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Unraveling the Paradox of India's Growth

A NEW SEASON FOR REVOLUTION

MAPPING THE BUILDING BLOCKS OF LIFE

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Making History in the Arts & Sciences
Even a cursory glance at the pages of this magazine will tell you that the integration of knowledge matters to the School of Arts and Sciences. From Benjamin Franklin—the first thinker to imagine a university that would teach both the liberal arts and the professions—to President Amy Gutmann—who has affirmed the University’s commitment to this principle in the Penn Compact—our leaders have believed that humanity’s most pressing problems cannot be solved by insular thinking. As a result, multidisciplinary research and teaching have long flourished at Penn, and in SAS we are always seeking new ways for faculty and students to cross disciplinary boundaries. However, while this imperative is well-recognized, the administration of research and teaching at Penn—as at most universities—can still be bound by its more conservative division into individual departments and schools. Although many of our scholars pursue connections across fields, departments that are still the primary engines of hiring and curricular planning may not promote structured scholarly exchange. This isolation may not only inhibit the progress of knowledge, but can also lead to waste caused by redundancies in course offerings and faculty expertise.

In response to fiscal constraints resulting from the global economic downturn, the School has focused on ways to use our human and financial resources more effectively and efficiently. This drive has converged with our commitment to furthering multidisciplinary research and teaching to inspire SAS to develop collaborative initiatives that will build the integration of knowledge into the School’s infrastructure.

For example, interdepartmental collaboration is now a touchstone of the curriculum planning process in SAS. Since last fall, our departments have all developed three-year plans that make sure that the most important courses will be taught by our standing faculty. Through this process, departments are encouraged to coordinate their course offerings with one another to avoid duplication or even competition. We also invite them to consider opportunities for team-teaching. Such cross-departmental collaboration ensures that the best possible education is consistently and predictably delivered by our faculty and that students are institutionally supported in their own efforts to bridge disciplines.

The School is also taking a new approach to recruiting by providing departments with the structure and incentives to jointly propose faculty searches for scholars who would teach in more than one discipline. Such hires better reflect how knowledge is created in the 21st century, and they allow for more efficient and cost-effective faculty appointments. We've already recruited one such professor via a search proposed by the departments of South Asia Studies and History and Sociology of Science: Assistant Professor Projit Mukharji studies science, technology and medicine in South Asia, with a focus on the intersection of Western medicine and indigenous healing traditions. In the natural sciences, the departments of mathematics and biology have been seeking scholars who work at the intersection of these disciplines—currently an exciting area for cutting-edge research in the life sciences. We are encouraging chairs of our natural science departments to work together to prioritize faculty hires that will advance not just their own fields but the natural sciences writ large.

Graduate education is another area where we are seeking to make some structural change. We already have well-established interdisciplinary graduate groups—such as demography and comparative literature—in which all doctoral students work with faculty in several departments. We are seeking funding for a special fellowship program for recruiting and placing students who self-identify as working in multiple disciplines. The program would help challenge a more narrow training model of graduate education and offer students the opportunity to apprentice with faculty members in a number of disciplines.

Penn has long been at the forefront of the integration of knowledge; many of our students and faculty have the will and expertise to stride confidently across disciplinary boundaries in order to address complex issues and ideas. But efforts at the individual level can only get us so far. With our innovative new efforts to remove institutional and administrative obstacles to collaborative work, we will lead the way in weaving integrated teaching and scholarship into the very fabric of higher education.
When Dau Jok, C’14, was only six years old, his father Dut Jok, a leader in the Sudan People’s Liberation Army, was killed by government forces. Like many youths caught in the cycle of violence in Sudan, he often considered avenging his father’s death—an attitude he brought with him when he moved to the United States at age 11. He credits his mentors, schooling, and time on the basketball court as his inspiration to change his way of thinking and ultimately to help peers in his homeland.

Jok was recently named Penn’s winner of the 2011 Kathryn Wasserman Davis 100 Projects for Peace Award. The annual competition invites undergraduates to develop grassroots projects that contribute to peace around the world, and winners receive $10,000 in funding. Jok’s initiative, the Dut Jok Youth Foundation, aims to provide young people in post-conflict South Sudan a structured environment that promotes education. In addition to providing role models, the foundation will also tackle such issues as HIV/AIDS prevention and violence against women.

Jok, a guard on Penn’s basketball team, envisions using sports to open the door to education and social responsibility for poverty-stricken Sudanese youths. Soccer was his first love, but after being teased on the basketball court, he spent long hours honing his skills. Eventually he was spotted by a Penn coach and recruited as a Quaker.

“Through sports, we teach things like teamwork, work ethic and all these things that make a child a better individual.”

—BC
Penn recently launched a new initiative for undergraduate students designed around the idea that no single discipline or perspective can be applied to complex problems. The Integrated Studies Program (ISP) is a residentially-based, year-long, intensive liberal arts program designed specifically for College freshmen who have been admitted as Benjamin Franklin Scholars.

College students accepted into BFS live together in Riepe College House and fulfill half their freshman-year credits in Integrated Studies courses—designed to bring together the humanities, social sciences and sciences in a coordinated set of explorations around the great ideas that continue to drive our understanding of the world and the human place in it.

This fall, for example, the inaugural class of ISP students is taking a course called “Identity, Inheritance, Change,” which will be team-taught by faculty in anthropology, classical studies, and natural sciences of the living world. In the spring, they will take a course called “The Order of Things,” which draws from political science, comparative literature, and natural sciences of the physical world.

“We have taken the obvious strengths of team teaching around a single topic and developed a model of coordinated teaching around the liberal arts as a whole,” says Peter Struck, Associate Professor of Classical Studies and Director of BFS. “As students work with the different disciplines’ approaches, they develop a more nimble facility with bringing multiple habits of mind to bear on complex, unwieldy problems as they advance in their studies and in their professions.”

And, by living together, ISP students are able to participate in activities such as in-house intellectual “jam sessions” led by Riepe House Faculty Master Dennis DeTurck, Dean of The College, Robert A. Fox Leadership Professor, and Professor of Mathematics. The residential experience, Struck explains, teaches students that “intellectual life is not something that gets parked at the door to the classroom,” and contributes to Penn’s broader mission of creating learning communities.

“This addition to BFS gives us a chance to speak more directly to the power of the liberal arts,” Struck says. “Our students in the School of Arts and Sciences have chosen a kind of education that sits at the center of our aspirations to innovate, create and advance understanding.”

—BC
In an effort to better serve the public sector and enrich students’ experience, the Fels Institute of Government has recently expanded its research and consulting group. Fels Research & Consulting brings together the resources of Penn and the Fels Institute of Government with the expertise of seasoned professionals and innovation of high-caliber graduate students to tackle public policy and public management projects. Its goal is to help governments, public institutions, civic groups and non-profits enhance their effectiveness and impact.

A new director and three senior advisors were brought on to enhance the group’s internal operations and provide expertise in critical public sector issue areas. “Our expanded team provides the depth and experience we need to pursue and implement high-impact projects that will help public sector organizations operate more effectively,” says David Thornburgh, Executive Director of the Fels Institute. “In addition, they will provide exceptional learning experiences for our students. It’s a distinctive capability that draws on Fels’ longstanding commitment to improving the practice of public leadership.”

The group is currently working with the School District of Philadelphia on utilizing data to drive outcomes; developing a neighborhood revitalization plan for the Old York Road Corridor; compiling a manual on sustainable strategies for small communities; developing customized executive education programming for the National Association of State Chief Administrators on best practices for public leadership; and generating research and publication materials for Graduate! Philadelphia, an adult education non-profit.

—BC

Margaret M. Andrews, a doctoral student in Art and Archaeology of the Mediterranean World, has been awarded a 2011-2012 Rome Prize from the American Academy in Rome. The prize recognizes excellence in the arts and humanities and provides students the opportunity to live in Rome for six months to two years while utilizing the Academy’s vast resources to immerse themselves in scholarly studies. This is the fourth consecutive year in which a School of Arts and Sciences student has won the prize—one of the most competitive in the humanities.

Andrews’ dissertation involves a topographical study of the Subura district—ancient Rome’s poorest and most densely populated region—during the first millennium A.D. Through her research, she aims to better understand what role the region’s terrain played in its development.

“Since the archaeology of the urban lower class has rarely been of great interest to scholars of Rome,” says Andrews, “we have an abridged reconstruction of the city’s historical topography and an incomplete understanding of how the lower classes actually lived.”

—BC
Thanks to a recent multimillion dollar gift, the School of Arts and Sciences and the School of Engineering and Applied Science (SEAS) are launching a dual-degree program aimed at preparing undergraduates to address one of society’s greatest needs. The new Vagelos Integrated Program in Energy Research (VIPER) will train students for research careers focused on alternative and efficient energies.

“The point of the program is to deal with issues that are among the most—if not the most—critical global challenges that we face right now, which are the production, transmission and use of energy in sustainable ways,” says Dennis DeTurck, Dean of the College of Arts and Sciences.

Recruiting for VIPER has begun, and the first freshman class will arrive next September. Guided by VIPER co-directors Andrew Rappe, Professor of Chemistry, and SEAS professor John Vohs, the students will have the chance to participate in advanced science and technology courses, specialized seminars, intensive mentoring and several internship opportunities with energy-related laboratories. They also will work closely with faculty affiliated with the Penn Center for Energy Innovation (also known as Pennergy), a research institute that Rappe co-directs. Pennergy scholars will mentor VIPER participants and closely involve the students in the cutting-edge research they conduct on topics like solar energy, chemical fuels, and energy-efficient electronics and materials.

VIPER was established by former SAS Overseer and onetime chair of the Penn Board of Trustees P. Roy Vagelos, C’50, Hon’99, and his wife Diana, parents ‘90. The Vageloses, who have been ardent supporters of science education for undergraduates, also created the Roy and Diana Vagelos Scholars Program in Molecular Life Sciences in 1997 and the Roy and Diana Vagelos Program in Life Sciences and Management, which the College offers jointly with the Wharton School, in 2005.

DeTurck credits the Vageloses’ previous generosity for bringing some of the country’s most accomplished life sciences students to Penn. This new gift, he says, will help attract the very best physical science students to the University.

