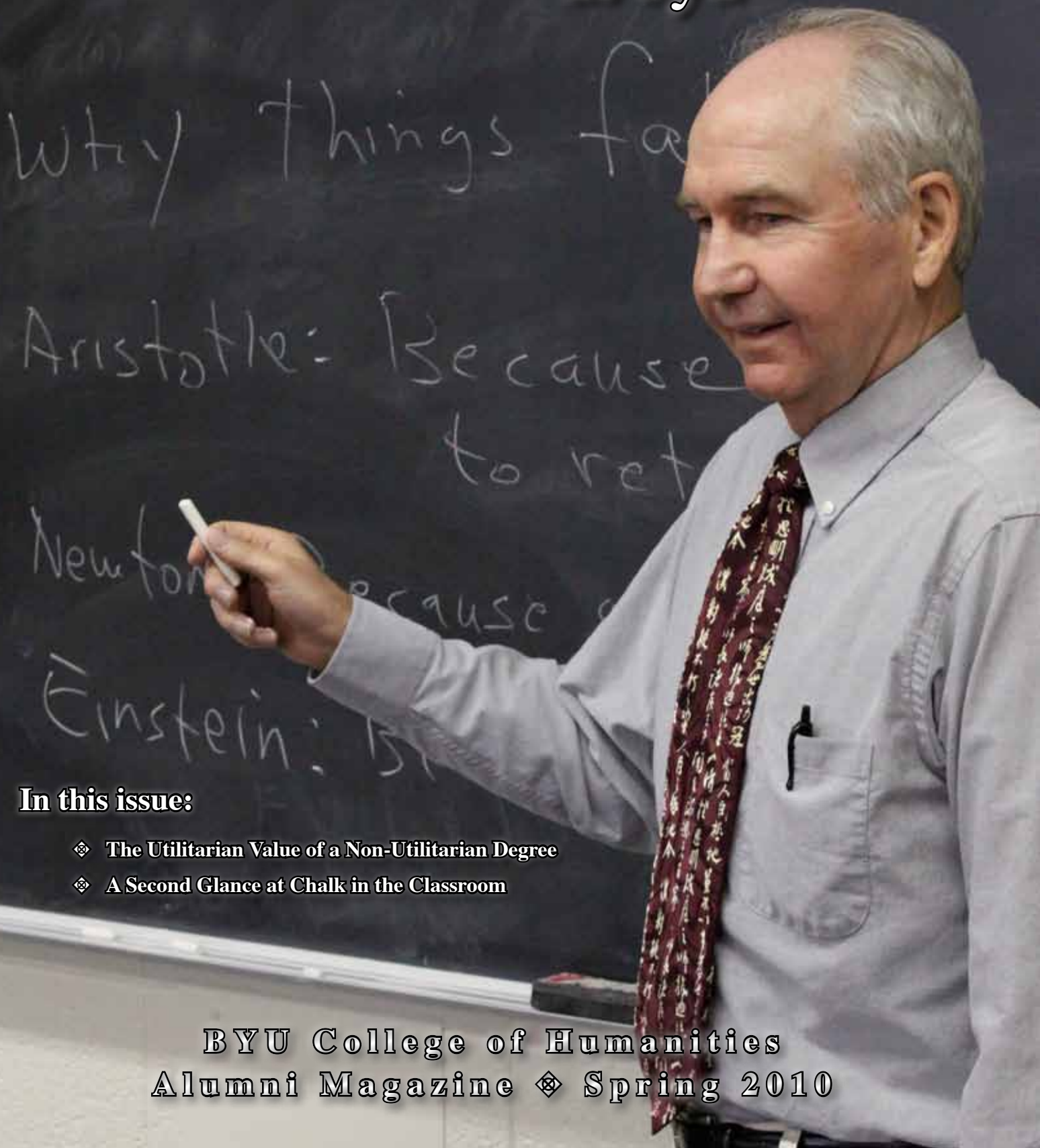


HUMANITIES

at byu



In this issue:

- ◆ The Utilitarian Value of a Non-Utilitarian Degree
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BYU College of Humanities
Alumni Magazine ◆ Spring 2010

“Thy Speech Bewrayeth”



Dean John R. Rosenberg

Many years ago I returned home from a routine day in second grade to respond once again to my mother’s predictable question, “What did you do at school today?” On this occasion I answered, “Nothing. We just had a skinny old woman for a substitute.” Mother aimed her motherly look and corrected, “She was *not* a skinny old woman. She was a slender, elderly lady.”

