Tōhoku earthquake, and Bajema and AmeriCares still have much to do. Bajema is overseeing the reconstruction of group homes and not-for-profit workshops for the disabled. She is managing what AmeriCares calls “community-directed initiatives.” These are tiny grants for grassroots organizations, supporting cultural activities vital to community well-being, such as traditional summer festivals and storage sheds for *taiko* drums.

And a final frontier for Tōhoku relief beckons: the areas of Fukushima prefecture affected by the Fukushima Daiichi nuclear crisis. Bajema had always wanted to do a garden project in Fukushima, where obesity rates for residents afraid to leave their homes are on the rise, but was stymied by the radiation in the soil. This year, she finally plans to expand the program to Fukushima, bringing in soil from outside and placing it in raised beds. “Usually, people hear about these programs through word of mouth. But we’ve already had eleven people sign up just by doing a mailer, which is really amazing,” Bajema notes.

At the same time, Bajema never lost sight of her academic goals. Working nights in Sendai, at the height of the earthquake recovery efforts, she finished her dissertation on time, flying to New York to defend it in December 2011. “She didn’t put it off! God bless her, she finished and she defended, and then she took the manuscript back and completed the deposit copy with all the footnotes and deposited and received her degree,” Gluck says. “That’s Ramona!”

Bajema hopes eventually to be able to write a history of the earthquake, the tsunami, and the recovery efforts, but believes that she will need time and distance. “Once she leaves Tōhoku, I think she will have a story to tell,” Gluck says. “The story she will tell will not be a story that begins on 3/11. As a historian, she’ll have a longer background to the story and a wider angle of vision on the present response.”

For now, Bajema must cultivate her gardens, which means delaying her return to academia. She wants to insure the projects she started will survive when she leaves. She also wants to write a report on her gardening programs, to help organizations replicate these efforts in other disaster-affected areas.

But she does not regret this academic detour at all. “Based on the results I’ve seen here, I’ve never been as proud of anything I’ve done in my life,” Bajema says.

And, she asserts, it is a detour that any Columbia student is capable of taking. “The NPO [nonprofit organization] field needs people who have analytical skills to be able to question how successful X, Y, or Z is. The work demands tremendous physical and emotional fortitude, and I think that analytical thinkers, people who are doing the humanities have that,” Bajema says. “You can work for an NPO. We have something to offer.”
Astrobiology: MODERN SCIENCE TARGETS AN ANCIENT QUESTION

By Andrew Ng

Iconic image of Earth rising over the moon, taken in 1968
If you asked someone ten years ago what “astrobiology” is, you may have gotten a blank stare in return. As a scientific pursuit, astrobiology is relatively new. But the underlying disciplines—astronomy, physics, chemistry, biology, geology—have been around for ages, and the underlying question—“Are we alone?”—is an ancient one.

Simply put, astrobiology is the study of life in the universe. This study includes life on Earth, but with our knowledge of Earth’s processes as simply one data set of hopefully many to come.

“For a long time, astrobiology was seen as science without data,” says Caleb Scharf, director of the Columbia Astrobiology Center. “But then the game changed, and suddenly we were in a position to study it.”

The turning point that Scharf refers to was the surge in the detection of “exoplanets”—planets that orbit other stars—over the past decade or so. The first confirmed discovery of a planet around a sunlike star happened in 1995, and the rate of discovery has been almost exponential ever since. Today nearly a thousand confirmed exoplanets and a few thousand more candidates have been detected, thanks to both ground-based and space-based telescopes. Astronomers use several techniques to infer the presence of exoplanets, but the most common involve looking for tiny changes in a star’s velocity due to the gravitational influence of planets and looking for the dimming of a star’s light as a planet crosses in front of it.

While these exoplanet discoveries were surging, a more gradual realization had been building in the field of microbiology. Scientists were discovering bacteria living in places on Earth that were once thought inhospitable—from hot springs and deep-sea vents to deep within the crust and even up in the clouds. If life on Earth could thrive in these extreme locales, then the prospect of life on other worlds was becoming more and more enticing.

So in 2005 the time was ripe for Scharf, who had spent the previous five years at Columbia as a research scientist studying galaxy clusters and testing cosmological models, to contact fellow scientists at Columbia and two other institutions on Manhattan’s Upper West Side—the NASA Goddard Institute for Space Studies (GISS) and the American Museum of Natural History (AMNH)—to gauge their feelings on astrobiology.

“Our initial workshops were like confessional,” Scharf says, “where people from different disciplines would raise their hands and admit, ‘Yes, I’m interested in astrobiology.’ We quickly realized that many of us were already doing research that could be broadened into addressing the question of life in the universe.”

From these workshops and meetings, the Columbia Astrobiology Center was born—not a physical center per se, but a virtual collective of scientists with a common interest in the topic. The center includes scientists from the Departments of Astronomy, Physics, and Psychology, Columbia’s Astrophysics Laboratory, the Lamont-Doherty Earth Observatory, the Earth Institute, and Barnard College. Scientists from GISS and AMNH are also part of the collective. As the list of departments and organizations indicates, astrobiology is not one singular discipline but an inherently interdisciplinary pursuit with many lines of inquiry.