Rappe sees this highly selective program as an “on-ramp to research” that will expose students to the intricacies of scientific discovery very early in their academic careers and give them hands-on access to real-world investigation in leading research labs. He hopes this exposure will help them garner spots in the nation’s top doctoral programs and eventually produce solutions to some of the world’s great energy challenges. Rappe calls VIPER’s heavy emphasis on research “unique” and believes the program will motivate and enable students to understand what research is all about, thereby invigorating their interest in their coursework. “That,” he says, “is the gateway to success.”

—Tracey Quinlan Dougherty
When Eugene Y. Park, the Korea Foundation Associate Professor of History, began teaching a survey course on Korea 10 years ago, the majority of his students were what academics call “heritage learners,” students of Korean descent wanting to learn more about their culture and history. Now his classes are filled with students from all backgrounds who want to learn about a nation that has become a leader in the global financial economy and an important mediator between China and the U.S. in the political economy.

“A few decades ago, Korea certainly would have been considered something rather obscure for students and researchers to study,” Park says. “That’s definitely changing.”

Two gifts, totaling $7.5 million, to significantly broaden and enhance Korean studies at Penn will help meet this growing scholarly interest. Alumnus Dr. James Joo-Jin Kim, W’59, G’61, GR’63, has given $6 million to strengthen the Korean Studies Program, which has been renamed the James Joo-Jin Kim Program in Korean Studies in his honor. An additional, anonymous $1.5 million gift from the family of another Penn alumnus will establish the Moon Family Post-Doctoral Fellowship in Korean Studies.

The James Joo-Jin Kim Program in Korean Studies will diverge from traditional Korean studies programs at many American universities, which have been based on an “area-studies” paradigm focused primarily on U.S.-centered security interests. Instead it will build on Penn’s interdisciplinary strengths to focus on Korean history, culture, society and politics in a more transnational, global context.

Penn’s current program in Korean studies, which enjoys strong support from the Korea Foundation, offers a minor for undergraduate students; includes two Korea Foundation-endowed professorships in Korean Studies and other affiliated faculty teaching Korea-related courses; supports student exchanges with Seoul National University; and provides Korean language courses as well as programming such as lecture series. Dr. Kim’s gift and the Moon Family Fellowship will expand the program to invite visiting professors from multiple disciplines as well as awarding graduate and post-doctoral fellowships.

“Now is the ideal time,” Dr. Kim says, “for Penn to expand its Korean studies program in a unique, dynamic and even more competitive direction.”

–PR
Given the current “government is broken” zeitgeist, many Americans might balk at the claim that their elected officials actually work. But their salaries—$400,000 for the president, $230,700 for the vice president and $174,000 for a member of Congress in 2011—squarely establish them as part of the labor market, and therefore fair game for Antonio Merlo, the Lawrence R. Klein Professor and Chair of Economics. Merlo has been conducting research, published in the American Economic Review and the American Economic Journal: Microeconomics, that examines the career decisions of politicians and how these choices affect voter patterns and the economy as a whole.

“At the end of the day, you have two types of politicians: those who do it for the money and those who do it for the good of mankind—because they want to change the world,” Merlo says. “The question then is do politicians respond to the same incentives that individuals do in other segments of the labor market? After all, politics is a sector of the economy.”

One of Merlo’s findings reveals that the perks of a political career go beyond salary. Networking is one of the most essential benefits of the political system. Though some politicians make a career out of staying in office, many enter the private sector after their term ends, often using the connections they previously established. Others write books or go on speech tours for lucrative pay. Merlo and his co-authors discovered that each additional year of experience that a politician gains in Congress leads to an increase in the pay that he or she receives in the private sector—to the order of four percent. Still other politicians might choose to reenter the political sector after leaving office by using their connections to work as powerful lobbyists. In this role, these ex-politicians may hold sway over proposed legislature, potentially affecting the flow of billions of dollars.

Merlo also set about examining the responses of politicians to monetary incentives. “Suppose we cut the salary of politicians in half?” Merlo asks. “Would we expect now that all of a sudden nobody would want to be a politician? Would the reduction in pay negatively select older people versus younger people? Or would it have differential impact on Democrats versus Republicans?”

He found that reducing the congressional wage would disproportionately cause the departure of “skilled” politicians (loosely described as those who win many elections, particularly under difficult circumstances), Democrats, and politicians who were relatively young when first elected. However, it would not cause the type of politicians who most value legislative accomplishments (dubbed “achievers”) to disproportionately exit Congress. Additionally, other policies that would cause “non-achievers” to exit Congress are the elimination of seniority as a determinant of key committee assignments; restricting private sector employment after leaving Congress; and reducing the advantage of seniority in elections.

“Electoral rule has everything to do with the incentives,” Merlo says. “You have to line that up with the desires of individuals to enter politics, but you also need to have a mechanism of selection that lines up with the incentives of citizens.”

—BC
When the word “essay” is mentioned, the first thing that usually comes to mind is a paper—whether it’s the memory of a belabored final exam or a more personal exercise. That’s an association Timothy Corrigan, Professor of English, Cinema Studies and History of Art, is trying to reexamine with his new book, *The Essay Film: From Montaigne, After Marker*.

“I’ve always loved the essay as a practice, going back to 19th-century writers like Thomas De Quincey and forward through 20th-century essayists like Virginia Woolf,” Corrigan says. “As I began my career as a film historian, I carried over this love but for movies that, like literary essays, provoke viewers and ask audiences to engage with ideas and debates.”

These interests eventually led Corrigan to dub certain works “essay films”—movies that could be classified neither as conventional narratives nor as traditional documentaries. He was convinced that labeling these films as “experimental” also did not do them justice, so he began to examine their distinguishing characteristics.

Although essay films deal with different varieties of public experience, Corrigan explains, some have a more direct purpose. Michael Moore is an example of a filmmaker whose movies are often labeled documentaries but which Corrigan considers better understood as essayistic.

“His movies are certainly more personal and sometimes seem more biased,” Corrigan says. “Yet, for the most part, these films don’t insist on a single point of view, position or idea. Rather they dramatize the difficulty of having singular points of view in these complex modern times.”

With filmmakers like Moore paving the way for more mainstream consumption of the essayistic form, directors like Errol Morris—who helmed *The Fog of War: Eleven Lessons from the Life of Robert S. McNamara*, an essay film on the Vietnam War featuring the controversial ex-secretary of defense—are becoming more and more recognizable.

Where does the essay film go from here? “The essayistic form is made for the Internet,” Corrigan says. “Mainstream movies are already heading into that arena, and essay cinema is even more at home there.”

—BC
It takes a lot to be a successful archaeologist. Aside from obvious attributes such as expert knowledge, a healthy degree of curiosity, some ability to rough it during long field trips, and a decent shovel, archaeologists need a good deal of luck and patience—and the ability to not jump to conclusions.

That's why Harold Dibble, Professor of Anthropology and curator of the European section of the University of Pennsylvania Museum of Archaeology and Anthropology, didn't get too excited when one of his students first showed him a quarter-sized piece of bone during a 2009 visit to a field site in Morocco. Sometimes, he admits, archaeologists "tend to sensationalize. Whenever they find something it's, ooh, this is symbolic." A small piece of bone, he knew, might be fascinating, but not necessarily an earth-shattering discovery.

This time, however, Dibble quickly changed his mind because this particular discovery was something to get excited about. He and his team had found the nearly complete skull and upper body of an early modern Homo sapiens child. They used various laboratory techniques to date the bones to about 108,000 years ago—one of the oldest remains of a human child yet discovered.

Dibble, widely recognized as a leading expert in Neanderthal history and behavior, was excited to discover remains of early modern Homo sapiens that were contemporaneous with the Neanderthal epoch. "Morocco," Dibble explains, "has a very rich fossil record for this period with some of the very earliest anatomically modern humans as well as artifactual evidence that suggests that we're seeing the beginnings of what archaeologists call modern human behavior."

Neanderthals lived in Europe and Asia from about 250,000 to 35,000 years ago, and questions surrounding the geographical distribution and possible interaction between them and modern humans are hotly debated in archaeological circles. A find such as the child skeleton might shed light on this controversy by allowing researchers to compare Neanderthal and early modern human behavior.

But before this extraordinary find can yield all the answers it may hold, there's more work to do. "The skull has a crust of mineral that's been built up on it, and we have to figure out a way to get rid of that before we can do some physical reconstructions of it," Dibble explains.

He and his team also hope to find more bones at the site to provide a more complete picture since it's quite common for pieces to be scattered by natural processes over thousands of years. Dibble hopes that further exploration of the Moroccan site, as well as his active sites in France, will help to settle some controversial questions on Neanderthal behavior, such as whether they buried their dead.

The dig, just south of Rabat, holds non-academic rewards as well for Dibble, a dedicated gourmand. "It's kind of like working in France," he laughs. "Everybody's French-speaking and, as a matter of fact, the site's on the beach. It's really like working at the Jersey shore. It's a beach resort area, and the only things we miss are corn dogs and roller coasters."

—Mark Wolverton
Whether it’s the Saudi ban against female drivers or the politics of veiling, Western media tends to frame women of the Middle East as the objects of oppressive regimes. But a new book by Firoozeh Kashani-Sabet, the Robert I. Williams Term Professor of History, speaks to these women’s influence. In *Conceiving Citizens: Women and the Politics of Motherhood in Iran*, Kashani-Sabet places women and their role as mothers as central to 19th- and 20th-century Iranian history. Drawing on archival documents and manuscript sources from Iran and elsewhere, she illustrates how debates over hygiene, reproductive politics and sexuality during these centuries put women at the center of nationalist debates.

Kashani-Sabet became interested in the subject when she was conducting research on her first academic book on the history of Iran’s border disputes. Because one of the country’s primary concerns in negotiating its borders was disease control, a preponderance of documents explored the topic of hygiene, especially as it concerned women’s health. “I realized,” Kashani-Sabet says, “that the subject of women’s health, particularly reproductive health, had really been under-studied in my field.”