The art of using the right words for the right time has been the core curriculum at universities since they evolved from the Middle Ages. It continues to be so today, though perhaps in an unfortunately diluted form. Nancy Christiansen in our English Department is among those whose life work is to understand the rhetorical tradition. From the manuscript of her forthcoming book I found this statement written a half millennium ago by the Renaissance humanist Erasmus of Rotterdam:

Just as dress and outward appearance can enhance or disfigure the beauty and dignity of the body, so words can enhance or disfigure thought. Accordingly a great mistake is made by those who consider that it makes no difference how anything is expressed, provided it can be understood. . . . Our first concern should be to see that the garment is clean, that it fits, and that it is not wrongly made up. It would be a pity to have people put off by a spotty, dirty garment, when the underlying form is itself is good. (*De copia*)

At BYU we commit to a dress and grooming standard, so that, in the words of former President Jeffrey R. Holland, our outward appearance might reflect an inner grace. As graduates of the college that attempts to sustain the humanistic tradition promoted by Erasmus, we might aspire to clothe ourselves in speech that is “modest, neat, and clean, consistent with the dignity adherent to repre-

senting The Church of Jesus Christ of Latter-day Saints.” I am not speaking merely of avoiding vulgar language, but of practicing language as if it were an instrument. From Dr. Christiansen’s book I learned that Erasmus’s contemporary Phillip Melanchthon used a painterly metaphor to describe the art of speaking well:

As the object of a painter is to copy bodies truly and properly—how difficult this is to achieve is no secret to the experienced—therefore, not only is art required for it but also a great variety of colors. So the object of the rhetorician . . . is to paint, as it were, and to represent the mind’s thoughts themselves in appropriate and clear language; when he has toiled over it, he will need a great variety of colors as it were, of words, sentences and figures, and finally even a kind of art that at least I think is far greater than the art of a consummate and perfect painter can ever be.

For Erasmus and Melanchthon, good speech mirrors good thought. Professor Christiansen reminded me, however, that language is not just an effect of thought, but that artful language molds, disciplines, and constrains thought. Careless speech encourages grubby thinking (“words can . . . disfigure thought,” said Erasmus). Neil Postman tells us in his 1996 book *The End of Education* that language (he spoke specifically of metaphor) is not ornament, but an organ of perception. The controversial Sapir-Whorf hypothesis suggests that the structure of the mother tongue determines how its speaker perceives the world. The quixotic E-Prime experimental language suppresses all forms of the verb “to be” in an attempt to replace statements of judgment with statements of experience. “She was a skinny old woman,” becomes “She seemed to me a skinny old woman.” E-Prime attempts to sift fact from opinion, an action we presume to be ethically desirable. And of course, we now understand that gendered language can have an effect on how we perceive gender.



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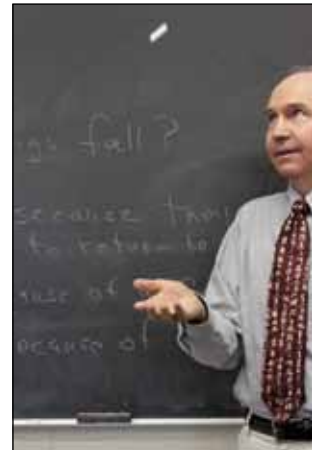
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Front cover: Professor David Grandy at the chalkboard.

Back cover: Faculty and students march in spring graduation's grand procession.

We'd like to invite readers to update their email addresses with us. Please send updates to Carol Kounanis at cek@byu.edu

DEAN CONTINUED

My mother taught me years ago that our speech reflects and affects how we think about others. Made as we are in the image of God, unique among his creations as users of speech, covenant followers of "The Word," we tool language to edify and to reconcile, to heal and to make at-one. I think this is what Paul meant when he wrote to the Colossians: "Let your speech be always with grace, seasoned with salt, that ye may know how ye ought to answer every man" (4:6). After Gethsemane the Savior submitted to questioning in the High Priest's palace, while the exhausted Peter tried to *watch one hour* more from the porch. Two maids wondered if Peter might be associated in some way with the Prisoner. Then the entire group of onlookers turned to Peter and

said, "Surely thou also art one of them; for thy speech bewrayeth thee" (Matt. 26:73). "Bewray" means here "reveal true character"—his Galilean dialect revealed him to be one of Christ's disciples. When I read this remarkable chapter, a chapter about words—treasonous words, accusing words, remembering words, atoning words—I ask, "What do my words bewray about me?" With enough toil and attention, perhaps The Word will find that my "garment is clean, that it fits, and that it is not wrongly made up." Those, at least, are the words of my prayer. ❖

Moving *on*

The College says farewell to four faculty and staff members who will retire by the end of summer. Their years of devoted service are not forgotten. Readers who would like to wish them well may e-mail karmen_smith@byu.edu for contact information.



❖ **MARY ANNE RICH** (Advisement Center) came to the college as supervisor of the Humanities Advisement Center in August 1991, after working for six years in the Marriott School of Management Advisement Center. Her first love has always been for the humanities, having graduated with an

English degree and having married a musician, Harvey Rich, a piano instructor in the School of Music. Their four children all graduated from BYU.

During Mary Anne's tenure, she has watched the number of graduates in the college steadily increase and has seen the Advisement Center grow from two full-time advisors to four, with more needed. The nature of academic advisement has also changed from merely assisting the students to select appropriate classes, to providing developmental, intern, and career advising.

Over the years, Mary Anne has developed great love and respect for the fine colleagues with whom she has worked: from deans and chairs to general faculty and staff; and she will miss their association on a daily basis. She will also miss the close association with the advising community at the university—and with the bright and good students coming through the Center.

Mary Anne feels proud to have worked in the College of Humanities. She plans to continue to seek opportunities to further her love for, and appreciation of, the beautiful and the best that the world has produced.



