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INSIDE

The Academic Exchange
A Place for Scholarly Conversation at Emory

The New Reality

Emory faculty respond to a transformed economic world

The dismal facts are these: In the second half of 2008, the value of Emory's endowment and investment portfolio fell around 25 percent—more than $1 billion. A revenue decline in the tens of millions is expected next fiscal year. The university has had to slash $10 million from its current operating budget, with $50 to $60 million more to be spread over the next few years.

The Strategic Plan Fund will contract by $30 to $35 million. The Woodruff Health Sciences Center faces a multimillion-dollar shortfall for the current fiscal year and has cut significantly from the current budgets of its three schools. Emory College faces a several million dollar shortfall next year and has eliminated or pared down half a dozen programs, resulting in layoffs. More job losses are certain. Two of Emory's nine schools—the Goizueta Business School and the Candler School of Theology—will experience reduced budgets next fiscal year. The graduate school will radically reduce its new admissions. At Oxford College, five full-time and four part-time staff positions will be eliminated, and

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four temporary or vacant staff positions will be phased out.

And on it comes, a torrent of cheerless news with no discernible end or even slight relief in sight, accompanied by messages from university leaders that Emory has no choice but to adjust to an economic environment of relative scarcity not confronted for years.

The numbers may fluctuate as the economic crisis evolves, but decisions will continue to be guided much by the pursuit of Emory's broader mission, according to top administrators. "Each school and division must assess what core activities are essential and must work to eliminate or reduce those activities and programs that will not advance the Strategic Plan," wrote the university's Ways and Means Committee in a February 10 letter.

"There will not be a school or administrative unit that will be immune from the impact of this," says Charlotte Johnson, senior vice provost for administration. "There's a level of uncertainty: where is the bottom, and how much of an institutional adjustment do we need to make ourselves sustainable? And there are certain things that we should simply stop doing—programs that we can no longer afford because they do not support our core missions."

Prudence and vigilance are natural reactions in uncertain, threatening times, but could they also be counterproductive?

SHIFTING MOOD

Last fall there seemed to be a sense, or at least hope, that Emory's prosperity—its large endowment, a generally well-off undergraduate population, a high ratio of applications to spaces, low debt costs—might insulate the school to some extent from the larger economic mayhem. Amidst warnings of shifting financial priorities described in an October 8 letter to all Emory faculty and staff from University President Jim Wagner, there was also affirmation: "The good news is that we do face these challenges with strength, both in program quality and in financial stability."

Since then, departments and programs across Emory have been told to make significant cuts. "We went into the fall semester knowing that economics were tough but not assuming anything drastic was going to happen," says Bobby Paul, dean of Emory College of Arts and Sciences, "Then all of a sudden, over the course of a couple of weeks, we were faced with an entirely new economic reality."

In mid-November, that new reality emerged in Emory College as a directive for department chairs to cut non-personnel budgets by 10 percent, suspend most faculty searches, and cut temporary faculty budgets in half. It was a startling development for a university accustomed to steady, reliable growth.

Some of the low-hanging fruit wasn't too painful to pluck. Food became an early and predictable casualty. (Some faculty quipped that Emory could solve all of its financial woes by reducing the generous spreads laid out at meetings and events.) Growing anxieties were inversely mirrored in the menu at monthly breakfast meetings among department chairs, program directors, and deans, which diminished from bacon, eggs, and toast to bagels and cream cheese, and eventually just coffee. Potluck became the norm for holiday parties. The music department began printing double-sided copies of sheet music and cutting back on post-concert receptions, and the main library decided to close one of its infrequently used entrances and reduce the number of copiers. All of it was small change.

UNEVEN PAIN

In December, Paul convened a faculty economic advisory committee of six former department chairs and Eric Weeks, associate professor of physics and chair of the Emory College Governance Committee. "There's been a lot of talk about how best to manage tough decisions and share the pain," Weeks says,"but unfortunately it's hard to avoid cuts that will have an uneven impact."

The university does not dictate to any given unit or school how it should manage its decreased finances. Instead, financial limits are handed down to the various divisions by senior leadership, explains Mike Mandl, executive vice president for finance and administration. Working within those constraints, deans and managers decide how to construct their individual budgets. "There are certain elements of the budget that are centrally provided, but 80 to 90 percent of it is developed within a given school," Mandl says. "It is up to each one to determine how to distribute expenditures within that." As a result, the adjustments differ from school to school.