Exploring Iranian women’s lives under successive regimes, Kashani-Sabet explores issues like hygiene campaigns that cast mothers as custodians of a healthy civilization; debates over female education, employment and political rights; government policies on contraception and population control; and tensions between religion and secularism. At the core of these issues is what she calls the ideology of “maternalism,” which promoted motherhood, childcare and maternal well-being as a nationalist concern.

“There was a perception among nationalists,” Kashani-Sabet says, “that you needed a bigger population in order to become a more relevant nation. Part of the argument I make is that maternal and infant mortality in and of itself might not have mattered if it didn’t have a larger political import.”

Kashani-Sabet argues that maternalist discourse spurred a hygiene movement focused on maternal and child well-being that resulted in advances in the field of medicine, such as hospital wards devoted solely to obstetrics and the training of women in the latest techniques of nursing and midwifery—opportunities that would eventually open doors for the first generation of female physicians. It also turned the spotlight on the proliferation of venereal diseases, and in doing so, rendered public discussions about sexuality and marriage. “Women,” she says, “were finally encouraged to assume some control in their marriages, especially concerning issues like infidelity and sexual health.”

Although maternalism valued women’s centrality to the nation, Kashani-Sabet explains that it did not necessarily embrace a feminist outlook. To further their agendas on population growth, fitness and social control, nationalist forces also invoked maternalism to further involve the state in the private aspects of women’s sexuality, mothering and family life. “This is an important subject,” she says, “because it can tell us a lot not only about culture and tradition but also about power and authority.”

—PR
Charles Darwin made us re-imagine life as a process of adaptation, with organisms, species and environments swept up in an unending dance of adjustment and transformation. But adaptation is not only a matter of the natural sciences. The arts and humanities are partners to this dance as well. Cultural forms, as surely as life forms, would perish if they could not adapt. And while adaptations may be thought of as gradual processes, passively undergone and tending toward accommodations, the term extends also to many bold and unsettling products of human creativity.

Events are free and open to the public. To pre-register and for more information, please visit us online, www.phf.upenn.edu or call 215.573.8280.
Today the United States is the world’s warden, incarcerating more people than any other country. Since the 1970s, the United States has built the largest penal system in the world to accommodate a sixfold increase in its inmate population. But what happens behind its prison walls generally remains far removed from public consciousness. The Supreme Court’s landmark May 2011 decision in Brown v. Plata, which declared that the degrading and inhumane conditions in California’s grossly overcrowded prisons are unconstitutional, was an exceptional moment when the prison wall was briefly breached.

However, Brown v. Plata does not mark the beginning of the end of mass incarceration in the United States nor of the abusive conditions that proliferate in U.S. prisons and jails. Unlike the landmark prisoners’ rights cases of the 1960s and 1970s, Brown v. Plata is unlikely to spur many successful copycat lawsuits to impose prison population caps and revitalize the courts as a major forum to challenge abusive prison conditions. The Prison Litigation Reform Act (PLRA), enacted by Congress in 1996, continues to present formidable obstacles for inmates seeking to challenge their conditions of confinement.

Brown v. Plata is not even likely to spur major reductions in California’s inmate population any time soon. The Supreme Court conceded great latitude to the Golden State in how and by when to reduce overcrowding in its prisons. State officials could choose to release some prisoners early. But they could also address the population cap affirmed by the Supreme Court by sending more prisoners to out-of-state penal facilities or to overcrowded county jails in California. Or the state could build more prisons.

So why is this a landmark decision with enormous implications for the future course of penal policy reform in the United States? More so than many other Supreme Court decisions, Brown v. Plata was as much a political statement as a legal one. It did not render any less arduous the PLRA path that Congress laid down to challenge the conditions of confinement through the courts. But it
did pry open some important political space that could help incubate political solutions to the problem of mass incarceration in the United States.

First, the Court made the abhorrent conditions in California's prisons strikingly visible. Justice Anthony M. Kennedy, writing for the majority in this acrimonious 5-4 decision, graphically catalogued the appalling conditions in California's penal system, which operates at about 200 percent of capacity: as many as 50 sick inmates at a time held in 12 by 20 foot cages for up to five hours as they await medical treatment; as many as 54 prisoners sharing a single toilet; a needless death every six to seven days because of delayed or inadequate medical care; and the "dry cages," where suicidal prisoners are kept in telephone booth-sized cells without toilets.

The second way in which the Court's decision may prove important is in its assiduous efforts to better align wider perceptions of the public safety effects of incarceration with the latest social science research. In the decades-long prison build-up, penal expertise was sidelined for the most part in public debates over crime and punishment. In an important departure, Kennedy showcased key findings of leading experts on crime and punishment demonstrating that mass incarceration does not reduce crime significantly or enhance public safety. But if Brown v. Plata provides politicians in California some political cover to begin charting a new course for penal reform in the Golden State, what is still lacking in California and elsewhere is a political movement that can transcend the current political climate, which remains deeply and reflexively punitive. As Kennedy made clear in his decision, absent a political push for reform, neither this ruling nor others by the courts are likely to be the major catalyst to reverse the prison boom or ameliorate abusive prison conditions.

As of yet, no factor, including the current fiscal crises in the states, has provided sufficient political impetus for comprehensive penal reform to slash the inmate population. California, for instance, has been teetering on the brink of fiscal and social disaster for several years. Yet the state has been unable or unwilling to pursue sensible and proven penal reforms that could reduce its prison population without seriously jeopardizing public safety. Time and again, attempts at reform have fallen flat and unleashed over-the-top, law-and-order rhetoric in California and elsewhere. In his dissent, for example, Justice Samuel A. Alito denounced what he misleadingly characterized as “the premature release of approximately 46,000 criminals—the equivalent of three Army divisions." (Yes, the italics are his.) He charged that the Court was "gambling with the safety of the people of California" and that the result would likely be "a grim roster of victims."

Mass incarceration in the United States is the result of a complex set of political, institutional and economic developments. No single factor explains the unprecedented rise in the U.S. incarceration rate, and no single factor will reverse the prison boom. What is needed is a broad-based political movement that focuses not just on the economic burden of the penal system, but also on how the massive carceral state rests on stark racial and other inequities and is itself a threat to public safety. Without such a movement, it will not be possible to make deep and sustainable cuts in the incarcerated population and to address the needs of the individuals, families and communities decimated by the decades-long build-up of the carceral state and the simultaneous decline of many inner cities. One can only hope that Brown v. Plata proves an important first step.

Marie Gottschalk is a professor of political science at Penn. She is the author of, among other works, The Prison and the Gallows: The Politics of Mass Incarceration in America, and is currently working on a book about the future of penal reform.

No single factor explains the unprecedented rise in the U.S. incarceration rate, and no single factor will reverse the prison boom.
A two-hour flight separates Delhi from Mumbai, but this past summer, political scientist Devesh Kapur’s experiences in the two cities were worlds apart. In the country’s capital, Kapur, the Madan Lal Sobti Associate Professor for the Study of Contemporary India and Director of Penn’s Center for the Advanced Study of India (CASI), was making rounds to touch base with government contacts. There he got an all-too-clear view of a political landscape scarred by corruption and scandal.

“The venality,” he sighs, “was depressing.”

But in Mumbai, Kapur met with several Dalit entrepreneurs, members of a historically marginalized population (erstwhile “untouchables”) at the bottom of the complex social hierarchy that constitutes the Hindu caste system. The meeting was organized under the aegis of the new Dalit Indian Chamber of Commerce and Industry (DICCI). Among those he met was Ashok Khade, head of a $300 million offshore fabrication construction company. Khade, the son of a cobbler, spent his childhood studying with no electricity and sleeping on an empty stomach. The chairperson of DICCI’s National Advisory Council, Kalpana Saroj, had moved to the slums of Mumbai when she became a child bride at age 12. Her marriage dissolved after just a few months, and she began supporting herself as a seamstress for 2 rupees—5 U.S. cents—a day. Today, having bought a failing tube and pipe company and resurrected it as a diversified real estate and manufacturing corporation, she is a millionaire many times over.

“You can only feel excited when you see a system that allows this,” Kapur exclaims, “a system that has space for people who have come from nowhere.”

Such highs and lows exemplify the contradictory dynamics driving India today—a nation with a projected GDP growth of over seven percent for the coming year but with between a quarter and third of its population living below the national poverty line. With his ability to simultaneously embrace wry pragmatism and starry-eyed optimism, Kapur seems especially well positioned to make sense of this paradox and to lead CASI, the only research institution in the United States specifically dedicated to the study of contemporary India.

When Kapur emigrated from India in 1983, however, it was a place of narrower opportunity. He had earned his bachelor’s degree in chemical engineering.
This year, CASI partnered with four Indian NGOs to place nine students in fully-funded summer internships in areas ranging from rural development to public health to sustainability. They chronicled their experiences in a blog, excerpted below:

"Yesterday we visited an area called Mustafabad. The community is quite poor but ... people were very hospitable and invited us to sit in whatever seat was available (people usually made themselves comfortable sitting atop mounds of e-waste). ... One man invited us into his office to answer our survey, but it became quite apparent that he was much more interested in talking about 'America' than answering any of our survey questions. ... Our conversation took a quick turn when he asked me what religion I was. I hesitated quite clearly. Mustafabad is a Muslim community. I am Jewish. I decided that I would be honest with him. ... Much to my surprise, he quickly invited us into his household to meet his wife. ... Our host brought out a plate piled high with mangos and invited us to eat with him. We discussed terrorism, 9/11 and the U.S. foreign policy towards Muslim countries. ... We talked about religion, and I noted how incredible it was that people of three different religions (Hinduism, Islam and Judaism) were all sitting together eating mangos and having a peaceful conversation. He agreed. ... I will remember this conversation for the rest of my life, and I hope he does too!"

–Abby Waldorf, C’12, investigated the management of electronic waste for the Chintan Environmental Research and Action Group in Delhi.

"Last Wednesday, Dasra hosted a major annual event in the world of Indian philanthropy: the Indian Philanthropy Forum 2011. ... Professional conventions are usually ... awful, but this was actually amazing. The passion in the room was palpable. The forum was friendly but raised the tough questions regarding philanthropy and social work. Most speakers were lively, engaged, and deeply knowledgeable. ... The media is picking us up. There was so much Twitter buzz about Dasra and the event that for a day Twitter recommended us on their home page. Legit. I created the audio and visual materials for the event and ran the technology from the tech booth. Power to the intern."

