Learning in the Light

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oday I shall bifurcate my talk between status report and message on the conference theme: "In thy light shall we see light" (Psalm 36:9). In doing so, I am reminded of a story from my father-in-law's first tour of duty as mission president. When the assistants would introduce him and my mother-in-law to speak at zone conference, they would often say something like this: "Sister Winder will now give us an inspirational message. She will be followed by instruction from the president." Always ready to see the humor in life and laugh at himself, my father-in-law began to refer to his wife as "the inspiration of the mission" and to himself as "the information." In the past I have leaned toward inspiration over information. Today I would like to correct the balance by focusing on information sharing in this first section of my remarks.

Report on BYU

Last year I spoke of BYU as "a house of dreams." I mentioned prophecies and visions that have punctuated our history, including seemingly extravagant prophetic statements

made by President Spencer W. Kimball during the university's centennial in 1975. He spoke of BYU's becoming a "refining host" for students who will be "brilliant stars . . . in all the scholarly graces" and an "educational Everest ... because of the unique light BYU can send forth into the educational world."1 One cannot but wonder how BYU is doing against these lofty expectations, which lie heavily upon us as a call to strenuous effort rather than as an occasion for self-congratulation. It's clear to me that we have not yet fulfilled our "rendezvous with [prophetic] history"² of which President Kimball spoke, nor yet scaled the summit of our educational Everest. We still stand on this side of prophecy and labor up steep slopes toward pinnacles of excellence. But it is also clear that we are moving forward and upward. This is encouraging indeed. Let me recount why I feel encouraged.

Scholarship

Consider first our progress in scholarship. If one takes the long view, there is no question that since President Kimball's centennial

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address, BYU has made great strides in scholarship. Publications authored by BYU faculty are reported in the Web of Science, which accesses the Science Citation Index, the Social Science Citation Index, and the Arts and Humanities Citation Index. These include 9,300 scholarly journals in physical and life sciences, engineering, social sciences, and humanities. The trend line at BYU is impressive and bespeaks the scholarly maturation of the faculty (see appendix A).

Likewise, if we look at our own selfreported data since we began collecting it over a decade ago, we see rising numbers of critically reviewed publications and presentations and juried performances (see appendix B).

Similarly, over the past few years BYU has experienced modest increases in both the activity and productivity indices across the university as a whole, with dramatic increases in some colleges. Since 2004, the average activity rate across campus has risen from just under 60 percent to 70 percent. And in some units the activity rate—that is the number of faculty who publish or present at least one scholarly or creative work during the year—is now over 90 percent—or nine out of ten faculty. Our productivity is also up, from just under two to nearly two and a half scholarly and creative products per faculty per year (see appendix C).

Much more important than these quantitative gains are the indications that faculty appear to be producing qualitatively stronger, more consequential research and creative work. When the data is probed by discipline, deans and chairs often report that faculty are increasingly publishing in high-impact journals and major university presses and that their work is being cited and frequently receiving recognition. I am encouraged by the signs I see of quantitative and qualitative growth in scholarship. I compliment you for the good work you are doing.

Now, along with this good news, I need also to note a couple of concerns: Our external

funding to date in 2008 lags behind where we were at this point in time in each of the past three years. Grant applications are also down. We are not sure why. In addition, performance in scholarly activity and quality is at times uneven both across departments in similar disciplines and within departments. So we still have ample room for improvement.

Even so, while we have not yet reached our full potential, there is much to celebrate on the research front. Most trend lines are up. More important, we are making strides in embedding student learning firmly into our research and creative activity. One piece of evidence for this may be seen in how we spend research dollars. Though there are no national data to draw on, from the information we have been able to coax out of other universities, it is clear that BYU spends proportionally more of its external funding on students than do other universities—far more. This is by design. Our research model encourages faculty to involve students-both undergraduate and graduate students, who, by the way, often play key roles at BYU in mentoring undergraduates. A remarkable 75 percent of the external funding expended annually on students goes to undergraduates. BYU also supplements external funding for faculty-mentored student research with significant infusions of internal funding from ORCA and MEG grants, donor-funded chairs, and other discretionary college funds.

I am delighted with the success of our mentored student research initiative at BYU. Let me cite representative statistics on mentoring that I learned about in resource planning from two colleges. The College of Life Sciences reported that 827 students participated in a mentored research project, 531 students coauthored on 234 abstracts and academic presentations, and 301 students were coauthors on 165 peerreviewed published papers. The College of Physical and Mathematical Sciences reported similar activity with almost 550 undergraduate students participating in a mentored project and over 104 papers with undergraduate student coauthors. Likewise, I was thrilled by the impressive student creative work reported by Stephen Jones, the dean of the College of Fine Arts and Communications. I wish that I had time to share the dean's presentation about the accomplishments of students in animation, communication, visual arts, music, and theater and media arts.

The achievement of our students from all across campus at times can be as breathtaking as it is heartwarming. Surely many of these students stand in the vanguard of the "brilliant stars" President Kimball predicted would arise from BYU.

The most exciting news for me in these reports on mentoring is that more and more faculty are seeing their scholarship as an opportunity to hone, polish, and lift their most able students. Mentored research is even taking hold in my own college, the College of Humanities, which does not have a robust indigenous tradition of coauthorship. Notice that there are precious few coauthored poems and novels; scholarly articles and books are also generally written solo. Nevertheless, the College of Humanities is beginning to think about ways to reconceptualize scholarship so as to involve students more directly in faculty research. I applaud this. I myself recently published my first coauthored article with a student and have another nearly completed.