Daniel Wolf Savin, senior research scientist in the Astrophysics Laboratory, represents one of the biggest successes of a member of the center. Savin has built an experimental apparatus at Columbia’s Nevis Laboratories in Irvington, New York, to investigate how carbon combines with hydrogen under the conditions that one would find in interstellar space. Organic molecules like these seed the universe with the ingredients for life, and thus are of great interest to astrobiologists. While similar experiments have faced technical challenges in the past, Savin’s team is using their unique instrument to better control the temperatures and energies of the chemical reactions and circumvent these past limits.

Another project on the horizon involves “Model E,” which is a state-of-the-art climate model for the
Earth developed by GISS scientists. Scharf and GISS colleagues are hoping to kick-start a five-year project to make Model E applicable to any planet or moon. With millions of lines of computer code and parameters that are currently fine-tuned for Earth, generalizing the model is not a trivial endeavor. But armed with such a model, which would first be calibrated by studying the environmental history of familiar worlds such as Mars, Venus, and Titan, scientists would be able to characterize the climate systems of exoplanets and determine their suitability for life.

The allure of astrobiology is pulling in the next generation of scientists as well. Aaron Veicht, M.A. '10, M.Phil. '11, Physics, started his doctoral program at Columbia with a research focus on nuclear physics and no astronomy background whatsoever. But he eventually switched to exoplanetary research after a series of events led him to discover his true scientific passion.

Around 2009 Veicht began tinkering with graphics processing units, or GPUs, purely as a hobby. GPUs were invented to handle complex computer visuals, like those found in video games and other graphics-heavy programs. However, with their ability to process massive amounts of data in parallel, GPUs have found an alter ego as inexpensive supercomputers, with applications ranging from quantum mechanics to molecular modeling.

For his own enjoyment, Veicht created a program that modeled physical systems forward in time, given a set of initial parameters. To test the program, he decided to input something he thought had a known answer—how the orbits of planets around stars evolve over millions of years. He contacted Caleb Scharf, who promptly informed him that the problem was, in fact, still at the core of modern planetary science.

A year later, Veicht continued stoking his burgeoning interest in astronomy by taking a seminar on exoplanets at Columbia. The seminar revealed to him just how fertile the field was for new scientific discoveries. “It blew my mind,” says Veicht. “This was a field in which I thought I could make a large impact. So I switched my research focus to exoplanets. My advisers at Columbia were very supportive of my proposal to change projects and follow my passion, and they ensured a smooth transition.”

With Scharf’s encouragement, Veicht joined the lab of Ben...
Oppenheimer, an astrophysicist at AMNH and another member of the Astrobiology Center. Veicht currently works on two projects in Oppenheimer’s lab.

The first is direct imaging of exoplanets—an extremely difficult endeavor, given how much brighter and larger a star is compared to its planets. Several times a year, Oppenheimer’s team travels to the Palomar Observatory near San Diego, California, where the Hale Telescope resides. To conduct their observations, the team points the telescope at a given star and employs a high-tech suite of instrumentation and software to block out its light, allowing them to find planets normally overwhelmed by the light of the star. Incredibly, their technique has allowed them to find planets that are up to one million times fainter than the star itself. Once they have isolated the faint light coming off the planets, they can deduce the abundance or absence of chemicals in the planets’ atmospheres by examining their light spectra—the unique and telltale “fingerprints” created by different chemicals. Earlier this year Oppenheimer’s team published a paper in The Astrophysical Journal detailing this “reconnaissance” method on HR 8799, a star about 128 light-years away with four gas giant planets orbiting it. Although these planets are probably inhospitable (they average 1,340 degrees Fahrenheit with ammonia or methane atmospheres), the same techniques can hopefully be applied to more Earthlike planets in the future.

In addition to this cutting-edge research, Veicht continues working on the project that brought him to astronomy in the first place: the modeling of planetary orbits. Observations of an exoplanetary system do not give precise values for attributes like mass, location, and orbits of the planets. Rather, the best one can do is to infer a range of possible values. A computational model can help winnow down these possible values by running simulations on them—those that result in stable orbits over the next 10 to 100 million years are considered more “true,” whereas those that result in chaos (i.e., planets falling into the star, crashing into one another, or getting flung out of the system) are discarded.

Running these simulations requires substantial computing power. The number of simulations for each planetary system could be anywhere from 100,000 to 1,000,000, with more than a thousand possible systems to model. The use of GPUs helps considerably, but Veicht and his advisers are also hoping to recruit the public’s help by starting a citizen science project that will allow people to lend their computers to run these simulations over the Internet.

“Today’s graduate students, like Aaron Veicht, comprise the generation that will see the greatest leaps in astrobiology,” says Scharf. “If you want to be a scientist, astrobiology is an excellent option—there are so many interesting things happening in this field, right now and in the foreseeable future.”

In addition to promoting astrobiology within academic circles, Scharf is spreading the word among the general public. He has written articles and op-eds for The New Yorker, Wired, and Nautilus magazines, as well as The New York Times. He maintains a blog on Scientific American’s website called Life, Unbounded, which covers a wide range of space-related topics and drew an audience of more than 350,000 last year. And in 2014 he will publish an astrobiology-themed popular science book called The Copernicus Complex.