–Sudeep De, C’12, ENG’12, interned at Dasra, a Mumbai-based NGO focused on strategic philanthropy.

"To get to understand some of the issues and see the full picture, it is important to develop a relationship with the people you are visiting. You can’t just show up with a sheet and start interviewing them. You have to sit and chitchat, maybe for a couple of hours, maybe for a couple of visits before you can get to the pertinent questions. While this may seem time consuming, it is a valuable experience because you get to learn so much about daily rural life and many other things that they deal with other than the things you were focused on asking them about in the first place. Everything is so interconnected in village life."

–Keena Kang, LPS’12, interviewed women participating in village-based self-help groups in the state of Madhya Pradesh. She interned at Samaj Pragati Sahayog, one of India’s largest grassroots initiatives for water and livelihoods security.

Read the full blog at casipenn.posterous.com.
“WE WANT TO GET AWAY FROM THE IDEA OF THE EXOTIC INDIA, THE ‘JUST LIKE THE GANGES HAS FLOWED FOR THOUSANDS OF YEARS’ INDIA.’ THE COUNTRY MIGHT ALWAYS HAVE LOTS OF PROBLEMS, BUT IT REALLY GIVES YOU A SENSE OF BUZZ.”

in the U.S. have accelerated India’s integration into the world economy. He is now leading a CASI study, funded by the Indian government’s Ministry of Overseas India Affairs, exploring how and why many Indian Americans from middle-class professional backgrounds achieved their success through entrepreneurship—a choice that, until recently, would have been disdained and discouraged had they not migrated. He hopes the answers will shed light on how India might leverage such diaspora activity to collective benefit.

The Center’s work also focuses on how the changing economy has affected Dalits and tribal or indigenous peoples. Together, these socially marginalized groups make up a quarter of the country’s population—a key reason why Kapur and the CASI board have designated it an urgent topic of study.

In 2008, CASI collaborated with Chandra Bhan Prasad, a leading Dalit thinker and political commentator, to conduct a qualitative survey of 20,000 Dalit households to see how their lives had changed since 1991, the year of India’s historic economic liberalization. Initial findings, published last year in a paper that garnered widespread media coverage, reveal that although discrimination against Dalits is still powerful, it is waning and that the population has experienced significant economic and political gains. One reason for this, the study suggests, is that modern technologies, capitalism and market openness help weaken the link between caste and occupation—a key mechanism by which caste is perpetuated.

CASI is now embarking on a study, which received funding from the John Templeton Foundation, investigating the characteristics of Dalit entrepreneurship and the factors that foster or impede it. Kapur and his collaborators intend to survey 1000 entrepreneurs with sales of at least $1 million, and they’ve already identified more than 600, some making over $100 million. Even now, he senses a sea-change in self-confidence among business owners like those he met in Mumbai.

“They’re moving away from thinking about what the state will do for them,” he says, “to thinking of themselves as genuine players in a market economy who provide jobs, pay taxes and epitomize DICCI’s motto: ‘Be job givers instead of job seekers.’”

The state of India’s tribal population, however, provides a stark counterpoint to strides made by Dalits. More geographically isolated and politically fragmented, tribal populations live in some of the poorest and most underdeveloped regions of the country, including areas

continued on page 17
In September, the University’s Making History campaign crossed the $3.5 billion mark—more than a year ahead of schedule. This is a testament to the generosity, loyalty and engagement of our alumni, parents and friends, and I’d like to take a moment to thank you, our volunteers and supporters, for propelling us toward this critical milestone.

Even as we celebrate this remarkable achievement, we recognize there is still important work left for us to do here in the School of Arts and Sciences. We are committed to ensuring that nothing stands in the way of providing educational opportunities for the most gifted young men and women, but the cost of this commitment is high. That is why it remains critical that we strive to meet our ambitious campaign goal for undergraduate financial aid endowment. No other funding initiative will have a greater impact on undergraduate education at Penn and the School’s financial health, and none is more urgent.

Our efforts to advance other priorities also continue in full force. Construction of the Neural and Behavioral Sciences Building will provide a hub for groundbreaking scientific discovery and transform the learning environment for countless undergraduates in the life sciences. This critical project cannot move forward without $28 million in support. To continue to recruit and retain the very best faculty, the School needs to be able to offer endowed professorships. And attracting the best graduate students and enabling them to pursue their scholarly passions—a critical part of our mission—depends on our ability to provide graduate fellowship support.

The impact of the Making History campaign on the School is already visible all across campus, in our newly built and renovated facilities, in newly created professorships, and in a range of new programs and initiatives—and we are not done yet. While one target has been reached, the Making History campaign does not formally end until 2013. With your continued support, we hope to build on our strong momentum and realize the School’s goal of $500 million to fund our most pressing needs and highest priorities.

Jean-Marie Kneeley
Vice Dean for External Affairs

YEAR-END TAX TIP

Thinking about your year-end giving? Congress extended the “IRA charitable rollover” for one more year. You can make year-end donations, including your gift to Penn, straight from your IRA without paying income tax if you’re age 70 1/2 or older.

To learn more, please visit www.makinghistory.upenn.edu/giftplanning/irarollover, or call Meaghan Hogan, 215.898.9942, or your IRA administrator.
Debuting this fall, the Vagelos Integrated Program in Energy Research (VIPER) is the third undergraduate sciences program endowed by P. Roy Vagelos, C’50, Hon’99, and his wife Diana, parents ’90. (Read more about VIPER on p. 5.) We asked Vagelos what inspired this latest gift and why he and his wife have so generously supported science education in the School of Arts and Sciences.

Q: VIPER was your idea. Why is energy an important area of study for today’s undergraduates?

Vagelos: Our country’s use of oil and coal as a means of generating electricity damages our environment, and the dependence on other countries for oil puts the United States in a very difficult economic position. So I see alternative sources of energy for production of electricity as an area that is going to be extremely important for this country and for the world. For those trained in the sciences and engineering, this subject is going to be the source of great careers for the next 25 to 50 years. It’s a very exciting thing for undergrads to study and they’ll have a running start when they go on to graduate school.

Q: Why are you so committed to science education at the undergraduate level?

Vagelos: Attractive and exciting programs in the sciences can give undergraduates entrée into a world that is almost unlimited. If you look at my own career, which I have loved, I started as an undergrad chemist at Penn, went to medical school and became a physician, and then did basic research in biochemistry at the Washington University School of Medicine. Next, I led the research organization at Merck for a decade, and finally I became CEO of that company. It would have been pretty hard for me to have had a background in almost anything else that would allow that kind of career.

Q: Why do you remain involved with the programs you have helped create?

Vagelos: It’s a lot of fun because I get to know very bright students and I learn a great deal from them. We talk about their career goals and the projects they’re working on. It’s also very nice to relive my own background and learn about what’s going on now at the University in these subjects. These students accomplish so much; it’s quite stunning.

Q: What do you suggest to others hoping to become meaningfully involved with the School?

Vagelos: Come back to Penn and talk with students about your careers. If you’ve loved your career and would like to help others accomplish that kind of happiness, it’s great to be involved at a place that attracts top students who can do almost anything. As you get older—and I’m older—interacting with young people who are the future of this country is very exciting.

$7.5 MILLION FOR KOREAN STUDIES

Two gifts totaling $7.5 million will greatly enhance Penn’s Korean Studies Program, one of the oldest of its kind in North America. Alumnus James Joo-Jin Kim, W’59, G’61, GR’63, has given $6 million to strengthen the Korean Studies Program, to be renamed the James Joo-Jin Kim Program in Korean Studies. An additional, anonymous $1.5 million gift from the family of another Penn alumnus will establish the Moon Family Post-Doctoral Fellowship in Korean Studies. (See “A New Direction for Korean Studies” on p. 6.)
Despite the financial obligations of having a daughter in Penn’s College of Arts and Sciences and a son (also a College alum) in law school, Steve Routh, C’79, is committed to helping other students benefit from the same liberal arts education he and his children received.

“My father put five kids through college,” Routh says. “He did well, but he wasn’t a rich guy. So I always thought that I could find a way to help others benefit from a Penn education.”

With this goal in mind, Routh took advantage of a Penn challenge fund to create the Steven J. Routh Family Endowed Scholarship for SAS undergraduates—the second scholarship he’s created since 2005. The first was the Carlton and Elaine Routh Endowed Scholarship, named in honor of his parents. Under the new Excellence to Eminence initiative, which offers a broader range of matching levels for new and existing donors, Routh’s gift was augmented by one of several challenge funds Penn offers to match scholarship gifts of $125,000 to $1.5 million, as well gifts of $75,000 from young alumni.

Routh, a Washington, D.C. attorney who specializes in intellectual property litigation involving global high-tech firms, believes his own College education opened his eyes to the larger world and prepared him to tackle scientific issues that often arise in his field of law. He’s grateful to be able to provide similar opportunities for today’s students.

“When I meet scholarship recipients,” Routh says, “They tell me, ‘Your help allowed me to come here when I otherwise may have gone somewhere else.’ And I can identify with that. I would never have gone to Penn but for support from lots of places.”

For more than half a century, Professor of Chemistry Madeleine Joullié, G’50, Gr’53, HOM’68, has been breaking new ground and shaping young minds at Penn. A member of the Department of Chemistry’s faculty since 1953, she recently made plans for a bequest that will allow her impact on organic chemistry students to endure even longer.

Joullié will endow the Allan R. Day Memorial Research Fund—named in memory of her research mentor at Penn—to support undergraduate and graduate research in organic chemistry. Her bequest also will endow the Madeleine M. Joullié Graduate Fellowship Fund, which will provide financial assistance to graduate students in organic chemistry, with a preference for female students.

As the first woman to join the chemistry faculty and one of the first female chemists ever to be appointed to a tenure-track position at a major American university, Joullié knows firsthand the challenges that women in the sciences have faced. “Even in today’s society,” she says, “female scientists can have a hard time being taken seriously in organic chemistry. There are many excellent women chemists, but it is still easier for men than for women to reach the top of the profession.”