Teaching

Note how this brief report on scholarship ineluctably leads to consideration of activities that sound a lot like intense forms of teaching. This is as it should be at BYU, for BYU is a university where research supports teaching. BYU is fast becoming what is sometimes called a "learning university." This new paradigm tends to break down the old antagonism between research and teaching. As Ken Bain observes in his book *What the Best College Teachers Do:* Rather than thinking in terms of the traditional dichotomy of research and teaching, a separation that often paralyzed higher education in the twentieth century, we can begin to think of ourselves as a learning university concerned with the learning of both faculty (research) and students (teaching) and the ways in which the learning of one can benefit the other.³

I am sometimes asked to describe the relationship between teaching and research at BYU; sometimes the questioner believes that one or the other is being slighted—take your pick which one. At the midyear university leadership conference, I was invited to discuss this issue. I described what I regard as the emerging educational paradigm at BYU as a learning university.

I contrasted what I call an "instructor" model with a "mentor" pedagogical model. In an instructor model, faculty function primarily as informed dispensers of knowledge to an uninformed recipient, the student. The task of the one is to dispense knowledge, generally acquired previously during an advanced degree. The task of the other is to receive knowledge for the purpose of obtaining a degree. In this model, scholarship and teaching tend to be regarded as two distinct products or activities in one's professional life.

However, it is otherwise in what I call a mentor model. Mentors see themselves as occupying a continuum with their charges; they are coparticipants in a quest for lifelong learning. One is an apprentice learner and the other a master learner, but both are active learners and see each other primarily in this light. The task of the master is to develop the apprentice not only by instructing but also by modeling learning. In a mentoring model, scholarship and students—or, put another way, learning and learners—are linked "products" or "outcomes" of faculty work.

Now these paradigms are not mutually exclusive. In many ways the instructor

paradigm remains embedded in the mentoring paradigm since formal instruction is still required and since in both paradigms faculty still have to negotiate competing demands on their time occasioned by teaching and research commitments. Still, it is salutary to understand that at BYU our teaching and research missions are intended to be integrated and mutually reinforcing. As the only university in the CES system simultaneously tasked with a teaching and research mission, BYU seeks faculty who are a triple threat in citizenship, teaching, and scholarship. Such faculty will regard pupils as well as publications as a proper, if not indeed principal, product and purpose of their scholarly and creative activity.

I like the mentored-research initiative because it fits our model so well and because it evidently blesses our students. I am not sure, however, what the campus carrying capacity is for mentored research. In a few areas we may be nearly at capacity. But in the broader definition of mentoring, there is plenty of room for improvement at BYU. If we were mentoring our students better, fewer would report that they knew no faculty well enough to ask him or her to write letters of recommendation. More students would have enriching interactions with faculty outside of class. More would report satisfaction with formal and informal faculty advisement. And likely more students would receive prestigious awards because they had been personally encouraged and coached.

As I have watched the Olympics, I have been struck with the importance of a great coach in the development of great athletes. Our students—many of them—have the potential to be "brilliant stars," but they too need a faculty coach who sees their potential and who is patient, persistent, demanding, and loving enough to bring it out in them. I am persuaded that we can become a Liang Chow or a Bob Bowman to the promising protégés who come under our influence at a formative age with the potential for greatness. We can be a great coach in the lives of future stars. We can also be great coaches for those who may never star but who will play important roles on the Lord's team. We can be better mentors.

Nevertheless, I am encouraged by evidence that we are doing well by many students to help them along the path toward advanced degrees. BYU is a major undergraduate incubator for those who go elsewhere for PhDs. Some of you will have seen data from the 2006 National Science Foundation study that identifies BYU as number eight in the world of the top ten feeder institutions for newly minted PhDs. BYU is number five if one counts only U.S. universities. Among ourselves, we sometimes call this the "PhD Incubator Study."⁴ Likewise, we are among the most prolific universities in the country in terms of placing students in professional programs-law, business, medicine, dentistry, etc. I am grateful to you for preparing these students academically, as well as to our recently restructured Preprofessional Advisement Center for shepherding them through the application process.

One way we can help place our students, stimulate faculty, and share BYU's unique light with others is by bringing distinguished visiting scholars to campus to discuss their work and otherwise interact with students and faculty. These contacts have proved very effective in lifting the level of accomplishment for departments that have cultivated them and in sharing the spirit and light that is available here on campus with colleagues who don't know us well. To encourage more of this, my office will provide each department one-time funding for bringing visitors to campus in your disciplines. More information will be available soon through your deans.

Similarly, we continue to try to upgrade university forums, which together with devotionals form an important part of a BYU education. I note with gratitude that forum attendance is up a bit—though it still falls well below where it should be. Note the list of fall forum and devotional speakers in your program. Some remarkable speakers are scheduled for this year. May I again encourage you to attend forums and devotionals. It will not only enhance your own BYU experience but also enrich your interactions with students and colleagues as you attend together and make the talks part of classroom and water-cooler conversations.

We are also trying to improve classroom teaching. We now give greater attention than ever to faculty peer review of teaching, both in rank and status and in annual faculty stewardship interviews. The Center for Teaching and Learning has actively seized its mandate to improve teaching and learning since it was reorganized a little over a year ago. Its popular Web site and staff are often drawn upon by faculty to improve teaching and learning. Likewise, the new dean of undergraduate education has enthusiastically embraced a charge to deepen learning in our already strong honors and general education programs. I see many forces being mobilized all across campus to improve teaching and learning.