Consider the substantial cut in temporary faculty. While it applies to all departments within Emory College, the consequences will fall harder on some departments than others. The English department, heavily reliant on temporary faculty, had to abolish four freshmen writing sections in the spring 2009 semester. More may be dropped next year. "That doesn't mean we won't be able to teach all the students who want or need to take that course," said Bill Gruber professor and chair of English. "It means, however, that we will have to offer students fewer choices in terms of fitting this course into their schedules. We have been thinking about larger class sizes next year."

In contrast, the sciences rely much less on temporary instructors. "In the physics department, our temporary faculty teach popular elective classes but aren't crucial to covering our core curriculum," said Weeks. In addition, most graduate students in science departments are supported by externally funded research grants.

One of the most disquieting developments has been the 13- to 15-percent cut to next year's graduate student stipend support budget. The Graduate School typically supports stipends for 925 to 950 students, according to Ulf Nilsson, the school's communications director. Next fall, the number of new admissions is expected to drop by at least 25 to 30 percent, or approximately 120 students. Because of varied funding structures, the reductions will be felt differently across schools and programs. The business doctoral program, whose new admissions will drop from ten to five, is supported entirely by the business school. In the history program, where the Graduate School directly funds all graduate students and authorizes admissions numbers, new admissions will plummet from eleven to four. Some of the sciences have more flexibility. "They receive block funding from us, and how many students they can admit using that money depends a little bit on how they're able to combine it with revenue from other sources," says Nilsson.

To Gruber, the loss of graduate students represents a "very serious blow, one from which, if it were to persist, I'm frankly not sure we could recover. It seems to me that it drops us below the ability to sustain a vibrant and healthy program. It will hurt in attracting new students, in retaining faculty, in attracting new faculty." The English program was already among the smallest among peer institutions, he adds.

COURAGEOUS SCHOLARSHIP?

Within the overt macro consequences of budget deficits and cost cutting lurk more intimate and essential influences that are no less damaging: fear, loss of morale, indecision, paralysis. Prudence and vigilance are natural reactions in uncertain, threatening times, but could they also be counterproductive?

"People might think they're just being conservative, and that's probably a good thing to do in tight times, but I think a lot of

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SCHOOLS ADJUST TO HARD TIMES

Throughout the world of higher education, institutions are making major adjustments to cope with a bleak economic landscape. Here are a few examples.

Brandeis University in Massachusetts decided to sell off the collection from its Rose Art Museum. The school faces a current budget shortfall estimated at $10 million. The museum, founded in 1961, holds more than 8,000 pieces, including works by Andy Warhol, Jasper Johns, Roy Lichtenstein, and Robert Rauschenberg. The collection is considered one of the most important of postwar art in New England and has an estimated value of more than $350 million. The outcry following the announcement eventually led the school's president, Jehuda Reinharz, to reconsider. In an e-mail to the Brandeis community, he wrote that the museum would stay open, but it "will be more fully integrated into the university's central educational mission." He wrote also that the university would retain the right to sell works from the collection. Brandeis has also announced a hiring freeze and is considering an overhaul of academic programs.

Harvard, whose endowment value declined by more than $8 billion in the last months of 2008, said it would review plans for a four-building, $1-billion science center in Boston's Allston neighborhood across the river from its Cambridge campus. The university also announced a 3.5 percent increase in tuition, room, board, and fees for the next academic year, which will bring the cost to $48,868. It has also started offering voluntary retirement incentives in order to prevent having to layoff faculty.

Dartmouth has reportedly launched a similar plan, offering six months of pay to employees following their retirement. Staff over age 55 with at least 10 years of continuous service, some 600 employees, are eligible.

Tufts University, projecting a 25-percent drop in the value of its $1.4 billion endowment (plus a $20 million loss from the Bernie Madoff fraud), may abandon its policy, in some cases, of admitting all students without regard to their ability to pay. It has also suspended capital improvement projects.

The University of Florida eliminated 430 faculty and staff positions and must cut next year's budget by 10 percent, probably requiring more layoffs. Arizona State University is ending contracts with as many as 200 adjunct instructors.

For a summary of what other schools are doing, visit the AE website: www.emory.edu/ACAD_EXCHANGE.

To suddenly have to do a complete, 180-degree about-face and think about where we can slow down, where we can cut, and constricting ourselves while trying to maintain some of our momentum and simultaneously go in the opposite direction—that's quite disconcerting.

