My Year as a Freshman: Connections to the Path Ahead

The Pursuit of Science in a Christian Context

Journalistic Objectivity: Time to Abandon It?

Agriculture and Climate Change: Effects and Responses

Member Focus: Phi Kappa Phi Expands Awards Program • Chapter News • Member News • Bookshelf
Phi Kappa Phi Forum

Mission Statement

The purpose of the Phi Kappa Phi Forum is to enhance the image of the Honor Society of Phi Kappa Phi and promote the pursuit of academic excellence in all fields through a quality, intellectually stimulating publication for its membership.

The Honor Society of Phi Kappa Phi Mission Statement

Recognizing and Promoting Academic Excellence in All Fields of Higher Education and Engaging the Community of Scholars in Service to Others

The views expressed in this publication are not necessarily those of the staff of Phi Kappa Phi Forum or the Board of Directors of The Honor Society of Phi Kappa Phi.

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Phi Kappa Phi Forum

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I am happy to report that the staff of Phi Kappa Phi has moved into the Society’s new headquarters at 7576 Goodwood Blvd., Baton Rouge, Louisiana, 70806.

After being the guests of Louisiana State University (LSU) and having the privilege of occupying the third floor of the French House on the LSU campus for twenty-eight years, we have moved ahead with purchasing our own building. As a result of the devastation caused by Hurricane Katrina, the demands for office space on the LSU campus had become extreme, and the university was no longer able to accommodate us. Fortunately, another location in the city of Baton Rouge became available so that we would be able to move to a new and larger location which would allow us to maintain our present staff and services without a break in continuity. Further, the larger space in our new headquarters will provide us with the additional room to expand as the need arises.

The six-thousand square foot, one-and-a-half story building sits on a half-acre lot in a well-established neighborhood of mixed residential and professional buildings in Baton Rouge. Previously occupied by attorneys, the building was designed by A. Hays Town in the 1980s. Town (1903–2005) has been referred to as the “Premier Architect of the South”; according to architectural historians, almost every custom home built in Louisiana during the past twenty years has been inspired by Town.

Born and raised in southwest Louisiana, Town graduated from Tulane University in 1926 and worked as a designer and builder throughout the American south. His style of architecture was inspired by the diverse cultures of Louisiana. He synthesized the classic Acadian cottage (raised front porch, exterior stairs, courtyards, and French doors) with Creole-influenced elements such as full-length shutters. Other structural features favored by Town include pigeon-niers, tree alleys, thirteen-foot ceilings, brick floors with a special beeswax finish, and the use of such woods as cypress and heart of pine. His buildings stand throughout the United States, Mexico, and the Caribbean.

We remain extremely grateful to LSU for its many years of generosity and hospitality. LSU had been our third home. Our first official headquarters was an office on the campus of the University of California, Los Angeles (UCLA) during the period that L.R. Guild, a faculty member at UCLA, served as Secretary-Treasurer of the Society (1935–71). His faculty office had become inadequate to house both his teaching and research activities and his workload for Phi Kappa Phi. The university, in 1951, generously gave him a second office, and Guild declared, “For the first time in its fifty-five years, Phi Kappa Phi has a key to its own front door.”

After Archie Solberg was named our first Executive Director, Society business moved with him to the University of Michigan (1971–77). It was George Robertson who brought the Headquarters with him to LSU when he began his term as Executive Director in 1978.

A campaign is underway to endow the new Phi Kappa Phi Headquarters through a variety of naming opportunities. Information relating to the campaign will be made available to the membership very shortly. I believe that all Phi Kappa Phi members will be proud of our new Headquarters, and we invite you to visit us whenever your travels bring you to Baton Rouge.

Paul J. Ferlazzo, PhD, is a professor of English at Northern Arizona University. He can be reached at paul.ferlazzo@nau.edu.
Sometime around my fifteenth year of university teaching, I realized that I was beginning to lose it. My examples did not seem to hit home anymore, and I had lost patience with the rerun stories about why assignments were not in on time. Why didn’t students do the reading I assigned? Why were class discussions like pulling teeth? What was up with these students who ate meals during my lectures or, worse, went to sleep?

These questions were ongoing topics of discussion with my colleagues. Finally I stopped to listen to myself, realizing that our “kids today” rhetoric sounded a lot like what was said about my own generation growing up. I wondered whether I was missing something. And if you are an anthropologist like I am, what do you do when you encounter another culture whom you do not understand? You go live with them, learn their language and customs, and try to walk a mile in their shoes — just as I did in my life’s work in the Kingdom of Tonga in the South Pacific. I discovered long ago that people seem baffling and alien only if you have not seen the world from their perspective.
Community is not automatic in the U.S. university, and it is often elusive. Typically no time is built in for meals, office hours, or campus events. Instead, we have countless options that individualize our schedules and make connection an effort, but, ironically, we then invest whole segments of the university with the job of “creating community.” What happens as a result is something that I saw countless times as a student. Huge effort would be put into designing community events — such as dorm “movie night” or a Super Bowl party — to which few students (or none) would come after the first semester [see page 7 – Ed.]. The sparse turnout spurred even more effort in student affairs to create new activities that were “better,” resulting in an even greater proliferation of choices, more pulls on limited time, and further fragmentation.

The frenetic character of the modern university had a curious corollary because, to deal with its confusion and demands, many students quickly formed a small network of two to six friends with whom they spent most of their time. No longer flocking to big organized events or communal spaces, students formed small, close, often closed networks of friends who connected in real and in virtual space and time, through vehicles such as cell phones, instant-messaging, and MySpace or Facebook Web pages. In the end, the realities of how students formed community had little in common with institutional visions, activities, and policies.

SOCIAL NETWORKS, HOMOGENEITY, AND INTELLECTUAL LIFE

Who are the two to six people who make up a typical student’s network? Through interviews with students, I learned that their primary networks were composed of students very much like themselves in age, ethnicity, class, and nationality. They tended to meet early in their freshman year (and sometimes even before), usually not in classes but during university “experiences,” both structured and informal, that often drew on their common background — thereby consolidating similarities in their social networks.

I saw repercussions of this pattern in both social and intellectual life at the university. Despite strides in minority admissions and in curricular requirements for diversity courses, daily life interactions — such as who eats with whom — are largely homogenous, as more than fifteen-hundred observations of student-dining partners confirmed in my own data. These patterns were much more pronounced among white students than students of color, who were much more likely to maintain ethnically “mixed” personal networks and eat at mixed tables of diners.
There was a connection, in my mind, between this lack of “intimate diversity” and the quality of intellectual life. Two patterns come to mind. The first was the surprise of international students who were consistently asked questions such as “Where exactly is India?” Many reported a pattern of both ignorance and isolation at the U.S. university. The second is in the pattern of “non-engagement” that I noticed in the discussions in my classes. The most common classroom “debate” of social issues was not the uncivil exchange of words that university officials feared; it was a class where each student expressed his or her opinion individually and sequentially, without any comment on or relationship to anyone else.

The right to one’s opinion clearly trumped the exchange of ideas because, in my view, the university, by confining its diversity efforts to the classroom, had failed to structure the experiences that lead to open and respectful interaction. In so doing, university life relinquishes the tremendous educational potential that comes from drawing on its diversity of people and opinions.

**STRESS, DEMOCRACY, DEBT, PRACTICALITY, AND ACADEMICS**

The lore surrounding college life is still that of Animal House. Media images of college life purvey these same portraits of excess, freedom, and abandon, and students appropriate these images and symbols of themselves. Walking down a dorm corridor, you will see doors decorated with a narrow set of themes: images of alcohol, music groups, sports, and friends partying; words of irreverence, sexuality, freedom, humor, and fun.

It is not that partying does not exist, but the ubiquitous symbols of “fun” cover the other reality of college life: its stress. It did not take me long as a student to realize that student life is busy, stressful, and demanding.

Students at AnyU reflected national statistics which suggest that students are studying less, but they are also socializing less because they are pressed by other demands. Understanding these pressures requires recognizing who our students are and seeing that many of the university’s contemporary challenges come not from our failures but from our successes.

Critics who decry our lowered math and science scores, for instance, often forget that in the twentieth century, our country began with a higher education system that educated 2 percent of the population and ended with one that served 61 percent of our high school graduates. In 2007, we can expect two out of every three high school graduates — a much wider cross-section of U.S. society — to go on for higher education. As a consequence, our students are less affluent, more female, more minority, more first-generation college, and more international, which means that many more of our entering students are less prepared by parents and early schooling for college and less familiar with the “cultural rules” of academe (such as, what is plagiarism?). These shifts have occurred, ironically, at the same time as funding cuts so massive that public education really is not public any more, resulting in the reality that today’s students are more in debt from their educational outlays than at any point in history.

The pressures can be crippling. Most students today work; many have families. Moreover, freshman orientation programs make it clear that, if good jobs and graduate school are on the horizon, students must do more than succeed in classes; they must volunteer, join professional organizations, and pursue interests beyond their classes.

The result of these multiple demands is that academics must be fit into a smaller and smaller portion of student life, a compression of intellectual life that affects students differently, but predictably. Some students drown, becoming “probation” or drop-out stats; many more others become skilled jugglers of college life, what George Kuh (Indiana University) has called “maze smart.” I call what I witnessed “college management,” a strategy of controlling the forces of college — classes included — on one’s time and resources.

College managers taught me much as a student: how to balance my tough requirements with an “easy A” course; how to “block schedule” and carve out a free day or two for myself (meaning that the time of courses becomes more important than the subject). They counseled me as to what books I could avoid buying, what classes I could ditch, and what readings I could skim or skip rather than read.

Pressed as they are, students become enormously efficient, and student culture becomes eminently practical. I came to admire skilled college managers, but I could see too that many of our students were managing to jump through all of the academic hoops at the cost of a real education. And our university systems often supported them.

**CLASSES, SOCIAL LIFE, AND THE REAL WORLD**

It was hard to continue intellectual life out of the classroom. I describe an incident in my book, *My Freshman Year*, in which a class ended in the middle of a heated debate, spurred by the professor. I walked out of class with fellow students fully expecting to continue our argument, but the moment we crossed into the hallway, the conversation was dropped as if it were a hot potato.

I realized in time that this is how college life is. Students do not talk typically about academic issues out-
side of class and are even constrained sometimes in class. Even discussions of philosophical, political, and spiritual issues had little place in most circles. The pockets of students who do entertain such talk — majors in women’s and ethnic studies, environmental studies, or evangelical Christians — often feel as if they are waging an uphill battle against the norm.

Does this mean that today’s students do not value learning? Absolutely not. Almost 80 percent of students, in anonymous postings, said that they would not take a degree if you just gave it to them because they came to college to learn. But here is the rub: Most students report that the majority of what they learn is outside of the classroom and, further, that most of what one learns in college is forgotten by the next semester. Ask students what they mean by “outside,” and they will tell you: the “real world” and the peer group. I found that the classes students valued and remembered most were the ones that most fully connected to these.

THE PATH AHEAD: CONNECTIONS FOR THE FUTURE

To my anthropologist’s eye, university culture is a system of interconnected parts, itself embedded in a larger system of societal and historical relationships. To change anything, one must be aware of the ways in which these internal parts link, and that is why I have taken the time in this article to connect some dots. Just as one cannot really address problems of “diversity” at the university without involving issues of community and the social/academic divide, one must be mindful of the larger forces — such as public funding — that constrain how effective university-level policy really can be. Change in higher education must be understood as a reformulation of relationships, limited by larger forces. That said, here are three sets of relationships that have great potential for change and for the future of our universities: between teachers and students, between social and intellectual life, and between the academy and the real world.

First and foremost, teachers must connect to their increasingly diverse and practical students, and it will take nothing short of a revolution in pedagogy to accomplish this. That revolution is already in progress. The greatest contribution of American education to the world will be the example that we set in teaching the bulk of our population effectively and compassionately, adjusting our own instruction to the ways in which our students learn. Such change will mean a pedagogy that is more experiential and peer-centered, as Mark Taylor (www.taylorprograms.org) argues, and that builds to the theoretical from the concrete and practical, as Charles Schroeder suggests (“New Students-New Learning Styles.” Change, v. 25 (5): 21–27). It will mean much more support (or scaffolding) that makes clearer to less elite students how to get to desired outcomes, with more flexibility in how students acquire and demonstrate learning, attuned to the wider range of students we teach.

It is a revolution that will involve more than the professoriate. As teachers move from deliverers of information to designers of learning experiences, administrators must put in place the structures that will allow professors to experiment and collaborate. At the same time, those who support our technology and build our buildings will become part of the pedagogical team.

Second, we must do more to bridge the divide between social and intellectual life at the university. Universities must reclaim their ground as a place of lively debate, deep learning, and diversity, and to do so means forging new relationships between living and learning. So-called “living-learning communities” that bundle cohorts and courses are but a beginning to innovations that may entail new concepts of university time and credit. Many of the opportunities for truly deep learning will come from efforts to blur the line between classes and dorms, the social and the academic: language immersion programs, academic scheduling in the dorms, credit-bearing activities that combine academic reflection with university events, field-research opportunities, peer mentoring, and diversity programs that draw on both in- and out-of-class contexts.

Integrating academic and social life must be grounded in a more realistic picture of how students form community, and it will mean substantial shifts, as Clara Lovett has called for, in the way student-affairs personnel allocate their own time and resources (“Alternatives to the Smorgasbord: Linking Student Affairs With Learning,” Chronicle of Higher Education, March 17, 2006). Student-affairs professionals and faculty must become partners in accomplishing the academic mission, meaning changes in priorities for both.

Finally, we must rethink the academy’s connection to the “real” practical world. As the student body of U.S. colleges and universities has come to represent a greater cross-section of our country, our students arrive with different preparation, obligations, and motivation from in the past. Not only does one see a more concrete and practical orientation toward learning, but also one sees a more compelling sense of the significance of the university’s role in professional preparation. Indeed, as a professor at a nonelite public institution, I feel proud to have a role in improving the life chances and career options of my students.

But I do not know yet what making the academy/real world connection fully entails. While I have personally made many changes in my own teaching to make my material more concrete and relevant and to bring my classes into the real world, it is clear that the university outreach must extend beyond teaching methods and
content. The expansion of internship programs and service-learning projects are steps in the right direction, and perhaps, as Arthur Levine (Columbia University) has suggested, we should consider reversing the order of general education and major courses. By immersing our practical students in hands-on professional courses and experiences early, we may offer a more inviting entree to university life and success in school.

The university community must have these conversations, but to do so we must first end the false dichotomy between liberal studies and professional preparation and the tensions within the university that this can generate. Such a division is no longer useful in a world where most of our students depend on the university as a stepping stone to a middle-class life and where it is increasingly apparent that having a liberal education — including competencies in reading, writing, speaking, critical thinking, problem solving, ethics, cross-cultural communication, and compassion — must be the foundation of contemporary professional life.

The town-gown relationship will be important to the emergent directions of higher education in funding and curriculum, but the university must be vigilant in maintaining its unique character and independent function in society. As I wrote in My Freshman Year, “we would not want a university to become so immersed in the world that it can neither critique that world nor proffer an ideal vision of how else it might be.” Higher education can neither be simply a training ground for the workforce nor an ivory tower, and faculty in particular must be critically involved in finding the right balance point in between.

One of my biggest epiphanies about community life in the dorm came on SuperBowl Sunday….The event had been advertised heavily in the hall for weeks. “Free Ticket” the flyers read, and the “ticket” entitled one to good company, free pizza and drinks during the game. The large lobby had been set up with two big screen TVs, so that the space could accommodate viewers from any corner.

I arrived a little early to get a good seat, and waited for the lobby lounge to fill but by game time there were only five people in the space. One had turned the second TV to a different program, so I and four others watched the opening kickoff together….Where were the other students? I left at half-time to find out.

Many, I surmised, had gone to sports bars. But as I wandered the floors of my dorm I could hear the game playing from numerous rooms. On my corridor alone, where there were two opened doors, I could see clusters of people in each room eating and drinking as they watched the game together on their own sizable televisions. It seemed telling to me that so many dormitory residents were watching the same game in different places, the great majority preferring to pass the time with a carefully chosen group of personal friends in their own private space. It spoke in a more general sense to the way community really worked in the university.

Rather than being located in its shared symbols, meetings, activities, and rituals, the university for an undergraduate was more accurately a world of self-selected people and events. The university community was experienced by most students as a relatively small, personal network of people who do things together. This “individual community” was bolstered by a university system that honors student choice and a level of materialism in the larger society that, by enabling students to own their own cars, computers, TV sets and VCRs, renders collective resources and spaces superfluous.

The Pursuit of Science in a Christian Context

Randy Isaac

The prevailing American public perception appears to be that both science and religion, particularly Christian faith, are important to daily life but should be kept in their respective corners. Most Americans profess to believe in some type of a deity while simultaneously enjoying a cornucopia of benefits from science and technology. Yet when science and religion meet, sparks often fly, and headlines scream about the clash.
From school-board decisions in Kansas to court rulings in Pennsylvania, widely publicized conflicts seem to confirm the dichotomy between science and Christian faith. Science is portrayed as sparring with Christianity, pitting objectivity and reality against subjective mysticism and piety.

How is it then possible that an organization of Christians in science continues to thrive sixty-five years after its founding?
The American Scientific Affiliation (ASA), organized in Chicago in September 1941, is a group of nearly two thousand scientists who affirm the orthodox Christian creeds. Far from being on the fringes of pseudoscience, these scientists are involved in higher education and industry and are committed to integrity in science. Furthermore, they do not keep their science segregated from their faith but actively seek to integrate their faith with their vocation. Neither do they avoid areas of controversy but strive to sustain a healthy dialog across the entire spectrum of diverse views of Christian faith and mainstream science.