“Copernicus’ heliocentric model removed us—humankind and the Earth—from the center of all things, and spurred the notion that we are not that special,” Scharf explains. “But new discoveries in astrobiology indicate that the story is not that simple. As we continue to learn the details of other planetary systems, it appears that our solar system is not typical. For example, most exoplanets’ orbits are more elliptical than those found in our solar system. Also, exoplanets ranging between Earth-sized and Neptune-sized are very common, but our solar system does not have any of those.”

These discoveries and more continue to fuel the interests of scientists in the Columbia Astrobiology Center. For Scharf, astrobiology sits right alongside evolution and the Big Bang as science topics with the potential for huge impacts on human culture. If scientists find an exoplanet tomorrow with strong and clear indications of life, the impact on society would be as exciting to imagine as the discovery itself.

“Before 1968, when the iconic photo of Earth rising over the moon was released, many people still didn’t have a genuine vision that we lived on a sphere,” says Scharf. “If just a picture of our planet can dramatically shift our thinking, how will evidence that we are not alone change our culture? It would be revolutionary.”
Alumni Profile

Steven G. Mandis
M.A. ’10, Museum Anthropology, M.Phil. ’13, Sociology

Interview by Andrew Ng

You spent twelve years at Goldman Sachs, left Goldman in 2004 to cofound a multi-billion dollar asset management firm, then served as senior adviser to McKinsey & Company and worked at Citigroup. After sixteen years on Wall Street, what motivated you to enroll in Columbia as a student in 2008?

What drew me back to academia was the desire to satisfy my intellectual curiosity, to ask questions, and think about how to answer them. This emphasis on education came from my parents, who are Greek immigrants. They would say, “People can take a lot of things away from you in life, but no one can take away your education.”

I started looking into classes at Columbia’s School of Continuing Education to figure out what I was interested in and to prove myself as a student, after being away for so many years. I ended up taking classes in anthropology and sociology.

What motivated you to enter a doctoral program at GSAS? At first I wasn’t sure whether to apply to the Business School or GSAS, but ultimately, I decided on GSAS because I already had a business background, and I thought GSAS would give me a broader perspective. When I told my friends I wanted to study sociology and anthropology, they said, “What?!” The teachers also wondered how seriously I would take classes. But in the end I finished with a 4.0 GPA!

How did you settle upon Goldman Sachs as the subject of your dissertation? I took a class in economic sociology and wrote a paper related to Wall Street. Afterward, my professor, David Stark, pointed out that many sociologists don’t have my level of expertise in the banking industry, and that I could make an original contribution to the field in that area. At the same time, because of the financial crisis, people were starting to raise questions about Wall Street and Goldman Sachs’ culture. When I saw other Goldman alumni, we’d talk about whether the culture had changed. Everyone had an opinion, but I realized no one had a framework or had researched it in an academic way.

Your dissertation examines the “organizational drift” of Goldman Sachs—its movement away from its founding principles over time. Can you summarize your application of sociological theory to explain this evolution?

I drew from the framework of Diane Vaughan, a sociology professor at Columbia who studied the Challenger space shuttle disaster. The official investigation into Challenger concluded that parts of the rocket called “O-rings” were the problem—they were off by a tiny fraction, and that’s why the shuttle blew up. However, Vaughan went back and asked, “Why were the O-rings off in the first place?” She concluded that a variety of pressures had caused the scientists to take incremental risks, and that these risks had added up to an organizational failure.

Similarly, in my dissertation, I look at the various organizational, competitive, and regulatory pressures at Goldman Sachs over time to explain its evolution, adding an emphasis of technological pressure to the framework that Vaughan established. And I use the idea of “organizational drift” to describe the company’s incremental departure from its founding principles. People don’t notice organizational drift, because it happens so slowly that they can’t see it.
Vaughan discussed a similar idea in her work.

In October, you published a book called *What Happened to Goldman Sachs: An Insider’s Story of Organizational Drift and Its Unintentional Consequences*. How did your dissertation turn into this book?

At some point, I came in contact with a literary agent, Susan Rabiner, who specializes in academic topics that have the potential to cross over to mass audiences. I met with her about my dissertation, and she said, “This is not a book about Goldman Sachs. It’s a book about organizations, and it would appeal to leaders of organizations. The best publisher to approach would be the Harvard Business Review Press.” By that time I had 600 pages worth of text and notes, and hundreds of pages of footnotes and appendices.

My editor at the Harvard Business Review Press, Tim Sullivan, totally understood the message and approach. He helped me focus and turn it into a story that both leaders of organizations and academics could enjoy. It was very hard to write a book that satisfied both.

This interview has been condensed and edited; read the full interview on the GSAS website.
Lessons in Secular Criticism
Stathis Gourgouris, Classics
Essays by Stathis Gourgouris present a new theory of radical democracy and examine the success of efforts to separate politics from religion.