—BOBBY PAUL, DEAN OF EMORY COLLEGE OF ARTS AND SCIENCES

Academic Exchange: *What has the economic crisis meant for your daily routine?*
Bobby Paul: We've been doing little else. I meet regularly with representatives of the central administration. Our college budget and resources team meets almost daily. In December we constituted a faculty committee for additional advice. It consists mainly of former chairs of departments in the college, the theory being that chairs would know something about the administration and budget process, and that current chairs are already very busy and focused on the needs of their departments, whereas former chairs would be senior people who could perhaps take a broader view. I can't say it's been a wonderful process, because the content is not so good, but as a process it's going about as well as it could.
AE: *Have there been any persistent misconceptions about what's happening?*
BP: Emory had been relatively insulated from the effects of this, but it is a very, very major downturn in the economy. Until

We are very stretched in a number of important areas. Our challenge is to find the right balance between reductions in staffing versus reductions in the collection.

—RICK LUCE, VICE PROVOST AND DIRECTOR OF UNIVERSITY LIBRARIES

Academic Exchange: *How have academic libraries been affected by the economic crisis?*
Rick Luce: In varying degrees, all research libraries have been negatively impacted in their ability to retain existing subscriptions and grow their research collections, while many are also reducing services. The cost of acquiring research materials—for instance, books, serials, databases, etc.—continues to significantly exceed the annual inflation rate based on the consumer price index. We are projecting a 7-percent cost increase for materials next year.
AE: *What cuts have you made so far?*
RL: For the current fiscal year 2009, the university library budget was reduced by $200,000. We will achieve that through cost savings, such as not filling vacant positions and reducing the number of copiers in the building. Looking at next year, we have prepared a budget predicated on a 3.5-percent increase for collection materials only, which reflects Emory's strong support of research and learning in a difficult period. Nonetheless, we project a deficit of $395,000 in the collection budget just to maintain a steady state. We will also experience other operating cost increases requiring reduced expenditures totaling an additional $400,000.
AE: *What will library users notice?*
RL: My two top priorities are to maintain hours and service for students and faculty and to continue to grow our centers of excellence as outlined in our strategic plan. That is fundamental to our mission, so that's where we'll put all of our energies. Our challenge then is to balance the necessary reductions we must take. In terms of immediately visible impacts, we will cancel some journal titles and databases, and to a lesser extent we will acquire fewer books and other media. We are closing the entrance outside of the Matheson reading room, which is a convenience. Other necessary reductions we'll achieve internally, such as not

recently, I think that many people had not yet accepted this in their gut—maybe in their brain but not in their gut—how serious it is. It's unprecedented in living memory. This is going to be different from past occasions where we had to tighten our belts a little.

AE: *What part of this has been most difficult for you as the dean?*

BP: I would say coming to terms with the overall effects on Emory. We have been on such a forward trajectory that has produced a tremendous amount of momentum at the college and elsewhere in the university: teaching plans, fundraising, expanding programs, hiring people, doing bigger and better things. To suddenly have to do a complete, 180-degree about-face and think about where we can slow down, where we can cut, and constricting ourselves while trying to maintain some of our momentum and simultaneously go in the opposite direction, that's quite disconcerting. We've all been used to going forward. Now we have to talk about how we slow down or go backward, and to do it basically on a dime. We went into the fall knowing that economics were tough but not assuming anything drastic was going to happen. Then, all of a sudden, over the course of a couple of weeks, we were faced with an entirely new economic reality.

There's also the worry about the personal impact on the faculty, staff, and students, over whom I exercise some responsibility and whom I care about. In a way it's even more so the faculty, because students come and go, but faculty stay here. They've committed their lives to this place. My whole effort has been to try to make being at Emory better for them. That's the hardest part.

AE: *Do difficult times like these deepen the sense of community at Emory?*

BP: The analogy that I've used to a few people is that after a blizzard, a flood, some catastrophe, there is this general era of good feeling. People help each other out, they speak to strangers, there's a communal sense that descends. Then after awhile the snow turns to slush and gets dirty. Cars are skidding into each other, and tempers start to fray. I think it's the same with this. There is on the one hand the reaction that we're all in this together, and we are. We do have a strong community here that has served us well. At the same time, various people's oxen will have to be gored or have already been gored. That makes it difficult for people to feel cozy about each other. It's a bit of both. ae

filling about ten vacant positions. We will certainly feel this acutely since we are very stretched in a number of important areas. Our challenge is to find the right balance between reductions in staffing versus reductions in the collection.

AE: *What conversations have you had with your staff?*

RL: We've talked about what has caused these issues—where we are today and what is on the horizon for next year. We will continue to actively have these discussions throughout our organization as we learn more. This is much like within a family, where it is important to keep the lines of communication open, and the university is in many dimensions our family. We're all interrelated, and our work is highly interdependent. At the moment, it appears that we'll achieve our 2010 budget without major negative consequences for our public services; however, 2011 and 2012 are increasingly going to be very difficult. Since we don't know with any precision what the future holds, we must plan for and make the difficult strategic decisions that will position us for where we want to be five and ten years from now.