Happily, we have recently experienced a bump in student teaching evaluations. We are not sure yet how to interpret this. This rise preceded the recent decision to share learning indicators with students, so it could not have been caused by that. It does, however, correspond roughly to the time when the university began to develop learning outcomes for each program and may be related to this campuswide collective effort to define and measure what we want our students to learn in their programs. Under the direction of associate academic vice president Jeff Keith, a university task force will be convened to undertake a careful review of the student ratings instrument. His task force will include representatives from each college and at-large experts in evaluation, measurement, and assessment.

Assessment

Speaking of assessment, I echo the president in expressing profound gratitude for your remarkable effort to embrace assessment. Gratefully, BYU satisfied the initial expectations of our regional accrediting body, which came on a return visit. However, I trust that everyone understands that this initial pass does not satisfy the requirement for ongoing assessment and improvement. Assessment is an ongoing expectation, not a one-time event. Remember what I said when we started on this campus-wide initiative: Assessment must not become our Potemkin village, a hollow façade designed to impress inspectors. We must build a substantive structure in which we do the daily work of the university. Evidencebased improvement needs to become part of our regular way of doing business. This year is a time for us to consolidate what we have learned and to begin the truly difficult task of adjusting programs according to evidence of student learning.

I commend you for your ongoing effort in assessment. It is appreciated by more than the Northwest Association of Schools and Colleges. Students have enthusiastically welcomed your effort to state clearly and succinctly what you expect them to learn in each program. Some of you may have seen the video BYU students produced, which was on the BYU News Web site and showcased at the 2008 Higher Education Summit in Chicago. And you heard President Cecil O. Samuelson describe the interest in our wiki site on BYU's learning outcomes. By last month the site had received over a quarter of a million hits.⁵

Well, I feel very much like these remarks are beginning to drift into an information-only talk—the very kind I have eschewed in previous years. To stop the drift, let me end this report section of the talk by mentioning three more developments of general interest and then move to a message on the conference theme.

Compensation

I reminded you last year of President Kimball's remark that BYU

*is not the place for mercenaries. . . . Your salary, which we hope is adequate, should be incidental and your grand and magnificent obsession would be the youth and their growth.*⁶

By the same token, President Kimball quoted approvingly President John Taylor's counsel to the founders of what is today known as Snow College:

*Procure the services of competent teachers. Some people say, we cannot afford to pay them. You cannot afford not to pay them.*⁷

These twin statements capture the posture of the board toward faculty compensation at BYU. They expect a spirit of sacrifice to attend employment at BYU; at the same time, they provide funding that is both adequate and amazingly stable. Guided by this philosophy, over the past couple of years we have taken steps to reallocate some existing resources toward faculty salaries. Working closely with your deans, we have made targeted adjustments, rewarding superior performance in ways that, in the aggregate, bring overall faculty salaries nearer to board-approved market benchmarks. This has not eliminated the spirit of sacrifice that should attend work at BYU, but it has eased the sacrifice somewhat. We are so blessed, so very blessed.

I was reminded again of how truly blessed we are when I examined a salary book from BYU's early history showing an annual salary in 1921 for full professors and deans to be \$2,633 with modest increases each year following. Then, in the early thirties, it dipped back down *below* their 1921 salaries—not recovering until the early forties to the same level of salary they had once enjoyed in 1921. We have not yet been called upon to sacrifice to the same extent as our forebears, nor do I expect a salary cut such as was experienced during the Great Depression. Nevertheless, we need to be prepared to face the challenges of our day, whatever they may be, in a manner worthy of our forebears' legacy of sacrifice. I am persuaded that sacrifice and consecration are vital in preserving the Spirit of the Y.

BYU Broadcasting

As President Samuelson mentioned this morning, BYU Broadcasting has greatly expanded since the old days when it was essentially a Wasatch Front television and radio station. Its reach is now worldwide. BYU Broadcasting now comprises five radio channels and eight TV channels, including BYU-TV International, which was launched a year ago last March and is broadcast in Spanish and Portuguese. BYU Broadcasting is transmitting light from BYU to the world, touching lives remote from campus with our work.

This is an exciting time—but also a challenging one. One challenge for those of us whose scholarly and creative work does not lend itself naturally to outreach—as it does in our performance programs—will be to make sure that we continue to do the fundamental and sometimes unglamorous research on which academic outreach must be based and not substitute selfpublication for peer-reviewed publication.

Educating the Soul: Our Zion Tradition of Learning and Faith

This past week the university (at long last!) opened an exhibit in the Joseph F. Smith Building called *Education in Zion*. It is housed in stunning exhibit space that has not been accessible to the campus or public until now. The gallery is bathed in light, with spectacular views of the campus and mountains. In the second part of my talk I shall share personal reflections about learning in the light prompted by visiting this light-filled exhibit that tells the story of how the Latter-day Saints have sought to see the light of truth both by the natural light of reason and by the spiritual light of revelation. I'll give you a sort of virtual tour. You can take your own actual tours starting immediately after this meeting and thereafter on any weekday.