Early China: A Social and Cultural History
Li Feng, East Asian Languages and Cultures
Li Feng draws on recent scholarship and archaeological discoveries to provide an overview of early Chinese civilization, from the beginning of human history in China to 220 C.E.

Mass Flourishing: How Grassroots Innovation Created Jobs, Challenge, and Change
Edmund Phelps, Economics
Nobel laureate Edmund Phelps argues that the rise in prosperity in many nations between the 1820s and 1960s was fueled by widespread innovation, which is now under threat.

Harlem Nocturne: Women Artists and Progressive Politics During World War II
Farah Griffin, English and Comparative Literature
Farah Griffin gives a rich account of three black female artists and the strides they made for social justice during World War II, laying the groundwork for the civil rights movement.

Ghostly Apparitions: German Idealism, the Gothic Novel, and Optical Media
Stefan Andriopoulos, Germanic Languages
Drawing together literature, media, and philosophy, Stefan Andriopoulos traces connections between Kant and phantasmagoria, the Gothic novel and print culture, and spiritualist research and the invention of television.
Charles K. Armstrong, History

Charles K. Armstrong explores the motivations, processes, and effects of North Korea’s foreign relations during the Cold War era.

The Earthquake Observers: Disaster Science from Lisbon to Richter
Deborah R. Coen, History

Deborah R. Coen explores how the seismic accounts of Darwin, Twain, Dickens, and other citizen-observers comprise a natural experiment at the nexus of the physical and human sciences.

Lead Wars: The Politics of Science and the Fate of America’s Children
David Rosner, History and Sociomedical Sciences

With coauthor Gerald Markowitz, David Rosner chronicles the contentious political and ethical issues surrounding lead poisoning in the twentieth century and the efforts to protect American children.

Hard Feelings: The Moral Psychology of Contempt
Macalester Bell, Philosophy

Macalester Bell offers a far-ranging account of the nature of contempt and its use and abuse.

The Metaphysics and Ethics of Relativism
Carol Rovane, Philosophy

Carol Rovane explicates a notion of relativism that has a consistent logical, metaphysical, and practical significance, and how relativism influences the moral choices we make.

Focus: Use Different Ways of Seeing the World for Success and Influence
Edward Tory Higgins, Psychology

With coauthor Heidi Grant Halvorson, E. Tory Higgins delves into two different types of motivation that drive human behavior: promotion-focused and prevention-focused.
Maxine L. Margolis offers a global perspective on the relatively recent phenomenon of Brazilian emigration, asking who the émigrés are, why they left home, how they traveled, and how their native and host countries responded.

Stephen Massimilla’s new poetry collection treats “the loss, beauty, and suffering that define our common humanity.”

Craig Steven Wilder lays bare uncomfortable truths about race, slavery, and the American academy, revealing how the slave economy and higher education grew up together.

Isabel M. Estrada examines how mass media, specifically film and television documentaries, played a role in the “recovery of memory” process of the Spanish Civil War and the ensuing Franco dictatorship.

Matthew Sakakeeny’s book, based on his dissertation, follows the lives of brass band musicians in New Orleans before and after Hurricane Katrina.
If A, Then B: How the World Discovered Logic
Michael Shenefelt, Ph.D. ’90, Philosophy

With coauthor Heidi White, Michael Shenefelt examines the initial formulation of logical principles 2,300 years ago and subsequent discoveries, all situated within their social and historical contexts.

High-$p_T$ Physics in the Heavy Ion Era
Michael J. Tannenbaum, M.A. ’60, Ph.D. ’65, Physics

With coauthor Jan Rak, Michael J. Tannenbaum gives an experiment-oriented overview of large transverse momentum particle physics.

Srebrenica in the Aftermath of Genocide
Lara J. Nettelfield, M.A. ’99, M.Phil. ’01, Ph.D. ’06, Political Science

Drawing on more than a decade of fieldwork, Lara J. Nettelfield and coauthor Sarah Wagner trace the impact of the fall of the United Nations “safe area” of Srebrenica during the Bosnian war.

The Good Man: The Civil War’s “Christian General” and His Fight for Racial Equality
Gordon L. Weil, Ph.D. ’61, Public Law and Government

Gordon L. Weil examines the life of General Oliver Otis Howard, a Union officer during the Civil War, commissioner of the Freedmen’s Bureau during Reconstruction, and one of the founders of Howard University (which bears his name).

The Notorious Elizabeth Tuttle: Marriage, Murder, and Madness in the Family of Jonathan Edwards
Ava Chamberlain, M.A. ’80, M.Phil. ’85, Ph.D. ’90, Religion

Ava Chamberlain unearths the tragic story of Elizabeth Tuttle, the “crazy grandmother” of the eighteenth-century American theologian Jonathan Edwards.
Dissertations Deposited Recently

Anthropology
Krista M. Hegburg. Aftermath: Accounting for the Holocaust in the Czech Republic. Sponsor: Rosalind C. Morris.

APAM: Applied Mathematics

APAM: Applied Physics
Sriharsha Veerabhadraiah Aradhya. Interplay between mechanics, electronics, and energetics in atomic-scale junctions. Sponsor: Latha Venkataraman.
Matthew Stiles Davis. Pressure profiles of plasmas confined in the field of a dipole magnet. Sponsor: Michael E. Mauel.