AE: *Have excessive price increases by larger publishing houses eased in the down economy?*

RL: No, not at all. We've seen no abatement in the rising cost of published content, and one can only speculate when the current economic model will implode, as research institutions are unable to absorb the corresponding cost escalations. The current economic pressures will continue to strain the traditional publishing system that has already been under duress. Between 1986 and 2006, journal expenditures at North American research libraries increased by a staggering 321 percent, with the average journal unit cost increasing by 180 percent. During this same period, the U.S. consumer price index rose by 84 percent, clearly demonstrating that journal costs have far outstripped inflation.

Although publishers claim those increases are, in part, the result of providing more content, we've not seen the pricing escalation curve change when their distribution has moved from paper to electronic. Among other things, this has had the effect of forcing libraries to purchase fewer monographs, which has also forced university presses to produce fewer monographs. As a result, it has become more difficult for faculty, particularly new faculty, to have a scholarly monograph published.

At the same time, we see legislation being introduced in Congress to repeal the NIH [National Institutes of Health] Public Access Policy that supports public access to taxpayer-funded research. The best research, not to mention an informed nation, is one that is based on all available knowledge, not just knowledge accessible to only those who can afford to pay for it. Taken all together, these trends are very worrisome. As the economy is exacerbating these budgetary pressures, clearly we need a more sustainable system of scholarly communication. ae

Conflict of Interest and Ensuring the Public Trust

Historical perspectives and current concerns

DAVID L. WYNES, VICE PRESIDENT FOR RESEARCH ADMINISTRATION

In Fall 2008, Emory University became embroiled in the national debate regarding conflict of interest in research as members of Congress publicized allegations that faculty at academic medical centers, including Emory, received undisclosed income from pharmaceutical companies that manufacture drugs used in federally funded research. While the conversation across campus (and on other campuses across the country) has been heightened in recent months, the issue has been considered, discussed, and ultimately regulated.

Although issues surrounding faculty relationships with industry drew the spotlight of the US Senate, press, and public in 2008, the topic has a long history. In 1964, the American Association of University Professors and the American Council on Education published a statement titled "On Preventing Conflicts of Interest in Government-Sponsored Research at Universities." This document observed that "when a university staff member (administrator, faculty member, professional staff member, or employee) undertaking or engaging in Government-sponsored work has a significant financial interest in, or a consulting arrangement with, a private business concern, it is important to avoid actual or apparent conflicts of interest between his Government sponsored university research obligations and his outside interests and other obligations."

Nearly three decades ago, the passage of the Bayh-Dole Act (1980) stimulated further discussion around the proper relationships between the private sector and university researchers. Before this pivotal moment, the federal government owned title to inventions made using federal funds. The Bayh-Dole Act transferred ownership of technologies developed with government funding to the institutions receiving the funding. The Act also obligated institutions to license these technologies for purposes of reaching the marketplace.

The success of Bayh-Dole on technology transfer is documented by universities responding to the 2007 survey by the Association of University Technology Managers, which reported licensing new technologies to 555 startup companies and a total of 5,109 licenses and options signed. In fact, the concept of taking new technologies from bench to bedside is a driving force in biomedical research (as well as many other disciplines), and Emory has been very successful in this transfer of knowledge. Just one example: more than 94 percent of HIV patients in the US receiving antiviral therapy receive a drug developed at Emory.

By the late 1980s, the increase in industry–academic relationships as well as the growing role of biotechnology in health care fueled concerns that the prospect of financial gain might influence objectivity in research. This was of particular concern in research involving human subjects, specifically in clinical trials. The national dialogue led to the passage of regulations in 1995 by the Public Health Service (which includes the National Institutes of Health and the Centers for Disease Control and Prevention) and the National Science Foundation, followed by the Food and Drug Administration in 1998.

> **The public has a right to expect research supported with its tax dollars and clinical trial data for any drug or device submitted to the FDA be free of bias or the perception of bias. . . . Emory is committed to the principle of preserving the public trust.**

The regulations are largely performance-based. That is, they do not prescribe any set prohibitions or management strategies for outside financial interests. Instead, they identify the types of financial activities that must be reviewed and then set the expectation that the investigator's institution will properly manage activities in a way that ensures objectivity in the research. The guiding principle embodied in these regulations is that the public has a right to expect research supported with its tax dollars and clinical trial data for any drug or device submitted to the FDA be free of bias or the perception of bias.