❖ **PHYLLIS SNOW DANIEL** (Linguistics and English Language) graduated from BYU in Sociology in 1967, after which she worked as an accounting clerk at the University of Utah payroll office. She completed a teaching certificate in 1970. She moved to Bakersfield, CA, where she

became a juvenile probation officer. She married in 1973 and has had five children. She began working at BYU

in 1990 as a transcriptionist at the BYU Student Health Center. The transcription department was disbanded in 1999. Luckily for her, the Linguistics Department secretary retired in August 1999 and Phyllis took over that position. Being the department secretary has been a very rewarding experience for her. When she began the position she had little experience with the workings of the department and quickly learned that this is the Lord's university. Whenever there was something that occurred that she didn't know how to handle, someone would come in who knew the answer or the Lord would inspire her on the correct person to call or go see. She loved to work with and help both students and faculty. The future looks bright in that she and her husband plan to serve a mission in October; upon their return she hopes to work in the temple and/or the Family History Center and play with her grandchildren.



❖ **JOYCE KOHLER** began working at BYU's English Language Center more than twenty-two years ago, little realizing the enriching experience it would prove to be. Working with international students and the BYU students and faculty who teach them English as a second

language has been a perfect fit for her. In 1995 Joyce was honored with the President's Appreciation Award. Through Joyce's efforts, an English Language Center International Choir was organized, and she was given the opportunity of leading the choir for its first three years. Joyce has continued her education through classes at BYU, such as bookbinding, creative writing, religion, and linguistics, to name just a few. She has won several state and national poetry contests over the years and looks forward to having more time to devote to writing after her retirement this spring.

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MOVING ON CONTINUED



❖ CLAUDIA W. HARRIS (English) came to BYU in Fall 1990 after completing her interdisciplinary PhD at Emory University. Many highlights underscore her twenty years here—her amazing students and excellent colleagues, to name a few. Working with the English Society was an early

joy when she directed several original plays like *Beowulf the Musical* and *Hester's Song: The Scarlet Letters*. Less fun were the five years she spent on the department's Rank and Status Committee. But directing BYU's London Study Abroad and seeing hundreds of plays while in London made up for even that.

Being a BYU English Department professor follows many years of teaching in various settings, beginning in 1963 at the Church College of Western Samoa and continuing at an innovative high school and a community college in Atlanta while acquiring three graduate degrees. During this time, she also maintained a successful consulting business throughout the Southeast, teaching writing and grammar to government employees.

At BYU, she focused on Irish drama and literature. Her interest in theater started very early, but perhaps her most remarkable role was as a BYU freshman when she was cast opposite a graduate student (Chet Harris) whom she married six months later.

Besides publishing scholarly articles, she has enjoyed being a theater critic for the *Daily Herald*, the *Salt Lake Tribune*, and *Backstage*. In fact, being able to write full time is what precipitates her retirement; she has several book projects planned, including memoirs and fiction, as well as another book about Irish drama. But most of all, as a widow of twenty-three years, she wants to spend more time with her children, grandchildren, and great-grandchildren.



❖ STEVEN P. SONDRUP, of the Department of Humanities, Classics, and Comparative Literature, was recently elected president of the International Comparative Literature Association. He will assume his presidency in August at the

International Congress meeting of the ICLA in South Korea. The ICLA consists of 5,000 members from more than seventy countries and works to support and strengthen comparative literature studies. Dr. Sondrup specializes in nineteenth- and twentieth-century literature and in the literature of Scandinavia.



❖ LARRY PEER, of the Department of Humanities, Classics, and Comparative Literature, has been given the Lifetime Achievement Award by the International Conference on Romanticism. The ICR is a scholarly organization with members representing

twenty-one countries. Its purpose is the study and promotion of the literature and culture of the Romantic movement. Dr. Peer's scholarly output includes thirteen books and numerous papers. He's received many honors and awards related to scholarship and teaching.

❖ TED LYON, professor emeritus of Spanish and currently president of the Santiago Chile Temple, was recently inducted into the Order of Bernardo O'Higgins (Chile's liberator) with the rank of "comendador" (Knight Commander). The award was personally presented in Santiago by Mariano Fernández, Chilean minister of foreign relations, and is the highest honor Chile gives to a foreigner. The award is an acknowledgment of two notable contributions to the Chilean people. First is Ted's service as Honorary Consul of Utah from 2006 to 2008, when he served the needs of Chileans in Utah and represented Chile in international trade issues. Second, the award is a recognition of his eight years of service in Chile as mission president, MTC president, and currently as temple president. In all of these callings, Ted has served with his wife, Cheryl.



Ted Lyon and Chilean minister Mariano Fernández

The Utilitarian *Value* of a Non-Utilitarian *Degree*



Scott Sprenger
Associate Dean

Outside of preparing future teachers, writers, editors, or pre-professionals, do the liberal arts (or humanities) have any utility? Does academic study of language, culture, literature, or philosophy provide a suitable pathway into the contemporary workplace? Or do the humanities have no useful purpose “except in relation to the pleasure they give to those who enjoy them,” as Stanley Fish has provocatively claimed?