APAM: Materials Science and Engineering

Architecture

Art History and Archaeology
Kim Benzel. Pu-ab’s adornment for the afterlife: Materials and technologies of jewelry at Ur in Mesopotamia. Sponsor: Zainab Bahrani.

Biological Sciences
Jing-Ping Hsin. The functions of the RNA polymerase II CTD in transcription and RNA processing. Sponsor: James L. Manley.
Justine Virginia Kupferman. Targeting ion channels to distal dendrites. Sponsor: Steven A. Siegelbaum.
Thera Cathy Lewis. Serum regulation of inhibitor of DNA binding/differentiation 1 expression by a BMP pathway and BMP responsive element. Sponsor: Ron Prywes.
Ambar Asghar Salam. HDAC6 activity is required for efficient...
polarization and intracellular transport of organelles in directionally migrating cells. Sponsor: J. Chloé Bulinski.

Andrew J. Washkowitz. The role of Mga in the survival of pluripotent cells during peri-implantation development. Sponsor: Virginia E. Papaioannou.


Biomedical Engineering

Keenan Tali Bashour. Spatial dynamics and the mechanoresponsiveness in CD4+T cell activation. Sponsor: Lance C. Kam.


Biomedical Informatics


Biostatistics


Business


Meng Li. Changes in the profitability-growth relation and the implications for the accrual anomaly. Sponsor: Doron Nissim.


Yina Lu. Data-driven system design in service operations. Sponsor: Marcelo Olivares.


Cellular, Molecular, and Biomedical Studies


Benjamin David Hopkins. PTEN-long, a translational variant of the tumor suppressor PTEN. Sponsor: Ramon E. Parsons.


Ya-Ting Lei. TRPM5 channels contribute to persistent neural activity and working memory. Sponsor: Steven A. Siegelbaum.


Chemical Engineering


Luis Andrés Escohar-Ferrand. Layer by layer, nanoparticle “only” surface modification of filtration membranes. Sponsor: Christopher James Durning.


Chemical Physics


Chemistry


Chaoan Jing. Trimethoprim-based chemical tags for high-resolution live cell imaging. Sponsor: Virginia Cornish.

Richard James Karpowicz Jr. I. Advanced fluorescent false neurotransmitters for the study of monoamine transporter activity and synaptic transmission. II. New small-molecule inducers of glial cell line-derived neurotrophic factor (GDNF) from C6 glioma cells. Sponsor: Dalibor Sames.


Civil Engineering and Engineering Mechanics

Mahesh Raju Bailakanavar. Space-time multiscale-multiphysics homogenization methods for heterogeneous materials. Sponsor: Jacob Fish.


Classical Studies


Computer Science


Michele Merler. Multimodal indexing of presentation videos. Sponsor: John R. Kender.


Earth and Environmental Engineering

John Edward Feighery. A combined field and laboratory investigation into the transport of fecal indicator microorganisms through a shallow drinking-water aquifer in Bangladesh. Sponsor: Kartik Chandran.


Amanda Elizabeth Simson. Developing an energy-efficient steam reforming process to produce hydrogen from sulfur-containing fuels. Sponsor: Marco J. Castaldi.

Thomas Adrian Socci. A computational model of networked small-scale fuel synthesis demonstrating greater production flexibility and specificity. Sponsor: Klaus S. Lackner.


Earth and Environmental Sciences


Carlos Daniel Ruiz Carrascal. Adaptation strategies to climate change in the tropics: Analysis of two multifactorial systems. Sponsor: Mark A. Cane.

East Asian Languages and Cultures


Gregory Magai Patterson. Elegies for empire: The poetics of memory


Minna Wu. On the periphery of a great “empire”: Secondary formation of states and their material basis in the Shandong peninsula during the late Bronze Age, ca. 1000–500 B.C.E. Sponsor: Feng Li.

Christina Song Me Yi. Fissured languages of empire: Gender, ethnicity, and literature in Japan and Korea, 1930s–1950s. Sponsors: Tomi Suzuki and Theodore Hughes.

**Ecology, Evolution, and Environmental Biology**


Victor Hugo Gutierrez-Velez. Oil palm expansion and land cover changes in the Peruvian Amazon: Implications for forest conservation and fire mitigation. Sponsor: Ruth DeFries.

Mary A. Heskel. Environmental controls of foliar respiration in Arctic tundra plants. Sponsor: Kevin L. Griffin.


**Economics**


Patrick Opoku Asuming. Three essays on the economics of health in developing countries. Sponsor: Cristian Pop-Eleches.


Alejo Eduardo Czerwonko Pupi. Essays in alternative financial services. Sponsor: Katherine Ho.


Youngwoo Koh. Essays on market design and auction theory. Sponsor: Yeon-Koo Che.


Minkee Song. Essays on large panel data analysis. Sponsor: Jushan Bai.

Sébastien Turban. Essays in political economy. Sponsor: Alessandra Casella.


**Electrical Engineering**


Alexandros Iliadis. Haplotype inference through sequential Monte Carlo. Sponsor: Dimitris Anastassiou.