How does the ASA deal with the apparent dichotomy between science and Christianity? How does it handle the sharp differences of opinion on controversial issues? How can these conflicts be handled in our pluralistic society?

ROOTS OF HARMONY

Underlying the ASA’s approach is the conviction that the core assumptions and commitments of science and Christian faith are fundamentally in harmony. Modern science arose in a strongly theistic milieu that helped to shape it in very important ways. The world makes sense because it is a product of the divine mind. The nature of nature as a created entity rather than as a divine being means that humans can explore nature and use it for their benefit within the limits of an appropriate stewardship. The freedom of the creator requires a science that looks for contingent order, not for necessary truths imposed on nature by our minds.

This is not to deny the presence of genuine conflict at certain points in history, such as the trial of Galileo or the fundamentalist rejection of large parts of modern science. Such conflicts are real, but they are also very complex phenomena that cannot be simply equated or reduced to the standard metanarrative that “science” and “religion” are in a perpetual state of inevitable conflict. In Galileo’s case, for example, he and his principal Vatican opponent, Robert Cardinal Bellarmine, agreed that the Bible should not be reinterpreted without absolute proof of the earth’s motion. Galileo thought that he had such proof, but his arguments, based on the phases of Venus and the cause of the tides, were logically flawed, and he pushed them beyond their real force. In the process, he personally insulted his longtime friend, Pope Urban VIII, who retaliated by summoning Galileo to Rome to face charges of heresy. In short, there was plenty of blame to go around. It was not simply a matter of “science” versus “religion.”

In the hands of later apologists for science, however, Galileo became a martyr for scientific progress, the epitome of what would happen to the diligent scientist who simply pursued Truth against entrenched, unenlightened religious zealots. In reality, the truth is what is lost when such historically unsupported interpretations are advanced as established matters of fact.

A strong focus on the history of science and of theology is therefore vital to understanding how science and Christian faith actually do relate. If science and Christian faith were inherently incompatible, any effort to bring them together would be hopeless. A peaceful but wary coexistence would be the best that one could hope for.

Before the enlightenment period, no sharp professional distinction existed between theology and science. The study of the natural world was an integral part of the search for God’s truth. For the most part, university positions and governmental funding were not available to enable creative minds to devote their lives to scientific research. Observations of the natural world were often made by the clergy and by independently wealthy amateur natural philosophers.

Philosophically, science and religion often were understood according to the so-called two-book model, which views the natural world and the Bible as complementary revelations of God. The early Greek philosopher Heraclitus wrote in the fifth-century BC of logos, the words or thoughts of God, being the organizing principle of the natural world. Later, the apostle John identified logos as the Maker of all things and as Jesus Christ, the incarnate Son of God. This concept lays the foundation of harmony between science, the study of what was made, and Christian faith, the study of the Maker and his incarnate Son. In many ways, the understanding that all nature was made by a single deity, rather than by a panoply of warring deities, was important to building confidence that science was even possible. A natural world responding to the whims of various gods would hardly be amenable to systematic scientific study.

During the enlightenment, secularism advanced aggressively. One impact on theology was the growth of deism, whereby the creator of the universe was not involved in its subsequent existence and development. This viewpoint led ultimately to agnosticism and atheism. Especially in the nineteenth century, science came to be viewed as an alternative to a theistic explanation rather than as a way of understanding the ordinary, everyday actions of a deity.

In the last half of the nineteenth century, opponents of religion became more militant. They seized upon Darwin’s theory of evolution as a primary piece of evidence to reject the role of a deity in forming the biological world. Thomas Huxley, John Tyndall, John Draper, Andrew White, and others aggressively advanced a model of inherent warfare between science and Christianity. White’s A History of the Warfare of Science with Theology in Christendom in 1896 became a worldwide staple in education. Though his work has since been decisively discredited by historians such as David Lindberg and Ronald
Numbers, his assertion has had widespread influence. The myth of a fundamental conflict between science and Christian faith has become a basic assumption in academic circles. Deconstructing this misconception is an important element in restoring a more accurate understanding.

Today, those who accept the warfare model take a variety of approaches to the conflict. On one end of the spectrum, vocal advocates such as Dawkins, Dennett, and Provine claim that science has shown religion to be false and even dangerous. They proclaim that the existence of a deity has been disproved by science and that religious faith can even be detrimental to society. They mistake scientific explanations of phenomena as substitutes for God rather than expressions of the coherent actions of a monotheistic creator. It is seldom clarified in their works that their metaphysical conclusions are derived from their own presuppositions and are not a necessary consequence of scientific analysis.

Reacting to this provocation, some defenders of the Christian faith counter with claims that science as practiced today is inherently biased toward an atheistic presupposition and is thus no longer objective. Ideas ranging from scientific creationism to intelligent design are offered to demonstrate how “true” science is not in conflict with religion. Often they make the same mistake as the vocal atheists, seeing the divine hand only where the laws of nature provide no explanation. While accepting the claims that science leads to the rejection of divine existence, their response is to be skeptical of mainstream science, proposing an alternative theistic or Bible-based science. The result is an escalation of warfare, particularly in the public classroom. This conflict has been a major factor in the growth of religious private schools where modified versions of science can be taught.

These two polar opposites are sometimes called scientific fundamentalists and religious fundamentalists. Their conflicts are headline grabbers, making it appear that conflict is pervasive. Nevertheless, many, if not most, scientists do not subscribe to either extreme. Some who represent the middle ground strive to keep science and religion separate. Stephen J. Gould championed the NOMA concept (Non-Overlapping MAgisteria) in which science and religion were considered to be separate, noninteracting spheres of influence. For most scientists this is a de facto description of everyday life. Religion does not affect their work at the laboratory, and science has little influence on the average sermon in church. Philosophically, however, NOMA essentially means that religion is irrelevant to understanding the natural world. In essence, it reinforces the perception that science and religion are incompatible, needing to be isolated in their respective corners to prevent culturally destructive warfare.

THE RAGING DEBATE

Want to read more from both sides of the debate that Randy Isaac outlines in this article? Here is a list of recent and well-received books that will help you to decide your own position on the complex issue.

The God Delusion, Richard Dawkins

An evolutionary biologist argues against the existence of God and the continuing harm that he says religion has caused.

The Language of God: A Scientist Presents Evidence for Belief, Francis S. Collins

Collins presents a personal account of faith, the human genome, science, and spirituality, much of which relates to evolution.

The End of Faith: Religion, Terror, and the Future of Reason, Sam Harris

Harris argues that religious faith (Muslim as well as Christian) encourages unacceptable dangers to modern life because it places more value on the afterlife than present existence.

Darwin’s Black Box: The Biochemical Challenge to Evolution, Michael J. Behe

A biochemist argues that life is “irreducibly complex” on the cellular level, which he sees as strong evidence for intelligent design.

Why Darwin Matters: The Case Against Intelligent Design, Michael Shermer

A skeptic takes what he calls the “ten most cogent” arguments for intelligent design and presents the science against them.

Intelligent Design: The Bridge Between Science & Theology, William Dembski

A three-part book which argues that intelligent design holds the promise of reconciling science and religion.

Breaking the Spell: Religion as a Natural Phenomenon, Daniel C. Dennett

Dennett provocatively calls for studying religious faith as a purely biological process, the result of evolution and natural selection.

Coming to Peace With Science: Bridging the Worlds Between Faith and Biology, Darrel R. Falk

Falk discusses how he has reconciled the study of biology with holding a deep religious faith.
A more fruitful approach is to reject the warfare model itself and to recognize the genuine compatibility of modern science and traditional Christian belief. Most ASA members acknowledge this harmony and seek to integrate mainstream science and Christian faith without compromising the integrity and orthodoxy of either one. No monolithic, single-minded perspective reflects that integration. Rather, a spectrum of opinions sharpens the dialog and understanding. Broad education of the history of science and of Christianity is a vital element in restoring order in this discussion.

At least one inherent conflict is unavoidable. A fundamental incompatibility does exist between the opposing worldviews of metaphysical naturalism and atheism on one hand, and monotheistic Christianity on the other. Science is caught in the crossfire as it is used by all sides as an attempt to bolster their own position. Yet science provides no definitive proof for either side.

**DIALOG AS A PATH TO UNDERSTANDING**

Issues in science and Christian faith are complex. Many firmly held beliefs are rooted in traditions and presuppositions not fully vetted from a scholarly perspective. How can progress be made in bringing together such a vast array of opinions?

The ASA deliberately avoids taking a specific position on controversial issues and is not an advocacy group. Its core beliefs reflect, on the one hand, a commitment to the orthodox creeds of the Christian faith and, on the other, a commitment to integrity in science. Beyond those commitments, however, ASA has a policy of neutrality.

Several disadvantages are inherent in such a policy. An advocacy group has the advantage of waving a flag as a rallying point. Passion can be aroused by encouraging the faithful to carry the banner and spread the word. An organization without a specific position on such controversial issues has a less-colorful rallying point. Dialog and discussion can appear boring and banal compared with the excitement of spreading the “answer” to the problems. The diversity of opinions can be a disadvantage as well as an advantage. While we all agree on the broad theological and metaphysical perspectives, much time and energy are spent on disagreements in the details.

The advantages, however, outweigh the disadvantages. The primary focus of the ASA is to foster scholarship and dialog on the full spectrum of perspectives. The result is a deeper understanding of the issues and an emphasis on unity based on common ground. The effort to integrate science and faith includes several basic areas, each requiring a different approach.

The first area is philosophical, or metaphysical, seeking to understand the big picture of the relationship among the natural world, humanity, and God. This area includes the warfare models discussed above as well as conceptual relationships among God, humans, and nature. The existence of God, the philosophy of science, the truth of theology, the meaning of life, and many other issues have been discussed for millennia and will long continue to be the focus of debate. Dialog in this area requires a basic understanding of philosophy, theology, and general science.

The second area involves the interpretation of the Bible. The most frequent source of conflict in what should be a landscape of inherent harmony is a specific interpretation of a passage of Scripture. The most well-known of these is the interpretation of the first chapter of the book of Genesis as proclaiming that the Earth and its inhabitants appeared during a 144-hour period approximately six to ten thousand years ago. Though neither a historical nor an orthodox interpretation, it has become a hallmark of biblical inerrancy for those reacting to the rise of religious modernism with its challenge to the reliability of the Bible. Secularists accept this interpretation as the norm and conclude that scientific evidence of a 13.7 billion-year-old Earth disproves the Bible and therefore the existence of God. Fundamentalists who remain convinced of the accuracy of this interpretation conclude that scientists are biased and have failed to interpret the data correctly. Meanwhile, the real issue is the hermeneutics, or the method of interpretation, of the passage. When interpreted from the perspective of the language and culture of the era in which it was written, it is not certain that any chronology is taught by this passage.

In any religion, the interpretation of sacred texts is a cornerstone of the faith, arousing a passionate apologetic. Various religious leaders emphasize nuances relating to issues that they consider important, resulting in a vast spectrum of interpretations. Dialog in this area requires extensive study and knowledge of original texts and the writings of diverse theologians.

The third area involves applying scientific and religious perspectives to ethical issues. In this area it is not possible to keep science and religion separate. Well-known battlegrounds of abortion, euthanasia, stem-cell research, and ecology are areas in which both science and religion have something to say. Deep scientific knowledge is necessary to understand the nature of cells and embryos. Religious views of life and the respect and reverence to be accorded to various types of cells are a vital check and balance to the insatiable appetite for scientific research. The biggest threat of all is ignorance. Dialog requires both scientific expertise and a firm grasp of the religious and social basis for our ethical standards.

Technology is not immune from the discussion. Many engineers consider technology and its development to be ethically neutral, leaving the producers and users of such technology to be the arbiters of ethical behavior. Yet such a NOMA-like approach is an abrogation of responsibility.
The human impact and implications of a technological project should be core considerations at every step of the work. Dialog in this area requires a sensitivity and knowledge of the implications of technology in our global economy.

Finally, the fourth area relates to the nature of human beings. While scientists have growing confidence in theories of the origin of species and are hot in pursuit of a viable theory of the origin of life, the origin of consciousness and humanness itself is still beyond our grasp. It is not at all clear from science alone why a species should exist that can ponder the meaning of its own existence and that of the universe around it. As scientists are rapidly gathering more information about the details of the brain and its operation, more questions arise about the relative role of physical and spiritual influence on behavior. These issues may be more divisive in the future than issues of origins are today. Dialog in this area requires a vast knowledge of all types of scientific data regarding human beings, including psychology, neuroscience, and theology.

RESPECT AND RESOLUTION

Much of the hostility expressed publicly in the various issues cited above derives from adamant adherence to a particular viewpoint, coupled with a lack of understanding of alternatives. The ASA seeks to resolve issues under an umbrella of respect for each other’s view. Not surprisingly, as is common in ordinary scientific debates, in the passion of a heated debate tempers may flare, and strong words may be exchanged. But fundamental respect, especially in the art of listening to each other, is a necessary starting point for resolution.

An organization dedicated to the advocacy of a particular viewpoint owes its very existence to the truth of that viewpoint and cannot openly accept the input of contradictory views. The ASA has the advantage of accepting a very wide range of input within the Christian theological framework and therefore of making progress in the resolution of critical issues.

The model of warfare between science and Christian faith seems to pervade our culture and causes many of the open clashes. By pursuing an understanding of diverse views in a model of harmony, the ASA seeks to integrate the vocation and the faith of the many Christians in the scientific community. Its members pursue science not in isolation from their personal faith but in a Christian context of an immanent Creator.

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For further reading:


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When historians look back on the Bush years, they will likely note that it marked the rebirth of a partisan press in the United States. The phrase “partisan press” calls forth images of nineteenth-century printers settling differences by beating each other with canes. But a partisan press that is fair and accurate yet honest in telling the audience what journalists believe and what their organizations stand for would be a great improvement over the pose of neutrality assumed by the profession today.
The trend of opinion creeping into the news pages in terms of biased wording in copy and thinly disguised advocacy journalism masquerading as “news analysis” had been going on before George W. Bush took office, but it has accelerated under his watch and is one of the unintended consequences of his divisive presidency and his mastery of press relations. Bush’s approval ratings as I write this article are hovering in the thirties, so the last part of that sentence requires some explanation. Bad news, and especially bad war news, trumps good press tactics, and Bush finally fell victim to public impatience with the war coupled with something every politician’s image eventually suffers from in our microwave, instant-messaging, channel-surfing culture — boredom.

Nevertheless, for more than four years Bush stymied reporters with his unparalleled message discipline, airtight control of leaks from his inner circle, and his indifference to criticism of his methods, which can be summed up in a quote from the Washington Post’s Dan Froomkin: “He doesn’t fear the press.”

PRESS BIAS

But he certainly frustrated the press. Columnist Richard Reeves, in Bush’s first term, bemoaned the fact that the press had not “laid a glove on the ‘war president.’” Out of their frustration, the press turned on itself, culminating in the remarkable reaction to Bush’s March...
6, 2003, press conference in which he made the case for war with Iraq. A number of reporters criticized their own performance. Terry Moran of ABC called the White House press corps “zombies” for not challenging Bush more effectively, and American Journalism Review used it to illustrate a cover story examining whether the press was too soft on Bush.

Of course Bush partisans think just the opposite, and they have evidence to support it. Perhaps the most dramatic evidence of bias against the president was the admission by Newsweek’s Evan Thomas that most of the press corps wanted John Kerry to win in 2004 and that it was worth ten points to his campaign.

My point is not to make yet another examination of the tired debate over whether the press has a liberal bias. For the record, I think the plethora of surveys showing journalists are liberal is accurate, and their political sympathies do affect coverage. But guess what? It does not matter what journalism professors or professional journalists think. The audience thinks that the press is biased, and the audience is the group that matters if news organizations want to survive in the twenty-first century.

The State of the News Media 2006 report done by the Project for Excellence in Journalism showed that almost 75 percent of Americans believed the press was “slanted,” and about the same number believed the press was more concerned with attracting an audience than with serving the public. What should be even more eye-opening for the profession is pairing that data with the Gallup survey of confidence in American institutions that showed the military had the highest rating in our society at almost 75 percent, and that the military, the police, and organized religion all ranked higher than newspapers and television, which were both rated at 28 percent, down from close to 40 percent in 2000.

This difference shows a terrible disconnect between an audience that trusts the military and a profession that gives prestige and awards for investigations over scandals such as Abu Ghraib. Again, we can debate whether some of the Abu Ghrabi coverage was biased, but that argument is academic in the worst sense of the term to a public that views the story as an aberration and not typical of the American military.

RETHINKING OBJECTIVITY

It is time to move beyond the debate over whether the press is biased to a discussion of how best to win public trust in a time when the power of choice is in the hands of the audience. It is time for the profession to rethink objectivity and old-fashioned partisan journalism on both an individual and an organizational level.

Common sense and a look at how the media are used indicate that the public neither believes the media are neutral nor necessarily wants them that way. Virtually every trend in our society is toward more choice for the consumer. That trend has hit the media in an overwhelming way, with satellite, cable, and the Web offering myriad news and entertainment options. Furthermore, constant advances in technology allow nonprofessionals to easily and cheaply produce their own news or analysis of the output of the mainstream news organizations. The public now can see alternatives to the pack journalism view that says, for example, that Abu Ghraib is the representative story of the Iraq war. And in terms of politics, the public did not have to take the word of Dan Rather that Bush did not serve honorably in the Guard. Bloggers showed that Rather’s reporting was sloppy, to say the least.