Joullié hopes her gift will be an investment in the success of tomorrow’s leading chemists. “I wanted to make a contribution to the future of this country,” she says, “and chemistry is essential to its future. The saying is, ‘better living through chemistry,’ and it’s true. Chemistry has made enormous contributions.”
OPENING DOORS TO OPPORTUNITY

School of Arts and Sciences donors share why they support scholarships at Penn.

Richard Axilrod, WG’85
Greenwich, Conn.

“My wife and I give to scholarships for two simple reasons. First, we want to give deserving kids an opportunity to receive a liberal arts education at one of the nation’s finest universities. Second, I want to honor my parents who were so instrumental in encouraging me to take advantage of the educational opportunities I had and who stressed the importance of developing one’s mind as an end to itself. I owe much of my success in work and in life to the values of knowledge and education they helped plant in me. We hope these scholarships help today’s young men and women develop the skills to find their way in an increasingly complicated world.”

Jonathan Blue, C’89
Louisville, Ky.

“Penn made all the difference in my life. My education and the interactions that I experienced while there extended far beyond academics and shaped my career and social world. In fact, I still maintain close contact with many Penn friends and do business with Penn alumni. Endowing a scholarship is the ideal way for me to express my gratitude by paying forward the gift of the Penn experience to others.”

Benny and Juliette Klepach, Parents ’14
Indian Creek Village, Fla.

“After seeing how much our daughter has gained from her own experience at Penn, we were inspired to help make this life-changing opportunity available to any bright student, regardless of their ability to pay. And our preference for student recipients from Miami gives us the opportunity to benefit our own community as well. We consider our gift of scholarship an important investment in education with wide-ranging benefits for generations to come.”

Adriana L. Vermut, C’00
San Francisco, Calif.

“I was 17 when I left my home country of Venezuela on a scholarship, and being able to meet so many people from different countries and receive a top-notch education at Penn absolutely changed my life. That’s why my husband and I decided to make a gift of scholarship with a preference for international undergraduates—especially because these students often have limited access to financial aid. Our hope is to give them the opportunity to gain experiences outside the ones they grew up with and to open up doors for them to change the world in a positive way.”

CAMPAIGN PROGRESS TO DATE

The Making History in the Arts and Sciences campaign is an integral part of the University’s $3.5 billion Making History campaign. The graph below shows progress toward the School’s fundraising goal of $500 million as of October 13, 2011.

<table>
<thead>
<tr>
<th>Category</th>
<th>Campaign to Date total: $399M</th>
<th>Goal total: $500M</th>
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<td>Faculty Support</td>
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<tr>
<td>Undergraduate Financial Aid</td>
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<td>Graduate Fellowships</td>
<td>$24M / $30M</td>
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<td>Undergraduate Programs</td>
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<td>Expansion/Other Facilities</td>
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Isabel Friedman, C’13, interned with Karuna Trust, a public health NGO in the state of Karnataka.

severely affected by Maoist violence, described as the most serious threat to India’s internal security today. CASI has spent three years building a comprehensive database of all incidents of Maoist-related violence in order to conduct an empirical analysis of factors aggravating the insurgency.

“This violence is not only a story of poverty and inequality, as some people make it out to be,” Kapur insists. “The interesting analytical question is why some poor marginalized groups take up violence while most don’t, and how the response of the state can amplify or attenuate this violence.”

Maoist violence is one of several complications contributing to the paradox of India’s growth. Others on CASI’s radar are corrupt alliances between business and politicians; the country’s limited natural resources; the challenges of its higher education system and national skill development; the organization and regulation of rural markets; and the politically unstable neighborhood in which it resides. The private sector, as robust as it is, cannot address these issues on its own, and Kapur worries that India’s current government is not up to the task. For these reasons, he is wary about forecasting India’s evolving role as a global player. Will the nation look more like Japan, he asks—economically commanding but too internally focused to be a political heavyweight—or will it achieve superpower status, especially in light of the United States’ and Europe’s recent economic and political travails?

Regardless of the shape it takes, India’s place in the world and its relationship to the U.S. inevitably will keep growing. For this reason, Kapur has made it a Center mandate to serve Penn students. Thanks to significant gifts from CASI board members and Kapur’s professional contacts—as well as generous support from the Office of the Provost—the Center annually provides undergraduate and graduate students travel funds to volunteer with NGOs and conduct independent research in India. The Center also places students in variety of fully supported internships there each summer (see “Indian Summer” on p. 15).

“It’s not that most of these students are going to be scholars on India,” Kapur says, “but I think if they have these experiences there when they are young, the country becomes part of their DNA in some ways.”

Kapur believes that the circulation of new talent to and from India is both a cause and effect of India’s headlong journey toward modernity. Thanks to shifts in incomes, lifestyles and cultural attitudes, migration, he says, is no longer restricted to the binary choice of staying or leaving forever that earlier emigrants had to make.

“We want to get away from the idea of the exotic India, the ‘just like the Ganges has flowed for thousands of years’ India,” Kapur says. “The country might always have lots of problems, but it really gives you a sense of buzz.”

◆
The impact of the popular uprisings that erupted across the Middle East earlier this year continues to reverberate, most recently in the ouster of Libyan dictator Muammar el-Qaddafi. As the “Arab Spring” enters fall, School of Arts and Sciences scholars from a variety of disciplines reflect on what’s next for countries in the region.

December 2010

In Tunis, young vegetable-seller Mohamed Bouazizi sets fire to himself in protest of his treatment by the police.
PATHS OF PROTEST

Has Arab Spring been a movement of collective Arab uprising? American media have emphasized commonality and confluence. As a historian, however, I am most intrigued by the locally distinctive features of its events. I ask the following questions:

Bahrain: Since 1783, a Sunni Arab minority, led by the Al Khalifa family, has dominated this island country while discriminating against Shi’a Arabs. Today, Bahrain’s Shi’a—who comprise 70 percent of the population—want better treatment. But will Saudi Arabia and the United States allow them to improve their position, given concerns about Shi’a influence in Iran, Iraq and Lebanon?

Libya: After seizing power in 1969, Qaddafi promoted quirky variants of pan-Arabism and pan-Africanism. What ideologies will his successors espouse? Will western Libya see an upsurge of (non-Arab) Berber consciousness? If so, will Libya align itself more consciously with the Maghrib countries, especially Algeria and Morocco?

Syria: In the early 20th century, French colonial rulers organized an army that heavily recruited Alawites, members of a heterodox Muslim sect that arose as an offshoot of Shi’ism in poor, rural parts of Syria. Since the military coup of 1970, the Alawite Assad family has held an iron grip. What kind of anti-Alawite backlash will occur if the Assad family falls, and how will sectarianism infuse politics if the Sunni Arab majority rises?

Tunisia: Postcolonial Tunisia earned a reputation as a socially progressive Arab country because of its efforts to promote gender equity. Is there now, as some cultural critics have argued, a “crisis of masculinity” occurring amidst widespread youth (and male) unemployment? If Islamists gain influence in the aftermath of Ben Ali’s ouster, how will policies towards women and families change?

Egypt: Egyptians speak of three nationalist thawras or “revolutions” in their modern history: those of 1879-82, 1919, and 1952. Only the last of these—the Free Officers coup of 1952—was truly revolutionary in the sense of bringing radical, far-reaching change. Will the overthrow of Mubarak in 2011 amount to real revolution, or will entrenched powers (above all, military elites) persist?

HEATHER J. SHARKEY
Associate Professor of Near Eastern Languages and Civilizations
Much has been made of the role of internet technologies in the remarkable political upheaval occurring in the Middle East and North Africa this year. Labeled as “Facebook” or “Twitter” revolutions, one is led to think that not just internet-based social media, but specific products, are pivotal to the success of democratic movements in the Middle East.

The Internet undoubtedly plays an important part in political movements, but its role in the “Arab Spring” is greatly exaggerated. Behind the headlines one can see that the remarkably rapid collapse of the Tunisian and Egyptian governments was due, in large part, to the situation of these countries where, just as the ruled had grown tired and disheartened under the boot of authoritarian regimes led by corrupt and nepotistic leaders, so too had the rulers grown complacent after long years without any serious challenge to their authority. The weight on the boot had lightened; its tread had worn away; and those beneath it writhed themselves free in quick, forceful throws.

Unlike what we are accustomed to, only a minority of these populations is constantly wired to the Internet; the majority accesses it by visiting Internet cafés or through some version of dialup accounts. In such an environment, information sharing sites function like political pamphleteering did in earlier times, albeit with the potential of reaching wider audiences more rapidly.

What new media has done, through its reach and low cost, is level the playing field somewhat between grassroots activists and state regimes which control conventional access to information. While Twitter and Facebook often serve primarily as the movements’ faces to the outside world, instant messaging is the truly ubiquitous technology, used to share news, pictures of state excesses and videos of demonstrations or political music. From unforgettable scenes of crowds in Tahrir Square to rebels stomping on statues of Qaddafi, it is the small screen of the mobile phone that opens a window on political change in the making.

Internet-based information sharing does not win revolutions, however, and as governments grow savvier, the risks to its users rise significantly. A protest song called “Come on, Bashar! Leave! (Yalla irhal ya Bashar!)” became the anthem of the Syrian uprising, and a laborer named Ibrahim Qashush grew famous for leading protesters in the song. Qashush was abducted shortly after a video featuring him went viral, and his body was discovered the next day with its throat cut and the vocal chords removed. One wonders, if a revolution were not to succeed, whether many of those whose faces or names become known through the new media would be getting knocks on their doors in the middle of the night, and whether there would be more Ibrahim Qashushes.

Jamal J. Elias
Class of 1965 Endowed Term Professor and Professor of Religious Studies
Literature has always been far more centrally important and politically powerful in the Middle East than has been the case in, say, the United States. This has affected the lives of literally every Arab writer, so much so that many of the major Arab writers do not reside in their own countries. Consequently, the Middle East revolutions will inevitably have an impact on how the people in the Arab world interact with literature—especially in light of their involvement of applications like Twitter, Facebook, YouTube, et cetera.