A Virtual Tour of the Exhibit The Savior as the Source of Light

When I visit the exhibit, I am reminded by its very structure that the Savior is the source of light and truth as well as the Master Teacher whose example must ever guide us here. Even the courtyard fountain consisting of water gushing from massive rocks reminds me of Christ, as does the oculus set in the exact center of the exhibit hall ceiling. Both the sunlight streaming through the oculus and all spatial relationships in the exhibit radiate from this point of light. One enters the exhibit via a circular stairway, literally climbing toward the light radiating from the oculus. As I climb up the stairs, I think of a passage from a poem by the seventeenth-century poet John Donne about his struggle to find the true church:

On a huge hill,

*Cragged, and steep, Truth stands, and he that will Reach her, about must, and about must go.*⁸

The ascent reminds me that learning by the light of study and faith requires strenuous effort—mental and spiritual. The Lord taught Latter-day Saints this from the first. Yet too often many assume that the Lord will reveal truth merely for the asking—as if Latter-day Saints were somehow excused from the rigorous effort required of others just because we have the gospel. Not so. There must be strenuous effort. Latter-day Saint scientists, poets, composers, artists, and scholars must pay the same price as anyone else. Likewise, we are deeply indebted to those from all faiths and walks of life who have toiled away in behalf of truth and beauty. The Light of Christ is available to all people, and Latter-day Saints are expected to learn from all those who have brought light into the world. As I ascend the stairs to the gallery, this thought humbles me, inspiring gratitude and determination to work hard.

Later in the exhibit I observe replicas of textbooks used in the School of the Prophets, reminding me that even a mighty seer and translator submitted himself to the difficult discipline of language study to acquire Hebrew, German, and Greek. I am also moved by the accompanying bowl, towel, and clean linen reminders that those who entered the School of the Prophets were to be clean. Worthiness and work: in the Lord's curriculum, these twin virtues have ever been prerequisites for learning in the light. Those who would receive light by study and faith must work and must be worthy.

As I enter the hall, I am drawn to the spectacular view of Y Mountain through a two-story glass wall and to a quiet grouping of furniture in the center of the exhibit. The furniture surrounds a small, graceful statue of Christ as shepherd, set on a table standing on a carpet designed with a vine motif. I recall President Gordon B. Hinckley's admonition to us, as BYU faculty, to be shepherds to our students and the Savior's injunction to graft our lives into the true vine (see John 15:1–6). All these elements of the main gallery—the oculus, the stairway, the carpet, the figure of Christ—attest to the centrality of the Savior in the Latter-day Saint quest to learn in the light.

Light from Temples and Towering Founders

Dominating the exhibits in the side halls are two huge murals facing each other: one depicting the Kirtland Temple and the other illustrating the Brigham Young Academy and the Maeser Building. These murals introduce the respective themes in the south and north wings. The south wing recounts the story of establishing schools in Zion—starting from the Midwest through the migration of the Saints to these mountains-while the northwing mural tells of the rise of Brigham Young Academy and the early history of BYU. Seeing the murals together, facing each other, causes me to contemplate the relationship between Latter-day Saint temples and schools. The Kirtland Temple was used as a school and is specifically referred to in scripture as "a house of learning" (Doctrine and Covenants 88:119, 109:8). Likewise, the Academy buildings and the Maeser Building, along with other campus edifices, were regularly referred to in our early days as "temples of learning." There are, and ought to be, deep continuities between these houses of learning-Latter-day Saint temples and Church universities. Note that the Church has always located its colleges and universities near a temple. May the day never come when it appears oxymoronic to think of BYU as a temple of learning bearing a familial resemblance to Latter-day Saint temples.

Reflecting on the relationship between temples and the university, I recall a lesson learned through a sacred experience many years ago when I was working on the academic freedom committee. We put this question to the BYU Board of Trustees: Should a temple worthiness standard apply to BYU faculty as it does for all other Church employees? The answer came back emphatically yes in spite of the complications this might create around academic freedom-related employment issues. As I pondered the answer, I had the strong spiritual impression that the Lord wanted a consecrated faculty at BYU. He was, after all, entrusting large numbers of the youth of Zion to us. Yes, He wanted faculty who would keep the Honor Code. But if they were Latter-day Saints, He wanted a consecrated faculty who had made temple covenants-the very covenants that our students are learning to make and keep. This would be critical for BYU to shine with a special light and to play a role in the ongoing rolling forth of the kingdom.

As I continue to orient myself to the exhibit space, I note that the exhibits in the south wing are introduced by a display about Joseph Smith as God's student while the north wing features a display on Karl G. Maeser. By implication, the stories told in each wing seem to be part of the long shadow of these towering founding figures. Their influence on Church education continues to unfold. This reminds me that the history of education in Zion is not primarily about buildings but about people-people such as Brother Joseph and Brother Maeser. Within the exhibit I discover stories, many stories, of people who have given their lives to educating Zion. I am told that these stories are not intended to idolize the founders nor to inflate their accomplishments but to make each observer feel "I can do that" and "I should do that." That is the effect on me.

Light from Our Pioneer Heritage

As I walk through the south wing, which tells of the Saints' heroic efforts to establish schools in Kirtland, Nauvoo, and the Great Basin, I am overwhelmed with the epic story of struggle and sacrifice to educate the Saints according to the pattern and principles revealed to the Prophet Joseph. It inspires me to remember the legacy of learning in the light bequeathed us by the early pioneers. After leaving the comfortable red-brick world of Nauvoo-where seemingly every home, store, and community building doubled as a school-the Saints were faced with the challenge of educating the rising generation in barren sagebrush valleys. In such circumstances, one would expect the pioneers to concentrate on mere survival. Instead, from the very first, Latter-day Saint pioneers focused their energies on culture, civilization, and education as well as on the requirements of mere subsistence. Their aim was not merely to survive but to raise up a Zion people, which meant educating and refining a rising generation. They knew, as Elder Jeffrey R. Holland put it, that

this Church is always only one generation away from extinction.... All we would have to do... to destroy this work is stop teaching our children for one generation.⁹

So they taught their children in the light.