The Fox News Channel — ridiculed by some in academia and the profession — is perhaps the best example of the audience choosing a medium to fit its worldview. Its success in attracting a niche audience — Fox host Morton Kondracke jokingly said the niche is the approximately 50 percent of the population that is conservative — looks like the future of journalism. Journalists are grasping the possibility of this future only tentatively. They know the industry, particularly print, is in trouble, but they hesitate to give the public what it wants. For example, the October 2006 issue of Editor & Publisher contained a series of stories on radical ideas for trying to save newspapers in the Internet age. It pointed out that some are even considering what it called dramatically “the final taboo” — abandoning daily publication.

Given the other ideas in the magazine — such as appealing to baby boomers rather than youth or redesigning layout — it seems more likely that the last taboo will be rethinking objectivity, an idea many journalists are clinging to like a drowning man to a punctured life preserver. Some argue that the press must be neutral; otherwise people will seek only news that reinforces their own biases. But it is just as likely that readers, knowing their favorite news outlet has a point of view, will seek other sources to double-check what they are reading, that they will have a healthy skepticism rather than a cynical belief that the news is biased but that reporters pretend it isn’t.

Nevertheless, a few brave souls are questioning the logic of reporters writing about the news with the detachment of biologists watching paramecia divide under a microscope. Two essays in the last few years in Columbia Journalism Review argued for rethinking objectivity, maintaining that the press had been easy on Bush because the tenets of objectivity made reporters passive recipients of the news rather than investigators of events. This line of argument asserts that because of objectivity, reporters will not challenge governmental officials directly but only will quote opposition sources who do. If the opposition party is cowed out of fear or lethargy, as the Democratic opposition supposedly was in the run-up to the Iraq war, reporters cannot challenge the party in power.
without breaking the taboo of being neutral observers. Furthermore, objectivity prevents reporters from injecting controversial issues into the news until they find a source who wants to do so.\textsuperscript{10}

This argument has arisen largely in response to journalists’ frustration with the Bush administration and its effective control of message and access. That argument is of interest to the profession, but not the public. The public sees Bush in the news making statements and answering questions; he certainly appears accessible. When he does have a press conference, the reporters do challenge him. A review of the pre-war 2003 press conference that caused so much media angst actually shows that the reporters asked Bush all the tough questions, including a version of whether he was going to war to avenge his father. The press is tough, and the public sees it.

The problem with objectivity is not that it makes the press too timid but that it makes reporters and news organizations feign a neutrality that the public disbelieves. And why wouldn’t the public be skeptical of the motives of journalists? The press has spent the last half century or more as the de facto opposition party and scold of every public and private institution in the country, whether it is the presidency, the military, or the Catholic Church (see the intense coverage of priest sex scandals). In a supreme bit of irony, the public still trusts most of these institutions (except politicians) more than the press.

\textbf{RECAPTURING THE PUBLIC}

How is the press to recapture the public trust? Honesty. Admitting that journalists have biases and that these biases sometimes affect news choices is a good start. But it has to go deeper than that. The press, perhaps individually but certainly organizationally, needs to take a stand; reporters and organizations need to openly state their worldviews. They need to acknowledge that their audience has particular worldviews, and they need to try to serve them.

One of the current industry buzzwords is transparency, which basically means letting the public know more about editorial processes and even the biases of individual reporters. The argument against transparency on the individual level is that reporters can be neutral and various biographical facts about them do not necessarily show their worldview or political philosophy. But what is the harm? Bylines, after all, were established at least in part so that reporters were responsible for their writing. If the public knows a piece was written by reporter A, that fact already indicates the story is different from one written by reporter B. Why

not let readers know some basic facts about the reporters and make their own conclusions? Probably only the most serious readers would want to click on a bio link of some reporter’s name on a Web site. But certainly the culture of the Web, where print newspaper survivors will eventually wind up, is toward more personal information, not less. Blogs, which many organizations are requiring their writers to produce, are personality driven, and the readers will want to see some personal facts to know about that personality.

Transparency on the individual level, however, is not as important as transparency on the organizational level. Most serious news consumers can tell the worldview of certain news organizations. Fox skewers right, CNN skew left. The \textit{New York Times} skew left, the \textit{New York Post}, right. But for the sake of honesty and credibility, all news outfits need to explicitly pick a side. They need to provide an easily accessible statement of their political philosophy and to admit that the philosophy touches the whole organization and everything it produces.

Some news outfits are taking baby steps in this direction. The \textit{Bakersfield Californian}, for example, added a conservative columnist and tried to appeal to conservatives by covering more stories of interest to them because the staff realized that they were in a red area of a blue state and needed to appeal to that audience. But they seemed to go after the change half-heartedly, the editor saying, “We are not going Fox News here, no slanting.” The paper got some gains in circulation, but the gains eventually leveled off.\textsuperscript{11} Perhaps the paper would have been more successful had it followed the Fox model of finding a niche and filling it unashamedly.

College journalism programs can help publishers find their niche through some research and practical advice rather than ivory-tower harangues about the evils of business and profit. The Readership Institute think tank at Northwestern University is a good example of what can be done. \textit{The Dayton Daily News}, at the advice of the institute to listen to its readers, balanced its liberal editorial page with conservative voices because it, like the Bakersfield paper, was seen as a liberal paper in a conservative town.\textsuperscript{12} But the \textit{Columbia Journalism Review}, in a story about the institute and changes at Northwestern’s Medill School of Journalism, worried that such changes would hurt the profession. Its cover headline asked plaintively, “At Medill, marketing is the new man-
tra. Will it drown out our journalism?"13 The question that journalists really should worry about is: How many news organizations will drown before marketing saves them?

Perhaps one marketing answer would be for newspapers to create publications based on politics as well as on race, gender, age, and language. New technology is allowing for more segmented print editions and a limitless supply of Web alternatives. Many newspapers now have publications aimed at young people or Spanish-speaking readers. Why couldn’t each metro daily have a version for conservative readers and one for liberals? It was not long ago that most markets were divided that way. In my hometown of St. Louis, I grew up reading both the liberal Post-Dispatch and the conservative Globe-Democrat. Now St. Louis, like most cities, has one newspaper. The Post won the newspaper war but never over a majority of old Globe readers and remains a blue paper in a red state.

During the Civil War, the Democrat — the forerunner of the Globe-Democrat — was a strong Union supporter, and Abraham Lincoln said that it was worth ten regiments of soldiers.14 Could a similar thing be said about the significance of any of our objective newspapers today? After the Civil War, Missouri Republicans sought to impose a loyalty oath for former Southern sympathizers. Lebbeus Zevely of Linn, Missouri, refused to sign the oath and started a newspaper with the defiant title—perhaps the best in the history of American journalism—the Unterrified Democrat.

Journalists today seem terrified of nothing so much as being accused of bias. Reporters often make the argument — and I admit that I have done so myself because it is so comfortable — “I must be doing something right because both sides hate me.” But what if both sides of our partisan divide are criticizing journalists because they are doing something contemptible: posing as neutral observers when they are not?

The journalism profession, by trying to be nonpartisan, is failing to take a stand on the great issues of our time. In addition to my research on George W. Bush, I have also looked at press coverage of the Battle of the Little Bighorn as a way of examining an era when the press was still partisan but there were some nascent movements toward the faux neutrality of today.

A Kentucky editor wrote that he had no respect for someone who was politically independent because he had no fixed principles: “We honor a Radical who has the manliness to stand up boldly for what he conceives to be right, but may the Good Lord deliver us from a so-called ‘independent.’”15

Amen. A return to a fair partisanship — one in which journalists and news organizations are honest about who they are and what they think as well as being accurate in the facts that they report — might be the savior of an increasingly mistrusted media.

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1 Dan Froomkin, personal interview, 17 February 2004.
5 Evan Thomas, interview by Howard Kurtz, “Coverage of Third Presidential Debate; Should FCC Stop Sinclair from Broadcasting Anti-Kerry Film?” CNN Reliable Sources, Cable News Network, television, 17 October 2004, transcript retrieved from transcripts. cnn.com/TRANSCRIPTS/0410/17/rs.01.html.
9 Mark Fitzgerald and Jennifer Saba, “Paging New Ideas,” Editor & Publisher, October 2006, 22–30, 32.
15 Kentucky (Danville) Advocate, 28 July 1876.
The prospect of climate change has heightened concerns about agricultural production worldwide. At the global and regional scales, food security is prominent among the human activities and ecosystem services under threat from anthropogenic (that is, resulting from human interactions) interference in the earth’s climate (Millennium Ecosystem Assessment 2005; IPCC 2001a; Watson et al., 2000). At the national scale, many countries are concerned about potential damages that may arise in coming decades from climate change, as these are likely to influence domestic and international policies, trading patterns, resource use, regional planning, and social welfare.

The consequences of these changes on world food supply and demand will depend on many interactive, dynamic processes. While agro-climatic conditions governing land resources and their management are key components of food production, both supply and demand are also critically affected by socioeconomic pressures, including current and projected trends in population and income growth and distribution, as well as availability and access to technology and development. In the last three decades, for instance, average daily per-capita food intake has risen globally from 2,400 to 2,800 calories, spurred by economic growth, improved production systems, international trade, and globalization of markets. Feedbacks of such growth patterns on cultures and personal tastes, lifestyles, and demographic changes have in turn led to major dietary changes — mainly in developing countries, where shares of meat, fat, and sugar in total food intake have increased significantly (see Fischer et al., 2005).

Agriculture plays a fundamental, dual role in human-driven climate change. On the one hand, it is one of the key human sectors that will be affected by climate change over the coming decades, thus requiring adaptation. On the other hand, agriculture is also a major source of greenhouse gases (GHG) to the atmosphere. As climate changes and socioeconomic pressures shape future demands for food, fiber, and energy, connections need to be identified between adaptation and mitigation strategies so that we can develop robust options which will meet both climate and societal challenges in the coming decades. Ultimately, farmers and others in the agricultural sector will be faced with the dual task of contributing to global reductions of carbon dioxide and other GHG emissions, while having to cope with an already-changing climate.

**IMPACTS**

Integrated assessment studies focusing on quantifying the effects of climate change on food production link agro-ecological dynamic crop production modules to economic models that can simulate the evolution of agriculture regionally and globally — including the important role played by world trade — in different socioeconomic scenarios. Such studies have found that global agricultural production may suffer little, or even benefit, from climate warming in the coming two or three decades of up to
about 2.5°C — with positive effects of elevated carbon dioxide (CO2) on crops overriding the rise in temperature (IPCCb 2001). Although the precise levels of CO2 effects on crops and their contribution to global crop production are still active areas of research (Tubiello et al., 2006), negative global impacts are likely to result in all regions sometime around the second half of the century.

Although most projections estimate small impacts at the global level (that is, less than 2 percent of global production in the next thirty years and less than 5 percent by the end of the century), they also suggest significant negative regional effects, especially in developing subtropical countries with low capacity for adaptation (Fig. 1). In many cases, developing countries are more vulnerable to climate change than developed countries because of the predominance of agriculture in their economies, the scarcity of capital for developing and disseminating measures to adapt to the change, the often-warmer baseline climate, the already stressed marginal-production environments, and the heightened exposure to extreme weather events. In the developing world, as many as 800 million people currently are undernourished (UN Millennium Project, 2005); hence, these countries are particularly vulnerable to the effects of climate change on future food supplies.

Overall, global climate change will widen the production gap between developed and developing countries, as well as affect the regional distribution of hunger, with climate change increasing malnutrition, especially in sub-Saharan Africa (see Parry et al., 2004; Fischer et al., 2005). The effects of increased frequency and severity of extreme events — often not included in current assessments — may further tip the balance more toward the negative, even globally, and earlier in this century.

**ADAPTATION**

Adaptation can help farmers to minimize the negative effects of climate on human activities and ecosystems and to take advantage of potential beneficial changes. Adaptation to climate change can be defined as the range of actions taken in response to changes in local and regional climatic conditions (Smit et al., 2000).

Adaptation responses include both autonomous adaptations (in other words, those taken independently by individual farmers or by groups such as agricultural organizations), and planned adaptations (those facilitated by climate-specific regulations and incentives put in place by regional, national, and international policies) (See Table 1) (IPCC 2001b). In terms of the multiple factors impinging on agriculture, however, system responses to socioeconomic, institutional, political, or cultural pressures may outweigh response to climate change alone in driving the evolution of agricultural systems. Adaptive capacity of a system, in the context of climate change, can be viewed

<table>
<thead>
<tr>
<th>Approach</th>
<th>Definition</th>
<th>Operation</th>
</tr>
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<tbody>
<tr>
<td>Autonomous</td>
<td>Responses that can be taken by farmers and communities independently of institutional policy, based on a set of technology and management options available under current climate</td>
<td>Crop calendar shifts (planting, input schedules, harvesting) Cultivar changes Crop-mix changes</td>
</tr>
<tr>
<td>Planned</td>
<td>Responses that require concerted action from local, regional and or national policy</td>
<td>Land-use incentives, Irrigation infrastructure, Water pricing, Germplasm development programs</td>
</tr>
</tbody>
</table>
as the full set of system skills — technical solutions available to farmers to respond to climate stresses — as determined by the socioeconomic and cultural settings, plus institutional and policy contexts, prevalent in the region of interest.

Current agronomic research confirms that at the field level, crops would respond positively to elevated CO₂ in the absence of climate change (see Ainsworth and Long, 2005; Kimball et al., 2002; Jablonski et al., 2002), while the associated effects of high temperatures, altered patterns of precipitation, and possibly increased frequency of extreme events (such as drought and floods) are likely to require a range of adaptations, some of which are listed in Table 2.

**Table 2. Key Agronomic Impacts and Responses.**

<table>
<thead>
<tr>
<th>Agricultural Impacts</th>
<th>Adaptation Response</th>
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</thead>
<tbody>
<tr>
<td>Biomass increase under elevated CO₂</td>
<td>Cultivar selection and breeding to maximize yield</td>
</tr>
<tr>
<td>Acceleration of maturity resulting from higher temperature</td>
<td>Cultivar selection and breeding of slower maturing types</td>
</tr>
<tr>
<td>Heat stress during flowering and reproduction</td>
<td>Early planting of spring crops</td>
</tr>
<tr>
<td>Crop losses resulting from increased droughts and floods</td>
<td>Changes in crop mixtures and rotations; warning systems; insurance</td>
</tr>
<tr>
<td>Increased pest damage</td>
<td>Improved management; increased pesticide use; biotechnology</td>
</tr>
</tbody>
</table>

**MITIGATION**

Agriculture has an important role to play in mitigating climate change. Mitigation is defined as intervention aimed at reducing the severity of climate change by reducing the atmospheric concentration of GHG, either by reducing GHG emissions or by enhancing sinks for GHG. The agricultural sector can contribute in several major ways to climate-change mitigation.

**Carbon Sequestration**

Of the 150 gigatons of carbon (GT C) that were lost in the last century as a result of converting land to agriculture and subsequent production, about two thirds were lost because of deforestation and one-third, roughly 50 GT C, from cultivation of current agricultural soils and exports as food products (LULUCF, 2000). The latter figure thus represents the maximum theoretical amount of carbon that could be restored in agricultural soils. In practice, as long as 40 to 50 percent of total aboveground grain or fruit production is exported as food to nonagricultural areas, the actual carbon amount that can be restored in agricultural soils is much lower. Efforts to improve soil quality and raise soil organic carbon (SOC) levels can be grouped into two sets of practices: crop management and conservation tillage. Both practices evolved as means to enhance the sustainability and resilience of agricultural systems, rather than with SOC sequestration in mind. They include so-called “best practice” agricultural techniques, such as use of cover crops and/or nitrogen fixers in rotation cycles, judicious use of fertilizers and organic amendments, soil-water management improvements to irrigation and drainage, and improved varieties with high biomass production.

By combining this information with current and future agricultural land use, including levels of technology projected by the Intergovernmental Panel on Climate Change (IPCC) and the Food and Agriculture Organization (FAO) (LULUCF, 2000; Fischer et al., 2001), we can make a first-order estimate of total future contributions to soil-carbon storage from agricultural management of existing agricultural and marginal lands.
During the next forty years, best practice and conservation tillage alone could store about 8 GT C in agricultural soils (Rosenzweig and Tubiello, 2007). Larger amounts could be sequestered during the same period by increasing carbon inputs into land, for instance by establishing agro-forestry practices in marginal lands (estimated at 20 GT C), or by converting excess agricultural land to grassland (about 3 GT C). The total gain from multiple mitigation practices applied to existing agricultural land thus would be roughly 10 GT C (and up to 30 GT C with the inclusion of marginal-land conversion for agro-forestry), an amount lower than the 50 GT C lost historically (see Table 3).

An important caveat is that the direct gains of carbon sequestration in reduced-tillage systems are limited in time, typically twenty to forty years. Another caveat is that in implementing best practices and reduced-tillage agriculture to enhance SOC sequestration, the carbon emitted from the manufacture and use of additional agricultural inputs may negate all or part of the increased carbon sequestered by soils (Schlesinger, 1999). Under current practices, the fossil fuel that powers the machinery to sow, irrigate, harvest, and dry crops worldwide, as well as to manufacture and apply fertilizers, is already responsible for atmospheric emissions of about 150–200 megatons of carbon per year (MT C yr\(^{-1}\)). Given that total cropland covers about 1.5 giga hectare (G ha) of land globally, this figure corresponds to a world average emission rate of 100–130 kilograms of carbon per hectare per year (kg C ha\(^{-1}\) yr\(^{-1}\)).