Such questions have cropped up recently in the national press as the economic downturn and lingering market uncertainties have renewed an age-old debate about the value or relevance of the liberal arts. Not so long ago, one of the aims of a liberal arts education was to produce well-rounded citizens with employable skills. Is this still the case? What value do the liberal arts hold in our increasingly bottom-line society where many people judge undergraduate degrees solely by their promise of immediate financial reward?

The casual onlooker might conclude that the humanities are in a nationwide decline—or “crisis,” as the press likes to call it. But they have been in a “crisis” for as long as I can remember. For over three decades, tenure-track professor jobs have been scarce, and undergraduates have gravitated to majors appearing to lead to specific jobs upon graduation. During this same time, humanities colleges and departments have endured cuts and consolidations, while their traditional intellectual prestige has faded.

The curious thing is that while liberal arts funding, prestige, and enrollments have declined, their utility to the global marketplace has not. Studies show a strong correlation between exposure to the humanities and *lifelong* professional advancement, even in fields ostensibly unrelated to them. The correlation is hard for

students to perceive because, as career services expert Sheila Curran points out, “A strong liberal arts education prepares students best not for their first jobs, but for jobs at mid-management and above.” The usefulness of the humanities, then, is a kind of paradox: it derives precisely from their detachment from any immediate or particular utility.

Experts tell us that the industry-specific knowledge of a typical vocational education is exhausted within a few years. In some cases, it is nearly exhausted by the time students enter the workforce. In order to transcend these limitations and to either create new avenues of employment or to advance to higher management positions, employees must engage in perpetual re-invention, often by drawing on a broader set of critical skills learned in liberal arts course work. It’s no accident that a large percentage of people running Fortune 500 companies (one study says up to 40 percent) are liberal arts graduates; they advance more rapidly into mid- and senior-level management positions; and their earning power tends to rise more significantly than people with only technical training.

What explains this success? A recent article in the *Wall Street Journal* states: “A broad liberal arts education is preferred for future CEOs—blending knowledge of history, culture, philosophy, and economic policy with



international experience and problem-solving skills.” And a report by the National Association of Scholars echoes: “Liberal education is demonstrably the most effective form of education for preparing students to meet the challenges of today’s rapidly changing global economy.”

Recent articles in both the *New York Times* and *Newsweek* report that even business schools around the country have taken note. In response to the recent financial meltdown, several business programs in the U.S. and Canada have undertaken curricular reforms, often by infusing the traditional course work with liberal arts learning, including language, writing, intercultural competency, and even improvisation to teach better leadership. Roger Martin, the dean of the Rotman School of Management in Toronto, justifies these changes: “Learning to think critically—how to imaginatively frame questions and consider multiple perspectives—has historically been associated with a liberal arts education, not a business school curriculum, so this change represents something of a tectonic shift for business school leaders.” David A. Garvin, a Harvard Business School professor, agrees: “I think there’s a feeling that people need to sharpen their thinking skills, whether it’s questioning assumptions or looking at problems from multiple points of view.” And Bruce DelMonico, director of admissions at the Yale School of Management, states the point even more emphatically: “A degree in history or religion or languages can be anything you want it to be. . . . We don’t value business over liberal arts backgrounds. . . . It’s not a question of particular classes, but it’s whether you have the mindset, the temperament, the intellectual horsepower to succeed.” Even a top-flight financial institution like J. P. Morgan offers this advice to recruits on its website: “If you’re going to be a liberal arts major, take an economics course.” And if you’re a business major, “Take a few literature courses; read some great books. Classes in history, writing, music, and art may inspire you.”

And, finally, who can argue with the success of Apple? At the company’s annual meeting in January 2010, Steve Jobs illustrated the crucial importance of the liberal arts to Apple’s creative philosophy by means of a visual metaphor: a street sign indicating the intersection where Apple’s innovative thinkers reside, that of “Technology Street” and “Liberal Arts Street.” He explains: “The reason that Apple is able to create products like iPad is because we always try to be at the intersection of technology and liberal arts, to get the best of both.”

One of my most exciting and encouraging tasks as associate dean of the College of Humanities over the past year has been to study the connection between the humanities and the labor market and to learn first-hand from major employers, human resource experts, and career service professionals about what the market values in humanities students. This research tells us a lot about how our College can better advise and prepare undergraduates for the world of work by funding more mentored research, encouraging challenging study abroad programs, and, above all, promoting intellectually rigorous and professionally relevant internships, which is the single most effective way to bridge academics with work. The research also confirms that the Humanities+ and +Humanities initiatives currently being developed in our academic departments and advisement center (as described by the dean in the Winter 2010 issue of this magazine) are taking the College of Humanities in a promising direction.

I have amassed in a very short time over a hundred articles, industry studies, and direct testimonials on the value of a humanities education. I’ve begun archiving these in a blog located at <http://humanitiesplus.byu.edu>. My purpose is to share up-to-date resources with students so they can be assured of their education’s lasting value and be aware of the many avenues it can open up. It is also to provide useful strategies and means for students to enrich or “plus” their university studies. ❖

A Second Glance at Chalk in the Classroom

David Grandy
Department of Philosophy

*A*s classrooms become increasingly technological, certain longstanding fixtures of the educational experience gradually disappear. One such fixture is the humble piece of chalk. It has enjoyed a long and storied career, and not just as a writing instrument. To hold a piece of chalk in one's hand is to hold something that can be quickly transformed into an important teaching tool. I doubt, moreover, that colored markers and PowerPoint presentations will ever surpass chalk in its capacity to link the classroom back to nature. Chalk is primitive, earthy, gritty, and dusty, and it subtly reminds us that everyday earth experience is the ground of all intellectual abstraction.