There has historically been a divide in Arabic literature between “elite” literature—which is based on the Koran and on written Arabic and heavily preserved by scholars—and “popular” literature—which frequently wasn’t even written down. Such attitudes toward literature and language continue to persist in the Arab world today, though this relationship between language level, literature and literary production varies widely from one Arabic-speaking country to another. For example in Egypt, everybody speaks the colloquial dialect, and it’s used in plays, on television and by popular preachers. But if you went to Saudi Arabia and tried to give a sermon in the colloquial dialect, you’d be hauled off the pulpit as being culturally inappropriate, and worse than that, an insult to Islam.

As public discourse and literary discourse move closer together through the medium of the Internet, however, there’s bound to be change, but the change is going to look very different in the different countries, especially as we’ve got each individual region and nation exploring the possibilities of revolution in their own ways. Morocco and Jordan, for example, are monarchies that nevertheless have new, younger kings and parliamentary forms of rule. But Iraq, Afghanistan, Yemen and Libya were plastered together by colonial powers into nations without much rationale for doing so. Libya, in particular, has always comprised three tribal regions, the most southern of which houses nomadic tribes that don’t even speak Arabic as their first language.

This is why although the term “Arab Spring” is very convenient for us, it actually masks the fact that every nation in the Arab world has local factors, which are now emerging. In order to understand how the Arab world will change—in literature and beyond—we need to take into account this diversity, whether in religion, language, tribe or former colonial powers.

**Roger Allen**
Emeritus Professor of Near Eastern Languages & Civilizations
EGYPT’S LEADERLESS REVOLT

The key to understanding Egypt’s revolt is that it was—and remains—leaderless.

To be sure, the youth activists who organized the first anti-Mubarak demonstrations were pivotal in pulling people into the streets. But once tens of thousands—and later millions—of Egyptians mobilized against Mubarak, the activists were no longer in control. The Egyptians who filled Tahrir Square to demand Mubarak’s ouster came from all walks of Egyptian life—liberals, leftists, Islamists, socialists and the apolitical—and since they lacked a unifying vision for their country and a unifying leader, they could only be united behind one demand: that Mubarak had to go.

But in the months since Mubarak’s February 11 resignation, the revolt’s leaderlessness has been tremendously damaging to the prospects for a liberal Egyptian future. For starters, none of Egypt’s political forces have been strong enough to push the ruling Supreme Council of the Armed Forces (SCAF) to promote greater political reform. Liberalization would be very damaging to Egypt’s military, which controls huge tracts of land, operates major corporations, and whose budget has always been shielded from parliamentary or public oversight.

So the SCAF has pushed for a swift transition process with only minimal political reform, apparently hoping to reconsolidate a new Egyptian regime without sacrificing the many privileges that the military enjoys.

Meanwhile, the Muslim Brotherhood has emerged as the best-organized political force, with a membership that is deeply committed to its agenda and a nationwide reach that is unmatched by Egypt’s other parties. Yet its vision for Egypt is distinctively illiberal: it aims to make shari’a the exclusive source of Egyptian legislation, and its leaders have demonstrated disturbing ambivalence on minority and women’s rights. Given its political strength, the Brotherhood believes that it stands to win unprecedented influence—and perhaps a plurality—in the parliamentary elections, which took place in October. It has therefore aligned with the military in pushing for holding elections as soon as possible—before any of Egypt’s newer, more liberal and leftist parties can organize effectively.

For the moment, Egypt’s liberals remain divided among many small parties and have been unable to counter either the SCAF or the Brotherhood. Lacking a leader who can rally Egyptians around a more progressive agenda, Egypt appears headed for a slightly more open regime flavored by Islamism.

Egyptians have toppled a dictator, but “spring”—as that word is typically defined in politics—has not sprung.

Eric Trager
Ph.D. Candidate in Political Science

June 2011

Yemeni president Ali Abdullah Saleh suffers extensive injuries in an attack on his Sana’a palace.
In recent years Israelis in general and the Israeli government in particular have had difficulty portraying a future for the Middle East that is both peaceful and features a prosperous and satisfied Jewish state in the region. In the past, the ability to imagine such a future has been tied to faith that as modernity, democratic forms of government and secular values associated with Western liberal states take hold in Arab countries, the region would come to accept Israel’s permanence and legitimacy in the region, if not the rightfulness of its establishment. But modernity has largely arrived in most of the Arab world, and secularization as a dominant trend has been replaced, both in Israel and in most Arab countries, by a still-growing reliance on religious symbols, laws and values as the proper language of political life. In both Israel and the Muslim world, this turn toward religion has heightened polarization and pushed societies away from compromise.

As revolutionary change bubbles up from below in Egypt, Tunisia, Syria, Morocco, Bahrain, Libya, Yemen, Jordan and elsewhere, we can now begin to see that the last hoped-for basis for Middle Eastern acceptance of Israel—democracy—may also prove to be a weak reed. There has not been a major Arab-Israeli war, involving large Arab states, for almost 40 years. In those decades the regimes governing most of these states have remained in power, either by making narrow peace agreements with Israel (Egypt and Jordan) or by securing their own interests and good ties with the United States in return for under-the-table cooperation with Israel in a variety of internal and external security matters. As we can all see now, these decrepit, corrupt and authoritarian regimes have been and are largely illegitimate. Not only have they been out of step with public opinion in their attitude toward Islam, they have also differed from the vast majority of their populations in terms of their willingness to cooperate with Israel. Consequently, as the messy process of democratization proceeds, these regimes are and will be replaced by governments more aligned with public opinion in all matters—including Israel.

This development will pose challenges to Israel that are new in some respects but which correspond to the basic challenge Israel has always faced—how to achieve acceptance by the region without compromising fundamental Zionist principles rejected by the vast majority of the region’s inhabitants. Ironically, democracy is likely to sharpen the Arab-Israeli confrontation in many ways, with Israel having to worry again about the possibility, though not the likelihood, of war on multiple fronts; with many confidential arrangements between Israeli security services and their counterparts in Arab countries ended or weakened; with larger numbers of refugees streaming into Israel across an increasingly ungoverned Sinai peninsula; with natural gas imports from Egypt rising greatly in price or ending altogether; with less tolerance by Arab governments for Israeli policies toward Palestinians that stymie efforts toward a “two state solution;” and with increasing support for various high-profile Palestinian efforts to mount mass “returns” to the country or for dramatic diplomatic initiatives at the United Nations and elsewhere.

A democratized Middle East may be a better place, but absent dramatic political compromises, Israel is not likely to find it a more hospitable place.

IAN S. LUSTICK
Bess W. Heyman Professor of Political Science

Two months after Muammar el-Qaddafi’s regime is toppled, Libyan officials confirm the former autocrat’s death.

Violence in Syria intensifies, and government tactics against rebels elicit international condemnation.

ISRAEL’S FUTURE IN THE MIDDLE EAST

August 2011 - Present
On a windowsill overlooking the courtyard of Penn’s Clinical Research Building sits a zebra-skinned toy SUV made from discarded cans. Purchased from a child on the roadside in Africa, it’s an interesting conversation piece, but, like many of the trinkets adorning Sarah Tishkoff’s office, it also tells a story. During her first research trip to the continent, she was tasked with isolating DNA without access to any working electricity. The solution: a custom-built centrifuge that plugged into the decades-old Land Rover she had rented. Tishkoff points to the miniature, reminiscing: “I bought that to remind me of where I started.”

A cartographer in the most modern sense of the word, Tishkoff has dedicated her career to navigating the building blocks of life, and her focus is on the cradle of humanity—Africa. She was recruited in 2008 as a Penn Integrates Knowledge professor, a distinguished position defined by a teacher-scholar’s ability to bridge disciplines. As the David and Lyn Silfen University Associate Professor, she holds appointments in the biology department in the School of Arts and Sciences and the genetics department in the School of Medicine.

Tishkoff’s interdisciplinary background began with anthropology, her passion as an undergraduate at Berkeley. After meeting Professor Allan Wilson, whom she refers to as the founder of molecular anthropology, she became fascinated with human origins—where humans come from and how they got to be the way they are. She quickly realized that in order to address these philosophical questions, she needed a solid foundation in lab work, so she pursued graduate studies in genetics at the Yale School of Medicine. During work
on her doctorate, Tishkoff first encountered broad DNA sampling that was considered representative of Africans. But she was stunned by just how unrepresentative the samples were. In examining the nuclear genome of African populations and comparing them to groups around the world, she realized there was far more diversity within and among African populations than was understood.

This discovery piqued Tishkoff’s interest in African evolutionary and demographic history, but at the time, few samples existed and little genetics work was being done on the continent. Over the next decade, she broke new ground by developing one of the world’s most extensive African DNA databases. Tishkoff and her international team of collaborators analyzed more than 100 African populations for patterns of variation in over 1,000 DNA markers. Their work traced the genetic structure of Africans to 14 ancestral population clusters that correlated with ethnicity and shared linguistic properties. The research has demonstrated that there is more genetic diversity in Africa than anywhere else on earth.

The study’s vast scope is belied by its considerably more intimate beginnings. Tishkoff credits the continent itself and the spell it cast on her as a young researcher. One pivotal moment took place when she was a post-doc attending a conference in Cape Town, South Africa on the San peoples, a culture of “click language” speakers. Surrounded by social scientists, historians, linguists and geneticists, Tishkoff realized that her place was out in the field, embedded in the culture. Upon her return, she promptly applied for a National Science Foundation grant to conduct research in Tanzania.

Grant approval came easily, but securing permission to carry out the DNA collection was an entirely different story. Tishkoff became embroiled in a bureaucratic approval process. After getting the go-ahead on the university level, she underwent an ethical review by the National Institute of Medical Research and then an evaluation by COSTECH, an African organization that must issue a permit to any foreigner doing research. In 2001, she received final approval and departed for Africa to begin her research.

“It was an adventure I’ll never forget,” she says. “In the beginning, I was fending for myself. Showers were bucket baths and toilets were a hole in the ground. But I wouldn’t change any of it; it was one of the best periods of my life.”

Tishkoff concentrated primarily on the Arusha and Ngorongoro areas of northern Tanzania, and her team of collaborators, mainly comprising University of Dar es Salaam anthropology students and Muhimbili University of Health and Allied Sciences researchers, acted as translators and research assistants. She determined sampling groups based largely on language because language can provide important information about shared ancestry. In a typical village, Tishkoff and her team gathered blood samples from around 40 volunteers. Because only a small number of vials could be spun in a centrifuge at any given time, she would often be working from dawn into the early morning hours of the next day.