Efforts to reduce fossil-fuel burning to power agricultural activities will contribute to continuing GHG mitigation

### Biofuels

Agriculture may help to mitigate anthropogenic GHG emissions through producing biofuels. If available marginal land were used for energy crops, the IPCC projects significant displacement of fossil fuels, globally up to 3–4 GT C yr\(^{-1}\) of reduced emissions by mid century through conversion of approximately 200 mega hectare (M ha) of marginal land to bio-fuel production (IPCC, 2001c). However, issues involved with biofuel production include potential competition with food production, increased pollution from fertilizers and pesticides, and loss of biodiversity. Biofuels derived from low-input, high-diversity mixtures of native grassland perennials can provide more usable energy, greater GHG reduction, and less agrichemical pollution per hectare than corn grain ethanol or soybean biodiesel (Tillman, 2006). The higher net energy results arise because perennial grasses require lower energy inputs and produce higher bioenergy yield. Furthermore, all aboveground biomass of the grasses can be converted to energy, rather than just the seed of either corn or soybean. These perennial grasses also sequester carbon at significant rates (Tilman, 2006).

### Other Greenhouse Gases

Because of the greater global warming potential (GWP) of methane (CH\(_3\)) (21) and nitrous oxide (N\(_2\)O) (310) compared with CO\(_2\) (1), reductions of non-CO\(_2\) GHG emissions from agriculture can be quite significant and achieved by developing more efficient rice (for methane) and livestock-production systems (for both methane and nitrous dioxide). In intensive agricultural systems with crops and livestock production, direct CO\(_2\) emissions are predominantly connected to field-crop production and are typically in the range of 150–200 kg C ha\(^{-1}\) yr\(^{-1}\) (West and Marland, 2002, Flessa et al., 2002). Recent full GHG analyses of different farm systems in Europe showed that such CO\(_2\) emissions represent only 10 to 15 percent of the farm total, with emissions of methane contributing 25 to 30 percent and emissions of N\(_2\)O accounting for as much as 60 percent of total CO\(_2\)-equivalent GHG emissions from farm activities. The N\(_2\)O contribution arises from substantial nitrogen volatilization from fertilized fields and animal waste, but it is also a consequence of its very high GWP.

In Europe, methane emissions are linked mostly to cattle digestive pathways; its contribution also dominates that of CO\(_2\), due in part to methane’s high GWP. Mitigation measures for methane production in livestock include improved feed and nutrition regimes, as well as recovery of bio-gas for on-farm energy production. Effective reduction of N\(_2\)O emissions is far more difficult, given the largely heterogeneous nature of emissions in space and time and thus the difficulty of timing fertilizer applications and/or manure management. Large uncertainties in emission factors also complicate the assessment of efficient N\(_2\)O-reduction strategies. Current techniques focus on reducing absolute amounts of nitrogen fertilizer applied to fields, as well as on livestock-feeding regimes that reduce animal excreta.

### Table 3. Estimated carbon sequestration over the next forty years, as a function of land-use management of existing cultivated and marginal land. Data elaborated from regional and temporal data in LULUCF, IPCC 2000 (Rosenzweig and Tubiello 2007).

<table>
<thead>
<tr>
<th>Sector</th>
<th>Total Gt C Sequestered</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Best Practice” crop management</td>
<td>8</td>
</tr>
<tr>
<td>Agroforestry improvements</td>
<td>1.6</td>
</tr>
<tr>
<td>Cropland conversion to agroforestry</td>
<td>19.5</td>
</tr>
<tr>
<td>Cropland conversion to grassland</td>
<td>2.4</td>
</tr>
<tr>
<td>Total Arable Land</td>
<td>31.5</td>
</tr>
</tbody>
</table>

**Other Greenhouse Gases**

Because of the greater global warming potential (GWP) of methane (CH\(_3\)) (21) and nitrous oxide (N\(_2\)O) (310) compared with CO\(_2\) (1), reductions of non-CO\(_2\) GHG emissions from agriculture can be quite significant and achieved by developing more efficient rice (for methane) and livestock-production systems (for both methane and nitrous dioxide). In intensive agricultural systems with crops and livestock production, direct CO\(_2\) emissions are predominantly connected to field-crop production and are typically in the range of 150–200 kg C ha\(^{-1}\) yr\(^{-1}\) (West and Marland, 2002, Flessa et al., 2002). Recent full GHG analyses of different farm systems in Europe showed that such CO\(_2\) emissions represent only 10 to 15 percent of the farm total, with emissions of methane contributing 25 to 30 percent and emissions of N\(_2\)O accounting for as much as 60 percent of total CO\(_2\)-equivalent GHG emissions from farm activities. The N\(_2\)O contribution arises from substantial nitrogen volatilization from fertilized fields and animal waste, but it is also a consequence of its very high GWP.

In Europe, methane emissions are linked mostly to cattle digestive pathways; its contribution also dominates that of CO\(_2\), due in part to methane’s high GWP. Mitigation measures for methane production in livestock include improved feed and nutrition regimes, as well as recovery of bio-gas for on-farm energy production. Effective reduction of N\(_2\)O emissions is far more difficult, given the largely heterogeneous nature of emissions in space and time and thus the difficulty of timing fertilizer applications and/or manure management. Large uncertainties in emission factors also complicate the assessment of efficient N\(_2\)O-reduction strategies. Current techniques focus on reducing absolute amounts of nitrogen fertilizer applied to fields, as well as on livestock-feeding regimes that reduce animal excreta.
**INTERACTIONS OF ADAPTATION AND MITIGATION STRATEGIES**

While adaptation and mitigation actions related to agriculture have primarily been addressed separately, interactions between the two responses need to be taken into account. Some specific adaptation practices might not be conducive to mitigation at all. If, for example, agricultural zonation shifts the earth’s potential agricultural limits polewards, increased cultivation in those previously marginal areas — certainly seen as a boon by certain countries — might on the other hand lead to substantial losses of SOC from previously undisturbed lands. The same might be true under major shifts in rotation systems with very different production levels, occurring across regions over large areas.

Several adaptation practices might reinforce land-mitigation potentials positively under specific conditions on most current agricultural areas. For example, increased irrigation and fertilization necessary to maintain production in marginal semi-arid regions under climate change conditions might also greatly enhance the ability of soils in those areas to sequester carbon. This enhanced ability would be especially true in sub-Saharan Africa, where small improvements in efficiency of irrigation can have very large effects on biomass production of crops (Solomon et al., 2000; Hillel, 1997), and hence on their soil inputs. In wet climates, especially at mid-latitudes, a shift from fallow systems to continuous cultivation (an adaptation maximizing production under the new precipitation conditions) also could increase soil-carbon sequestration potential.

The interactions of mitigation potential with climate change itself also need to be considered. The effects of climate change on agriculture will affect not only yields, but also SOC levels in agricultural soils. Such effects can be either positive or negative, depending on the particular effect considered. Elevated CO₂ alone will have positive effects on soil-carbon storage because of increased aboveground and belowground biomass production in the agro-ecosystem. Likewise, the lengthening of the growing season under warmer climates will allow for increased carbon inputs into soils. Warmer temperatures also may have negative effects on SOC, however, by increasing decomposition rates as well as by reducing inputs by shortening crop-life cycles.

Increased variability and higher frequency of extreme events will affect soil-carbon storage negatively, by both decreasing locally mean production levels and by worsening soil quality in the areas affected. Paustian et al. (1998) simulated several cropping systems in the U.S. Midwest under current and future projected climate, showing — in agreement with crop-production assessment studies — both positive and negative results, varying regionally and depending on the climate scenarios used.

If changing climate is not taken into consideration, calculations of soil-carbon sequestration potentials may be in serious error because of the interactions between climate and soil dynamics. As a result, mitigation strategies chosen today at given sites, without attention to likely changes in climate, may not produce the expected results.

**CONCLUSIONS**

On current agricultural land, interactions between mitigation and adaptation can be mutually reinforcing, especially in view of increased climate variability under climate change, because most mitigation techniques currently considered in agriculture (including reduced tillage) were originally designed as “best-practice” management strategies aimed at enhancing the long-term stability and resilience of cropping systems in the face of climate variability or of increased cultivation intensity. By enhancing the ability of soils to hold soil moisture and to better withstand droughts and/or floods, both of which are projected to increase in frequency and severity in future warmer climates.

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Daniel Hillel is a senior research scientist at the Columbia University Center for Climate Systems Research. Dr. Hillel is an international authority on sustainable management of land and water resources.

**References**


The Forum welcomes its 2007–2008 columnists in this issue; their first offerings follow. We appreciate the spirit of volunteerism that moved them and many others to apply to the positions. We wish we could have chosen them all.

**Jurgen Brauer**
Professor of Economics
Augusta State University
BUSINESS AND ECONOMICS

**Kyle Fluegge**
Student, majoring in Economics
University of Michigan at Flint
BUSINESS AND ECONOMICS

**Laura Lorentzen**
Chairperson, Center for Science, Technology, and Mathematics Education of New Jersey
Kean University
SCIENCE AND TECHNOLOGY

**John S. Williamson**
Professor of Medicinal Chemistry
University of Mississippi
SCIENCE AND TECHNOLOGY

**Helen C. Sitler**
Associate Professor of English
Indiana University of Pennsylvania
EDUCATIONS AND ACADEMICS

**Helen Janc Malone**
Doctoral Candidate in Education
Harvard University
EDUCATIONS AND ACADEMICS
Welcome New Columnists

Sybil Huskey
Professor of Dance
University of North Carolina at Charlotte
The Arts

Stefan Hall
Doctoral Candidate, American Culture Studies
Bowling Green State University
The Arts

James E. Christenson
Retired after forty years of managing organizations
Osseo, Wisconsin
The Workplace

Robert F. Tate
Delta and USAF Pilot
Montgomery, Alabama
The Workplace

Mary Ann Manos
Professor of Education
Bradley University
Ethics

Angela Lumpkin
Professor, Department of Health, Sport, and Exercise Science
University of Kansas
Ethics
It is early November as the scene below unfolds. Midterms are over. For the first-year students whom I teach, the demands of their college classes have now become real. They arrive in my 9:45 class chattering about other classes that they have in common. “Man, can you believe that biology test? I failed it.” “How’d you do in psych?”

These Basic Writers have just read Scott Russell Sanders’s essay “Stillness.” After their entering chatter about tests and grades, about missing friends and family from home, about everything they have to do before Thanksgiving, we agree that November is an excellent time for reading Sanders’s essay about the frantic pace of life. At this time of the semester we recognize our own need to do as Sanders does, to “break free of tasks and deadlines,” to retreat at least temporarily from “my crowded calendar, my backpack stuffed with chores, my head crammed with duties.”

As class unfolds on this particular day, it becomes one of those rare gems of teaching, a day when everyone in the room is focused and attentive. While small groups of students make short presentations, others add their own questions and observations. When we move our discussion to “Stillness,” Kara’s irrelevant remark about the essay galvanizes the group. We laugh and I question her interpretation, but her comment challenges other students to speak. Before long her peers are reading lines that they like. They sit relaxed, arms thrown over backs of chairs as they turn to listen and talk with one another and to laugh and joke. I sit along a side wall toward the back of the room, quietly enthused over the back of the room, quietly enthused over the joke. I sit along a side wall toward the back of the room, quietly enthused over the joke. I sit along a side wall toward the back of the room, quietly enthused over the joke. I sit along a side wall toward the back of the room, quietly enthused over the joke. I sit along a side wall toward the back of the room, quietly enthused over the joke.

For nearly ninety minutes we talk, using “Stillness” and other essays to discuss what an argument is and how a writer might craft such a piece. We even fall into the rhythm of Sanders’s essay, our interactions mimicking the thoughtful calmness that he argues for. We savor this day’s conversation. The feeling we have of being rushed all the time, of facing all the demands that the students chattered about when they arrived, has left us. Sanders writes of the several hours he has spent in a hut that he owns “at the edge of a state forest … so that I would have a place to withdraw…. For a few hours, at least, nobody will disturb me.” It occurs to me that in this class today we have created our own version of his hut. Today we have time to think and to reflect on what we are learning.

As a teacher of first-year composition, I fret about the high school culture that my students bring with them to first-year college courses. It is one in which stretches of reflective time like ours with “Stillness” are rare.

When I observe student teachers in middle and high school English classes, I am continually amazed by the frequency of interruptions to learning. In one high school, I watch as a student leaves his English classroom mid-period to go to his driving lesson. Scheduling students for driving time is difficult, the teacher tells me, so students are pulled out of classes as needed. At that same school I observe a student teacher on school-picture day. One PA system announcement after another calls various groups to the photographer. Streams of students wander in and out of classrooms, and the announcements themselves break into teachers’ attempts to maintain the learning environment. In another school, I participate in a tornado drill, preparation for a natural disaster that is rare in Pennsylvania, where I live and work. Of course, emergency preparedness is necessary. Still, I can’t help but wonder how this drill might be done in a less-disruptive way. On this particular day, it costs a seventh-grade student teacher fifteen minutes of her forty-minute lesson. We joke about the interruption while students huddle in the hall holding books over their heads. Her lesson was a good one, and having to finish it the next day will destroy much of its coherence.

These examples are just the routine, daily interruptions. Some intrusions into learning are so huge that they are not even seen as interruptions. They simply are. In Pennsylvania, learning is interrupted every spring when mandated testing occurs. Around Valentine’s Day, students’ schedules will be disrupted for nearly a whole week for the state’s mandated writing test. That pattern will repeat itself twice more in March for reading and math testing and in April for science testing. In all, Pennsylvania students will spend three to four weeks doing little more than taking tests.

“There is something about interruption that makes people especially unproductive,” reports Suzanne Bianchi, a sociology professor from the University of Maryland. In a December 2006 New York article about burnout in corporate America, writer Jennifer Senior quotes Bianchi. Senior also reports on a 2005 study by a psychiatrist at King’s College in London. Results from that study show that research participants taking an IQ test uninterrupted scored ten points higher than participants who were distracted by e-mails and phones ringing during their testing. While these researchers were studying corporate environments, they focused on types of interruptions not so different from the ways in which high school and first-year college students interrupt themselves — with their electronic connections to those outside of the classroom. Layer on top of that the administrative interruptions in any school day, and I can’t help but wonder how much the average student is able to focus on any task that requires concentrated attention. And there’s the rub.

I fret about the culture of interruption that my students come from because learning to write well requires blocks of concentrated attention, again and again. It requires the patience to let thinking emerge into words, often gradually and over time. It requires the ability to reflect, which cannot occur when student writers are distracted. I want the ninety minutes that my Basic Writers share with me two times a week to be treated as sacred time, time in which other distractions are to be set aside. In asking students, especially first-year students, to do so, though, I realize that I am asking them to do something which they have never in their twelve years in school had to do — participate in a learning environment which, for the entire length of the class time, will not be interrupted.

On that day in November my students and I spent our discussion of “Stillness” in comfortable collegiality. We did some heavy lifting while talking (continued on page 38)
Corporate scandals! Most everyone has heard of Enron, the now defunct Houston-based energy-trading company. Many will have heard of WorldCom, Tyco International, Adelphia Communications, HealthSouth, and others, and of the associated shortcomings of their corporate leaders. The ongoing stock-options-backdating affair has embroiled hundreds of executives and has led to a number of high-profile resignations. Responding to corporate scandals, Congress passes more stringent legislation, corporations spew out voluminous ethics codes — merely having them provides some legal protection! Business schools integrate “ethics” into their undergraduate and graduate offerings.

But something bothers me about this ethics bandwagon, and it is not merely that “ethics” is taught in B-school. (If I had my druthers, students would take a full-bore ethics course from the philosophy department, with a qualified PhD philosopher at the head of the class.) No, what bothers me is that business and the lack of ethics appear conflated in the public mind. What good can one expect of business? “They” are all out to get rich at customers’, vendors’, shareholders’, and taxpayers’ expense. Academics seem no less afflicted by this sentiment than the public at large. But this perception is nonsense (most business people behave ethically) and amounts to looking at ethics through seriously flawed spectacles.

Ethics lapses are in fact widespread. The midterm election in November 2006 was, in part, a vote on the unethical conduct of a number of U.S. politicians. The Wall Street Journal recently carried several articles on ethics in the religion industry. One reported on pastors plagiarizing each others’ sermons. Because “truth is truth, there’s no sense reinventing the wheel,” argues one pastor. Following that logic, it would not matter if I copied your scientific work and published it as my own or read a textbook to my students without adding my own thoughts. I would just be spreading the truth. But we scientists and scholars are not immune to ethics challenges: data manufacturing is, sadly, part of our line of business. One need only read Science regularly to keep up with the fraudulent behavior of some of our colleagues. The medical, pharmaceutical, legal, education, and other industries also contribute to unfavorable ethics headlines. In a word, every profession runs into ethics troubles. Ethics, or the lack thereof, is not a monopoly of business.

**ORIGINS OF ETHICS**

Ethics refers to a fundamental issue of human behavior and of the societies that we form. Curiously, this is where economics enters. In contrast to ethics as an academic discipline (“the study of standards of conduct and moral judgment,” my dictionary says), economics is generally about actual behavior, not standards of behavior. Still, a question that does interest economists is why standards — any standards — are formed, how and why standards become standards, and why people engage in standard-conforming or standard-violating behavior. Economist and mathematician Ken Binmore, in his excellent, provocative book *Natural Justice* (Oxford University Press, 2005), suggests that ethical standards or norms, rather than being deducible from reason alone as certain philosophical traditions would have it, evolve. He proposes to examine the development of ethical standards in the same way that life scientists examine natural phenomena. Binmore is looking for natural laws, not supernatural ones — physics, not metaphysics — that would explain the evolution of norms in social species such as ours. In particular, he claims that norms of fairness (“justice”) evolved to select from among an “infinity of efficient equilibria of the repeated game of life played by our pre-human ancestors.” Now there is a thesis to titillate one’s synapses!