When I teach Aristotle I always look for a piece of chalk to demonstrate his law of falling bodies. Why do things fall to the earth when released in midair? Because, said Aristotle, they want to get back home. A piece of chalk is the perfect earthbound object because it obviously is earth. Colored markers don't quite fit the bill, don't

have the right feel: too processed and synthetic, too far removed from their terrestrial origins. Someone might protest that since Aristotle had an incorrect theory of falling bodies, none of this really matters. But this response implies a lack of scientific and philosophical imagination. Newton's law of gravity works for us—that is, inspires complete confidence—because we assume that the cosmos is mechanical and mostly lifeless. Rocks, pieces of chalk, and such consequently can't "incline homeward" (to use the old language) because they are completely blank within; they have no "inner essence." But this is an ideological commitment, not a scientific finding. Different assumptions about nature motivate different facts about the world,

and a piece of chalk, seen in the light of Aristotle's organic, teleological worldview, is a nice starting point from which to interrogate the modern thesis that nature is ruled by mechanical necessity.



David Grandy

One may, of course, dismiss chalk as cheap, unsophisticated, and commonplace, but these qualities, I propose, contribute to its adaptable, multifunctional virtue. Just as less is sometimes more, so simple and ordinary is sometimes precious, at least at second or third glance. In the hands of first-rate thinkers, chalk has been a window on the past, an emblem of creation, a philosophical object lesson, a means for illustrating the difference between ordinary reality and quantum reality, and a prop for the joyful sharing of ideas.

One hundred and fifty years ago, Thomas Huxley figuratively reached for “a piece of chalk” in order to demonstrate certain “startling conclusions of physical science.”¹ He insisted that “a great chapter of the history of the world is written in chalk”² and proceeded to illuminate the earth’s past by explaining chalk’s origin and nature. Chalk deposits are very gradually built up from the remains of marine microorganisms, most of which slowly drift to the bottom of the ocean upon death. Since these deposits now constitute large chunks of the dry land we live on, the inescapable conclusion is that salt-water once covered much of our present habitat. As Huxley put it, “chalk is the mud of an ancient sea-bottom.”³ What is more, this mud is part of the geological record by which scientists reconstruct the earth’s biological past. Many species came and went before the buildup of chalk deposits, but other later species left their fossil remains therein. The good thing about chalk deposits, said Huxley, is that they afford continuity between old and new, extinct and surviving species.

It is by the population of the chalk sea that the ancient and the modern inhabitants of the world are most completely connected. The groups which are dying out flourish, side by side, with the groups which are now the dominant forms of life. Thus the chalk contains remains of those strange flying and swimming reptiles, the pterodactyl, the ichthyosaurus and the plesiosaurus, which are found in no later deposits, but abounded in preceding ages. . . . But, amongst these fading remainders of a previous state of things, are some very modern forms of life. . . . Crocodiles of modern type appear; bony fishes, many of them very similar to existing species, almost supplant the forms of fish which predominate in more ancient seas; and many kinds of living shellfish first become known to us in the chalk.⁴

Thus for Huxley chalk called forth an incredibly old earth and the vast evolutionary drama that has unfolded upon it. Another Englishman, G. K. Chesterton, also

drew inspiration from chalk, calling a piece of chalk a “tremendous trifle.”⁵ He told of taking an excursion into the countryside, armed with multicolored chalk and brown paper, intent on making sketches of nature. The brown paper was essential background since it “represents the primal twilight of the first toil of creation,” and the chalk allowed him to “pick out points of fire” on the brown paper, “sparks of gold, and blood-red, and sea-green, like the first fierce stars that sprang out of divine darkness.”⁶ But as he sat on the hillside making his sketch it struck him that he had no white chalk, without which he could not add the climatic flourish. Whiteness, said Chesterton, is not the absence of color but the very epiphany of it, something “shining and affirmative,”⁷ particularly as it shows up against brown or darkish paper. But just as he was about to despair of finishing the sketch, he realized that his situation was like that of a man in the desert searching for sand to fill his hourglass. He was sitting, he tells us, “on an immense warehouse of white chalk.”⁸ As far as the eye could see, white chalk constituted the land about him, and so he reached down, broke off a piece, and finished his sketch.

These narratives affirm the earlier point that a piece of classroom chalk subtly but powerfully links us back to nature, the ground of all our academic deliberations. Moreover, chalk, owing to its inexpensiveness and breakability, can function as a very good pedagogical aid. Sometimes things need to be broken to make a point, and one can break chalk without difficulty or fear of penalty. I am thinking here of Martin Heidegger, who sought to point up a fact about physical objects by breaking a piece of chalk, not just once but twice.