Noam Ophir. Silicon photonics for all-optical processing and high-bandwidth-density interconnects. Sponsor: Keren Bergman.


Christos Vezyrtzis. Continuous-time and companding digital signal processors using adaptivity and asynchronous techniques.
Sponsors: Yannis P. Tsividis and Steven M. Nowick.

**English and Comparative Literature**

Jeffrey Michael Brown. To stage a reading: The actor in British modernism. Sponsor: W. B. Worthen.


Alicia Margaret DeSantis. The feeling of a line: Nineteenth-century American literature and the psychology of imagination. Sponsor: Nicholas Dames.

Anne Claire Diebel. The outward turn: Personality, blankness, and allure in American modernism. Sponsor: Ross Posnock.


Joan Virginia Melville. The theatre of anon: Julia Margaret Cameron, Virginia Woolf, and the performance of Alfred Tennyson’s *Idylls of the King*. Sponsor: Martin Meisel.


Meredith Becker Buxton. Bloodborne infections and duration of injection drug use among young, newly initiated injection drug users. Sponsor: David Vlahov.


**French and Romance Philology**


**Genetics and Development**

James Chi-ping Chen. Computational inferences of mutations driving mesenchymal differentiation in glioblastoma. Sponsor: Andrea Califano.

Daniel Concepcion. The roles of T and Tbx6 during gastrulation and determination of left/right asymmetry. Sponsor: Virginia E. Papaioannou.

Lisa Michelle Kennedy. Genetic analysis of novel regulators of neuronal migration in *Caenorhabditis elegans*: The insulin/IGF-1 signaling pathway, a chromatin-binding factor ZFP-1 (AF10), and endogenous RNAi. Sponsor: Alla Grishok.


**Germanic Languages**


**History**


Michael James Neuss. Balancing blood, balancing books: Medicine, commerce, and the royal court


Timothy Ming-Chih Yang. Market, medicine, and empire: Hoshi Pharmaceuticals in the interwar years. Sponsor: Carol Gluck.

IEOR: Industrial Engineering


IEOR: Operations Research


Arseniy Kukanov. Stochastic models of limit order markets. Sponsor: Rama Cont.


Zhiwei Qin. Optimization algorithms for structured machine learning and image processing problems. Sponsor: Donald Goldfarb.


Italian


Latin American and Iberian Cultures


Mathematics

Andre Rubens Franca Carneiro. A geometric construction of a Calabi quasimorphism on projective space. Sponsor: Dusa McDuff.


Andrew Lawrence Fanoe. Properties of Hamiltonian torus actions on closed symplectic manifolds. Sponsor: Dusa McDuff.


Mechanical Engineering


Microbiology, Immunology, and Infection


Middle Eastern, South Asian, and African Studies


Elizabeth Eva Johnston. Reading science in the early writings of Leopold Zunz and Rifa’a Rafi’ al-Tahtawi: On beginnings of the *Wissenschaft des Judentums* and the *Naḥda*. Sponsor: Gil Anidjar.


Music


Sean Russell Hallowell. The déploi- ration as musical idea. Sponsor: Giuseppe Gerbinno.


Music (D.M.A.)


Neurobiology and Behavior


Pia-Kelsey Tiu O’Neill. Long-range synchrony between medial prefrontal cortex, thalamus, and hippocampus underlies working memory behavior in mice. Sponsor: Joshua A. Gordon.

Christopher James Peck. Space and value in the primate amygdala and basal forebrain. Sponsor: C. Daniel Salzman.


Qing Wang. Neuronal diversification within the retina: Generation of crossed and uncrossed retinal ganglion cells. Sponsor: Carol A. Mason.


Nursing


Njoki Ng’ang’a. Manager and pro- vider perspectives of the work environment experienced by associate clinicians, nurses, and midwives who deliver emergency obstetric care in Tanzania. Sponsor: Mary Woods Byrne.


Nutritional and Metabolic Biology


Pathobiology and Molecular Medicine


Pharmacology and Molecular Signaling


Mi Wang. The role of GM-CSF/ IL-3/IL-5 receptor common ε subunit (CBS) in HSPC expansion, monocytosis, and atherosclerosis. Sponsor: Alan R. Tall.


Philosophy


Dehla Hannah. Performative experiments: Case studies in the philosophy of art, science, and technology. Sponsor: Lydia Goehr.

Harold Barnes Ingram Jr. The possibility of mutual benefit from exchange between the philosophy of language and second-language-acquisition research and pedagogy. Sponsor: Achille C. Varzi.

Chloe Layman. Descartes’s slight and metaphysical doubt. Sponsor: Patricia Kitcher.


Physics


Yujiao Chen. Charged particle multiplicity and open heavy flavor physics in relativistic heavy ion collisions at the Large Hadron Col- linder. Sponsor: Brian A. Cole.

Gary Chia Li Cheng. Precision search for muon antineutrino disappearance oscillations using a dual baseline technique. Sponsor: Michael H. Shaevitz.

Bin Choi. The light response of the XENON100 time projection chamber and the measurements of the optical parameters with the xenon scintillation light. Sponsor: Elena Aprile.