Put crudely, codes of ethics are “efficient” inasmuch as they permit societies of individuals that adhere to a particular code to prosper, successfully reproduce, and obtain a growing share of the overall population. These codes provide relative standards inasmuch as there is an “infinity” of workable sets of norms from among which to choose. Once chosen, they acquire — within any chosen code — an absolutist bent. If we understood just how norms emerge and evolve, we might be able to direct norms as well. We might be able to experimentally change the conditions under which they arise and thus observe the evolution of different norms under different conditions. Instead of ethics by reference to authority (religious or other), we may get ethics by experimental design and, ultimately, by social policy. Anthropologists, behavioral economists, psychologists, sociologists, and others should find none of this surprising.

The engrossing challenge to engage Binmore has already begun — see, for instance, the articles in *Politics, Philosophy & Economics* [Vol. 5, No. 1 (2006)] or in *Analyse & Kritik* [Vol. 28, No. 1 (2006)], and in numerous book reviews to boot. If some people have their doubts about ethics in business, it is certainly alive, fun, and well in economics. We should teach this sort of ethics in business school as elsewhere — not the intellectual fluff of positing “dilemmas,” the “correct” answer to which is supposed to socialize the student into proper future (business) behavior, but the deeply critical-thinking version that asks fundamental questions about (human) nature and the constitution of our societies. Who cares that Enron’s executives defrauded folks by the billions; much more important to figure out is why we care in the first place and to teach that to our students! Once students understand why we care, they most likely *will* care, about Enron and about their own future actions. To misappropriate a line from Erich Fromm, what’s important is not to have (ethics), but to be (ethics), not just to have rules but to understand why there are rules, not just to follow but to internalize them, and to appreciate why they liberate even as they constrain. Why, all this harks back to Adam Smith, not he of *The Wealth of Nations* but he of *The Theory of Moral Sentiments*.

**ETHICAL STANDARDS**

Economists have a tradition of studying standards. Why do societies have a common language, a standardized form of money, and universal electric outlets? The unifying answer — it reduces the cost of dealing with each other (continued on page 33)
Ever spend twenty minutes with a two-year-old? A toddler will ask you “Why?” more times than you can count. Common experiences to an adult are wondrous new explorations to the small child. Preschoolers beg to know “How?” as they attempt to make sense of how things work. Older children move beyond these stages of curiosity and comprehension to further inquiry and analysis and state “What if?” All scientists ask questions, and really good scientists ask great questions. And often those questions are what you would call “thinking outside the box” in that they are not influenced by the accepted norm. To quote Ralph Waldo Emerson, “Science does not know its debt to imagination.”

“Equipped with his five senses, man explores the universe around him and calls the adventure Science.”

— Edwin Powell Hubble, The Nature of Science, 1954

Hubble (1889–1953) was an American astronomer who, despite the prevailing thought of his day that the Milky Way galaxy was the entire cosmos, proved his contemporaries wrong. He discovered the existence of other galaxies in the universe beyond the Milky Way. For more on Hubble and his work that earned him a place as one of Time’s “100 Most Important People of the Century,” visit the online article by M.D. Lemonick at http://www.time.com/time/time100/scientist/profile/hubble.html.

Our everyday surroundings are filled with science and technology, from the routine visit to the family physician to the engineering design that affords us the ability to listen to our choice of music. As children, our curiosity leads to our love of learning, and what easier place to nurture that need than exploring the natural and physical world around us? The fundamentals of mathematics and science are absorbed by youngsters, from measuring ingredients in the kitchen when cooking to observing the behavior of insects and animals, to questioning why and how our bodies do what they do.

Scientific and technical fields today demand an integrated use of both technology and mathematics. For some of us, the pursuit of STEM knowledge (science, technology, engineering, and mathematics) continues as a life-long career path, and we earn our degrees and go about our work. However, in performing that work, do we continue to seek opportunities to foster in the next generation of scientists a love of our fields?

“A nation’s ability to remain an economic and technological leader in a global marketplace relies on how well that nation educates its students in science, technology, engineering, and math.”

— Gerald F. Wheeler, Executive Director of the National Science Teachers Association

Educational outreach by the scientific community should be viewed as part of the duty of all scientists, to foster a science-literate nation. Such outreach need not be limited to children but can extend to outreach to all ages. For those trained in science, what better opportunity to make use of that knowledge than to provide an answer to the lay person asking “So what?” in response to a science piece tossed around in the news media. Each day, news reports appear that center on topics from advancements in cancer vaccine treatments, to E. coli outbreaks, to the climate crisis here on Earth. Likewise, politicians debate governmental funding for basic biomedical and stem-cell research. Each of us, scientists and nonscientists alike, goes to the polls to vote. Often, casting those votes determines policies related to scientific research either directly or indirectly. An appreciation of science and the means by which science is conducted is essential to all citizens. Indeed, it behooves ordinary citizens to gain a fundamental understanding of rather heavy science issues when, for instance, faced with making decisions regarding medical treatment or deciding the validity of research claims about a dietary supplement’s efficacy.

Outreach is an excellent volunteer opportunity for those trained in the sciences to inform and excite the community in a positive way. If you are a scientist who has yet to make outreach part of your professional activities, I challenge you to embark on this path. You can start small, perhaps volunteering to be a guest speaker at a middle school’s career day or to lead a field trip for elementary school children to a planetarium. Or, gather your own child’s sports teammates or boy/girl scout troop for an out-of-school workshop in which you talk to them about recycling and sustainability and the importance of caring for the environment.

If you already perform outreach, resolve to do more, and mentor your students and your colleagues to do the same. For instance, as a scientist, team with a mathematician to design an outreach for a group of high school students that through a hands-on inquiry experience has them apply the math directly to the science; design the lab to be anything but a cookbook recipe. If you are a professional in a nonscientific field, initiate a brainstorming session with a science or medical professional to team up and do an interdisciplinary outreach such as literacy and science. For example, pair a physiologist with an English professor to devise an activity whereby students learn how to compose a persuasive argument detailing the benefits of exercise and healthy eating to combat obesity and widespread diabetes. Finally, if you do not want to venture out alone into educational outreach, I encourage you to explore the various professional organizations to which you no doubt already belong for resources, ideas, and guidance on how to educate the public about your profession.

Scientists should embrace opportunities to showcase their discipline by community outreach. Remember, the goal is to take your own passion for scientific knowledge beyond the persons populating your research laboratory or classroom. Intellectually excite the children and encourage them to continue to ponder the “What if?” In the words of Ralph Waldo Emerson, “Men love to wonder, and that is the seed of science.”

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Since the inception of western theatrical dance, the literary arts have been used as starting points for dance creation. In the hands of master choreographers, classic modern dance and ballet works have evolved from fairy tales, legends, parables, myths, plays, novels, fables, short stories, and even poems. These verbal/nonverbal partnerships are based on the beliefs and conditions 1) that gesture and movement are imbued with the potential for meaning, 2) that meaning can be recognized and experienced by the audience, and 3) that particular texts lend themselves to the communicative physicality of dance.

In her 1959 choreographic treatise, The Art of Making Dances, modern-dance choreographer Doris Humphrey wrote, “Character and behavior delineation, which may take an author pages to articulate, might be done in seconds by the dancer who deals directly with the emotional resonance of the text…. Words supply the facts…. The dance must be the area where feeling about these things exists.”

**FAIRY TALES AND LEGENDS**

The magic and fantasy in romantic and classical ballets of the nineteenth century resulted from the legends and tales upon which they were based. Story ballets such as Swan Lake, Coppelia, and The Nutcracker provided technically exciting dancing with beautiful music and an understandable, light-hearted story — characteristics that continue to give “make-believe” ballets their universal appeal. Humphrey makes the historically interesting observation that whereas “serious ideas were used in the opera and drama of the period, dance was saddled with expectations of beauty, awe-inspiring technique and effortlessness. The physicality of dance made it appear nonintellectual, consequently rendering its subject matter outside the purview of real human endeavors.” Her point is demonstrated by the fact that the 1890 fairy tale ballet of The Sleeping Beauty, based on a story by Charles Perrault and choreographed by Marius Petipa, was produced at the same time as Henrik Ibsen’s sociologically charged play, Ghosts.

However, some ballets of the period did have meaning embedded in the narrative structure. Petrouchka, based on a politically relevant Russian folk tale, served as a protest against repression, and Giselle, rooted in a German legend, captured the tragedy of human frailty.

**PARABLES**

With many Bible stories having been adapted for film and opera, George Balanchine’s Prodigal Son is the best-known “danced” version of the genre. The symbolic story from St. Luke of the rebellious, extravagant son who leaves home, meets with hardships, and is ultimately forgiven by his loving father, provided fertile ground for the innovative choreographer. In his 1929 creation, Balanchine began his hallmark reinvention of ballet as he molded the movement vocabulary to fit the psychological development of the characters and the realistic action.

**MYTHS**

Modern-dance maven Martha Graham embraced Greek mythology in works that probed the passions of the human experience, communicating the psychological essences over narrative details. Writer Jack Anderson notes that her work, Errand into the Maze, does not tell the story of Theseus and the Minotaur, but rather it “depicts a woman shuddering through a labyrinth in which lurks a creature — part man, part monster — who personifies her deepest fears.” In Clytemnestra, the queen comes to an understanding of her own motives through painful reflection physicalized in Graham’s “contraction and release” dance technique. Critic Arlene Croce noted,

“In this epochal Graham theatre, movement expressed what no words could.”

**PLAYS**

Eugene O’Neill’s The Emperor Jones, August Strindberg’s Miss Julie, and Peter Shaffer’s Equus are examples of the dramatic literature that has found its way into dance. Some plays such as A Streetcar Named Desire, by Tennessee Williams, and Shakespeare’s A Midsummer Night’s Dream and Romeo and Juliet have been used in multiple adaptations. But Jose Limon’s The Moor’s Pavane is the definitive treatment of Shakespeare’s Othello. Now performed by both modern dance and ballet companies, the piece is scaled for two couples who represent the four main characters in the play. The dramatic line maintains the patterning of the formal pavane whose elegance, against the backdrop of passion, intrigue, and remorse, makes the work so compelling.

Author and dance critic Walter Terry wrote, “It is clear when Iago puts his head close to Othello’s and whispers in his ear that something is being said. Othello’s reaction, with head thrust forward and shoulders tensed, tells the audience that the Moor is angry and disbelieving. But as Iago continues to plant his lies about Desdemona, he wraps a leg around Othello, and through explicit pantomime extended into a symbolic movement, we know that Othello has been caught in Iago’s coils, emmeshed in his falseness. Shakespeare’s words are not present to unfold the tale, but choreographed movement is present to lead us….”

(continued on page 34)
It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.

— Charles Darwin

If you do not remember hearing the word “change” recently, a careful reading of any magazine or newspaper should provide a ready remedy. The word “change” may not pop out at you from the printed page. But you will find its close relatives in the words transformation, reinvention, discontinuity, conversion, transmutation, metamorphosis, innovation, reorganization, paradigm shift, or their narrative equivalents. No matter which of these terms we encounter, though, they suggest the end of the near-sacred mantra of “that’s the way we’ve always done it.”

“Why,” you may ask, “are we increasingly confronted by change?” And even more to the point, why should we — or our boss — want to deliberately cause change? Don’t we have enough stress already, without going out of our way to create more?

Change — even the perceived need to cause change — is not a recent phenomenon. Nearly four hundred years ago, Sir Francis Bacon observed, “He that will not apply new remedies must expect new evils, for time is the greatest innovator.” A more contemporary wag has suggested, “Even if you are on the right track, you’ll get run over if you just sit there.”

Causes of change abound. Computer power doubles every eighteen months. Engineering and much scientific knowledge now has a half-life of four years. Healthy companies need to reinvent themselves every three or four years to remain competitive. We observe that the “new” workforce is quite different from the “old” workforce. In this environment, it may feel as if we are about to go over Niagara Falls without so much as a log to hang on to.

INNER CHANGE

William Bridges, author of Managing Transitions: Making the Most of Change, makes a useful observation. He says, “It isn’t the changes that do you in, it’s the transitions… Transition is a psychological process people go through to come to terms with a new situation. Change is external, transition is internal.”

We can welcome change, or we can play the victim of change. I suggest the former is a wiser course. You may argue that people do not like change. Could it be that people do not naturally resist change, but that they resist being changed? Welcoming and being part of change both use a part of our brain that many of us have neglected: the right side, the source of creativity. And creativity is the basis for viability and longevity of nearly every organization. To encourage that, these policies must be in place and must be observed:

• Free the brains of ALL the people to work on the challenges that they face.
• Encourage risk-taking. People will not feel free to use their brains unless they are allowed to take risks. Risk-avoidance condemns organizations and individuals to mediocrity.
• Experiment. We must spend less time planning and more time trying new things.

Above all, change management requires that the destination be well understood by everyone. Unless most of the team has that understanding and is convinced that the destination is valid, it will not be reached.

HONORING THE PAST

But even with a clear vision, successful transition management can happen only if people are also convinced to leave home. When changes happen, there are losses. Often it is important to allow people to grieve those losses. It is also important not to condemn the honest efforts that went into the work as it was being performed before the change. Under the past circumstances, resources, and vision, people probably were doing their best. That effort should be recognized and honored. And you should set aside time to listen to people discuss the past and the potential losses. Phillip Stanhope, Earl of Chesterfield, suggested, “Many a man would rather you heard his story than granted his request.” But what “used to be” must be ended before the new can be birthed. Further, it must be clear what aspects of the past need changing. Should everything be dumped? In most cases, that would be a strategic error. What stays and what goes must be decided with care.

So, recognizing these hurdles, once again: how do we really make beneficial change happen? Unfortunately, the art of effectively causing positive change cannot be discussed fully without also discussing leadership, vision, empowerment/self-direction, and learning — potential future subjects for this column. But meanwhile, a word on the various faces of change itself. Quality Circles, Total Quality Management, Total Quality Service, and similar efforts primarily promote incremental improvements. These improvements are important, often identified by workers on the front lines who know the real problems and their customers’ needs. But in the 1990s, Michael Hammer suggested that reengineering was what was really required in many cases. He said that it wasn’t good enough to “pave the cow paths,” especially in the context of automating our business processes.

DEEP CHANGE

The challenge is to know when to use incremental change and when “deep change” is required. Professor Robert Quinn of the University of Michigan argues that if we choose incremental change when deep change is really what is needed, we are choosing slow death for the organization. He applies the classic boiled frog analogy to that choice: choosing incremental change in the wrong circumstances causes damage to the organization in the same way as boiling a frog starting with cold water causes irreparable damage to the frog.

Deep change, Quinn continues, requires vision, leadership, risk tolerance, wholesome trust relationships between people in the organization, and change modeling. It seems we cannot avoid many of the same recurring necessary attributes — attributes that stale, unsuccessful organizations lack. Especially, as noted above, our ability to survive in
Forum on Ethics

Mary Ann Manos

Ethical or Unethical? Your Final Exam (in Six Easy Questions)

Martin Luther King Jr. once said, “Our lives begin to end the day we become silent about things that matter.” I dare you. In fact, I double-dare you to start talking about professional ethics in a crowd of higher education types and watch how quickly the conversation, as well as the congregation, is diffused. An ethics discussion is simply not vibrant — no glitz! Considered woefully outdated and threadbare, the study of ethics is shelved somewhere between “organizational vision” and “personal mission statements,” in the “R” (for relative) section of the ten least-debated ideas.

In an age where nine out of ten Americans can identify the speaker of the statement, “Luke, I am your father,” very few citizens can relate even one ethical statement from any existing code. A few universities have begun to establish ethics-research centers, but most have not. Three reasons come to mind — lack of interest, lack of funding, lack of interest. On the other hand, never has there been a time in our national history when Americans have more desperately grasped for “moral moorings” in the forums of industry, medicine, education, science, and politics. Practice without ethics is dangerous at best, disastrous at worst! Now is the time to refresh your understanding of professional ethical codes designed to act as both rudder and compass. The study of ethics is a crucible experience. A code of ethics is a crucible experience. A code defines a profession’s common responsibility to the public to obey societal expectations of honest dealings and full disclosure. The bottom line is that a code of ethics should define the standards of excellence for professional responsibility and accountability. A great online compilation of ethics codes is available for browsing at http://ethics.itt.edu/codes.

2. OVERALL, WHAT PROFESSIONS ARE GUIDED BY AN ETHICS CODE?
A. Hundreds.
B. I wish I knew.

Answer: For every job from farmers and car mechanics to trial judges and travel agents, ethics statements and codes are available. How potent are ethics codes for daily decision-making? Use your own judgment as to the mainstream adherence and use of the following ethics guidelines examples.

- The Direct Selling Association recommends, “Ethical Independent Salespersons should not create confusion in the mind of the consumer, abuse the trust of the consumer, and not exploit the lack of experience or knowledge of the consumer.”
- The National Association of Realtors recommends, “Realtors, in attempting to secure a listing, shall not deliberately mislead the owner as to market value.”
- The American Society of Travel Agents recommends, “Members will not allow any preferred relationship with a supplier to interfere with the interest of their clients.”
- The American Counseling Association recommends, “Counselors are aware of their own values, attitudes, beliefs, and behaviors and avoid imposing values…”
- The American Society of Newspaper Editors recommends, “The primary purpose of gathering and distributing news and opinion is to serve the general welfare by informing the people.”
- The International Association of Chiefs of Police recommends, “All citizens will be treated equally with courtesy, consideration, and dignity.”
- The National Education Association recommends, “The educators shall not intentionally expose the student to embarrassment or disparagement.”
- The Accreditation Board for Engineering and Technology recommends, “Engineers shall build their professional reputations on the merit of their services and shall not compete unfairly with others.”
- The U.S. Judicial Code of Conduct requires, “Any justice, judge, or magistrate of the United States shall disqualify himself in any proceeding in which his impartiality might reasonably be questioned.”
- The American Bar Association has a code of ethics, but it is available only for a fee.