During a 1935 lecture course at the University of Freiburg, Heidegger held a piece of chalk in his hand and noted its properties.⁹ It was “an extended, relatively hard, gray-white thing with a definite form.”¹⁰ As a thing, he further observed, it exists in space and time, at least that is our initial impression and way of talking. But this attitude incorrectly assumes that “space and time are in some sense ‘external’ to things,”¹¹ Heidegger added. Space does not end where the chalk begins; rather space informs the chalk and is filled by it. By this time his students were wondering about the inside of the piece of chalk, and to satisfy their curiosity, Heidegger broke the piece of chalk. He then asked, “Are we now at the inside?”¹² Most people would probably say yes—we are now looking at the inside of the chalk. But Heidegger insisted that we are again looking at an outer surface, somewhat smaller and rougher than before, but

an outer surface nonetheless. We really didn't get inside because the moment we broke it in half to discover its inside, the chalk "closed itself off"¹³ by offering itself as an outer surface. We are still on the outside looking at an opaque piece of chalk, not experiencing chalk's inner space.

Heidegger then stated: "[We] were unable to find the space we were looking for inside the chalk, the space which belongs to the chalk itself. But perhaps we weren't quick enough. Let's try breaking the piece of chalk once again!"¹⁴ After snapping the chalk in half again with the same disappointing result, Heidegger asked, "So where on earth does the inside of the chalk begin, and where does the outside stop?"¹⁵

By Heidegger's lights, it would seem that the inside of the chalk never begins and the outside never ends. The chalk, which we first apprehend from without, always conceals or withholds itself as we try to open it up so as to know it from within. It re-veils itself even as

ing more than guess at the chalk's inner reality from an outside perspective.

Some people might say this is much philosophical ado about nothing, but I believe it helps us get our bearings on certain difficult issues in science. Reductionism has long been part of the thrust of science, and it may be explained as the inclination to grasp the world as an assemblage of interacting parts. The first task of reductionistic science, then, is to pinpoint the fundamental part or building block of reality. In the West this has long been identified as the atom, or, more recently, as subatomic particles. We now know, however, that physical reality cannot be wholly reduced to the interaction of subatomic particles, at least as those particles were classically conceived. The world at bottom is much more complex and messy.

Part of the world's complexity, I propose, can be traced back to what Heidegger had to say about a piece of chalk and what happens when we break it. We never

A piece of classroom chalk subtly but powerfully links us back to nature, the ground of all our academic deliberations.

it reveals itself, always offering yet another iteration of its outside self in lieu of what we really want: the chalk's inside. This inside we can infer, of course, by examining the outer surfaces that keep reasserting themselves as we break the chalk into smaller bits, but we never find the chalk's inner reality in a firsthand way.

I think Heidegger would say there is a double irony or covering-over here. Not only does the outer surface of the chalk keep showing up as we try to discover its inner reality, but the original anticipation behind breaking chalk gets forgotten or iterated out of sight in the process. After long familiarity with chalk we now know that breaking it yields another outer surface but, having forgotten our original intent, we generally feel no disappointment with the outer surface and count that as the chalk's inside, even though, taken at face value, it is no such thing. Heidegger suggested, however, that we first broke chalk (and other things) with the expectation of finding something other than an outer surface. That is, we anticipated the immediacy of chalk's inner reality, not another outer surface from which we can do nothing

get inside it, even though that was the motivation for breaking it in the first place. This difficulty—this snag in the nature of things—is not far removed from that noted by Louis de Broglie, one of the architects of quantum physics. He pointed out that the concept of an atom—a standard fixture of the Western worldview—is inherently flawed.¹⁶ As it was anciently conceived, the atom is an indivisible bit of matter (in Greek, *atomos* means uncuttable) and therefore the point at which the reductionistic program of science comes to a halt: nature can't be further subdivided. But since atoms are physical entities, they must take up space (however minutely), and all things with spatial magnitude have both an outside and an inside, or an outer surface bounding inner content. What, de Broglie asked, does an atom's inside consist of? Given the way we have come to think about physical matter in the West, there are only two possibilities, neither of which makes sense. Either the indivisible atom contains divisible (non-atomistic) matter or it contains indivisible (atomistic) matter. If it contains divisible matter, then it seems that divisibility best



describes the supposedly indivisible atom. But if it contains indivisible matter, then the atoms—the so-called ultimate constituents of nature—are upstaged by even smaller atoms within. And if we then call those smaller atoms the ultimate constituents, we slip into what de Broglie called a “vicious infinite”¹⁷ of ever smaller atoms, which is to say we slip into infinite divisibility.

De Broglie felt that this philosophical conundrum foreshadows wave-particle duality, the realization that nature, at least at the quantum level, registers sometimes as wave-like and other times as particle-like, even though, classically speaking, the two concepts are mutually exclusive. The salient point is that getting inside things—reducing them to their ultimate units—has proved trickier than expected. Paralleling Heidegger’s inability to get inside a piece of chalk without re-encountering its outside, de Broglie couldn’t get inside the concept of atomism or indivisibility without re-encountering divisibility. And even with the technology of modern science, we still do not capture a clear, unequivocal picture of nature’s inner essence—that is a central lesson of quantum physics, which has far out-

stripped science fiction in its capacity to evoke bizarre, mind-stretching possibilities.