While the regulations focus on ensuring the objectivity and integrity of research, the core of the national dialogue has concentrated on the investigator's financial interests and human subject research. The federal regulations do not distinguish between research with or without human subjects, but ethicists, institutional conflict of interest committees, and the public agree that the welfare and rights of human subjects necessitate special consideration when developing management strategies.

The university has had a strong policy on disclosure and management of investigator financial interest for more than a decade. In recent months, this and related policies have been re-evaluated to ensure continued trust in the quality and objectivity of our research.

The Association of American Medical Colleges (AAMC) and Association of American Universities (AAU) published *Protecting Patients, Preserving Integrity, Advancing Health: Accelerating the Implementation of COI Policies in Human Subjects Research* in February 2008 to assist investigators and institutions in evaluating and managing conflicts of interest. This report includes the observation that "Integrity of research, the protection of human research subjects, and the preservation of public trust are paramount values of academic culture."

Emory is committed to the principle of preserving the public trust. The university has had a strong policy on disclosure and management of investigator financial interest for more than a decade. In recent months, this and related policies have been re-evaluated to ensure continued trust in the quality and objectivity of our research. While our principles and standards have not changed, the university has reorganized administrative processes to clarify reporting procedures for investigators and to ensure that required reports are filed with federal agencies and other research sponsors. Through close coordination between a central Conflict of Interest Office with other units such as the Institutional Review Board and the Office of Sponsored Programs, we are working to ensure the continuation of the public trust regarding research conducted at Emory.

At the same time, discussions are proceeding with all schools to ensure that mechanisms by which faculty report external compensated activities are clear, well communicated, and user-friendly. Administrators are working with Emory's Information Technology professionals to develop electronic reporting systems that will integrate the reporting systems for all outside activities, including those related to research.

In the coming year, faculty, staff, and students will be kept abreast of these changes as they are developed and implemented. Meanwhile, anyone with questions related to the need to report their outside compensated professional activities should contact their dean's office or the Conflict of Interest Office in the Vice President for Research Administration's Office. ae

To read the AE's coverage of ethical issues surrounding drug companies and academic medicine, see the February-March 2007 issue cover story, "Drugs and Money: Pharmaceutical Companies, academic medicine, and the flow of funds and favors." The issue is available online at www.emory.edu/ACAD_EXCHANGE/2007/febmar/lead.html.

Hearing the Music
A composer considers audience response

STEVE EVERETT, PROFESSOR OF MUSIC

Composers often think that audiences will—or should—be listening in a space similar to the one they inhabit. Of course, when I am composing, I cannot accurately predict the response these sound patterns will trigger in the listener, if any at all. Sometimes the performance setting of a work may offer clues to sociocultural backgrounds and aesthetic expectations of audience members, but my thirty-five years of producing concerts of contemporary art music have shown me that audience makeup and reactions can rarely be accurately predicted. These unknowns are part of what makes live performance such a compelling and often transformative social exercise.

As a composer of experimental art music, I am particularly fascinated by the richly varied listener responses to a complex and unfamiliar sonic vocabulary. They can range from frustration, confusion, and outright anger to indifference or ambivalence. Occasionally, however, listeners may experience a powerful aesthetic response or a heightened sensitivity to humanistic concerns.

Recently I was struck by the dynamic and passionate audience reactions to the November 2008 premiere of my chamber opera, *Ophelia's Gaze,* based on Emory poet Natasha Trethewey's work *Bellocq's Ophelia* (Greywolf 2002). The premiere of this work at the Donna and Marvin Schwartz Center for Performing Arts in November 2008 elicited a more profound emotional response among audience members than any work I have composed or conducted in recent years. Approximately one hour long, this monodrama is structured as a reverie on Ophelia, the young girl portrayed in Natasha's poems. They present a narrative sequence around the thoughts and perceptions of a young prostitute in a brothel in the Storyville section of New Orleans and photographed by E. J. Bellocq between 1910 and 1912. The aural-visual relationships in my composition unfold as a series of tableaux using the consciousness of dreams, memories, and reveries, as described in French philosopher Gaston Bachelard's work *La Poétique de la Réverie* (1960). The performers included coloratura soprano and Emory alumna Katherine Blumenthal and the Vega String Quartet, currently in residence at Emory. The audience included Emory faculty, administrators, and students, as well as professional musicians and contemporary music devotees from the Atlanta area.

Following the premiere of a composition, it is not unusual to receive congratulatory e-mails from colleagues. Seldom, however, do they speak to the personal—the emotional, psychological, or intellectual impact of the work. Particular elements of the *Ophelia's Gaze* production seemed to powerfully affect those in attendance. Here are a few samples from the many e-mail comments I received from audience members following the concert:

- "The opera was both disturbing and compelling."
- "I don't know if I've experienced that kind of saturation of music, theater and screen in such a reality-enhancing and altering way."
- "Seeing Katherine Blumenthal in the audience afterwards seemed surreal—another indicator of her otherworldly impact on stage."
- "Scenes and sounds are lingering in my conscience, and I find myself returning to the troubling complexities of the poetry."