3. WILL ALL PRE-PROFESSIONALS BE INTRODUCED TO THE ETHICS CODES OF THEIR DISCIPLINE?
A. No.
B. I can guess.

Answer: Most undergraduates will be expected to successfully complete a college-level class in ethical standards for their profession. For example, business, law, and medicine all incorporate specific course work regarding the norms of the profession. Unbelievably, teacher-education programs usually do not have a specific course in the ethics of teaching. Many elementary- and secondary-level educators are not introduced to any educational code of ethics until graduate-level study in Public School Law courses.

4. WHICH GENDER IS CONSIDERED MORE MORAL IN ITS THINKING?
A. Females.
B. The other one.
— is obvious. And so it is with ethical norms. Once norms are established it is, as a rule, cheaper to conform than to rebel. Yet rebellion (“cheating”) can be profitable for the cheater, hence the temptation. Hence, too, the urge to punish cheaters, as numerous laboratory experiments have confirmed. On occasion, however, rebellion can usefully set in motion a transition by which norms are deleted, amended, or added. As Binmore claims, standards evolve. Business, likewise, has a tradition of studying, setting, and modifying standards. For example, the so-called “American system of manufacture” that emerged in the early 1800s was all about making mass production possible with interchangeable, that is standardized, parts. Accreditation of schools, colleges, and hospitals is all about standards and punishment for failure to meet them. Perhaps businesses and their leaders would do better by replacing the (for them) nebulous terms “ethics” with the (for them) more common term “industrial standard.” They, or industry observers, would then measure compliance and publish the results the way that stock quotes are published. The corporate-responsibility movement and social-investing folks already have made progress in this direction. So, next time, before you complain about “unethical” businesses yet unthinkingly plunk more money into your 401(k) retirement plan that may fund them, do your homework and buy stocks or bonds of companies that follow your code of ethics.
Ballet Theatre.

DonQuixote

of the ballerina and her partner.

while showcasing the technical virtuosity

captures the Spanish flare of the setting

ballet. As an excerpt, the “Don Q. pas"

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Jean-Georges Noverre’s version in the

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reoriented. Martha Graham’s

Letter to the World

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kinetic landscape. Martha Graham's

Letter to the World, based on the

poetry of Emily Dickinson, investigated

Puritanical repression of the female artist.

Using two main characters, One

Who Dances and One Who Speaks,

Graham capitalized on the interplay

with spoken lines and danced action.

Critic Margaret Lloyd described the
dance as a fantasy in which "the poetic
imagery of movement substantiates the
poetic imagery of words."

From Japanese haiku to poems by

e.e.cummings, dance has been enriched

by incorporating poetic images into its

visual, and emotional palettes of the choreographer.

The characters of the barber, the

innkeeper’s daughter, and Quixote
and his squire have been danced since

Jean-Georges Noverre’s version in the

mid-eighteenth century. From Petipa’s
original version in 1869 to Balanchine’s
version for himself as Don Quixote with
his famous muse, Suzanne Farrell, as the
innkeeper’s daughter, many dance greats
have developed their own visions of the novel. However, the grand pas de deux, a staple in the ballet lexicon, is more
widely performed than the full-length ballet. As an excerpt, the “Don Q. pas”
captures the Spanish flare of the setting while showcasing the technical virtuosity
of the ballerina and her partner.

FABLES/SHORT STORIES

Using the zany stories and drawings
of James Thurber, Charles Weidman choreographed Fables for Our Time in 1947.
With understandable cartoon-like scenes,
the landmark work included an onstage
narrator and the “pantomimic dance drama” for which Weidman was noted. He viewed his special brand of pantomime as “the transport of an idea into
movement, the animation of the feeling
behind the idea, an animation in which
suddenly all commas and periods, all
silent moments of an unwritten play
become a reality in movement.”

POETRY

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NOVELS

Miguel de Cervantes’ acclaimed master-piece, Don Quixote, has been appropriated
by every artistic medium, with the
popular musical theatre adaptation, Man of La Mancha, being the best-known version. With themes of chivalry and
human perfectibility, the text focuses on
the power of the imagination. The contrast between reality and illusion in the
DonQuixote by the St. Petersurg Classic
Ballet Theatre.

these turbulent times depends on our
willingness to take risks. It also requires
that our own supervisor be willing to
let us take those risks, or to accept our
preference for asking forgiveness rather
than permission.

What is the nature of risk? It exposes us to the possibility of failure, criticism, job loss, and other unwelcome effects. Why would one do that?
Because a risk taken for the right reason
also exposes us to the chance of accomplishing something great. It makes the work interesting. It serves the customer or the community better.

Deep change — change that totally
reorients the organization — often
cannot be planned in detail. Course
adjustments are required along the way
based on feedback. Quinn suggests that
implementing deep change is often like
“building a bridge as we walk on it.”
Simply imagining the physical building
of a bridge as one walks on it over a
deep chasm is uncomfortable, much
less actually doing it. But it is important
that the bridge be built, that the organization move toward the other
side, where the valid expectations of its customers are regularly exceeded.

Gandhi expressed the view that when
one discovers what is right and begins
to pursue it, the necessary people and
resources tend to turn up. We need to
trust our vision enough to start our jour-
ney over the chasm of uncertainty — or
we will never move from where we are.

No organization is exempt from the
need to continuously move toward an
upgraded vision — a well-articulated
vision of ever-higher levels of service.
Excellence cannot be sustained indefi-
nitely without change. Excellence, by
definition, requires continuous positive deviation from the norm — in fact,
deviation from each new, higher norm
that appears. I urge you to make change
your friend.

Sybil Huskey, professor of dance at the
University of North Carolina at Charlotte,
is the recipient of two Fulbright Senior
Scholar Awards and a past President of
the American College Dance Festival
Association. She has worked internationally
as a choreographer/performer/teacher and
most recently was an exchange professor at
Kingston University in London.

CONCLUSION

The choreographer’s ability to bring
fresh insights, perspectives, revelations,
and comments to the verbal source mate-
rial allows these literature-based dances to
eloquently explore and communicate the
complexity of the human condition. For
Humphrey, it is the choreographer’s “power
to evoke emotions within the movement
vocabulary and speak of the subtleties of
the body and soul” that ultimately make
the union of the dance art and the literary
arts so aesthetically pleasing and enduring.

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Ordinarily, when a reviewer complains about a book being the book it is and not a different book on a different subject, the book’s author can rightfully cry “foul.” Sometimes, though, when an author makes excessive claims that the subject matter of his book cannot support, or when he merely mentions in passing a topic that ought to be central rather than peripheral to his book, such complaints are justified. In *Stages of Evil*, a case in point occurs in the chapter dealing with the vampire theme in live-stage drama. Briefly surveying occurrences of the same theme in other media, Lima poses the rhetorical question, “And what can be said of the extravagant and quirky film version of the Dracula story by Francis Ford Coppola or of the long-running television series *Buffy the Vampire Slayer*?” (p. 179) In fact, a great deal can be said of both these screen renderings of the vampire theme; Lima would have been better off writing more about them and less about the relatively few and meager live-stage renderings of the same theme. That the first chapter of his book deals with the medieval *topos* of the Mouth of Hell makes the omission especially regrettable, given that the serial adventures of *Buffy* revolve around the supposed existence of a Hellmouth in present-day California. Disappointingly, *Buffy* receives not a single mention in the “Mouth of Hell” chapter alongside the stage dramas with which Lima is concerned; one wonders if he knows anything more about the *Buffy* series than its name alone.

The larger problem is that Lima has restricted his diachronic survey of occultism to the occurrence of this theme in theatrical works alone. In surveying the development of a literary theme over time and in various European countries, surely it would make more sense to disregard media boundaries. Playwrights, novelists, poets, and screenwriters disregard such boundaries themselves, influencing and borrowing from one another promiscuously; Lima’s arbitrary restriction results, paradoxically, in a book concerned with (*inter alia*) the depiction of Satanic evil in Renaissance England and including a discussion of Marlowe’s Doctor Faustus and Mephistopheles, yet completely excluding Milton’s *Paradise Lost* and *Comus*. But wouldn’t Milton’s conception of the latter work as a masque, even if he never intended it for actual performance, permit at least *Comus* to fit within Lima’s restrictions? Lima never actually gives much attention to the performance aspects of the theatrical texts that he analyzes. His approach to them is essentially no different than if they were narrative works — therefore, why not include narrative works (and film and television) as well?

Lima’s introduction promises a strong emphasis on the theatrical medium itself, which might justify the restrictions imposed on the book’s subject matter: “Today, as in the past, it is in the play that life can be scrutinized with greatest immediacy. . . . There is no more effective artistic communication.” (p. 4). But the following chapters contain nothing to substantiate this claim. Indeed, with respect to the theme of occult evil, it would be a difficult claim to substantiate; in this reviewer’s experience it is narrative literature, relying on mere words on paper to stimulate the reader’s imagination, that evokes supernatural horror and dread most effectively, with film (given its cinematographic ability to produce convincing illusions) a close second. The strengths of live theater lie elsewhere. I have never seen a live-stage production of *Macbeth* in which the Three Witches impressed me as anything more than a plot contrivance, but in Polanski’s film of *Macbeth* they project a modicum of genuine eeriness — not as much eeriness as in the imagination of a reader perusing the text of *Macbeth*, though. For all of Lima’s discussion of *Macbeth* and its witches, he never raises this question.

Questions of artistic effectiveness seldom arise in Lima’s book. He is mostly concerned with documenting the facts about theatrical works written on various aspects of occult evil over the course of European history. That a great many plays have been written on this subject cannot be denied; Lima has amassed an immense list of them in an appendix, which is perhaps the most valuable thing contained in *Stages of Evil*. Remarkably informative, indeed erudite (except with regard to titles of Latin works, some of which are rendered incorrectly, and with regard to Anglo-Saxon England and Scandinavia, where Lima’s erudition falters), this book could be a useful resource for researchers who wish to delve more deeply than Lima has done into the critical issues involved in theatrical representations of occult evil. It is to be hoped that researchers using this book as a starting-point will integrate their analysis of the plays listed by Lima with an analysis of occult evil in other media also.

Randi Eldevik is an associate professor of English at Oklahoma State University, where she teaches medieval and Renaissance literature, Scandinavian literature, comparative mythology, and

When my advisee Shannon arrived early for her noon appointment, I handed her Robert Phillips’s new collection, *Circumstances Beyond Our Control: Poems*, opened to “Ghost Story.” “See what you think about that poem, Shannon, while you wait,” I suggested. (She had taken my elements of poetry course a semester ago.)

Panic crossed Shannon’s face. Moments later, though, her expression softened into a small smile. “Okay, here’s what I think,” she said. “This guy had a girlfriend who died, and he couldn’t cry at the time, but then one night she showed up in a dream and told him she really cared about him, so then he was able to cry.” Silence, then “Hey, it’s a sonnet!” followed quickly by “even if it only has thirteen lines and doesn’t rhyme right” and “rightly rhymed” Shakespearean sonnets, whole poems in open couplets, and closed couplets to end free verse pieces.

I was proud of Shannon. Phillips’s poem had spoken to her immediately and directly, not only about its subject but also about its form. In fact, her comments crystallized the aspects that I wanted to concentrate on in this review: the poems’ seemingly modest diction, matter-of-fact tone, and accessible subject matter, and how even the free verse pieces that occupy most of the book are clearly informed by Phillips’s mastery of traditional forms including, in this collection, “rightly rhymed” Shakespearean sonnets, whole poems in open couplets, and closed couplets to end free verse pieces.

Phillips has lived in the poetry world for a long time, not only as a poet but also as an academic, editor, administrator, and critic. The author or editor of thirty volumes of poetry, fiction, criticism, and other essays, he served in the 1990s as the Director of the Creative Writing Program at the University of Houston, where he now holds an endowed professorship. His writing has been honored with numerous prestigious awards. *Circumstances Beyond Our Control* is the third of his twelve volumes of poetry to be published by the Johns Hopkins University Press in a series whose authors are all luminaries (including, for example, John Hollander, David St. John, X. J. Kennedy, and a former Poet Laureate of the United States, Josephine Jacobsen).

That Phillips is the literary executor and editor of Karl Shapiro should come as no surprise to his readers. A poet inevitably becomes the student of a poet whose work he or she edits, and Phillips’s poetry exhibits many of the greatest strengths of Shapiro’s, especially in its eclectic word choice. Shapiro’s mixed diction in “The Fly,” whose early stanzas liken the insect to “snot,” a polyhedron, and a Duncan Phyfe chair, echoes in a Phillips poem such as “Ode to a Banana,” which moves from the neo-Romantic through Yiddish slang to pop culture, from aesthetic rapture through comedy to horror. Here is its first section:

Banana, color of the sun,

happy fruit — curved like a smile —

a sunscape, shape of the hunger-

moon, moon hunger, shape of the boom-

erang, smooth golden scimitar,
your hip is the full curve of my love’s hips, your shape

the shape of my arousal.

Banana, your waxy sheath is

an uncircumcised shegitz,
your hacked-off stump

a Thalidomide baby’s arm.

Similarly, in “Life Force,” clouds are “tinged with saffron” but, at sunset, “the horizon became a hotdog/smeared with mustard.”

The poems in *Circumstances Beyond Our Control* make good on the promise of the word “our.” They treat subject matter that truly occupies “our” attention — love and loss; marriage and the family; travel; death, including one’s own; nature, in all its grandeur and ordinariness; and so on. Moreover, Phillips treats these subjects in syntax which my advisee Shannon happily termed “normal.” Thus, many of the poems somehow feel familiar, despite being fresh and often startling in their approach.

For existential loneliness, Phillips gives us “My Funny Valentine,” based on a 2002 news statistic, “One in nine of all Valentines are sent by people to themselves.” To illustrate the indomitable human spirit, he shows us, in “Life and Limb,” 137-year-old Charlie Smith, a former slave and double leg-amputee, who says, “What riles me is, my left hand feels/numb. If I tell, they’ll/ prune the whole arm off/ while I’m asleep some night./ And after that, they’ll/ saw off the right.” He investigates unrequited love (or lust) in “Endymion and Selene”: three stanzas limn the mythological couple, and a fourth zeroes in on the present: “You lean/against me indifferently, enduring./ . . . You always let me caress you./ But I can never possess you.”

Whether admiring Phillips’s exceptional craftsmanship, enjoying the humor that infiltrates even his most serious poems, or warming to the deep humaneness of his spirit, a reader feels at home in this collection, and in good company.

If you read the blurbs on its jacket, this book seems like one of the most needed how-to-do books available in higher education. Its title pitches itself to the presumption that state universities are inherently unmanageable — and possibly even to the presumption that faculty members, protected by tenure and responsible primarily to their own narrow interests, make it that way.

Moreover, the title makes a reader think that the book will begin with cases of badly managed state universities for which Duane Acker’s remedies are needed. But this is most certainly not the case. In fact, the book quickly acknowledges that a state university is indeed manageable, primarily by applying common sense and trustfulness. Acker offers no secret means to successful management; he offers instead a few lessons learned from his experience.

For instance, there is the matter of faculty opinion and governance. Rather than claim that faculty may take a narrow view of university-wide matters, Acker tells other presidents and would-be presidents that “you will need good faculty input and good faculty judgment,” which almost always will be the case “if they have complete information and sufficient time to debate and consider.” The emphasis is Acker’s, and it implies that disregard of faculty opinion is poor management.

Acker places a similar trust in deans and department heads. One chapter is entitled “Let Deans and Department Heads Manage,” which means to apply some forbearance, allow time, and rely on the analysis of information by deans and department heads. A president, he implies, does not manage well by telling or insisting on what others should do. A president manages well through establishing general goals that are in keeping with the university’s mission.

Such advice is traditional, time-tested, realistic, and good. Contrary to much writing on leadership, Acker avoids sweeping generalizations about organizations or management style. Drawing as he does on his experience as president at Kansas State University from 1975 to 1986 and in earlier administrative appointments at Iowa State and South Dakota State, he is much less interested in making a point than in being helpful. “Study the Data” is a chapter title. And in case presidents forget the value of the physical campus, Acker’s chapter on that subject ends with the admonition to “choose a physical plant manager as carefully as you choose a dean.” His chapter on academic freedom and free speech asserts the absolute necessity of upholding both concepts.

In only one instance does he present what might be considered a “new idea,” and it has to do with academic advising. Acker probably believes that the state universities in his experience were a little deficient in academic advising, but he is much too kind to say so. Instead, after saying that academic advising is “as important as quality instruction,” he simply suggests a student fee for advising, basing his suggestion on the notion that if students have to pay for something, they’ll expect and demand that it be good. Perhaps so.

Understandably (given the twenty years that have passed since Acker was at Kansas State), the book keeps its distance from many contemporary university problems. Nothing appears about the culture wars and little about issues related to ethnic diversity, globalization, and technology. Anyone curious about the role of online learning in a state university, for instance, will remain curious after finishing the book.

Nor does he directly address issues of teaching and learning. In this regard, Derek Bok’s *Our Underachieving Colleges* (Princeton University Press, 2006) is a more insightful book and much richer in its attention to research on teaching and learning. Acker, sticking primarily to his own experience with land-grant institutions, might argue that such issues are delegated matters for deans and department heads. Facing an increasingly diverse student population — and external attention to accountability and assessment — some readers (myself included) might like more emphasis on what and how students learn. But what Acker does include — his genial, solid advice, his reminders to trust others, delegate authority, behave well, and give more credit than you take — makes his book well worth the short time that it takes to read it.