They taught the gospel out of the scriptures, yes, but they also taught "out of the best books" (Doctrine and Covenants 88:118). They taught "of things both in heaven and in the earth, and under the earth . . . ; [and of] wars and the perplexities of the nations" (Doctrine and Covenants 88:79). They taught of "languages, tongues, and people" (Doctrine and Covenants 90:15). At first they taught arithmetic and grammar in lean-to tents and around campfires, later in log homes and rudimentary schools, and eventually in impressive stake academies that rose high above treeless sagebrush valleys and red sand deserts. These academies would in time form the foundation of both the state and Church systems of higher education. Weber State, Utah State, Snow College, Dixie College, and even the University of Utah all began as Church schools.

As I take in the displays on education in pioneer Utah, I recall research that I did a few years ago for an article on Shakespeare among the early Latter-day Saints.¹⁰ No other western pioneers were so committed to promulgating not only Shakespeare but also all the arts and sciences. Wallace Stegner, who grew up in a small frontier town on the Canadian prairie, tells of finding his family's two-volume edition of Shakespeare's collected plays tossed unceremoniously in the town dump. He ruefully saw this as a symbol of how much had to be discarded, how much left behind, to settle the West.¹¹

By contrast, Latter-day Saints brought with them into the wilderness not only Shakespeare but all the best books they could carry, not to mention musical and scientific instruments. All these would be needed to build up Zion. Upon arriving in the Valley of the Great Salt Lake, the pioneers quickly formed the Deseret Musical and Dramatic Society, built the Social Hall, and later built the finest theater between the Mississippi and San Francisco. Within a few years you could see more Shakespeare in Salt Lake City than anywhere between the Mississippi and the West Coast. Moreover, virtually every Latter-day Saint village in the hinterlands had a school stocked with the McGuffey *Reader*—containing quotes from Shakespeare and other famous writers—and many towns sponsored community musical and dramatic associations. I discovered that within two years of settling Cedar City, Latter-day Saint pioneers staged The Merchant of Venice in a log fort using blankets for curtains-a remarkable pioneer prelude to the replica Globe Theater that now stands in the shadow of the red cliffs of the old Iron Mission. This is but one example of how seriously our forebears took the scriptural injunction to seek light and wisdom out of the best books. What would they think of our opportunities to learn in the light?

Learning in the Light of Testimony

Knowing the extensive research required for me to uncover the history of Shakespeare in pioneer Utah, I am impressed by the research that informs the displays I peruse. To my knowledge, never before has the story of education in the Church been told in such a comprehensive way. Remarkably, the research, graphic designs, and artwork in the exhibit were executed largely by students. Student researchers sometimes appear in the short videos in the displays, sharing their perspectives on the topic at hand. This format works especially well for me in a video about a wellknown academic freedom controversy during the Brimhall administration.¹² It is illuminating to see this controversy presented from a student point of view. The student commentators clearly sympathize with President Brimhall and with the students in the early 1900s caught up in the event-the beautiful white birds

Brimhall dreamed of, lured to the ground and rendered incapable of flight. Our current students' reflections on this episode make me realize what was most at stake in the controversy. It was not simply what was being taught but whether it was being taught with testimony or in a cynical attempt to undermine faith. Then and now, BYU students expect to be taught with testimony. They can tolerate significant diversity of viewpoint if they know and feel that their professors are deeply devoted to the Lord and His Church.

This imperative to teach with testimony hasn't changed over the years. The same fundamentals apply. Students expect to be taught with testimony, no matter the subject, by faculty who are themselves happily grounded in the gospel, no matter their disciplines. Within these parameters, there is considerable room for viewpoint diversity. Walking through this display brings back memories of my days working on BYU's academic freedom statement and of reading the recent biography of Henry Eyring, whose example of integrating science and faith inspired generations of Latterday Saints. Henry Eyring, though not a BYU faculty member, is exemplary of many faculty here who have taken seriously the integration of one's life as a scholar and saint.¹³

Maeser's Enlightened Plan for Church Schools

Chief among these at BYU is Karl G. Maeser, whose influence shaped a whole generation of Latter-day Saint academics: Widtsoe, Talmage, Edwin Hinckley, Alice Louise Reynolds, and a host of others who then went on to extend the Maeser influence across the Church and the generations. The exhibit properly emphasizes Maeser's influence on others. His key contribution was imparting light to others.

I have long known that Maeser's educational philosophy included welding character and academics. I have often heard anecdotes from his life. What I did not know until visiting the exhibit is that—after receiving the famous charge from Brigham Young to teach nothing, not even the alphabet or times tables, without the Spirit of God¹⁴—Maeser set down his educational philosophy for the Brigham Young Academy in writing, and his plan included a strong commitment to active student learning. The written plan is now lost, but the exhibitors located the desk where Maeser composed it and have sketched out what can be inferred about the contours of Maeser's plan. They wrote the following:

In the late spring of 1876, shortly after his arrival in Provo, Maeser received word that in a few days Brigham Young would be visiting him. President Young wanted to learn how Maeser planned to implement the charge he had given him.

Maeser sat at his desk that night to work out his ideas. Nothing came. Through the next day and the day after, he paced his office and scribbled notes. The third day, in the late afternoon, he dropped, exhausted and disheartened, to his knees.

"O Father," he pleaded, "show me the way, help me to make the plans for this great work. I cannot do it of myself."