Hung The Dang. The study of transition metal oxides using dynamical mean field theory. Sponsor: Andrew J. Miller.

Solomon George Shamsuddin Osman Endlich. The effective field theory approach to fluid dynamics.


Hantao Yin. Precision lattice calculation of kaon decays with Möbius domain wall fermions. Sponsor: Robert D. Mawhinney.


Liuyan Zhao. Chemical vapor deposition grown pristine and chemically doped monolayer graphene. Sponsor: Abhay Pasupathy.

**Political Science**


Psychology

Religion
Michelle Janet Sorensen. Making the old new again and again: Legitimation and innovation in the Tibetan Buddhist Chad tradition. Sponsor: Robert Thurman.

Slavic Languages
Andrew Benjamin Hicks. Negotiating the scope of postwar Stalinist novels. Sponsor: Catharine Thiemer Nepomnyashchyy.
Steven Brett Shaklan. Doomed to irony, condemned to laughter: the structure and function of irony in the prose fiction of Nikolai Gogol. Sponsor: Cathy L. Popkin.

Social Work
Catherine Elizabeth Carlson. Three essays analyzing the impact of community and neighborhood factors on intimate partner violence against women in Uganda. Sponsor: Denise Burnette.

Sociomedical Sciences

Statistics
Bo Qian. Credit risk modeling and analysis using copula method and changepoint approach to survival context, peers, and the educational achievement of girls and boys. Sponsor: Thomas A. DiPrete.

Sociology
data. Sponsor: Zhiliang Ying.


Sustainable Development

Xiaojia Bao. Three papers on environment-related decision-making and development in China. Sponsor: Upmanu Lall.


Teachers College: Anthropology and Education


Amina Tawasil. The howzevi (seminarian) women in Iran: Constituting and reconstituting paths. Sponsor: Hervé Varenne.

Teachers College: Applied Anthropology


Sayaka Uchikawa. “Less is not enough”: The dilemma of alternative primary school opportunities in Dhaka, Bangladesh. Sponsor: Lambros Comitas.


Jessica Adele Neu. The effects of observation of learn units under reinforcement and correction conditions on the rate of learning math algorithms by fifth-grade students. Sponsor: R. Douglas Greer.

Derek Jacob Shanman. The relation between components of naming and conditioned seeing. Sponsor: R. Douglas Greer.


Teachers College: Behavioral Nutrition


Kathleen Joyce Porter. Bringing nutrition education programs from outside sources into the classroom: The experience of New York City public elementary schools. Sponsor: Isabel R. Contenko.


Teachers College: Clinical Psychology

Monica A. Brooker. The role of relatedness and expressive flexibility in the prediction of complicated grief. Sponsor: George A. Bonanno.


Monica Carmela Ghailian. Association between adversity and prosociality in children exposed to trauma in four sites in west Africa. Sponsor: Lisa J. Miller.

Dmitri Aaron Young. Predictors of obesity in adults: The roles of demographic factors, body dissatisfaction, depression, and life stress. Sponsor: Elizabeth Midlarsky.

Teachers College: Cognitive Studies in Education

James Grant Atkins. The effect of explicit teaching of comprehension strategies on reading comprehension in elementary school. Sponsor: Joanna P. Williams.


Na Li. Designing better scaffolding in teaching complex systems with graphical simulations. Sponsor: John B. Black.

Samuel Dov Mandelman. Exploring the Aurora Battery, a gifted identification tool, in a small sample of fourth-, fifth-, and sixth-graders. Sponsor: John B. Black.

Dana Lenore Pagar. The effects of a grouping by tens manipulative on children’s strategy use, base ten understanding, and mathematical knowledge. Sponsor: Herbert P. Ginsburg.

Satyugjii Singh Virk. Learning STEM through integrative visual representations. Sponsor: John B. Black.

Teachers College: Comparative and International Education

Karen Bryner. Piety projects: Islamic schools for Indonesia’s urban middle class. Sponsor: Lesley Bartlett.


Teachers College: Counseling Psychology

Lauren Marie Appio. Poor and working-class clients’ social-class-related experiences in therapy. Sponsor: Laura Smith.

Cristina Dorazio. The impact of ethnic identity on attitudes toward counseling for Italian-Americans. Sponsor: Laura Smith.

Rachel Haeyoung Kim. Differential impact of racial microaggressions on Asian Americans: Relationship to perpetrator and power status. Sponsor: Derald Wing Sue.

Kolone Ruth Leilani Scanlan. The relationship of cultural affiliation and cultural congruency to depression, anxiety, and psychological...
well-being among native Hawaiian college students. Sponsor: George V. Gushue.

**Teachers College: Economics and Education**

Kristen Marie Bucceri. Are early commitment programs the answer to gaps in college enrollment and outcomes by income? The case of Oklahoma’s Promise. Sponsor: Judith Scott-Clayton.


**Teachers College: Educational Leadership**

Thomas Eric Haferd. Do I want to work with you in the future? Does status moderate the process by outcome interaction in ongoing workplace relationships? Sponsor: Craig Richards.