While any classroom object may be used to illustrate some of these possibilities, none works quite as well as a piece of chalk. Paul Dirac, another of quantum physics’ founding fathers, used to break chalk in class while explaining the idea of superposition. Famously low-key, Dirac was “not given to gestures” in the classroom, recalls John Polkinghorne, one of his students.¹⁸ The exception was “near the beginning of the course” when he “took a piece of chalk, broke it in half,” and pointed out that while a piece of chalk can be either here or there but not both places simultaneously, not so an electron: thanks to superposition, it can exist in many different places simultaneously.¹⁹ With nothing easily or permissibly breakable in today’s modern classroom, Dirac would have to illustrate superposition by different means, as would Heidegger his notion that broken objects re-veil their interior by revealing a new exterior.

Unlike chalk, the electronic gadgetry that fills today’s classrooms must be handled with care. It also can, like special effects in a movie, overwhelm the

storyline, the simple human narrative of sharing an idea. What I have in mind is Richard Feynman (a Nobel laureate, as were de Broglie and Dirac) teaching physics.

"I remember," one of his students recalls, "how it was when you walked into one of his lectures. He would be standing in front of the hall smiling at us all as we came in, his fingers tapping out a complicated rhythm on the black top of the demonstration bench that crossed the front of the lecture hall. As latecomers took their seats, he picked up the chalk and began spinning it rapidly through his fingers in a manner of a professional gambler playing with a poker chip, still smiling happily as if at some secret joke. And then—still smiling—he talked to us about physics, his diagrams and equations helping us to share his understanding. It was no secret joke that brought the smile and the sparkle in his eye, it was physics."²⁰

No doubt Feynman used chalk to write out his equations and diagrams, but it was also for him a stimulus to freewheeling thought and spontaneous celebration of the subject matter. Like a basketball player mindlessly dribbling the ball between his legs, Feynman mindlessly twirled a piece of chalk in his fingers, the mindless physical action signifying a relaxed confidence in one's ability to perform at a higher, more exciting level—whether by driving to the basket or by solving a problem on the blackboard. In an electronic classroom one can, of course, twirl a laser pointer, but most would think twice before doing so. And how, after all, can one spring

into action with a laser pointer? But that is just what the humble piece of chalk has allowed teachers to do for generations. ♦

1. Thomas H. Huxley, "On a Piece of Chalk," *Collected Essays*, vol. viii (New York: Greenwood Press, 1968), p. 4.
2. Ibid.
3. Ibid., p. 24.
4. Ibid., pp. 31–32.
5. G. K. Chesterton, "A Piece of Chalk," *Tremendous Trifles* (New York: Dodd, Mead, and Company, 1909), pp. 8–16.
6. Ibid., pp. 9–10.
7. Ibid., p. 13.
8. Ibid., p. 15.
9. This incident is recounted in Graham Parkes, "Thoughts on the Way: Being and Time via Lao-Chuang," *Heidegger and Asian Thought*, ed. Graham Parkes (Honolulu, HI: University of Hawaii Press, 1987), pp. 105–44.
10. Ibid., p. 132.
11. Ibid., p. 133.
12. Ibid., p. 134.
13. Ibid.
14. Ibid.
15. Ibid.
16. Louis de Broglie, *Matter and Light: The New Physics*, trans. W. H. Johnston (New York: Dover, 1946).
17. Ibid., p. 219.
18. John Polkinghorne, *Serious Talk: Science and Religion in Dialogue*, 3rd ed. (New York: Trinity Press International, 1995), p. 18.
19. Ibid.
20. Albert R. Dibbs, Introduction to Richard Feynmann, "Surely You're Joking, Mr. Feynmann": *Adventures of a Curious Character* (New York: W. W. Norton & Company, 1985), pp. 9–10.

books that made *a difference*



Wendy Lindgren Hill
Newnan, Georgia
English, 1997

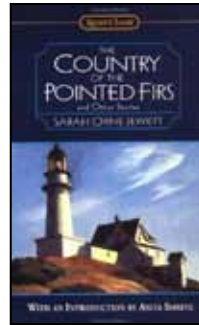
Team of Rivals: The Political Genius of Abraham Lincoln ♦ by Doris Kearns Goodwin

I've read many historical biographies—my favorite genre—but none can compare to *Team of Rivals*. The book is a biography of Abraham Lincoln from birth to death, with heavy doses of biography about his political rivals, many of whom he recruited as allies when he became president. Toward the end of the book, when John Wilkes Booth's name was first mentioned, I had to take a mental break for a few days. I knew, of course, that Lincoln would die, but I was too emotionally attached to read the details of his assassination right away. I finished the book with much emotion. I felt like a good friend had just died.

My favorite story in the book is about Lincoln and Edwin Stanton, his secretary of war. Before they were in politics, they were rival lawyers, and Stanton treated Lincoln very harshly in their rivalry days. Lincoln forgave, Stanton came to admire Lincoln, and a deep friendship evolved. Stanton was at Lincoln's bedside when he died.

When he was twenty-three years old, Abraham Lincoln wrote, "I can say for one that I have no other [ambition] so great as that of being truly esteemed of my fellow men." At age 56, he died as a "man of the ages." Reading this moving biography makes me want to be a better person.