Immediately the confusion of the preceding days was lifted, and within a few hours Maeser had written out the plan for the new school. It had come to him as an answer to prayer.¹⁵

The model Maeser developed featured mentoring by faculty who were to be role models of academic rigor and moral rectitude. Maeser's model also featured active learning by students who were expected to take responsibility for their own education and for helping other students learn. Again the exhibitors wrote:

As "the guiding rule for the teacher," [Maeser] believed that "whatever can be done by the pupils, the teacher should never do himself." The system engaged the students in the Academy's daily operations, including maintaining department or classroom order, recording student performance, and mentoring younger students. Maeser instructed faculty to identify students who needed help so that competent tutors could be assigned to work with them.... Maeser called this the "monitorial system." It helped the students become "responsible for something outside of their own individual concerns, but ... essential for the comfort and well-being for the whole of the little community (the school or class) of which each of them form a part."¹⁶

Maeser formalized student peer teaching in the following way:

Once a week, [students met in] small groups to discuss what [they had studied]. Each [discussion] group was led by an older student called a repetitor. One BYA instructor observed the effectiveness of this approach: "A free-for-all discussion now took place which did more to arouse interest and rivet conviction than ten times the amount of passive listening would have done."¹⁷

In the run up to this meeting, a phrase kept coming to me from section 88 of the Doctrine and Covenants: "teach one another," "teach one another," "teach one another" (verses 77, 118). As I learn about Maeser's system, I feel confirmed in my mind that there is more we can and should do to foster active learning. This appears to be part (albeit an all-but-forgotten part) of our institutional patrimony. In both the School of the Prophets and in Brigham Young Academy, learners were expected to teach one another. The BYA instructor said that students learned ten times as much by discussing and teaching each other than they would have learned by passive listening. Interestingly, this figure just about duplicates the findings of educational researchers who have evaluated the effectiveness of teaching others on retention rates.¹⁸

Now I do not regard students teaching other students, or any other mere technique for that matter, as a magic bullet for improving learning. Indeed, I have experienced some pretty

ineffective classes where faculty devolved almost all responsibility for instruction to the students. Moreover, I personally still prefer to mix lecture and discussion along with other pedagogical strategies. Nor will it surprise you that, as an English teacher, one of the strategies I use is writing. I am a strong believer in requiring students to put their ideas into writing and to present them orally for class discussion and critique. Writing and discussing what one thinks—these constitute highly effective, time-tested active learning strategies. As Sir Francis Bacon said of education: "Reading maketh a full man; conference [i.e., conversation] a ready man; and writing an exact man."19

I know of no substitute for writing and conversation for teaching critical thinking. But I also know that I learn by teaching. I learned best how to write by teaching others to write. My understanding of literature and scriptures has been immeasurably enhanced by teaching them. And I first learned to appreciate many great books of the Western tradition and many great issues that have engaged the modern world by being invited as a senior at BYU to proctor classes in these subjects for new freshmen. We learn by teaching. It is a powerful way to capture and communicate the light. So I come away from the Maeser displays thinking about how to strengthen peer tutoring, teaching assistantships, and other opportunities for students to learn by teaching.

Mentoring: The Means for Passing on the Light

The final display I want to discuss immediately follows the display on Brother Maeser. This may be my favorite room in the exhibit. It contains rotating displays of faculty and staff at BYU up through the mid-twentieth century who have augmented and transmitted the light of the Y to students and colleagues. As I peruse some of the panels in the room, I see some names that I recognize, such as James E. Talmage, who called Karl G. Maeser "my second father,"²⁰ and Alice Louise Reynolds, who at first feared Maeser but with her sister later came to "love him as we have seldom loved anyone else."²¹ I am reminded by these comments that *mentor* comes from the name of the surrogate father Odysseus appointed to care for his son Telemachus. To be a mentor can involve a profoundly personal and transformative relationship, comparable to that of a surrogate parent.

I also see the names of others whom I have not heard of such as Brigham Thomas Higgs, who introduced the student employment program on campus, and Delbert Brigham Brown, a custodian in the Smith Fieldhouse who became a wise counselor to hundreds of students. Delbert Brown once found a student's wallet with a risqué picture in it. When a young boy came to claim it, Brother Brown took out his own wallet and showed him pictures of his wife and daughters, encouraging the boy with a budding pornography problem to tuck these kinds of pictures into his wallet and into his mind. As I read such stories, I am reminded that many unnamed individuals have kindled the light of the Y, including administrators and staff. As Joseph B. Keeler, one of Maeser's first twenty-nine students and himself an unsung hero of our tradition, observed, "Deep down in the heart of this great school, there are noble deeds untold."22 I reflect, with gratitude, on the noble deeds of our current staff and administrators who influence students for good. These include secretaries, counselors, bookkeepers, managers, advisors, custodians, and on and on. So many have played and do play formative roles in the lives of students. They brighten the light that emanates from the Y. As I think of this, I am filled with gratitude that the support side of BYU has embraced the "Big, Hairy, Audacious Goal" of giving up their slots to be used to hire additional faculty. This is simply unheard of in the academy, but it falls squarely within the

tradition of mentoring honored in this room, which celebrates all mentors, great and small, who have made BYU what it is.