**There is more genetic diversity in Africa than anywhere else on earth.**

Sarah Tishkoff and her assistant Godfrey Lema collect blood samples to be used for DNA extraction.
Although national and international review boards had granted her access to these populations for testing, Tishkoff also had to gain local and individual permissions, which often involved talks with tribal leaders. Communication was a challenge—how might a foreigner go about explaining something as technical as DNA sampling? And, because many of the populations Tishkoff was studying had little to no access to medical care, they were wary of the clinics where much of the sampling took place. To bridge this gap in communication, translators hit upon a shared investment in the importance of ancestry—an idea Tishkoff and her team were able to link to the samples they were collecting.

“It’s very important that we communicate not only our intent but also our results to the volunteers,” Tishkoff says. “It’s fascinating for individuals to discover they might have linked ancestry with other ethnic groups, and equally rewarding to see them getting interested in our work. One volunteer even approached me with a picture of a double helix and said, “This is what you’re studying, right?”

Since 2001, Tishkoff’s sampling body has grown to include populations speaking nearly 200 distinct languages across the width of the continent. By the time Tishkoff arrived at Penn, her project had hit its stride. Teams of students and postdocs joined with an international team of African and European collaborators to sample more and more language groups. Her primary focus has since shifted from single gene studies to overarching, integrative genomics analyses. Using high throughput genotyping and sequencing (the ability to determine genotypes of many individuals accurately and efficiently) to identify genetic and environmental factors, the team is studying how genetic variation influences complex variable traits like height, metabolism and skin pigmentation on a continental level.

The project data have far-reaching implications. They are being used to chart genetic characteristics, reconstruct historical demographic and population differentiation, and determine genetic susceptibility to infectious diseases like AIDS and malaria. In addition, they will help to explain drug metabolism so that more effective treatments might be made available. This is
particularly crucial in Africa because access to adequate health care is limited. Additionally, these results will help researchers understand adaptations in physical appearance and physiology to certain environments over human evolutionary history and will ensure that Africa, a country often left out of DNA studies, plays a role in worldwide studies of genetic mapping.

It’s not all about the science, however. For Tishkoff, it’s the people that keep her coming back, and she views it as her personal responsibility to facilitate increased awareness and care whenever possible. Throughout the better part of a decade, she has been witness to the devastating effects of AIDS. Almost every volunteer she meets has a relative who has died from the disease. Her team strives to ensure treatment for any sick individuals they encounter, usually by way of an accompanying doctor or nearby clinic.

Tishkoff has also sought to provide opportunities to her translators and guides—many of whom are students—to study in the United States (see “Global Mentorship” below). Dawit Issa, a Ph.D. student from Ethiopia participated in sample collecting and became interested in learning more about the history of his people, who speak a language in the Amharic language family. He came to Penn to immerse himself in genetics work in Tishkoff’s lab, and she is now co-supervising his thesis. Research assistant Aoua Coulibaly, from Mali, is working in bioinformatics analysis, while Jibril Hirbo, from Kenya, recently completed his Ph.D. in Tishkoff’s lab and is now completing short-term postdoctoral research. In the future, Tishkoff’s goal is to help organize greater exchange between faculty, postdocs and graduate students at Penn and collaborating African universities and research institutes.

The days of sleepless fieldwork have become more limited since Tishkoff had children, but her place will always be on the ground, amongst the volunteers and her collaborators. “To me it’s just the most exciting, interesting work there is,” she says. “I’m so fascinated with the culture and the people I meet, and it’s my hope that once my children are older, they can accompany me and experience it for themselves.”

GLOBAL MENTORSHIP

During the span of her decades-long field research project, Sarah Tishkoff has had the fortune to meet an ambitious next generation of African geneticists, many of whom she has recruited to further their educations at Penn. Two of these students, Jibril Hirbo and Dawit Wolde Meskel Issa, describe their experiences here.

“I was very excited about conducting research in East Africa with Professor Tishkoff, not only because I’m from there but because it is the only region that contains all four language families. I looked at genetic differences between the groups and compared them to migration patterns, which helped us gain insight into certain genetic characteristics, like immunity to disease. Following the fieldwork, I came here to Penn to continue my research in a lab setting. This has allowed me the opportunity to interact with faculty and postdocs with a wide range of expertise and to understand my own research from a more interdisciplinary perspective.”

—Jibril Hirbo

“I was enrolled as a Ph.D. candidate at the University of Addis Ababa in Ethiopia when I became interested in studying genetic variation among linguistically diverse populations. I submitted a project proposal in order to work with Dr. Tishkoff and spent five months doing fieldwork where I helped to collect genetic samples and phenotypic data from 800 individuals from 20 Ethiopian populations. I then traveled to Penn to continue the research. The training I have received both in the field and now here in the Tishkoff lab will prepare me to independently design and conduct extensive population genetics studies on the vast and linguistically diverse Ethiopian population. After I finish my project, I intend to return to Ethiopia to mentor students in my home country both as a researcher and a teacher at the University of Addis Ababa.

—Dawit Wolde Meskel Issa
YOU GOTTA HAVE FAITH

By Tracey Quinlan Dougherty
Photos by Shira Yudkoff
Anthea Butler Discusses How Religion Is Playing a Major Role in the Upcoming Presidential Elections

With the primary elections just months away, American voters seemingly can’t watch television or read a newspaper without learning of the religious predilections of the presidential contenders, and the blogosphere is rife with reports of their church visits, prayer rallies and moral pronouncements. Despite the country’s espoused belief in the separation of church and state, is religion going to be a prime issue in the selection of its next president?

“The economy is going to be the number one issue,” says Associate Professor of Religious Studies Anthea Butler, a historian of American religion who examines the interplay between faith and politics. “But religion is the salt in the mix. It will give the campaign flavor.”

Butler hasn’t quietly been watching the campaign unfold from the sidelines. With an outgoing, tell-it-like-it-is manner and a zeal for helping the public understand the religious issues underlying national and world events, she has become a sought-after commentator for a host of television, radio, print and online news outlets like CNN, MSNBC, Fox and National Public Radio.

Butler is also writing a book on the religious leanings of 2008 Republican vice presidential candidate and one-time Alaskan governor Sarah Palin, who has considered a presidential run but who at press time hadn’t declared her candidacy. It will explore the significant role Palin’s faith has played in her political life and its connection to the Tea Party and other groups who have supported her.

“One of the things I think it’s important for me to do as a professor,” she says, “is to give people a background to understand the stories they’re seeing in the news because they don’t make any sense if you don’t have a context for them—especially, especially for the political campaign that’s coming up.”

Although this isn’t the first time faith has been a key focus in a presidential election, Butler points out that the political climate and the nature of the media have changed dramatically since voters were confronted with John F. Kennedy’s Catholicism in the 1960s and Jimmy Carter’s evangelicalism in the 1970s. “In the 1960s,” she says, “nobody would ask the personal questions that they ask now of candidates. For instance, back then you never would have known that [Republican Minnesota congresswoman] Michele Bachmann had a migraine problem. Now it’s anything goes, and the way we disseminate that information is a lot faster.”

Another difference, Butler believes, is that today’s candidates are attaching religious significance not just to moral issues, but to economic ones as well, such as the national debt. This combination, she posits, makes campaign issues “super-charged.” A third distinction is that during this presidential campaign, the country isn’t considering just one candidate with strong religious views. According to Butler, most of the Republican contenders tout deeply held moral philosophies.

These candidates also seem to share the belief that Americans care greatly about the faith of their president. They may be right. A study released in June by the Pew Research Center for the People and the Press indicated that six out of 10 Americans would be less likely to support a presidential contender who didn’t believe in God. Butler agrees it’s a concern for voters, especially for certain segments of the population, such as those over 60.

Having completed an undergraduate degree in marketing and a seven-year tenure in pension administration before embarking on her academic career, Butler understands the challenge for many of the candidates in the upcoming primaries vis-à-vis religion to be one of positioning and perception. She’s often said that in religion everyone is selling something, and the same holds true in presidential politics. Because Americans’ perception of the candidates’ faith and its potential impact on policymaking will be an important factor influencing voting decisions, the candidates, Butler insists, must make clear exactly what it is they want voters to buy.

**TODAY’S CANDIDATES ARE ATTACHING RELIGIOUS SIGNIFICANCE NOT JUST TO MORAL ISSUES, BUT TO ECONOMIC ONES AS WELL, SUCH AS THE NATIONAL DEBT.**

According to Butler, Bachmann has done the best job of explaining her religious beliefs to voters. For example, at an Assemblies of God church in Iowa, Bachmann gave the following Christian “testimony”: “I knew that I was a sinner, and I knew that I needed a savior, and I knew that I knew that I didn’t have that,” she said. “So at that moment, myself and my three friends, we got on our knees and we wept before the Lord.” Butler predicts the evangelical Bachmann
will face resistance from some voters over allegations her husband uses prayer to “convert” homosexuals, as well as from Catholics because of her church’s negative view of the pope, but overall she feels Bachmann has spoken very cohesively about her beliefs.

Former Godfather’s Pizza chief executive officer and radio talk show host Herman Cain is another Republican candidate who has been very clear about his beliefs, especially, Butler points out, in terms of what he doesn’t embrace. Cain, an associate minister in his Baptist church, has “been vocal about what he doesn’t like, which is basically Muslims,” she says, and she feels his forthright airing of his religious views will appeal to more radical voters despite his shaky understanding of the Constitution.

Butler thinks that Texas governor Rick Perry will need to be more consistent about the nature of his evangelical faith. Over the summer, the Republican candidate gave voters a glimpse of his religious beliefs by inviting fellow governors to a nondenominational Christian prayer meeting to seek God’s help for the nation’s beleaguered economy and other woes. A few weeks later, he reinforced this position by stating that he felt he’d been “called” to run for president. But shortly thereafter, Perry played down the religious overtones of his statement—a move Butler feels confused voters. Having held a successful, day-long prayer rally with 30,000 in attendance in August, however, Perry may be a strong contender to capture conservative voters from Bachmann.