**Teachers College: English Education**


**Teachers College: History and Education**

James Edward Alford Jr. For alma mater: Fighting for change at historically black colleges and universities. Sponsor: Cally Lyn Waite.

**Teachers College: Intellectual Disabilities and Autism**

Young Seh Bae. Word-problem solving of students with autistic spectrum disorders and students with typical development. Sponsor: Linda Hickson.


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Aimee Marie Layton. Ventilatory mechanics in endurance athletes. Sponsor: Carol Ewing Garber.

**Teachers College: Mathematics Education**


Sunhee Kim. Dealing with sparse rater scoring of constructed responses within a framework of a latent class signal detection model. Sponsor: Lawrence T. DeCarlo.


**Teachers College: Physical Disabilities**


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**Teachers College: School Psychology**


Leah Anne McGuire. A comparative analysis of the revised Children’s Manifest Anxiety Scale scores of traumatized youth with and without PTSD relative to nontraumatized controls. Sponsor: Philip A. Saigh.


**Teachers College: Science Education**


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**Teachers College: Sociology and Education**

Allison Kaye Roda. Where their children belong: Parents’ perceptions of the boundaries separating “gifted” and “nongifted” educational programs. Sponsor: Amy Stuart Wells.


**Teachers College: Teaching of Social Studies**


**Teachers College: Teaching of Social Studies**


**Theatre**


**Urban Planning**

KEVIN HOLT, M.A. ’11, African-American Studies, and a doctoral candidate in Music, was awarded a predoctoral fellowship from the Ford Foundation.

LEN MILLER, M.A. ’09, American Studies, has been appointed associate headmaster of The Hill School in Pottstown, Pa.

CHRISTINE MCHONE, ’11GS and an M.A. candidate in Anthropology, received a Jack Kent Cooke Foundation Graduate Scholarship.

KEVIN HOLT, M.A. ’11, African-American Studies, and a doctoral candidate in Music, was awarded a predoctoral fellowship from the Ford Foundation.

NANCY STULA, M.A. ’87, M.PHIL. ’89, PH.D. ’97, Art History and Archaeology, was appointed executive director of the William Benton Museum of Art at the University of Connecticut.

CHRISTINE DENNY, M.A. ’08, M.PHIL. ’09, PH.D. ’12, Biological Sciences, received a National Institutes of Health Director’s Early Independence Award.

LOUIS BRUS, PH.D. ’69, Chemistry, received the Welch Award in Chemistry from the Welch Foundation.

PAM EDDINGER, ’82BC, M.A. ’85, M.PHIL. ’87, PH.D. ’99, East Asian Languages and Cultures, was named president of Bunker Hill Community College in Massachusetts.

DAVID STRICKLER, M.A. ’77, Economics, was appointed by the Library of Congress to serve as a copyright royalty judge with a specialty in economics.

LUCY KAYLIN, M.A. ’85, English and Comparative Literature, was appointed editor-in-chief of the U.S. edition of O, The Oprah Magazine.
MARK ROTENBERG, ’79LAW, M.A. ’80, M.PHIL. ’81, History, joined Johns Hopkins University as vice president and general counsel.

EZRA TESSLER, M.A. ’09, M.PHIL. ’12, and a doctoral candidate in History, was awarded an Eisenhower-Roberts Fellowship from the Eisenhower Institute at Gettysburg College.

VELI YASHIN, ’08CC, M.A. ’10, M.PHIL. ’11, and a doctoral candidate in Middle Eastern, South Asian, and African Studies, won the Horst Frenz Prize for best presentation by a graduate student at the annual meeting of the American Comparative Literature Association.

ORIT HILEWICZ, M.A.’13 and a doctoral candidate in Music, received the Founders Prize for New Scholars from the International Society for the Study of Time.

DR. BHASWATI BHAT-TACHARYA, M.A. ’89, Pharmacology, received a Fulbright Scholar grant to lecture and conduct research at Banaras Hindu University in Varanasi, India.

CARL HABER, ’80CC, M.A. ’82, M.PHIL. ’83, PH.D. ’85, Physics, received a MacArthur Fellowship for his work on reconstructing audio recordings of historical and cultural significance.
JOSEPH DIESCHO, M.A. ’86, M.PHIL. ’87, PH.D. ’92, Political Science, was appointed executive director of the Namibia Institute for Public Administration and Management.

ALONDRA NELSON, associate professor of sociology, was the co-winner of the 2012 Distinguished Contribution to Scholarship Book Award from the American Sociological Association for Body and Soul: The Black Panther Party and the Fight Against Medical Discrimination.

Professors HERVÉ M. JACQUET and DUONG H. PHONG of the Department of Mathematics, as well as PROFESSOR BARBARA G. TVERSKY of Teachers College, were inducted into the American Academy of Arts and Sciences.

Four Columbia faculty were awarded Sloan Research Fellowships by the Alfred P. Sloan Foundation: MARK CHURCHLAND, assistant professor of neuroscience; WEI MIN, assistant professor of chemistry; SIMHA SETHUMADHAVAN, associate professor of computer science; and WEI ZHANG, assistant professor of mathematics.
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