On the far wall is displayed "Mentoring: The Lifeblood of Our Tradition." The panels remind me that our initiatives in mentoring are not new. BYU has long been blessed by the likes of mentors such as Joseph K. Nicholes, who built a chemistry department of doctorally prepared faculty though he himself was prevented by circumstance from finishing his own PhD at Stanford; and by little Tommy Martin, who began his life as a coal miner in the English midlands and went on to excel as a teacher in the field of soil science. Tommy would select students of high potential and say, "Look here, young man, don't you know that you have some great intellectual possibilities?"23 and then help them plan their careers and win fellowships. Of his former students, one hundred and fifty earned advanced degrees in agronomy²⁴ and seventy-five were on faculties at universities throughout the United States and Canada.²⁵ His students became known across the country as "the Thomas L. Martin boys."26 Reading about Joseph Nicholes, Tommy Martin, Harvey Fletcher, Florence J. Madsen, and many others confirms that we are on the right track in pursuing a mentoring model. Mentoring is a part of our patrimony.

On the way out of the exhibit, I see video clips of current faculty discussing their experiences at the Y. One particularly touched my heart. It is Mary H. Farahnakian, from Theatre and Media Arts, telling how she found God at BYU. She said, "I came to BYU not knowing anything, but BYU taught me not the secular education; instead I got my spiritual life. I learned who I am. BYU gave me my God." Her story captures the experience of countless students and faculty alike, whose relationship to God has been deepened by learning in the light at BYU.

I Get My Light from God

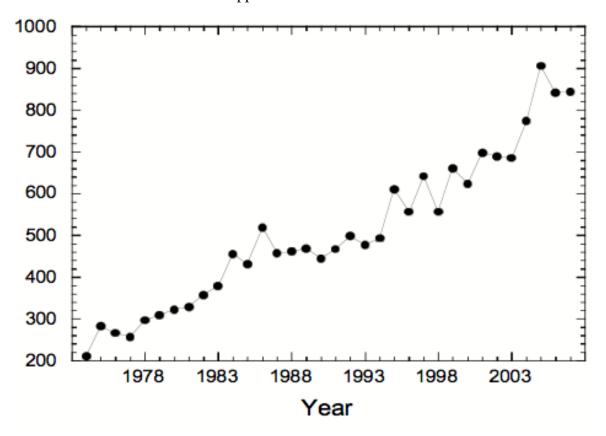
As I walk out of the Joseph F. Smith Building and back across campus, I recall a sundial that once stood near the stairs leading down to the fieldhouse. It was a gift from the class of 1916. Engraved on one side were the words "I get my light from God." For BYU to remain true to its finest traditions, we too must get our light from God. His is the light we are instructed to hold up to the world (see 3 Nephi 18:24). Consequently, if BYU is to shine as a city on the hill, it must ever be with reflected glory. We must get our light from God.

Lost in these thoughts, I look up at the mountains and recall a Scouting event I participated in years ago. Scout troops from all across Utah climbed peaks with large mirrors. In the early morning light, each troop watched for a signal from a troop on another peak. When they saw the light flash, they deployed their own mirror to pass on the signal to other Scouts on other peaks. It was a thrilling sight: light flashing from peak to peak all across the state—much like the image depicted in the movie of J. R. R. Tolkien's *The Return of the King*, when Pippin lights the beacon in Gondor to rally the Riders of Rohan.

Brothers and sisters, we are like those who stand upon mountain peaks, responsible for transmitting light in these last days darkening with signs of battle before the return of the King. Having seen the light from others who have scaled similar peaks, our task is to reflect light to those on the next peak—over and over, from peak to peak, across the miles and the years until the King returns. We are light bearers in a precious tradition of learning in the light.

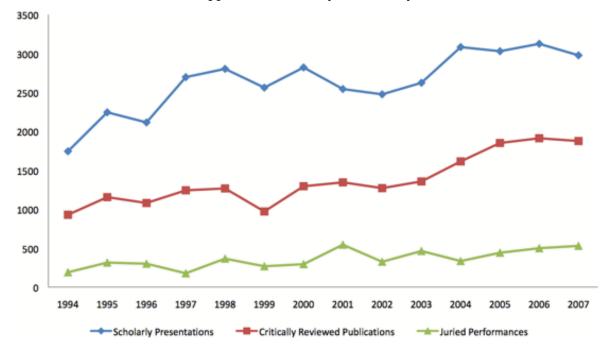
I use the word *tradition* deliberately, keenly aware of its etymology. Tradition literally means something that is handed off, from the Latin *traditio*, "to hand over." As we have seen in the recent Olympic relay races, handoffs can be muffed. Batons are sometimes dropped, just as footballs are sometimes fumbled. So are traditions. Some deserve this fate, but others do not. It takes wisdom, attention, and deliberate effort to identify which traditions to preserve and to successfully pass them on to the next generation. The consequences of failure can be dire. Dropping the baton disqualifies the relay team; fumbling the football turns the initiative over to the opposition. Likewise, intergenerational institutions are always but one generation away from extinction. A successful intergenerational institution, like a four-hundred-meter relay team or a football team, requires good handoffs. The exhibit offers an important means to pass on the best traditions of education in Zion, to keep the flame alive that has lighted the Y over the years. We plan to build it into new faculty and new student orientations and, where appropriate, into the curriculum. I again encourage you to find time to visit the exhibit and learn about our traditions, for we are all players in handing off the BYU tradition to succeeding generations.