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Dr. William A. Bloodworth, Jr., is the president of Augusta State University in Augusta, Georgia. He is an active member of the Augusta State chapter of Phi Kappa Phi, having been initiated at East Carolina University in 1986, and has served on the National Fellowship Committee. Author Duane Acker became a Distinguished Member of Phi Kappa Phi, Kansas State University Chapter, in 1997.
Letters to the Editor

THANK YOU

Thank you and the entire Phi Kappa Phi staff for your efforts to give Phi Kappa Phi members an outstanding Forum magazine, along with other valuable member benefits. As the chair of the Society’s marketing committee, I am aware of the lengths to which the Phi Kappa Phi staff goes to ensure that members are prioritized and valued. The ongoing enhancements to the Forum show your commitment to our mission of recognizing and promoting academic excellence and engaging the community of scholars.

As a member of Phi Kappa Phi and beneficiary of your efforts, please know that the Forum is proudly displayed with other professional publications in my office. Thank you for all that you do to make my membership so useful and meaningful.

Donna Clark Schubert
Troy, Alabama

AMERICAN MUSIC TODAY

The Fall 2006 issue, “American Music Today,” supposedly represents the values of an organization whose motto urges “the love of learning” to “rule humankind.” So why, in an issue devoted to music, is the whole world of music as a fine art (exemplified by hundreds of composers in residence in our universities) ignored in favor of music as a commercial enterprise? When we could have found out what is going on musically in a very healthy fine art, we have anecdotal features of a commercial craft operating at the level of eighteenth-century hacks. This is simply unacceptable in light of our association’s declared devotion to intellectual standards of excellence.

I cannot even imagine Phi Kappa Phi creating a science-related issue with articles on mythbusters and scientific experiment; evolutionary biology goofs in Jurassic Park; or a medical column featuring interviews of buyers for herbal remedies. Or what about an issue on American poetry with features on verse appearing in Hallmark cards, or styles and techniques in restroom wall classics? So why does the whole burden of anti-intellectualism fall on music?

Have the purveyors of commercial entertainment been so loud, so persistent as to convince even Forum editors that they represent all there is of American music? Not so. There is a deep intellectual and fine arts tradition that flourishes down under that oppressive load. It is our job as thinking people to honor that real stream of American life, to lift it up against the numerous dull three-chord exercises that flood our media.

Most of the articles in the music issue are merely brief narrative outlines of familiar material full of name-dropping. Philip Chang’s description of mashups at least contains some analytical musical material. Ironically, all the writers are scholars surrounded by today’s creative ferment within the fine arts tradition. Why did they spurn their source of education and livelihood in favor of some tiresome commercial assignment? Not a word, even in the book reviews, hints at the fine arts tradition that flourishes especially in the university context and deserves a broad public awareness. The fall issue of Forum certainly did not help that cause.

Sharon Scholl
Atlantic Beach, Florida

(Forum on Education and Academics continued from page 27.)

about the persuasive tools that several essay writers had used, but within the shelter of relaxed camaraderie. Nothing interrupted our concentration. Our withdrawal into our own version of Sanders’s hut was temporary, as his was. But we emerged, as he did, “with a sense of stillness” and groundedness that gave us the courage to immerse once more in the distracting, hectic pace of our normal days. And we emerged with the realization of how much we could accomplish when our thinking time was not interrupted.

Helen Collins Sitler is an associate professor in the English Department at Indiana University of Pennsylvania. She teaches composition courses and an English Education practicum and also supervises student teachers. Dr. Sitler directs the Southcentral Pennsylvania Writing Project, a site of the National Writing Project. She can be reached at hstiler@laurelweb.net.

Special thanks to Kayli Foulk, a student in this class. Kayli’s response to a draft of the column helped with revising it.


Frances Hartley
New Market, Maryland

I am not musical, but perhaps I might be if I had the opportunity to have experienced a curriculum as suggested by David Conrad, in his article “American Music Education: A Struggle for Time and Curriculum.”

I am amazed at the dollars appropriated for jails and prisons without our approval and those lacking for better schools and enhanced curricula.

Evelyn Lewis
Phoenix, Arizona
Phi Kappa Phi Expands Awards Programs

Phi Kappa Phi’s board of directors recently approved the creation of two new awards programs launching this year. Emerging Scholar Awards will recognize outstanding rising sophomores studying at Phi Kappa Phi member institutions. Each year, Phi Kappa Phi will grant sixty Emerging Scholar Awards in the amount of $250 to students who meet the following eligibility requirements:

- Attend an institution with a Phi Kappa Phi chapter (see PhiKappaPhi.org for a list of chapters);
- Have a cumulative grade point average (GPA) of at least 3.75 on a 4.0 scale;
- Have a minimum of thirty semester hours (or equivalent, excluding all AP, Credit by Exam, transfer credits, and so on) of academic credit.

PLEASE NOTE: You must have earned no more than a total of sixty semester hours (excluding all AP, Credit by Exam, transfer credits, and so on) during your post high school academic career.

The second new program, Love of Learning Awards, will help fund post-baccalaureate studies and/or career development for active Phi Kappa Phi members including (but not limited to): graduate or professional studies, doctoral dissertations, continuing education, career development, travel related to teaching/studies, and so on. Recipients of the Phi Kappa Phi Fellowship award are not eligible to apply. Fifty awards, up to $500 each, will be given, making the annual funding for this award $25,000.

“These two new awards represent Phi Kappa Phi’s continuing effort to be responsive to the needs of our membership and to the changing conditions of American higher education,” said Society President Dr. Paul J. Ferlazzo.

The application deadline for both the Emerging Scholar and Love of Learning awards is June 30, 2007. Downloadable applications and additional information will be listed at our Web site as it becomes available.

In addition to the two new award programs, Phi Kappa Phi has expanded its popular Study Abroad Grants. Beginning this year, the total number of annual Study Abroad Grants will increase from thirty-eight to fifty. Established in 2001, the Study Abroad Grants program has quickly become one of the Society’s most popular award competitions.

“The Society’s commitment to providing study abroad opportunities to our students is a true testament of our motto, let the love of learning rule humanity, on a global scale,” said Joe Broder, chair of the Study Abroad Review Committee.

Study Abroad Grants are designed to help support undergraduates as they seek knowledge and experience in their academic fields by studying abroad. Applications for 2006–07 and more information about the program are available at the Study Abroad Grants page at PhiKappaPhi.org.
NEW AND IMPROVED CAREER CONNECTION NOW ONLINE

Phi Kappa Phi is pleased to announce the launch of its new Career Connection Center, an easy-to-use and highly-targeted resource designed to help you make valuable employment connections. As an active (dues current) Society member, you are invited to post your résumé online — free and confidential.

To access the Career Connection Center, go to PhiKappaPhi.org and click on the “Career Center” tab. You will be prompted to log in using your 8-digit member number and password. For log in help, contact (800) 804-9880, ext. 20.

2007 PHI KAPPA PHI CONVENTION KEYNOTE SPEAKER

Dr. Cathy Small, Phi Kappa Phi member and author of *My Freshman Year: What a Professor Learned by Becoming a Student*, will be the keynote speaker at the Society’s 2007 Triennial Convention. Dr. Small will discuss her experiences as an “undercover college freshman” with convention delegates on August 9, 2007.

After more than fifteen years of teaching, Dr. Small, a professor of anthropology at Northern Arizona University, realized that she no longer understood the behavior and attitudes of her students. Dr. Small decided to put her wealth of experience in overseas ethnographic fieldwork to use closer to home and applied for admission to her own university. Accepted on the strength of her high school transcript, she took a sabbatical and enrolled as a freshman for the academic year. She chronicled her observations (under the pseudonym Rebekah Nathan) in *My Freshman Year*, a first-person account of student culture today. What she learned about the contemporary university — as an anthropologist, a freshman, and a teacher — will be the subject of her keynote address.

**Featuring:**

- Keynote speaker Cathy Small, author of *My Freshman Year: What a Professor Learned by Becoming a Student*
- Presentations by past and present Phi Kappa Phi award recipients
- Roundtable breakfast discussions
- Chapter officer workshops

Watch for additional information about the 2007 Convention as it becomes available at PhiKappaPhi.org.

Make Your Plans Now to Attend The 2007 Phi Kappa Phi Triennial Convention in Orlando, Florida, August 9-11.
Chapter News

EAST CAROLINA UNIVERSITY CHAPTER SPONSORS LEADERSHIP FORUM

On October 23, 2006, the East Carolina University (ECU) chapter of The Honor Society of Phi Kappa Phi presented more than two hundred attendees with a leadership forum titled “Connecting Community Colleges and the Four-Year Institutions of North Carolina.”

Held at the Mendenhall Student Center on ECU’s main campus, the forum provided an opportunity for the state’s public institutions of higher education to discuss the need to create and expand partnerships between community colleges and state universities.

The day-long event began with a poster session showcasing an array of partnership ideas, including collaborations between ECU faculty and two-year college institutions. After a welcome by ECU Chancellor Steve Ballard and the statement of purpose by Ron Newton, chapter president, a dialogue featuring Erskine Bowles, president of the University of North Carolina system, and H. Martin Lancaster, president of the North Carolina Community College system, was moderated by Willie Gilchrist, Interim Chancellor of Elizabeth City State University. Bowles observed, “In today’s world, the taxpayers of North Carolina should have a seamless educational system; someone should be able to move easily from high school to community college to the university.”

A panel, “How to Build and Sustain Partnerships,” moderated by Newton featured three of the state’s community college presidents (Kenneth Boham, Scott Ralls, and P. Anthony Zeiss) and three four-year-institution chancellors (Rosemary DePaolo, James Oblinger, and Kenneth Peacock).

The keynote address was presented jointly by Terry D. Mathias, the vice-president of Phi Kappa Phi’s North Central Region, and Ron Risley, executive director of Phi Theta Kappa, the academic honorary for two-year colleges. Richard R. Eakin, professor of educational leadership at ECU, facilitated an afternoon showcase on existing collaborative programs in the areas of marine science, access and success for transfer students, teacher education, and community development. The event closed with a session chaired by Deborah Lamm, an ECU alumna and currently president of Edgecombe Community College.

CSU-SAN BERNARDINO CHAPTER COSPONSORS PRESENTATION ON VIOLENCE AGAINST THE HOMELESS

The California State University-San Bernardino (CSUSB) chapter of Phi Kappa Phi cosponsored a presentation on violence against the homeless on October 26, 2006. The CSUSB Center for the Study of Hate and Extremism and the university’s criminal justice department also sponsored the program. Michael Stoops, executive director of the National Coalition of the Homeless in Washington, D.C., presented “Hate Violence and the Homeless: A National Shame,” and was joined in the forum by Rufus Hanna, an advocate for the homeless who was recently featured on 60 Minutes.

WASHBURN CHAPTER SPONSORS TRICK OR TREAT

Members of Washburn University’s (WU) Phi Kappa Phi chapter teamed up with Washburn University’s Residential Living Committee, the American Business Women’s Association, Washburn Sales and Marketing group, and other WU clubs on campus to host a trick-or-treating event on campus on October 31, 2006.

Phi Kappa Phi chapter student vice president Laura Blasi, speaking in an interview on local channel 49 news, said the college students were “just as excited about dressing up as the kids are.” She also noted that it was an opportunity for the organizations involved to give back something to the community and the university that has given so much to them.
Chapter News continued

AUSTIN PEAY CHAPTER’S “CANDY FOR THE MIND” A HIT

At Austin Peay State University’s annual GHOST program (Greater Halloween Option for Safer Trick-or-Treating), Phi Kappa Phi’s chapter set up its “Candy for the Mind” table to the delight of both parents and children alike. At the table, instead of candy, the chapter gave children the option to choose from 1,300 children’s books that the chapter had been collecting since April.

Chapter president Susan Calovini was quoted by the Clarksville Leaf-Chronicle as saying “The parents are particularly happy when we give them anything other than candy.” The Leaf-Chronicle also quoted parent Krystal Beaudoin as saying that her two children were “just as excited about the books as they are the candy.”

CSU STANISLAUS CHAPTER COLLECTS BOOKS FOR HALLOWEEN

Members of the California State University Stanislaus (CSU Stanislaus) chapter of Phi Kappa Phi, along with the Sigma Tau Delta English honor society, the Theta Chi fraternity, Penumbra magazine, and the departments of English and Social Work at CSU Stanislaus collected new and slightly used children’s books during Halloween 2006 for the Turlock Family Resource Center (TFRC).

TFRC aids Turlock families and children through support, education, and advocacy. Funded by the Stanislaus County Children and Families Commission, it partners with Aspira Behavioral Health, the Haven Women’s Center, Parent Resource Center, Stanislaus Literacy Center, and Aspira Pro Family. TFRC also works closely with the Turlock Unified School District’s Head Start and Project Grow, Salvation Army, and other local organizations.

Some of the programs and services that currently flow through TFRC include child-development screenings, parenting and child-development workshops and education classes, domestic violence women’s support groups, literacy training and GED tutoring, school-readiness information, and individual family needs assessments and assistance.

Arnold Schmidt, CSU Stanislaus chapter president (plague doctor mask), Phi Kappa Phi member Kirsten Jasek-Rysdahl, Turlock Family Resource Center Supervisor (feathered mask), and Phi Kappa Phi member Catherine Anderson, (cat burgler) collect books for a great cause.
To the Left of Inspiration: Adventures in Living with Disabilities
Katherine Schneider

When is the last time you read an honest, funny book about living with disabilities? To the Left of Inspiration: Adventures in Living with Disabilities is just such a book. Fifty-four million Americans have chronic illnesses or disabilities requiring them to make accommodations in the way that they live their lives. Blind from birth, Katherine Schneider uses her life experiences to highlight the warmth and humor in our struggles to be humane with each other, whether we are able-bodied or disabled.

Katherine Schneider was inducted into the Michigan State University chapter of Phi Kappa Phi in 1970.

Rethinking High School Graduation Rates & Trends
Lawrence Mishel and Joydeep Roy

Rethinking High School Graduation Rates & Trends analyzes the current sources of data available on high school completion and dropout rates and finds that, while graduation rates need much improvement, they are higher and getting better. Mishel and Roy argue that statistics fail to reflect tremendous progress in closing the black-white and Hispanic-white graduation gaps.

Lawrence Mishel was inducted into the Pennsylvania State University chapter of Phi Kappa Phi in 1973. Joydeep Roy was inducted into the University of Missouri-Kansas City chapter of Phi Kappa Phi in 1997.

Failed Grade: The Corporatization and Decline of Higher Education in America
Albert H. Soloway, PhD

In Failed Grade: The Corporatization and Decline of Higher Education in America, Albert Soloway argues that colleges and universities are in danger of losing their primary mission of educating the next generation of professionals and leaders. Instead, the corporatization of American higher education has fostered an atmosphere that is concerned only with the bottom line rather than the education of students.

Albert H. Soloway was inducted into the Ohio State University chapter of Phi Kappa Phi in 1982.

Confronting Lyme Disease: What Patient Stories Teach Us
Karen P. Yerges and Rita L. Stanley, PhD

In Confronting Lyme Disease: What Patient Stories Teach Us, the struggles of fourteen patients reveal how their lives were changed by debilitating illness and by unanticipated medical obstacles. The interplay of personal tragedy with medical obstacles reflects how the human spirit rises to try and overcome not only illness, but the challenges of a restrictive modern medicine.

Rita L. Stanley was inducted into the Ohio State University chapter of Phi Kappa Phi in 1974.
EXCLUSIVE PHI KAPPA PHI ACTIVE-MEMBERS-ONLY BENEFITS

**Career Connection**

With Career Connection, you can post an anonymous résumé, view job openings in your area, and create a personal job alert, all through a personal job-seeker account.

**Dell**

Phi Kappa Phi and Dell have teamed up to offer you the benefit of participating in the Dell Employee & Affiliates Purchase Program, through which you can receive discounts on Dimension™, Inspiron™, XPS™, and much more.

**Bank of America Credit Card**

Earn points and get what you want — cash, travel, merchandise, and gift certificates — with the Phi Kappa Phi WorldPoints® MasterCard and the Phi Kappa Phi Rewards American Express® card.

**Barnes&Noble.com**

In partnership with Barnes&Noble.com, Phi Kappa Phi has established a custom online bookstore that allows active Society members to receive an additional 5 percent off all purchases and Fast & Free domestic delivery in three business days or less on orders of $25 or more.

**Becker CPA Review**

$250 discount available to Phi Kappa Phi members who register for all four parts of the Becker CPA Review Course at the same time.

**Enterprise Rent-A-Car**

Phi Kappa Phi and Enterprise Rent-A-Car have formed a partnership that entitles active Phi Kappa Phi members to discounts on Enterprise’s rates.

**Liberty Mutual**

As an active member of Phi Kappa Phi, you can now save on your auto and home insurance with Group Savings Plus® from Liberty Mutual through exclusive group discounts and guaranteed rates for twelve months.

**Marsh**

Phi Kappa Phi has partnered with Marsh, the world’s leading risk and insurance services firm, to bring you a special group rate on a variety of insurance plans including short term medical, term life, catastrophe major medical, long-term care, disability income, pet insurance, and medicare supplement.

**Stalla System™**

$100 discount on the Stalla System™ for Phi Kappa Phi members preparing for the CFA exam.

**SunTrust Bank**

SunTrust Bank offers Phi Kappa Phi members and their families special interest-rate reductions on Federal Student Loan Consolidation.

**The Princeton Review**

Phi Kappa Phi members are eligible to receive $100 off The Princeton Review GMAT, GRE, LSAT, or MCAT preparation courses. Additionally, members can extend the discount to immediate family who may be preparing for the SAT or ACT.

**Women For Hire Network**

Women For Hire is offering a FREE network membership ($38 value) to Phi Kappa Phi members.