- "I was transported into her dream."
- "It managed to capture the essence of dreams throughout the performance."
- "Truly, I think it took away everyone's breath."
- "Images and music struck me and have stuck with me very powerfully."
- "A great triumph—both as a creative masterpiece and logistical miracle!"
- "It was a mesmerizing experience."
- "An absolutely stunning work of art."

I am always happy to receive any feedback on a work I have created—positive, negative, or indifferent. But this opera seems to have touched a particular emotional place for many. I am not entirely sure why, but my guess is that it was a combination of factors.

First, in creating the character of Ophelia, Natasha extensively researched the living conditions for prostitutes in Storyville. Her three years of work laid the foundation for an accurate, realistic, and ultimately believable setting and portrayal of Ophelia. The poems consist of imagined personal diary entries and letters home from Ophelia to her schoolteacher. In reading them, I noticed that Ophelia regularly entered various states of reverie triggered by images of the brothel where she now found herself working or by memories of her family and life before she arrived in New Orleans.

Natasha also discovered that some of the most popular prostitutes in Storyville were often of mixed race—quadroons and octoroons. She assigned Ophelia to one of these hypodescent racial categories, further complicating her story. During my two years of work on this opera, Ophelia became for me a complex and intriguing individual trapped by the gazes of her multiple clients in the brothel, a domineering house madame, E. J. Bellocq's camera, her own double identity formed by her white appearance and African-American cultural designation, Natasha's poetry in 2002, and my own imagined sonic world—a created extension of her consciousness and surroundings.

A second factor in the work's emotional power may have been the multiple media forms I incorporated, which allowed the audience to share in and perhaps empathize with the character's conflicted psychological states. *Ophelia's Gaze* is a music-theatrical setting designed to capture this character's many struggles with her own identity and her precarious employment. I wanted to merge image, text, and sound into a dreamlike meditation on Ophelia. On reading the poetry, I immediately felt a deep compassion and curiosity about Natasha's fictitious character. I also quickly imagined a music-theater work that might give her a voice and physical presence. With various media forms and technologies, I hoped to bring Ophelia's persona into the present—to try to enable her to "exist" in current imaginations and perhaps give her power over her own image or history.

Finally, I believe Katherine Blumenthal's role in giving a physical voice and developing the character of Ophelia was essential in eliciting the audience responses. Natasha's poetry is sung and spoken by a soprano who encounters multiple reflections of her own image and environment. She interacts musically with a string quartet and visually with her own images reflected in video "mirrors." Video cameras and microphones collect and transform her image and voice through interactive computer-processing programs and an interactive video motion capture system that I developed for the production. Katherine's commanding presence on stage and the dynamic playing of the Vega Quartet pulled the listeners into an intimate dialogue with Natasha's poetry. When I first called Katherine to see if she would consider singing this role and sent her the text, she too was immediately excited about Natasha's character and knew that she had to help bring her to life on stage in this production.

My thirty-five years of producing concerts of contemporary art music have shown me that audience makeup and reactions can rarely be accurately predicted. These unknowns are part of what makes live performance such a compelling and often transformative social exercise.

When I compose, I begin with a set of questions or concerns, often centered on qualities of sound and relationships of the body to new performance technologies. But on another level are the unconscious preferences: the imaging of dreams, memories, and reveries; representations of stillness; sensuous and ambiguous textures; darkness unfolding into light—in essence, my projections and imaginations on Natasha's poetry. It was the "dance" of these two processes that constituted my creative method in composing this opera. Both were necessary in my mind to effectively bring the many facets of Ophelia's internal and external life to the stage. ae

Making Love to the World
The practices that sustain research

CAROL NEWSOM, CHARLES HOWARD CANDLER PROFESSOR OF OLD TESTAMENT

RECENTLY, I was asked to participate in a panel discussion about the practices that sustain research. It seemed a particularly ironic request, since my main frustration in life is that I cannot figure out how to sustain my research in light of other demands on my time. I suspect I'm not the only person on campus struggling with this issue.