Let us hear from you! Tell us about a book, or several, that made a difference for you, at some point in your life. Include your name, major, year of graduation and current place of residence, with a description about the book's influence on you. Email ron_woods@byu.edu



Nancy Ann Gauld
Independence, Missouri
English, 1958

The Country of the Pointed Firs by Sarah Orne Jewett

When I want to withdraw from the raucous demands of the world, this book is a passage into the peaceful countryside of yesterday. I love the descriptions of the people, the landscapes, and the scenes in the fictional village of Dunnet Landing, Maine. In fact, because of this loosely structured novel, Maine has become one of my cherished places to vacation—at least mentally.



Charles Stanford
Las Cruces, New Mexico
Linguistics, 2001

The Life and Opinions of Tristram Shandy, Gentleman ♦ by Laurence Sterne

This book is regarded as a landmark in experimental fiction (even today, some 250 years after the publication of the first of its nine volumes!). The word *experimental* usually makes me expect something dense and intimidating. But this book quickly won me over with its wit, inventiveness, and humor. I laughed often while following the author as he plays with the conventions and limitations of the novel form through his perpetually sidetracked narrator.



Wheaton College campus in Wheaton, Illinois.

Chicago Area

On June 12, humanities alumni and friends toured the Marion E. Wade Center, Wheaton College, home to the writings, letters, and library of C. S. Lewis. The special collection contains the wardrobe that inspired “The Lion, The Witch, and The Wardrobe.” It also houses J. R. R. Tolkien’s original desk and some of his writings and letters, plus some of the works of G. K. Chesterton, who had a profound influence on Lewis. Dr. Christopher Mitchell, director of the Wade Center, presented a special lecture on these three British authors, well known for their influence on contemporary literature and Christian thought. Many thanks to Jill Brim (English, ’76) for arranging the tour.

Upcoming Events

Education Week Participants

We are delighted to announce that Dr. Daniel Peterson, professor of Arabic in the Department of Asian and Near Eastern Languages, will be the special guest at the “Humanities Home Evening” during Education Week. Please join us in the Joseph F. Smith building in Provo on Monday, August 16, 2010. Dr. Peterson will field questions on a variety of subjects. If you’ve ever attended one of Professor Peterson’s lectures during Education Week you know how popular they are. For more information, please contact Carol Kounanis at cek@byu.edu or 801-422-8294.

Chicago Area

We also want to remind you that Dr. Peterson will be the guest speaker at humanities events in the Chicago area on September 19, 2010. For more information, please contact Jill Brim at nauvoojill@hotmail.com.



Don Parry studying the Dead Sea Scrolls.

Dallas Area

Mark your calendars now for our next presentation on November 6, 2010. Dr. Donald Parry, professor of Hebrew in the Department of Asian and Near Eastern Languages, will be the guest speaker. Professor Parry is an authority on the Dead Sea Scrolls and has written numerous books on the subject. For more information, please contact Pamela Owen Bennett at pamiris123@hotmail.com.

Why I Choose to *give*

My husband and I choose to give to the College of Humanities Annual Fund because we were greatly blessed to attend BYU. Among those blessings were the scholarships and internships I received that enabled me to attend. It is now our privilege to bless the lives of other BYU students who have the same financial need I had many years ago.

Our educational experiences at BYU, both in and out of the classrooms, instilled in us a thirst to continue lifelong learning. We've been able to travel to six continents, and in so doing, we've had the opportunity to fulfill one of the Lord's instructions—to learn of countries and kingdoms (D&C 88:78–80).

Yet another blessing has been the ability to converse in other languages. That ability served me well before retirement, and now serves both of us as we travel. Broad smiles and questions always greet us whenever we have the occasion to use our German or Spanish. Many of our new friends are amazed at Americans who not only speak their languages but also know something of their culture and history.

We are grateful for BYU experiences that directed us in many of the paths of learning. The rewards and inspiration of those learning paths still remain a vital



part of our daily lives. We choose to give so that future generations will have opportunities to enrich their lives and seek their own paths to fulfill the Lord's plan for them.

Pamela Owen Bennett
Dallas, Texas

How I have been *blessed*



Thank you so much for your donation to the College of Humanities. I greatly appreciate your generosity. Thanks to your generous contribution and the scholarship it provides me, I will be better able to focus more on the demands of school and less on financial obligations.

I have attended BYU for over three years now and have bittersweet feelings about graduating next semester and leaving the campus behind. I have loved attending BYU because of the great opportunities it has provided

me with. I have been able to learn and grow academically, spiritually, and emotionally, and I've enjoyed the chance to be educated at such a great university with state-of-the-art facilities and excellent teachers. I have also enjoyed the spiritual atmosphere at BYU and the opportunities I have had to meet new people and make lifelong friends.

Thank you again for your generous help.

Nicole Austin Reschke
English Teaching major

feedback?

We'd like to hear your views, your memories of campus experiences, or an update on your life since leaving BYU. Please e-mail ron_woods@byu.edu.

Humanities at BYU is the alumni magazine of the College of Humanities. Visit us at humanities.byu.edu.

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