To access these offers and more, go to [PhiKappaPhi.org](https://PhiKappaPhi.org), log on to the Members page, and click on “More Benefits.”
Glamour Woman of the Year

Anita Chang (Louisiana State University) was named Glamour magazine’s 2006 Woman of the Year. Chang, labeled “The Survivor” by the magazine, suffered a traumatic brain injury from a car accident, an injury that left her with short- and long-term memory loss. After a year of intensive rehabilitation, Chang returned to her job as an editor on the national desk for the Associated Press.

Members Named as Rhodes Scholars

Five Phi Kappa Phi members were named to the 2007 highly selective list of American Rhodes Scholars. The Rhodes Scholarships, the oldest international fellowships, were initiated after the death of Cecil Rhodes in 1902 and bring outstanding students from many countries around the world to the University of Oxford. The first American Scholars were elected in 1904.

Representing Phi Kappa Phi are the following recipients:

- Sean Genis, United States Naval Academy
- Timothy F. Simmons, United States Military Academy
- Katie N. Lee, University of Minnesota
- Brian C. Johnsrud, Montana State University-Bozeman
- Leanna Wen, Washington University

Ted R. Anderson, PhD (McKendree College), had his book, Biology of the Ubiquitous House Sparrow: from Genes to Populations, published by Oxford University Press in August 2006. He retired in 2004 as Emeritus Professor of Biology after thirty-two years of teaching at McKendree College and now resides in Kingston, Washington. He continues to teach at the University of Michigan Biological Station, where he will teach Biology of Birds in the summer of 2007.

Judy Copeland Ashcroft, EdD (Texas Tech University), director of the Division of Instructional Innovation and Assessment at The University of Texas at Austin, has been appointed dean of the university’s Division of Continuing Education, effective February 1, 2007.

Sister Frances J. Bell Banks’ (Old Dominion University) booklet, Fasting for Your Health, can be purchased online at her Web site, www.geocities.com/blestwo.

Gail S. Bender (Michigan State University) a teacher at Wall School, Sturgis, Michigan, was named the 2006 John Oster Memorial Award recipient. The award is given annually to a teacher in the Sturgis school district who “exemplifies high professional standards for teacher training and education, extraordinary devotion to the Sturgis community and the position of teacher and whose efforts, training and skills have reflected upon the value of education to the teachers, students and quality of education in the Sturgis Public Schools.” Bender is the twenty-sixth recipient of the John Oster Award.

Lavoy Bray Jr., MEd, BSN, RN (Virginia Commonwealth University), has been named Dean of Quality Enhancement at Southside Regional Medical Center School of Nursing. He has served as an associate professor of nursing since 2001 at the school.

Lyle Castle, PhD (University of South Dakota), editor, CEO, and president of Hetero Corporation and chemistry professor at Idaho State University (ISU), has been named Professional of the Year in Heterocyclic Chemistry by Cambridge Who’s Who. Only one member in each discipline is named Cambridge Who’s Who Professional of the Year. At Hetero, Castle oversees management of the Journal of Heterocyclic Chemistry, at ISU, he teaches and conducts research in all areas of organic chemistry.

Frances Clark-Patterson, PhD (Virginia Commonwealth University), was recently awarded the Mel Schulstad Professional of the Year Award. This award is given annually by NAADAC, the Association for Addiction Professionals, to a person who has demonstrated outstanding and sustained contributions to the advancement of the addiction profession. Dr. Clark was honored at the NAADAC national conference and meeting in Burbank, California, in September 2006.

She is currently the director of Behavioral Health Services at Metro Public Health Department in Nashville, Tennessee. She is immediate past president of the Tennessee affiliate of NAADAC and is the national conference chairperson for 2007.

Delmas Crisp, PhD (Wesleyan College), has been named Chief Academic Officer at Methodist College, Fayetteville, North Carolina. Crisp previously served as vice president of Academic Affairs at Wesleyan College, Macon, Georgia.

Nicole DeYoung (University of Alaska Anchorage) was named the Great Northwest Athletic Conference’s NCAA Woman of the Year for 2006. DeYoung, a letter winner in both skiing and cross country, graduated magna cum laude in May 2006 with a degree in natural sciences.
Daniel Doughy, PhD (University of Minnesota), was named vice president for product safety at SION Power in Tucson, Arizona. Doughy will oversee all programs related to product safety of high-energy, rechargeable lithium sulfur batteries. Doughy comes to SION from Sandia National Laboratories, where he had fourteen years’ experience in battery research and development.

Mary DuBose and Crystal Hughes (Lamar University) were each awarded a Plummer Award as one of Lamar University’s top academic graduates in the class of December 2006.

Danielle Frazier (Ball State University) was honored as one of eight Women of Achievement by the Task Force on the Status of Women from Ball State’s College of Sciences and Humanities. Frazier, a senior in elementary education, is a student member of the Ball State Board of Trustees and is active in the Excellence in Leadership Program, mentoring first- and second-year Ball State students.

Lisa Fusillo, PhD (Texas Women’s University), has recently been appointed as the head of the Department of Dance in the Franklin College of Arts and Sciences at the University of Georgia. Dr. Fusillo previously served as Director of the Dance Program at the University of Nebraska-Lincoln. Fusillo is a two-time recipient of the National College Choreography Initiative Award from the National Endowment for the Arts. Most recently, she has presented her research at the International Association of Dance Medicine and Science Conference in London; at the Taiwan College Dance Festival in Pan-Chiao, Taiwan; the Nordic Dance Research Forum conference in Reykjavik, Iceland; at the World Congress for Dance Research in Greece and Cyprus; at the European Association of Dance Historians Conferences in Spain and England; and at the AirDANZA — the Italian Association for Research in Dance Conference in Rome, Italy.

Alan Howestadt, PhD (Western Michigan University), was one of 150 invited participants attending the Twenty-Second Annual Rosalyn Carter Symposium on Mental Health Policy in Atlanta, Georgia (November 8–9, 2006). Prompted by the aftermath of Hurricane Katrina, teams of participants developed and prioritized six major policy recommendations for disaster mental-health response, including planning and preparedness. Policy recommendations are in turn shared with executive and legislative branches of Federal, state, regional, and city governments. Howestadt is also current president of the American Association for Marriage and Family Therapy and a past president of the Western Michigan chapter of Phi Kappa Phi.

Clemente Jaques-Herrera (Kansas State University) was awarded a Benjamin A. Gilman International Scholarship for study abroad. He will be studying architectural history in Orvieto, Italy, during the Spring 2007 semester. The Gilman award is worth up to $5,000 for study abroad.

Davor Hrovat, PhD (University of California-Davis), was elected to the National Academy of Engineering (NAE) in February of 2006 for “contributions to the development of automotive controls that have led to improvement in performance, comfort and safety.” The related induction ceremony was performed at the NAE Annual Meeting in Washington, D.C., on October 15. Election to the NAE is among the highest professional distinctions accorded to an engineer. In addition, Dr. Hrovat was recently promoted to “Henry Ford Technical Fellow,” which is the highest individual recognition one can receive at Ford Motor Company in the technical side of the business.

Claude Hughes, MD, PhD (East Carolina University), has joined RTI International as vice president for the Partnership for Genomics and Molecular Engineering and chief medical officer. Before joining RTI, Hughes served as an executive director of medical and scientific services at Quintiles, Inc.


Brian Mooney (Samford University) has joined the firm of Johnson, Sanders, and Morgan in Mountain Home, Arkansas, to begin the practice of law. Mooney is a graduate of the Cumberland School of Law in Birmingham, Alabama, where he was one of the first two Fellows selected for Cumberland’s Center for Biotechnology, Law, and Ethics.

Lindy Nettleton (Morehead State University) was named as a 2006–2007 Ohio Valley Conference scholar-athlete. Nettleton is captain of the rifle team at Morehead State.

Ken Pavlich (University of Idaho) has been named to the Board of Directors of El Capitan Precious Metals, Inc. Pavlich is principal of Pavlich Associates, providing primary consulting services to numerous precious metal, base metal, and industrial mineral companies.

Randall D. Royer, PhD (University of Utah), was chosen by his peers to receive the prestigious Distinguished Faculty Award for his achievements at Black Hills State University (BHSU), Spearfish, South Dakota. He received the award at the Spring 2006 Commencement. Royer teaches music courses and directs the BHSU Jazz Ensemble and the Dakota Chamber Orchestra in residence at BHSU.

Jason Rushing (University of Tennessee-Martin) has been named as the first director of University of Tennessee-Martin’s (UTM) new extended campus location, UTM Parsons Center. Rushing has a Bachelor of Science in Education and an MBA, both from UTM.

Eric H. Shaw, PhD (Florida Atlantic University), was voted president-elect of the Florida Atlantic University faculty senate. When he assumes the presidency of the senate in April 2007, he also will become a member of the university’s Board of Trustees.

Ronald G. Shapiro, PhD (Oklahoma State University), was given the 2005 Oliver Keith Hansen Outreach Award by the Human Factors and Ergonomics Society. Shapiro was honored for his untiring service and excellence in outreach on behalf of the Society and the profession, particularly for his efforts in organizing National Ergonomics Month.

Charles Joseph Smith, DMA (University of Illinois at Urbana-Champaign), performed his contemporary solo piano composition “Smooth Suspense” at the School for Designing a Society House Theater weekend in Urbana, Illinois, in March 2005. In July 2005, he appeared in his first paid overseas recital, a salon recital in the French town of St. Martin-de-Londres, with pianists Kimiyochi Mochizuki and Christophe Sirotteau. During the recital, he performed the complete Visions Fugitives by Prokofiev and the complete Rite of Spring arranged by pianist/composer Vladimir Leyetchkiss.
Steven Solomon (University of Wisconsin-Madison) has given more than sixty-five talks to Rotary Clubs and academic institutions in South Africa, Tanzania, Uganda, and Taiwan on his experiences in 2001–2003 with the Jane Goodall Institute. Solomon is currently education manager at the Lincoln Park Zoo in Chicago, Illinois.

Yolanda K. Stringfellow (Jackson State University) was named to the Jackson State University Sports Hall of Fame. Jackson won a SWAC tennis doubles title and was named as an SWAC Academic Athlete of the Year.

Steve Thieme (Morehead State University) was named a 2006–2007 Ohio Valley Conference scholar-athlete. Thieme is a member of the cross country and track and field teams at Morehead State.

Shannon Rae Watkins (Louisiana Tech University) has accepted the position of Clinical Laboratory Scientist II at Johns Hopkins Hospital in Baltimore, Maryland. She is in the Department of Pathology. Watkins has been certified through the American Society of Clinical Pathologists.

Stan White (Ohio State University) was selected as one of six winners of the Woody Hayes national Scholar Athlete Award by the University and Northwest Sertoma Club of Columbus, Ohio. The award is given each year to the outstanding man and woman in each of the three college divisions in all sports. White was Ohio State’s starting fullback for 2005 and 2006 and is currently studying for his Master of Business Administration in Corporate Finance.

William J. Wolfe (University of Arizona) was presented the 2006 Edward J. Sparling Alumni Award by Roosevelt University, Chicago, Illinois. The Sparling Award, is presented to an individual who has made an outstanding voluntary effort through service to the university, was given to Wolfe for his “dedication and tireless contribution of time and resources to civic and cultural activities.” Mr. Wolfe has established numerous endowments and scholarships at various universities, as well as having endowed a Phi Kappa Phi Graduate Fellowship in honor of his paternal grandfather, Alfred M. Wolfe.

In Memoriam

Telawne Noel Allison (University of South Alabama) passed away on November 30, 2006, at age thirty-six from a malignant melanoma. After having worked as a business manager for various medical supply groups, she attended the University of South Alabama. Despite being diagnosed with cancer her second semester, she completed her degree and had been accepted into the masters and doctoral program at the University of Edinburgh, Scotland.

Vesta Bourgeois (University of Louisiana Lafayette) passed away at age 101. Bourgeois was a pioneer in women’s health and physical education at University of Louisiana Lafayette (ULL), arriving as a student in 1921 and eventually teaching there until 1968. She endowed a professorship in health and physical education at ULL and also a fund for public relations in her husband’s name. The health and physical education building was named Bourgeois Hall in her honor.

Terrence A. Bristol, PhD (Oklahoma State University), passed away on November 7, 2006. Bristol was an associate professor in the School of Global Management and Leadership at Arizona State University. He also had taught at the University of Arkansas at Little Rock and at Oklahoma State University.

Mary Ann Dodd (University of Tennessee at Knoxville) passed away on January 1, 2007, in Cooperstown, New York. She was University Organist Emerita at Colgate University in Hamilton, New York, where she had served as University Organist and Special Instructor in Organ from 1973 until 1993. She had also taught at the State University of New York in Binghamton as an adjunct lecturer from 1987 until 1990 and as the Link Visiting Professor in Organ in 1989.

Harold Halcrow (University of Illinois at Urbana-Champaign) died on August 13, 2006, at the age of ninety-four. He was head of the Department of Agriculture Economics at the University of Illinois from 1957 to 1970. Halcrow also was a professor of agriculture economics at Montana State University, the University of Connecticut, and the University of Illinois. Mr. Halcrow served in both the Army and Navy during World War II.

Ian Harvey (Drexel University) passed away on June 14, 2006, at the age of fifty-eight. Harvey was a bank examiner with the Federal Reserve for many years and also taught accounting, economics, and finance at Pierce College, Burlington County Community College, University of Pennsylvania, and Drexel University.

Howard Kratzer, PhD (University of California Davis), passed away October 6, 2006, at age eighty-eight. Kratzer was an avian nutritionist at UC Davis from 1946 until his retirement in 1985 in the Department of Avian Science. During his distinguished career as an avian nutritionist, Kratzer published more than two hundred articles in peer-reviewed journals and received numerous awards, including being named a Fellow of the American Society for the Advancement of Science. He was active in the UC Davis chapter of Phi Kappa Phi.

Melissa L. Payne, DVM (University of Tennessee-Knoxville) passed away in a motorcycle accident on July 16, 2006, at age thirty-five. Payne, a former Phi Kappa Phi Fellowship winner and a life member, was a veterinarian in Murfreesboro, Tennessee.

Betsy Belle Sheffield (University of Southern Mississippi) passed away on October 5, 2006, at age twenty-seven, as the result of an automobile accident. Sheffield was employed at Pier One Imports and had recently completed a master’s degree in business at Florida State University.

Luke Charles Wullenwaber (Virginia Military Institute) was killed in action in Iraq on November 14, 2004 at age twenty-one. He was assigned to Company A, 1st Battalion, 306th Infantry. He was laid to rest at Arlington National Cemetery.

Please Note:

If you know of a Phi Kappa Phi member who is recently deceased, please notify us at 800.804.9880 or info@phikappaphi.org so that we may update our records.
A. BASEBALL CAP
Made of durable, khaki or olive canvas and embroidered with the Phi Kappa Phi logo, this baseball cap makes an ideal present for any Phi Kappa Phi member. (5 lb.) . . . $15
(olive) Item #ACC08
(khaki) Item #ACC09

B. WOMEN’S CUT T-SHIRT
Pre-shrunk 100% cotton women’s cut t-shirt features the embroidered Phi Kappa Phi logo in the upper left corner. Offered in pale blue, pink, navy, or gray and available in women’s sizes S-XL. (1 lb.) . . . $17
(pink) Item #APP05
(navy) Item #APP06
(gray) Item #APP07
(pale blue) Item #APP08

C. LONG-SLEEVE T-SHIRT
99% lightweight cotton t-shirt in ash gray or navy features the embroidery of the Society’s logo in medium gray and the Greek letters in blue and gold. Available in unisex sizes S-XL. (1 lb.) . . . $22
(navy) Item #APP12
(lt gray) Item #APP13

D. PHI KAPPA PHI TIE
Men’s dress tie adorned with the gold Phi Kappa Phi key. Offered in navy blue and burgundy. . . . $29.50
(navy) Item #ACC27
(burgundy) Item #ACC26

G. ANORAK
Perfect for those cool days when a light jacket is just what you need! Pullover zips from chest to chin and features the Greek letters in white embroidery against a navy background. Shell is 100% nylon and lining is 100% cotton. Offered in unisex sizes S-XL. Item #APP74 . . . . $49

H. COFFEE MUG
Navy blue and white 12 oz. ceramic coffee mug is perfect for everyday use. (1 lb.) Item #ACC20 . . . $7

I. HONOR CORD
Braided navy and gold cords, ending in fringed tassels. (1 lb.) . . . $10
Item #REC10 . . .

J. STOLE
Gold satin stole with the Greek letters and Society key embroidered in a striking navy blue. (1 lb.) Item #REC20 . . . $24

K. MEDALLION
Two inch cloisonné medallion hanging from a royal blue ribbon, features a detailed rendering of the Society seal. (1 lb.)
Item #S-5 . . . $9
Item #S-5a (orders of 50 or more) . . . $8

M. PEN
Show your pride of affiliation in business meetings or in the classroom with this elegant pen and case. Brushed with a pearl satin finish, the Phi Kappa Phi logo is Handsomely engraved on the base of the pen. (.5 lb.)
Item #ACC72 . . . $10

P. LICENSE PLATE FRAME
Die-cast metal license-plate holder features a chrome frame and the Greek letter monogram on a blue background. 12”x 6”. (2 lbs.)
Item #ACC21 . . . $15

Q. BRONZE-PLATED PAPERWEIGHT
Handsome and functional, the Phi Kappa Phi handcrafted paperweight features an antique gold finish and is embossed with the Society seal. Backed with velvet. 3” diameter. (1 lb.)
Item #ACC22 . . . . $10

GREEK LETTER CHARMS
Vertical Greek letter charms are crafted in sterling silver and 10K gold. (1 lb.)
S. Sterling Silver Charm — Item #JE24 . . . $16
T. 10K Gold Charm — Item #JE25 . . . $32

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F 7:00 A.M. – 11:00 A.M. Central Time

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