The request, however, caused me to reflect on what research means to me and how it fits into my life. As I cast about for various ways to say what research means, in the end I realized that it was a fundamentally erotic metaphor that spoke to me. Research is how I make love to the world. I love facts. I love ideas. I love hypotheses. I love all the crazy ways one moves from one focus to another as new hypotheses and information enter the mix. The thrill as ideas touch one another is, not improperly described, an erotic moment. Research is one of the ways we make love to the world. Now perhaps, if you will join me in the erotic metaphor, it may explain why so many of us are grumpy and grouchy when "we aren't getting any." When we are deprived of the opportunity to pursue our research, we feel that our lives are somehow diminished.

The panel addressed a diverse group of students. Some of them were in Ph.D. programs, but more were in professional degree programs—mostly law and theology. I realized that in talking with this group about research, it wasn't entirely apt to think just in terms of my own paradigm as a professor at a major research university. What did research mean to *them*? Why were they wanting to know about research? For some it was a matter of improving their practices in researching and writing papers for their current degree programs. But it seemed to me that as part of our pedagogy, we need to say that research is not simply an academic practice but a life skill.

Research is actually something that we do all the time, even if we are simply going to buy a new refrigerator. Research is a disciplined and structured way of inquiring about something one doesn't know about. And sometimes that is as simple as what "ENERGY STAR™" means and what reliability ratings mean. Research is going to be a significant part of our students' lives, whether they are going to be lawyers, ministers, or something else. Lawyers have to research in order to prepare cases and to counsel clients. Ministers have to research in order to preach sermons, teach lessons, and counsel parishioners. Research is an integral part of the professional lives of many of our students, especially in the professional schools. Though we did not have medical, nursing, or business school students in the audience, one could easily extend the paradigm. Research is not just a "university" practice but a widely dispersed enterprise.

This line of thinking led to another. While some kinds of research end with ourselves (what kind of refrigerator do I want to buy?), most kinds of research are directed at others. We research because in some way we intend to share the results of our knowledge. And this, too, is an act of love. Whether it is with clients, students, or parishioners—or with fellow scholars—the fruits of research are other-directed. That is an important acknowledgment. Too often, even in research universities, research is somehow stigmatized as "selfish pursuit." And while we all could probably tell of some instance in which someone's research seemed so arcane that it did border on the obsessive, for the most part research is not at all selfish but deeply generous. It is an act of self-discipline in which we immerse ourselves in something that is often frustrating, because in the end we think we will be able to bring back a treasure that others do not have the time or energy to seek out for themselves. I think this characterizes both the research that we as university professors do but also the research that our students in their professional lives will do. And it is that sense of an ultimate community of knowledge that helps sustain our research practices.

As I thought about the students in the audience and about the faculty seated on the panel, I realized that we all have strikingly different styles of research. That is something to celebrate. There are simply so many ways to study questions. As I work with Ph.D. students, one of the things I ask them to start thinking about is what kind of mind they have. Often this process takes many years, but in the end, especially if they are academic researchers, students need to learn what kind of mind they have if they are to perfect their research. Some people excel at "drilling down" research. My first work as a scholar of the Dead Sea Scrolls was this type of research. Each bit of information could be broken down and analyzed and—hopefully—the presenting philological problem solved. But as I continued in my academic career, I realized that what I truly love to do is what I call "associative reasoning." That is to say, I love looking for intellectual patterns across different literatures. Neither one of these is "better" research than the other. But they are very different. And the sooner students realize which is their preferred mode of "making love to the world" the better.

What final advice would I give to students about the practices that sustain research? Two things. First, take counsel with people you respect. Second, be willing to fail in the longer goal of being determined to succeed. Isolated research is discouraging. With each of the last two books I wrote I came to a point at which I was about ready to ditch the project. In each case a consultation with colleagues brought me through that low point to see that what had first engaged me about the topic was really worth pursuing and that I could work through the intellectual blockage. More recently, when I had the opportunity to present at a faculty research luncheon, where typically people present work already in polished form, I chose instead to bring a research project at a fairly early stage of development to my colleagues for their critique. It was an amazing experience. Not only did I receive superb guidance, but my academic community was invigorated by working collectively on the conceptualization of issues that crossed our academic disciplines. That was one risk. And it paid off.

But what about being willing to fail? At least in the humanities, we often don't know if our ideas are sound until they have been tested in the laboratory of collegial opinion. If we are too determined to play it safe, then our research will not contribute much. It takes a lot of confidence in oneself and in one's colleagues, however, to be willing to risk something that might be brilliant or just might fail. But it is a risk that the best researchers are determined to take. The wonderful learning that comes from doing something that doesn't work is that a scholar learns how to distinguish a paper or an article from her essential self. Just because my argument in that particular case didn't work doesn't mean that "I" don't work! As Linus Pauling said about genius, "Have lots of ideas—then throw out the bad ones." Sometimes one doesn't know what the bad ones are until one has put them in the public arena. But scholars will ultimately be judged not by one particular risky idea but by the whole shape of a career. And the risk takers are the ones who love the most passionately. And loving the world is what is it is all about.