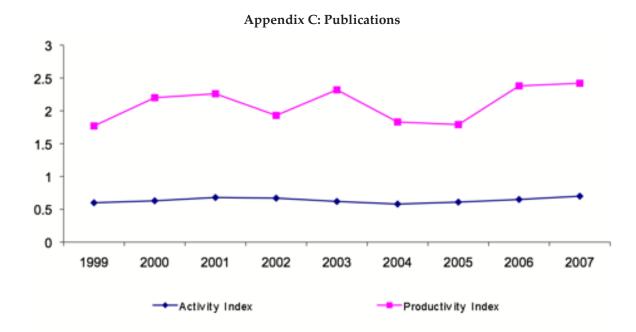
I don't want to muff the handoff. Not infrequently I wonder how I am doing in preserving the traditions at BYU that most deserve preservation, in casting aside unproductive traditions, and in developing new traditions consistent with our mission. Have I seen clearly what needs to be passed on, what should be developed, and what should be discarded in order to burnish BYU as an institution of light? We all occupy our positions on the peaks at BYU for only a brief time. May we use our moment in the sun here at BYU to learn in the light and pass on that light to others. In the name of Jesus Christ, amen.



Appendix A: Publications

Appendix B: Scholarly Productivity





Notes

1. Spencer W. Kimball, "The Second Century of Brigham Young University," BYU devotional, 10 October 1975.

2. Kimball, "Second Century."

3. Ken Bain, *What the Best College Teachers Do* (Cambridge, Massachusetts: Harvard University Press, 2004), 175; for more on learning universities, see John Tagg, *The Learning Paradigm College* (Bolton, Massachusetts: Anker Publishing Company, 2003).

4. See National Science Foundation Survey of Earned Doctorates, 2006; nsf.gov/statistics /srvydoctorates.

5. *Student Expected Learning Outcomes,* BYU student video, at BYU wiki site at learningoutcomes.byu.edu.

6. Spencer W. Kimball, "Education for Eternity," pre-school address to faculty and staff, Brigham Young University, 12 September 1967.

7. John Taylor, JD 24:169 (19 May 1883); quoted in Kimball, "Second Century." 8. John Donne, Satire III, lines 79-81.

9. Jeffrey R. Holland, "That Our Children May Know," BYU Campus Education Week devotional, 25 August 1981.

10. See John S. Tanner, "Shakespeare Among the Saints," *Journal of Mormon History* 32, no. 1 (Spring 2006): 82–115.

11. See Wallace Stegner, "The Dump Ground," in Stegner's memoir *Wolf Willow: A History, a Story, and a Memory of the Last Plains Frontier* (New York: Viking Press, 1962), 31–36.

12. See Ernest L. Wilkinson, ed., *Brigham Young University: The First One Hundred Years*, 4 vols. (Provo: Brigham Young University Press, 1975–76), 1:412–33.

13. See Henry J. Eyring, *Mormon Scientist: The Life and Faith of Henry Eyring* (Salt Lake City: Deseret Book, 2007).

14. See Brigham Young, quoted in Reinhard Maeser, *Karl G. Maeser: A Biography by His Son* (Provo: Brigham Young University, 1928), 79.

15. Joseph F. Smith Building (JFSB) exhibit, Education in Zion or Educating the Soul: Our Zion Tradition of Learning and Faith, quoting Ida Stewart Peay, "A Story Dr. Maeser Told," *Improvement Era*, January 1914, 194–95; also "That Master Teacher," *Improvement Era*, April 1952, 218; see also Alma P. Burton, *Karl G. Maeser: Mormon Educator* (Salt Lake City: Deseret Book, 1953), 29–30.

16. JFSB exhibit, quoting Karl G. Maeser, "The Monitorial System," Church School Department, *Juvenile Instructor*, 1 March 1901, 153; see also Maeser, *School and Fireside* (Salt Lake City: Skelton and Co., 1898), 272.

17. JFSB exhibit, quoting Nels L. Nelson, "Theology in Our Church Schools," *Improvement Era*, September 1900, 850.

18. See David A. Sousa, *How the Brain Learns: A Classroom Teacher's Guide*, 2nd ed. (Thousand Oaks, California: Corwin Press, 2001), and Melvin L. Silberman, *Active Training: A Handbook of Techniques, Designs, Case Examples, and Tips*, 3rd ed. (San Francisco: Pfeiffer, 2006).

19. Francis Bacon, "Of Studies," *Essays* (1625).

20. James E. Talmage, journal, 11 January 1893, in *Papers, 1876–1933,* James E. Talmage Collection, MSS 229, box 25, reel 2, L. Tom Perry Special Collections, Harold B. Lee Library, Brigham Young University, Provo, Utah.

21. "Autobiography of Alice Louise Reynolds to 1919," *Faculty Biographical Files* (1900–2000), UA 909, L. Tom Perry Special Collections, BYU; quoted in Amy Brown Lyman, A Lighter of Lamps: The Life Story of Alice Louise Reynolds (Provo: Alice Louise Reynolds Club, 1947), 16.

22. Joseph B. Keeler, in *Collection* (ca. 1840– 1935), address given in honor of Susa Young Gates, undated spelling tablet manuscript, MSS 2016, box 1, folder 11, L. Tom Perry Special Collections, BYU.

23. Thomas L. Martin, *My Life Story* (s.l., n.d.), 68; in L. Tom Perry Special Collections, BYU.

24. See "Thomas L. Martin," in Jean Anne Waterstradt, ed., *They Gladly Taught: Ten BYU Professors*, 3 vols. (Provo: Brigham Young University and the Emeritus Club, 1986–88), 1:109.

25. See Leonard J. Arrington, *The Mormon Experience: A History of the Latter-day Saints* (Urbana: University of Illinois, 1992), 318.
26. See *They Gladly Taught*, 1:110.