“RELIGION IS THE SALT IN THE MIX. IT WILL GIVE THE CAMPAIGN FLAVOR.”

Perception poses a special challenge, Butler says, for Mormon Republican candidates Mitt Romney, the former governor of Massachusetts, and Jon Huntsman, Jr., C’87, the former U.S. ambassador to China and one-time governor of Utah. The Pew study found a quarter of Americans would be less likely to support a Mormon candidate. In fact, some consider the public’s negative perception of Romney’s faith a key reason for his departure from the 2008 presidential race. Many Americans, Butler explains, doubt whether Mormonism is really a form of Christianity and few understand its tenets, so it’s imperative that Romney and Huntsman decide how to position themselves relative to those of more traditional faiths and find a more effective way to articulate their faith for voters without entering a theological debate about Christianity.

Republicans aren’t the only ones needing to position their faith. Butler feels that it will be crucial to incumbent president Barack Obama’s campaign that he clarify his own religious stance for voters. The Democrat has stated repeatedly that he’s a Christian, although work and logistics prevent him from attending church. About this, she says, “He has to be a lot more savvy about his church attendance. With all the rumors about his being a Muslim and his having to produce his birth certificate, some people still don’t believe him, and I think he has to come up with a more sophisticated answer about church. To the keep criticism at bay, he doesn’t have to go to church every Sunday, but the fact that he didn’t try to do that occasionally, especially after the controversy surrounding unpatriotic remarks made by his former United Church of Christ pastor Jeremiah Wright, is something I think he may regret come 2012.”

Regardless of whom Republican voters ultimately select to oppose Obama next November, Butler believes the novel combination of the religious with the economic that has been employed in the campaign thus far may propel more than the usual number of people to the polls in the general election. Although it is too early to tell which party will benefit from this influx, Butler says, “I think these voters will be very important.”
LESSONS FROM THE FIELD

Of their adventures in Argentina this past summer, Michael Drake, C’12, Olivia Lenz, C’13, Kelsi Schoenrock, C’12, and Jacqueline Kemmer, C’14, find it difficult to choose a favorite. Drake, a biology major, remembers canoeing down the Pilagá River flanked by lazy caimans. Biological Basis of Behavior major Lenz most enjoyed campfire huddles that turned colleagues into friends. And all four of them have stories about chasing mysterious, saucer-eyed creatures through a pre-dawn forest. No, these students were not participants in the latest season of Survivor; they were in class.

Assistant Professor of Anthropology Eduardo Fernández-Duque received a grant from the Provost’s Office Funding for International Initiatives to develop Biological Clocks and Rhythms, an intensive two-week course followed by an eight-week, hands-on research experience, which gave five Penn students the fully-funded opportunity to study biological oscillations using the owl monkey as a model. A biological anthropologist who studies living primates to understand the evolution of human behavior, he has long investigated these enigmatic creatures, the only monkey to exhibit both early-bird and night-owl behavior.

During the first week of the course, the students, along with peers from Argentina, spent full days at the Universidad Nacional de Quilmes in Buenos Aires participating in lectures, discussions and lab exercises learning the theoretical background needed to study biological oscillations. They then made the 14-hour bus journey to Fernández-Duque’s field site in province of Formosa. There, they were guided through field exercises to analyze ecological and evolutionary aspects of owl monkeys’ remarkable activity patterns. After several days of camping and gathering data in the woods, the entire class headed to Casa 100—a field station provided by Penn to Fernández-Duque and his wife and colleague Associate Professor of Anthropology Claudia Valeggia—to download and clean data, contact friends and family, remove the occasional tick and, of course, shower.

This course is Fernández-Duque’s most recent addition to a roster of initiatives that reflect his commitment to active learning. “Even when I teach 200 students in our Sex and Human Nature course, I don’t just lecture for two hours straight because, otherwise, students would fall asleep—and so would I,” he says. “I want to get the students talking, asking questions, working in groups. Learning should be about trial and error; about attempting answers.”

There were ample opportunities for trial and error in Argentina, as students ventured into the forest to collar and track owl monkeys using radio telemetry, did the labor-intensive work of collecting fecal samples, and simply adapted to the unpredictability of field research. Surprises ranged from having to change the day’s agenda due to rain to delays caused by international regulations on transporting fecal samples.

“I had only worked in a lab before,” Lenz says, “where it’s so easy to measure things. The field takes a different kind of preparation which really brings together life skills and science.”

Several students from the course remained at the field site through the summer. Funded by grants for the Center for Undergraduate Research and Fellowships, the Penn Undergraduate Research Mentoring Program and the Penn Museum, they assisted in Fernández-Duque’s research and pursued independent projects. Drake conducted a population survey of howler monkeys living in the area to see how and why their population density is changing. Schoenrock is analyzing fecal samples to complete her thesis on the effect of hormonal levels on behavior. Kemmer is beginning to analyze activity data of groups versus solitary individuals.

With the final goal of producing a complete paper, these and other students are analyzing their data this fall under Fernández-Duque’s guidance in a course called Primate Field Methods and Data Analysis. It is the final stage of a comprehensive cycle of study through which he guides interested undergraduates, beginning with introductory courses such as Introduction to Human Evolution or Sex and Human Nature and moving on to Primate Behavior and Ecology, which offers a one-week training in field methods at a primate research facility in Miami.

“My philosophy is that you have not finished your research if you haven’t published,” he says. “If we don’t communicate our research, then it’s not research—it’s just backyard science. It is very important—even if it’s a small manuscript—that students understand the time it takes to produce a polished piece of scholarship.”

—PR
FROM TEST TUBES TO BRIEFS

At the law firm of Anderson Kill & Olick, P.C., John G. Nevius, G’87, GEN’87, draws on the geology and engineering master’s degrees he earned at Penn and his experience as a hydrogeologist to help policyholders maximize their recovery of insurance assets. A nature-lover, litigator specializing in environmental insurance coverage, and former U.S. Environmental Protection Agency regulator, Nevius brings a uniquely multifaceted perspective to environmental law.

Q: How has your background in science shaped your career as a lawyer?

Nevius: It was a mental adjustment for me to think like a lawyer in the beginning. For example, I’d wind up making arguments about how 55 gallons of trichloroethylene could contaminate all the drinking water Portland, Ore., uses in a year and a half, and as a lawyer you’re not supposed to say things like this. But I made the specific determination to focus on not only environmental property damage cases and coverage but also on anything that could use my technical background in engineering and science.

I put it all together by becoming Anderson Kill’s go-to guy for environmental risk management. Not only did I do the insurance litigation, which is usually a one-shot deal because hopefully your factory or product will only face a big insurance claim once, but I retained many of our clients by helping them with environmental compliance—with guiding them in what the regulators are after and how to give it to them.

Eventually not only was I generating a fair amount of business, which is kind of the name of the game as far as being a lawyer goes, but I was also recognized by the firm for my environmental expertise. Now, I’m the chair of the firm’s environmental law group.

Q: What are some of the most challenging issues in environmental law that you’re working with right now?

Nevius: Pollution exclusions are a huge issue for me. Most companies buy general liability insurance, but a lot of policies now have exclusions related to pollution, and the insurance industry has improperly used these exclusions to preclude coverage. For example, I was involved in a case in Virginia where the municipal water supplier added chlorine to the water as a disinfectant, just like almost any municipal water supply does. That chlorine combined with naturally occurring organic acids resulting from the degradation of leaf material to form trihalomethanes, which are considered harmful. The Virginia Supreme Court upheld denial of coverage for the supplier even though this pollutant was naturally occurring. It took a very simplistic approach and refused to listen to the more nuanced science on the issue.

Another interest I have now is taking “brown fields”—contaminated land that has been lying fallow—and using them in an effective and constructive way. So, how do we clean things up efficiently and practically, and how do we best use resources to do this economically? One part of this is using old insurance assets that may have been associated with that property to help offset cleanup liabilities. As a taxpayer, I think the insurance industry should be shouldering its fair share of the cost of cleaning up the impact of the Industrial Revolution.

Q: How do you reconcile representing clients you might ideologically be at odds with?

Nevius: When I litigate against insurance companies to get cleanup dollars, they’re going to argue that I’m representing polluters, and the fact is some of my present clients are in businesses I used to regulate as an EPA officer. But most of the products we take for granted are based on exploitation of natural resources, and I no longer look at things from the simple, black-and-white standpoint of ‘you shouldn’t pollute’. For example, I have mining clients who are located out in the middle of nowhere. They have a very limited impact on the environment, and they need to be competitive from an international standpoint.

So, while I’m in favor of keeping things as clean as possible, I’ve seen it from the other side. When I can use my legal, science and engineering background to mediate disputes between different constituencies and when insurance coverage litigation opens doors to clients that I can help put on the right track from a business and compliance standpoint, it is incredibly challenging and satisfying.

—PR
In traditional chemistry, new materials are typically created by changing chemical composition. But Assistant Professor of Chemistry So-Jung Park is on the vanguard of this field, constructing hybrid materials with tunable properties through the self-assembly of nanoparticles. Recently, her team discovered how to make magnetic polymer vesicles (small membrane-enclosed sacs). This image reveals a cluster of polymer molecules that have been transformed into small vesicles through the addition of magnetic iron oxide nanoparticles. The resulting material holds great potential to improve drug delivery and for use as an advanced contrast agent in MRIs.
“Penn offered me the financial support I needed to come here. Creating this scholarship is my way of giving back.”

— Arthur Newman, C’86

Arthur graduated from the School of Arts & Sciences, earning degrees in English and biology with a minor in chemistry. In 2010, he and his wife, Della, C’86, designated a retirement account to the College to establish the Newman Family Scholarship. When the gift matures, the scholarship will create a permanent endowment to support undergraduates studying in the School of Arts & Sciences, with preference for English majors.

“My Penn professors taught me to think critically and creatively, which has served me well over the past 25 years,” Arthur recalls. “Establishing this scholarship is the right thing to do.”

Call Meaghan Hogan, Esq. at 215.898.9942 or email meaghanh@sas.upenn.edu for more information about gift planning options customized for you.