The New Reality

Continued from page 3

times people act out of fear: what if it doesn't get better, what if I lose my job, what if I have to sell my house, even if that's not a possibility," says Barbara Rothbaum, a professor of psychiatry and director of the Trauma and Anxiety Recovery program.

Gregory Berns, a professor of psychiatry, wrote about this in the December 6 *New York Times*: "Everyone I know is scared. Workers' fear has generalized to their workplace and everything associated with work and money. We are caught in a spiral in which we are so scared of losing our jobs, or our savings, that fear overtakes our brains. . . . Ultimately no good can come from this type of decision-making. Fear prompts retreat. It is the antipode of progress. Just when we need new ideas most, everyone is seized up in fear, trying to prevent losing what we have left."

Anita Corbett, associate professor of biochemistry, recognizes the dynamics that Berns and Rothbaum describe. She has observed that some of her colleagues are not too eager to venture into new lines of inquiry. "You have to worry about whether your core research is going to stay viable and whether you're going to be able to get funding for it," Corbett says. "I think people have been really reluctant to undertake those new kinds of things. We're in a phase where the NIH and other funding sources want to fund translational research and interdisciplinary research, and those involve taking risks and stepping outside your comfort zone." Corbett also notes a connection between risk and creativity: "Probably the time when scientists are the most creative and thinking outside the box is when they're taking risks."

The temptation is to pull back and hunker down, and institutional behavior can reflect those individual motivations, says Jeff Rosensweig, associate professor of finance. "However, there may be great opportunity for those universities who still have resources, albeit diminished, such as Emory, to aggressively seek new frontiers. We could scour for leading faculty who are being devalued at institutions that suddenly are resource poor. It's also a great time to blow up some of the twentieth-century models used by most universities and be truly innovative."

Others have encouraged Emory to adopt an aggressive institutional mindset. At an Emory College faculty meeting in February, Alex Escobar, a senior lecturer in biology, said that the school "Could be operating from a model of abundance, not scarcity. The bold thing to do is to spend, expand, pick up faculty from other places."

"I think there are lots of other ways that one could weather this," says Pat Marsteller," a senior lecturer in biology and director of the Center for Science Education, one of the programs being reduced. "Although the president [of Emory] says this is not a storm, it's a climate change, I don't believe that. There is going to be a recovery. I see the stimulus package coming through that could have lots more money for research universities if they play the game right."— S. F.

Islam, the individual, and the state

There's a perception that among some self-identifying Muslims is this notion that Islam and the state are fused—that the state must be Muslim, or so-called Islamic, or the notion that Sharia [Islamic religious code] is to be enforced by the state. My own work, in fact, has shown that this notion is not true-that it is not true throughout Muslim history or throughout Muslim intellectual history that the notion of an Islamic state is dominant or that Muslims accepted that religion and the state have to be united. Very much I've found this to be postcolonial discourse, which paradoxically uses a European ideal of the state to talk about a notion of an Islamic state. The term "state" does not occur anywhere in the Koran. The term "state" does not occur in the Sunna [the way of life prescribed in Islam].

—Abdullahi An-Na'im, Charles Howard Candler Professor of Law, from his Distinguished Faculty Lecture, "American Secularism and American Muslims: Challenges and Prospects," February 4, 2009, sponsored by the Faculty Council

Addiction: behavioral syndrome or brain disease?

Neuroscience [has not] resolved the core question of excessive appetite disorders in general, which is, When is an impulse not resisted and when is it irresistible? I don't know if we will ever be able to answer that, but we certainly haven't yet. The bottom line is that you can look at brains all day, but you would never call anyone an addict unless they acted like one. To me, that is key, and that's why if I were forced to define addiction—and we see the need to in a clinical setting—I would call it a behavioral syndrome or condition. The behavior is the point of entry for addiction. So why call it a chronic and relapsing brain disease? The chronic and relapsing part isn't even right most of the time. Clearly the biological changes are there . . . but still, why does that make it a brain disease just because the brain is involved? For the National Institute on Drug Abuse, that apparently is enough of a reason, and it's not wrong necessarily. My point is it's not salient to how we help patients.

—Sally Satel, Staff Psychiatrist, the Oasis Clinic, Washington, D.C., Resident Scholar at the American Enterprise Institute and Lecturer at the Yale University School of Medicine, from her talk at the "Addiction, the Brain, and Society" Conference, February 27, 2009, sponsored by the Rollins School of Public Health

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